

# ALSTON & BIRD LLP

The Atlantic Building  
950 F Street, NW  
Washington, DC 20004-1404

202-756-3300  
Fax: 202-756-3333  
www.alston.com

Michael E. Ward

Direct Dial: 202-756-3076

E-mail: michael.ward@alston.com

October 31, 2007

Honorable Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: Docket No. ER08-\_\_\_\_-000**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act ("FPA"), 16 U.S.C. § 824d, the California Independent System Operator Corporation ("CAISO") hereby submits for Commission approval an amendment to the CAISO Tariff<sup>1</sup> implementing the CAISO's Location Constrained Resource Interconnection ("LCRI") policy. The amendment effectuates the policy that the Commission approved in principle in its *Order Granting Petition for Declaratory Order* issued on April 19, 2007 in Docket No. EL07-33.<sup>2</sup> The CAISO is requesting an effective date of January 1, 2008 for the LCRI tariff amendments.

## I. BACKGROUND

### A. Need for a LCRI Policy

Over the last few years, many stakeholders have brought to the CAISO's attention the significant barriers that exist to (1) the development of resources that are constrained by the nature of their technology, their relative size, or the location and immobility of their energy source, and (2) the development and financing of the transmission infrastructure necessary to connect such facilities to

---

<sup>1</sup> Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the CAISO Tariff, and in the Operations Agreement.

<sup>2</sup> *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,061, *reh'g denied* 120 FERC ¶ 61,244 (2007) ("Declaratory Order").

One Atlantic Center  
1201 West Peachtree Street  
Atlanta, GA 30309-3424  
404-881-7000  
Fax: 404-881-7777

Bank of America Plaza  
101 South Tryon Street, Suite 4000  
Charlotte, NC 28280-4000  
704-444-1000  
Fax: 704-444-1111

90 Park Avenue  
New York, NY 10016  
212-210-9400  
Fax: 212-210-9444

3201 Beechleaf Court, Suite 600  
Raleigh, NC 27604-1062  
919-862-2200  
Fax: 919-862-2260

the CAISO transmission grid. For example, the optimal locations for the production of electricity through wind, geothermal, solar and other renewable technologies are often in geographical regions with very little nearby load but with vast potential for energy supply. Unlike fossil fuel Generators, these generation resources, hereinafter referred to as "location constrained resources," have an energy source that cannot be practically transported. Rather, the location constrained resource must locate where its energy source is available. As discussed in greater detail below, this location limitation and the pattern of development of location constrained resources constitute a significant barrier to the financing and development of transmission facilities necessary to connect location constrained resources to the grid.

These issues were highlighted in an earlier filing in Docket No. EL05-88 in which Southern California Edison Company ("SCE") petitioned the Commission for a declaratory order regarding its Antelope project, which comprises three transmission segments needed to interconnect future wind projects in the Tehachapi Mountains area of California. SCE categorized segments 1 and 2 of the project as high-voltage "network upgrades" and segment 3 as a high-voltage, bulk transfer Generation intertie line. In its petition, SCE sought (1) rolled-in rate treatment for the costs incurred for all three segments, (2) full recovery of all prudently incurred costs for each segment, regardless of whether the wind Generation develops or SCE abandons the projects, and (3) the creation of a new category of transmission, "trunk lines," for which rolled-in rate treatment would be allowed.

On July 1, 2005, the Commission rejected rolled-in rate treatment for segment 3 of SCE's proposed transmission project and denied SCE's request to establish a new category of transmission facilities.<sup>3</sup> However, two Commissioners issued opinions stating that they would have preferred to see the CAISO address this issue in a CAISO filing with the Commission.

The CAISO's assessment of the issue persuaded the CAISO that there were (and still are) significant barriers to the efficient development and financing of transmission infrastructure necessary to connect location constrained resources to the grid. This conclusion was buttressed by testimony of industry representatives before the CAISO Board of Governors<sup>4</sup> and by the CAISO

---

<sup>3</sup> *Southern Cal. Edison*, 112 FERC ¶ 61,014 (2005).

<sup>4</sup> See Transcript of relevant portion of the October 18, 2006, CAISO Board Meeting, Attachment A to the Petition for Declaratory Order filed by the CAISO on January 25, 2007 in Docket No. EL07-33, statements of CEC Chairman J. Geesman, Attachment A at 92-97; SCE representative W. Williams, Attachment A at 97-100; PPM Energy representative J. Caldwell, Attachment A at 102-10; PG&E representative E. Eisenman, Attachment A at 110-12; American Wind Energy Association representative C. Ellison, Attachment A at 113-20; and CPUC representative L. Chaset, Attachment A

Market Surveillance Committee's ("MSC's") *Opinion on Alternative Treatment of New Transmission for Interconnection of Renewable Generation* ("MSC Opinion").<sup>5</sup> The MSC identified three features of renewable generation technologies that, in the absence of Commission intervention, could create a market failure that would ultimately increase the cost to California of meeting renewable portfolio standards ("RPS") goals: (1) the production of electricity through wind, solar, geothermal and other technologies is generally limited to certain geographical regions that are remote from the grid and load centers (and, as such, the interconnection facilities needed to connect these resources to the grid are more costly than a typical Generation-tie line);<sup>6</sup> (2) the development pattern of location constrained resources, unlike that of fossil-fuel plants, typically involves a large number of projects and multiple project developers, and these individual renewable resource projects tend to be smaller than typical fossil fuel projects and come on-line in small increments over a number of years; (3) the existing default Generation-tie policy, which requires the costs of all interconnection facilities to be borne up-front by the Generator that is connecting to the transmission grid, makes it difficult to finance and develop the transmission necessary to connect location constrained resources. It was apparent to the CAISO that the aforementioned factors, working in concert, act as barriers to the financing and efficient development of transmission necessary to connect location constrained resources to the grid.

The issue of connecting location constrained resources to the grid has become more urgent because the State of California has embarked on an ambitious program to promote energy independence and reduce greenhouse gases through increased reliance on renewable energy sources. Under SB 107 (Chapter 464 Statutes of 2006), California accelerated its existing renewable energy portfolio requirement of 20% by 2017 to 20% by 2010.<sup>7</sup> The State's 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 served by eligible sources of renewable energy. For the investor-owned utilities, this is accomplished through annual solicitations for renewable energy generation and through bilaterally negotiated contracts. Publicly owned utilities in the state are responsible for implementing and

---

at 120-25. In support of the instant filing, the CAISO hereby incorporates by reference the CAISO's Petition for Declaratory Order ("Petition") and all of the attachments thereto that were submitted on January 25, 2007 in Docket No, EL07-33.

<sup>5</sup> The MSC Opinion was included as Attachment B to the Petition.

<sup>6</sup> As shown on the map included as Attachment C to the Petition, the areas that can support the development of wind and geothermal resources are often remote from load and the grid. At the October 18, 2006, Board Meeting at which the CAISO Board authorized filing of the Petition, two representatives of the wind industry also noted the remote location of their resources. See Attachment A to the Petition at 103-06, 115-16.

<sup>7</sup> See Cal. Pub. Res. Code. § 25740.

enforcing a renewable portfolio standard that recognizes the intent of the State Legislature to encourage renewable resources, but are given flexibility in how those policies are designed and implemented.<sup>8</sup> Governor Schwarzenegger has endorsed this accelerated schedule and has set a goal of achieving a 33 percent renewable energy share by 2020 for the State as a whole, and the State's *Energy Action Plan II* identifies required actions to achieve this goal. Implementation of these requirements is underway. As Load Serving Entities procure to the 20% Renewable Portfolio requirement, development of significant quantities of wind, solar, and geothermal resources and other location constrained resources will need to occur in a relatively short period of time. Additional resources will likely be needed just to maintain a 20% level, and even more resources will be needed to meet the 33% goal by 2020.

Based, *inter alia*, on the foregoing, the CAISO concluded that a new financing mechanism was necessary to facilitate the financing and development of transmission facilities designed to connect location constrained resources that are located in areas with significant potential for the development of such resources to the CAISO Controlled Grid. The CAISO set about exploring the development of such a financing mechanism by initiating a stakeholder process in mid-2006. The CAISO "kicked off" this stakeholder initiative by issuing a white paper entitled "Proposal to Remove Barriers to Efficient Transmission" in June of 2006. The CAISO followed this up with a stakeholder meeting on July 7, 2006. Stakeholders submitted comments on July 14, 2006. Taking into account the input of the eleven parties that submitted comments to the CAISO, the CAISO further refined its proposal by publishing a "Revised White Paper on Third Category of Transmission" in September of 2006. There was another round of stakeholder input on the revised white paper which included a teleconference on September 26, 2006. Additional stakeholder comments were submitted on October 10, 2006. On October 18, 2007, the CAISO Board of Governors approved the plan to file a petition for declaratory order with the Commission in contemplation of a subsequent tariff filing.

## **B. Petition for Declaratory Order**

On January 25, 2007, the CAISO filed a Petition for a Declaratory Order seeking Commission conceptual approval of a new financing mechanism to facilitate the construction of interconnection facilities for location constrained resources. The financing mechanism proposed by the CAISO in the Petition can be summarized as follows.

Participating Transmission Owners ("Participating TOs") would pay the up-front costs of constructing what was then termed "Multi-User Resource Trunklines," and which the CAISO now calls Location Constrained Resource

---

<sup>8</sup> See Cal. Pub. Util. Code § 387.

Interconnection Facilities ("LCRIFs").<sup>9</sup> Participating TOs that construct LCRIFs would be permitted to reflect in their Transmission Revenue Requirement ("TRR") and in the CAISO's Transmission Access charge ("TAC") the costs of a LCRIF which are not being directly recovered from generators connected to the LCRIF. In other words, the unsubscribed capacity of qualifying LCRIFs would be rolled into the CAISO's TAC. As new generation resources are developed in an area and connect to a LCRIF, the costs of the capacity required by those generation resources would be directly recovered from those new generation owners "pro rata" on a going-forward basis, and the costs included in TAC reduced accordingly. Once the anticipated generation in the region is fully developed and the capacity of the LCRIF is fully utilized, the going-forward costs of the LCRIF would be borne entirely by Generation developers and would not be included in the TAC. Thus, under the CAISO's proposal, the costs associated with the unsubscribed portion of the qualifying facilities would be included in TAC, until additional Generators are interconnected, at which time costs would be directly assigned to such Generators.

In the Petition, the CAISO proposed the following eligibility criteria for the its new financing mechanism:

- (1) The costs of the facility – which is a non-network facility – would not otherwise be eligible for inclusion in the TAC;
- (2) The facility must provide access to an Energy Resource Area in which the potential exists for the development of a significant quantity of location constrained energy resources;
- (3) The facility must be turned over to the CAISO's Operational Control;
- (4) The facility must be a high-voltage transmission facility designed primarily to serve multiple location constrained resources that will be developed over a period of time;
- (5) To be eligible for the proposed financing treatment, a project must be evaluated and approved by the CAISO in the context of a prudent CAISO transmission planning process, thereby ensuring that the project would result in a cost-effective and efficient interconnection of resources to the grid;
- (6) To limit the cost impact of the proposal on ratepayers, there would be an aggregate cap on the total dollars associated with LCRIFs

---

<sup>9</sup> To avoid any confusion, the CAISO is using the term LCRIF throughout this filing even though a different term was used in the Petition.

that could be included in TAC rates. Specifically, the total investment in LCRIFs that could be included in TRRs and the TAC cannot exceed 15 percent of the sum total of the net high-voltage transmission plant of all Participating TOs, as reflected in their TRRs and in the TAC; and

- (7) To limit the risk of stranded costs due to abandoned investment, a project must demonstrate adequate commercial interest by satisfying a two-prong test before actual construction can commence: (a) a minimum percentage of the capacity of the new LCRIF – in the range of 25 to 30 percent – must be subscribed pursuant to Large Generator Interconnection Agreements (“LGIAs”); and (b) there must be a tangible demonstration of additional interest in or support for the project – in the range of 25 to 35 percent – above and beyond the capacity covered by LGIAs.

The CAISO requested that the Commission conceptually approve the CAISO’s proposal and provide any appropriate guidance regarding the specific elements of the proposal that should be included in a subsequent tariff filing.

On April 19, 2007, the Commission issued a Declaratory Order in which it granted the CAISO’s Petition and accepted the design concepts proposed therein, thereby paving the way for the CAISO, in cooperation with its stakeholders, to develop and file the instant tariff language for implementing the LCRI policy initiative. In the Declaratory Order, the Commission determined that the CAISO’s “proposed rate treatment is not unduly preferential or discriminatory and includes protections to customers that are just and reasonable”<sup>10</sup> and that the proposal “strikes a reasonable balance that addresses the barriers to development of location-constrained resources and includes appropriate ratepayer protections.”<sup>11</sup> The Commission also found that the proposal “is consistent with and supports state, federal and regional policies that encourage the types of clean, renewable generation that are often location-constrained.”<sup>12</sup> The Commission directed that the rate treatment be limited to wires only, be subject to Commission review under FPA Section 205 when the CAISO files tariff provisions, and be available to all resources meeting the definition of location-constrained.<sup>13</sup>

In the Declaratory Order, the Commission identified several issues that needed clarification in the CAISO’s tariff filing:

---

<sup>10</sup> Declaratory Order at P 62.  
<sup>11</sup> Id. at P 3.  
<sup>12</sup> Id. at P 68.  
<sup>13</sup> Id at PP 74-75, 88.

- the costs, if any, that “would be allocated to wheel-through customers and their corresponding benefits;”<sup>14</sup>
- the required commitment levels and the rate impact cap;<sup>15</sup> and
- the process for identifying the Energy Resource Areas for which LCRIFs would be constructed.<sup>16</sup>

The Commission also required that “any project financed through this mechanism would be subject to an independent regional transmission planning process that must define the benefits a facility provides to the grid.”<sup>17</sup>

### **C. Stakeholder Process**

Following the Commission’s issuance of the Declaratory Order, the CAISO conducted an extensive stakeholder process to resolve outstanding issues identified by the Commission in the Declaratory Order and to develop tariff language. On June 1, 2007, the CAISO issued a market notice requesting comments on the outstanding issues regarding the LCRI policy. Taking those comments into consideration, the CAISO prepared a straw proposal, which it posted on the CAISO website. The CAISO conducted a stakeholder meeting regarding the straw proposal on July 27, 2007, and solicited additional comments from stakeholders. After reviewing the comments, the CAISO refined the proposal, circulated it, and then held a conference call with stakeholders on August 30, 2007. After reviewing stakeholders’ comments and considering their input, the CAISO posted a revised proposal on September 14, 2007 and held a conference call with stakeholders on September 23, 2007. Following receipt of additional comments on the proposed LCRI policy, the CAISO posted draft tariff language on October 10, 2007. The CAISO sought input from stakeholders on the posted tariff language, and based on that input, posted revised tariff language for stakeholder review on October 18, 2007. On October 22, 2007, the CAISO held a conference call with stakeholders to discuss the tariff language.<sup>18</sup>

---

<sup>14</sup> *Id.* at P 86.

<sup>15</sup> The Commission declined to rule on these issues but stated that “we preliminarily accept the ranges proposed as they strike an appropriate balance between encouraging the development of location-constrained resources on one hand and protecting ratepayers on the other” and “the overall requirements should be finalized in the stakeholder process” *Id.* at P 89.

<sup>16</sup> *Id.* at P 90.

<sup>17</sup> *Id.* at P 63.

<sup>18</sup> A Board Memorandum for the LCRI tariff amendment and matrix of stakeholder comments on the proposal are included in Attachment C hereto.

## **II. Location Constrained Resource Interconnection Amendment**

The instant LCRI tariff amendment is consistent with the concepts reflected in the CAISO's Petition and approved by the Commission in the Declaratory Order. The proposed tariff amendment address four broad aspects of the LCRI proposal: (1) the criteria under which a project qualifies for consideration as a LCRIF; (2) the criteria the CAISO will apply, during its Transmission Planning Process, to determine whether a proposed LCRIF 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 LCRIF; and (4) the allocation of the costs of a LCRIF. The CAISO's proposed tariff language addressing each of these elements of the proposal is discussed in greater detail below.

The ability of Market Participants to propose LCRIFs and the CAISO's authority and obligation to determine the need for such projects is established by revised Section 24.1 of the CAISO Tariff. The process by which LCRIFs will be evaluated in the CAISO's Transmission Planning Process is part and parcel of the transmission planning process that the CAISO is currently developing to comply with the transmission planning requirements adopted in Order No. 890. The CAISO will file tariff provisions regarding that process as part of its Order No. 890 compliance filing, which will be filed in December 2007. However, the LCRIF tariff provisions in this amendment are written in a manner such that they are also applicable under the CAISO's current transmission planning process, so that LCRI proposals can be considered prior to the effective date of revisions to the Transmission Planning Process being developed in compliance with Order No. 890.

### **A. Criteria for Qualification as an LCRIF**

Proposed Section 24.1.3.1 sets forth the criteria for qualification as a LCRIF, which may be demonstrated in two stages. First, the CAISO can conditionally approve a LCRIF project if it determines that the project is needed, and the following criteria are met:

- (1) The facility is to be constructed for the primary purpose of connecting to the CAISO Controlled Grid two or more Location Constrained Resource Interconnection Generators ("LCRIGs") in an Energy Resource Area.<sup>19</sup>
- (2) The facility will be a High Voltage Transmission Facility.

---

<sup>19</sup> Also, the CAISO is proposing tariff language to ensure that the LCRIGs in an Energy Resource Area are not all owned by Affiliates.

- (3) At the time of its in-service date, the facility will not be a network facility and would not be eligible for inclusion in a Participating TO's TRR other than as an LCRIF.
- (4) The facility meets applicable CAISO grid planning standards, including standards that are Applicable Reliability Requirements.

Second, to qualify for the proposed rate treatment, at least 90 days prior to the commencement of construction of a LCRIF, the proponent of the LCRIF must also meet the following criteria:

- (1) The addition of the capital cost of the facility to the High Voltage TRR of a Participating TO will not cause the aggregate of the net investment of all LCRIFs (net of the portion of the capital costs of LCRIFs to be recovered by Participating TOs pursuant to Section 26.6) included in the High Voltage TRRs of all Participating TOs to exceed fifteen percent (15%) of the aggregate of the net investment of all Participating TOs in all High Voltage Transmission Facilities reflected in their High Voltage TRRs in effect at the time of the CAISO's evaluation of the facility.
- (2) Existing or prospective owners of LCRIGs have demonstrated their interest in connecting LCRIGs to the facility consistent with the requirements of Section 24.1.3.2, which establishes the necessary demonstration of interest.<sup>20</sup>

The CAISO proposes to add a new definition to Appendix A of the CAISO Tariff, which would define an LCRIF as a facility that meets the aforementioned criteria.

Each of these general eligibility factors was specified by the CAISO in the Petition. With regard to one of the criteria, the type and level of the interest showing that should be required, the CAISO informed the Commission in the Petition that it intended to solicit additional stakeholder input. Accordingly, the Commission declined to rule finally on that criterion, but preliminarily accepted the ranges proposed by the CAISO, finding that they struck an appropriate balance between encouraging the development of location-constrained resources on the one hand and protecting ratepayers on the other. Also, the Commission did not rule on the proposed 15% aggregate rate cap in the Declaratory Order.

In response to concerns expressed by stakeholders, the CAISO is proposing that a project may be conditionally approved by the CAISO as an

---

<sup>20</sup> The interest showing requirements for a LCRIF are discussed *infra*.

LCRIF without needing to show that the rate impact and interest showing requirements have been met. However, in order to be eligible for the proposed rate treatment, a conditionally approved LCRIF must meet these two criteria before construction of the LCRIF can commence.<sup>21</sup>

During the stakeholder process, the eligibility criteria that received the most attention from stakeholders were the level of the rate cap and the requisite interest showing. These issues are discussed in greater detail below.

### **1. The 15% Aggregate Rate Cap**

In the Petition, the CAISO proposed that the capital costs of LCRIFs included in the TAC be limited to 15% of the total net high-voltage transmission plant investment of all Participating TOs as reflected in their TRRs and in the TAC. During the stakeholder process, the CAISO received only a handful of comments on this proposal. SCE contended that the limitation was too low in light of the California renewable requirement of 33% by 2020. The State Water Project stated that the potential for increase in the dollar levels of LCRIFs included in transmission rates would be too high if the limitation were based on a percentage of high-voltage transmission plant investment, and argued for a limit equal to 15% of the current aggregate TRR, perhaps subject to an inflation adjustment. At the CAISO Board of Governors meeting, a representative of the California Municipal Utilities Association raised similar arguments and suggested that the cap be based on 15% of the current net plant investment, plus an annual inflation or some similar adjustment. The Imperial Irrigation District ("IID"), commented that, while 15% might be appropriate for a "mature" program, the limitation should initially be 5% to 10% in light of the risk of long-term subsidies by CAISO ratepayers.

After consideration of these comments and the comments that the CAISO received in the stakeholder process preceding the Petition, the CAISO has retained the 15% aggregate cap that it proposed in the Petition. The CAISO acknowledges that no empirical means exists to establish the exact level at

---

<sup>21</sup> For example, the Staff of the CPUC and SCE stated that, because the rate cap and commercial interest showings generally will not be made until the latter stages of the LCRIF process, there needs to be a proactive signal earlier on in that process indicating that a particular proposal satisfies the other criteria for LCRIF treatment. They stated that this would benefit potential LCRIGs by eliminating or reducing uncertainty about the availability of transmission and the eventual treatment of the costs of such transmission. Further, this early signal would assist transmission owners in their decision whether to fund such projects and LCRIGs in their decision whether and when to proceed with development of their resources, thereby reducing barriers to the development of LCRIGs and the transmission needed to connect them to the grid. The conditional approval process proposed by the CAISO achieves these objectives.

which the cap should be set. The CAISO believes that its proposed cap level strikes the appropriate balance between encouraging the development of location constrained resources and the transmission necessary to connect them to the grid on one hand, and protecting ratepayers on the other. Adoption of a lower cap such as that proposed by IID would defeat the entire purpose of this initiative, especially in light of the 20% RPS requirement for the State's utilities.<sup>22</sup> The rate cap is intended to protect TAC ratepayers from rate shock, and basing it on net transmission plant achieves that objective. The cap is not designed to arbitrarily limit the amount of investment in LCRIF projects. Indeed, unnecessarily limiting the amount of spending on LCRIF projects by adopting a low cap would not be cost-effective; as the MSC recognized, in the long run total costs are expected to be lower with LCRIFs in place than without them because LCRIFs represent the most economical and efficient way to connect location constrained resources to the grid, and these resources are needed to meet RPS requirements.<sup>23</sup>

Likewise, the CAISO submits that it is inappropriate to adopt a cap that is based on the costs of the existing transmission system and then simply index it for inflation for purposes of calculating the cap level in future years. The existing transmission infrastructure is highly depreciated and inadequate.<sup>24</sup> In particular,

---

<sup>22</sup> As indicated in the Petition (at 33), the total net high-voltage transmission investment of the Participating TOs at that time was \$3,199,765,286. Applying a 5% cap to that amount, as suggested by IID, would result in an aggregate cap of \$159,988,264.30. In SCE's 2004 filing in CPUC Docket No. A. 04-12-008, SCE estimated that the cost of the radial line to connect location constrained resources in Tehachapi to be in the range of \$72.7-\$150.5 million. Under these circumstances, a 5% or 10% aggregate cap would be inadequate to support the development of a sufficient number of LCRIFs to serve multiple Energy Resource Areas, and these LCRIFs are needed to meet RPS goals. A low cap is especially unsupportable given the recent significant increase in construction costs. In that regard, there have been huge price increases for raw materials that are needed for transmission plant (in particular copper and nickel which are important components of stainless steel), as well as increased processing costs for converting those commodities into plant components.

<sup>23</sup> Petition at 14-15; Petition, Attachment B at 2-4.

<sup>24</sup> In its *National Electric Transmission Congestion Study* issued in August 2006 ("DOE Study"), the Department of Energy identified Southern California as a "Critical Congestion Area" and the San Francisco Bay Area as a "Congestion Area of Concern." DOE Study at 39-40, 45-48. On October 2, 2007, the DOE designated the Southwest Area National Interest Electric Corridor that includes significant portions of Southern California that are served by the CAISO. See *National Electric Transmission Congestion Report*, 42 Fed. Reg. 59992 (October 5, 2007) ("DOE Report") and [http://nietc.anl.gov/documents/docs/NIETC\\_Southwest\\_Area\\_Corridor\\_Map.pdf](http://nietc.anl.gov/documents/docs/NIETC_Southwest_Area_Corridor_Map.pdf). The DOE noted, *inter alia*, that "congestion into and within southern California is a precursor of a serious reliability problem." DOE Report at 57016. See also, *Cal. Indep. Sys. Operator Corp.*, 100 FERC ¶ 61,060 at P 4 (2002).

the existing transmission system was built without regard for the State's new RPS requirements. It is not reasonable to use the cost of the existing system as the baseline for purposes of establishing a cap that will apply to all future LCRIFs. An appropriate cap should reflect the then-current system conditions, rates, loads and needs so that individual projects can be evaluated based on those current circumstances, not circumstances that existed years earlier.<sup>25</sup> Again, the purpose of the rate cap is to mitigate rate shock, not arbitrarily limit the costs of LCRIFs.

The CAISO also notes that RPS requirements in a given year are based on current demand. Thus, as load grows, the amount of supply that will be needed from renewable resources to meet the RPS requirements will increase by a corresponding level. Additional LCRIF capacity will be needed to meet these increased requirements. A mere inflation adjustment would not capture this need for increased LCRIF capacity to meet increased requirements for renewable resources. Similarly, in the last few years, construction costs in the electricity industry have skyrocketed and far outpaced inflation. Basing the cap on existing depreciated plant does not capture the significant construction cost increases of the past few years or the possibility that construction costs will outpace inflation in future years.

In any event, it is not the CAISO's intent – or the intent of this proposal – to approve LCRIFs simply because there is room under the cap to do so. Stated differently, the cap is not a target to shoot for or a budget that the CAISO needs to “use or lose.” LCRIFs will be evaluated under the CAISO's comprehensive transmission planning process, and the CAISO must determine that an LCRIF is needed (and that it meets the other applicable eligibility criteria) before the CAISO can approve it. If the CAISO determines, based on its evaluation under the transmission planning process, that a particular project is not needed, the project will not – and cannot – be approved simply because there is still room under the cap for another project. Further, LCRIFs are just one “tool” in the CAISO's toolbox, and this “tool” will only be used as appropriate or necessary. In that regard, in the transmission planning process, the CAISO will first assess whether a network solution is feasible and cost-effective. If not, only then will the CAISO evaluate a LCRIF solution.

---

<sup>25</sup> For example, when the Commission historically evaluated whether new gas pipeline facilities should receive rolled-in rate treatment (and in particular whether the 5% presumption in favor of rolled-in rate treatment was applicable), the Commission evaluated the rate impact of the new facility on the pipeline's rates that were in effect at the time of the evaluation, not the rates that were in effect for some prior period indexed for inflation. *Pricing Policy for New and Existing Facilities Constructed by Interstate Natural Gas Pipelines*, 71 FERC ¶ 61,241 at 61,916-18 (1995).

## 2. The Demonstration of Interest Requirements

Section 24.1.3.2 establishes the criteria for the necessary demonstration of interest in a LCRIF. In that regard, Section 24.1.3.2 provides that a proponent of a LCRIF must demonstrate interest in the LCRIF equal to 60% or more of the capacity of the transmission facility in the following manner:

- (a) the proponent's demonstration must include a showing that LCRIGs that would connect to the transmission facility and would have a combined capacity equal to at least 25% of the capacity of the transmission facility have executed LGIAs or Small Generator Interconnection Agreements ("SGIAs"), as applicable; and
- (b) to the extent the showing pursuant to Section 24.1.3.2(a) does not constitute 60% of the capacity of the LCRIF, the proponent's demonstration of the remainder of the required minimum level of interest must include a showing that additional LCRIGs have demonstrated interest in the LCRIF by any of the following methods:
  - (i) executing a firm power sales agreement for the output of the LCRIG for a period of five years or longer;
  - (ii) being in the CAISO's interconnection queue and paying a deposit to the CAISO equal to the sum of the minimum deposits required of an Interconnection Customer for all studies performed in accordance with the Large Generator Interconnection Procedures ("LGIP") or Small Generator Interconnection Procedures ("SGIP"), as applicable to the LCRIG, less the amount of any deposits actually paid by the LCRIG for such studies. The deposit shall be credited toward such study costs. If the LCRIF is not approved or is withdrawn by the proponent, any deposit paid under this provision shall be refundable to the extent it exceeds costs incurred by the CAISO for such studies; or
  - (iii) paying a deposit to the CAISO equal to five percent of the LCRIG's pro rata share of the capital costs of a proposed LCRIF. The deposit shall be credited toward study costs performed in connection with LGIP or SGIP, whichever is applicable. If a LCRIF is not approved or is withdrawn by its proponent, any deposit paid under this provision shall be refundable to the extent it exceeds the costs incurred by the CAISO for such studies.

The proposed tariff provisions are consistent with the interest showing requirements that the CAISO proposed in its Petition. In that regard, in the Petition, the CAISO proposed a two-prong test for purposes of determining whether a particular project has sufficient commercial interest. First, the CAISO proposed that a minimum percentage of the capacity of the new facility – in the range 25% to 35% – be “subscribed” pursuant to executed LGIAs.<sup>26</sup> Second, the CAISO proposed to require a showing of additional interest in the project above and beyond the percentage of capacity that is covered by executed LGIAs. The CAISO identified several possible ways in which interest in or support for the project could be shown, including, *inter alia*, formal declarations of interest, the number of megawatts in the CAISO interconnection queue that could be served by the project, responses to an open season, or California Energy Commission (“CEC”) studies showing the potential MW that could be developed in a region. The CAISO proposed to require a minimum additional showing of interest in the range of 25% to 35%. The CAISO indicated in its filing that it would undertake a stakeholder process to determine the percentage of LGIAs and the percentage and type of additional interest that should be required. In the Declaratory Order, the Commission “preliminarily accept[ed] the ranges proposed as they strike an appropriate balance between encouraging the development of location-constrained resources on one hand and protecting ratepayers on the other.”<sup>27</sup>

The minimum LGIA<sup>28</sup> and additional interest showings proposed by the CAISO herein are within the ranges proposed in the Petition and preliminarily accepted by the Commission. Stakeholders proposed a wide range of alternatives for the demonstration of interest. The recommendations for the total demonstration of interest ranged from 50% to 100%, with most stakeholders supporting a total interest showing in the 50-60% range. Also, there was considerable variation in stakeholders’ opinions regarding the manner in which interest should be shown and in the relative proportion of the requirement for LGIA or SGIA interest and the requirement for “additional” interest.

---

<sup>26</sup> As the CAISO stated in its Petition (at 34, n.56), because location constrained resources in a region typically are developed and come on line in small increments over a number of years, requiring a high percentage of the capacity of an LCRIF to be “subscribed” before construction of the line begins would defeat the whole purpose of the CAISO’s proposal and would essentially result in a *de facto* continuation of the existing gen-tie policy. Unlike a traditional gen-tie, all of the location constrained resources that will eventually use a LCRIF will not come on-line on the in-service date of the transmission line.

<sup>27</sup> Declaratory Order at P 89.

<sup>28</sup> Based on stakeholder input, the CAISO decided that it was appropriate to count capacity “subscribed” under SGIAs, as well as capacity subscribed under LGIAs, for purposes of meeting the interest showing requirement.

The CAISO recognizes that there is no empirical means of determining the exact demonstration of interest that should be required. In the Petition, the CAISO proposed a range between 50% and 70%. Based on the Commission's conditional acceptance of that range and the views of the majority of stakeholders, the CAISO chose the midpoint of its previously proposed range, *i.e.*, 60%. The CAISO believes that a total interest showing of greater than 50% is appropriate in order to minimize the potential stranded cost risk to, and potential rate impact on, ratepayers. However, the total interest showing 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. The CAISO submits that a 60% interest showing strikes a reasonable balance between these two competing concerns.

The CAISO's proposal also recognizes the fact that location constrained resources in a region typically are developed over a period of many years,<sup>29</sup> and that setting the initial total demonstration requirement too high would constitute a barrier to the development of LCRIFs. For this same reason, the CAISO determined that the minimum level of executed LGIAs and SGIAs should be 25% and not some higher percentage. In that regard, because location constrained resources in a region tend to be developed over long periods of time, it is unlikely that LGIAs and SGIAs constituting a large percentage of the capacity of a LCRIF will be executed during the initial stages of development in a region (and the initial stages of a LCRIF proposal). Under these circumstances, it would be unreasonable to require that a higher percentage of LGIAs or SGIAs be executed before construction of a LCRIF can commence. Adoption of any higher percentage would only serve as a further barrier to the development of these resources and the transmission needed to connect them to the grid.

There was a fair amount of stakeholder discussion regarding the types of showings that should be permitted to count as "additional" interest. As expected, some parties supported a lower threshold as to what should count toward the "additional" interest showing, while other stakeholders supported stricter requirements. After fully evaluating stakeholders' positions, the CAISO concluded that the following types of showings should count toward meeting the "additional" interest requirement: (1) capacity associated with executed LGIAs and SGIAs beyond the 25% minimum level; (2) capacity that is associated with a power purchase agreement of at least five years; (3) LCRIGs that are in the CAISO's interconnection queue and submit a cash deposit equal to the sum of all deposits required for studies under the LGIP or SGIP, whichever is applicable;<sup>30</sup>

---

<sup>29</sup> See Declaratory Order at P 64.

<sup>30</sup> This amount is \$160,000 under the LGIP. Under the SGIP, a potential Interconnection Customer must pay the following deposits: (1) a deposit of the lesser of 50% of the good faith estimated facilities study costs or earnest money of \$1,000; (2) a

or (4) a cash deposit equal to 5% of a LCRIG's *pro rata* share of the capital costs of a proposed LCRIF. The CAISO notes that these additional showing requirements are more rigorous than some of the showings that were contemplated in the Petition, *e.g.*, responses to an open season, formal declarations of interest, and location in the CAISO's interconnection queue. The CAISO believes that the standards it has adopted are more than sufficient to show interest in a project and mitigate the stranded cost risk to ratepayers, and the Commission should not adopt even "tougher" standards.

With respect to the additional interest showing in Section 24.1.3.2(b)(ii) (the cost of interconnection studies), the CAISO notes that certain market participants argued during the stakeholder process that such a level of cash deposit was insufficient to show financial commitment by a generator or that a fixed amount was inappropriate and might be too high or too low depending on the size of the generation project. SCE and Pacific Gas & Electric Company ("PG&E") suggested that that a monetary deposit equal to 5% or 10% of a generation developer's *pro rata* share of a proposed LCRIF's capital costs would be more reasonable than the fixed amount proposed by the CAISO in Section 24.1.3.2(b)(ii). The CAISO ultimately responded to such concerns by adding a requirement to Section 24.1.3.2(b)(ii) that a LCRIG must also be in the CAISO interconnection queue. This appropriately limits eligibility for this interest showing and helps address some of the concerns expressed by stakeholders. The CAISO also adopted SCE's and PG&E's suggestion by adding a third permissible interest demonstration, *i.e.*, the 5% of capital costs showing in Section 24.1.3.2(b)(iii).

The CAISO does not believe that it is appropriate to reject or modify the additional interest showing specified in Section 24.1.3.2(b)(ii). The CAISO believes that an up-front \$160,000 deposit (or the applicable SGIP deposit) – which is not refundable if the generation developer withdraws its project – is more than sufficient to show interest for a LCRIG that is already in the CAISO's interconnection queue. One stakeholder suggested that these amounts are insufficient because they are amounts that developers would have to pay anyway to connect to the grid. However, the CAISO believes that the up-front, non-refundable nature of the deposit distinguishes it from the deposits made by a typical Interconnection Customer that is seeking to interconnect to the grid. An Interconnection Customer seeking to interconnect under the LGIP makes three separate deposits -- in the amounts of \$10,000, \$50,000 and \$100,000 -- at three separate stages of the interconnection study process. To the extent such Interconnection Customer drops out of the process before going on to the next study stage, it is not required to submit a study deposit for that next stage. On

---

deposit of the good faith estimated costs for each system impact study; and (3) a deposit of the good faith estimated costs for the facilities study.

the other hand, a Generation developer that wants its capacity to count toward the additional interest showing must pay the entire \$160,000 deposit up-front, and the developer will lose that deposit (or any remaining portion of the deposit) if it “drops out” of the process prematurely. The CAISO believes that this constitutes more than sufficient financial incentive and adequately differentiates this situation from the situation facing a typical Interconnection Customer. Also, it is not unreasonable to require a LCRIG that is already in the interconnection queue to pay the applicable total LGIP or SGIP deposit amount given that the CAISO is “counting” capacity associated with executed LGIAs and SGIAs, and the developers of those LCRIGs will have paid deposits equal to the applicable LGIP or SGIP deposit amounts.

The CAISO also submits that payment of the LGIP or SGIP deposit amount, whichever is applicable, adequately addresses concerns regarding the different sizes of units. Developers will have to make total deposits equal to this amount in order to interconnect to the grid, so it is difficult to see how such a deposit could be considered too high or too low. Further, any concerns in this regard have also been addressed by the addition of the interest showing specified in Section 24.1.3.2(b)(iii).

As a final note, the CAISO urges that the Commission not make the “additional” interest test so difficult to meet that it constitutes a barrier to the development of location constrained resources.

## **B. Coordination with Other Transmission Providers**

One issue that was raised by IID during consideration of the Petition and during the stakeholder process was the need to avoid construction that duplicates transmission capacity provided by other transmission providers and that potentially could result in stranded investment. While the CAISO did not include in the Petition recommended provisions specifying coordination with other transmission providers, the CAISO did stress that LCRIFs would be evaluated during the CAISO’s transmission planning process, which must take into account coordination with adjacent control areas and other transmission providers. In the Declaratory Order, the Commission indicated that IID and other transmission providers should raise coordination issues in the CAISO’s independent transmission planning process. The Commission noted that Order No. 890 requires that the CAISO provide for regional scope as part of its transmission planning.<sup>31</sup> The Commission concluded that this process would

---

<sup>31</sup> See Order No. 890 at P 523 (requiring each transmission provider to coordinate with interconnected systems to identify system enhancements that integrate new resources).

allow IID to air its concerns to the CAISO.<sup>32</sup> The Commission affirmed these findings in its *Order on Request for Clarification and Rehearing* issued on September 20, 2007 (“Rehearing Order”).<sup>33</sup> In particular, the Commission stated that a transmission planning process established under Order No. 890 will ensure the proper siting and development of LCRIFs and take into account the exact concerns voiced by IID.<sup>34</sup> As such, the Commission concluded that IID’s “concern about the cost effectiveness and efficiency of interconnection facilities that have not yet been proposed to access unnamed remote resources is speculative.”<sup>35</sup>

The CAISO’s Order No. 890 compliance filing will set forth a transmission planning process that satisfies the principles enunciated in Order No. 890. In addition, in response to IID’s concerns, the CAISO has included in the instant tariff amendment a specific provision regarding coordination with other transmission providers. Section 24.1.3.3 states that where a proposed LCRIF would connect to generators in an area that would also be served by an existing transmission facility of, or a transmission facility to be constructed by, a person that is not a Participating TO, and the other facility will not be under the CAISO’s Operational Control, the CAISO must coordinate with the other transmission owner through a regional planning process to avoid the unnecessary construction of duplicative transmission additions to connect the same LCRIFs to the grid.<sup>36</sup> The CAISO also notes that the filed tariff language addresses IID’s concern about stranded costs because one of the criteria for evaluating the need for a proposed LCRIF is whether, and if so, the extent to which, a proposed LCRIF would create the risk of stranded costs. See proposed Section 24.1.3.4(c)(5).

### C. Evaluation of LCRIFs

The instant tariff amendment permits any Participating TO or Market Participant to propose a transmission addition as a LCRIF. Such proposals may be submitted in response to the development or identification of conceptual LCRIFs by the CAISO during its transmission planning process or by the Participating TO or Market Participant through its own development efforts. In either case, the specific LCRIF proposals will be processed and evaluated under the CAISO’s transmission planning process. As noted above, the specific details of that process are still under development and will be filed as part of the CAISO’s Order No. 890 compliance filing. Under proposed Section 24.1.3, the proponent of the project must provide, to the extent available, information

---

<sup>32</sup> Declaratory Order at P 85.

<sup>33</sup> *Cal. Indep. Sys. Operator Corp.*, 120 FERC ¶ 61,244 (2007).

<sup>34</sup> Rehearing Order at P 25.

<sup>35</sup> *Id.* at P 25.

<sup>36</sup> The concept of regional transmission planning will be discussed in greater detail in the CAISO’s Order No. 890 compliance filing which will be filed in December 2007.

showing that the project initially qualifies as an LCRIF under Section 24.1.3.1. Also, a proposal may include the following additional information, to the extent it is available, to facilitate the CAISO's initial evaluation:

- (1) Transmission studies demonstrating that the proposed facility satisfies the applicable CAISO grid planning standards, including planning standards that are Applicable Reliability Requirements;
- (2) Identification of the most feasible alternative transmission additions, which may include network upgrades, that would accomplish the objective of the proposal;
- (3) Planning level cost estimates for the proposed addition and all proposed alternatives;
- (4) An assessment of the potential for the future connection of further transmission additions that would convert the proposed facility into a network transmission facility, including conceptual plans;
- (5) The estimated in-service date of the proposed facility; and
- (6) A conceptual plan for connecting potential LCRIGs, if known, to the proposed facility.

Thus, a proponent of a LCRIF may submit either a conceptual proposal or a more fleshed-out proposal and may rely on prior assessments performed by the CAISO as part of the overall transmission planning process. As indicated above, the process for submitting and evaluating LCRIFs -- and other transmission projects -- is currently being finalized as part of the CAISO's compliance with Order No. 890.<sup>37</sup> That process is not being submitted as part of this filing. However, as currently proposed by the CAISO, the Order No. 890 transmission planning process would accommodate LCRIF proposals as follows: based either on their own evaluations or the CAISO's prior transmission planning efforts, Market Participants could submit LCRIF proposals in an open season that would run from January 1 – November 1 of each year; specific projects or conceptual requests would be evaluated through an open, coordinated and transparent transmission planning process that complies with the principles enunciated in Order No. 890 during January-December of the following year; a project that satisfies the criteria specified in Section 24.1.3.1(a) and which is found to be needed as a result of the CAISO's rigorous transmission planning

---

<sup>37</sup> A draft Business Practice Manual for the Transmission Planning Process, which sets forth the details of the CAISO's proposed transmission planning process to comply with Order No. 890, was posted on the CAISO's website on September 14, 2007. The CAISO is continuing to work with stakeholders to finalize this process.

process may be conditionally approved by the CAISO; upon demonstration that the interest showing has been satisfied and the rate cap will not be exceeded (see Section 24.1.3.1(b)), the project can receive final approval. This approach will allow all stakeholders to be involved early in the transmission planning process and will provide them with a meaningful opportunity to identify potential LCRIFs, provide input on LCRIFs, and actively participate in the evaluation and development of LCRIFs.

Although the transmission planning process under which LCRIFs will be evaluated will be filed as part of the CAISO's Order No. 890 compliance filing, the instant filing does set forth the criteria that the CAISO will use to evaluate LCRIF proposals. Specifically, proposed Section 24.1.3.4 provides that the CAISO will apply the following criteria during the transmission planning process to evaluate, as well as rank and prioritize, LCRIF projects:

(a) Whether, and if so, the extent to which, the facility meets or exceeds applicable CAISO grid planning standards, including standards that are Applicable Reliability Requirements.

(b) Whether, and if so, the extent to which, the facility has the capability and flexibility both to interconnect potential LCRIGs in the Energy Resource Area and to be converted in the future to a network transmission facility.

(c) Whether the projected cost of the facility is reasonable in light of its projected benefits, in comparison to the costs and benefits of other alternatives for connecting Generating Units or otherwise meeting a need identified in the CAISO planning process, including alternatives that are not LCRIFs. In making this determination, the CAISO shall take into account, among other factors, the following:

(1) The potential capacity of LCRIGs and the potential Energy that could be produced by LCRIGs in each Energy Resource Area;

(2) The capacity of LCRIGs in the CAISO's interconnection queue for each Energy Resource Area;

(3) The projected cost and in-service date of the facility in comparison with other transmission facilities that could connect LCRIGs to the CAISO Controlled Grid;

(4) Whether, and if so, the extent to which, the facility would provide additional reliability or economic benefits to the CAISO Controlled Grid; and

- (5) Whether, and if so, the extent to which, the facility would create a risk of stranded costs.

It is important to note that these factors do not determine the threshold issue of whether a project qualifies as an LCRIF. Rather, they are designed to ensure that resources available for transmission expansion are expended on the projects that will be most beneficial to the CAISO Controlled Grid. Stated differently, projects with a higher cost-benefit ratio should be constructed before those with a lower cost-benefit ratio. Each of the factors identified above was identified by stakeholders as an appropriate factor to be considered in a cost-benefit analysis and to achieve the goals of the LCRIF program.

#### **D. Cost Recovery and Allocation**

In its Petition, the CAISO proposed that the costs of a LCRIF would initially be rolled into the TRR of the Participating TO that constructed the facility, and the cost of the facility would be reflected in the CAISO's TAC. As proposed by the CAISO, each generator that connects to the facility would be responsible for paying its *pro rata* share of the going-forward costs of the line. Until the line is fully subscribed, all users of the grid would pay the costs of the unsubscribed portion of the line which would be included in the TAC. In the Declaratory Order, the Commission approved the CAISO's proposal that the costs of a LCRIF's unsubscribed capacity receive rolled-in rate treatment and that the going-forward costs of a LCRIF be allocated to the interconnecting generators as they come on-line.<sup>38</sup>

The instant amendment reflects the proposal set forth in the Petition and approved by the Commission. The proposed tariff language accomplishes this by, first, amending the definition of High Voltage Transmission Facility to include LCRIFs that have been turned over to the CAISO's Operational Control. The CAISO Tariff defines TRR, in part, as "the total annual authorized revenue requirements associated with transmission facilities and Entitlements turned over to the Operational Control of the [CAISO] by a Participating TO." The High Voltage TRR is the portion of the TRR that is associated with and allocable to High Voltage Facilities. Accordingly, the costs of LCRIFs will be included in a Participating TO's High Voltage TRR.

Further, under proposed Section 26.6, a Participating TO must assess each interconnecting LCRIF its *pro rata* share of the cost of an LCRIF through the Participating TO's TO Tariff and must credit the proceeds against its TRR. The amendment revises the definition of Transmission Revenue Credit to include the proceeds that a Participating TO receives from an LCRIF with regard to an

---

<sup>38</sup> Declaratory Order at PP 77-83.

LCRIF, unless the Commission approves another form of accounting for those proceeds.

Under Section 26 and Appendix F of the CAISO Tariff, the CAISO's High Voltage Access Charge is based on the Participating TO's base High Voltage TRR less its Transmission Revenue Credits. Thus, the Participating TO passes on to CAISO ratepayers the payments it receives from LCRIFs in the form of a credit to the TRR or other mechanism approved by the Commission. The TAC will thus reflect the net cost of the LCRIFs, *i.e.*, the cost of the unsubscribed portion of the facility.

In the Declaratory Order, the Commission encouraged the CAISO to clarify in its eventual tariff filing which, if any, costs would be allocated to wheel-through customers and their corresponding benefits.<sup>39</sup> In the instant tariff amendment, the CAISO proposes to allocate the costs of LCRIFs to wheel-through customers in the same manner as Load connected to the CAISO Controlled Grid.<sup>40</sup> During the stakeholder process, the CAISO examined whether wheel-through customers should appropriately bear such charges. The vast majority of stakeholders supported the allocation of LCRIF costs to wheel-through customers. The CAISO has determined that wheel-through customers will receive the following benefits from the LCRIFs: (1) LCRIFs provide additional resource interconnections to help relieve congestion; (2) the CAISO operates an integrated transmission system (which will include LCRIFs under the CAISO's Operational Control) that is used to serve all customers, including wheel-through customers; and (3) LCRIFs will improve system flexibility and reliability by adding new resource interconnections within the CAISO control area, thereby benefiting all transmission customers, including wheel-through customers.<sup>41</sup> Therefore, under generally accepted principles of cost causation, it is appropriate that wheel-through customers pay a proportionate share of the costs of LCRIFs.

It is especially important to recognize that the CAISO operates an integrated transmission system, and that LCRIFs will be a component of that integrated system because they will be under the CAISO's Operational Control. The CAISO 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. Because the CAISO 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

---

<sup>39</sup> Declaratory Order at P 86.

<sup>40</sup> Under the CAISO Tariff, the TRR determines the Wheeling Access Charge, which is paid by customers that wheel through, as well as the TAC.

<sup>41</sup> Because LCRIFs will be evaluated under the CAISO's transmission planning process, the CAISO will ensure that LCRIFs connect to the grid in the most beneficial locations.

is generated by a LCRIG connected to an LCRIF as it is electricity that is generated by an outside the CAISO Control Area Generator. LCRIFs will also provide the CAISO with more tools to manage congestion and mitigate congestion costs. Because LCRIFs will provide additional connections within the Control Area, they should mitigate congestion on major transmission paths and on the interties, thereby reducing congestion costs for all customers, including wheel-through customers. Absent LCRIFs and the development of location constrained resources in the State, Load Serving Entities needing to comply with RPS standards will be forced to look out-of-state for such resources. That would result in increased congestion on the interties.

Finally, proposed Section 26.6.1 addresses cost allocation if an LCRIF later qualifies as a network facility because of a transmission addition or upgrade. Under such circumstances, effective upon the in-service date of such new transmission addition or upgrade, the LCRIF will become a network facility, and LCRIGs connected to the LCRIF will no longer be responsible for the going-forward costs of the LCRIF.

#### **E. Additional Definitions**

The LCRI proposal will require the inclusion of several new definitions in the CAISO tariff. The CAISO proposes to define LCRIG as “A Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot practicably be transported from that location; and (b) is located in an Energy Resource Area. Generating Units meeting criterion (a) shall include, but not be limited to, wind, solar, geothermal, hydroelectric, digester gas, landfill gas, ocean wave and ocean thermal tidal current Generating Units.” The definition recognizes a key distinguishing feature of location constrained resources identified in the Petition and recognized by the Commission in the Declaratory Order – that their energy source is not practicably transportable.

In the Petition, the CAISO described an Energy Resource Area as an area that has the potential for the development of a significant quantity of location constrained resources and is not readily accessible to the CAISO transmission grid.<sup>42</sup> The CAISO contemplated that the California Public Utilities Commission (“CPUC”) or CEC would identify these areas.<sup>43</sup> In the Declaratory Order, the Commission stated that it “expect[s] eventual tariff provisions will make clear how these areas will be selected.”<sup>44</sup> During the stakeholder process, some comments suggested that the Energy Resource Areas essentially be determined by the market, *i.e.*, based on projects in the interconnection queue. The majority of comments, however, preferred that the selection be coordinated with the

---

<sup>42</sup> Petition at 2.

<sup>43</sup> *Id.* at 29.

<sup>44</sup> Declaratory Order at P 90.

process being undertaken by the CEC and the CPUC to identify areas that have a significant potential for the development of renewable resources. The CAISO agrees that the LCRI program, if it is to be optimally effective in facilitating access to the renewable resources necessary to meet the California RPS requirements, should be coordinated with the efforts of the CEC and the CPUC. Accordingly, the CPUC and CEC will designate Energy Resource Areas. Any designated area must meet the definition contained in the CAISO Tariff.

The CPUC and CEC have not completed their process for certifying Energy Resource Areas, and that process will not apply to areas outside California. Accordingly, for out-of-state areas that a proposed LCRIF proposes to connect, and for the interim period (until the CPUC and CEC certify areas as Energy Resource Areas), the CAISO would be permitted to designate Energy Resource Areas for projects that would meet all qualifications for an LCRIF other than the requirement that the LCRIGs be located in a Energy Resource Area. The CAISO believes that, in such circumstances, the demonstration of interest requirement and the requirement that a project be evaluated under a transmission planning process that meets the requirements of Order No. 890 will ensure that there will be adequate LCRIGs in the area to justify the designation of an LCRIF.

Accordingly, the CAISO proposes to define an Energy Resource Area as:

A geographic region certified by the [CPUC] and the [CEC] as an area in which multiple LCRIGs could be located, provided that, for the interim period before those agencies certify such areas and for LCRIFs that are proposed to connect LCRIGs located outside the State of California, an Energy Resource Area shall mean a geographic region that would be connected to the CAISO Controlled Grid by an LCRIF with respect to which the CAISO Governing Board determines that all of the requirements of Section 24.1.3 are satisfied, except for the requirement that the LCRIGs to which the LCRIF would connect are located in an area certified as an ERA by those agencies.

Finally, a LCRIF is defined as a facility that meets the criteria specified in Section 24.1.3.

#### **F. Effective Date and Term**

The CAISO proposes that the amendment be made effective on January 1, 2008.

## **V. EXPENSES AND REQUEST FOR WAIVER**

No expense or cost associated with this filing has been alleged or judged in any judicial or administrative proceeding to be illegal, duplicative, unnecessary, or demonstratively the product of discriminatory employment practices.

The information submitted with this filing substantially complies with the requirements of Part 35 of the Commission's regulations applicable to filings of this type. The CAISO requests waiver of any applicable requirement of Part 35 if necessary, in order to permit this filing to become effective as proposed.

## **VI. ATTACHMENTS**

The following documents, in addition to this transmittal letter, support the instant filing:

- |              |  |
|--------------|--|
| Attachment A | Clean CAISO Tariff Sheets incorporating the LCRIF modifications proposed herein                          |
| Attachment B | Tariff Sheets showing the LCRIF modifications blacklined against the existing CAISO Tariff               |
| Attachment C | Board Memorandum concerning the proposed LCRIF tariff amendment and attached Stakeholder Position Matrix |

## **VII. SERVICE**

Copies of this filing have been served upon the CPUC, the California Electricity Oversight Board, and the CEC. In addition, the filing has been served upon all CAISO Scheduling Coordinators and posted on the CAISO's website.

Enclosed for filing are an original and five copies of the instant filing. Also enclosed are two additional copies of this filing to be date-stamped and returned to our messenger.

### VIII. CORRESPONDENCE

The CAISO requests that all correspondence, pleadings and other communications concerning this filing be served upon the following:

Nancy Saracino, General Counsel  
\*Anthony J. Ivancovich, Assistant  
General Counsel-Regulatory  
The California Independent System  
Operator Corporation  
151 Blue Ravine Road  
Folsom, CA 95630  
Tel: (916) 351-4400  
Fax: (916) 351-4436  
aivancovich@caiso.com

Kenneth G. Jaffe  
\*Michael E. Ward  
Alston & Bird LLP  
The Atlantic Building  
950 F Street, N.W.  
Washington, DC 20004-1404  
Tel: (202) 756-3405  
Fax: (202) 756-3333  
michael.ward@alston.com

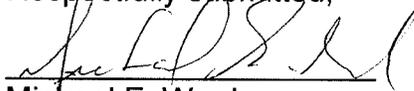
Counsel for the California Independent  
System Operator Corporation

\*Individuals designated for service  
pursuant to 18 C.F.R. § 203(b)(3).

**VIII. CONCLUSION**

For the reasons set forth above, the CAISO respectfully requests that the Commission approve the instant tariff amendment filing.

Respectfully submitted,

  
Michael E. Ward

Anthony J. Ivancovich, Assistant General  
Counsel-Regulatory  
The California Independent System  
Operator Corporation  
151 Blue Ravine Road  
Folsom, CA 95630  
Tel: (916) 351-4400  
Fax: (916) 351-4436

Kenneth G. Jaffe  
Michael E. Ward  
Alston & Bird LLP  
The Atlantic Building  
950 F Street, N.W.  
Washington, DC 20004-1404  
Tel: (202) 756-3076  
Fax: (202) 756-3333

Counsel for the California Independent  
System Operator Corporation

**Attachment A – Clean Sheets**  
**Location Constrained Resource Interconnection Amendment Filing**  
**Currently Effective Tariff**  
**October 31, 2007**

This allocation will represent the ISO's best estimates at the time, and is not intended to affect any rights provided under Existing Contracts, except as provided in Section 16.2.4.3. The ISO's forecast of total transfer capability for each Inter-Zonal Interface will depend on prevailing conditions for the relevant Trading Day, including, but not limited to, the effects of parallel path (unscheduled) flows and/or other limiting operational conditions. This information will be posted on WENet by the ISO in accordance with Appendix Y. In accordance with Section 16.2.4D of the ISO Tariff, the four categories are as follows:

- (a) transmission capacity that must be reserved for firm Existing Rights;
- (b) transmission capacity that may be allocated for use as ISO transmission service (i.e., "new firm uses");
- (c) transmission capacity that may be allocated by the ISO for conditional firm Existing Rights; and
- (d) transmission capacity that may remain for any other uses, such as non-firm Existing Rights for which the Responsible PTO has no discretion over whether or not to provide such non-firm service.

#### **24 TRANSMISSION EXPANSION.**

A Participating TO shall be obligated to construct all transmission additions and upgrades that are determined to be needed in accordance with the requirements of this Section 24, not including conditional approvals and determinations of need under Section 24.1.3.1(a), and which: (1) are additions or upgrades to transmission facilities that are located within its PTO Service Territory, unless it does not own the facility being upgraded or added and neither terminus of such facility is located within its PTO Service Territory; or (2) are additions to existing transmission facilities or upgrades to existing transmission facilities that it owns, that are part of the CAISO Controlled Grid, and that are located outside of its PTO Service Territory, unless the joint-ownership arrangement, if any, does not permit. A Participating TO's obligation to construct such transmission additions and upgrades shall be subject to: (1) its ability, after making a good faith effort, to obtain all necessary approvals and property rights under applicable federal, state, and local laws and (2) the presence of a cost recovery mechanism with cost responsibility assigned in accordance with Section 24.7. The obligations of the Participating TO to construct such transmission additions or upgrades will not alter the rights of any entity to construct and expand transmission facilities as those rights would exist in the absence of the TO's obligations under this CAISO Tariff or as those

rights may be conferred by the CAISO or may arise or exist pursuant to this CAISO Tariff.

#### **24.1 Determination of Need.**

A Participating TO or any other Market Participant may propose a transmission system addition or upgrade. The CAISO will determine that a transmission addition or upgrade is needed where it will promote economic efficiency, or maintain System Reliability, or connect Location Constrained Resource Interconnection Generators to the CAISO Controlled Grid, as set forth below.

##### **24.1.1 Economically Driven Projects.**

The Participating TO and Market Participants shall provide the necessary assistance and information to the ISO, as part of the coordinated planning process, to enable the ISO to determine that a project is needed to promote economic efficiency, including, at the ISO's discretion, studies comporting with ISO guidelines that demonstrate whether the project will promote economic efficiency or the information the ISO requires to carry out its own studies for economically driven projects. The ISO shall treat market sensitive information provided to the ISO in accordance with this Section by Participating TOs, Project Sponsors and applicable Market Participants confidentially in accordance with Section 20 provided that such information is clearly marked "Confidential" at the time it is provided to the ISO. The determination that a transmission addition or upgrade is needed to promote economic efficiency shall be made in any of the following ways:

**24.1.1.1** If the Participating TO or any party questions the economic need for the project (except where the Project Sponsor commits to pay the full cost of construction) the proposal will be submitted to the ISO ADR Procedures for resolution.

**24.1.1.2** Where a Project Sponsor other than the Participating TO commits to pay the full cost of construction of a transmission addition or upgrade and its operation, and demonstrates to the ISO financial capability to pay those costs, such commitment and demonstration shall be sufficient to demonstrate need to the ISO. To ensure that the Project Sponsor is financially able to pay the costs of the project to be constructed by the Participating TO, the Participating TO may require (1) a demonstration of creditworthiness (e.g. an appropriate credit rating), or (2) sufficient security in the form of an unconditional and irrevocable letter of credit or other similar security sufficient to meet its

**24.1.2 Reliability Driven Projects.**

The ISO in coordination with the Participating TO, will identify the need for any transmission additions or upgrades required to ensure System Reliability consistent with all Applicable Reliability Criteria. In making this determination, the ISO, in coordination with the Participating TO and other Market Participants, shall consider lower cost alternatives to the construction of transmission additions or upgrades, such as acceleration or expansion of existing projects, demand-side management, remedial action schemes, constrained-on Generation, interruptible Loads or reactive support. The Participating TO, in cooperation with the ISO, shall perform the necessary studies to determine the facilities needed to meet all Applicable Reliability Criteria. The Participating TO shall provide the ISO and other Market Participants with all information relating to a proposed transmission addition or upgrade that they may reasonably request (other than information available to them through the WECC or any other applicable regional organization) and shall, through the WECC or any other applicable regional organization coordinated planning processes, develop the scope of and assumptions for such studies that are acceptable to the ISO and those other Market Participants. The ISO shall be free to propose any transmission upgrades or additions it deems necessary to ensure System Reliability consistent with Applicable Reliability Criteria, and, subject to appropriate appeals, the Participating TO shall be obligated to construct such lines. After the ISO Operations Date, the ISO, in consultation with Participating TOs and any affected UDCs and MSSs, will work to develop a consistent set of Reliability Criteria for the ISO Controlled Grid which the Participating TOs will use in their transmission planning and expansion studies or decisions.

**24.1.3. Location Constrained Resource Interconnection Facility Projects.**

The CAISO, a Participating TO or any other Market Participant may propose a transmission addition as a Location Constrained Resource Interconnection Facility. A proposal shall include the following information, to the extent available:

- (a) Information showing that the proposal meets the requirements of Section 24.1.3.1; and
- (b) A description of the proposed facility, including the following information:
  - (1) Transmission studies demonstrating that the proposed facility satisfies the applicable CAISO grid planning standards, including planning standards that are Applicable Reliability Criteria;
  - (2) Identification of the most feasible and cost-effective alternative transmission additions, which may include network upgrades, that would accomplish the objective of the proposal;
  - (3) A planning level cost estimate for the proposed facility and all proposed alternatives;
  - (4) An assessment of the potential for the future connection of further transmission additions that would convert the proposed facility into a network transmission facility, including conceptual plans;
  - (5) The estimated in-service date of the proposed facility; and
  - (6) A conceptual plan for connecting potential LCRIGs, if known, to the proposed facility.

**24.1.3.1 Criteria for Qualification as a Location Constrained Resource Interconnection Facility.**

- (a) The CAISO shall conditionally approve a facility as a Location Constrained Resource Interconnection Facility if it determines that the facility is needed and all of the following requirements are met:

- (1) The facility is to be constructed for the primary purpose of connecting to the CAISO Controlled Grid two or more Location Constrained Resource Interconnection Generators in an Energy Resource Area, and at least one of the Location Constrained Resource Interconnection Generators is to be owned by an entity(ies) that is not an Affiliate of the owner(s) of another Location Constrained Resource Interconnection Generator in that Energy Resource Area;
  - (2) The facility will be a High Voltage Transmission Facility;
  - (3) At the time of its in-service date, the facility will not be a network facility and would not be eligible for inclusion in a Participating TO's TRR other than as an LCRIF; and
  - (4) The facility meets applicable CAISO grid planning standards, including standards that are Applicable Reliability Criteria.
- (b) The proponent of a facility that has been determined by the CAISO to meet the requirements of Section 24.1.3.1(a) shall provide the CAISO with information concerning the requirements of this subsection not less than ninety (90) days prior to the planned commencement of construction, and the facility shall qualify as a Location Constrained Resource Interconnection Facility if the CAISO determines that both of the following requirements are met:
- (1) The addition of the capital cost of the facility to High Voltage TRR of a Participating TO will not cause the aggregate of the net investment of all LCRIFs (net of the portion of the capital costs of LCRIFs credited to Participating TO's TRRs pursuant to Section 26.6 included in the High Voltage TRRs of all Participating TOs to exceed fifteen percent (15%) of the aggregate of the net investment of all Participating TOs in all High Voltage Transmission Facilities reflected in their High Voltage TRRs in effect at the time of the CAISO's evaluation of the facility; and

- (2) Existing or prospective owners of LCRIGs have demonstrated their intention to connect LCRIGs to the facility consistent with the requirements of Section 24.1.3.2.
- (c) Each Participating Transmission Owner shall report annually to the CAISO the amount of its net investment in LCRIFs, the portion of the capital costs of LCRIFs credited to its TRR, and its net investment in High Voltage Transmission Facilities reflected in its High Voltage TRR, to enable the CAISO to make the determination required under Section 24.1.3.1(b)(1).

**24.1.3.2 Demonstration of Interest in a Location Constrained Resource Interconnection Facility.**

A proponent of an LCRIF must demonstrate interest in the LCRIF equal to sixty percent (60%) or more of the capacity of the facility in the following manner:

- (a) the proponent's demonstration must include a showing that LCRIGs that would connect to the facility and would have a combined capacity equal to at least twenty-five percent (25%) of the capacity of the facility have executed Large Generator Interconnection Agreements or Small Generator Interconnection Agreements, as applicable; and
- (b) to the extent the showing pursuant to Section 24.1.3.2(a) does not constitute sixty percent (60%) of the capacity of the LCRIF, the proponent's demonstration of the remainder of the required minimum level of interest must include a showing that additional LCRIGs have demonstrated interest in the LCRIF by one of the following methods:
  - (i) executing a firm power sales agreement for the output of the LCRIG for a period of five years or longer;

- (ii) being in the CAISO's interconnection queue and paying a deposit to the CAISO equal to the sum of the minimum deposits required of an Interconnection Customer for all studies performed in accordance with the Large Generator Interconnection Procedures or Small Generator Interconnection Procedures, as applicable to the LCRIG, less the amount of any deposits actually paid by the LCRIG for such studies. The deposit shall be credited toward such study costs. If the LCRIF is not approved or is withdrawn by the proponent, any deposit paid under this provision shall be refundable to the extent it exceeds costs incurred by the CAISO for such studies; or
- (iii) paying a deposit to the CAISO equal to five percent (5%) of the LCRIG's pro rata share of the capital costs of a proposed LCRIF. The deposit shall be credited toward study costs performed in connection with the Large Generator Interconnection Procedures or Small Generator Interconnection Procedures, whichever is applicable. If the LCRIF is not approved or is withdrawn by the proponent, any deposit paid under this provision shall be refundable to the extent it exceeds the costs incurred by the CAISO for such studies.

**24.1.3.3 Coordination With Transmission Additions Proposed by Non-Participating Transmission Owners.**

In the event that a facility proposed as an LCRIF would connect to LCRIGs in an Energy Resource Area that would also be connected by a transmission facility that is in existence or is proposed to be constructed by an entity that is not a Participating Transmission Owner and that does not intend to place that facility under the Operational Control of the CAISO, the CAISO shall coordinate with the entity owning or proposing that transmission facility through any regional planning process to avoid the unnecessary construction of duplicative transmission additions to connect the same LCRIGs to the CAISO Controlled Grid.

**24.1.3.4 Evaluation of Location Constrained Resource Interconnection Facilities.**

In evaluating whether a proposed LCRIF that meets the requirements of Section 24.1.3.1 is needed, and for purposes of ranking and prioritizing LCRIF projects, the CAISO will consider the following factors:

- (a) Whether, and if so, the extent to which, the facility meets or exceeds applicable CAISO grid planning standards, including standards that are Applicable Reliability Criteria.
- (b) Whether, and if so, the extent to which, the facility has the capability and flexibility both to interconnect potential LCRIGs in the Energy Resource Area and to be converted in the future to a network transmission facility.
- (c) Whether the projected cost of the facility is reasonable in light of its projected benefits, in comparison to the costs and benefits of other alternatives for connecting Generating Units or otherwise meeting a need identified in the CAISO planning process, including alternatives that are not LCRIFs. In making this determination, the CAISO shall take into account, among other factors, the following:
  - (1) The potential capacity of LCRIGs and the potential Energy that could be produced by LCRIGs in each Energy Resource Area;
  - (2) The capacity of LCRIGs in the CAISO's interconnection queue for each Energy Resource Area;
  - (3) The projected cost and in-service date of the facility in comparison with other transmission facilities that could connect LCRIGs to the CAISO Controlled Grid;
  - (4) Whether, and if so, the extent to which the facility would provide additional reliability or economic benefits to the CAISO Controlled Grid; and
  - (5) Whether, and if so, the extent to which the facility would create a risk of stranded costs.

**24.2 Transmission Planning and Coordination.**

The ISO shall actively participate with each Participating TO and the other Market Participants in the ISO Controlled Grid planning process in accordance with the terms of this ISO Tariff and the Transmission Control Agreement.

**24.2.1** Each Participating TO with a PTO Service Territory shall develop annually a transmission expansion plan covering the next five years plus a ten-year case for the Loads that are geographically embedded within its PTO Service Territory and are within the ISO Control Area, even if such Loads are

**26.6 Location Constrained Resource Interconnection Facilities.**

The costs of an LCRIF shall be includable in a participating TO's High Voltage Revenue Requirement. Any Participating TO that owns an LCRIF shall set forth in its TO Tariff a charge payable by LCRIGs connected to that facility. The charge shall require each LCRIG to pay on a going forward basis its pro rata share of the Transmission Revenue Requirement associated with the LCRIF which shall be calculated based on the maximum capacity of the LCRIG relative to the capacity of the LCRIF. Each Participating TO shall credit its High Voltage TRR with revenues received from LCRIGs with respect to such charges either by recording such revenues in its TRBA or through another mechanism approved by FERC.

**26.6.1 Location Constrained Resource Interconnection Facilities that Become Network Facilities.**

If the construction of a new transmission facility or upgrade causes an LCRIF to become a network facility, then, effective on the in-service date of such new transmission facility or upgrade, the LCRIGs connected to the LCRIF shall not be required to pay charges described in Section 26.6. The LCRIGs shall remain responsible for charges due prior to that date.

<b><u>End-User</u></b>	Load directly connected to the ISO Controlled Grid or to a Distribution System and who does not resell the power.
<b><u>End-Use Meter Data</u></b>	Meter Data that measures the Energy consumption in respect of End-Users gathered, edited and validated by Scheduling Coordinators and submitted to the ISO in Settlement quality form.
<b><u>End-Use Meter</u></b>	A metering device collecting Meter Data with respect to the Energy consumption of an End-User.
<b><u>Energy</u></b>	The electrical energy produced, flowing or supplied by generation, transmission or distribution facilities, being the integral with respect to time of the instantaneous power, measured in units of watt-hours or standard multiples thereof, e.g., 1,000 Wh=1kWh, 1,000 kWh=1MWh, etc.
<b><u>Energy Bid</u></b>	The price at or above which a Generator has agreed to produce the next increment of Energy.
<b><u>Energy Resource Area (ERA)</u></b>	A geographic region certified by the California Public Utilities Commission and the California Energy Commission as an area in which multiple LCRIGs could be located, provided that, for the interim period before those agencies certify such areas and for LCRIFs that are proposed to connect LCRIGs located outside the State of California, an Energy Resource Area shall mean a geographic region that would be connected to the CAISO Controlled Grid by an LCRIF with respect to which the CAISO Governing Board determines that all of the requirements of Section 24.1.3 are satisfied, except for the requirement that the LCRIGs to which the LCRIF would connect are located in an area certified as an ERA by those agencies.
<b><u>Energy Transmission Services Net Energy Charge</u></b>	The component of the Grid Management Charge that provides, in conjunction with the Energy Transmission Services Uninstructed Deviations Charge, for the recovery of the ISO's costs of providing reliability on a scalable basis, i.e., a function of the intensity of the use of the transmission system within the Control Area and the occurrence of system outages and disruptions. The formula for determining the Energy Transmission Services Net Energy Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

**Energy Transmission  
Services Uninstructed  
Deviations Charge**

The component of the Grid Management Charge that provides, in conjunction with the Energy Transmission Services Net Energy Charge, for the recovery of the ISO's costs of providing reliability on a scalable basis, in particular for the costs associated with balancing transmission flows that result from uninstructed deviations. The formula for determining the Energy Transmission Services Uninstructed Deviations Charge is set forth in Appendix F, Schedule 1, Part A of this Tariff.

**Engineering &  
Procurement (E&P)  
Agreement**

An agreement that authorizes the Participating TO to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Wheeling Access Charge is payable, 2) Load that is exempt from the Access Charge pursuant to SPP 4.1, and the portion of the Load of an individual retail customer of a UDC or MSS Operator that is served by a Generating Unit that: (a) is located on the customer's site or provides service to the customer's site through arrangements as authorized by Section 218 of the California Public Utilities Code; (b) is a qualifying small power production facility or qualifying cogeneration facility, as those terms are defined in the FERC's regulations implementing Section 201 of the Public Utility Regulatory Policies Act of 1978; and (c) secures Standby Service from a Participating TO under terms approved by a Local Regulatory Authority or FERC, as applicable, or can be curtailed concurrently with an outage of the Generating Unit serving the Load. Gross Load forecasts consistent with filed TRR will be provided by each Participating TO to the ISO.

**High Voltage Access  
Charge**

The Access Charge applicable under Section 26.1 to recover the High Voltage Transmission Revenue Requirements of each Participating TO in a TAC Area.

**High Voltage  
Transmission Facility**

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that operates at a voltage at or above 200 kilovolts, and supporting facilities, and the costs of which are not directly assigned to one or more specific customers, provided that the High Voltage Transmission Facilities of a Participating TO shall include any Location Constrained Resource Interconnection Facility of that Participating TO that has been turned over to the CAISO's Operational Control.

<b><u>High Voltage Transmission Revenue Requirement</u></b>	The portion of a Participating TO's TRR associated with and allocable to the Participating TO's High Voltage Transmission Facilities and Converted Rights associated with High Voltage Transmission Facilities that are under the ISO Operational Control.
<b><u>High Voltage Wheeling Access Charge</u></b>	The Wheeling Access Charge associated with the recovery of a Participating TO's High Voltage Transmission Revenue Requirements in accordance with Section 26.1.
<b><u>Host Control Area</u></b>	The Control Area in which a System Resource subject to this ISO Tariff is connected to the electric grid. The Host Control Area may, or may not, be directly interconnected with the ISO Control Area.

	the control of the ISO.
<b><u>Local Reliability Criteria</u></b>	Reliability Criteria established at the ISO Operations Date, unique to the transmission systems of each of the Participating TOs.
<b><u>Local Resource Adequacy Demonstration</u></b>	The demonstration made to the ISO pursuant to Section 43.2 by the Scheduling Coordinator for an RA Entity of the resources that the RA Entity will make available to the ISO to satisfy any applicable Local Resource Adequacy Requirement.
<b><u>Local Resource Adequacy Requirement Deficiency</u></b>	The difference in MWs between any applicable Local Resource Adequacy Requirements for an RA Entity as established by the CPUC or appropriate Local Regulatory Authority in a given 2007 Local Reliability Area and the quantity of MWs shown in the RA Entity's Local Resource Adequacy Demonstration pursuant to Section 43.2 for that 2007 Local Reliability Area.
<b><u>Local Resource Adequacy Requirement</u></b>	The Resource Adequacy Requirement established by the CPUC or a Local Regulatory Authority in a 2007 Local Reliability Area (or for 2007 Local Reliability Areas in the aggregate) for each RA Entity subject to their jurisdiction.
<b><u>Location Code</u></b>	The code assigned by the ISO to Generation input points, and Demand Take-Out Points from the ISO Controlled Grid, and transaction points from trades between Scheduling Coordinators. This will be the information used by the ISO Controlled Grid, and transaction points for trades between Scheduling Coordinators. This will be the information used by the ISO to determine the location of the input, output, and trade points of Energy Schedules. Each Generation input and Demand Take-Out Point will have a designated Location Code identification for use in submitting Energy and Ancillary Service bids and Schedules.
<b><u>Location Constrained Resource Interconnection Facility (LCRIF)</u></b>	A High Voltage Transmission Facility that has been determined by the CAISO to satisfy all of the requirements of Section 24.1.3.

<b><u>Location Constrained</u></b>	A Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot practicably be transported from that location; and (b) is located in an Energy Resource Area. Generating Units meeting criterion (a) shall include, but not be limited to, wind, solar, geothermal, hydroelectric, digester gas, landfill gas, ocean wave and ocean thermal tidal current Generating Units.
<b><u>Resource Interconnection</u></b>	
<b><u>Generator (LCRIG)</u></b>	
<b><u>Loop Flow</u></b>	Energy flow over a transmission system caused by parties external to that system.
<b><u>Loss Scale Factor</u></b>	The ratio of expected Transmission Losses to the total Transmission Losses which would be collected if Full Marginal Loss Rates were utilized.
<b><u>Low Voltage Access Charge</u></b>	The Access Charge applicable under Section 26.1 to recover the Low Voltage Transmission Revenue Requirement of a Participating TO.

**Transmission Ownership Rights**

A non-Participating TO ownership or joint ownership right to transmission facilities within the ISO Control Area that has not executed the Transmission Control Agreement and the transmission facilities are not incorporated into the ISO Controlled Grid.

**Transmission Revenue Credit**

For an Original Participating TO, the proceeds received from the CAISO for Wheeling service, FTR auction revenue and Usage Charges, plus the shortfall or surplus resulting from (a) the proceeds received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the Original Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. For a New Participating TO during the 10-year transition period described in Section 4 of Schedule 3 of Appendix F, the proceeds received from the CAISO for Wheeling service and Net FTR Revenue, plus (a) the proceeds received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the New Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. After the 10-year transition period, the New Participating TO Transmission Revenue Credit shall be calculated the same as the Transmission Revenue Credit for the Original Participating TO.

**TRBA (Transmission Revenue Balancing Account)**

A mechanism to be established by each Participating TO which will ensure that all Transmission Revenue Credits and other credits specified in Sections 6, 8, and 13 of Appendix F, Schedule 3, flow through to transmission customers.

**Attachment B – Blacklines**

**Location Constrained Resource Interconnection Amendment Filing**

**Currently Effective Tariff**

**October 31, 2007**

\* \* \*

## **24 TRANSMISSION EXPANSION.**

A Participating TO shall be obligated to construct all transmission additions and upgrades that are determined to be needed in accordance with the requirements of this Section 24, not including conditional approvals and determinations of need under Section 24.1.3.1(a), and which: (1) are additions or upgrades to transmission facilities that are located within its PTO Service Territory, unless it does not own the facility being upgraded or added and neither terminus of such facility is located within its PTO Service Territory; or (2) are additions to existing transmission facilities or upgrades to existing transmission facilities that it owns, that are part of the CAISO Controlled Grid, and that are located outside of its PTO Service Territory, unless the joint-ownership arrangement, if any, does not permit. A Participating TO's obligation to construct such transmission additions and upgrades shall be subject to: (1) its ability, after making a good faith effort, to obtain all necessary approvals and property rights under applicable federal, state, and local laws and (2) the presence of a cost recovery mechanism with cost responsibility assigned in accordance with Section 24.7. The obligations of the Participating TO to construct such transmission additions or upgrades will not alter the rights of any entity to construct and expand transmission facilities as those rights would exist in the absence of the TO's obligations under this CAISO Tariff or as those rights may be conferred by the CAISO or may arise or exist pursuant to this CAISO Tariff.

### **24.1 Determination of Need.**

A Participating TO or any other Market Participant may propose a transmission system addition or upgrade. The CAISO will determine that a transmission addition or upgrade is needed where it will promote economic efficiency, or maintain System Reliability, or connect Location Constrained Resource Interconnection Generators to the CAISO Controlled Grid, as set forth below.

\* \* \*

#### **24.1.3. Location Constrained Resource Interconnection Facility Projects.**

The CAISO, a Participating TO or any other Market Participant may propose a transmission addition as a Location Constrained Resource Interconnection Facility. A proposal shall include the following information, to the extent available:

- (a) Information showing that the proposal meets the requirements of Section 24.1.3.1; and
- (b) A description of the proposed facility, including the following information:
  - (1) Transmission studies demonstrating that the proposed facility satisfies the applicable CAISO grid planning standards, including planning standards that are Applicable Reliability Criteria;
  - (2) Identification of the most feasible and cost-effective alternative transmission additions, which may include network upgrades, that would accomplish the objective of the proposal;
  - (3) A planning level cost estimate for the proposed facility and all proposed alternatives;
  - (4) An assessment of the potential for the future connection of further transmission additions that would convert the proposed facility into a network transmission facility, including conceptual plans;
  - (5) The estimated in-service date of the proposed facility; and
  - (6) A conceptual plan for connecting potential LCRIGs, if known, to the proposed facility.

**24.1.3.1 Criteria for Qualification as a Location Constrained Resource Interconnection Facility.**

- (a) The CAISO shall conditionally approve a facility as a Location Constrained Resource Interconnection Facility if it determines that the facility is needed and all of the following requirements are met:
  - (1) The facility is to be constructed for the primary purpose of connecting to the CAISO Controlled Grid two or more Location Constrained Resource Interconnection Generators in an Energy Resource Area, and at least one of the Location Constrained Resource Interconnection Generators is to be owned by an entity(ies) that is not an Affiliate of the owner(s) of another Location Constrained Resource Interconnection Generator in that Energy Resource Area;

- (2) The facility will be a High Voltage Transmission Facility;
- (3) At the time of its in-service date, the facility will not be a network facility and would not be eligible for inclusion in a Participating TO's TRR other than as an LCRIF; and
- (4) The facility meets applicable CAISO grid planning standards, including standards that are Applicable Reliability Criteria.

(b) The proponent of a facility that has been determined by the CAISO to meet the requirements of Section 24.1.3.1(a) shall provide the CAISO with information concerning the requirements of this subsection not less than ninety (90) days prior to the planned commencement of construction, and the facility shall qualify as a Location Constrained Resource Interconnection Facility if the CAISO determines that both of the following requirements are met:

- (1) The addition of the capital cost of the facility to High Voltage TRR of a Participating TO will not cause the aggregate of the net investment of all LCRIFs (net of the portion of the capital costs of LCRIFs credited to Participating TO's TRRs pursuant to Section 26.6 included in the High Voltage TRRs of all Participating TOs to exceed fifteen percent (15%) of the aggregate of the net investment of all Participating TOs in all High Voltage Transmission Facilities reflected in their High Voltage TRRs in effect at the time of the CAISO's evaluation of the facility; and
- (2) Existing or prospective owners of LCRIGs have demonstrated their intention to connect LCRIGs to the facility consistent with the requirements of Section 24.1.3.2.

(c) Each Participating Transmission Owner shall report annually to the CAISO the amount of its net investment in LCRIFs, the portion of the capital costs of LCRIFs credited to its TRR, and its net investment in High Voltage Transmission Facilities reflected in its High

Voltage TRR, to enable the CAISO to make the determination required under Section 24.1.3.1(b)(1).

**24.1.3.2 Demonstration of Interest in a Location Constrained Resource Interconnection**

**Facility.**

A proponent of an LCRIF must demonstrate interest in the LCRIF equal to sixty percent (60%) or more of the capacity of the facility in the following manner:

- (a) the proponent's demonstration must include a showing that LCRIGs that would connect to the facility and would have a combined capacity equal to at least twenty-five percent (25%) of the capacity of the facility have executed Large Generator Interconnection Agreements or Small Generator Interconnection Agreements, as applicable; and
- (b) to the extent the showing pursuant to Section 24.1.3.2(a) does not constitute sixty percent (60%) of the capacity of the LCRIF, the proponent's demonstration of the remainder of the required minimum level of interest must include a showing that additional LCRIGs have demonstrated interest in the LCRIF by one of the following methods:
  - (i) executing a firm power sales agreement for the output of the LCRIG for a period of five years or longer;
  - (ii) being in the CAISO's interconnection queue and paying a deposit to the CAISO equal to the sum of the minimum deposits required of an Interconnection Customer for all studies performed in accordance with the Large Generator Interconnection Procedures or Small Generator Interconnection Procedures, as applicable to the LCRIG, less the amount of any deposits actually paid by the LCRIG for such studies. The deposit shall be credited toward such study costs. If the LCRIF is not approved or is withdrawn by the proponent, any deposit paid under this provision shall be refundable to the extent it exceeds costs incurred by the CAISO for such studies; or

(iii) paying a deposit to the CAISO equal to five percent (5%) of the LCRIG's pro rata share of the capital costs of a proposed LCRIF. The deposit shall be credited toward study costs performed in connection with the Large Generator Interconnection Procedures or Small Generator Interconnection Procedures, whichever is applicable. If the LCRIF is not approved or is withdrawn by the proponent, any deposit paid under this provision shall be refundable to the extent it exceeds the costs incurred by the CAISO for such studies.

**24.1.3.3 Coordination With Transmission Additions Proposed by Non-Participating Transmission Owners.**

In the event that a facility proposed as an LCRIF would connect to LCRIGs in an Energy Resource Area that would also be connected by a transmission facility that is in existence or is proposed to be constructed by an entity that is not a Participating Transmission Owner and that does not intend to place that facility under the Operational Control of the CAISO, the CAISO shall coordinate with the entity owning or proposing that transmission facility through any regional planning process to avoid the unnecessary construction of duplicative transmission additions to connect the same LCRIGs to the CAISO Controlled Grid.

**24.1.3.4 Evaluation of Location Constrained Resource Interconnection Facilities.**

In evaluating whether a proposed LCRIF that meets the requirements of Section 24.1.3.1 is needed, and for purposes of ranking and prioritizing LCRIF projects, the CAISO will consider the following factors:

- (a) Whether, and if so, the extent to which, the facility meets or exceeds applicable CAISO grid planning standards, including standards that are Applicable Reliability Criteria.
- (b) Whether, and if so, the extent to which, the facility has the capability and flexibility both to interconnect potential LCRIGs in the Energy Resource Area and to be converted in the future to a network transmission facility.
- (c) Whether the projected cost of the facility is reasonable in light of its projected benefits, in comparison to the costs and benefits of other alternatives for connecting Generating Units or otherwise meeting a need identified in the CAISO planning process, including

alternatives that are not LCRIFs. In making this determination, the CAISO shall take into account, among other factors, the following:

- (1) The potential capacity of LCRIGs and the potential Energy that could be produced by LCRIGs in each Energy Resource Area;
- (2) The capacity of LCRIGs in the CAISO's interconnection queue for each Energy Resource Area;
- (3) The projected cost and in-service date of the facility in comparison with other transmission facilities that could connect LCRIGs to the CAISO Controlled Grid;
- (4) Whether, and if so, the extent to which the facility would provide additional reliability or economic benefits to the CAISO Controlled Grid; and
- (5) Whether, and if so, the extent to which the facility would create a risk of stranded costs.

\* \* \*

## **26 TRANSMISSION RATES AND CHARGES.**

\* \* \*

### **26.6 Location Constrained Resource Interconnection Facilities.**

The costs of an LCRIF shall be includable in a participating TO's High Voltage Revenue Requirement. Any Participating TO that owns an LCRIF shall set forth in its TO Tariff a charge payable by LCRIGs connected to that facility. The charge shall require each LCRIG to pay on a going forward basis its pro rata share of the Transmission Revenue Requirement associated with the LCRIF which shall be calculated based on the maximum capacity of the LCRIG relative to the capacity of the LCRIF. Each Participating TO shall credit its High Voltage TRR with revenues received from LCRIGs with respect to such charges either by recording such revenues in its TRBA or through another mechanism approved by FERC.

#### **26.6.1 Location Constrained Resource Interconnection Facilities that Become Network Facilities.**

If the construction of a new transmission facility or upgrade causes an LCRIF to become a network facility, then, effective on the in-service date of such new transmission facility or upgrade, the LCRIGs connected to the LCRIF shall not be required to pay charges described in Section 26.6. The LCRIGs shall remain responsible for charges due prior to that date.

\* \* \*

**ISO TARIFF APPENDIX A**  
**Master Definitions Supplement**

\* \* \*

**Energy Resource Area (ERA)** A geographic region certified by the California Public Utilities Commission and the California Energy Commission as an area in which multiple LCRIGs could be located, provided that, for the interim period before those agencies certify such areas and for LCRIFs that are proposed to connect LCRIGs located outside the State of California, an Energy Resource Area shall mean a geographic region that would be connected to the CAISO Controlled Grid by an LCRIF with respect to which the CAISO Governing Board determines that all of the requirements of Section 24.1.3 are satisfied, except for the requirement that the LCRIGs to which the LCRIF would connect are located in an area certified as an ERA by those agencies.

\* \* \*

**High Voltage**  
**Transmission Facility**

A transmission facility that is owned by a Participating TO or to which a Participating TO has an Entitlement that is represented by a Converted Right, that is under the CAISO Operational Control, and that operates at a voltage at or above 200 kilovolts, and supporting facilities, and the costs of which are not directly assigned to one or more specific customers-, provided that the High Voltage Transmission Facilities of a Participating TO shall include any Location Constrained Resource Interconnection Facility of that Participating TO that has been turned over to the CAISO's Operational Control.

\* \* \*

**Location Constrained**

A High Voltage Transmission Facility that has been determined

Resource Interconnection Facility (LCRIF)

by the CAISO to satisfy all of the requirements of Section 24.1.3.

\* \* \*

Location Constrained Resource Interconnection Generator (LCRIG)

A Generating Unit that (a) uses a primary fuel source or source of energy that is in a fixed location and cannot practicably be transported from that location; and (b) is located in an Energy Resource Area. Generating Units meeting criterion (a) shall include, but not be limited to, wind, solar, geothermal, hydroelectric, digester gas, landfill gas, ocean wave and ocean thermal tidal current Generating Units.

\* \* \*

Transmission Revenue Credit

For an Original Participating TO, the proceeds received from the CAISO for Wheeling service, FTR auction revenue and Usage Charges, plus the shortfall or surplus resulting from (a) the proceeds received from any cost differences between Transmission Losses and Ancillary Service requirements associated LCRIG with Existing Rights and the ISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. For a New Participating TO during the 10-year transition period described in Section 4 of Schedule 3 of Appendix F, the proceeds received from the ISO for Wheeling service and Net FTR Revenue, plus respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the Original Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. For a New Participating TO during the 10-year transition period

described in Section 4 of Schedule 3 of Appendix F, the proceeds received from the CAISO for Wheeling service and Net FTR Revenue, plus (a) the proceeds received from any LCRIG with respect to an LCRIF, unless FERC has approved an alternative mechanism to credit such proceeds against the New Participating TO's TRR, and (b) the shortfall or surplus resulting from any cost differences between Transmission Losses and Ancillary Service requirements associated with Existing Rights and the CAISO's rules and protocols, minus any Low Voltage Access Charge amounts paid for the use of the Low Voltage Transmission Facilities of a Non-Load-Serving Participating TO pursuant to Section 26.1 and Appendix F, Schedule 3, Section 13. After the 10-year transition period, the New Participating TO Transmission Revenue Credit shall be calculated the same as the Transmission Revenue Credit for the Original Participating TO.

\* \* \*

**Attachment C**

**Board Memorandum concerning the proposed LCRIF tariff amendment  
and attached Stakeholder Position Matrix**

# Memorandum

To: Board of Governors  
From: Charles A. King, P.E, Vice President, Market Development & Program Management  
Date: October 9, 2007  
Re: ***Location Constrained Resource Interconnection Policy***

---

***This memorandum requires Board action.***

## EXECUTIVE SUMMARY

Consistent with state and federal public policy initiatives, the CAISO seeks to promote the development of multiple-owner generation sites in which the location of the fuel source is fixed and infeasible or impractical to relocate. Examples of this include wind and solar powered generation facilities. In order to efficiently and effectively interconnect sites suitable for such "location constrained resources" to the transmission grid, transmission facilities of a proper size and capability are required. The scope of the required transmission investment to successfully tap a location-constrained fuel source often greatly exceeds the size and scope of projects brought forth by individual developers and consequently presents a significant barrier to project development and market entry. Furthermore, such location constrained areas are typically developed in small increments over a period of time as opposed to more conventional resources which are fully scoped at the project inception. Incremental transmission upgrades, to support the incremental development of location constrained resources, would be extremely costly and would significantly increase the regulatory uncertainty associated with such projects.

This financing proposal supports the full development of location constrained resources located in designated areas by facilitating sufficient funding to properly size the "end-state" transmission facilities, while at the same time avoiding the overburdening of the initial site developers with the entire transmission interconnection costs. The proposed financing method secures the funding of the needed transmission facilities through established rate structures, and then allows for incremental generation developers to "subscribe" to their respective pro-rata share of the transmission costs, consistent with the size and timing of their individual projects. Numerous safeguards are featured in the proposal which work together to insure that such transmission investments have a high probability of becoming fully subscribed over a reasonable period of time, thus avoiding the potential for the stranding of unused transmission assets.

Specifically, under this financing proposal, once a location constrained area has been designated by a regulatory authority, the appropriate Participating Transmission Owner (PTO) would proceed to finance and construct the end-state transmission project to take full advantage of location constrained fuel sources. The associated transmission

project would be deemed a "Location Constrained Resource Interconnection Facility" (LCRIF) and the associated PTO would recover the revenue requirements associated with this facility through its FERC-approved Transmission Revenue Requirement (TRR). As individual generation projects connect to the LCRIF, each would become responsible for its pro-rata share of the annual TRR payments. As with a conventional transmission project, the TRR associated with the unsubscribed portion of the LCRIF would continue to be collected, on behalf of the PTO, through the CAISO's access charges, which are comprised of the Transmission Access Charge (TAC), and the Wheeling Access Charge (WAC). This bifurcated funding arrangement would continue until the entire capacity of the LCRIF is subscribed at which time the full revenue requirement for the end-state transmission facility is completely supported by the subscribed generation facilities.

The key eligibility principles for a LCRI project are:

1. The transmission project must not otherwise be eligible for rate treatment that allows costs to be incorporated into the Transmission Access Charge (TAC).
2. The transmission project would permit wholesale transmission access to an area not readily accessible where there is a significant energy resource that is not feasible or practical to transport from that site.
3. The transmission project will to be turned over to the CAISO's operational control.
4. The transmission project is designed to serve multiple power plants.
5. The transmission project is evaluated within a prudent grid planning process involving the CAISO, affected utilities and stakeholders.
6. There will be a rate impact cap imposed to ensure the TAC rates mitigate the short-term cost impact on ratepayers.
7. The transmission project will be able to demonstrate adequate commercial interest among multiple generation developers.

The full proposal can be found in Attachment A.

#### **MOTION**

***Moved, that the ISO Board of Governors approve the Location Constrained Resource Interconnection Policy as outlined in the memorandum dated October 9, 2007 and related attachments; and***

***That the ISO Board of Governors authorize Management to make all the necessary and appropriate filings with the Federal Energy Regulatory Commission to implement this proposal.***

#### **BACKGROUND**

In 2006, Management, with the assistance of stakeholders, developed a proposal for a cost allocation methodology to address barriers to the development of transmission for location constrained resources (described above), originally referred to as the "Third Category of New Transmission Facilities". In October 2006, the Board of Governors approved the filing of a Petition for Declaratory Order with the Federal Energy Regulatory Commission (FERC) regarding this proposal.

In April of this year, FERC granted the CAISO's petition and accepted the design concepts proposed therein. Consequently, the CAISO initiated a dialog with its stakeholders to build out the design elements of the financing proposal and develop the necessary tariff language to implement it. In its declaratory order, FERC stated, among other things<sup>1</sup>:

- The "proposed rate treatment is not unduly preferential or discriminatory and includes protections to customers that are just and reasonable";
- It "strikes a reasonable balance that addresses the barriers to development of location-constrained resources and includes appropriate ratepayer protections"; and
- "the CAISO's proposal is consistent with and supports state, federal and regional policies that encourage the types of clean, renewable generation that are often location-constrained."

## ISSUE STATEMENT

The proposed Location Constrained Resource Interconnection Policy is a tool to facilitate the financing of efficient transmission facilities to fully exploit immovable fuel sources, while not imposing a prohibitive financial burden on the individual generation developers of such energy resources for which substantial commercial interest has been expressed. In the near-term, the ability to facilitate the financing and construction of such transmission facilities is critical to enabling the state of California to achieve its Renewable Portfolio Standard objectives.

## POSITIONS OF THE PARTIES

A matrix that summarizes stakeholder view on the options that were considered and the various features of this proposal is included in Attachment B. General comments related to the design of the Location Constrained Resource Interconnection include:

Minimum Percentage of capacity of eligible projects that must be subscribed pursuant to a Large Generator Interconnection Agreement before construction can commence – In the CAISO Petition for Declaratory Order, a two pronged test was established for purposes of determining whether a project had sufficient commercial interest before beginning construction. The first test required that the LCRIF had 25% - 35% of the capacity of the line subscribed through executed Large Generator Interconnection Agreements. FERC accepted this range with the knowledge that the exact percentage would be required for the tariff filing. Stakeholder input on this issue varied widely on this from as little as 10% (proposed by Clipper Windpower) to as high as 50% (proposed by the Bay Area Municipal Transmission Group and CMUA.) Generally, comments were within the range that was accepted by FERC. With this knowledge, the minimum percentage capacity of eligible projects that must be subscribed pursuant to a Large (or Small) Generator Interconnection Agreement ("LGIA/SGIA") was set at 25%. This percentage level is high enough for a substantial showing yet it does not constitute a barrier. Also, when combined with the second test (which follows), at least 60% of the line capacity has demonstrated some level of commercial interest.

Minimum percentage of demonstration of additional interest in an LCRIF project – The second test pertains to the amount of additional commercial interest in a LCRIF beyond the minimum 25% showing of executed LGIAs and /or SGIAs. In the Petition for Declaratory Order approved by FERC, the CAISO suggested a range of 25% - 35% for a showing of additional interest. As with the first test, there was an array of stakeholder responses. CalWEA stated that there should be no further test of commitment beyond the LGIA/SGIA requirement, while Imperial Irrigation District commented that the demonstration of additional interest along with the executed agreements test should equal 100% of the capacity of the proposed line. Most stakeholders' comments were within the range suggested in the Petition.

<sup>1</sup> <http://www.caiso.com/1bee/1bee7d3b3b4d0.doc>

Based on the range approved by FERC and the comments by stakeholders, the demonstration of additional interest in an LCRIF project was set at 35% of the total capacity of the proposed line. As mentioned above, the sum of these two tests will demonstrate that over half of the capacity of the proposed line has some degree of demonstrated commercial interest.

Appropriate criteria for demonstrating additional interest – In addition to setting the appropriate level of additional interest that is required, the specific criteria for demonstrating that there are sufficient qualifying projects to warrant investment in the transmission infrastructure was a question that was left unanswered in the Petition for Declaratory Order. There were several rounds of proposals and stakeholder comments to narrow down the field of possible criteria. Initially, the most prominent suggestions for attributes of projects that would warrant the construction of new LCR transmission proposed by stakeholders were:

- A project that is in process of completing the LGIP (responses varied as to the exact stage)
- A monetary deposit
- A signed declaration of intent
- A completed Power Purchase Agreement
- A project that is in the CAISO interconnection queue
- Controlling land or mineral rights
- Participate in an Open Season

At the conclusion of the stakeholder process, the following three criteria were deemed appropriate to demonstrate adequate additional interest in a project over and above the requirement that 25% of the proposed line's total capacity be subscribed through executed LGIA/SGIAs:

- Additional executed LGIA/SGIAs
- Signed Power Purchase Agreements (5 year minimum term)
- A deposit equal to the applicable minimum deposits required for an applicant for connection to the ISO Controlled Grid in connection with all required studies.

Allocation of costs to wheel-through customers through TAC – In its Order, FERC required that the CAISO clarify what if any costs would be allocated to wheel-through customers and their corresponding benefits. Most stakeholders who commented agreed that these customers receive benefits from LCRIFs and should be allocated costs no differently than other customers. Imperial Irrigation District dissented, arguing that wheel-through customers do not benefit from LCRIFs and should not be allocated the TAC associated with these projects.

Management determined that wheel-through customers benefit in many ways from these types of projects, just as other customers do and should be allocated their share of the costs in the TAC accordingly. In particular, wheel-through customers will benefit from LCRIFs in the following ways: (1) they provide additional resource interconnections to help relieve congestion; (2) they provide additional opportunities to meet the state's RPS goals; (3) the CAISO operates an integrated transmission system (which will include LCRIFs under the CAISO's operational control) used to serve all customers, including wheel-through customers; and (4) LCRIFs will improve system flexibility and reliability, thereby benefiting all customers. In addition, the Transmission Revenue Requirements (TRRs) of PTOs are currently calculated in the same way for purposes of establishing the Transmission Access and Wheeling Access charges; the CAISO does not believe that TRRs should be calculated differently with respect to the costs of LCRIFs.

Selection of Energy Resource Areas – FERC ordered that the CAISO provide additional detail on the process for identifying Energy Resource Areas. In its Petition, the CAISO suggested that a state entity identify and assess these areas. Most stakeholders supported the idea that the California Energy Commission, the California Public Utilities Commission or the Renewable Energy Transmission Initiative (comprised of the CPUC, CEC, CAISO and representatives of publicly-owned utilities) be the appropriate party to select these areas. CalWEA suggested that the

CAISO use the interconnection queue to identify Energy Resource Areas and Imperial Irrigation District proposed that if the Energy Resource was outside of the CAISO balancing authority area, WECC approval should be considered.

Eligibility for the proposed rate treatment will depend upon a LCRIF's location in an Energy Resource Areas ("ERA") jointly certified by the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC).

Another issue raised by stakeholders concerned the limited amount of time available to the CPUC and the CEC to develop the criteria for designating ERAs prior to the implementation of the LCRI process. The CAISO proposes that prior to the completion of the initial ERA designation process, if the CAISO determines that a LCRIF proposed by the CAISO, a PTO, or a non-Participating TO sponsor meets all of the criteria **except** the requirement to be located in a designated ERA the CAISO will bring the project before the California ISO Board of Governors for approval.

#### **MANAGEMENT RECOMMENDATION**

Management recommends that the Board approve this proposal and authorize Management to file the associated tariff changes with FERC.

**Attachment A**



**California ISO**  
Your Link to Power

---

**California ISO Proposal for  
Location Constrained Resource  
Interconnection**

**October 1, 2007**

# Location Constrained Resource Interconnection Draft Proposal

## Table of Contents

1	Executive Summary .....	3
2	Background .....	4
2.1	CAISO Petition for Declaratory Order .....	4
2.2	Order Granting Petition for Declaratory Order .....	4
3	Key Principles for Eligibility.....	5
3.1	The transmission project must not otherwise be eligible for rate treatment that allows costs to be incorporated into the Transmission Revenue Requirement of a PTO.....	5
3.2	The transmission project would permit wholesale transmission access to an area not readily accessible where there is a significant energy resource that is not transportable. ....	6
3.3	The transmission project will be turned over to the CAISO's operational control. ....	6
3.4	The transmission project is designed to serve multiple power plants.....	6
3.5	The transmission project is evaluated within a prudent grid planning process involving the CAISO, affected utilities and stakeholders. ....	7
3.6	There will be a rate impact cap imposed to ensure the TAC rates mitigate the short-term cost impact on ratepayers.....	9
3.7	The transmission project will be able to demonstrate adequate commercial interest among multiple generation developers. ....	9
4	Coordination with Order 890.....	10
5	Summary of Stakeholder Process and Input.....	11

# Location Constrained Resource Interconnection Proposal

## 1 Executive Summary

The potential exists for the development of significant generation resources that may be constrained as a result of their location in areas that are not readily accessible to the CAISO grid and the general immobility of their fuel source (referred to hereinafter as "location constrained resources"). Many CAISO stakeholders have stated that the cost of transmission interconnection facilities constitutes a significant barrier to the development of location constrained resources. Most obviously, the production of electricity through wind, solar, biomass and other technologies is limited to certain geographical regions with very little nearby load but vast potential for energy supply. Power plants in these regions often require long-distance, high-voltage transmission lines to interconnect to the high-voltage transmission grid. As a result the costs of such interconnection facilities are considerably greater than the costs of traditional generator tie-lines that are used to connect generators that are located closer to the CAISO grid. Moreover, location constrained resources typically are developed by multiple developers in relatively small increments over a period of time.

The construction costs associated with an interconnection facility that can efficiently handle the output from multiple location constrained resources that are likely to be developed in these regions constitutes too great a financing hurdle for the first generation developer(s). To address these barriers to the development of transmission for location constrained resources, the CAISO is proposing an innovative approach to financing transmission facilities that will connect Energy Resource Areas to the grid.

Under the CAISO's proposal, a Participating Transmission Owner ("PTO") would finance the costs of a transmission project that connects location-constrained resources to the transmission network – a Location Constrained Resource Interconnection Facility ("LCRIF") – initially through its FERC-approved transmission revenue requirement ("TRR"), and generators would become responsible for their *pro rata* share of these annual payments as they come on line and use the facilities. Thus, the costs for the unsubscribed portion of LCRIFs will be collected through the CAISO's Access Charges, the Transmission Access Charge ("TAC") and the Wheeling Access Charge, rather than assigning all of the costs to the initial increment of location-constrained generation facilities. As more generation is developed in the area, the revenue requirement for the facilities would be transferred to the generators that have come on line and the TRR credited with the generators' payments until the entire cost of the LCRIF is recovered from the generation resources in the area.

This proposal brings together the principles that were identified in the Petition for Declaratory Order (which was granted by FERC) and stakeholder input from written comments as well as feedback that the Location Constrained Resource Interconnection ("LCRI") team received at the July 27<sup>th</sup> stakeholder meeting, the August 30<sup>th</sup> and September 21<sup>st</sup> conference call. Please note that the name of this initiative has been changed from "Remote Resource Interconnection" ("RRI") to "Location Constrained Resource Interconnection" ("LCRI") because it is more closely reflects the intent of this proposal.

## **2 Background**

The CAISO began developing this initiative along with stakeholders in 2006, producing a white paper entitled "Proposal to Remove Barriers to Efficient Transmission". In October of that year, the Board of Governors approved the plan to file a petition with FERC for a Declaratory Order in preparation for a later tariff filing.

### **2.1 CAISO Petition for Declaratory Order**

On January 25, 2007, the CAISO filed a Petition with FERC for a Declaratory Order seeking conceptual approval of a new financing mechanism to facilitate the construction of interconnection facilities for location-constrained resources. On April 19, 2007, FERC granted the CAISO's petition and accepted the design concepts proposed therein, thereby paving the way for the CAISO, in cooperation with its stakeholders, to develop and file tariff language for implementing this important policy initiative. The LCRI draft proposal reflects the CAISO's consideration of feedback it received from stakeholders, as well as the guidance the CAISO received from FERC in its April 19 Order, and lays out a second draft of a proposal which will be reflected in tariff language and filed with FERC no later than October 31, 2007.

The CAISO's proposal can be summarized as follows:

Participating Transmission Owners would pay the up-front costs of constructing Location Constrained Resource Interconnection Transmission Facilities, *i.e.*, LCRIFs. The costs of the unsubscribed capacity of qualifying LCRIFs will be rolled into the TRR of the relevant PTO, and therefore into the CAISO's Access Charges. As additional generation resources are developed in the area and connect to the LCRIFs, cost recovery will be transferred on a going forward basis to those new generation owners on a "pro rata" basis, and the revenues credited against the costs included in the TRR. Once the anticipated generation is fully developed, the going forward costs of the project will be borne entirely by generation developers and will not be included in the TRR recovered through the CAISO's access charges. Thus, under the CAISO's proposal, the costs associated with the unsubscribed portion of the qualifying facilities will be included in TAC and the Wheeling Access Charge, until additional generators are interconnected, at which time costs will be directly assigned to such generators.

The proposal allows for multiple developers to pay for their share of the capacity of a line as they come on-line. The CAISO's proposal will promote the construction of transmission interconnection facilities to connect remote regions to the grid where location constrained resources are located. Also, the CAISO's proposal will facilitate the optimal sizing of such interconnection facilities in order to capture efficiencies in areas with large potential for location-constrained resources. As more generation is developed in the area, the revenue requirement for the facilities would be transferred from the CAISO access charges to the specific generation developers until such time as the developers are fully responsible for the entire cost of the transmission facilities, similar to the current cost treatment for generator tie-lines.

### **2.2 Order Granting Petition for Declaratory Order**

On April 19, 2007 FERC granted the CAISO's petition for Declaratory Order. FERC agreed with a number of the proposals and left others open for consideration during the stakeholder process.

The Commission made the following determinations:

- "Proposed rate treatment is not unduly preferential or discriminatory and includes protections to customers that are just and reasonable"(P2)
- "Strikes a reasonable balance that addresses the barriers to development of location-constrained resources and includes appropriate ratepayer protections" (P3)
- "the CAISO's proposal is consistent with and supports state, federal and regional policies that encourage the types of clean, renewable generation that are often location-constrained" (P68)
- "the CAISO proposal should be limited to 'wires only,' and that the CAISO 's proposal is still subject to Commission review under FPA section 205 when the CAISO files tariff provision to implement the proposal"(P88)
- All resources meeting the definition of location constrained should be eligible under the CAISO's proposal (PP 74-75)

Additionally, FERC identified several issues that needed clarification. These issues have been addressed by the current proposal. They include the following:

- "clarify in its eventual tariff filing what if any costs would be allocated to wheel-through customers and their corresponding benefits" (P86)
- Subscription levels and the rate impact cap – FERC declined to rule but stated that "we preliminarily accept the ranges proposed as they strike an appropriate balance between encouraging the development of location constrained resources on one hand and protecting ratepayers on the other" and "the overall requirements should be finalized in the stakeholder process" (P89)
- "The process for identifying an energy resource area under the CAISO's proposal is ambiguous...We expect eventual tariff provision will make clear how these areas will be selected". (P90)
- "Any project financed through this mechanism would be subject to an independent regional transmission planning process that must define the benefits a facility provides to the grid." (P63)

### **3 Key Principles for Eligibility**

The CAISO's proposal, accepted by FERC, contains the key principles which are the basis for this proposal. They are:

#### **3.1 The transmission project must not otherwise be eligible for rate treatment that allows costs to be incorporated into the Transmission Revenue Requirement of a PTO.**

To be eligible for the rate treatment proposed by the CAISO, a qualifying LCRIF cannot otherwise be eligible for rate treatment that would allow its costs to be incorporated into the TRR of a PTO *i.e.*, it must not meet the definition of a network facility under FERC precedent.

Additionally, the CAISO's petition for declaratory order focused on the inclusion of the costs of LCRIFs in the TAC. In FERC's order granting the CAISO's petition for declaratory order, the question was raised whether wheel-through customers who pay Wheeling Access Charges would receive benefits from LCRIFs and whether they should be allocated the costs through the TAC in the same manner as other transmission customers. This issue was vetted through written stakeholder comments as well as discussion during the stakeholder meeting on July 27<sup>th</sup> and the conference call on August 30<sup>th</sup>. Based on this feedback the CAISO determined that wheel-through customers benefit in many ways from these types of projects, just as other customers do and should be allocated their share of the costs in the TAC accordingly. In

particular, wheel-through customers will benefit from LCRIFs in the following ways: (1) they provide additional resource interconnections to help relieve congestion; (2) they provide additional opportunities to meet the state's RPS goals; (3) the CAISO operates an integrated transmission system (which will include LCRIFs under the CAISO's operational control) used to serve all customers, including wheel-through customers; and (4) LCRIFs will improve system flexibility and reliability, thereby benefiting all customers. In addition, the TRRs of PTOs are currently calculated in the same way for purposes of establishing the Transmission Access and Wheeling Access charges; the CAISO does not believe that TRRs should be calculated differently with respect to the costs of LCRIFs.

### **3.2 The transmission project would permit wholesale transmission access to an area not readily accessible where there is a significant energy resource that is not transportable.**

This proposal addresses the current problem faced by developers who are likely to develop location-constrained generation resources in areas that are not already accessible to the grid. Transmission facilities that are necessary to connect these locationally constrained resources would be eligible for the LCRI financing mechanism. To qualify for the treatment proposed herein, a line must connect to location-constrained resources including, but not limited to, the following types of resources-- wind, solar, biomass, geothermal, photovoltaic, hydroelectric, fuel cells using renewable fuel, digester gas, municipal solid waste, landfill gas, ocean wave and ocean thermal tidal current.

Eligibility for the proposed rate treatment will depend upon a LCRIF's location in an Energy Resource Areas ("ERA") jointly certified by the California Public Utilities Commission ("CPUC") and the California Energy Commission ("CEC"). Generation located in one of these areas is not required to use the LCRIF methodology to connect to CAISO grid; it is simply an option, *i.e.*, one "tool in the toolbox".

An issue raised by stakeholders concerns the limited amount of time available to the CPUC and the CEC to develop the criteria for designating ERAs prior to the implementation of the LCRI process. The CAISO proposes that prior to the completion of the ERA designation process, if the CAISO determines that a LCRIF proposed by the CAISO, a PTO, or a non-Participating TO sponsor meets all of the criteria **except** the requirement to be located in an ERA the CAISO will bring the project before the California ISO Board of Governors for approval.

Potential LCRIFs that are outside of the State of California which meet all of the criteria except for the ERA requirement will require CAISO Board of Governors approval.

### **3.3 The transmission project will be turned over to the CAISO's operational control.**

This proposal is targeted toward High-Voltage transmission facilities that are will be under CAISO's operational control.

### **3.4 The transmission project is designed to serve multiple power plants.**

This proposal is targeted toward bulk-transfer transmission facilities that can efficiently serve multiple (more than one) generating resources. These locationally constrained resources would each individually, which may be developed over a period of time, have capacity that is significantly smaller than the total transfer capability of the transmission facilities.

### **3.5 The transmission project is evaluated within a prudent grid planning process involving the CAISO, affected utilities and stakeholders.**

The CAISO is developing transmission planning processes in compliance with FERC's Order No. 890, which FERC has required to be filed as an attachment to the CAISO Tariff by December 7, 2007. The filing will incorporate stakeholder input, as well as allowing Project Sponsors to submit proposed LCRIFs during an "Open Season" to be evaluated in the transmission planning process. The transmission planning process will include in its evaluation the potential for a flexible and robust transmission plan beyond the proposed connection of the LCRIFs to the CAISO Controlled Grid. In addition, the CAISO transmission planning process also includes language of regional participation through the California Sub-Regional Planning Group ("CSPG"). For non-PTO's projects that are proposed to be competing with PTO's projects to access resources in the same ERAs, the CAISO proposes that the resolution of competing projects be resolved through participation in the CSPG.

The CAISO proposes the following process, consistent with its annual transmission planning process, to evaluate proposed LCRIFs that are to be located under the CAISO's operational control (this process is summarized in the chart presented as Attachment A):

#### **3.5.1 Submittal/Application of proposed LCRIFs**

The CAISO proposes the following project justification and technical data requirements (aka Project Justification and Technical Study) when a PTO or other Project Proponent submits their proposed LCRI transmission project to the CAISO for evaluation:

- a. Provides detailed information in meeting Key Principles 3.1, 3.2, 3.3, 3.4 and 3.7;
- b. Has detailed transmission studies which include power flow, short circuit and transient stability analyses to demonstrate that the proposed project meets applicable CAISO/WECC/NERC Grid Planning Standards;
- c. Includes several transmission alternatives (the CAISO suggests having at least three);
- d. Provides planning level cost estimates for the proposed transmission project as well as its alternatives;
- e. Provides a conceptual network transmission plan for future connection of the proposed LCRIF;
- f. Provides an estimate for the operating date;
- g. Provides a conceptual plan for connecting potential generation projects in the area if this information is known.

Upon receiving the Project Justification, the CAISO will review to determine whether the proposed submittal meets the data requirements above. The CAISO will provide a letter response to the Project Proponent within 30 calendar days to notify whether or not the project submittal meets the above data requirements. The CAISO will include the proposed project in the CAISO Transmission Plan in its following year's transmission planning process (please see "Open Season" discussion in Section 4.5.2 below).

#### **3.5.2 Open Season**

The proposed LCRIF transmission project must be submitted to the CAISO during the Open Season of the annual transmission planning process, which lasts from January 1<sup>st</sup> to November

1<sup>st</sup> for the following year's evaluation (i.e., submittal of the projects from January 1<sup>st</sup> – November 1<sup>st</sup>, 2008 for the CAISO transmission planning process that occurs in 2009.

### **3.5.3 Evaluation of Proposed LCRIF Transmission Project(s)**

If a proposed LCRIF transmission project meets the information adequacy requirements as outlined in Section 3.5.1, the CAISO will include the proposed project in its annual transmission planning process in the following year. The proposed transmission project will be included in the Study Plan of the CAISO annual transmission plan for further detailed evaluation and approval. The CAISO annual transmission planning process is a stakeholder process that includes the CAISO, PTOs and stakeholders. This process will be described in greater detail in the CAISO's Order No. 890 compliance filing.

In evaluating the proposed LCRIF transmission project(s), the CAISO considers the following key elements:

- a. Meeting Key Principles 3.1, 3.2, 3.3, 3.4 and 3.7;
- b. Meeting or surpassing applicable CAISO/WECC/NERC Grid Planning Standards;
- c. Having a flexible and robust transmission plan for LCRIFs (i.e., the proposed transmission plan is robust that it can be expanded to network facilities in the future, yet flexible to accommodate the initial proposed location-constrained generation interconnections);
- d. Performing cost-benefit analysis for each proposed LCRIF project. As part of the CAISO's transmission planning process, the CAISO will perform an economic analysis to evaluate the estimated costs and benefits each project will bring to the CAISO system in order to meet future demand requirements, including the California RPS requirements. The costs and benefits of proposed LCRIF projects will be compared with that of other LCRIF projects and alternatives that will meet the same requirements, such as the RPS. According to the outcomes of the analyses, as well as other transmission planning considerations, the CAISO will rank and prioritize the proposed LCRIF projects and alternatives and approve projects based on the ranking. In performing this analysis, the CAISO will consider the following elements in its evaluation:
  - i. Maximum potential capacity for location-constrained generation (obtained from the State regulatory agencies);
  - ii. Maximum potential energy for meeting the State RPS goals;
  - iii. Various transmission alternatives to determine the most cost-effective transmission plan;
  - iv. Total capacity of generation projects in the CAISO generation queue for each of the ERA;
  - v. Fuel diversity (as an example, an ERA for wind energy is selected in conjunction with either geothermal and/or solar energy to provide fuel diversity portfolio);
  - vi. Distance to the nearest possible CAISO transmission bulk facility (for connection to the CAISO controlled grid);
  - vii. Potential viable transmission route;

- viii. Order of magnitude of transmission cost per MW for the LCRIFs to deliver energy to the load centers;
- ix. Realistic commercial operating dates for location-constrained projects and the transmission LCRIFs;
- x. Potential impact on the TAC;
- xi. Potential operational/congestion/reliability benefits of the facility;
- xii. Stranded cost risk and potential impact

### **3.5.4 Competing Projects from a Non-PTO**

In the event that a competing project is proposed by a non-PTO, the CAISO proposes that the evaluation of similarly situated transmission projects be evaluated by the proposed California Sub-Regional Planning Group ("CSPG"). The CSPG is a newly proposed sub-regional planning group to address seams issues for transmission owners and stakeholders in California and neighboring utilities. More detailed discussion on the CSPG will be provided in the CAISO's Order 890 compliance filing.

### **3.6 There will be a rate impact cap imposed to ensure the TAC rates mitigate the short-term cost impact on ratepayers.**

The total investment in interconnection facilities that can be included in the TAC cannot exceed 15 percent (15%) of the sum total of the net high-voltage transmission plant of all PTOs as reflected in their Transmission Revenue Requirement ("TRR") and in the TAC. In Attachment H to the petition for declaratory order, the CAISO provided an illustrative analysis of the proposed asset-based cap based on the total net high-voltage transmission plant investment of the following PTOs: PG&E, SCE, and San Diego Gas & Electric Company ("SDG&E"). The CAISO's illustrative calculations indicated that the total net high-voltage transmission plant investment of these PTOs at that time was \$3,199,765,286.<sup>1</sup> Applying the 15 percent cap to that amount would result in an "aggregate cap" amount of \$479,964,793 under current circumstances. Further, applying the general rule of thumb in the electric industry that the annual fixed (carrying) cost for plant is approximately 20 percent of the cost of plant capital,<sup>2</sup> the resulting maximum rate impact the CAISO's proposal could have under the then-current level of net high voltage transmission plant would be an increase in high-voltage TRRs of \$95,992,959, i.e., a maximum increase of approximately 16.04% over the current CAISO high-voltage TAC. As the total amount of net high voltage transmission plant included in the PTOs' TRRs change, the level of the 15 percent aggregate cap likewise will change.

### **3.7 The transmission project will be able to demonstrate adequate commercial interest among multiple generation developers.**

As an additional safeguard to ensure the viability of LCRIF projects and to mitigate the risk of stranded costs, a demonstration of commercial interest will be required for this alternative

<sup>1</sup> Attachment H to the Petition for Declaratory Order (<http://www.aiso.com/1b71/1b71d1263dad0.pdf>) contains all of the calculations that are described in the paragraph above, and also shows the means of calculating the net high-voltage transmission plant for PG&E, SCE, and SDG&E. The CAISO emphasizes that these calculations are for illustrative purposes only.

<sup>2</sup> See *Western Systems Power Pool*, 55 FERC ¶ 61,099, at 61,325 (1991).

cost treatment. The CAISO proposed a two-pronged test: (a) the CAISO will require that 25% of the capacity of the new LCRIF be "subscribed" pursuant to executed Large Generator or Small Generator Interconnection Agreement ("LGIA" or "SGIA") prior to commencement of construction of the LCRIF; and (b) there must be a showing of additional interest in the project representing 35% of the capacity above and beyond the percentage LGIA/SGIA capacity required in (a). Both prongs of this test must be satisfied before construction of an LCRI transmission facility commences.

### **3.7.1 Test of adequate subscription through executed agreements**

The CAISO proposed in the Declaratory Order for the minimum percentage of capacity that must be subscribed pursuant to LGIAs before commencing construction was in the range of 25% - 35%. FERC preliminarily accepted this range; so this was the starting point for developing the amount required in our proposal. The percentage that is the most equitable in balancing the ability to spur initial investment in a project while minimizing the risk to ratepayers is 25%. The CAISO agreed with stakeholders that this percentage should be considered in coordination with the expressions of additional interest. The combined commercial interest showing before construction can commence would be 60%. That is, 25% of the capacity of the LCRIF is subscribed through an executed LGIA/SGIA and an additional 35% of the capacity of the LCRIF has expressed adequate additional interest. The Small Generator Interconnection Agreement ("SGIA") also meets the qualifications for this test.

### **3.7.2 Test of adequate additional interest**

The CAISO proposed in the Petition for Declaratory Order that the minimum percentage of additional interest should be in the range of 25% - 35% which FERC accepted preliminarily. The CAISO proposes is to set the minimum percentage of addition at 35%. As mentioned above, combining this with the requirement that at least 25% minimum of the capacity be subject to executed LGIAs/SGIAs should provide adequate protection for the ratepayers, while at the same time provide an attainable threshold for developers. Again the CAISO stresses that the commercial interest test only applies to when construction of the LCRIF can commence. It does not preclude any prior designation of ERAs or selection of an LCRIF to connect a particular ERA.

The expression of additional interest can be shown in the following ways:

- LGIAs or SGIA's exceeding the 25% minimum for the showing of executed agreements above,
- Power Purchase Agreements ("PPA") -- Projects that are supported by signed firm power purchase agreements demonstrate a degree of commitment and should count toward the showing of additional interest.
- A deposit equal to the sum of the minimum deposits required of an applicant for interconnection to the ISO Controlled Grid in connection with all required studies. This amount will be reduced by deposits actually paid by the LCRI generator for these studies to the extent that it exceeds the costs incurred by the CAISO if the LCRIF is not approved or withdrawn.

## **4 Coordination with Order 890**

Proposed LCRIFs will be evaluated and decisions will be granted as part of the overall CAISO transmission planning process. This process is being developed as part of the CAISO's FERC

Order No. 890 Compliance filing. FERC has required that public utilities, including the CAISO, file by December 7, 2007 an attachment to their tariffs setting forth a transmission planning process that is compliant with Order No. 890. Thus, the detailed CAISO transmission planning process, including the process applicable to LCRIFs which are described in Section 3.4 of Attachment A, will be set forth in the CAISO's Order No. 890 compliance filing on December 7, not in the LCRI tariff filing.

Currently the processes in the LCRI are proposed based on the CAISO transmission planning process that will be filed in compliance with Order No. 890. The relations between the Order 890 transmission planning process and the LCRI include the following:

- **Open Season:** the process outlined in Section 3.5.2 assumes that we have the "Open Season" under Order No. 890;
- **CAISO Transmission Planning Process:** as outlined in Section 3.5, the proposed LCRI transmission projects, if having sufficient data as outlined in Section 3.5.1, are proposed to be included in the CAISO annual transmission planning process for further evaluation and approval.

## 5 Summary of Stakeholder Process and Input

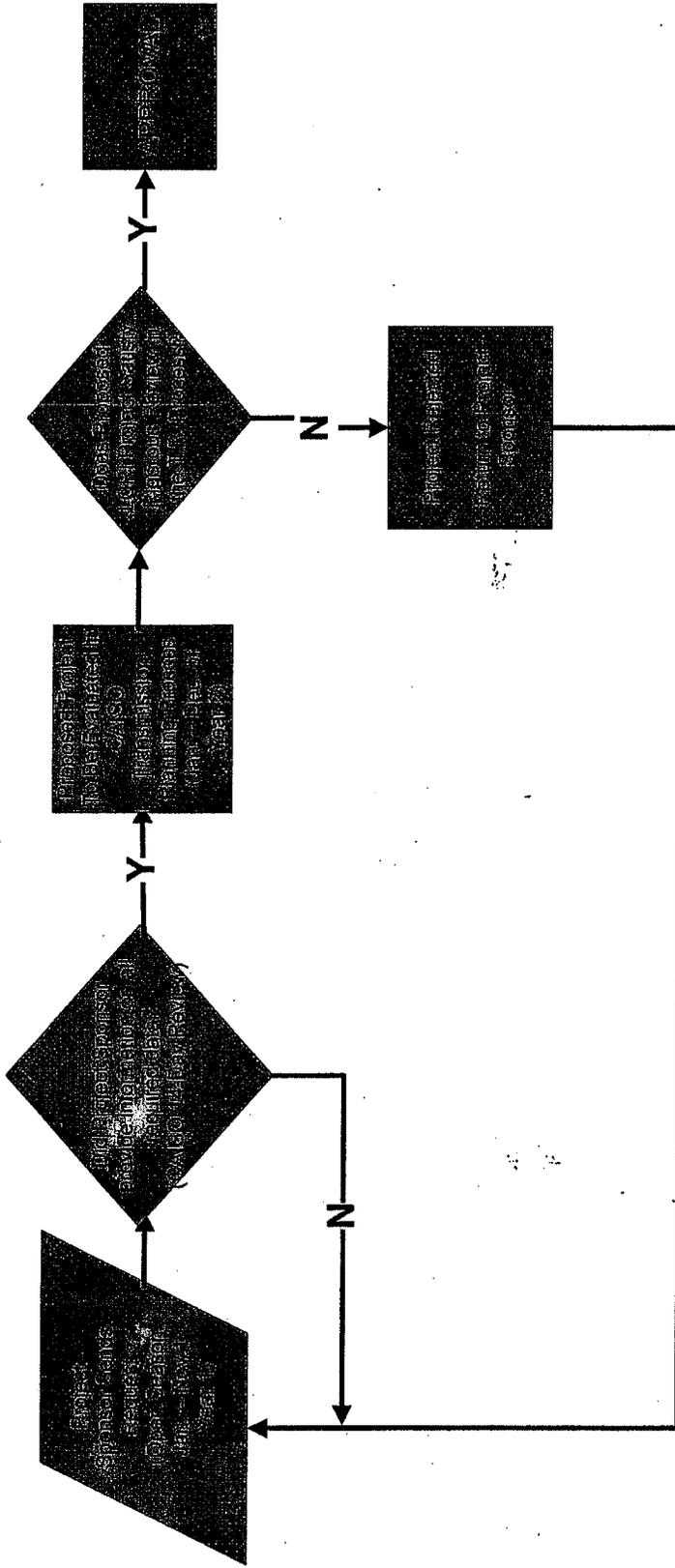
Date	Stakeholder Engagement
July 7, 2006	Stakeholder Meeting – Panel discussion of "Evaluation of Transmission Project for Renewable Resources"
July 14, 2006	Stakeholder written comments gathered on based on panel discussion
September 21, 2006	White Paper on Third Category of Transmission posted
September 29, 2006	Conference Call to review Third Category of Transmission paper
October 10, 2006	Stakeholder written comments gathered on the Third Category of Transmission
January 25, 2007	Filing of the Petition for Declaratory Order
February 22, 2007	Due date for filing interventions or protests
April 19, 2007	FERC Order Granting the Petition for Declaratory Order
June 15, 2007	Stakeholder written comments gathered on outstanding issues outlined in Declaratory Order
July 27, 2007	Meeting to discuss the Remote Resource Interconnection Policy Proposal
August 2, 2007	Stakeholder written comments gathered on RRI proposal
August 23, 2007	RRI Proposal posted on the CAISO website
August 30, 2007	Stakeholder Conference Call to review proposal
September 5, 2007	Stakeholder comments on Proposal Due
September 14, 2007	LCRI Near Final Proposal posted on CAISO website
September 21, 2007	Stakeholder conference call for final review

September 26, 2007	Stakeholder comments on Near-Final Proposal due
October 1, 2007	Draft Tariff Language Posted
October 15, 2007	Stakeholder comments due on Tariff Language
October 17, 18, 2007	Board of Governors Meeting
October 22, 2007	Conference Call on LCRI Tariff Language

# ATTACHMENT A

## PROCESS DIAGRAM FOR LCRIF EVALUATION

**DRAFT – not to be released outside of the CAISO**



**Stakeholder Process: Location Constrained Resource Interconnection**

**Summary of Submitted Comments**

Stakeholders submitted [insert “two”, “three”, etc.] rounds of written comments to the CAISO on the following dates:

- Round One, 07/14/06<sup>1</sup>
- Round Two, 10/10/06
- Round Three, 06/15/07
- Round Four, 08/02/07
- Round Five, 09/05/07
- Round Six, 09/26/07
- Round Seven, 10/15/07 (Tariff Language Comments)

Stakeholder comments are posted at: <http://www.caiso.com/1816/1816d22953ec0.html>

**Other stakeholder efforts include:**

- Conference Calls
  - 09/26/06
  - 08/30/07
  - 09/21/07
- In-Person Meetings
  - 07/07/06
  - 07/27/07
- Several one-on-one calls with stakeholder as requested.
- Multiple presentations at industry events and conferences.

---

<sup>1</sup> These dates include stakeholder efforts leading up to the filing of the Declaratory Order – January, 2007.

Management Proposal	California Public Utilities Commission	Renewable Generation Requirements	Multiple Utility Districts	Local Power Sector (DCA/DP)	Management Response
<p>Support</p> <p>All Wheel Through customers will benefit from these types of facilities and should be charged no differently</p>	<p>Support</p> <p>All Wheel Through customers will benefit from these types of facilities and should be charged no differently</p>	<p>Support/Oppose</p> <p>Clipper Windpower and Cal WEA support the management response</p> <p>Sempra Generation Opposes the allocation of TAC costs to wheel through customers</p>	<p>Oppose/Support</p> <p>IID opposes allocating TAC costs to wheel through customers arguing that they do not benefit from this type of facility and should not be assessed charges.</p> <p>Bay Area Municipal Utility supports the management response</p> <p>SMUD and CMUA argued that other factors need to be considered.</p> <p>IID: 40% - 50%</p>	<p>Support</p> <p>All Wheel Through customers will benefit from these types of facilities and should be charged no differently</p>	<p>Wheel Through Customers benefit in many ways from these types of projects, just as other customers do and should be allocated their share of the TAC accordingly.</p>
<p>Allocate TAC costs including Wheel Through customers</p>	<p>25% - 30%</p>	<p>Cal WEA: 25% - 30%</p>	<p>IID: 40% - 50%</p>	<p>PG&amp;E: 35% SCE: Prefers 15% but, accepts 25%</p>	<p>A minimum of 25% of the capacity of the LCRIF is subscribed through an executed LGIA/SGIA in coordination with demonstration of additional interest (next line in this table) before construction can commence.</p>
<p>Second prong of two prong test - 25% - 35% minimum capacity that should be demonstrated (beyond the first prong capacity) before</p>	<p>25% - 35%</p>	<p>Cal WEA: There is no basis for a hard numeric test or further requirement over and above the LGIA/SGIA requirement</p>	<p>IID: 50% - 60% A demonstration of additional interest should be demonstrated for all the capacity over an above the LGIA/SGIA subscription requirement.</p>	<p>PG&amp;E: 25% - 35% SCE: No less than 25%</p>	<p>A demonstration of additional interest in an LCRIF (over and above the first prong test) should be no less than 35% of the capacity before construction can commence. The sum of the two prong test ensures that at least 60% of the line has demonstrated some level of interest in the project.</p>

Management Approval	California Public Utilities Commission	Renewable Generation Requirements	Municipal Utilities District	PG&E, SCE, SDG&E	Management Response
<p>construction can commence</p> <p>{</p> <p>Appropriate Criteria for demonstrating additional interest</p>	<p>-Signed LGIA</p> <p>-Power Purchase Agreements</p> <p>-Reach Facilities Studies Stage of LGIP</p> <p>-A combined condition criteria including residing in the interconnection queue or signing a declaration of intent or participating in an open season for the 1<sup>st</sup> condition. 2<sup>nd</sup> condition is a \$/kw deposit.</p>	<p>Cal WEA: -</p> <p>Control of the land</p> <p>-PPAs (CPUC standard language)</p> <p>-Should be consistent with the queue process.</p> <p>-No additional deposits.</p>	<p>IID: -Verified renewable capacity</p> <p>-Confirmation of financing</p> <p>-Ownership of rights to land</p> <p>-Ownership of rights to mineral rights or renewable resources</p> <p>-Demonstrated demand for additional renewable resource</p> <p>-Amount of \$ similar to the total GMC a generator would pay over a one month period.</p> <p>Support</p>	<p>PG&amp;E, SCE: 10% of the developers share of the proposed LCRIF's capital costs.</p>	<p>Additional interest can be demonstrated by:</p> <ul style="list-style-type: none"> <li>-LGIA/SGIA over and above first 25% of capacity of the line.</li> <li>-Firm power sales agreement</li> <li>-A deposit equal to the sum of the minimum deposits required by an applicant in the LGIP for all required studies.</li> </ul>
<p>Energy Resource Areas (ERAs) should be designated by a "State Regulatory Agency". Until designation has been completed an interim approach is needed.</p>	<p>Support</p> <p>CPUC and CEC will determine joint certification of Energy Resource Areas. This process will need to be coordinated with the RETI initiative. An interim approach may be needed.</p>	<p>Oppose/Support</p> <p>Cal WEA: ERAs should be defined by resources in the interconnection queue</p> <p>Clipper</p> <p>Windpower: the CEC should administer the process of identifying and assessing ERAs.</p>	<p>IID: ERAs should be designated by State Agencies or RETI.</p> <p>Interconnection queue should not be used.</p> <p>Bay Area Municipal Utilities and CMUA:</p> <p>Designation of ERAs should be coordinated between state regulatory agencies and local governing bodies.</p>	<p>Conditional</p> <p>PG&amp;E: ERAs should be a subset of CREZ (RETI designation). In the interim, the interconnection queue could be used to relieve the backlog.</p> <p>SCE: In the interim the interconnection queue could be used to designate provisional ERAs</p>	<p>The CPUC and CEC will provide joint certification of Energy Resource Areas. If an interim approach is required and a project meets the other six required criteria, the CAISO will seek project approval from the Board of Governors.</p>

Management Proposal	California Public Utilities Commission	Rate of Return (Generation) Appropriateness	Multiple Utilities District	Joint PG&E, SCE, SDG&E	Management Response
<p>Provide a "pre-designation" status for projects that have met all criteria with the exception of the showing of commercial interest</p>	<p>Support Provides a proactive signal to developers.</p>	<p>Oppose LCRI projects should be based on the interconnection queue and pre-designation could cause delay in completing studies.</p>	<p>Oppose CAISO should not take on additional work.</p>	<p>Oppose PG&amp;E: Adequate commercial interest must be demonstrated prior to significant expenditures by the transmission owner. SCE: Initially a champion of this proposal, SCE has chosen to withdraw support since no one else was in favor.</p>	<p>The "pre-designation" proposal issue has been dropped.</p>