

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Long-Term Firm Transmission Rights In Organized Electricity Markets ) Docket Nos. RM06-8-000 and AD05-7-000  
Long-Term Transmission Rights in Markets Operated by Regional Transmission Organizations and Independent System Operators )

## **COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON NOTICE OF PROPOSED RULEMAKING**

The California Independent System Operator Corporation (“CAISO”) hereby submits its comments in response to the Notice of Proposed Rulemaking (“NOPR”) issued by the Federal Energy Regulatory Commission (“Commission”) in the above captioned proceeding on February 2, 2006. Through this NOPR, the Commission is implementing a requirement in the Energy Policy Act of 2005 (“EPAct 2005”) that Transmission Organizations with “organized electricity markets” develop firm transmission rights (or equivalent tradable or financial rights) (“LT FTRs”). Accordingly, the Commission seeks comments on eight proposed guidelines pursuant to which Transmission Organizations would be required to develop their LT FTRs.

As discussed below, the CAISO generally supports the Commission's approach to implementing the required development of LT FTRs as set forth in Section 217(b)(4) of the FPA, and requests that the Commission continue to provide sufficient regional flexibility in its Final Rule so that, first, a Transmission Organization will be allowed to design LT FTRs in a manner that best meets the needs of their participants and is consistent with the design of its markets, and second, the CAISO is not required to have

LT FTRs in effect until at least one year after the start of its new markets based on Locational Marginal Pricing (“LMP”) in November 2007, as part of the Market Redesign and Technological Upgrade (“MRTU”) project. The CAISO especially appreciates the Commission’s use of the proposed guidelines as opposed to firm regulations as it allows Transmission Organizations to develop optimal, regionally-appropriate solutions to the many questions and issues the Commission poses in this NOPR, while still allowing the Commission to realize the goals set forth in EPAct 2005.

As filed with the Commission on February 9, 2006, the CAISO is currently engaged in a substantial market redesign under the MRTU project.<sup>1</sup> MRTU will introduce to the CAISO energy markets a new congestion management regime, including a day-ahead energy market, based on LMP, and will create a new type of financial transmission rights called Congestion Revenue Rights (“CRRs”) tailored to the LMP-based market design. Once the LMP markets are implemented, the new CRRs will fully replace today’s Firm Transmission Rights (FTRs), which were implemented for the CAISO’s original zonal market design.<sup>2</sup> This means that if the Commission were to require the CAISO to implement LT FTRs under the current regime prior to the start of LMP, it would require that the CAISO develop a hybrid long-term instrument that is based on the current FTR design for a short period and then transforms into a CRR under the LMP market. The complexity of such a hybrid instrument would without doubt

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<sup>1</sup> California Indep. Sys. Operator Corp., Electric Tariff Filing to Reflect Market Redesign and Technological Upgrade, Docket No. ER06-615-000, filed with the Federal Energy Regulatory Commission on Feb. 9, 2006 (“MRTU Filing”).

<sup>2</sup> California Indep. Sys. Operator Corp., Order Addressing Firm Transmission Rights, 89 FERC ¶ 61,153 (1989), order on reh’g, 94 FERC ¶ 61,343 at 61,435 (2001).

exceed its benefits, because it would be extremely difficult both to define and for market participants to evaluate. Further, if the Commission were to require that the CAISO adopt LT FTRs at the start of MRTU, it would add a significant new design effort to the current MRTU trajectory, thereby upsetting the balance the CAISO reached with its stakeholders and diverting its and its market participants' limited resources from the activities necessary for implementing the existing scope of MRTU, as described fully in the MRTU Filing. The CAISO, therefore, respectfully requests that the Commission not require through this rulemaking that the CAISO make available LT FTRs at the time of MRTU start-up.

In making this request, the CAISO also offers its views on when and how the subject of LT FTRs will be addressed with its stakeholders. Over the past year the CAISO has developed the concepts of "MRTU Release 1" and "MRTU Release 2" to reflect the facts that, (1) in order to achieve a targeted implementation date, a project of the magnitude of MRTU must "freeze" its scope and design well in advance of that date and allow further modifications only where absolutely necessary to the success of the start-up, and (2) additional features of the new LMP markets have been identified that are desired enhancements but are not absolutely necessary for a successful start-up. The CAISO therefore created the designation "MRTU Release 1" to refer to the frozen MRTU scope and design to be implemented in November 2007 at the start of the LMP markets, and began to develop a list of candidate enhancements under the umbrella concept of "MRTU Release 2," to be considered through a stakeholder process and, if determined to be desirable from a cost-benefit perspective, prioritized for incorporation in the market systems at a later time. Although the CAISO cannot assign a definite date for implementation of Release 2 enhancements, the CAISO is planning to begin a

stakeholder process in the last quarter of 2006 to evaluate the Release 2 candidates, develop a tentative Release 2 scope, and initiate a plan for needed policy and design activities. The CAISO intends to include LT FTRs in the Release 2 candidate list, and therefore will begin to discuss this topic in a stakeholder process later this year.

The Commission will see in these Comments numerous instances where the CAISO urges the Commission to allow Transmission Organizations to determine their own solutions, tailored to the needs of their participants and to the design of their markets, to many of the questions and issues the Commission poses for consideration here, rather than prescribe specific approaches to the design of LT FTRs or the manner in which their revenue adequacy is insured. Some of the most important of the CAISO's requests include the following:

- 1) With regard to the eligibility of long-term power supply arrangements for allocation of LT FTRs, the CAISO requests that the Commission clarify that such arrangements be required to designate actual generation sources or provide other information that will enable the Transmission Organization to allocate LT FTRs that correctly reflect the exposure of the LSE to congestion charges associated with such arrangement. Otherwise it is unclear how the Transmission Organization will be able to ensure that requests for specific LT FTR source locations by the buyers of some types of bilateral contractual arrangements are legitimate.
- 2) The CAISO urges the Commission to affirm the principle that LT FTRs should differ from the shorter-term transmission rights offered by the same Transmission Organization only with respect to the length of their terms. Specifically, LT FTRs will not have a higher standard of revenue adequacy

than other transmission rights, nor would their holders have any special status in the spot markets such as scheduling priority. In addition, holders of LT FTR obligations should be subject to the same creditworthiness standards as holders of shorter-term rights, so that any defaults on payment obligations do not negatively affect other participants.

- 3) With regard to the matter of allocating LT FTRs to parties who pay for transmission facilities to be built or upgraded, the CAISO requests that the Commission designate the Transmission Organization as the entity who is responsible to determine, through engineering studies, the incremental transfer capacity added to the grid by the new facilities and therefore the appropriate LT FTR sources, sinks and MW quantities for which the project investor is eligible.
- 4) The CAISO urges the Commission not to stipulate any formal linkage between the release process or the design of LT FTRs and the Transmission Organization's transmission planning process.
- 5) The CAISO urges the Commission to reconsider its proposal to grant LSEs who hold long-term power supply arrangements a priority in the allocation process for LT FTRs. Priority in the allocation process can be problematic as described further below, and is only one of several ways that the stated intention of Section 217(b)(4) of the FPA can be met. The CAISO believes that Transmission Organizations should be allowed to fully explore the options and submit their preferred approaches to the Commission for approval.

- 6) In situations where the load-serving obligations of LSEs may shift due to load migration from one LSE to another, the CAISO recommends that the Commission articulate the principle that LT FTRs allocated to LSEs based on their load-serving obligations should be transferred with the migrating load. As discussed below, this principle need not preclude the trading or sale of LT FTRs by LSEs, as it could also be satisfied through a financial payment between the relevant LSEs in an amount equal to the expected value of the revenue stream of the LT FTRs associated with the migrating load.
- 7) The CAISO requests that the Commission not require Transmission Organizations to file their transmission planning programs and actual plans through this rulemaking and the resulting regulations. While it recognizes that there is a relationship between LT FTRs and transmission planning, the CAISO, in concert with the California Public Utilities Commission, the California Energy Commission and other state government entities, is currently significantly improving its transmission planning procedures and does not believe it is appropriate at this time to intervene in that process by forcing it to adhere to such additional measures that have not, at this stage, been coordinated with state regulatory agencies.

## I. Comments

### A. The CAISO Supports the Commission's Approach to the Development of LT FTRs which Emphasizes Regional Flexibility, and Requests that the Commission Continue to Provide Sufficient Regional Flexibility to Allow Transmission Organizations to Best Tailor LT FTRs to their Specific Needs.

The CAISO strongly supports the Commission's proposed approach to implementing its requirements under EPAct that establishes a set of guidelines for the design and administration of LT FTRs in organized electricity markets but allows each Transmission Organization to develop its regionally tailored LT FTRs through a stakeholder process in each Transmission Organization. The CAISO believes that because of the different industry practices the CAISO faces as compared to other ISOs and RTOs and because of the variations in the requirements set forth by the reliability coordinating councils that each ISO or RTO falls under, it is crucial that the CAISO be afforded the ability to develop such instruments to meet its participants' specific needs. Therefore, the CAISO believes that the Commission must continue to allow regional flexibility within the guidelines and minimum standards needed for the Commission to fulfill its mandate under Section 217(b)(4) of the FPA.

The CAISO submits that it is differently situated than the other ISOs and RTOs that the Commission has included in its list of entities that the Commission has determined already have an organized electricity market.<sup>3</sup> Some of the unique challenges faced by the CAISO at this time are directly related to the fact that the CAISO is in the process of implementing a comprehensive redesign of its markets and upgrade of all its systems and software. Central to the CAISO's comprehensive market

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<sup>3</sup> NOPR at P 6 and fn. 8.

redesign is the transition from its current zonal congestion management design to an LMP design, which will establish a completely different basis for calculating congestion charges than exists today. CAISO market participants have consistently articulated – in CAISO stakeholder forums as well as in various filings to the Commission – their concerns about the unknown affects LMP will have on the congestion costs they are exposed to. Thus, in contrast to the participants in other ISOs and RTOs who have had substantial experience with LMP markets and the associated nodal prices, the CAISO participants are facing a dramatic change in the market rules that determine congestion costs, which will take effect in November 2007. The CAISO therefore urges the Commission to allow each Transmission Organization the flexibility to design the type of LT FTRs that best suit its market participants' needs, and to do so based on sufficient experience with the operation of its markets.

The CAISO situation is also unique in that all its borders are shared with entities that are not under an RTO or ISO and are not operating organized electricity markets, LMP or otherwise. Consequently, CAISO participants do not have access to bid-based transmission or energy markets for the component of a cross-border energy transaction that lies outside the CAISO. In developing long-term firm transmission rights within the CAISO it will be important to take into consideration the process whereby LSEs utilizing cross-border energy transactions may obtain complementary long-term transmission rights over facilities outside of the CAISO control area. While the CAISO does not expect this to be an imposing barrier to creating LT FTRs, it does mean that regional flexibility in designing such rights will be essential to ensure that LSEs who meet their needs via energy imports into the CAISO control area are able to obtain effective congestion hedging instruments.

While the CRRs proposal contained in the MRTU Filing for the initial implementation of the LMP markets is consistent with many of the guidelines proposed by FERC as further explained below, it does not include a specification for the provision of long-term CRRs. Neither does the MRTU Filing preclude the provisions of long-term CRRs at a later date, however, and therefore and for reasons described below, the CAISO respectfully requests that the Commission not require the CAISO to expand the scope of the initial LMP implementation to include long-term CRRs. It is crucial for the Commission to consider the implications of expanding the scope of the CAISO's initial implementation of LMP, which entails a transition to a new set of scheduling protocols, a new structure of financial transmission rights and a new pricing regime that requires months of integration and testing of software systems, as well as substantial training for market participants.

As explained in greater detail in MRTU Filing, the CAISO's ability to meet its target start date of November 2007 is highly contingent on its ability to limit expansion of the scope of market design features that will be required to be functional at the start of the market. A requirement that the CAISO adopt long-term CRRs at the start of MRTU would require changes in software and business processes that would negatively impact the implementation of the market redesign.

Since October 15, 2005, the CAISO has completed its pre-factory acceptance testing, factory acceptance testing and the site acceptance testing of the CRR software. In mid-January the CAISO began its site integration of the MRTU systems. Phase 2 of the site integration is expected to begin April 1 and run through May 30, 2006 and will include the integration of CRRs. To require the CAISO at this stage to contemplate incorporating long-term CRRs in its initial MRTU construct would put significant

pressure on an already constrained MRTU project plan. As explained by Mr. Brian Rahman in testimony submitted in the MRTU Filing while the CRR software and systems are provided by a different vendor, the CRR functionality must be integrated with the rest of the MRTU software being developed.<sup>4</sup> In addition, the CAISO must ensure that all systems are stable before introducing additional complexity. The introduction of long-term CRRs would require a modification of the software integration schedule to accommodate and fully test the additional features. In addition, to make long-term CRRs fully functional at the start of MRTU would require that the CAISO divert its resources from the tasks at hand to meet its November 2007 MRTU goals and focus on developing a stakeholder process to fully design such instruments and then integrate them in the current software and systems development schedule.

An additional consideration the Commission should recognize is the lack of experience with LMP in California, which prevents the CAISO and its market participants from fully evaluating the trade offs between alternative ways to design and implement long-term CRRs. As is recognized by the Commission in the NOPR, the availability of LT FTRs may, depending on their design, reduce the availability of transmission capacity for allocation to market participants that prefer the short-term instruments and do not need such long-term firm transmission rights coverage.<sup>5</sup> The CAISO and its market participants at this time are not capable of evaluating how much capacity would be diverted from short-term allocation to long-term allocation as it has not had an opportunity to have any experience under its new LMP and CRR congestion management regime. The Commission should allow the CAISO the same opportunity

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<sup>4</sup> Prepared Direct Testimony of Brian Rahman, submitted with MRTU Filing, at pp. 8-12.

<sup>5</sup> See NOPR at P 65.

as has been afforded to other RTOs and ISOs and their participants in gaining some experience with the allocation and use of short-term transmission rights in LMP markets before being required to provide for long-term transmission rights. Except for the NYISO, all the other existing ISO and RTOs have chosen to make available firm transmission rights that were effective only for one year or less.<sup>6</sup> This has allowed participants in those markets to acquire experience with the use and quantity of financial instruments that limit exposure to LMP based congestion costs.

In the NOPR the Commission proposes to require each such Transmission Organization to file, no later than [180 days after publication of the Final Rule in the Federal Register], either: (1) tariff sheets and rate schedules that make available long-term firm transmission rights that are consistent with the guidelines set forth in the Final Rule; or (2) an explanation of how its current tariff and rate schedules already provide long-term firm transmission rights that are consistent with the guidelines set forth in the Final Rule. The CAISO calls to the Commission's attention the concern that, because of its current process and timeline for developing and implementing the MRTU project and depending on when the Final Rule is issued, the CAISO would most likely not be capable of fulfilling this requirement in a timely manner.

## **B. Comments on Proposed Definitions.**

### **1. Transmission Organization.**

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<sup>6</sup> NOPR at PP 23-28. The NYISO made available from the onset a five-year firm transmission right, which by its report to the Commission has not been used to any significant degree. Comments of the NYISO on the Commission Staff Discussion Paper, Docket No. AD05-7-000, filed June 28, 2005.

The Commission proposes a definition for “Transmission Organization” that is similar to the definition provided in EPAct 2005,<sup>7</sup> and is seeking comments on whether this definition appropriately captures the intent of section 1233(b) of EPAct 2005. Specifically, the Commission proposes to include the word “independent” in the last clause of the EPAct 2005 definition, such that transmission organization would mean “a Regional Transmission Organization, Independent System Operator, independent transmission provider, or other independent transmission organization finally approved by the Commission for the operation of transmission facilities.”<sup>8</sup> The Commission makes this clarification to the definition in EPAct 2005 because the Commission interprets section 1233(b) of the legislation to require that long-term firm transmission rights be made available by the currently existing independent entities approved to operate transmission facilities that have organized electricity markets (as defined below), and any such independent entities that are created in the future.<sup>9</sup>

In general, the CAISO believes that the definition proposed for transmission organizations is appropriate. The CAISO would, however, like clarification from the Commission as to precisely whom the Commission intends to exclude by the proposed definition. Specifically, by adding the “independent” in front of “transmission organization” it is unclear what obligations investor-owned transmission-owning utilities, who have not joined an ISO or RTO would have regarding LT FTRs. Moreover, this raises the question of what obligation such investor-owned utilities have to honor LT FTRs after leaving an RTO or ISO. The CAISO is particularly concerned that the

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<sup>7</sup> Pub. L. No. 109-58, § 1233, 119 Stat. 594, 985.

<sup>8</sup> See *id.* at 942, 985.

<sup>9</sup> See *supra* n. 3.

certainty and therefore the value of LT FTRs may be diluted by the participating transmission owners' ability to withdraw from the CAISO with two years notice.<sup>10</sup> The coverage of any LT FTRs longer than two years is therefore potentially questionable coverage as the CAISO will not be capable of enforcing such instruments upon a transmission owners' exit. The CAISO believes this could provide a disincentive for parties to invest in LT FTRs for more than two years. The CAISO respectfully requests that the Commission consider this issue in its final rulemaking.

## **2. Load-Serving Entity and Service Obligation.**

The Commission proposes to define the terms "load-serving entity" and "service obligation," for purposes of the proposed rule, exactly as they are defined in Section 217 of the FPA. Specifically, the Commission proposes to define load-serving entity to mean "a distribution utility or electric utility that has a service obligation."<sup>11</sup> The Commission also proposes to define service obligation to mean "a requirement applicable to, or the exercise of authority granted to, an electric utility under Federal, State or local law or under long-term contracts to provide electric service to end-users or to a distribution utility."<sup>12</sup> The Commission seeks comment on whether it is necessary to expand or clarify these definitions in the Final Rule.

The CAISO urges the Commission to specify whether the definition of "load serving entity" applies to retail electric service providers ("ESPs") who provide direct access retail service to end users. The CAISO believes that the inclusion of ESPs is

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<sup>10</sup> Transmission Control Agreement Among The Independent System Operator and Transmission Owners, Section 3.3, California Independent System Operator Corporation, FERC Electric Tariff No. 7.

<sup>11</sup> NOPR at P 7.

<sup>12</sup> *Id.*

necessary to support a robust direct access program that provides consumer choice, and is a fundamental and enabling feature of competitive markets.

Similarly, the CAISO asks the Commission to specify whether and under what circumstances the definition of “service obligation” would capture ESPs. In this regard the CAISO asks the Commission to consider the distinction between a direct access framework under which ESPs have a default service obligation whereby they can be required to take on the end-use customers of another ESP that goes out of business, versus a direct access framework that does not have a default service obligation on ESPs. In other words, does the Commission intend the definition of service obligation to apply only where there is such a default service obligation, or does it apply more generally to any retail service agreement between a provider and an end-user? These clarifications are important because ultimately they affect how the rules must be designed for eligibility for LT FTRs and for transferring holdings of such rights when end-users migrate between retail service providers.

### **3. Long-Term Power Supply Arrangement.**

Section 217(b)(4) of the FPA requires the Commission to exercise its authority to enable load-serving entities to obtain firm transmission rights on a long-term basis “for long-term power supply arrangements made . . . or planned” to meet service obligations.<sup>13</sup> While “long-term power supply arrangements” is not defined in the legislation, section 217(b)(1)(A) of the FPA suggests that a load-serving entity has a long-term power supply arrangement if it “owns generation facilities, markets the output of Federal generation facilities, or holds rights under one or more wholesale contracts to

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<sup>13</sup> Pub. L. No. 109-58, § 1233, 119 Stat. 594, 958 (emphasis added).

purchase electric energy, for the purpose of meeting a service obligation.” For purposes of this proposed rule, the Commission proposes to use similar language to define “long-term power supply arrangements.” Specifically, the Commission proposes to define “long-term power supply arrangements” to mean “the ownership of generation facilities, rights to market the output of Federal generation facilities with a term of longer than one year, or rights under one or more wholesale contracts to purchase electric energy with a term of longer than one year, for the purpose of meeting a service obligation.”<sup>14</sup>

The CAISO urges the Commission to clarify whether it intends the definition of long-term power supply arrangements for the purposes of allocating LT FTRs to require designation of specific generating resources. The matter of long-term power supply arrangements – and in particular the proposal to give priority to such arrangements in allocating LT FTRs – raises a number of questions about how to validate such arrangements to ensure that all requests under these provisions are legitimate. For example, since the Commission’s proposed Guideline 1 (which the CAISO supports, as discussed below) calls for LT FTRs to be specified on a source-to-sink basis, it is unclear how the source or injection node(s) of such LT FTRs would be specified under many types of long-term wholesale contracts that allow their sellers broad flexibility to choose, on an hour-to-hour basis, the source of power to fulfill such contracts. The CAISO submits that requiring, for the purposes of LT FTR allocation, that long-term power supply arrangements include designation of specific generating resources will help simplify and make more transparent the process whereby the Transmission

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<sup>14</sup> NOPR at P 9.

Organization would validate LSE requests for specific LT FTR sources and thus would help to ensure that such allocated source-to-sink LT FTRs are consistent with the actual congestion-hedging needs of each LSE.

**C. Comments to Proposed Guidelines.**

**1. (Guideline (1)). The CAISO Supports the Proposal that Long-Term Firm Transmission Rights be Point-To-Point Rights that Specify a Source, a Sink, and a MW Quantity.**

The CAISO supports the Commission's proposal that LT FTRs be point-to-point rights that specify a source and sink and a MW quantity. Indeed, the CRR proposal just filed by the CAISO in its MRTU Filing also reflects this approach and, therefore, CRRs under MRTU will be compatible with proposed Guideline 1 if the MRTU proposal is approved.

**2. (Guideline (2)). While the CAISO Agrees that all Reasonable Measures Should be taken to Ensure that a LT FTR is not Modified during its Term, the Commission Should (1) Allow Regional Flexibility as to How this is Accomplished, and (2) Not Require LT FTRs to Have a Higher Standard of Revenue Adequacy than Comparable Rights Issued by the Transmission Organization for Shorter Terms.**

Guideline (2) encompasses two concepts. The first concept is that the MW quantity of a LT FTR released at a certain point in time should not be reduced or prorated at a later point in the term of the LT FTR. The second concept is that the Transmission Organization should be able to fully fund the LT FTRs it releases over the entire course of the LT FTR terms. The following discussion expands on these two concepts and explains the CAISO's concerns.

The first concept recognizes the facts that an ISO or RTO will typically hold periodic (e.g., annual and/or monthly) releases of transmission rights, and that each

such release will be based on an optimization algorithm that ensures the released rights are simultaneously feasible – and therefore revenue adequate – given the network model used in the optimization. Because the physical transmission system can change over time – due to upgrades and additions of new facilities, as well as derates and outages, planned and unplanned, of various durations – the ISO or RTO may need to modify the corresponding network model from one release of rights to the next. The first concept would then state that LT FTRs determined to be simultaneously feasible and released under one set of network assumptions should remain simultaneously feasible under subsequent network assumptions used for releasing transmission rights during the term of the previously released LT FTRs.

The CAISO submits that there are different ways to implement this concept, and that each ISO and RTO should be granted the flexibility to implement it in a manner that is most consistent with the needs of its participants and the design of its markets. The CAISO's own proposal on CRRs has had to address this concern because the MRTU design includes both an annual release of CRRs and a series of 12 monthly releases, and it is essential that CRRs released in the annual process remain feasible in each of the monthly release processes. The MRTU proposal addresses this matter in two ways. First, it limits the total quantity of CRRs released in the annual process to 75 percent of network transmission capacity, so as to preserve a share of transmission capacity for the monthly processes that is large enough to ensure that the annually-released CRRs will be feasible in each monthly process even when there are significant transmission derates or outages modeled in the monthly network model, except possibly in the most extreme circumstances. Second, for the extreme situations where the monthly derates or outages are so extensive that not all annually-released CRRs are feasible, the CRR

proposal specifies a method for modifying the network model to accommodate the annually-released CRRs fully by shifting the impact of the derates or outages to the daily spot market to be addressed in the day-ahead market settlement. The CAISO submits that analogous approaches are readily extendable to LT FTRs, and that each ISO and RTO should be allowed to address this concern in a manner compatible with its own design of its markets and its transmission rights instruments.

The second concept encompassed by Guideline (2) relates to the adequacy of the hourly market congestion revenues to fully fund the payments due to holders of LT FTRs. The CAISO notes that all transmission rights released by ISOs and RTOs, whether they are for a shorter term or the longer term, are at some risk of not being fully covered financially in some operating hours due to the fact that network conditions can vary hourly, whereas rights are released based on a single network model that reflects a snapshot of network conditions over the term of the released rights. Each of the ISOs and RTOs that release such rights has a variety of approaches for mitigating such risks, for example through conservatively limiting the quantity of rights released, or by establishing balancing accounts or other means of funding these routine revenue shortfalls.

As a case in point, as the CAISO described in its proposed CRR methodology, the CAISO expects that the allocation or auction of CRRs will be conducted based on known conditions modeled in the network model at the time of allocation or auction. As explained by Scott Harvey and Susan Pope in their testimony submitted along with the MRTU Filing, congestion revenue collected based on day-ahead LMPs may be

insufficient to fully fund the required payments to holders of CRRs.<sup>15</sup> As the elements of the transmission modeled in the simultaneous feasibility test (“SFT”) for CRRs change as a result of either planned maintenance or unplanned outages, the transfer capability of the transmission system is reduced, thereby reducing the revenue collected.

Alternatively, in some hours there may be more congestion revenues collected in the market than are needed to fully pay CRRs in instances when an outage or derate modeled in the simultaneous feasibility test actually does not occur. These hours of excess congestion revenues can be used to fund the revenue shortfalls that occur on other hours, as the CAISO proposes to do through its CRR balancing account. Dr. Farrokh Rahimi’s testimony submitted with the MRTU Filing describes in greater detail the CRR balancing account proposal as developed by the CAISO and its stakeholders as a way to mitigate the risk of revenue shortfall associated with released CRRs.<sup>16</sup>

The above discussion of the CAISO’s proposal is provided only to demonstrate the fact that the risk of revenue inadequacy for released transmission rights is a recognized concern by the experts on LMP-based markets, that there are different ways by which an ISO or RTO can mitigate such risks, and that the CAISO has provided its own approach for mitigating such risks. Moreover, although the CAISO has not yet discussed the revenue adequacy of LT FTRs with its stakeholders, the CAISO envisions that its proposed approach for CRRs would be workable for LT FTRs as well.

The CAISO’s proposed treatment has not been adopted by all the ISOs and RTOs. For example, it is the CAISO’s understanding that the NYISO guarantees full

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<sup>15</sup> Prepared Direct Testimony of Scott Harvey and Susan Pope, submitted with MRTU Filing, at p. 18 (“Harvey and Pope Testimony”).

<sup>16</sup> Prepared Direct Testimony of Farrokh Rahimi, submitted with MRTU Filing, at pp. 90-100.

funding of the Transmission Congestion Credits, and any revenue insufficiencies are borne by the transmission owners. The CAISO believes this is a trade-off that each RTO and ISO should be left to be made based on what best suits its needs. By guaranteeing full funding there is clearly a transfer of the risk from the holder of the CRR to another entity such as transmission owners. This policy decision should be left to the individual RTOs and ISOs and should not be prescribed by regulation as it may have unintended cost-shifting consequences in the respective regional markets. Therefore, the CAISO respectfully requests that the Commission clarify Guideline 2 so that while the goal of the ISOs and RTOs should be to minimize financial risks associated with LT FTRs, any shortfalls may be allocated by each ISO or RTO in a manner that best weighs the equities in each regional market.

Finally, the CAISO urges the Commission to allow all transmission rights released by an ISO or RTO to have equal status with respect to revenue adequacy, and not to require that LT FTRs be granted elevated status over shorter-term rights in this regard. More generally, the CAISO submits that LT FTRs should differ from other transmission rights released by an ISO or RTO only with respect to the defined term of the rights and not with respect to any other characteristics. There are several reasons for this CAISO position.

First, even when LSEs rely predominantly on long-term power supply arrangements to meet their needs, there is a need to obtain some shorter-term rights to reflect both seasonal and year-to-year variation in generation sources. (Hydroelectric resources, to take a prime example, typically have large seasonal cycles and can also vary greatly from year-to-year depending on annual precipitation.) In some regions of the country such variation may be greater than in other regions, and the extent of this

variation will ultimately drive LSEs' preferred mix of monthly, annual and multi-year transmission rights. If the Commission were to require a scheme of different "flavors" of rights, particularly a scheme that results in different flavors having different financial risks, LSEs in areas where there are high degrees of seasonal or year-to-year variation in generation patterns will be forced to accept greater risk than those whose generation patterns are more constant.

Second, ISO and RTO markets that release transmission rights typically allow secondary trading of such rights for only a portion of the full term of any given right. Thus, for example, an LSE with a need for additional rights for the month of March might obtain such rights directly through an ISO- or RTO-operated monthly release process, or in the secondary market by purchasing the March dates of an annual or multi-year right held by another party. Under such a scheme of flavors rights with different financial risks, all transactions in transmission rights become much more complicated because the rights are harder for participants to value, and the markets for trading such rights become thinner.

The CAISO therefore urges the Commission in its final rule to endorse the principle that LT FTRs should differ from other transmission rights released by an ISO or RTO only with respect to their term definitions and not with respect to other characteristics of such rights.

**3. (Guideline (3)). The CAISO Agrees with the Commission's Guideline that LT FTRs made Feasible by Transmission Upgrades or Expansions Should be Available For Parties that Pay for such Upgrades or Expansions.**

The CAISO agrees that entities that fund capacity expansions should be able to obtain LT FTRs for the capacity that would not be feasible but for the capacity

expansion. Indeed, the CAISO is proposing in its MRTU Filing to allocate CRRs for capacity expansions provided by merchant transmission.<sup>17</sup> The CAISO proposes in its MRTU Filing that the merchant sponsor who does not receive regulated recovery of its investment cost, through the CAISO access charge or other mechanism, will be eligible for an allocation of CRRs that reflect the capacity added to the CAISO grid by the merchant transmission expansion project. Under the MRTU proposal the CAISO will offer the project sponsor a choice of either CRR options or CRR obligations, in a quantity and geographic source and sink pattern that is commensurate with the transfer capacity the sponsor's project adds to the CAISO grid, as determined by CAISO engineering studies.

The CAISO has already had some experience with this type of allocation of transmission rights under its current zonal market design. The current CAISO market rules provide for the allocation of Firm Transmission Rights – the congestion hedging instrument currently available under the zonal market design – to sponsors of merchant transmission projects who do not receive regulated recovery of their investment costs. It has been the CAISO's experience, however, that this process can create difficulties if it is not clear who is ultimately responsible for determining the added transfer capacity. The CAISO therefore believes that the Commission can and should facilitate this process within the current rulemaking by granting the Transmission Organizations the responsibility and authority for determining, based on their own engineering studies, the incremental transfer capacity added to the grid by a merchant transmission project and,

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<sup>17</sup> Prepared Direct Testimony of Lorenzo Kristov, submitted with MRTU Filing, at pp. 94-95.

based on that determination, the appropriate CRR sources, sinks and MW quantities which a merchant transmission sponsor would be eligible to receive.

The CAISO has a concern about the Commission's suggestion to allocate to a merchant transmission project LT FTRs whose term is specified to be the life of the project. The concern is that once the project is built and energized the responsibility for its maintenance – which can directly affect the life of the project – may transfer from the project sponsor to the participating transmission owner, over whose maintenance practices the merchant sponsor has no control. The CAISO therefore recommends that the Commission consider allowing ISOs and RTOs to develop standardized terms of LT FTRs to be allocated to merchant transmission projects rather than require that LT FTRs are allocated for the life of the facility as suggested in the NOPR. Such standardized terms could vary by the type of project and could, for example, reflect the expected life of the project under normal conditions and maintenance practices.

**4. (Guideline (4)). The CAISO Agrees that Long-Term Firm Transmission Rights Terms Must be Made Available to Meet the Needs of LSEs to Hedge Long-Term Power Supply Arrangements, and Supports the Commission's Proposal to Allow Transmission Organizations to Individually Develop and Propose the Terms of the LT FTRs They Offer and Not to Set Specific Terms through this Rulemaking Proceeding.**

The CAISO cautions the Commission against attempting to prescribe specific term lengths in an attempt to ensure that LT FTRs meet the needs of LSEs with long-term power arrangements<sup>18</sup> as prescribed by new section 217(b)(4) of the FPA. Different design approaches to LT FTRs may meet the objectives the FPA and the Commission have specified, and each Transmission Organization should be allowed to

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<sup>18</sup> The NOPR defines “long-term power supply arrangements” to refer to ownership of generation or other arrangements to use power supply with a term of more than one year.

work with its stakeholders to determine the design approach that fits best with the needs and circumstances of its region and the design of its markets. To illustrate some of the diversity of possible design approaches that could meet the specified objectives, consider a LSE whose load is within the control area of an ISO operating LMP markets, and who signs a ten-year power purchase agreement with a specific generator located within the same control area. The LSE will want to hedge the LMP-based congestion charges between the generator location and the load location. Some possible LT FTRs the ISO might offer for this situation include: (1) a ten-year instrument that is released through a single simultaneous feasibility test for the entire ten-year period, in which other LSEs also request ten-year LT FTRs; (2) a set of two consecutive five-year instruments that are released through two separate simultaneous feasibility tests that are run at the same time and cover the two five-year periods, in which LSEs may request different LT FTRs for each of the two periods; (3) by extension, a set of ten consecutive one-year instruments released through ten SFTs run at the same time, in which LSEs may request different FTRs for each of the ten years; (4) a two-year instrument that carries with it the ability of the LSE to renew the instrument every two years under a process whereby such renewals are granted prior to the ISO granting requests for new FTRs. Clearly other variations are possible; the above are intended only for illustration. The point is that each Transmission Organization should be allowed the opportunity to pursue the options with its stakeholders and propose its preferred approach, which the Commission can then evaluate with respect to the objectives specified by the FPA and the NOPR.

The CAISO notes also that, earlier in the MRTU process, it had considered and discussed with stakeholders some of the above alternatives for designing LT FTRs, and

the CAISO intends to raise these again as design concepts for discussion in the context of the MRTU Release 2 design process. For example, the CAISO's CRR proposal contains a priority renewal process similar to example (4) above, but for the seasonal CRRs to be released through the annual MRTU CRR process. Under the CAISO's proposal, LSEs that are allocated specific seasonal CRRs in one year's annual CRR process may request to renew those CRRs in the next year's annual process, and the CAISO will perform a priority SFT to grant these renewals prior granting requests for new CRRs. Thus in this manner the CAISO's new LMP markets will from the start contain provisions that address to a certain extent the need for longer-term CRRs than just one year.

In addition, earlier in the MRTU process the CAISO and stakeholders considered an idea similar to examples (2) and (3) above of releasing two consecutive one-year CRRs through a single allocation and auction process, as a way to issue longer-term CRRs without constraining LSEs to rights that are exactly the same for two years or requiring a single SFT that would apply to the entire two-year period. This idea was met with some interest at the time, but then was temporarily set on hold for revisiting later after some experience with the new LMP markets.

Regarding the question of linkage between the term length of LT FTRs and the Transmission Organization's transmission planning cycle, the CAISO does not see a compelling reason or logical basis for the Commission to establish a formal relationship between the two in this ruling. In ISOs and RTOs that operate LMP markets, the varieties of transmission rights offered are financial instruments and do not carry any physical characteristics such as day-to-day scheduling priority. Thus the problem of insuring the value of LT FTRs over their term is fundamentally a cost allocation issue

which, though potentially affected by changes to the transmission grid, is only one of many factors taking into account in assessing the costs and benefits of any given transmission project. Clearly, transmission planning by an ISO or RTO must take into account fundamental physical realities such as load concentrations and load growth, locations of generation both existing and anticipated, patterns of congestion on the grid, and the distribution of economic costs and benefits associated with candidate projects. In that context the need to honor previously issued LT FTRs is only one element of the cost-benefit analysis, which may conclude that building transmission specifically to insure the value of such LT FTRs may not be the most cost effective nor equitable way to guarantee these rights. The Commission should therefore allow ISOs and RTOs to consider this matter within the larger context of LT FTR design as well as transmission planning, and not attempt to impose any specific linkage between the two in this rulemaking.

5. **(Guideline (5)). Although the CAISO does not Necessarily Oppose the Commission's Proposal that Load-Serving Entities with Long-Term Power Supply Arrangements be Given a Preference in Securing LT FTRs, the CAISO does not Agree that such Preference is Necessary to Achieve the Stated Goal of the FPA. Moreover, the CAISO Notes Two Concerns with Implementing such a Preference and Requests that the Commission Recognize these Concerns and Allow ISOs and RTOs to Develop Provisions to Address them.**

The CAISO does not believe that the new Section 217 (b)(4) of the FPA read in its entirety requires that the Commission to require that load-serving entities with long-term power supply arrangements to meet a service obligation be provided “priority” over other load-serving entities in securing LT FTRs. Section 217(b)(4) itself specifies that the Commission must act to the extent that it “meets the reasonable needs of load-serving entities...”. Even though new Section §217 does not require that long-term firm

transmission rights be made available only to LSEs with service obligations and long-term power supply arrangements to meet those obligations, the Commission imputes that a preference be provided to such entities. (P 58). The CAISO submits, however, that it is not clear such a preference is needed to achieve the stated objectives of Section 217, nor that the legislature intended that load-serving entities with long-term power arrangements to meet service obligations must be protected at all costs from any congestion cost risks associated with such arrangements. The CAISO therefore urges the Commission to allow ISOs and RTOs to consider this question in the context of their individual efforts to develop LT FTRs, to see whether a system of preferences for LSEs with long-term power supply arrangements is the best way to accomplish the intent of the FPA and the objectives of the Commission in this rulemaking.

The CAISO has two specific concerns with establishing a preference for certain LSEs over others with regard to access to LT FTRs. The first concern has to do with the potential to abuse such preference and the need for substantial administrative rules and process to prevent such abuse. The second concern has to do with the inefficient economic incentives in the bilateral energy market that can be fostered by such a system of preferences. These two concerns are not completely distinct, however. They are different aspects of the fact that LT FTRs are highly valuable financial instruments in an LMP market, and giving some parties priority access to such rights will induce economic behavior on the part of the eligible parties that may not be consistent with the objectives of the policy.

The first concern is related to the CAISO's earlier comments on the definition of long-term power supply arrangements, and specifically the problem of identifying the appropriate sources for allocating LT FTRs for such arrangements. Depending on how

the definition is clarified, there may be several types of contracts that qualify, each with its own degree of source specificity. In the simplest case, if the arrangement is a long-term power purchase agreement with a generating plant located within the ISO's control area, source specification for the LT FTR is straightforward. To mention a more complicated case, consider a type of long-term "liquidated damages" contract, a financially firm energy contract with a supplier external to the ISO who may import power for delivery to the purchasing LSE at one of several import points on the ISO grid, or may not deliver power at all but instead cover its obligation through spot market purchases. In such cases the nature of the LSE's exposure to congestion charges will depend on how delivery is specified in the contract terms, and the ISO will need rules and procedures to ensure that the LT FTRs allocated for this contract correctly reflect such exposure. Once a system of priorities or preferences in the LT FTR release process is established, absent careful procedures for validation of LSE requests for LT FTRs under the preference system, eligible parties will naturally want to utilize the preference system to acquire the most valuable rights they can and in the process secure a revenue stream that exceeds the congestion exposure associated with the long-term power contract.

The second concern takes the above argument a step further and looks at the market for bilateral contracts under a system where certain types of contracts are eligible for preferential access to LT FTRs. One salient concern is that the expected value of such LT FTRs will become a negotiating point between the bilateral parties.

This and related concerns are discussed in more detail in the testimony of Dr. Susan Pope and Dr. Scott Harvey in support of the CAISO's MRTU Filing.<sup>19</sup>

In summary, based on the above the CAISO urges the Commission to acknowledge the problematic aspects of the LT FTR preference it is considering and, given the fact that such a preference is not clearly mandated in the new FPA provisions, allow ISOs and RTOs the flexibility to determine whether such preferences are needed to accomplish the goal of Section 217 and if so what additional provisions are needed to mitigate the concerns.

**6. (Guideline (6)). A Long-term Firm Transmission Right Allocated to a Load-Serving Entity to Support a Service Obligation, or Obtained by Such LSE Through an Auction in which the LSE Received Associated Auction Revenues, Should be Re-Assigned to Another Entity that Acquires that Service Obligation.**

In the CAISO's filings of its CRR proposal in the MRTU filing the CAISO articulated the principle that the ultimate intention of allocating CRRs is to mitigate the exposure of end-use customers in the CAISO's control area to LMP-related congestion charges. Based on this principle the LSE who is obligated to serve end-use customers should be viewed as the custodian of allocated transmission rights on behalf of those customers, not as the ultimate owner of the rights. The CAISO submits that this principle is fully consistent with the Commission's proposed Guideline (6) and with the associated provisions of the FPA. The CAISO therefore suggests that the Commission clarify its Guideline (6) to go beyond the notion that such LT FTRs be "re-assignable" (*i.e.*, capable of being re-assigned) and to state that the transmission organization

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<sup>19</sup> Harvey and Pope Testimony at pp.109-111.

should adopt provisions to *require* that allocated LT FTRs – or the equivalent financial value (to be discussed below) – be transferred from one LSE to another to reflect transfers of load-serving obligation. The CAISO further submits, in response to an explicit question posed by the Commission, that the LSE who has lost a portion of its load-serving obligation should not be compensated for any LT FTRs it transferred to another LSE for that load, since the migration of the load also reduces the original LSE’s exposure to congestion charges associated with serving that load. As a case in point, the CRR proposal contained in the CAISO’s MRTU filing would require that CRRs allocated based on a designated load follow the load if it migrates to another LSE.

The CAISO now wishes to explain its insertion of the phrase “or the equivalent financial value” in the above discussion. By allowing LSEs to transfer the financial value of LT FTRs when their load-serving obligation migrates, instead of insisting on the transfer of the actual LT FTRs, the underlying principle that the allocated LT FTRs are the property of the end-use customers can be maintained without precluding the trading of allocated LT FTRs by LSEs. This approach can allow LSEs the flexibility to make efficient business decisions regarding how best to hedge their exposure to congestion costs and also supports liquid markets for trading transmission rights. This approach can work because in well-functioning markets for transmission rights, including secondary markets as well as primary auction markets, the value of a particular transmission right will equal the expected revenue stream that right will earn over its term. Thus if the LSE who is allocated transmission rights decides to sell some of those rights in the secondary market, it should be able to receive a price that reflects the expected revenue stream of the traded rights over their term, which should be as effective as the rights themselves in hedging the congestion exposure the LSE faces in

meeting its load obligation. Furthermore, if some of that LSE's load migrates to another LSE, a transfer of the market value of the associated transmission rights between the relevant LSEs should provide to the new LSE the equivalent financial value of the actual rights. Thus for the sake of supporting liquid secondary markets in transmission rights, it may not be necessary to place limits on the trading of allocated rights, provided there are liquid auction markets and/or transparent and liquid secondary markets in transmission rights, and the appropriate rules are in place for the ISO or RTO to determine the financial value to be transferred between LSEs when load migrates. This is the approach the CAISO has proposed with respect to allocated CRRs under MRTU.

**7. (Guideline (8)). Allocation of Long-Term Firm Transmission Rights should Balance Adverse Economic Impacts Between Participants Receiving and not Receiving the Right.**

The CAISO agrees with the Commission that Transmission Organizations should introduce LT FTRs in a way that allows the transmission organization to balance the economic impact between those parties receiving LT FTRs and those parties not receiving such instruments. In this regard the CAISO supports the Commission's proposal to allow transmission organizations to limit the amount of transmission capacity offered in the form of LT FTRs. In addition to mitigating the risk that LT FTRs might become revenue inadequate and need to be funded by other parties, such limitations also provide the ability to reserve some transmission capacity for shorter-term transmission rights, which enables LSEs to modify their holdings of transmission rights to reflect seasonal and year-to-year variation in the supply resources they utilize to serve their load.

Some of the concerns the Commission raises under Guideline (8) can be addressed through a principle the CAISO articulated earlier in these comments, namely that LT FTRs should differ from other transmission rights offered by the ISO or RTO only with respect to their term. With respect to other characteristics they should not be different. Thus, for example, holders of LT FTR obligations should be subject to the equivalent creditworthiness requirements as holders of shorter-term instruments, appropriately scaled to the term of the LT FTR, so that if the LT FTR holder fails to pay the charges associated with the obligation its credit provisions will protect other market participants from the financial impact of the default.

**D. The Commission Should not Require the Submission of Procedures on Transmission Planning and Expansion Plans and the Actual Plans through this Rulemaking and Should Allow Parties to Continue with Their Set Procedures Regarding Transmission Planning.**

The Commission is proposing in this NOPR to require that Transmission Organizations ensure that the long-term firm transmission rights they offer remain viable and are not modified or curtailed over their entire term. In particular, the proposed guidelines would require that Transmission Organizations guarantee the financial coverage of the LT FTRs over their entire term.<sup>20</sup> Accordingly, transmission organizations will need to have effective planning and expansion regimes in place, and may need to expand the system where necessary to ensure that the long-term firm transmission rights can be accommodated over their entire term without modification or curtailment. The CAISO recognizes that without appropriate planning and expansion of the system where necessary, it may be difficult to ensure that LT FTRs remain

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<sup>20</sup> See discussion of guideline (2), *supra*.

financially viable without significant charges to some set of participants. The CAISO is already engaged in transmission planning and expansion procedures and is developing specific plans together with the CPUC, CEC and Participating TOs, to ensure that the transmission system is expended in a timely and cost-effective manner.<sup>21</sup> Therefore, the CAISO respectfully requests that the Commission not require that transmission organizations file their respective transmission planning and expansion procedures and specific plans through this rulemaking.

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<sup>21</sup> The CAISO's proposed new transmission process is summarized in the CAISO's November 22, 2005 comments in response to FERC's Notice of Inquiry in Docket No. RM05-25.

## **II. Conclusion**

The CAISO appreciates this opportunity to submit these Comments on the Commission's proposed rulemaking. While the CAISO generally supports the Commission's approach to implementing its mandate for the development of LT FTRs and the proposed guidelines, the CAISO respectfully requests that the Commission recognizes the concerns expressed herein and continue to provide regional flexibility as Transmission Organizations with organized electricity markets and their stakeholders develop such instruments.

Respectfully submitted,

*/s/ Anna A. McKenna*

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Dated: March 13, 2006



March 14, 2006

Via Electronic Filing

The Honorable Magalie R. Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: Long-Term Firm Transmission Rights In Organized Electricity Markets**

**Long-Term Transmission Rights in Markets Operated by Regional Transmission Organizations and Independent System Operators**

**Docket Nos. RM06-8-000 and AD05-7-000**

Dear Secretary Salas:

Transmitted herewith for electronic filing in the above-referenced proceeding is the Comments Of The California Independent System Operator Corporation In Response To Notice Of Proposed Rulemaking in the above-referenced dockets.

Thank you for your attention to this matter.

Yours truly,

/s/ Anna A. McKenna  
Anna A. McKenna

Counsel for the California Independent System Operator Corporation

**CERTIFICATE OF SERVICE**

I hereby certify that I have, this 13<sup>th</sup> day of March 2006, caused to be served a copy of the forgoing document upon all parties listed on the official service list compiled by the Secretary of the Federal Energy Regulatory Commission in this proceeding.

*/s/ Anna A. McKenna*  
Anna A. McKenna