

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

**California Independent System)
Operator Corporation, Inc.)**

Docket No. ER02-1656-015

**PROTEST OF FPL ENERGY, LLC AND THE
AMERICAN WIND ENERGY ASSOCIATION**

Pursuant to Rule 211 of the Federal Energy Regulatory Commission's ("Commission" or "FERC") Rules of Practice and Procedure, 18 C.F.R. § 385.211 (2003), FPL Energy, LLC ("FPLE") and the American Wind Energy Association ("AWEA") hereby file this Protest in the above-captioned docket.

**I.
PROTEST**

On July 22, 2003, the California Independent System Operator Corp. ("CAISO") submitted an Amendment to the Comprehensive Market Design 2002 ("MD02"), which was originally submitted as Amendment 44 to the CAISO tariff. The CAISO states that approval of its updated market design would allow it to contract with vendors so that MD02 can be expeditiously implemented. FPLE and AWEA endorse and incorporate herein the joint comments submitted by the Independent Energy Producers and the Western Power Trading Forum. In addition, the Commission should direct the CAISO to modify the following limited matters, as set forth herein: (i) the calculations, collection and disbursement of full marginal losses; (ii) new limitations on the recovery of costs for third party transmission expansions to Congestion Revenue Rights ("CRRs"); and (iii) incompatible provisions in MD02 with the operation of the Participating Intermittent Resource Program.

A. The CAISO Should Continue to Assess Scaled Marginal Losses, Rather Than Full Marginal Losses, Or Must Specifically Allocate Over-Collected Losses to Those that Were Overcharged

The CAISO's proposed methodology for calculating, collecting and disbursing the full marginal loss component in location marginal prices ("LMP") is flawed and adds inappropriate costs to the CAISO energy markets. The CAISO's methodology will, by its own admission, over-recover physically-based transmission losses, as marginal losses are typically "twice as much" as average losses. *See* Transmittal Letter, p. 45.¹ The CAISO proposes to create a method to refund the over-recovery, but it too is flawed. The excess loss revenues are not being refunded – as would have been expected – to the suppliers who overpaid these loss charges. Instead, the redistribution is based on a revenue allocation to the CRR Balancing Account, which generally benefits Load Serving Entities ("LSEs"), and if any over-collection is left over, to Participating Transmission Owners ("Participating TOs") to reduce their Transmission Access Charge. *Id.* at 45-46. As a result, while suppliers' are unduly overcharged for losses, other Market Participants receive a windfall. This method for dealing with transmission losses is discriminatory and unfair, and should be rejected by the Commission.

1. Transmission losses today and as proposed by the CAISO

Under the current market design, the CAISO allocates losses to generation and imports in proportion to each unit's marginal impact on the system. This so-called scaled marginal loss approach is detailed in the CAISO's December, 1999 Report to the Commission (the "1999 Report").² In this approach, the CAISO calculates the incremental impact on losses created by a

¹ As explained below, this statement is somewhat misleading because the ISO does not today charge average losses, but instead charges scaled marginal losses. Based on a 1999 report issued by the CAISO (*see footnote 2 and accompanying text*), full marginal losses should produce losses that are slightly less than twice that of scaled marginal losses.

² <http://www.aiso.com/docs/2000/09/26/2000092615290315273.pdf>.

marginal megawatt at each generator node or import intertie on the CAISO system. The ratio of that generator's marginal impact to the sum of all marginal impacts is used to apportion the physical losses to each generator or import.³ This approach results in an allocation of what the CAISO estimates to be the actual losses on the system. Revenues are collected to recover the actual cost of those losses, no more and no less.

The 1999 Report was ordered by the Commission, in part, to study and comment on the effect of applying alternative loss allocations, including the allocation of full marginal losses. In the 1999 Report, the CAISO supported its scaling methodology by highlighting a variety of problems with assessing full marginal losses. Specifically, it stated that:

If the [marginal loss rates] were not scaled, the resultant loss allocation to each generator/import would generally be larger in magnitude. If each generator/import would schedule its output to account for this inflated loss allocation, problems such as over-generation, artificial thinning of the Ancillary Services market and artificial depression of the ex-post prices would result. If the full [marginal loss rates] were used and the resultant allocations summed, a typical value of two times the system loss may occur. *In fact, in the case study case described below, the value [of full marginal losses] was 1.8 times the actual system loss.*⁴

In spite of these and other shortcomings, the CAISO now proposes to drop the use of scaled marginal losses – without discussion – and incorporate full marginal losses as a component in each LMP produced by the Integrated Forward Markets optimization. Design Document, Section 2.2.12. It asserts that this policy determination rests on three facts: (1) marginal losses are necessary to achieve least cost unit dispatch and efficient use of the transmission system; (2) marginal losses are the inescapable output of their preference for an AC

³ For example, if a generator's Generation Meter Multiplier is .95, then the generator would use 95 percent of its output to meet demand and the remaining 5 percent to cover transmission losses. A similar mechanism is used to measure transmission losses for imports.

⁴ 1999 Report, p. 36 (emphasis added).

optimal power flow; and (3) the application would provide certain operational benefits to market participants.

Then, after over-collecting for marginal losses, the CAISO proposes to refund the excess loss revenues, but not pro rata to those who paid for these loss charges as would be expected.⁵ Instead, based on the support of “Market Participants,” the CAISO proposes to allocate surplus loss revenues to CRR holders through the CRR Balancing Account – primarily LSEs – and to Participating TOs. Because LSEs will hold the majority of CRRs, it follows logically that the LSEs realizes most of the benefit of the CAISO proposal.⁶ Again, there is no causal relationship identified by the CAISO between participants that paid for the overcollection (suppliers) and those that receive the benefit of the overpayment (LSEs and secondarily Participating TOs). Not surprisingly, LSEs and Participating TOs, which in many cases are one and the same, strongly support the CAISO’s proposal.

The CAISO further supports its proposal for ignoring general ratemaking principles on the ground that allocating refunds to Market Participants who incurred the costs would just be too hard, as to do so would require the CAISO to “keep track [of] locations where loss revenues are over-collected.” Transmittal Letter, p. 46. Such an argument is without merit, as the CAISO is already calculating the marginal loss at each node. The courts have upheld the Commission’s policy that rates should produce revenues from each class of customers which match, as closely

⁵ See *Tejas Power Corp. v. FERC*, 908 F.2d 998, 1005 (D.C. Cir. 1990) (Commission order establishing refund procedure that allowed refunds to flow to customers other than those who made the payments remanded for reconsideration in light of policy of matching cost incurrence to cost causation).

⁶ The CAISO asserts that shifting the over-collected loss revenues from suppliers to the CRR Balancing Account is necessary to mitigate a shortcoming in the design of CRR hedges. Transmittal Letter, p. 45. Such a rationale is nothing more than an excuse to rob Peter in order to pay Paul, as explained further below.

as practical, the costs to serve each class or individual customer.⁷ By the CAISO's own admission, its proposed disbursement of over-collected transmission loss revenues makes no attempt to do so. Accordingly, this proposal is unjust and unreasonable.

2. Efficient dispatch and transmission use is attained equally well with scaled marginal losses and its use is appropriate in the California context

It would be an error to dismiss scaled marginal losses as simply a relic of a past market design. The scaling of actual losses in proportion to marginal impacts results in the same relative locational price signals as would be achieved by assessing the full marginal losses.⁸ While the absolute magnitude of the scaled losses will be smaller, the relative magnitude of losses is preserved. Those units or loads with the highest marginal losses will have highest scaled marginal losses. In other words, since the total system loss is known, the marginal loss rates can be scaled so that the summation over each allocation to a generator/import will equal the total system losses without changing the relative loss allocation.⁹ The relative order of dispatch will be retained and the effectiveness of each resource in resolving system conditions will be unchanged. In supporting the scaling approach in its 1999 Report, the CAISO concludes that the scaling is "appropriate for the California energy market since it maintains the relative significance of the economic signals ... without the undesirable effects associated with over-collection for transmission losses."¹⁰

⁷ *Alabama Electric Coop., Inc. v. FERC*, 684 F.2d 20, 27 (1984).

⁸ The scaling could occur either before or after dispatch. Ex-post scaling would not change the economic order of dispatch. Ex-ante scaling would only incrementally change dispatch order under unique circumstances.

⁹ 1999 Report, pp. 35-36.

¹⁰ *Id.* at p. 36.

The differences between the California markets and those in PJM and NYISO are important and should not be dismissed. Unlike the eastern markets, the California markets rely heavily on attracting imports to meet its demand. For example, the CAISO stated in its 2003 Summer Outlook,¹¹ that it required 3,700 MW of imports during peak August hours of this year in order to meet reliability criteria. Because most imports enter the CAISO at locations distant from load centers, they are likely to experience some of the highest losses on the CAISO grid. As noted by the CAISO, applying full marginal losses to these imports is likely to double their relative allocation of losses. Today, for example, imports may be charged 10 percent or more for losses, while under the CAISO's proposal that charge could increase to 20 percent or more – one out of every five megawatts. This increase in cost will translate into two undesirable and unnecessary outcomes: (1) imports will look to other markets that would be more profitable, or (2) regional price spreads will increase as import energy bid prices rise to cover artificial loss allocations.

The application of full marginal losses would also frustrate the renewable objectives of the State of California. The State of California has implemented one of the most aggressive renewable generation targets in the nation, but the application of full marginal losses could threaten the successful attainment of California's goals. Most renewable generation development must occur precisely where the fuel source resides. In the particular case of wind or geothermal energy, the fuel rich locations in California are generally outside load centers and at locations where transmission losses are substantial. The lower LMP price signals created by the application of full marginal losses will have no impact on the decision of where to locate a

¹¹ <http://www.caiso.com/docs/2003/04/25/200304251431521744.pdf>.

renewable generator. However, the prices paid at these locations will have a fundamental impact on project economics, financing and ultimate viability.

3. Application of full marginal losses creates over-generation, artificially thins the ancillary services market, and unreasonably subjects suppliers to penalties

The CAISO's filing does not attempt to explain why its prior concerns with over-generation and the thinning of ancillary services markets that were raised in the 1999 Report have suddenly dissipated. As the CAISO correctly pointed out in its 1999 Report, when confronted with an unknown liability associated with the cost of losses, generators and imports are likely to hedge their losses obligation with physical generation. If this generation is not scheduled in forward markets, the energy to cover the assessed losses will show up in real time.

This expectation has not changed with the current filing. The CAISO continues to expect generators and imports to hedge their losses with additional physical generation upon implementation of full marginal losses. As the CAISO explained in the Design Document:

With losses so internalized, it will not be possible for [Scheduling Coordinators ("SCs")] to self-provide losses explicitly, though this can be accomplished by another means in the forward markets. Specifically, the SC can estimate the amount of losses it will be responsible for and self-schedule additional supply to cover the estimated losses, using the payment for the excess supply to offset the cost of losses. Depending on the location where the SC self provides to cover losses, this payment may be more or [less] than their share of the cost of losses procured optimally and priced through LMP. While this method may not be precise in each hour, over time the amount of losses should become predictable by the SC with reasonable accuracy.¹²

In other words, if suppliers are not omniscient, they will either over- or under-generate in most circumstances. Therefore, if the assessed losses are larger than the actual system losses (as will be the case with full marginal losses) over-generation is the inescapable conclusion.

¹² Design Document, Section 2.2.12 at ¶ 72.

Over- and under-generating raise costs to suppliers and may unjustly suppress market prices. First, failing to be omniscient is not without consequences under the construct of the CAISO tariff. The CAISO tariff already includes penalties for such over- or under-generation. The application of penalties under these circumstances is clearly unjust. Second, over-generation essentially is “free” capacity for the CAISO to use to meet its reliability obligations and balancing energy needs. It will thus artificially reduce the demand and price for Ancillary Services and Imbalance Energy, thus providing somewhat of a counterbalance to the very purpose of adopting LMPs.

4. Conclusion

The CAISO’s proposal for collecting and allocating marginal losses is discriminatory and will result in unintended consequences, including making the CAISO markets even less friendly towards imports. In addition, the CAISO has failed to provide sufficient detail in its filing to determine whether the loss calculations will yield meaningful results. The Commission therefore should direct the CAISO to continue using scaled marginal losses, which the CAISO has not demonstrated is inefficient given the exigencies of its marketplace. In the alternative, if the Commission concludes that full marginal losses must be implemented, it should direct the CAISO to adopt a refund methodology that is consistent with rate-making principles. Such a methodology would refund excess revenues to those Market Participants who were overcharged for losses in the first place.

B. CRRs for Third Part Transmission Expansions Is Improperly Reduced From the Standard Recently Set in Amendment No. 48

Third-party transmission investment can greatly increase the efficiency of the CAISO markets, reduce localized generation requirements, and allow greater access to more distant, low-cost and renewable generation. As such, FPLE has advocated for policies that result in

reasonable compensation to third parties that invest in the grid, which was a fundamental goal of the CAISO's Amendment 48. In particular, Amendment 48 sought to allocate to third-party Project Sponsors firm transmission rights ("FTRs") auction revenues, congestion proceeds and wheeling revenues associated with transmission system enhancements.¹³

FPLE and AWEA generally support elements of the proposed treatment of third party transmission expansions contained in the MD02 proposal. Transmittal Letter, pp. 78-80. However, the CAISO without justification or support proposes to reduce the compensation for new transmission investment. Moreover, while CRRs establish an important form of compensation necessary to finance transmission enhancements, capacity determinations, if not CRR awards, must precede commercial operation of the facility. Without the modifications proposed below, third-party investment in the transmission grid will likely disappear altogether.

1. Project Sponsors Should Receive Allocations of all Relevant Forms of Compensation

In its order accepting Amendment 48, the Commission determined that Project Sponsors would receive "FTR auction revenues, wheeling revenues and congestion revenues" associated with grid enhancements funded by third parties. These three components were appropriate as they represent the entire economic opportunity created by the incremental transmission expansion.

Because MD02 represents a substantial change in market design, including a proposed move from FTR auctions to CRR allocations, changes are obviously fair for consideration. However, the Commission should maintain the same full compensation policy as set forth in its July 2003 order on Amendment 48. Specifically, in addition to a direct allocation of CRRs,

¹³ See *California Independent Sys. Operator Corp.*, 102 FERC ¶ 61,278, *reh'g denied and clarif.*, 104 FERC ¶ 61,127 (2003).

Project Sponsors should continue to receive CRR auction revenues (if any), wheeling and congestion revenues. In contrast to regions without an “independent” transmission provider, where customers paying for network upgrades are guaranteed recovery over a five year period, there is no such guarantee under the CAISO’s proposal. In fact, given the lack of details and the lack of indicative market outcomes under the CAISO’s proposal, an allocation of CRRs alone is at best a great unknown, and such obligations could be of little worth to Project Sponsors, as discussed in more detail here and below.

According to the CAISO proposal, CRRs will be allocated or auctioned for the full capacity that is simultaneously feasible over a given time period (a year or a month). However, there will be, by design, hours within the time period when more capacity will be available on the system than the CRRs represent. Because Project Sponsors contributed proportionally to the hourly capacity rating, they should receive a right of first refusal to a proportional share of congestion revenues that may accrue above the CRR capacity that is awarded or auctioned in the market. Likewise, if the capacity addition results in the ability to export incremental amounts of energy, Project Sponsors should receive a proportional share of any wheeling revenues.

Finally, some of the CRRs associated with capacity that is created by a Project Sponsor could flow through to the CAISO’s proposed residual auction – either in the first instance if the Commission allows a primary CRR auction market design, or through the CAISO’s proposed residual auction. If this is the case, the entity that funded the upgrade should have the opportunity to claim auction revenues.

2. CRR Allocation Process is Unduly Discriminatory

The current MD02 proposal unambiguously grants CRRs to transmission Project Sponsors for the full amount of capacity that it creates.¹⁴ Specifically, at paragraph 97 of the design document, the CAISO states that: “the parties responsible for creating the new transmission capacity will be entitled to receive CRRs reflecting the added capacity.” However, the CAISO’s proposal is flawed. While paragraph 97 of the design document identifies the CRR allocation process in several consecutive steps, it contains no specific provisions for allocating CRRs to Project Sponsors. Rather, the proposal merely details the allocation of rights to Existing Transmission Contract (ETC) holders, then to non-ETC loads (or LSEs). Any remaining capacity that is simultaneously feasible will be placed into an auction.

The CAISO should be directed to correct this design error, in addition to adopting the other compensation methods outlined above. In particular, Project Sponsors should be allowed to identify their CRR elections at the earliest possible opportunity during each allocation (annual or monthly). In no circumstance should other market participants (specifically, LSEs) have the ability to elect CRRs that were created by Project Sponsor investments.

3. Project Sponsors Should Receive CRR Options, not Obligations

A transmission upgrade naturally creates incremental bi-directional capacity. In California, power flows often reverse directions seasonally and, at times, intra-day. As a result, the economics of the transmission project are likely to rest in obtaining the benefits of the

¹⁴ The current proposal calls for monthly and annual CRR allocations and only a residual CRR auction. These comments are intended to propose a CRR allocation process for Project Sponsors without supporting the ISO’s preference for a primary CRR allocation rather than auction. FPLE continues to support the allocation of auction revenue rights to Project Sponsors, so long as all CRRs are auctioned rather than allocated.

capacity created in each direction. This beneficial outcome is not possible if the CRRs issued to Project Sponsors are obligations rather than options.

Take for example a transmission path where flows are equally likely to be from node A to node B as they are from node B to node A. In order to capture the full value of a transmission upgrade across that path, the Project Sponsor could be inclined to take CRRs in each direction. However, this strategy is entirely self-defeating should those CRRs be obligations. Each time the CRR holder received revenues from flows in one direction, it would experience an obligation to pay on the CRR in the opposite direction. The only choice presumably available to the Project Sponsor is to select the obligation with the highest individual (albeit sub-optimal) revenue potential.¹⁵ This unfortunate choice, however, reduces the expected cash flows from the transmission upgrade and will reduce the number of third party upgrades that will be proposed. In the context of the unique characteristics of the CAISO grid, obligations do not result in a just and reasonable financial hedge.

The Commission therefore should direct the CAISO to grant CRR options to those who fund and sponsor transmission upgrades. CRR options will allow the Project Sponsor to hold bi-directional capacity without the obligation to pay when flows are in the direction opposite of the CRR. Such CRRs appropriately reflect the value added to the grid by Project Sponsors and will concomitantly increase the potential cash flows available to third party investors and thereby increase the potential pool of sponsored upgrades.

4. CRRs should be determined, if not allocated, in advance of operation

The ability of the CAISO to provide Project Sponsors with an estimate of the expected CRR value of the upgrade in advance of construction is critical to its viability. The CAISO,

¹⁵ The ISO is entirely silent on what if any discretion the Project Sponsor may receive in selecting or refusing CRR pairs.

however, misses this point in its proposal. Instead, the CAISO concludes that due to uncertainties in construction or interconnection, the allocation of CRRs should only occur after the transmission addition has demonstrated availability. Transmittal Letter, p. 80. While CRRs obviously cannot be effective prior to the operation of a new project, effectiveness does not equate with the need for setting forth expected values.

When a third party considers a transmission investment, the rewards of that investment must be tightly proscribed prior to any significant investment of funds. In the case of Project Sponsors, the quantity, nature and precise physical description of the resulting rights will be the key component in calculating CRR value. Given that transmission projects can take many years to certificate and many months or years to construct, the CAISO should be directed to develop a process to provide Project Sponsors with an estimate of the incremental benefits well before they can demonstrate availability.

C. The CAISO's Proposal Interferes with the Commission-approved Participating Intermittent Resource Program

In March 2002, the Commission approved certain changes to the CAISO tariff relating to the participation of intermittent generation resources, such as wind, in the CAISO markets.¹⁶ The program proposed by the CAISO and approved by the Commission in Amendment 42 is known as the Participating Intermittent Resource Program ("PIRP"), and accommodates intermittent resources by recognizing the inherent difficulties in forecasting and scheduling such resources.

The updated MD02 filing contains several elements that directly contradict, or otherwise interfere, with the operation of the PIRP. Several of these elements include:

- Day-Ahead Must Offer – The current PIRP is designed assuming voluntary participation in the Day Ahead (DA) market and mandatory participation in the Hour-

¹⁶ *California Independent Sys. Operator Corp.*, 98 FERC ¶ 61,327 (2002).

Ahead (HA) market. The DA Must Offer requirement contained in the MD02 filing directly conflicts with the provisions of the PIRP.

- Residual Unit Commitment – Intermittent resources cannot be dispatched, therefore it makes little sense to include them in a commitment process.
- CRR Design Changes – The current PIRP makes no accommodation for congestion encountered by intermittent resources. However, the current FTR design offers a hedge for hour-ahead congestion that complements the HA must-schedule requirement. The proposed MD02 CRRs offer only a DA congestion hedge, leaving PIRP units fully exposed to any HA congestion they may create.
- Settlement Changes – Many new charge types will be created as a result of MD02. The allocation of these charges must be closely reviewed to ensure that the principles of the PIRP program are maintained.

Each of these MD02 designs is unjust and unreasonable as applied to intermittent resources that participate in the PIRP, and the CAISO has neither sought to justify these changes to the programs nor held any stakeholder process to gather input on how this program can be integrated into MD02. The Commission therefore either should convene a technical conference to illuminate these issues or direct the CAISO to convene stakeholder meetings to discuss possible changes to the PIRP and/or the MD02 design. Any such changes should then be filed and approved by the Commission prior to the CAISO contracting for software. The changes developed through such a technical conference or stakeholder process should be explicitly limited to the purpose of ensuring that the fundamental principles of the approved PIRP mechanism are preserved in the new LMP-based market design.

IV.

WHEREFORE, for the above-stated reasons, FPLE and AWEA request that the Commission grant the relief requested pursuant to this protest.

Respectfully submitted,

/s/ Joel D. Newton

Joel D. Newton
Senior Attorney
FPL Energy, LLC
801 Pennsylvania Avenue, N.W.
Suite 220
Washington, D.C. 20004
(202) 347-7126

/s/ James H. Caldwell Jr.

James H. Caldwell Jr.
Policy Director
American Wind Energy Association
122 C Street NW Suite 380
Washington, DC 20001
(202) 383 2517

Dated: August 27, 2003

CERTIFICATE OF SERVICE

I hereby certify that on this 27th day of August 2003, I mailed, postage prepaid, a true and correct copy of the above and foregoing “Protest of FPL Energy, LLC and the American Wind Energy Association” to all parties on the official service list.

/s/ Joel D. Newton

Joel D. Newton