UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Turlock Irrigation District and	**)**	
Modesto Irrigation District	**)**	
v.	**)**	**Docket No. EL99-93-000**
California Independent System	**)**	
Operator Corporation	**)**	

INITIAL BRIEF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

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To: The Honorable Edward M. Silverstein

The California Independent System Operator Corporation ("CAISO" or "ISO")[1] hereby submits its Initial Brief in this proceeding.

I. EXECUTIVE SUMMARY

Turlock Irrigation District ("Turlock") is not similarly situated to System Resources for the simple reason that Turlock is in the CAISO's Control Area, while System Resources are not. Under the Western Electricity Coordination Council's Minimum Operating Reliability Criteria, the CAISO must constantly match resources and load in its Control Area within the small tolerances at all times. It must have Operating Reserves that it can call upon to address system imbalances or transmission disruptions and must know the amount and the location of Operating Reserves within the Control Area. The CAISO can rely upon Operating Reserves provided by System Resources to fulfill its obligations because a System Resource is a firm Energy schedule obligating

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[1] Unless otherwise defined, capitalized terms used as defined in the CAISO Tariff. Ex. J-1, Appendix A.

that Control Area operator to supply the scheduled Energy even though a generator associated with the schedule experiences a curtailment or an outage. When Operating Reserves are being provided by a System Resource, the CAISO can rely upon the Control Area operator for the other Control Area to ensure that the Energy is delivered when called upon; in contrast, the CAISO has no such assurance from Generators within its Control Area, such as Turlock. The availability of real-time metering data (telemetry) on Generating Units providing Operating Reserves and Energy within the CAISO's Control Area is critical if the ISO is to have the knowledge of Generator availability and of Load necessary to fulfill its responsibilities.

Even if Turlock were, in some manner, similarly situated to System Resources (for example, because both wish to participate in the CAISO's markets), the CAISO's requirement that Turlock execute a Participating Generator Agreement would not constitute undue discrimination. Turlock's preferred arrangement would exempt it from requirements that are, or will be, widely applicable to System Resources. Thus, the CAISO's differential treatment of Turlock would still be reasonable.

Turlock would not lose significant operational and maintenance control over its Generating Units if it were to sign a Participating Generator Agreement. Although the CAISO does exert some control over Generating Units that participate in its markets, this is only done to avoid or respond to System Emergencies or, in the case of approving Outages, to preserve

System Reliability. This control is necessary for the ISO's fulfillment of its Control Area responsibilities, and would not interfere with Turlock's ability to operate its system in a vertically integrated manner.

The only costs that Turlock would incur as the result of signing a Participating Generator Agreement are metering costs. If Turlock scheduled and metered its internal Load it would also incur Neutrality Charges and, unless it became a Utility Distribution Company, charges for Unaccounted For Energy as a result. All other charges identified by Turlock are unrelated to its execution of a Participating Generator Agreement. In light of the revenues that Turlock would receive from participation in the ISO markets, the additional costs that Turlock would bear are reasonable.

II. STATEMENT OF FACTS

A. Factual Background

The CAISO is the Control Area operator for much of the State of California, including the former Control Areas of Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and the City of Pasadena. The CAISO's Control Area includes the Turlock Service Area.

As the Control Area Operator, the CAISO is responsible for ensuring the reliability and safety of the CAISO Control Area, for meeting the requirements of the Minimum Operating Reliability Criteria of the Western Electricity Coordinating Council ("WECC"), and for complying with policies of

the North American Electric Reliability Council. In order to meet its responsibilities as Control Area operator, the CAISO matches load and resources within the narrow tolerances required under WECC reliability criteria. Ex. No. ISO-5 at 7. The CAISO must match resources and load at all times, on a minute to minute basis. *Id*. at 7-8.

As noted by CAISO Witness Deane Lyon, "Control Areas . . . are the entities through which the reliability of the interconnected electric grid is maintained." Ex. No. ISO-5 at 7. If the CAISO fails to keep its system in balance, *e.g.*, by dispatching generation to mitigate the effects of uninstructed deviations by generators from schedules, it can incur reliability management system fines.[2] *See* Tr. 215-16.

Since the creation of the CAISO's Ancillary Services and Supplemental Energy markets, the CAISO has required owners of Generating Units within its Control Area desiring to schedule Energy or participate in these markets to sign a Participating Generator Agreement. Ex. No. ISO-1 at 5. As explained by CAISO Witness Deborah A. Le Vine in her Answering Testimony, the Participating Generator Agreement is

> an agreement between the ISO and a Participating Generator that establishes the terms and conditions for the Generator's participation in the ISO's markets, largely by establishing the applicability of the relevant provisions of the ISO Tariff, and specifically binds the Participating Generator to the terms and conditions of the ISO Tariff.

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[2] The reliability management system was set up by the Western Electricity Coordinating Council. *Id.*

Ex. No. ISO-1 at 4. As noted by Ms. Le Vine, the CAISO's *pro forma* Participating Generator Agreement is on file with and has been accepted by the Commission. *Id.* It also has been provided as Ex. No. T-1.[3]

The Participating Generator Agreement includes information such as the technical characteristics of the Generating Units in question and certification requirements. As well, the Participating Generator Agreement contains the data requirements with regard to the reliability of the CAISO Controlled Grid, such as a description of the information to be provided to the CAISO to allow it to deal with of major incidents and emergencies. Ex. No. ISO-1 at 5. *See also* Ex. No. T-1, § 4.4.1.

By virtue of signing the Participating Generator Agreement, a Generating Unit owner (or "Participating Generator") acknowledges that the CAISO's ability to meet its responsibility to operate the CAISO Control Grid reliably and efficiently is dependant on the Participating Generator's adherence to the terms of the CAISO Tariff and the Participating Generator Agreement. *Id.* *See also* Ex. No. T-1, § 2.1. As described by Ms. Le Vine,

> The [Participating Generator Agreement] is the mechanism through which the ISO establishes the terms and conditions upon which Generating Units in its control area participate in its markets and [obtain] the necessary rights to direct the operation of Generating Units for it to meet its responsibilities as a Control Area operator.

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[3] Schedule 1 to the Participating Generator Agreement was offered separately as Ex. No. ISO-7.

Ex. No. ISO-1 at 6. The Participating Generator Agreement requires that its signatories "will comply with all applicable provisions in the ISO Tariff." Ex. No. T-1, § 4.2.

The CAISO allows generators outside its Control Area to participate in its markets as System Resources. As defined in the CAISO Tariff, a System Resource is "A group of resources located outside of the ISO Control Area capable of providing Energy and/or Ancillary Services to the ISO Controlled Grid." Ex. No. J-1, Original Sheet 351. As explained by Ms. Le Vine, the operator of the sending Control Area (where the System Resource is located) "is taking on the obligation to serve the trade if the generating unit has an outage between when the Control Area check-out is performed and the operating hour." Ex. No. ISO-1 at 23. Because of this, the CAISO does not require System Resources to sign Participating Generator Agreements. *Id.*

B. Procedural Background

On September 17, 1999, Modesto Irrigation District ("Modesto") and Turlock Irrigation District ("Turlock") filed a complaint in the above-captioned dockets. In the Complaint, Modesto and Turlock argued, *inter alia*, that the CAISO, in requiring entities inside the Control Area to sign Participating Generator Agreements in order to participate in the CAISO's Ancillary Services and Supplemental Energy markets, while allowing entities outside the Control Area to participate in the markets without signing a Participating

Generator Agreement was discriminatory. The CAISO filed an Answer to the Complaint on October 7, 1999.

In an order issued November 15, 1999, the Commission set this proceeding for hearing, held the hearing in abeyance, and established settlement judge proceedings.[4] After engaging in extensive settlement negotiations, the parties to this matter realized that settlement would not be possible. In his Final Report of July 31, 2001, Settlement Judge William Cowan recommended that, as the parties had reached an impasse, settlement judge procedures be terminated and the proceeding be set for hearing.

On August 8, 2001, Chief Judge Wagner issued an order terminating settlement judge proceedings and designating Administrative Law Judge Edward M. Silverstein to preside over a hearing in this matter. On August 15, 2001, Modesto filed a Motion to Withdraw As Party Complainant. The hearing took place from May 14 to May 16, 2002.

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[4] *Turlock Irrigation District and Modesto Irrigation District v. California Independent System Operator Corporation*, 89 FERC ¶ 61,182 (1999).

III. ARGUMENT

A. Whether the California Independent System Operator (CAISO), through the provisions of its Tariff governing the CAISO's acquisition of certain Ancillary Services and Imbalance Energy (including Supplemental Energy), unduly discriminates against Turlock Irrigation District.

1. Whether Turlock satisfies the technical standards for participation in the CAISO's Ancillary Services and Real Time markets, i.e., for resources from which the CAISO acquires certain Ancillary Services and Imbalance Energy (including Supplemental Energy).

The CAISO has no evidence that Turlock's Generating Units fail to meet the Technical Requirements for the provision of Ancillary Services set forth in the CAISO Tariff. *See, e.g.,* ASRP App. A, § 1.2, Ex. J-1, First Revised Sheet No. 424. As discussed below, however, the CAISO Tariff includes many other requirements for the provision of Ancillary Services from Generating Units within the CAISO's Control Area – including obligations to comply with CAISO dispatch instructions and data provision. The Participating Generator Agreement would ensure that Turlock's Generating Units meet those requirements.

2. Whether the CAISO's requirement that Turlock execute the CAISO's *pro forma* Participating Generator Agreement (PGA) as a precondition to Turlock's participation in the CAISO's Ancillary Services and Real Time markets, i.e., to Turlock's acting as a vendor of certain Ancillary Services and Imbalance Energy (including Supplemental Energy) is unduly discriminatory.

a. Whether Turlock is similarly situated to vendors of Ancillary Services and Imbalance Energy (including Supplemental Energy) outside the CAISO's control area who are not required to execute a PGA.

There is one simple, but critical, reason that Turlock is not similarly situated to System Resources: Turlock is in the CAISO's Control Area; System Resources are not. Because the CAISO is the Control Area operator, its relationship with the entities that own Generating Units in the Control Area must be different from its relationship to System Resources.

As noted above, Control Area operations in the Western Interconnection are governed by the WECC's Minimum Operating Reliability Criteria. Ex. IS0-6 at 1. Under the Minimum Operating Reliability Criteria the CAISO must match resources and load in its Control Area within the small tolerances at all times. Ex. ISO-5 at 7; Ex. ISO-6 at 5. As the Control Area operator, the CAISO is responsible for having adequate unloaded capacity, *i.e.*, Operating Reserves, that it can call upon as necessary to address system imbalances or transmission disruptions, particularly when those imbalances or disruptions threaten to create emergency conditions. Ex. ISO-5 at 10; Ex. ISO-6 at 2.

More specifically, in the event of an imbalance, whether due to a surplus or shortage of Generation, the CAISO's Area Control Error would reflect the effect of the imbalance, and the CAISO would be responsible to return Control Area load and Generation into balance. Ex. No. ISO-5 at 10. In order for the CAISO properly to perform this function, the CAISO not only is required to maintain a specific minimum amount of Operating Reserve to be used to respond to a loss of Generation or other real-time Energy disturbance in either the CAISO Control Area or elsewhere in the Western Interconnection, but also must know the amount and the location of Operating Reserves within the Control Area. Ex. No. ISO-5 at 11-13. The Minimum Operating Reliability Criteria, Section 1.A.7, Operating Reserve Distribution, states the following:

> Prudent operating judgment shall be exercised in distributing operating reserve, taking into account effective use of capacity in an emergency, time required to be effective, transmission limitations, and local area requirements.

Ex. ISO-6 at 3.

Further, As described in the Answering Testimony of Deane Lyon, the North American Electric Reliability Council Policy One, Generation Control and Performance, states:

> OPERATING RESERVE shall be dispersed throughout the system and shall consider the effective use of capacity in an emergency, time required to be effective, transmission limitations, and local area requirements. Spinning reserve should be distributed to maximize the effectiveness of governor action.

Ex. ISO-5 at 10-11.

There is currently also language in a proposed and widely accepted revision to WECC Operating Reserve criteria, which states:

> The Control Area Operator shall have sufficient knowledge at all times of the amount and location of the operating reserve that is in place to meet his or her Control Area's/Reserve Sharing Group's requirements and to operate within [Operational Transfer Capabilities].

Id. at 11.

As Mr. Lyon noted, "Implicit in the above quoted statements is the responsibility for the Control Area operator to have knowledge, at all times, of the amount and location of Operating Reserve so that when dispatched, the effect of power flow on transmission lines and equipment can be anticipated." *Id*.

The CAISO can rely upon Operating Reserves provided by System Resources to fulfill its obligations. As discussed above, a System Resource is a firm Energy schedule to the CAISO from an adjacent Control Area. Ex. ISO-5 at 8. It is essentially a contract obligating that Control Area operator to supply the scheduled Energy even though a generator associated with the schedule experiences a curtailment or an outage; the Minimum Operating Reliability Criteria require Control Area operators to maintain the scheduled interchange. *Id.* at 8. As Mr. Lyon explained,

> By the nature of the schedule being firm, the adjacent Control Area operator is obligated to provide operating reserve associated with that schedule on a 1 MW-for-1 MW basis, thereby ensuring the delivery of that schedule across the agreed upon point of interchange.

Id. Thus, when Operating Reserves are being provided by a System Resource, the CAISO can rely upon the Control Area operator for the Control Area in which the System Resources is located to ensure that the Energy is delivered when called upon, regardless of whether the Generating Unit or Units from which the CAISO is procuring the Energy has the available capacity. Ex. ISO-1 at 23; Ex. ISO-5 at 8; Tr. 158-60. In contrast, the CAISO has no such assurance from Generators within its Control Area, such as Turlock. Ex. ISO-5 at 15. As discussed below, the CAISO therefore has very specific needs for control of, and data from, Generating Units within its Control Area.

Because it is the CAISO that is responsible for balancing Load and Generation within its Control Area, it is the CAISO that must dispatch the Energy that it requires from Operating Reserves (or Supplemental Energy bids submitted to the CAISO's Real-Time Market) within the Control Area. Ex. ISO-5 at 10. If the Energy is not available for some reason, it is the CAISO that must identify and dispatch another source of the Energy. In order to fulfill these functions on a real-time basis, as described by Mr. Lyon, the CAISO

> must have the ability to direct, as system conditions and operating circumstances require, the operations, including real-time production, start-up and shut-down, of the Generating Units within its Control Area that provide the Operating Reserves and must acquire real-time data on those Generating Units.

Id. at 7-8. The CAISO cannot simply rely upon Turlock to fulfill the CAISO's Control Area Responsibilities.

The availability of real-time metering data (telemetry) on Generating Units providing Operating Reserves and Energy within the CAISO's Control Area is critical. For example, if the CAISO did not have telemetry on the operation of Turlock's Generating Units, it would not know if the Operating Reserves that Turlock agreed to provide are actually available. Ex. ISO-5 at 15; Tr. 91-92 If they were not, the CAISO could be in violation of the WECC Minimum Operating Reliability Criteria that it maintain the reserves. In addition, the CAISO would not know if Turlock's units had generating capacity that would be available under emergency circumstances. Se Tr. 91-92.

Further, if one of Turlock's Generating Units suffered a forced outage, and the CAISO did not have telemetry, the CAISO Area Control Error would reflect the sudden shortage of Generation, and the CAISO would not know which unit had failed. The location of the units, however, can affect transmission line and equipment loading, which the CAISO must monitor within the Control Area. Ex. ISO-5 at 11-13.

The CAISO must also monitor its compliance with Operating Reserve requirements on a 10 minute basis. *Id*. at 11. This requires knowledge of the Load on the system, which the CAISO determines by Generation data (because Generation plus interchange must equal Load in a balanced

system). To the extent that the CAISO lacks real-time data on Generating Units in the Control Area, it is handicapped in fulfilling this function. *Id*.

In all these regards, Generating Units within the CAISO Control Area, including Turlock's Generating Units, are not similarly situated to System Resources. As Mr. Lyon explained, the CAISO "simply does not require that degree of control or that level of data detail with respect to System Resources, since these resources and associated load responsibility are the responsibility of other Control Area operators." Ex.ISO-5 at 8.

b. Whether the CAISO is otherwise justified in requiring, through the provisions of its Tariff, a Generator within the CAISO's control area to execute a PGA as a precondition to participation in the CAISO's Ancillary Services and Real Time markets, i.e., to acting as a vendor of Ancillary Services and Imbalance Energy (including Supplemental Energy).

Because Turlock's Generating Units are not similarly situated to System Resources, it is not necessary to consider whether the CAISO requirement that Turlock sign a Participating Generator Agreement, while System Resources are not required to sign a Participating Generator Agreement, is otherwise justified. Nonetheless, even if Turlock were, in some manner, similarly situated to System Resources (for example, because both wish to participate in the CAISO's markets), the CAISO's requirement that Turlock execute a Participating Generator Agreement would not constitute undue discrimination. The Commission has stated that distinctions in the treatment of similarly situated entities do not constitute undue discrimination if the

distinctions are reasonable. *See, e.g., Southern Natural Gas Company,* 85 FERC P 61,134 (1998); *see also Michigan Consolidated v. F.P.C.,* 203 F. 2d 895, 901 (3d Cir. 1953).

In this case, as described above and further below, the requirements of the CAISO Tariff that would apply if it signed a Participating Generator Agreement are reasonably related to the CAISO's fulfillment of its Control Area responsibilities. Many of those requirements would not apply to System Resources. Those System Resources are subject to the requirements of their Control Area operator. For example, System Resources in the neighboring Control Areas that make up the Mountain West Independent System Administrator (Sierra Pacific Power Company and Nevada Power Company) are subject to the requirements of the Mountain West Independent System Administrator Tariff. Under that tariff, Mountain West will, *inter alia*, approve or disapprove planned maintenance of both generation and transmission facilities that leads to planned outages, and require all generators within Mountain West's control area to be subject to redispatch by the Mountain West Independent System Administrator to meet reliability concerns. *Mountain West Independent System Administrator,* 90 FERC ¶ 61,067 (2001).

Similar requirements applicable to Generators are inevitable. In Order No. 2000,[5] the Commission concluded that a Regional Transmission

[5] Regional Transmission Organizations, Order No. 2000, 65 Fed. Reg. 809 (Jan.6, 2000), FERC Stats and Regs, Reg. Preambles ¶31,089 (Dec. 20, 1999), order on reh'g, Order No. 2000-A, FERC Stats and Regs, Regs. Preambles ¶31,092

Organization must have the ability to "redispatch any generator connected to the transmission facilities that it operates, if necessary for the reliable operation of the transmission system." 65 Fed. Reg. at 12112. It also concluded that there are advantages to a Regional Transmission Organization having control of generation outage schedules, and that it would accept Regional Transmission Organization proposals that provide such control. *Id.* at 12113.

As the development of Regional Transmission Organizations continues, it is almost inevitable that System Resources will be subject, if they are not already, to the same types of control to which Turlock objects – the only difference being that the CAISO would not be exercising the control. Turlock's preferred arrangement would exempt it from requirements that are, or will be, widely applicable to System Resources. Under such circumstances, even if Turlock were similarly situated to System Resources (which it is not), the CAISO's differential treatment of Turlock would still be reasonable.

(2000), Notice of guidance for processing Order No. 2000 Filings, 65 Fed. Reg. 45,854 (2000), FERC Stats and Regs, Regs. Preambles ¶35,040 (2000), Notice Providing Further Details on Procedures for Order No. 2000 Filings, 65 Fed. Reg. 60,931 (2000), FERC Stats and Regs, Regs. Preambles ¶35,041(2000).

B. If the CAISO, through the provisions of its Tariff governing the CAISO's acquisition of Ancillary Services and Imbalance Energy/Supplemental Energy, unduly discriminated against Turlock, whether Turlock is injured by the undue discrimination.

1. Whether Turlock would lose significant operational and maintenance control over its generating units by signing a PGA.

Turlock would not lose significant operational and maintenance control over its Generating Units if it were to sign a Participating Generator Agreement. Although the CAISO does exert some control over Generating Units that participate in its markets, this is only done to avoid or respond to System Emergencies or, in the case of approving Outages, to preserve System Reliability.

a. Control During System Emergencies

Turlock's witness Scheuerman specifically relies on three sections of the CAISO Tariff for his contention that the execution of a Participating Generator Agreement would provide the CAISO with excessive authority over Turlock's Generating Units. Tr. 148-49. Under those sections, however, the CAISO has the ability to exercise control over Generating Units operated by Participating Generators, beyond the Energy bid into the CAISO's markets, *only* when a System Emergency has occurred or is imminent. This authority is necessary to the CAISO's fulfillment of its Control Area responsibilities, and is thus a reasonable requirement for Generating Units that participate in the CAISO's markets.

The first provisions cited by Mr. Scheuerman, section 5.6.1, *see* Tr. 149, states that all Generating Units owned by a Participating Generator are subject to control by the CAISO in a System Emergency or when a System Emergency is imminent or threatened. Ex. No. J-1, First Revised Sheet 181. It provides no authority outside of such emergency circumstances.[6]

The second provision, section 11.2.4.2.1. *see* Tr. 149, provides that the CAISO may dispatch any Participating Generator that has not bid into the CAISO markets in order to avoid a System Emergency or Market Intervention. The title of section 11.2.4.2.1 is "Allocation of Costs Resulting from Dispatch Instructions," and the section sets forth the manner in which the CAISO bills Scheduling Coordinators for such costs. The discussion of the CAISO's authority can, therefore, be interpreted as simply a restatement of the authority the CAISO derives other sections of the tariff. Even so, the authority discussed in section 11.2.4.2.1 is, by its own terms, limited to emergency situations. Although the section also refers to the action the CAISO may take to avoid a market intervention, the potential for a market intervention arises only in emergency circumstances. The only authority given the CAISO to intervene in markets appears in section 2.3.3.3, which authorizes the CAISO

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[6] Similarly, section 5.1.3 of the ISO Tariff specifically allows the ISO to assert control over Generating Units only when bids in the ISO's markets are exhausted, and that at that point "the operational circumstances will be so severe that a real-time system problem or emergency condition could be in existence or imminent." Ex. No. J-1, Original Sheet 168; see also Tr. 233-34, 253.

to take such action if the CAISO determines it is necessary "in order to contain or correct a System Emergency."

The other section of the CAISO Tariff upon which Mr. Scheuerman relies is section 2.3.1.1.3. Tr. 148. The authority in that section, however, is limited to the CAISO's control that portion of a Generating Unit's output that has been bid into the market. Although Mr. Scheuerman asserts that section 2.3.1.1.3(e) of the CAISO Tariff gives the CAISO the authority to control "an entire Generating Unit" to provide Ancillary Services and Imbalance Energy, Ex. ISO-2 at 2, Ms. Le Vine testified that the CAISO "has never asserted such authority." Ex. No. ISO-1 at 8. Section 2.3.1.1.3(e) states, in pertinent part:

> The ISO shall have full authority…to…
>
> (e) control the output of Generating Units that are selected to provide Ancillary Services and Imbalance Energy.

Ex. No. J-1, Original Sheets 33 and 34. During the hearing, Ms. Le Vine explained that this provision gives the CAISO the authority to control the output of a Generating Unit only up to the amount bid – this is the universe from which the CAISO may "select" Ancillary Services or Imbalance Energy: "[I]f it's selected, then that's what the ISO has the ability to call on absent what we discussed previously, a system emergency." Tr. 280. Signing a Participating Generator Agreement does not require a Market Participant to bid into the CAISO's markets in any amount. Ex. No. ISO-1 at 6; Tr. 230.

Ms. Le Vine's interpretation is consistent with the Commission's interpretation of similar provisions. Section 2.3.1.2.2 requires all Market Participants to comply with ISO instructions without delay. When that section was before the Commission, an entity in another Control Area asked the Commission to limit its applicability to Market Participants within the CAISO Control Area. The Commission declined, noting that all Market Participants must comply with the CAISO's instructions *to the extent that they bid into the CAISO's markets. Pacific Gas and Elect. Co.*, 81 FERC ¶ 61,122 at 61,513 (1997). This logical approach should apply equally to Section 2.3.1.1.3(e).

Even if Mr. Scheuerman's interpretation were correct, it would do nothing to advance Turlock's arguments. Section 2.3.1.1.3(e), by its terms, applies to all *Generating Units* that have are selected to provide Ancillary Services. "Generating Units" is a defined term, which applies to all electric generators in the CAISO Control Area that are interconnected to the CAISO Controlled Grid and capable of providing net Energy. Ex. J-1, Original Sheet 317. Therefore, whatever the interpretation of Section 2.3.1.1.3(e), the authority provided would apply to Turlock if its bids into the CAISO's Ancillary Services Market were accepted, *regardless* of whether it signed a Participating Generator Agreement. Of course, Mr. Scheuerman's interpretation would thus give the CAISO extraordinary authority over Generators – authority that it does not have under Ms. Le Vine's interpretation.

In sum, Turlock can point to no provision of the CAISO Tariff that, under any reasonable interpretation, would give the CAISO the authority to control Turlock's Generating Units other than in emergency situations.

b. Approval of Outages

Like its ability to control Generating Unit operations, the CAISO's ability to control maintenance is very limited. Under the terms of the CAISO Tariff, it is the Participating Generator that, in the first instance, schedules outages. ISO Tariff § 2.3.3.5, Ex. J-1 Substitute First Revised Sheet 41 – Substitute Original Sheet 41A. The Tariff also allows for scheduling an outage as little as 72 hours before hand. Under section 2.3.3.5.2, the CAISO must approve the outage unless it is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid. Ex. J-1, First Revised Sheet 42. Once the outage is approved, the CAISO can cancel the outage only if necessary to maintain System Reliability.[7] ISO Tariff § 2.3.3.6, Ex. J-1, Substitute First Revised Sheet 433.

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[7] At the hearing, Mr. Scheuremen stated that section 2.3.3.6 also allows the ISO to cancel outage due to unduly significant market impacts. Tr. 98 Counsel informed the Presiding Judge that the ISO's ability to cancel scheduled outages for market reasons had been rejected by the Commission, and counsel was at a loss to explain the language in the Tariff. Tr. 98. Indeed, the authority was rejected by the Commission. *San Diego Gas & Elec. Co. v. Sellers of Ancillary Services,* 95 FERC ¶ 61,115. Counsel was mistaken, however, in the conclusion that the language in the Tariff did not reflect the Commission decision. Section 2.3.3.6 authorizes ISO to cancel outages due to market impact only in the case of transmission facilities and Reliability Must-Run Units, which are under contract to the ISO, *see* ISO Tariff § 5.2.1, Ex. J-1, Original Sheet 170. The compliance filing eliminating the general authority and implementing the more restricted authority was

This limited authority to control outages, like the CAISO's limited control over Generating Unit operation, is necessary to the CAISO's fulfillment of its Control Area responsibilities to ensure reliability. As Ms. Le Vine noted, a greater level of Outage coordination is necessary in the current market climate in California, as too many simultaneous Outages could have a deleterious effect on reliability. Ex. No. ISO-1 at 8. Indeed, in an order issued April 26, 2001, the Commission directed the CAISO to take a larger role in controlling Outages of Participating Generators. In order to ensure that sufficient generation capacity is available, the Commission stated that "[t]he ISO must be provided the authority to achieve greater systematic control over all units. . . that the ISO must dispatch, i.e., those units that have signed [Participating Generator Agreements]." *San Diego Gas & Elec. Co. v. Sellers of Ancillary Services*, 95 FERC 61,115 at 61,355 (2001).

Even so, certain Generating Units sought exemption from the outage coordination requirements. In particular, cogenerating Qualified Facilities made arguments similar to those raised by Turlock, asserting that the CAISO's outage authority was inconsistent with their relationship to their thermal hosts. The Commission rejected the exemption. *San Diego Gas & Elec. Co. v. Seller of Ancillary Services*, 95 FERC ¶ 61,418 at 62,551 (2001). Turlock's concerns are no more credible.

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approved by the Commission on *San Diego Gas & Elec. Co. v. Sellers of Ancillary Services,* 97 FERC ¶ 61,066 at 61,355.

2. Whether Turlock's ability to operate its system in a vertically integrated manner would be significantly compromised by Turlock's signing a PGA.

Turlock's witness Scheuerman appears to have identified two manners in which Turlock's ability to operate its system in a vertically integrated manner would be threatened by Turlock's signing a Participating Generator Agreement. First, he suggested that the CAISO's operational control could interfere with Turlock's ability to serve its internal Load. Tr. 178-79. Regardless of the CAISO's instructions to Turlock's Generating Units, however, the simple physics of electricity ensure that Turlock's Load will continue to be served by virtue of its interconnection to Turlock's Units, unless that Load is curtailed. The CAISO cannot direct Turlock's Generation away from its Load to other places. Even if the CAISO reduced the Generation from Turlock's Generating Units, Turlock's Load would continue to be served by Energy flowing in from the CAISO Controlled Grid.

The CAISO could thus only affect service to Turlock's Load by requiring Load shedding in a System Emergency. Tr. 184, 346. Execution of a Participating Generator Agreement is not relevant to Load curtailment decisions, however. *See* ISO Tariff § 2.3.2.6, Ex. J-1 Original Sheet 37; Tr. 184. If Load shedding is necessary, Pacific Gas and Electric Company would determine Turlock's share. Tr. 346-347.

Mr. Scheuerman's second concern was that the CAISO would interfere with Turlock's fulfillment of its irrigation responsibilities. Tr. 109. Participating

Generator Agreements allow for specific limitations and characteristics of Generating Units to be taken into account in determining whether to call on them, even in a System Emergency Tr. 263-64. Schedule 1 of the Participating Generator Agreement, Ex. No. ISO-7, provides an opportunity for the would-be Participating Generator to describe any operating characteristics or limitations that are pertinent in determining when they cannot be dispatched.

If Turlock executed a Participating Generator Agreement and provided the CAISO with parameters for its availability in Schedule 1 of the Participating Generator Agreement, "even in emergencies, we have to abide by those limitations." Tr. 263-64. Such limitations could take the form of delineating Turlock's irrigation requirements, in order to preserve necessary irrigation water even in times of System Emergencies. Moreover, the limitations provided in Schedule 1 could be crafted such that Turlock would have the opportunity to update the CAISO regarding its status and availability on an hour to hour basis, if it so desired. Tr. 238-43, 248-51.

3. Whether Turlock, by signing a PGA, would have to pay CAISO charges that similarly situated vendors of Ancillary Services and Imbalance Energy (including Supplemental Energy) outside the CAISO's control area do not have to pay.

As noted above, Turlock is not similarly situated to vendors of Ancillary Services and Imbalance Energy outside the CAISO Control Area. Nonetheless, the CAISO recognizes that the issue of whether Turlock incurs

additional costs by virtue of signing a Participating Generator Agreement may also be relevant for the discussion of Issue C, *infra*. Because the CAISO anticipates that Turlock will discuss those charges in connection with this subissue, the CAISO will do so as well.

a. Metering Costs

If Turlock were to sign a Participating Generator Agreement, Turlock would need to comply with the CAISO's metering requirements. Turlock estimates this cost to be $500,000. Ex. TID-8 at 25. Turlock's actual costs could be – and are likely to be – much less. One of the specific exceptions specified in the CAISO's Metering Protocols allow the installation of a single meter – rather than the multiple meters included in Turlock's phase two metering study, Ex. ISO-3 at 2, – on multiple units that are connected at the same bus and which are treated as a single unit for the purpose of the sale of Energy and Ancillary Services. According to Turlock's phase one metering study, such treatment would reduce the cost to $224,070. Ex. ISO-4 at 3. That study also indicated that the CAISO was willing to accept such an arrangement. *Id.*

More significantly, the metering costs are a one-time investment. In light of Turlock's estimates that it could make $4.6 million annually, Ex. TID-8 at xx, a one-time investment of $500,000 does not appear unreasonable.

b. Other Costs.

There are *no* additional charges that Turlock will incur by virtue of signing a Participating Generator Agreement.[8] As discussed below, however, there are charges that Turlock will incur as a vendor of Energy and Ancillary Services regardless of whether it signs a Participating Generator Agreement, and there are also charges that Turlock's Load will incur if Turlock signs a Participating Generator Agreement *and* schedules and meters its internal Load. The major classes of CAISO charges are identified in Section 11 of the CAISO Tariff. *See, e.g.,* Ex. J-1, Original Sheets 245-46. Mr. Scheuerman[9] expressed concern about the applicability of certain of those classes of charges, which are discussed below.

Grid Management Charge/Ancillary Services and Real-Time Energy Operations Charge: The Ancillary Services and Real-Time Energy Operations charge is charged according to Generation and Load that, through their Scheduling Coordinators, sell and purchase in the CAISO's Ancillary Services and Imbalance Energy Markets, as well as to Load that self-provides Ancillary Services. Ex. ISO-1 at 16. The CAISO will assess that charge *regardless* of whether Turlock signs a Participating Generator Agreement, *see*

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8 It should be noted that CAISO charges (with the exception of charges directly to Participating Transmission Owners) are assessed to Scheduling Coordinators for Loads and Generators, not directly to Loads or Generators.

9 Mr. Scheuerman acknowledged in his Rebuttal Testimony that Turlock's internal Load would not be subject to Wheeling Access Charges. Ex. Turlock-9 at 59.

Tr. 123-24; it will also assess the same charge, in the same manner, to System Resources.

Grid Management Charge/Control Area Services: The Control Area Services Charges is based on Control Area Gross Load, which includes internal Load of municipal utilities.[10] ISO Tariff § 8.3.1, Ex. J-1 at First Revised Sheet 217. To the extent that metered data is not available, the CAISO uses estimates of internal Load. ISO Tariff SABP § 3.1, Ex. J-1, First Revised Sheet 641. Thus, the CAISO will assess Turlock's Scheduling Coordinators the Control Area Services charge based on Turlock's internal Load *regardless* of whether Turlock signs a Participating Generator Agreement or participates in the CAISO markets. *See* Tr. 120-21.

Grid Management Charge/Congestion Management Charge: The Congestion Management Charge is assessed according to net scheduled Inter-Zonal flows. ISO Tariff § 8.3.2, Ex. J-1, First Revised Sheet 218. Because Turlock's service to its internal Load would never involve transmission between the CAISO's Zones, the CAISO would assess *no* Congestion Management charges based on Turlock's internal Load regardless of whether Turlock signs a Participating Generator Agreement. *See* Tr. at 124-25.

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[10] Whether charging Control Area Services based on Control Area Gross Load is just and reasonable is currently at issue in Docket No. ER01-313. In a recent initial decision, Judge Bobbie J. McCartney found that the practice was just and reasonable. *California Ind. Sys. Oper.,* 99 FERC. ¶ 63,020 (2002). The CAISO anticipates that certain parties will file Briefs on Exceptions.

Unaccounted for Energy: Unaccounted for Energy is the difference between the amount of Energy delivered into the Service Area of a Utility Distribution Company and the actual metered Demand within the Service Area. ISO Tariff, Appendix A, Original Sheet 355. It is billed according to Demand within a Utility Distribution Company Service Area in proportion to the Service Area's contribution to overall Unaccounted For Energy . Exh. ISO-1 at 19. To the extent Turlock continues to operate under the terms of its Interconnection Agreement with Pacific Gas & Electric Company, it is the terms of that agreement that will govern the assessment of Unaccounted For Energy charges that are allocated to Turlock's Load. Moreover, if Turlock were also to become a Utility Distribution Company in addition to executing a Participating Generator Agreement, it would not be subject to allocation of a *pro rata* share of Pacific Gas and Electric Company's Unaccounted For Energy charges by the CAISO but would instead be responsible only for its own Unaccounted For Energy. Exh. ISO-1 at 19.

Neutrality Charges: The neutrality charge is an allocation in order to assure that the CAISO remains revenue neutral. Elements of the Neutrality Charge include charges and credits for rounding, penalties, amounts required to reach an accounting balance of zero, amounts required for payment adjustment for regulating Energy, and awards payable to or by the CAISO pursuant to good faith negotiations or Alternative Dispute Resolution. Ex. J-1,

Original Sheet 251-Original Sheet 252. If metered, Turlock's internal Load would pay such charges.

Replacement Reserves: Under the Minimum Operating Reliability Criteria, the CAISO's "load responsibility" constitutes all firm Load Demand in the Control Area – including that of Turlock. Exh. ISO-5 at 12. As discussed above, the CAISO must ensure that there are sufficient Operating Reserves at all times for the Load. Because the CAISO must replenish those reserves if it calls upon them to provide Imbalance Energy, the CAISO must have Replacement Reserves available. Ex. ISO-1 at 20 If Turlock's Load were metered, it would be responsible for Replacement Reserves. ISO Tariff § 2.5.28.4, Ex. J-1 at Original Sheet 132. Because Turlock's internal Load benefits from the reliability of the Control Area, however, this responsibility is appropriate regardless of whether Turlock signs a Participating Generator Agreement.

As with Operating Reserves, Turlock could self-provide the Replacement Reserves and avoid any charges – or it can obtain those Replacement Reserves from Pacific Gas and Electric Company if the terms of its Interconnection Agreement, or any other arrangement it can negotiate with Pacific Gas and Electric Company, obligate that company to provide those Replacement Reserves to the CAISO. ISO Tariff § 2.5.1, Ex. J.-1 at Original Sheet 61; Ex. ISO-1 at 20.

c. Reasonability of Costs

Using Mr. Scheuerman's estimates, in light of the above discussion, if Turlock signed a PGA, scheduled and metered its internal Load, and signed a Utility Distribution Company Agreement avoid Unaccounted For Energy charges, Turlock's only additional costs would be a one time charge of $500,000 and Neutrality Charges of approximately $630,000 per year. Ex. ISO-1 at 21; Ex. TID-8 at 25. With Mr. Scheuerman's estimate of $4.6 million, in additional earnings from Turlock's participation in the CAISO Markets, TID-8 at 27,Turlock would make almost $3.5 million dollars in the first year and almost $4.1 million in subsequent years. If Turlock did not sign a Utility Distribution Company Agreement, the amounts would be $2.2 million and $3.3 million respectively. In light of these profits, it does not appear unreasonable for Turlock to bear the same costs that all Market Participants in the CAISO Control Area bear.

C. If Turlock is not similarly situated to vendors of Ancillary Services and Imbalance Energy (including Supplemental Energy) outside the CAISO's control area who are not required to execute a PGA, whether the CAISO's requiring, through the provisions of its Tariff, that Turlock execute a *pro forma* PGA is otherwise unjust, unreasonable or unduly discriminatory.

In the preceding discussions, the CAISO has shown that each of the Tariff provisions and costs to which Turlock would be subject upon execution of a Participating Generator Agreement is reasonable. Accordingly, there is no basis for concluding that the CAISO's requiring, through the provisions of

its Tariff, that Turlock execute a *pro forma* PGA is otherwise unjust, unreasonable or unduly discriminatory. The CAISO will respond to Turlock's discussion of this issue as appropriate in the CAISO's Reply Brief.

D. If the CAISO's practices, through the provisions of its Tariff governing the CAISO's acquisition of Ancillary Services and Imbalance Energy/Supplemental Energy, are unduly discriminatory or otherwise unjust and unreasonable as applied to Turlock, what remedies are appropriate.

Because the CAISO contends that the CAISO's practices, through the provisions of its Tariff governing the CAISO's acquisition of Ancillary Services and Imbalance Energy/Supplemental Energy, are not unduly discriminatory or otherwise unjust and unreasonable as applied to Turlock, this issue is not applicable to the CAISO's Initial Brief. The CAISO will respond to Turlock's discussion of this issue as appropriate in the CAISO's Reply Brief.

IV. CONCLUSION

For the reasons discussed above, Turlock's complaint should be dismissed.

Respectfully submitted,

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Counsel for the California Independent System Operator Corporation

Date: June 6, 2002

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the service list compiled by the Secretary in this proceeding.

Dated at Washington, DC, this 6th day of June, 2002.

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Julia Moore
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