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September 16, 2004

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

**Re: California Independent System Operator Corporation
Compliance Filing
Docket No. ER04-938-___**

Dear Secretary Salas:

The California Independent System Operator Corporation ("ISO")¹ respectfully submits six copies of this filing in compliance with the Commission's August 17, 2004 "Order on Tariff Amendment No. 61," issued in the captioned docket, 108 FERC ¶ 61,193 ("Amendment No. 61 Order"). The Commission directed the ISO to comply with the Amendment No. 61 Order as described below. (The underlined headings shown below correspond to the headings used in the Amendment No. 61 Order.)

Pricing Methodology

The Commission directed that "the independent entity calculating decremental reference price to utilize the current methodology when determining the shut-down reference price for a particular generating unit. If any deviation from the established methodology is necessary, we direct the CAISO and the independent entity to submit a compliance filing . . . outlining the necessary changes and supplying adequate justification for such deviation. Amendment No. 61 Order at P 12. The independent entity calculating reference prices requires no deviation from the process set forth in Section 7.2.6.1.1 of the ISO

¹ Capitalized terms not otherwise defined herein are used in the sense given in the Master Definitions Supplement, Appendix A to the ISO Tariff.

Tariff.

Start-up Costs

In its July 28, 2004 answer in the captioned docket ("Amendment No. 61 Answer"), the ISO indicated it was reasonable to compensate Generators for the cost of keeping a Generating Unit "warm" if that Unit is needed to meet the next day's schedules, and it was less expensive to keep the Generating Unit warm instead of shutting the Generating Unit off and re-starting it. Amendment No. 61 Answer at 7. The Commission directed the ISO to submit revised Tariff sheets to implement this concept. Amendment No. 61 Order at P 16. The ISO has modified Section 7.2.6.1 of the ISO Tariff accordingly.

Merit Order Methodology

The Commission directed the ISO to submit revised Tariff sheets to clarify that, where the ISO must choose among Generating Units to shut down, the ISO must shut down Generating Units based on the "expected total shut-down cost," rather than on the reference price between 0 MW and a Generating Unit's minimum operating level. Amendment No. 61 Order at P 20. The ISO has modified Section 7.2.6.1 accordingly.²

Hydroelectric Resources

The Commission stated that it had dismissed the rehearing requests of the Metropolitan Water District and the California Department of Water Resources State Water Project, noting that the ISO had committed to dispatching hydroelectric resources only if such resources are the only resources that are available to relieve the Congestion and avoid a System Emergency. The Commission directed the ISO to modify its Tariff by "detailing the procedure [the ISO] will utilize in determining the need to dispatch a hydroelectric unit to manage intra-zonal congestion." Amendment No. 61 Order at P 23.

In the Commission's April 16, 2004 order on rehearing in the proceeding

² In addition, concurrently with the present filing, the ISO is submitting a request for clarification and rehearing in this proceeding, in which the ISO requests clarification concerning what the "total shut-down cost" means.

concerning Amendment No. 50 to the ISO Tariff,³ the Commission denied rehearing sought by the California Department of Water Resources and the Metropolitan Water District of Southern California of the ISO's authority to dispatch "dedicated-purpose" hydroelectric resources that "serve water management purposes (including flood control, water deliveries, environmental and recreational needs). . . ."⁴ The ISO committed that it would dispatch such dedicated-purpose resources to manage Congestion only if there were no other effective units available. The Commission's directive in the Amendment No. 61 Order regarding hydroelectric units did not expressly limit the scope of application to only dedicated-purpose hydroelectric units. Accordingly, the ISO has added a new Section 7.2.6.4 to the ISO Tariff to indicate that it will dispatch hydroelectric resources that have not submitted Supplemental Energy bids to manage Congestion only if those resources are the only effective resources that can be dispatched to relieve the Congestion and prevent a System Emergency. A hydroelectric resource that submits Supplemental Energy bids has indicated a willingness to be re-dispatched according to those bids. If necessary, such resources can and should be dispatched according to those bids to manage Congestion.

Reliability Must-Run Units and Must-Offer Obligation

The Commission directed the ISO to submit revised tariff sheets to reflect its agreement in the Amendment No. 61 Answer that Section 7.2.6 does not apply when (1) a Generating Unit operating under the must-offer obligation (i.e., does not have a bilateral schedule) is shut down to manage Intra-Zonal Congestion, or (2) a Generating Unit operating only under its RMR Contract is shut down. Amendment No. 61 Order at P 27. The ISO has modified Section 7.2.6.1 accordingly.

Day-Ahead Energy Schedules and Day-Ahead Ancillary Service Schedules

The Commission directed the ISO to submit revised Tariff sheets to provide that, if the ISO shuts down a Generating Unit to manage Intra-Zonal Congestion and the Generating Unit cannot start up in time to meet its Day-Ahead Energy Schedules, the ISO should charge that Generating Unit the lesser of the decremental reference price the corresponds to the Generating Unit's Day-

³ *California Independent System Operator Corporation*, 107 FERC ¶ 61,028 (2004).

⁴ *Id.* at P 17.

Ahead Schedule or the Market Clearing Price. Amendment No. 61 Order at P 32.

The Commission also concluded that a Generating Unit shut down by the ISO to manage Intra-Zonal Congestion should not be charged Uninstructed Deviation Penalties ("UDP"). Amendment No. 61 Order at P 34. The ISO confirms that a Generating Unit that complies with an ISO instruction to shut down will not be subject to UDP. Such an instruction, whether out of sequence or out of market, will be considered in determining the expected energy, and a Generating Unit complying with such an instruction will have no deviation on which a penalty would be assessed. However, a Generating Unit that fails to comply with a properly issued shut-down instruction will be subject to UDP.

Inter-Zonal and Intra-Zonal Congestion

In its May 17, 2004 compliance filing in Docket No. ER03-683 ("Amendment No. 50 Compliance Filing"), the ISO modified Section 7.2.6.1 to provide that a Generating Unit that is shut down to manage Intra-Zonal Congestion may invoice the ISO to be paid its start-up costs in accordance with Section 2.5.23.3.7.6 of the ISO Tariff.⁵ Recently, the ISO encountered a situation in which a Generating Unit was shut down to manage Inter-Zonal Congestion, not Intra-Zonal Congestion. Though the ISO did not contemplate that it would have to shut down Generating Units to manage Inter-Zonal Congestion, there is no logical reason why a Generating Unit shut down to manage *Intra-Zonal* Congestion should be allowed to invoice the ISO for its Start-Up Costs, while a Generating Unit shut-down to manage *Inter-Zonal* Congestion should not be allowed to invoice the ISO for its Start-Up Costs. While the Commission did not order the ISO to modify its Tariff to allow Generating Units shut down to manage

⁵ In the transmittal letter for the Amendment No. 50 Compliance Filing, the ISO noted that, in the Amendment No. 50 proceeding, the Commission acknowledged the ISO's willingness to modify its Tariff to pay Start-Up Costs when a Generating Unit is shut down to manage Intra-Zonal Congestion, but did not expressly direct the ISO to do so. Transmittal Letter for Amendment No. 50 Compliance Filing, Docket No. ER03-683-005 (May 17, 2004), at 3-4. Despite the lack of any express direction from the Commission to do so, the ISO modified its Tariff to include Start-Up Costs in the Amendment No. 50 Compliance Filing. There appeared to be no dispute between the ISO and the Border Generation Group on this issue. The ISO sought clarification that the Commission intended the ISO to include Start-Up Costs in a May 17, 2004 motion for clarification in the Amendment No. 50 proceeding. See Motion for Clarification or, in the Alternative, Request for Rehearing of the California Independent System Operator Corporation, Docket No. ER03-683-004 (May 17, 2004), at 4.

Inter-Zonal Congestion to invoice the ISO for its start-up costs,⁶ the ISO respectfully requests that it be permitted to include this modification in the instant compliance filing. Permitting the ISO to include this modification in the instant compliance filing will address a situation in which a distinction without a difference (i.e., the difference between whether the Congestion occurs at a Zonal interface or within a Zone) will prevent a Generating Unit from recovering a cost the ISO agrees to pay. The ISO is not proposing to change the constituency to whom these Start-Up Costs would be allocated. As directed by the Commission, Start-Up Costs are allocated to metered Demand in the ISO Control Area and exports from the ISO Control Area to other Control Areas within California.⁷

Effective Date

The Commission granted the effective date of August 18, 2004 requested by the ISO in Amendment No. 61. Amendment No. 61 Order at P 41. When the ISO requested this date, the ISO did not fully anticipate the complexity of implementing what are essentially two separate decremental reference prices (a reference price curve that covers the range from the Generating Unit's minimum operating level to its full output, and a decremental reference price for the range between zero (0) MW output and the Generating Unit's minimum operating level). The ISO did not propose or contemplate having to determine and use a Generating Unit's total shut-down cost (which now includes the lesser of the Generating Unit's Start-Up Costs and the costs to keep the Generating Unit warm to meet its next day's Schedules) as the basis for determining which Generating Unit to shut down to manage Congestion. The ISO does not yet even have information on what the costs are to keep a Generating Unit warm. Furthermore, as explained in the attached affidavit of Ziad Alaywan, Director of Market Operations for the ISO, the ISO's Market Operations staff is now fully consumed with other pressing matters. As a result, the ISO cannot implement all of the directives immediately. The ISO can immediately implement (1) the provisions to dispatch hydroelectric Generating Units to manage Congestion only after all other effective resources have been used, and (2) charging the lesser of

⁶ As discussed in footnote 5, above, the ISO has sought clarification as to whether the Commission intended that the ISO pay Start-Up Costs for a Generating Unit shut down to manage Intra-Zonal Congestion.

⁷ While the ISO proposed to change how Minimum Load Costs are allocated in Amendment No. 60 to the ISO Tariff, the ISO did not propose to change how Start-Up Costs are allocated. No party commented on or protested the ISO's proposal to leave unchanged how Start-Up Costs are allocated.

the Market Clearing Price or the decremental reference price to a unit shut down until it is restarted. The ISO cannot immediately implement (1) the new shut-down reference price (due to limited availability of Market Operations staff), and (2) basing a shut-down decision on total shut-down costs (because the ISO does not yet have those costs, and because of limited availability of Market Operations staff to incorporate those costs into the tool that will be used to make shut-down decisions). The ISO estimates it may be able to implement these directives by January 30, 2004. The ISO acknowledges that, should it be required to apply some provisions of Section 7.2.6.1 between now and the time the modifications can be made, it will have to continue to apply existing charges and later re-run settlements to apply the proper charges. The ISO also notes that there are some provisions that it cannot immediately implement that cannot be "re-run." As an example, because the ISO cannot implement the directive to base a decision as to which unit should be shut down on the unit's Start-Up Costs (which it does not currently have), the ISO cannot go back later and determine that it should have shut down a different Generating Unit than it did when considering the total shut-down costs because the event will have already occurred.

Materials Included in the Present Compliance Filing

Attachment A to the present filing contains clean ISO Tariff sheets reflecting the modifications to the tariff sections described above, prior to the implementation of Amendment No. 54 to the ISO Tariff.⁸ Attachment B to the present filing contains clean ISO Tariff sheets reflecting the modifications to the tariff sections described above, subsequent to the implementation of Amendment No. 54. Attachment C to the present filing contains those modifications in black-line format. Attachment D to this filing contains the affidavit of Ziad Alaywan, Director of Market Operations for the ISO. Attachment E to this filing contains a form notice of this filing, suitable for publication in the Federal Register, along with a computer diskette containing the Notice.

Two additional copies of this compliance filing are enclosed to be date-stamped and returned to our messenger. The ISO is serving copies of this filing on all parties on the official service list for the captioned docket. In addition, the


⁸ As Amendment No. 54 has been accepted by the Commission but has not yet been made effective, the ISO is providing clean sheets to illustrate how Amendment No. 54 would affect the ISO Tariff as currently in effect and how it will work with Amendment No. 54 when implemented in the future.

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ISO is posting this filing on the ISO Home Page. If there are questions concerning the filing, please contact the undersigned.

Respectfully submitted,


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ATTACHMENT A

7.2.6.1 Decremental Bids. With regard to decremental bids, if Final Hour-Ahead Schedules cause Congestion on the Intra-Zonal interface, the ISO shall, after Dispatching available and effective Reliability Must-Run Units to manage the Congestion, apply the decremental reference prices determined by the independent entity that determines the reference prices for the Automatic Mitigation Procedure (AMP) as described in Appendix A to the Market Monitoring and Information Protocol. The ISO shall Dispatch Generating Units according to the decremental reference prices thus established, the resource's effectiveness on the Congestion, and other relevant factors such as Energy limitations, existing contractual restrictions, and Regulatory Must-Run or Regulatory Must-Take status, to alleviate the Congestion after Final Hour-Ahead Schedules are issued. Where the ISO must reduce a Generating Unit's output, the ISO shall Dispatch Generating Units according to the decremental reference prices and not according to Adjustment Bids or Supplemental Energy Bids to alleviate Intra-Zonal Congestion. No Generating Unit shall be Dispatched below its minimum operating level or above its maximum operating level. No Reliability Must-Run Unit shall be Dispatched below the operating level determined by the ISO as necessary to maintain reliability. If Congestion still exists after all Generating Units are Dispatched to their minimum operating levels, the ISO shall instruct Generating Units to shut off in merit order based on their total shut-down costs, beginning with the most expensive unit, where such shut-down costs include the lesser of the cost to start up the Generating Unit or to keep the Generating Unit warm for each Generating Unit with a non-zero Final Day-Ahead Schedule for Energy for the next day. Units shut off due to Congestion as set forth in this Section 7.2.6.1 shall be charged the lesser of the decremental reference price for the operating range between zero MW output and the unit's minimum operating level or the relevant Market Clearing Price.

If a Generating Unit shut down according to this Section 7.2.6.1 cannot start up in time to meet its next day's Energy Schedules, the ISO shall charge the Scheduling Coordinator for that Generating Unit the lesser of the decremental reference price or the Market Clearing Price at the operating level set forth in the relevant Energy Schedule for any deviation from the next day's Final Day-Ahead Schedules for Energy caused by such shut-down. Charges set forth in this Section 7.2.6.1 shall not apply to (1) Reliability Must-Run Units operating solely under their Reliability Must-Run Contracts or (2) units operating during a Waiver Denial Period in accordance with the must-offer obligation.

The ISO shall apply the decremental reference prices to thermal Generating Units and to non-thermal Generating Units. If a Generating Unit is instructed by the ISO to shut down to manage Intra-Zonal Congestion, and is subsequently re-started, the Owner of that Generating Unit may invoice the ISO for the lesser of (1) the Start-Up Costs incurred and (2) the costs of keeping the Generating Unit warm to meet its Energy Schedules as set forth in Section 2.5.23.3.7.6.

If the ISO Dispatches System Resources or Dispatchable Loads to alleviate Intra-Zonal Congestion, the ISO shall Dispatch those resources in merit order according to the resource's Day-Ahead or Hour-Ahead Adjustment Bid or Imbalance Energy bid.

The ISO shall only Redispatch Regulatory Must-Take or Regulatory Must-Run Generation,

7.2.6.1.3 [Not Used]

7.2.6.1.4 [Not Used]

7.2.6.1.5 [Not Used]

7.2.6.1.6 [Not Used]

7.2.6.2 Incremental Bids. With regard to incremental bids, except as provided in Sections 5.2, 7.2.6.1 and 11.2.4.2, the ISO will perform Intra-Zonal Congestion Management in real time using available Adjustment Bids and Imbalance Energy bids, based on their effectiveness and in merit order, to minimize the cost of alleviating Congestion. In the event no Adjustment Bids or Imbalance Energy bids are available, the ISO will exercise its authority to direct the Redispatch of resources as allowed under the Tariff, including Section 2.4.4.

7.2.6.3 Cost of Intra-Zonal Congestion Management. The net of the amounts paid by the ISO to the Scheduling Coordinators and the amounts charged to the Scheduling Coordinators will be calculated and charged to all Scheduling Coordinators through a Grid Operations Charge, as described in Section 7.3.2.

7.2.6.4 Dispatch of Hydroelectric Resources for Congestion. If the ISO must dispatch hydroelectric resources for which no Supplemental Energy bids have been submitted to manage Congestion, the ISO shall do so only after dispatching all other reasonably effective resources that could be used to manage the Congestion.

7.2.7 Creation, Modification and Elimination of Zones.

7.2.7.1 Active Zones. The Active Zones are as set forth in Appendix I to this ISO Tariff.

7.2.7.2 Modifying Zones. The ISO shall monitor usage of the ISO Controlled Grid to determine whether new Zones should be created, or whether existing Zones should be eliminated, in accordance with the following procedures.

7.2.7.2.1 If over a 12-month period, the ISO finds that within a Zone the cost to alleviate the Congestion on a path is equivalent to at least 5 percent of the product of the rated capacity of the path and the weighted average High Voltage Access Charge and Low

ATTACHMENT B

7.2.6.1.3 [Not Used]

7.2.6.1.4 [Not Used]

7.2.6.1.5 [Not Used]

7.2.6.1.6 [Not Used]

7.2.6.2 Incremental Bids. With regard to incremental bids, except as provided in Sections 5.2, 7.2.6.1 and 11.2.4.2, the ISO will perform Intra-Zonal Congestion Management in real time using available Imbalance Energy bids, based on their effectiveness and in merit order, to minimize the cost of alleviating Congestion. In the event no Imbalance Energy bids are available, the ISO will exercise its authority to direct the Redispatch of resources as allowed under the Tariff, including Section 2.4.4.

7.2.6.3 Cost of Intra-Zonal Congestion Management. The net of the amounts paid by the ISO to the Scheduling Coordinators and the amounts charged to the Scheduling Coordinators will be calculated and charged to all Scheduling Coordinators through a Grid Operations Charge, as described in Section 7.3.2.

7.2.6.4 Dispatch of Hydroelectric Resources for Congestion. If the ISO must dispatch hydroelectric resources for which no Supplemental Energy bids have been submitted to manage Congestion, the ISO shall do so only after dispatching all other reasonably effective resources that could be used to manage the Congestion.

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ATTACHMENT C

7.2.6.1 Decremental Bids. With regard to decremental bids, if Final Hour-Ahead Schedules cause Congestion on the Intra-Zonal interface, the ISO shall, after Dispatching available and effective *Reliability Must-Run Units to manage the Congestion*, apply the decremental reference prices determined by the independent entity that determines the reference prices for the Automatic Mitigation Procedure (AMP) as described in Appendix A to the Market Monitoring and Information Protocol. The ISO shall Dispatch Generating Units according to the decremental reference prices thus established, the resource's effectiveness on the Congestion, and other relevant factors such as Energy limitations, existing contractual restrictions, and Regulatory Must-Run or Regulatory Must-Take status, to alleviate the Congestion after Final Hour-Ahead Schedules are issued. Where the ISO must reduce a Generating Unit's output, the ISO shall Dispatch Generating Units according to the decremental reference prices and not according to Adjustment Bids or Supplemental Energy Bids to alleviate Intra-Zonal Congestion. No Generating Unit shall be Dispatched below its minimum operating level or above its maximum operating level. No *Reliability Must-Run Unit shall be Dispatched* below the operating level determined by the ISO as necessary to maintain reliability. If Congestion still exists after all Generating Units are Dispatched to their minimum operating levels, the ISO shall instruct Generating Units to shut off in merit order based on their total shut-down costs ~~decremental reference prices for the operating range between zero MW output and the unit's minimum operating level, as determined by the independent entity calculating decremental reference prices,~~ beginning with the most expensive unit, where such shut-down costs include the lesser of the cost to start up the Generating Unit or to keep the Generating Unit warm for each Generating Unit with a non-zero Final Day-Ahead Schedule for Energy for the next day. Units shut off due to Intra-Zonal Congestion as set forth in this Section 7.2.6.1 shall be charged the lesser of the decremental reference price for the operating range between zero MW output and the unit's minimum operating level or the relevant Market Clearing Price. If a Generating Unit shut down according to this Section 7.2.6.1 cannot start up in time to meet its next day's Energy Schedules, the ISO shall charge the Scheduling Coordinator for that

Generating Unit the lesser of the decremental reference price or the Market Clearing Price at the operating level set forth in the relevant Energy Schedule for any deviation from the next day's Final Day-Ahead Schedules for Energy caused by such shut-down. Charges set forth in this Section 7.2.6.1 shall not apply to (1) Reliability Must-Run Units operating solely under their Reliability Must-Run Contracts or (2) units operating during a Waiver Denial Period in accordance with the must-offer obligation.

The ISO shall apply the decremental reference prices to thermal Generating Units and to non-thermal Generating Units. If a Generating Unit is instructed by the ISO to shut down to manage Intra-Zonal Congestion, and is subsequently re-started, the Owner of that Generating Unit may invoice the ISO for the lesser of (1) the Start-Up Costs incurred and (2) the costs of keeping the Generating Unit warm to meet its Energy Schedules as set forth in Section 2.5.23.3.7.6.

If the ISO Dispatches System Resources or Dispatchable Loads to alleviate Intra-Zonal Congestion, the ISO shall Dispatch those resources in merit order according to the resource's Day-Ahead or Hour-Ahead Adjustment Bid or Imbalance Energy bid.

The ISO shall only Redispatch Regulatory Must-Take or Regulatory Must-Run Generation, Intermittent Resources, or Qualifying Facilities to manage Intra-Zonal Congestion after redispatching all other available and effective generating resources, including Reliability Must-Run Units.

* * *

7.2.6.4 Dispatch of Hydroelectric Resources for Congestion. If the ISO must dispatch hydroelectric resources for which no Supplemental Energy bids have been submitted to manage Congestion, the ISO shall do so only after dispatching all other reasonably effective resources that could be used to manage the Congestion.

* * *

ATTACHMENT D

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

California Independent System) Docket No. ER04-938-____
Operator Corporation)

**AFFIDAVIT OF ZIAD ALAYWAN
ON BEHALF OF THE CALIFORNIA INDEPENDENT
SYSTEM OPERATOR CORPORATION
CONCERNING IMPLEMENTATION OF PROVISIONS IN
AMENDMENT NO. 61 TO THE ISO TARIFF**

1. My name is Ziad Alaywan. I am the Director Of Market Operations for the California Independent System Operator Corporation ("ISO"), a position I have held since 1997. I have more than 16 years of experience in the energy sector, electric system operations, restructuring, market design, and implementation. In my current position as Director of Market Operations, I oversee the implementation and the operation of the day-ahead, hour-ahead and real-time markets. This includes operation of the Ancillary Services, Congestion Management, Energy spot Markets, network modeling, unit commitment and Firm Transmission Right ("FTR") auction. My business address is 151 Blue Ravine Road, Folsom, California 95630.

I was one of the first employees hired by the ISO in June 1997 and was instrumental in start-up of the pioneering organization with responsibility to

implement and operate the ISO markets. Prior to the formation of the ISO, I was working for the ISO trustees and led the effort in putting together the new organization, focused on development and implementation of the bidding, Scheduling, and pricing systems. Prior to my experience at the ISO, I worked at Pacific Gas and Electric Company ("PG&E") in various positions in system operations, real-time Dispatch, power plant operation, and transmission planning. From 1993 to 1996, I supervised the real-time operations of PG&E Generation, transmission, and Scheduling. I received Bachelor's and Master's degrees in Electrical Engineering from Montana State University in 1987. I am also a certified Professional Engineer in the State of California. I completed an Executive Management program at the Haas School of Business, University of California, Berkeley, California, 2002.

2. The purposes of my affidavit are to (i) explain the actions that are required in order to implement two separate decremental reference prices effective August 18, 2004, as approved in the Commission's August 17, 2004 order in the captioned proceeding, and (ii) describe the various ISO Market Operations projects that are currently ongoing and that prevent the ISO, for the time being, from being able to implement the two separate decremental references prices effective August 18, 2004.
3. In Amendment No. 61 to the ISO Tariff ("Amendment No. 61"), submitted in the captioned proceeding, the ISO proposed to modify Section 7.2.6.1 of the ISO Tariff to (i) indicate that the price used to determine which

resources should be shut off to manage Intra-Zonal Congestion will be the decremental reference price for the range between zero MW and the unit's minimum operating level, as determined by the independent entity calculating decremental reference prices; and (ii) charge a resource thus shut off the lesser of the Market Clearing Price or the decremental reference price for the range between zero MW and the unit's minimum operating level, as determined by the independent entity calculating decremental reference prices. In addition, the ISO proposed to modify Section 7.2.6.1.1 of the ISO Tariff to recognize that the decremental reference level for the range from zero MW to the minimum operating level does not need to be monotonically non-decreasing.

4. The Commission accepted Amendment No. 61, subject to modification. Among the modifications the Commission required was that the ISO, when determining which Generating Units to shut down to manage Intra-Zonal Congestion, should take into account the expected total cost of the shut down.
5. The ISO requested an effective date of August 18, 2004 for the tariff changes contained in Amendment No. 61. At the time the ISO requested that effective date, the ISO did not fully anticipate the complexity of implementing what are essentially two separate decremental reference prices (a reference price curve that covers the range between the Generating Unit's minimum operating level to its full output, and a decremental reference price for the range between zero MW output and

the Generating Unit's minimum operating level. Moreover, the ISO did not propose or contemplate having to determine and use a Generating Unit's total shut-down cost (which now includes the lesser of the Generating Unit's Start-Up Costs and the costs to keep the Generating Unit "warm" to meet its next day's Schedules) as the basis for determining which Generating Unit to shut down to manage Congestion. The ISO does not yet even have information on what the costs are to keep a Generating Unit warm.

6. In order to implement the tariff changes contained in Amendment No. 61 in light of the Commission's direction in its order, the ISO Market Operations staff will need to obtain from Potomac Economics, the independent entity that will set the reference price, the relevant information concerning the decremental reference price for the range between zero MW output and the Generating Unit's minimum operating level. Generator owners will have to submit shut down cost to the ISO. Once the Market Operations staff has that information, it must take into account total shut-down cost as directed by the Commission. The ISO will also need to change the operational tools it uses to make shut-down decisions. Taking these actions will be laborious and time-consuming. Furthermore, ISO will have to put a process in place to address the treatment of generator-ordered shut-down and generators unable to return to service to comply with their bilateral schedules regardless of their minimum down time. The ISO currently uses a Generating Unit's static

minimum down time to calculate the charges paid by the generator when it is directed to shut down to manage Congestion.

7. The Market Operations staff is currently consumed in numerous other pressing matters besides efforts to implement the provisions in Amendment No. 61. These other matters are the following:
 - Putting Phase 1B of the ISO's Market Redesign & Technology Upgrade ("MRTU) into effect will require the Market Operations staff to implement numerous ISO Tariff changes related to economic dispatch of resources, Uninstructed Deviation Penalties, and other provisions approved in the Commission proceedings concerning Amendment Nos. 54 and 58 and pending in Amendment No. 62 to the ISO Tariff. Phase 1B of the MRTU is scheduled to go into service on October 1, 2004.
 - Implementation of provisions contained in Amendment No. 60 to the ISO Tariff. Some of these changes are scheduled to go into effect as part of Phase 1B on October 1, 2004, and others are scheduled to go into effect in December 2004 (publishing minimum load cost and MW on OASIS, and upgrading the *Must-Offer Unit Commitment tool* put in service in August 2004 to use a more robust and faster Mixed Integer Programming System algorithm).
 - Implementation of the Market Operations Reporting Tool ("MORT") and Scheduling Infrastructure Business Rules ("SIBR") as part of MRTU.
 - As part of MRTU, performing locational marginal pricing ("LMP")/congestion revenue rights ("CRR") studies filing of provisions

concerning Existing Transmission Contracts, LMP hubs, CRR allocation, and seller's choice contracts. This is scheduled to occur in November 2004.

- Ongoing MRTU design and implementation efforts. Currently, ten staff members in Market Operations are working full-time on this.
- Implementation of Phase 2 of the Network Model modification to accommodate the *Cities of Anaheim, Azusa, Banning, and Riverside, California* ("Southern Cities"). This is scheduled for December 2004.
- Implementation of a Network Model modification to accommodate new Participating Transmission Owners (the Southern Municipalities). This was scheduled to be completed September 15, 2004 (as part of Phase 1B).
- Implementation of changes needed for the transition of the Western Area Power Administration, which is planned for January 1, 2005.
- Implementation of changes needed to accommodate another new *Participating Transmission Owner, the City of Pasadena, California*. This is scheduled to be completed by January 1, 2005.
- Implementation of changes needed to permit dynamic scheduling for the resources in host control areas to satisfy pending Market Participants' requests for dynamic scheduling. This scheduled to be completed by January 30, 2005.
- Performing Capacity market analysis. This is scheduled to be completed and filed with the Commission by December 2004.

- Assisting with the SAS 70/Market Operations audit. This is scheduled to be completed by March 2005.
 - Participating in ongoing WesTTrans efforts to make joint ownership transmission capacity within the ISO Control Area available on the WesTTrans OASIS, currently scheduled to be completed in April 2005.
 - Development and implementation of a method to mitigate Intra-Zonal Congestion in real time. This is currently scheduled for February 2005.
 - Conducting the ISO's FTR auction for October 2004 and January 2005.
 - Amending the Metered Subsystems ("MSS") agreement, as part of Amendment No. 46 to the ISO Tariff, with regard to the ability of the ISO to forecast MSS load. This is currently scheduled to be completed by March 2005.
8. Because the Market Operations staff is involved in these other projects, the Market Operations staff will be unable to take the actions needed to *immediately implement the tariff changes directed by the Commission and proposed in Amendment No. 61*. The ISO estimates that it may be able to implement these tariff changes by January 30, 2004. The ISO can still implement some of the proposed changes retroactive to the approved effective date of August 18, 2004 – such as the provision to charge the lesser of the market clearing price or the decremental reference price between 0 MW and a Generating Unit's minimum operating level when that Generating Unit is shut down – by retroactively adjusting charges back to August 18, 2004. However, some other directed actions of the

Commission – such as using a Generating Unit’s total shut-down cost as the benchmark to determine which Generating Unit to shut down – only have meaning in a prospective implementation and could not be implemented retroactively. In other words, the ISO cannot go back after the fact and determine whether it should have shut down Generating Unit A or Generating Unit B considering total shut-down cost after it has already shut the unit down (prior to having the total shut-down cost).

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

_____)
City of Folsom)
County of Sacramento)
_____)

Docket No. ER04-938

DECLARATION OF AFFIANT

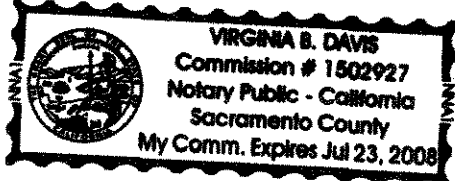
I, Ziad Alaywan, declare under penalty of perjury that the statements contained in my affidavit on behalf of the California Independent System Operator Corporation filed in this proceeding are true and correct to the best of my knowledge, information, and belief.

Executed on this 14 day of September, 2004.

Ziad Alaywan

Ziad Alaywan

State of CALIFORNIA
County of SACRAMENTO
Subscribed and sworn (or affirmed) to before
on the 14 day of September, 2004
Virginia B. Davis
(Signature of Notary)



ATTACHMENT E

