UNITED STATE OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Duke Energy Marketing America, LLC) Docket No. ER03-956-002

Motion to Intervene and Comments of the California Independent System Operator Corporation

Pursuant to Rule 214 of the Federal Energy Regulatory Commission's ("FERC" or "Commission") Rules of Practice and Procedure, 18 C.F.R. 385.214 The California Independent System Operator Corporation ("ISO") moves to intervene in the above-captioned docket and offers comments regarding Duke Energy Marketing America, LLC's ("DEMA") triennial market power update filing.

In support thereof, the ISO respectfully submits as follows:

I. COMMUNICATIONS

Please address communications regarding this filing to the following person:

Anthony Ivancovich
Senior Regulatory Counsel
California Independent System
Operator Corporation
151 Blue Ravine Road
Folsom, CA 95630
Tel: 916-608-7135
Fax: 916-608-7296

II. BACKGROUND

On April 14, 2004 the Commission issued an order[1] replacing the Supply Margin Assessment (SMA) test announced in the SMA Order[2] with

[1] AEP Power Marketing, Inc., *et al.*, 107 FERC ¶ 61,018 (2004) ("April 14 Order").
[2] AEP Power Marketing, Inc., *et al.*, 97 FERC ¶ 61,219 (2001) ("SMA Order").

two indicative screens (Pivotal Supplier Indicative Screen[3] and Market Share Indicative Screen[4]) for assessing generation market power and modifying the mitigation announced in the SMA Order. The Commission explained that the generation market power screens adopted in the April 14 Order are for interim purposes only and adopted in the April 14 Order a policy that provides applicants a number of procedural options, several types of generation market screens, and the option of proposing mitigation tailored to the particular circumstances of the applicant.

The Commission simultaneously issued a notice establishing a generic rulemaking docket to initiate a comprehensive generic review of the appropriate analysis for granting market-based rate authority, addressing generation market power, transmission market power, other barriers to entry, and affiliate abuse and reciprocal dealing.[5]

On May 13, 2004, the Commission issued an Order Implementing New Generation Market Power Analysis And Mitigation Procedures[6] addressing the procedures for implementing the new interim generation market power analysis and mitigation policy announced in the Commission's April 14 Order. Among other things, the May 13 Order directed all applicants with three-year market-based reviews pending

[3] The Pivotal Supplier Indicative Screen determines whether market demand can be met during peak times if the relevant supplier were not in the market.
[4] The Market Share Indicative Screen identifies whether the relevant supplier has a dominant market share in the relevant wholesale power market in any season of the year.
[5] Market-Based Rates for Public Utilities, 107 FERC ¶ 61,019 (2004).
[6] Acadia Power Partners, LLC, *et al.*, 107 FERC ¶ 61,168 (2004) ("May 13 Order").

before the Commission on or before May 13, 2004, to file their revised generation market power analysis in accordance with the schedule contained in Appendix A of the May 13 Order.

On June 7, 2004, the Commission issued an Order Granting Rehearing For Further Consideration And Notice Granting Extension Of Time,[7] granting an extension of 30 days from the issuance of the instant order for the submission of revised generation market power analyses in compliance with the April 14 Order.

Accordingly, on August 11, 2004, DEMA submitted its triennial market power update applying the new indicative market power screens. On August 16, 2004, the Commission issued a Notice of Filing.

III. BASIS FOR MOTION TO INTERVENE

The ISO is a not-for-profit corporation organized under the laws of the State of California and is responsible for the safe and reliable transmission of power over the electric grid consisting of the transmission systems of San Diego Gas & Electric Company, Pacific Gas & Electric Company, Southern California Edison Company, and the Cities of Vernon, Azusa, Anaheim, Banning, and Riverside, California, as well as the coordination of a efficient wholesale electric market in California. As the operator of the grid, the ISO believes that it has a unique interest in any Commission proceeding concerning the above-captioned matter, which involves the price and supply for electricity supplied in the

[7] AEP Power Marketing, Inc., *et al.* (Docket Nos. ER96-2495-018, *et al.*, June 7, 2004) (unpublished order) ("June 7 Order").

California market. As such, the ISO requests that it be permitted to intervene in this proceeding.

IV. COMMENTS

The California ISO is responsible for, among other things, reliably operating the transmission grid and ensuring an efficient wholesale electric market in California. To better manage and operate a reliable system, the ISO also has the role of market monitor. In the April 14 and July 8 Orders, the Commission eliminated the ISO/RTO exemption from the generation market power analysis for sales into an ISO/RTO with Commission-approved market monitoring and mitigation and required all sellers within ISO/RTO control areas to submit generation market power analyses. The ISO does not protest DEMA's triennial update filing to satisfy the Commission's criteria for market based rate authority. Rather, the ISO suggests that market power mitigation mechanisms such that the ISO currently utilizes, or may propose as part of its market redesign, be kept in place for the next three years as a condition to granting all sellers market based rate authority in the ISO geographical area. As the Commission notes in the July 8 Order, "[e]ntities in an ISO/RTO are required to abide by the market rules and tariffs applicable in each ISO/RTO and cannot bypass the ISO/RTO mitigation on transactions in ISO/RTO markets."[8] Moreover, the July 8 Order clarified that the Pivotal Supplier and Market Share screens "are intended to compliment, rather than substitute for market power

[8] July 8 Order at ¶182.

mitigation measures applied for all ISO participants, by providing "an additional measure to check for the potential of market power."[9]

DEMA's triennial market update filing indicates that Duke passes both the Pivotal Supplier Indicative Screen and Market Share Indicative Screen. However, the ISO's analysis of DEMA's potential market power (Appendix A, attached) illustrates that when other factors are taken into account, e.g. actual supplies available inside the ISO system, practical limitations on imports and hydroelectric supplies and other resources during peak periods, DEMA fails to pass the Market Share screen during the summer season and passes the Pivotal Supplier Screen for the summer 2003 peak hours by a much smaller margin. The ISO believes that these results suggest that over the next three years, supply and demand conditions will continue to require that DEMA's market based rate authority continue to be conditioned by market power mitigation mechanisms in the ISO Tariff.

In addition, the interim measures proposed by the Commission do not address the issue of locational market power within the ISO system. Transmission and other constraints within the ISO system often give rise to locational market power, created by the need to rely on specific generating units to ensure local grid reliability. While locational market power mechanisms are in place, such as Reliability Must-Run Contracts ("RMR Contracts"), the dynamic and often unpredictable nature of system and market conditions frequently gives rise to other sources of locational market power which cannot be mitigated by a particular *pro forma* RMR contract that has been previously negotiated with a

[9] July 8 Order at ¶175.

seller. Therefore, the ISO believes that DEMA's market based rate authority must continue to be conditioned by locational market power mitigation mechanisms in the ISO Tariff.

The Commission, therefore, should allow the ISO to continue to employ its market power mitigation mechanisms to ensure that sellers into the ISO do not exercise market power.

V. CONCLUSION

For the above mentioned reasons, the ISO respectfully requests that the Commission condition DEMA and other sellers' market based rate authority on the ISO's having sufficient market power mitigation mechanisms in place for the next three years for all sellers to safeguard against the exercise of market power on a system-wide and locational basis.

Respectfully submitted,

/s Anthony J. Ivancovich
Anthony J. Ivancovich
Senior Regulatory Counsel
California Independent System Operator Corporation
151 Blue Ravine Road
Folsom, CA 95630
Tel: (916) 608-7135
Fax: (916) 608-7296

Counsel for the California Independent System Operator Corporation

Date: August 24, 2004

Appendix A
Docket No. ER03-956-002

Review of Market Power Analysis Submitted by DEMA Energy For CAISO Market

Prepared by Dr. Eric W. Hildebrandt
California Independent System Operator
August 24, 2004

Overview

This paper reviews the generation market study of the California Independent System Operator ("ISO") market performed by Dr. J. Stephen Henderson of Charles River Associates ("CRA") in support of Duke Energy Marketing America, LLC's ("DEMA") Triennial Market Power Update.[1] The CRA study submitted with DEMA's Triennial Market Power Update applies market power screens described by the Federal Energy Regulatory Commission ("FERC" or "the Commission") in two recent orders under which the Commission replaced the Supply Margin Assessment ("SMA") test[2] with two Market Based Rate ("MBR") screens for assessing generation market power.[3] The first of these screens, the Pivotal Supplier Analysis, is designed to examine the applicant's market power during the peak hour of the year. The second screen, or Market Share Analysis, examines all seasons of the year for potential market power. Analyses submitted by Dr. Henderson in support of DEMA's Triennial Market Power Update indicate that when these screens are applied for the California ISO market, DEMA's generation holdings falls well below the thresholds established by FERC for being indicative of the potential for market power.

Both the Pivotal Supplier and Market Share analysis submitted with DEMA's Triennial Market Power Update assess the amount of supply available to compete in the California ISO market based primarily on "nameplate" data for generation and transmission capacities. While the Commission's April 14 and July 8 Orders provide for the use of such "nameplate" data, these orders also recognize that use of nameplate data may overestimate supply, and provide that "interveners may present historical data including the analyses that they believe most accurately represent market conditions."[4] In addition, the Commission went on to clarify that "[n]either failure nor passage of the [MBR] screens is definitive," and that both applicants and interveners may present historical evidence in order to provide additional indications of market power.[5]

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[1] Affidavit of J. Stephen Henderson, dated August 9, 2004, submitted as Attachment 1 to Duke Energy Marketing America, LLC, *Triennial Market Power Update*, August 11, 2004, ER01-1129.

[2] AEP Power Marketing, Inc. et al*, Order on Triennial Market Power Updates and Announcing New, Interim Generation Market Power Screen and Mitigation Policy*, 97 FERC ¶ 61,219 (2001) ("SMA Order").

[3] AEP Power Marketing, Inc. et al, *Order on Rehearing and Modifying Interim Generation Market Power Analysis and Mitigation Policy*, 107 FERC ¶ 61,018 (2004) ("April 14 Order").

AEP Power Marketing, Inc. et al, *Order on Rehearing*, 107 FERC ¶ 61,026 (2004) ("July 8 Order").

[4] For example, see July 8 Order at ¶ 27.

[5] July 8 Order at ¶ 28.

The ISO believes that analysis based on historical data reflecting the actual supply offered in the ISO markets under a variety of supply and load conditions presents a more accurate picture of DEMA's potential market power over the coming three years than the analysis based on "nameplate" generating and transmission capacities allowed under the Commission's April 14 and July 8 Orders. Consequently, the ISO has performed the following analysis based on actual historical data in order to present the Commission with a more accurate picture of DEMA's potential for market power under actual market conditions.

Methodology

Rival Available Supply Within ISO System

As indicated in the ISO's last two Summer Assessments, while the "nameplate" capacity of resources within the ISO system exceeds 54,000 MW, the maximum net dependable capacity of these resources during the summer peak hours in July was expected to range from about 43,000 to 45,000 MW. [6] As explained in these annual resource assessments, the maximum net dependable capacity is significantly lower than the maximum nameplate values for system resources, for a variety of reasons, ranging from limitations due to hydro and other renewable energy sources, to forced outages and transmission limitations.

For this analysis, the actual available supply from resources within the ISO system for each hour is first calculated based on the maximum of (a) the resource's metered generation, and (b) the total capacity from the resource scheduled and/or bid into the ISO energy and ancillary service markets.[7] This approach accounts for the actual available supply of these resources each hour from non-thermal units, such as hydro, renewables, cogeneration and other Qualifying Facilities ("QFs"). Due to the Must-Offer requirement for gas-fired resources within the ISO system, this approach also fully accounts for all available capacity from resources that did not apply for a waiver under the ISO's Must-Offer process.

To account for capacity of units applying for Waivers from the Must-Offer requirement, two additional adjustments were made. If the unit's Must Offer Waiver request was approved, the available capacity of the resource is based on the unit's nameplate capacity (less any partial outage or de-ration reported by the generator). If the unit's Must Offer Waiver request was denied, the available capacity of the unit is based on the greater of (a) units nameplate capacity (less any partial outage or de-ration reported by the generator), (b) the unit's actual metered

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[6] California Independent System Operator, *2003 Summer Assessment*, April 11, 2003, Table I-1, p.4 (http://www.caiso.com/docs/2003/04/25/2003042514315217 44.pdf); and *2004 Summer Assessment*, April 16, 2004, Table III-1, p.7 (http://www.caiso.com/docs/09003a6080/2f/ca/09003a60802fca50.pdf)

[7] The total capacity scheduled and/or bid by each resource is calculated by summing up final Hour Ahead Energy and Ancillary Service schedules, plus bids submitted for Supplemental Energy in the real time energy market. Furthermore, to account for resources, such as hydro units, that may bid additional capacity into the Day Ahead Ancillary Service markets, but cannot bid this capacity in subsequent markets if it is not accepted on a Day Ahead basis due to operational constraints, we also calculated the amount of capacity scheduled and/or bid as energy or Ancillary Services on a Day Ahead basis. If the amount of capacity scheduled/bid on a Day Ahead basis was greater than the capacity offered on an Hour Ahead and real time basis, total market capacity was based on the higher Day Ahead total.

generation, or (c) the total capacity from the resource scheduled and/or bid into the ISO energy and ancillary service markets.[8]

Using this methodology, the amount of total available resources within the ISO system during the 2003 peak summer hour (July 21, Hour 16) equals 44,819 MW. This is approximately equal to previous projection of a maximum dependable capacity of 44,763 during the peak day in July 2003 developed as part of the ISO's *2003 Summer Assessment* [9].

Rival Imports

The actual available supply from resources outside the ISO system each hour is calculated based on the total net capacity actually scheduled or flowing into ISO system, plus all additional incremental energy bids that were submitted but not accepted by the ISO.[10]

For the peak hour in July 2003 used in DEMA's Pivotal Supplier Analysis, this indicated actual net import supplies of 6,441 MW.[11] This compares to previous projection of available supplies of imports during the July peak of 3,700 MW and 5,862 MW, in the *2003 Summer Assessment and 2004 Summer Assessment*, respectively.

It should be noted that the 11,000 MW value used in DEMA's analysis was apparently based on total gross imports into the ISO system this hour, rather than net imports. Gross imports would include wheeling schedules of power being wheel through the ISO system, as well as capacity existing the ISO system exporting pursuant to bilateral contracts. Thus, the assumption about the level of available imports used in DEMA's analysis appears to significantly exceed actual historical supply of imports under actual market conditions.

Other Inputs

While DEMA's analysis is based on data for the calendar year 2003, this analysis uses data for the most recent 12 month period for which data are available to the ISO, as recommended in the July 8 Order.[12] Due to the time lag until final settlement-quality data for each operating day are available from ISO information systems, the most recent 12-month period

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[8] The maximum of these three values is taken to avoid underestimating actual available capacity in cases where generation or scheduled capacity exceeded the amount of available capacity that was calculated using outage data. In addition, this approach avoids any underestimation due to the fact that the minimum operating level of units that are denied Must-Offer waivers is often not included in the unit's final Hour Ahead energy schedule.

[9] *2003 Summer Assessment,* Table I-1, p.4. The projection for July 2004 provided in the *2004 Summer Assessment* was and 42,794 MW (2004 Summer Assessment. Table III-1, p.7)

[10] Since scheduled and metered flows typically vary, the actual flow was estimated by taking the higher of these two values. In the event that the sum of actual energy flows plus unused bids exceeded the Total Transfer Capacity (TTC) on a Branch Group any hour, this amount of unused energy bids were limited to the number that could have feasibly been imported given the amount of additional capacity available on the Branch Group that hour.

[11] The maximum of Total Meter Flows (5,985 MW) and Final Scheduled Flows (5,574), plus 680 MW of unused supplemental energy bids.

[12] July 8 Order at ¶ 118.

for which all necessary ISO data were available was from June 2003 through May 2004.

For the Pivotal Supplier analysis, two scenarios based on actual supply data were analyzed. The first scenario combines data on actual market supply with the same demand assumptions used in DEMA's analysis, which assumes Operating Reserve capacity requirements of only 6.02% of the proxy for native load commitments, or about 5.6% of total actual ISO system load.[13] Consequently, a second scenario is analyzed in which data on actual market supply with the actual demand for energy and capacity during the peak hour, during which the amount of Ancillary Services capacity actually purchased by the ISO equals about 7% of total system load.[14]

For the Market Share analysis, seasonal values on available supply from rival suppliers were based on hourly averages for all weekdays (excluding NEC holidays) Hours Ending 13 through 20. These peak hours were used to provide results that are indicative of overall market conditions and competitiveness during the eight highest load hours of each weekday.

All other inputs and assumptions used in this analysis are the same as those used in the analysis submitted on behalf of DEMA's Triennial Market Power Update. These inputs include:

- Supplies owned or controlled by DEMA within the ISO system and in first-tier markets adjacent to the ISO system. [15]

- The total amount of resources assumed to be committed for native load commitments during the summer peak day used in the Pivotal Supplier analysis, and for during the minimum peak load day used for each seasonal Market Share analysis.

- The amount of operating reserves assumed to be committed for native load commitments (6.02% of load levels used for as a proxy for native load commitments).

To facilitate comparison of results, the analysis is also summarized using the same format as the analysis submitted on behalf of DEMA in Exhibit JSH-2, Attachment 1.

Results

Table 1 compares results the Pivotal Supplier Test submitted in DEMA's filing (Table 1, Column 1) with results based on actual historical data on available rival supply (Table 1, Column 2). Column 3 of Table 1 provides results of the second scenario, which also includes

[13] As shown in Exhibit JSH-2 of DEMA's filing, the Pivotal Supplier Analysis performed by Dr. Henderson includes 2,375 MW of Operating Reserves, or only about 5.6% of total system load of 42,581 MW.

[14] The total amount of Upward Regulation, Spinning Reserve, and Non-spinning Reserve purchased by the ISO during the peak 2003 hour was 2,989 MW, about 7% of total system load of 42,581 MW.

[15] As reported in DEMA's filing, none of DEMA's capacity within the ISO system is under a firm long-term contract, so that none of DEMA's capacity in the ISO system is categorized as "committed" supply.

adjustments reflecting the actual amount Ancillary Services capacity purchased by the ISO during the peak hour, which equally about 7% of total system load.

Although DEMA continues to pass the Pivotal Supplier test when this screen is performed using historical data, the margin of uncommitted rival supply in excess of demand is much lower than suggested by DEMA's filing. As shown in Table 1, when the Pivotal Supplier screen is applied with actual supply and demand data, the margin uncommitted rival supply in excess of demand is just over 2,100 MW, or 4.7% of total system load and Ancillary Service capacity purchases during the 2003 system peak load hour. These results suggest that market power should remain a concern under current and future conditions, due to anticipated load growth, and the ongoing possibility of low hydro and/or abnormal system or weather conditions.

Table 2 provides results of the Market Share screen using actual historical data on available rival supply. These results show that DEMA's share of actual available uncommitted capacity may exceed the 20% threshold established by FERC for this test during the critical summer months, as well as during winter and spring seasons. Combined with results of the Pivotal Supplier screen, these results suggest that market power remains a concern in the ISO markets.

Zonal and Intra-zonal (Locational) Market Power

The July 8 Order recognizes "the possibility that defining the relevant geographic market on a control area-by-control area basis may not be appropriate in all circumstances," and, accordingly, allows "interveners on a case-by-case basis to provide historical data and other evidence to demonstrate that, due to transmission limitations, the relevant market or markets is larger or smaller than the control area." [16] Within the ISO system, transmission constraints frequently give rise to zonal and intra-zonal congestion, and create locational market power for individual plants or operators.

Although time and resources limitations preclude performing such analysis at this time within the framework of FERC's MBR screens, it should be noted that transmission constraints within the ISO system frequently constrict the relevant market of rival supply, and increase the "pivotalness" and market share of suppliers within the ISO system. Consequently, results of the screens includes in DEMA's filing and this analysis should be viewed as "an additional measure to check for the potential of market power," on a system-wide basis, rather than a "substitute for market power mitigation measures applied for all ISO participants," particularly in cases where locational market power exists due to transmission constraints within the ISO system.[17]

[16] July 8 Order at ¶ 35.

[17] July 8 Order at ¶175.

Table 1. Pivotal Supplier Test for DEMA in CAISO Market Based on Actual Available Rival Supply

Pivotal Supplier Test for CAISO Market

	Exh. JSH-2	Actual Supply 5.6% Reserves [1]	Actual Supply 5.6% Reserves [2]
Capacity Owned or Controlled By Duke	4,829	4,829	4,829
(less) Operating reserves (relative to Avg. Daily Peak)	0	0	0
(less) Native Load Commitments (at Avg. Daily Peak)	0	0	0
Duke Uncommitted Capacity	4,829	4,829	4,829
Capacity of Other Local Generation	48,396	41,057	41,057
(plus) New 2003 Capacity Additions	2,413		
(less) Operating Reserves (relative to Avg. Daily Peak) **[3]**	(2,375)	(2,375)	(2,756)
(less) Native Load Commitments (at Avg. Daily Peak)	(39,372)	(39,372)	(39,372)
Rival Uncommitted Capacity	9,062	(690)	(1,071)
Net Rival Imports	10,711	6,441	6,441
Total Uncommitted Supply	24,602	10,580	10,199
Wholesale Load (Peak minus Avg. Daily Peak)	3,209	3,209	3,209
(plus) Operating Reserves (@ 7% of Wholesale Load) **[4]**	0	0	225
Total Wholesale Market	3,209	3,209	3,434
Net Uncommitted Supply to Compete at Wholesale	21,393	7,371	6,990
Is Duke Uncommitted Capacity < Net Uncommitted Capacity?	YES	YES	YES
Is Duke Pivotal Supplier?	No	No	No
Net Uncommitted Rival Supply (MW)	16,564	2,542	2,161
Uncomitted Rival Supply as % of System Capacity Requirements **[5]**	37%	5.6%	4.7%

[1] Based on total Operating Reserves used in Duke's analysis, which included 6.02% of proxy for native load, or 5.6% of total system load.
[2] Based on total Operating Reserves actually purchesed by ISO (7% of actual load)
[3] First two columns based on 6.02% of native load. Third column based on 7% of native load.
[4]Third column incudes 7% Operating Reserve for remaining wholesale load (system load minus native load proxy)
[5] First two columns based on total system load plus minimum Operating Reserves of 6.02% (45,221 MW)
Third column based on total system load plus actual purcahses of Operating Reserves of 7% (45,562 MW)

Table 2. Market Share Test for DEMA in CAISO Market Based on Actual Available Rival Supply

Market Share Test for CAISO Market

	Summer '03	Fall '03	Winter '03-'04	Spring '04
Capacity Owned or Controlled By Duke [1]	4,725	4,725	4,725	4,725
(less) Native Load Commitments (at Minimum Peak Load Day)	0	0	0	0
(less) Operating reserves (relative to Min. Peak Load Day)	0	0	0	0
(less) Planned Outages	83	459	592	715
Duke Uncommitted Capacity	4,642	4,266	4,133	4,010
Capacity of Other Local Generation [2]	40,609	37,717	33,493	33,311
(less) Native Load Commitments (at Minimum Peak Load Day)	(28,799)	(27,767)	(28,624)	(27,872)
(less) Operating reserves (relative to Min. Peak Load Day)	(1,786)	(1,722)	(1,775)	(1,728)
Rival Uncommitted Capacity	11,810	9,950	4,869	5,439
Net Rival Imports	6,641	7,178	8,411	8,254
Total Uncommitted Supply	23,093	21,394	17,412	17,703
Duke Market Share	20.1%	19.9%	23.7%	22.7%
Pass Market Share test?	No	Yes	No	No

Notes:
[1] Data on capacity owned or controlled by Duke from Exhibit JSH-2
[2] Data on rival CAISO resources and imports based on capacity actually available, scheduled or bid into ISO system. Seasonal capacity values represent hourly average capacity for all non-holiday weekdays, Hours Ending 13-20.

CALIFORNIA ISO

California Independent
System Operator

August 24, 2004

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

Re: Duke Energy Marketing America, LLC
Docket No. ER03-956-002

Dear Secretary Salas:

Enclosed please find an electronic filing in the above-captioned proceeding of the Motion to Intervene and Comments of the California Independent System Operator Corporation. Thank you for your attention to this matter.

Respectfully submitted,

/s Geeta O. Tholan
Geeta O. Tholan
Counsel for the California Independent
System Operator Corporation
(916) 608-7048

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the Motion to Intervene and Comments of the California Independent System Operator Corporation upon each person designated on the official service list compiled by the Secretary in the above-captioned proceeding.

Dated at Folsom, CA, on this 24th day of August, 2004.

/s Geeta O. Tholan
Geeta O. Tholan