UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation))	**Docket No. ER06-___-000**

PREPARED DIRECT TESTIMONY OF MARK ROTHLEDER

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MARK ROTHLEDER

I. BACKGROUND AND OVERVIEW

Q. Please state your name, title, and business address.

A. My name is Mark Rothleder and I am the Principal Market Developer for the California Independent System Operator Corporation ("CAISO"). My business address is 151 Blue Ravine Road, Folsom, CA 95630.

Q. What are your responsibilities at the CAISO?

A. Since joining the CAISO over nine years ago, I have worked extensively on implementing and integrating the approved market rules for California's competitive Energy and Ancillary Services markets, and the rules for Congestion Management, into the operations of the CAISO Control Area. Most recently, I have played a lead role in the design and implementation of market rules, operating procedures and software modifications related to the Federal Energy Regulatory Commission's Market Mitigation Orders issued on April 26, 2001, 95

FERC ¶ 61,115 (2001) ("April 26 Order") and June 19, 2001, 95 FERC ¶ 61,418 (2001) ("June 19 Order"). I was responsible for the design and implementation of the first phase MRTU Economic Dispatch in the Real-Time Market. Following that, I was Director of Market Operations.

Q. Please describe your educational and professional background.

A. I am a registered Professional Electrical Engineer in the state of California. I hold a B.S. degree in Electrical Engineering from the California State University, Sacramento. I have taken post-graduate coursework in Power System Engineering from Santa Clara University and earned an M.S. in Information Systems from the University of Phoenix. I have co-authored technical papers on aspects of the California market design in professional journals and have frequently presented to industry forums. Prior to joining the CAISO in 1997, I worked for eight years in the Electric Transmission Department of Pacific Gas & Electric Company, where my responsibilities included Operations Engineering, Transmission Planning and Substation Design.

Q. Have you previously testified before the Commission?

A. Yes. In Docket No. EL00-95-045, I testified to the process by which the CAISO calculated incremental heat rates for gas-fired Generating Units associated with Generators that are subject to price mitigation in the CAISO's markets pursuant to the Commission's April 26 and June 19 Market Mitigation Orders.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain the CAISO's role in ensuring "Resource Adequacy." For the purposes of this testimony, I am defining "Resource Adequacy" as the availability of an adequate supply of Generation or Demand responsive resources to support safe and reliable operation of the CAISO Controlled Grid.

The first portion of my testimony provides a background description of the CAISO's experience with the need for Resource Adequacy before, during, and after the California Energy Crisis of 2000-01. I discuss the steps that have been taken to address that need, and review the California Public Utilities Commission's ("CPUC") Resource Adequacy proceeding. Finally, I describe the CAISO's role in Resource Adequacy and the specifics of the provisions of the MRTU Tariff that address Resource Adequacy.

Q. Will you be using specific terms in your testimony?

A. Yes. With the exception of "Resource Adequacy," I will be using the capitalized terms in my testimony as defined in the Master Definition Supplement – Appendix A of the proposed MRTU Tariff.

Q. What is the objective of the Resource Adequacy provisions of the MRTU Tariff?

A. The Resource Adequacy provisions of the MRTU Tariff, working in conjunction with the CPUC Resource Adequacy requirements and the provisions of California

law applicable to Load-Serving Entities ("LSEs") that are not under the jurisdiction of the CPUC, are intended to establish a process that ensures sufficient capacity will be available when and where it is needed to reliably operate the power system. Resource Adequacy requirements along with long term procurement proceedings by the CPUC is intended to provide sufficient incentives for the development of new electric infrastructure investment, and maintenance of necessary existing Generation, by mandating that entities that serve electric customers secure sufficient resources of their own or through contracts to meet their customers' demands. These contracts provide a revenue stream to compensate Generation owners for their fixed costs and enable new projects to secure the financing they need for construction.

Q. How is the need for Resource Adequacy related to the CAISO's responsibilities?

A. Historically, the CAISO has been charged under both California law and by FERC with responsibility for the reliable operation of the transmission system under its Operational Control. As I noted, Resource Adequacy is necessary for reliable grid operations. While the primary emphasis has been, and will remain, on procurement by LSEs, the CAISO must step in when the available resources are insufficient for reliability needs.

In 1996, the State of California, in Assembly Bill 1890, established the CAISO and entrusted it with the responsibility of operating the transmission system. AB 1890 recognized that "electric industry restructuring should enhance

the reliability of the interconnected regional transmission system, and provide strong coordination and enforceable protocols for all users of the power grid" and that "[i]t is important that sufficient supplies of electric generation will be available to maintain reliable service." AB 1890 provided that the proposed restructuring of the electricity industry would broaden responsibility for ensuring short- and long-term reliability to include the Independent System Operator and it various market-based mechanisms in addition to electric utilities and regulatory bodies. AB 1890 thus established market mechanisms to provide incentives for the development of greater supply, but also placed the significant responsibility on the CAISO. It directed the CAISO "to ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Electric Reliability Council," and to obtain from FERC the authority needed "to secure generating and transmission resources necessary to guarantee" achievement of such criteria.

In addition, FERC's fourth ISO principle as stated in Order No. 888 is that "An ISO should have the primary responsibility in ensuring short-term reliability of grid operations. Its role in this responsibility should be well-defined and comply with applicable standards set by NERC and the regional reliability council." FERC's approval of the CAISO's operations in 1997 was premised on its recognition of the CAISO's responsibility to fulfill that role.

Q. How has the CAISO fulfilled its reliability responsibilities?

A. As I've discussed, the objective of AB 1890 was to foster a competitive electric market. It also sought to separate, to the maximum extent, the responsibility for management of the transmission grid and the power procurement functions of LSEs. Thus, under the paradigm of the reliability role established by AB 1980, the CAISO's primary operational reliability responsibilities were addressed through its markets. They involved procuring the necessary Ancillary Services, including Operating Reserves to protect against unplanned outages, and support Real-Time operation of the CAISO Controlled Grid, meeting the current system Demand through the Real-Time Imbalance Energy Market. In addition, the CAISO took limited actions ahead of the Day-Ahead Markets to address issues that could not be resolved through markets because of market power or timing issues. For example, the CAISO entered into Reliability Must Run contracts to ensure Generation would be available to meet local needs under certain operating conditions. The CAISO has also exercised the authority established in Section 2.3.5.1.3 of our Tariff, "The ISO shall solicit bids for Replacement Reserve in the form of Ancillary Services, short-term Generation supply contracts of up to one (1) year with Generators, and Load curtailment contracts giving the ISO the right to reduce the Demands of those parties that win the contracts when there is insufficient Generation capacity to satisfy those Demands in addition to all other Demands."

Q. Did this paradigm work out as planned?

A. No. As I will discuss, although, as this Commission is aware, the CAISO Real-Time Market was to be responsible only for meeting a small amount of Imbalance Energy to account for deviations from Scheduling Coordinator's Day-Ahead schedules and Load forecasting error, LSEs for various reasons ended up relying on the Real-Time Market for large quantities of their Energy. This factor was a major contributor to the Energy crisis that started in 2000.

Q. How has this affected the CAISO's role with respect to reliability?

A. The CAISO has not proposed to stray from AB 1890's primary reliance on markets and its separation of the role of the CAISO and that of LSEs. Indeed, MRTU is based on those premises. After the Energy crisis, however, both the CAISO and the State of California recognized that additional mechanisms beyond the existing market mechanisms were needed to address Resource Adequacy, and in 2002, a state inter-Agency task force began to investigate Resource Adequacy issues.

At the November 21, 2002 meeting the CAISO Board of Governors directed CAISO management to defer to State efforts to address the broader issue of Resource Adequacy. In addition, the Board directed management to actively engage in the CPUC proceeding regarding the establishment of procurement rules for the State's Investor Owned Utilities ("IOUs"). At that meeting, the Board acknowledged the State's legitimate and primary role in addressing matters

related to Resource Adequacy or, more specifically, the obligations of LSEs to procure enough resources to serve their Load plus reserves.

Last year, the California legislature enacted A.B. 380, which directed the CPUC to establish, in consultation with the CAISO, Resource Adequacy requirements for LSEs that are under the jurisdiction of the CPUC. Other LSEs must develop their own Resource Adequacy Requirements consistent with WECC and NERC requirements. (AB 380 excluded locally publicly owned electric utilities and the State Water Project from its definition of LSEs.) AB 380 also required that each locally owned public electric utility: (1) meet its Planning Reserve margin, (2) peak demand and (3) Operating Reserve sufficient to provide reliable electric service to its customers.

AB 380, however, does not absolve the CAISO of responsibility. Notwithstanding the State's primary role, as recognized by the CAISO Board, the CAISO has been assigned the statutory authority to maintain the CAISO Controlled Grid in accordance with Applicable Reliability Criteria and Good Utility Practice. While the CAISO fully expects that the Local Regulatory Authorities will fulfill their AB 380 obligations, the CAISO must ensure that it has the ability to meet established reliability criteria. The CAISO must have sufficient resources to meet Demand. Although the Local Regulatory Authorities and LSEs remain responsible for long-term supply planning, the CAISO must take their fulfillment of their responsibilities into account in fulfilling its remaining responsibility for grid management consistent with Applicable Reliability Criteria. Moreover, the efforts of Local Regulatory Authorities to

ensure that LSEs secure sufficient resources can only achieve the intended reliability benefits if the procurement rules are integrated with the design of the CAISO Markets and Bidding practices as well as the physical realities of the CAISO Controlled Grid.

On a more granular level, the CAISO's role can be divided into three components: (1) assisting in the implementation of rules adopted by the CPUC and Local Regulatory Authorities, including providing technical input, (2) implementing rules over suppliers outside the jurisdiction of the Local Regulatory Authorities, and (3) ensuring the objective of Resource Adequacy to have resources available when and where needed is realized by providing for coordination of the rules adopted by the CPUC and other Local Regulatory Authorities with the design of the CAISO Markets and Bidding practices and the physical realities of the CAISO's system through appropriate MRTU Tariff provisions applicable to Scheduling Coordinators.

The Resource Adequacy provisions of the MRTU Tariff are intended to fulfill this role.

II. THE CAISO'S EXPERIENCE WITH RESOURCE ADEQUACY

1. START-UP TO THE ENERGY CRISIS

Q. At the start-up of CAISO operations, how was a supply of resources ensured to meet system needs?

A. At the onset of CAISO operations, there was a general presumption that the market would provide adequate resources. To promote competition and protect against the exercise of market power, the three California IOUs were required to sell all of their thermal Generation into and purchase all of the Energy requirements for their retail Load from the California Power Exchange ("PX"). While there was a specific requirement in the CAISO Tariff to assure adequate Generation and Transmission Capacity to meet Applicable Operating and Planning Reserve, the CAISO was not primarily responsible for ensuring that sufficient Generation Capacity was necessarily procured in advance of the Real-Time Market. Rather, the CAISO's primary role with regard to capacity was to ensure the commitment of adequate Ancillary Services, including Operating Reserve, to address contingencies and to draw upon the supplies of Energy in the Imbalance Energy market or from Reliability Must Run capacity when scheduled (and unscheduled) Energy was inadequate to meet Demand. If these mechanisms failed, the CAISO relied upon purchases of Energy out-of-market.

The CAISO Tariff has provided a backstop mechanism if the ISO's annual Generation and Load forecasts indicated that there would be insufficient Generation Capacity to meet WECC/NERC Criteria. This tariff mechanism gave the CAISO "the ability to solicit bids for Replacement Reserve in the form of Ancillary Services, short-term Generation supply contracts of up to one (1) year with Generators, and Load curtailment contracts giving the ISO the right to reduce the Demands of those parties that win the contracts when there is insufficient Generation capacity to satisfy those Demands in addition to all other Demands". The CAISO has needed to use this authority on occasion, including entering into short-term Generation supply contracts following the Energy crisis, to ensure the availability of adequate Energy supplies to meet Demand in the Summer months.

This method of providing for system needs worked adequately during the first two years of CAISO operation, during which a combination of favorable weather and hydro conditions generally resulted in low spot market prices and sufficient supply. This all changed, however, with the California Energy crisis.

2. CALIFORNIA ENERGY CRISIS

Q. What happened during the Energy crisis?

A. The existing system for ensuring adequate resources collapsed when prices rose and supply could not keep up with Demand during the California Energy Crisis of 2000-2001. High temperatures, significant outages of existing Generating Units,

less than normal rainfall, little investment in capacity additions, as well as purported market manipulation fostered by the resulting tight supply conditions, caused wholesale power costs to rise significantly above the level incorporated in frozen retail rate levels, and an inability to serve Load at times. The IOUs' reliance on the PX and the large exposure to wholesale spot markets created substantial short-term cost exposure such that Pacific Gas and Electric Company was forced into bankruptcy and Southern California Edison Company and San Diego Gas & Electric Company faced severe financial hardship.

Q. How was CAISO system reliability affected by the Energy crisis?

A. Because of the high prices and weakened financial conditions of the IOUs, they were relying on the CAISO's Real-Time Market to serve a large portionof the CAISO's Control Area Load. Although this forced the CAISO to procure significant amounts of power in real time to serve this Demand, Generation in the market was often insufficient, requiring the CAISO to go out-of-market or even curtail Load. The CAISO was forced to issue notices of emergency more than 260 times and institute rolling blackouts on seven occasions during the 2000-2001 period.

Because of a lack of Resource Adequacy, the CAISO, as the Control Area Operator responsible for maintaining reliability standards, became the entity with de-facto Load-serving responsibility, the supplier of last resort Thus, instead of managing the transmission grid and using a Bid-based Imbalance Energy market to serve a small increment of Load exposed to spot prices, the CAISO was

scrambling to meet significant quantities of Demand with minimal lead time – with the inevitable result of decreased reliability.

3. RESPONSE TO CALIFORNIA ENERGY CRISIS

Q. What actions did the state of California take to help compensate for the lack of Resource Adequacy during the crisis?

A. Early in 2001 the California Department of Water Resources ("CDWR") was empowered by Governor Gray Davis to procure electricity on behalf of the state's financially troubled IOUs. On February 1, 2001, AB 1X authorized CDWR to purchase the net short Energy requirements of the IOUs. The term "net short" referred to the difference between the amount of the produced by the Generation the IOUs still controlled or had under contract and the total amount of Demand they needed to meet. CDWR procured all of the net short requirements of the IOUs through the end of 2002 using a combination of long-term power contracts extending until 2011, short-term power contracts and wholesale spot Energy purchases. After 2002, the long-term power contracts were assigned to the IOUs, who again have assumed the role of providing power for their customers.

Q. As a result of the California Energy crisis, did the Federal Energy Regulatory Commission take any remedial action to address Resource Adequacy?

A. Yes. FERC eliminated the requirement that the IOUs purchase all of their Energy needs from the PX markets, which allowed them to rely upon their own units and enter long-term contracts to provide adequate resources. The only action that ensured that supplies would be available for grid reliability, however, was FERC's April 2001 imposition of a "must-offer" obligation which, as the Commission stated in the June 19 2001 Order, was "designed to prevent withholding and thereby to ensure that the [CAISO] will be able to call upon available resources in the Real-Time Market to the extent that energy is needed." June 19, 2001 Order, 95 FERC at 62,551. Under the must-offer obligation, every Participating Generator or any person that owns or controls a non-hydroelectric Generation resource in California from which Energy is sold into CAISO-administered markets or transmitted on the CAISO-Controlled Grid, including non-public (and therefore Commission non-jurisdictional) Generators, must offer all of its available capacity that has not been previously scheduled via bilateral contracts or in an earlier market into the spot market in Real-Time at all hours. Generators subject to the must-offer obligation may seek a waiver of the obligation to offer all available capacity. In addition, all Generators obligated under the must-offer obligation that have not submitted Day-Ahead Energy Schedules are deemed to have requested a waiver of the must-offer obligation.

In its non-discriminatory discretion, the CAISO may grant waivers and allow a Must-Offer Generator to remove one or more Generating Units from service. The CAISO may revoke waivers as necessary due to outages, changes in Load forecasts, or changes in system conditions.

Q. What compensation do Generators receive under the must-offer obligation?

A. Under the FERC must-offer obligation, Generators receive certain variable costs such as Minimum Load, Emissions and Start-Up costs, unless they engage in bilateral transaction.

Q. What about the need for Generating Units with Long Start-Up times to be online in order to respond to a CAISO dispatch?

A. If Generating Units with Long Start-Up times are denied waivers of the must-offer obligation, then the must-offer requirement becomes in essence a "must-run" requirement; in light of their Long Start-Up time, they need to keep their units running in order to be available when dispatched by the CAISO. The owners of such Generating Units are therefore compensated for the unplanned expense of keeping their units running at minimum load status (except in cases where a resource has entered into a bi-lateral arrangement and is self-scheduled) and also paid for the minimum Load Energy.

4. POST CALIFORNIA ENERGY CRISIS

Q. Did the must offer obligation resolve the Resource Adequacy issues that were revealed by the Energy crisis?

A. No. The must-offer obligation was not intended to be a permanent solution to the lack of Resource Adequacy, but only to address the immediate crisis. The Commission's institution of the must-offer obligation was part of its interim solution to the California crisis; five months earlier, it had directed the CAISO to initiate a redesign of its markets. Moreover, Generators are not satisfied with the compensation, asserted they could not recover their fixed costs, and considered the program a disincentive for LSEs ("LSEs") to enter long-term contracts. LSEs were not satisfied with the cost of the program.

A properly designed Resource Adequacy program, as opposed to a must-offer obligation with no compensation towards fixed costs, should be designed to provide the appropriate incentives for investment for supply, when and where it is needed to meet system reliability needs.

Q. Subsequent to implementing the must-offer obligation, then, what steps did the CAISO take with respect to Resource Adequacy following the California Energy crisis?

A. The Commission's December 19, 2001 Order directed the CAISO to file a revised congestion management proposal and a plan for a Day-Ahead Market. On May 1, 2002, the CAISO filed the first part of what was then known as its Market Design

2002 ("MD02") proposal. As part of MD02, the CAISO developed an available capacity obligation known as "ACAP", which was intended to enable the CAISO to verify that LSEs were making the necessary arrangements to ensure the availability of adequate generating capacity to meet system reliability standards. ACAP would have required utilities using the CAISO grid to serve Loads to demonstrate in advance that they owned or had procured sufficient supply to meet their respective share of the CAISO peak daily operating requirements. Resources identified by LSEs to satisfy this requirement would then be made available to the CAISO for commitment in the Day-Ahead Market.

Q. What happened to the CAISO'S ACAP proposal?

A. While the CAISO was developing ACAP, the State of California was actively considering the issue, forming an "Inter-Agency Working Group" to facilitate consideration of approaches to Resource Adequacy. On November 21, 2002, the CAISO Board of Governors directed CAISO management to request that FERC defer acting on the ACAP proposal, pending further actions by the State, in recognition that the State of California had the primary role of resolving the issue of Resource Adequacy. In its October 23, 2003 Order on MD02, in response to the ISO's request, the Commission recognized the role of the State on Resource Adequacy issues but stated that Resource Adequacy cannot be designed in isolation from a market design.

Q. What actions was the State of California taking with respect to Resource Adequacy?

A. Through a combination of legislative action and proceedings before the CPUC, State authorities authorized the IOUs to resume procurement of capacity and the CPUC began to establish a Resource Adequacy framework to ensure sufficient supply will be available when and where it is needed at reasonable prices for CPUC jurisdictional entities.

Q. What actions did the State legislature take?

A. The primary legislation was AB 380 which was passed on September 13, 2005. The objective of the bill was to (1) facilitate development of new generating capacity and retention of existing generating capacity that is economic and needed; (2) equitably allocate the cost of generating capacity and prevent shifting of costs between customer classes; and (3) minimize enforcement requirements and costs.

As I discussed previously, this law requires the CPUC, in consultation with the CAISO, to establish Resource Adequacy requirements for all LSEs within the jurisdiction of the CPUC. Additionally, AB 380 requires that each locally owned public electric utility: (1) meet its planning reserve margin, (2) meet its peak demand, and (3) maintain operating reserve sufficient to provide reliable electric service to its customers.

III. CPUC ACTIONS ON RESOURCE ADEQUACY

Q. Please discuss the proceedings undertaken by the CPUC on Resource Adequacy.

A. The CPUC, in D.04-01-050 adopted key policies for Resource Adequacy Requirements ("RAR") applicable to the IOUs as well as to Energy Service Providers ("ESPs") and Community Choice Aggregations operating within their service territories. The CPUC described the concept of Resource Adequacy and the role of RARs as follows:

> Resource procurement traditionally involves the Commission developing appropriate frameworks so that the entities it regulates will provide reliable service at least cost. This involves determining an appropriate demand forecast and then ensuring that the utility either controls, or can reasonably be expected to acquire, the resources necessary to meet that demand, even under stressed conditions such as hot weather [footnote omitted] or unexpected plant outages. 'Resource adequacy' seeks to address these same issues. In developing our policies to guide resource procurement, the Commission is providing a framework to ensure Resource Adequacy by laying a foundation for the required infrastructure investment and assuring that capacity is available when and where it is needed."
> (D.04-01-050, pp. 10-11.)
>
> D.04-01-050 adopted the following RAR policies, applicable to the LSEs:

(1) Each LSE within an IOU's service territory has an obligation to acquire sufficient reserves for its customers' load located within that service territory.

(2) Each LSE is subject to a planning reserve margin (PRM) requirement of 15-17% for all months of the year. Each LSE must meet this obligation no later than January 1,

2008 through a gradual phase-in, with interim benchmarks becoming effective in 2005.

(3) Each LSE must forward contract 90% of its summer (May through September) peaking needs (loads plus planning reserves) a year in advance, subject to adjustment if implementation would result in significantly increased costs or foster collusion and/or the exercise of market power in the Western energy markets.

(4) The 5% target limitation on utilities' reliance on the spot market (i.e., Day-Ahead, Hour-Ahead, and Real-Time Energy) to meet their Energy needs is continued in effect.

Also in D.04-01-050, the CPUC reiterated its commitment that full value be given to the preferred resources identified in the California Energy Action Plan and to the long-term CDWR contracts.

Q. What actions did the CPUC take following Decision 04-01-050?

A. Following Decision 04-01-050, the CPUC instituted a series of workshops beginning in March 2004 to address various technical, methodological, definitional, and procedural issues, including Load forecasting protocols, resource counting conventions, and deliverability. These workshops were conducted by ALJ Michelle Cooke from March 16 to May 26, 2004. The *Workshop Report on Resource Adequacy Issues* (Workshop Report) prepared by ALJ Cooke was issued on June 15, 2004.

On July 8, 2004, the *Administrative Law Judge's Ruling Requesting Additional Comments on Resource Adequacy Issues* (July 8 Ruling) focused on the reserve deadlines for the reserve and forward contracting requirements in Decision 04-01-050. The ruling also noted that in an April 28, 2004 letter to

CPUC President Michael Peevey, Governor Schwarzenegger indicated that the "[CPUC's] phase-in date [for Resource Adequacy] of 2008 is too slow" and described President Peevey's concurrence with the Governor's assessment, and indicated that the phase-in "needs to be accelerated to ensure system reliability." Finally, the ruling noted that the Joint Opening Statement of President Peevey and Commissioner John Geesman of the California Energy Commission at the April 30 prehearing conference indicated that "we will look closely not only at refinement of the existing requirements, but also their acceleration as requested by the Governor." The ruling invited comments and replies on: (1) accelerating the phase-in of the full planning reserve margin from January 1, 2008 to June 1, 2006 and (2) how the year-round 15%-17% reserve requirement and the seasonal 90% forward contracting requirement that was also adopted in D.04-01-050 interact.

Q. Please summarize CPUC Decision 04-10-035.

A. The CPUC issued Decision 04-10-035 on October 28, 2004. The decision provided clarification with respect to the Resource Adequacy policy framework adopted in D.04-01-50, identified issues to be resolved in further proceedings, and established certain procedural processes to be undertaken in a "Phase 2" proceeding.

Q. Please describe the Phase 2 proceeding.

A. Approximately 19 workshops were held between November 2004 and April 2005. The CPUC staff issued its report on June 10, 2005 which can be found at

http://www.cpuc.ca.gov/PUBLISHED/REPORT/46914.PDF. After comments and reply comments, Administrative Judge Wetzell issued an opinion on September 27, 2005.

Q. Please summarize PUC Decision 05-10-042. (Phase 2 proceeding).

A. The CPUC issued Decision 05-10-042 on October 27, 2005. The decision affirmed and clarified the policy framework established in Decisions 04-01-050 and 04-10-035. The order also expanded on such policies by implementing a program requiring LSEs to demonstrate that they have acquired the capacity needed to serve their forecast retail customer Load and a 15-17% reserve margin beginning in June 2006. The CPUC noted the following key determinations:

- The adoption of a monthly system peak approach to defining the Resource Adequacy obligation.
- The phased-in requirement that supply contracts that count for Resource Adequacy requirement purposes identify the specific resources that provide the Qualifying Capacity.
- The recognition of the need for a localized capacity requirement but the postponement of its implementation to the 2007 procurement year so that it can be fully considered.
- The affirmation that sanctions for LSE non-compliance with Resource Adequacy requirements are required.

Of particular note, the order requires that any Generation provided under the Resource Adequacy obligation that is not scheduled must be bid, not only in

the CAISO Day-Ahead Market, but also into Real-Time, absent physical constraints on the unit. This means that units that are already running and that have unscheduled Resource Adequacy capacity shall make that unscheduled Resource Adequacy capacity available to the CAISO, if requested. Also, unless released by the CAISO, Short Start Resource Adequacy units must self-schedule or offer their unscheduled capacity into the CAISO's Hour-Ahead Market and Real-Time Market for each hour of the operating day, subject to use limitation and contingency designations, even if not scheduled in the Day-Ahead market or committed by RUC.

Further, the CPUC clarified its position on RUC availability payments to Resource Adequacy resources, specifically stating that a Resource Adequacy resource must submit a zero dollar ($0) capacity bid into RUC and that a Resource Adequacy resource should not be eligible for any RUC availability payment or revenue. The CPUC also noted the importance of LSE contracts with Resource Adequacy Resources reflecting the policy that a Resource Adequacy Resource that receives a Resource Adequacy payment not also receive a RUC availability payment through the CAISO.

Additionally, the CPUC found that "Liquidated Damages" contracts are fundamentally incompatible with the objectives of a physical capacity-based RAR program. The CPUC uses the term "Liquidated Damages" contract to refer broadly to any bilateral agreement to provide Energy, capacity, or Ancillary Services without reference to a specific Generating Unit or resource backing the obligation. The CPUC specifically pointed out that the failure to identify a

specific resource that backs a capacity obligation could undermine the integrity of the RAR program. Accordingly, the CPUC ordered that these contracts should be phased out, but noted the importance of doing so in a manner that fairly and effectively balances the needs of the RAR program and the interests of LSEs that rely on Liquidated Damage contracts. Specifically, the CPUC concluded: (1) Liquidated Damage contracts executed on or before October 27, 2005 should be grandfathered; (2) Liquidated Damage contracts will not count for purposes of Resource Adequacy requirements after December 31, 2008; (3) each LSE will be allowed to include Liquidated Damage contracts in partial fulfillment of its Resource Adequacy obligation, subject to declining limits of 75% for 2006, 50% for 2007, and 25% for 2008.

The CPUC also concluded that an extension of the FERC must-offer obligation and associated waiver denial process is necessary for commitment of Resource Adequacy Resources until the implementation of CAISO's MRTU process. The CPUC is concerned that if the must-offer obligation and associated waiver process are eliminated earlier, the CAISO will not have sufficient means to commit resources for the next day. The CPUC also noted that, as with any major new program, unanticipated initial implementation issues are possible, and thus, it is prudent to proceed with caution.

While the CPUC did not approve Local Resource Adequacy obligations for implementation in 2006, it did recognize the need for the CAISO to have such requirements as well as a backstop role to meet reliability. The order also provided for further future proceedings for the development of future Resource

Adequacy rules. To that end, in order to ensure that the CPUC is presented with a comprehensive proposal for implementation of local Resource Adequacy Resources that can be timely implemented by 2007, the order directs the IOUs and authorizes other parties to file such proposals within 75 days of the order.

Q. Please describe additional CPUC proceedings expected to occur relative to Resource Adequacy prior to implementation of MRTU.

A. Proceeding number R05-12-013 was opened at the beginning of 2006 and will conduct workshops or otherwise address 1) local capacity obligation, 2) multi-year procurement requirement, 3) consideration of Capacity Markets.

IV. MRTU AND RESOURCE ADEQUACY

1. TERMINATION OF THE FERC MUST-OFFER REQUIREMENT

Q. What did the CAISO originally propose with respect to the must-offer obligation in MRTU?

A. In its filing in July 2003, the CAISO proposed that the must-offer obligation and the waiver denial process would continue and would be expanded to apply to the MRTU Day-Ahead and Hour-Ahead Markets as well as Real-Time until there was a fully effective Resource Adequacy program in California.

Q. What was the Commission's reaction to this proposal?

A. In its October 28, 2003 Order, the Commission proposed a flexible must-offer obligation. Generators who bid into the Day-Ahead Market or RUC but whose bids were not accepted would not have been required to start up for the next day's Real-Time Market. However, if a generator was running and had uncommitted capacity available, it would be required to offer that into the Real-Time Market. In addition, Generators who did not bid in the Day-Ahead Market and RUC process would continue to be subject to the must-offer obligation in Real-Time.

Q. What was the CAISO's response to the flexible must-offer proposal?

A. On May 11, 2004, the CAISO submitted a revised proposal that would have required suppliers to bid into the Day-Ahead Market. This proposal was to sunset on the earlier of January 1, 2008 or the date the CPUC's Resource Adequacy program was fully implemented.

Q. Did the Commission agree to extend the must-offer requirement to the forward markets?

A. No. In Its June 17, 2004 Order, FERC stated that participation in the CAISO's Day-Ahead Market should be voluntary absent a contractual obligation, such as that provided through a Resource Adequacy program. The Commission went on to state that CAISO should evaluate the need for a must-offer requirement according to whether the CPUC Resource Adequacy program at the time of the implementation of MRTU was adequate to meet the CAISO's operations needs,

but that the only permissible must-offer obligation would be the Commission's flexible obligation.

Q. Based on the CPUC Resource Adequacy decisions, has the CAISO concluded whether a must-offer requirement in the Day-Ahead Market is necessary?

A. With the implementation of MRTU, the CAISO is proposing to remove from its tariff the current FERC must-offer requirement and not rely on the proposed flexible must-offer requirement at this time. The CAISO believes that the availability requirements in its MRTU proposal in conjunction with the Resource Adequacy programs that have been proposed and are expected to be adopted by the CPUC and other Local Regulatory Authorities will provide sufficient resources to the CAISO to manage the CAISO Controlled Grid in a safe and reliable manner.

The CAISO does believe that there may be circumstances where the provided capacity is not adequate, both because the CPUC program is just beginning and because it currently lacks a local requirement. The CAISO is optimistic that the CPUC will adopt an effective local requirement. Therefore, CAISO does not believe the need is sufficient to justify a must-offer obligation, in particular because the CAISO is proposing to maintain a backstop mechanism in this tariff.

The CAISO recognizes that much work remains to be done prior to the implementation of MRTU and will continue to work with the CPUC and other Local Regulatory Authorities so that the new Resource Adequacy program will

fully and effectively replace the current must-offer requirement. As the CPUC has recognized, this is important because:

> It appears that the MOO and associated waiver mechanism may discourage contracting, provide inadequate compensation, and fail to foster a stable investment environment. For these reasons, the mechanism is not aligned with our RAR goals and should be terminated.

Draft Decision of ALJ Wetzel on Resource Adequacy Requirements, Rulemaking R.04-04-003 (Sept. 27, 2005).

2. THE MRTU RESOURCE ADEQUACY PROGRAM

a. OBJECTIVE OF INCLUDING RESOURCE ADEQUACY IN THE MRTU TARIFF

Q. What is the purpose of addressing Resource Adequacy in the MRTU tariff?

A. As I noted above, the failure of the original market structure to assure an adequate supply of resources would be available to the CAISO was a central factor in the 2000-2001 Energy Crisis. The MRTU market design, along with the efforts of the State, must address this issue. Accordingly, in its proposed tariff provisions regarding Resource Adequacy, the CAISO addresses 1) the informational responsibilities of CAISO and the Scheduling Coordinators who represent LSEs regarding the LSEs' Resource Adequacy requirements and compliance with the requirements, 2) obligations of Scheduling Coordinators who represent Resource Adequacy resources, 3) CAISO backstop procurement of resources to ensure overall Resource Adequacy consistent with Applicable Reliability Criteria when sufficient resources are not procured by LSEs in accordance with CPUC or other

Local Regulatory Authority requirements. I must emphasize that the MRTU Tariff provisions concerning Resource Adequacy are only intended to support and not to supplant a Resource Adequacy program ordered by the CPUC for CPUC jurisdictional entities or by another Local Regulatory Authority for a non-CPUC jurisdictional entity. In this regard, the CAISO has worked with CPUC and non-CPUC jurisdictional entities to ensure that the CAISO's Resource Adequacy proposal recognizes their unique circumstances.

Q. What does the CAISO consider the central elements of a viable Resource Adequacy program?

A. A Resource Adequacy program, in order to protect system reliability, should include seven basic elements. The first is a procedure for forecasting system conditions relating to Demand, including the forecast peak Demand. The second element is a specified planning Reserve Margin. This is the amount of capacity over and above the predicted Demand that is necessary to provide adequate Real-Time Operating Reserve and account for contingencies such as plant outages and forecast error. The third element is additional Resource Adequacy requirements, such as local requirements, based on Applicable Reliability Criteria.

Fourth, the Resource Adequacy program must have criteria for determining the eligible resources and their effectiveness in meeting the Reserve Margin. A fifth element is a requirement for plans developed by LSEs that identify how they have met their Resource Adequacy Requirements by assembling a portfolio of resources. The sixth element is the rules under which

the resources identified in the plans will be made available to the grid Operator to balance supply and demand reliably. The final element is a compliance program that ensures the LSE will comply with the Resource Adequacy Program established by the Local Regulatory Authority and precludes the LSE from inappropriately relying on the resource procurement practices of other Market Participants.

Q. Why does the CAISO believe these program elements should be part of the Resource Adequacy program?

A. The first three elements, establishing the basis for forecast, Reserve Margins and requirements to satisfy based on reliability criteria are consistent with general Good Utility Practice and ensuring that resources are available when and where they are needed. The next four elements provide necessary information to ensure that resources are accounted for and made available to the CAISO, consistent with the MRTU Market Design, such that the CAISO can employ the resources to provide the maximum reliability benefits and prevent entities from inappropriately leaning on others.

b. THE MRTU RESOURCE ADEQUACY PROGRAM – SECTION 40

Q. Please provide an overview of the proposed CAISO Resource Adequacy program.

A. Each Scheduling Coordinator scheduling for LSEs with Demand in the CAISO Control Area must provide the CAISO necessary information to demonstrate how the LSEs it represents complied with all requirements and obligations of the applicable Resource Adequacy program established by the CPUC or other Local Regulatory Authority. In order to meet a variety of needs for differently situated LSEs, the CAISO has proposed two types of Resource Adequacy demonstrations: one for "Reserve Sharing LSEs" and another for a "Modified Reserve Sharing LSEs." Each Scheduling Coordinator scheduling Demand for an LSE, except for a Metered Subsystem ("MSS") that has elected to follow its own load, must choose on an annual basis which type of Resource Adequacy demonstration it intends to make. A Scheduling Coordinator for a Load following MSS will be subject to a set of requirements based on the existing Commission-approved MSS program that accounts for the specific circumstances of a Load following MSS, and ensures that it satisfies its Resource Adequacy obligations and does not lean on the resources of other entities. This is accomplished through the imposition of significant penalties if the Load following MSS is short in meeting its Load-serving obligations. To further accommodate differences in Resource Adequacy programs and the unique characteristics of the State Water Project, the CAISO Tariff contemplates collaborating with that entity to develop a program that

meets the fundamental objectives of Resource Adequacy – precluding any LSE from unduly relying on the resource procurement practices of other Market Participants**.**

In addition, each Scheduling Coordinator scheduling for an identified Resource Adequacy Resource must comply with the applicable scheduling and offer obligations established in the CAISO Tariff for contracted Resource Adequacy Capacity. In particular, to allow the CAISO to fulfill its role as System Operator, the CAISO proposes specific obligations on Scheduling Coordinators representing a Resource Adequacy Resource to make such resources available to the CAISO in order for the CAISO to balance Supply and Demand. Because not all resources are similarly situated it is necessary to appropriately tailor the resource obligations to the type of resource.

Q. Why has the CAISO proposed options for Resource Adequacy compliance?

A. The CAISO has tried to respect the jurisdictional concerns and the different circumstances of its Market Participants by creating the options for Resource Adequacy. LSEs that are subject to the CPUC's jurisdiction will be subject to the Resource Adequacy procurement requirements established by the CPUC. Other LSEs, however, make take slight different approaches in the development of their Resource Adequacy programs. The Reserve Sharing and Modified Reserve Sharing LSE options give Market Participants a flexibility to determine the manner in which they demonstrate to the CAISO that they are fulfilling their share of the overall Control Area Resource Adequacy need.

From a system reliability perspective it is not necessary for every entity to meet their Resource Adequacy obligation in precisely the same manner. However, the programs must be comparable with commensurate levels of obligations and potential penalties and no entity should be permitted to lean on the others. In addition, the permutations in Resource Adequacy designs must be reasonable to ensure effective implementation. Each LSE's contribution to overall Resource Adequacy should reflect the burdens it places on the system.

Q. What are the substantive differences between the Reserve Sharing and the Modified Reserve Sharing LSE Resource Adequacy options?

A. The Reserve Sharing option reflects the general, capacity-based structure of the CPUC's Resource Adequacy program, which I have described previously. Although the Reserve Sharing elements were designed to accommodate CPUC jurisdictional LSEs, any LSE could elect that option. The significant differences between the Reserve Sharing and the Modified Reserve Sharing options are as follows:

(1) The Modified Reserve Sharing LSE option requires the Scheduling Coordinator to submit a daily Demand forecast and schedule or offer resources sufficient to meet 115% of its forecast Demand for every hour instead of requiring the Scheduling Coordinator to schedule or offer all of its physically available resources it identified to meet 115% of its peak monthly Demand. However, if a Modified Reserve Sharing LSE does not schedule or offer sufficient resources in the Day-Ahead Market, it may incur a

surcharge for not meeting its obligation. Reserve Sharing LSEs do not have exposure to a penalty or surcharge following submission of their monthly Resource Adequacy Plan.

(2) In Real-Time, the Modified Reserve Sharing LSE is required to replace any resource that is meeting its Demand obligation by the next HASP opportunity or face a surcharge for not replacing such capacity if it becomes unavailable. No such requirement exists on a Reserve Sharing LSE.

(3) For all resources that are not committed in the Day-Ahead Integrated Forward Market ("IFM") or RUC, there is no additional obligation to make resources available in the Real-Time Market. However, such resources, to the extent available, may be called upon by the CAISO if there is a warning or imminent or actual system emergency.

The Scheduling Coordinator for a Modified Reserve Sharing LSE may substitute for its Resource Adequacy Resources listed in its monthly Resource Adequacy Resource Plan provided substitutions must occur no later than the close of the IFM; and Resources eligible for substitution are either imports or capacity from Non-Resource Adequacy Resources or Resource Adequacy Resources with available capacity defined as Net Qualifying Capacity in excess of sold Resource Adequacy Capacity; however Local Capacity may be substituted only with capacity from Non-Resource Adequacy Resources located in the same Local Capacity Area.

Q. You stated that the programs must be comparable, with commensurate levels of obligations and potential penalties, and that no entity should be permitted to lean on the others. Do these options achieve that goal?

A. Yes. The two types of demonstrations incorporate the necessary elements discussed previously and achieve similar results by imposing different, but comparable, obligations and potential sanctions. For example, the Reserve Sharing approach establishes a month-ahead reporting obligation, after which all identified resources are required to be available to the CAISO for all hours in which they are physically capable of operating. This includes those hours after the CAISO has completed its Day-Ahead Markets and may not have selected the resource for operation, i.e. a Real-Time obligation. In addition, the established planning reserve margin, e,g, 15% , is expected to compensate for any forced outages during the month. Thus, the LSE is not required to replace any such capacity that becomes unable to offer during a month. Moreover, for any particular hour, because of physical limitations on the operation or a unit, the full Reserve Margin is likely to be available.

In contrast, the Modified Reserve Sharing option takes a different approach because some Market Participants were not able or willing to make their resources available after the Day-Ahead process. To accommodate these needs, the Modified Reserve Sharing option requires that the Scheduling Coordinator representing Load Self-Schedule or Bid resources equal or greater than 115% of its hourly Demand forecasts. Furthermore, should a resource experience a forced

outage, the Scheduling Coordinator is required to replace that quantity of capacity that is providing Energy. In the event the Scheduling Coordinator does not meet its Day-Ahead obligations, a capacity surcharge equal to three times the cost of the CAISO Day-Ahead price will be assessed, while a failure to replace after the Day-Ahead will be assessed a capacity surcharge of double the cost of replacement Energy in Real-Time.

Thus, both approaches provide for a demonstration that sufficient capacity has been identified and procured prior to the operating month. Similarly, both demonstration options provide a mechanism for ensuring that the capacity is made available to the CAISO during the month to support reliable system operations.

c. INFORMATION REQUIREMENTS

Q. Please describe the information requirements imposed on Scheduling Coordinators representing LSEs.

A. Scheduling Coordinators who elect to be Reserve Sharing LSEs must provide all information or data as required by the CPUC, whether or not they are under the jurisdiction of the CPUC. This includes annual and monthly Resource Adequacy Resource Plans. Scheduling Coordinators electing to be Modified Reserve Sharing LSEs must provide (1) the criteria for qualifying resource types and determining the capacity from such resources and any subsequent modifications to the criteria; (2) any data or supporting information for the Demand Forecasts

that the CAISO requests; and (3) annual and monthly Resource Adequacy Resource Plans.

Q. Why has the CAISO proposed these requirements?

A. These information and data requirements will allow the CAISO to monitor and assess the comparability of the Resource Adequacy programs adopted by the Local Regulatory Authorities. As I described earlier, critical elements of a Resource Adequacy Program include Load forecasts, reserve margins, and determinations of Qualifying Capacity. These requirements will provide greater transparency as to Load projections and give greater confidence that resources of sufficient quantity and quality will be available to meet those projected Loads. Although, again, the programs need not be identical in every respect, the CAISO would be derelict in its responsibilities if it did not evaluate the ability of these programs to meet their obligations. This information and data will also assist the CAISO in monitoring the overall Resource Adequacy across all Market Participants to assess its sufficiency.

d. LOCAL CAPACITY DEMONSTRATION REQUIREMENTS

Q. What is a Local Capacity Area?

A. A Local Capacity Area is an area in which the transmission capacity serving the area is insufficient to serve the Load in the area and any flow through of electricity during normal or abnormal conditions, thereby requiring a minimum

amount of Generation capacity to be located within the Local Capacity Area. A transmission area that represents the existing Congestion Zones may also be considered a Local Area since the area is constrained by transmission that is insufficient to serve the Load in the area.

Q. Please describe the Local Capacity demonstration requirements.

A On an annual basis, the CAISO will perform a study that identifies the amount of Generation capacity that must be secured within each Local Capacity Area and will provide that information to the CPUC and Local Regulatory Authorities. The CAISO shall collaborate with the CPUC, other Local Regulatory Authorities, and other Market Participants to establish parameters, assumptions, and other criteria to be used in the study that are consistent with Applicable Reliability Criteria. In other words, the CAISO recognizes the role of the State in identifying preferences for how LSEs marshal resources to satisfy Applicable Reliability Criteria. The CAISO anticipates working with the CPUC and other Local Regulatory Authorities to define the terms of the study in Docket No. R.05-12-013 pending at the CPUC. However, the determination of the capacity needed in Local Capacity Areas must remain a function of complying with Applicable Reliability Criteria. Therefore, any study outcome will have such compliance as its fundamental objective.

The CAISO will specify certain Generating Units or Participating Load, identified as "Local Capacity," capable of contributing toward the amount of capacity needed in a Local Capacity Area. For each Local Capacity Area, the

MRTU Tariff allocates responsibility for Local Capacity to all LSEs that serve Load in the TAC Area in which the Local Capacity Area is located, in accordance with the LSE's proportionate share of Load within the TAC Area. Although the term "TAC Area" was established in connection with the CAISO Transmission Access Charge, the term is used because the area is coterminous with the Service Areas of the Original Participating TOs (Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) as they existed prior to the addition of any new PTO or, in other words, the former Control Areas of the PTOs.

The MRTU Tariff does not obligate any LSE to procure Local Capacity. The CAISO's allocation of responsibility is intended to serve as a method for allocating costs should the CAISO be required to contract for resources to meet Applicable Reliability Criteria. The CAISO's study is intended to provide the CPUC and Local Regulatory Authorities with information sufficient to allow LSEs within their respective jurisdictions to procure capacity so as to eliminate the CAISO's need to exercise its potential backstop procurement role. Accordingly, a Scheduling Coordinator may either self-supply or contract for the required Local Capacity. However, as noted, if a Scheduling Coordinator does not demonstrate procurement of its assigned share, the CAISO may procure the Local Capacity and assign the proportionate costs of the procurement to the applicable Scheduling Coordinator.

Q. Why does the CAISO propose to allocate the responsibility for Local Capacity requirements on proportionate share of Load within the TAC Area?

A. Under MRTU, the CAISO will receive Load schedules and metering data from Scheduling Coordinators at a Default LAP level. The CAISO will not have data available to fairly and efficiently allocate these costs with greater granularity. In some cases (i.e. to Participating Load and schedules for Existing Transmission Contracts and Transmission Owner Rights), the CAISO may receive schedule and metering data at a more locational level that reflects where the Load is actually taking service from the grid. However, even in these cases it is not practical in every case to determine the effective relationship between a specific Load and constraint within a local area. The CAISO believes providing special treatment to a few individual Loads carries too great a risk for discrimination.

Q. Why is it of critical importance to have the Local Capacity demonstration requirements in the MRTU tariff?

A. Local Capacity needs are distinct from system Resource Adequacy needs because such requirements ensure that the CAISO has sufficient resources in the appropriate location to operate the transmission system, consistent with transmission constraints, in a reliable manner that affects both CPUC and non-CPUC jurisdictional entities. Indeed, in the last few years, most of the CAISO's must-offer costs have been incurred for needs below the system level. The CAISO in its reliability role maintains the planning and operating information

necessary to determine Local Capacity requirements in a non-discriminatory manner.

e. QUALIFYING CAPACITY

Q. What criteria does the CAISO propose to adopt with respect to Qualifying Capacity?

A. The CAISO proposes that to count as Qualifying Capacity, a resource must (1) be available for testing by the CAISO to validate Qualifying Capacity and determine Net Qualifying Capacity; (2) provide any information requested by the CAISO to apply the performance criteria to be adopted by the CAISO; (3) be Bid into the CAISO's Markets as required by the CAISO Tariff; (4) be in compliance with the criteria for Qualifying Capacity established by the relevant Local Regulatory Authority and provided to the CAISO (or if no such criteria are adopted, comply with the general criteria specified by the CAISO); and (5) be subject to sanctions for non-performance as specified in the CAISO Tariff.

These basic requirements will ensure that resources that are in compliance with the program established by the Local Regulatory Authority also are subject to the CAISO's testing and certification requirements, performance criteria, once these are adopted, and availability requirements as well as any potential sanctions for non-compliance.

Q. If the Local Regulatory Authority fails to adopt criteria for determining Qualifying capacity, what criteria does the CAISO propose?

A. The CAISO is proposing the default criteria provided in Section 40.8 of the MRTU Tariff. For consistency, these criteria derive from those adopted by the CPUC.

f. Net Qualifying Capacity

Q. What is Net Qualifying Capacity?

A. Net Qualifying Capacity is, in essence, the capacity that the CAISO determine that it can actually rely upon a Resource Adequacy Resource to deliver. The CAISO must make this determination because resources cannot always deliver power to customers at the maximum rated capacity of the unit. The MRTU Tariff defines Net Qualifying Capacity as Qualifying Capacity reduced, as applicable, based on: (1) testing and verification; (2) application of performance criteria; and (3) deliverability restrictions. Testing or Certification under different conditions may indicate problems. Moreover, operational issues may lead to a degradation of performance in which the unit fails to maintain an expected capacity factor (or time in which the facility is actual available to serve Load). Finally, even if a unit is performing properly, restrictions on the grid may limit the ability of the facility to deliver Energy.

Q. Will the CAISO perform testing and certification of units?

A. Yes. As the CAISO has been doing with respect to testing and certification of units providing Ancillary Services, the CAISO proposes to develop and apply similar criteria to Resource Adequacy Resources.

Q. Is the CAISO proposing performance requirements?

A. Not at this time, because the CAISO has not completed its study of this issue. Accordingly, we are proposing to, within a year, issue a report outlining a proposal with respect to performance criteria. In the meantime, we are requiring Scheduling Coordinators of Resource Adequacy Resources to provide or make available subject to the confidentiality provisions, all necessary documentation such as NERC GADS data.

Q. What is deliverability?

A. Deliverability measures the degree to which a resource can actually move its output over the transmission system and use it to serve Demand. There are two categories according to which a resource's ability to deliver its output of electricity would be assessed before counting toward meeting an LSE's Resource Adequacy obligation.

The first category is deliverability of Generation to the aggregate of Load. This category measures the ability of Generators to provide Energy to the CAISO

transmission system at peak Load while not being limited by the transmission system or Dispatch of other resources in the vicinity.

The second category is the deliverability of imports. This category identifies the Generation capacity (MW) amounts that should be considered deliverable from outside the CAISO Controlled Grid through import paths.

Q. Has the CAISO studied deliverability?

A. Yes, the CAISO has evaluated the total import capability. In addition, the CAISO has studied a summer peak condition to assess the ability for Generation to deliver to Load in support of implementation of Resource Adequacy for 2006.

Q. What is the CAISO proposing with respect to the first deliverability category?

A. When a Scheduling Coordinator designates a Resource Adequacy capacity and resource as applicable to meet its Resource Adequacy requirements, the CAISO will validate the degree to which the Resource Adequacy resource will be available to serve Load by means of a deliverability analysis. The deliverability analysis shall focus on peak Load conditions, unless the specific circumstances warrant the use of some other period. The CAISO will update the deliverability baseline analysis on an annual basis, or more frequently in accordance with Good Utility Practice. This approach is consistent with what the Commission approved in its orders for Generator Interconnections.

Q. What is the CAISO proposing with respect to the second deliverability category?

A. The CAISO will perform an annual deliverability study to establish the total import capacity for each import path to be allocated to Scheduling Coordinators serving Load in the CAISO Control Area. The CAISO will allocate the import capacity for each path to Scheduling Coordinators for non-CPUC LSEs individually and to the Scheduling Coordinators for CPUC LSEs as an aggregated allocation. Import capacity associated with (i) Existing Transmission Contracts and (ii) Encumbrances and Transmission Ownership Rights will be excluded from allocation of import capacity. The allocation to Scheduling Coordinators for CPUC LSEs will be the total import value of the path minus import capacity associated with (i) Existing Transmission Contracts, (ii) Encumbrances and Transmission Ownership Rights, and (iii) resource commitments outside the CAISO Control Area of non-CPUC LSEs, as of October 27, 2005. The allocation to Scheduling Coordinators for non-CPUC LSEs will be the resource commitments outside the CAISO Control Area of Scheduling Coordinators for non-CPUC LSEs, as of October 27, 2005. Resource commitments outside the CAISO Control Area of any LSE entered into after October 27, 2005 will be given identical allocation priority. The allocation for determining Deliverability does allocated any actual transmission service being allocated, but is only used for determining the maximum Resource Adequacy Capacity that can be credited

towards satisfying a Scheduling Coordinator's obligations under its Resource Adequacy Plan.

The CAISO will inform the CPUC if a Resource Adequacy Plan submitted by a Scheduling Coordinator for a CPUC LSE exceeds its allocation of import capacity. The CAISO will inform the Scheduling Coordinator for a non-CPUC LSE if its Resource Adequacy Plan exceeds the non-CPUC LSE's allocation of import capacity and will either: (i) reduce all Resource Adequacy Capacity from imports of that Scheduling Coordinator on a pro rata basis or (ii) reduce a specific Resource Adequacy Capacity from imports as instructed by the Scheduling Coordinator so as to equal the allocated amount of import capacity.

The CAISO will post the results of the deliverability study on the Web Site. The results must be incorporated by Scheduling Coordinators into their respective Resource Adequacy Plans.

Q. How will the CAISO inform Scheduling Coordinators about the Net Qualifying Capacity from resources?

A. The CAISO shall produce an annual report posted to its website setting forth the Net Qualifying Capacity of all [Participating Generator] Resource Adequacy Resources.

g. PARTICULAR RESOURCE ADEQUACY RESOURCES

Q. Are there potential Resource Adequacy Resources that present special circumstances?

A. Yes. Use-Limited Resources, Partial Resource Adequacy Resources, jointly owned facilities, and imports require specific attention.

Q. What are Use-Limited Resources?

A. A Use-Limited Resource is a resource that due to its fuel or operational constraints is unable to operate all the time at full capacity. Examples of Use-Limited Resources are (1) a hydro resource that is limited by the amount of hydro storage and is coordinated with other water uses including irrigation and recreation needs; and (2) a non-dispatchable resource, such as a Qualified Facility.

Q. How can Use-Limited Resources be used in the Resource Adequacy demonstration?

A. The rules associated with how Use-Limited Resources may count toward meeting a Resource Adequacy obligation are the province of the Local Regulatory Authorities. As a default (i.e., for use only where a Local Regulatory Authority has failed to act), the CAISO has adopted rules similar to rules adopted by the CPUC,. Under those rules, to be considered as a Resource Adequacy Resource, a

Use-Limited Resource must, in addition to the criteria I have discussed relating to determination of Qualifying Capacity for the specific resource type, have the ability to operate (1) during the summer months from May through September (i) at full Qualifying Capacity for at least four consecutive hours for three consecutive days and (ii) for a minimum aggregate number of hours per month based on number of hours that Loads in the CAISO Control Area exceed 90% of peak Demand during that month; and (2) during the remaining months at full Qualifying Capacity at least two hours per day.

Q. How can Scheduling Coordinators use capacity from jointly owned units to meet their Resource Adequacy obligations?

A. The Scheduling Coordinator must provide the CAISO with a demonstration of its entitlement to the output of the jointly-owned facility's Qualified Capacity and an explanation of how that entitlement may change if the facility's output is restricted.

Q. What is a Partial Resource Adequacy Resource?

A. A Partial Resource Adequacy Resource is a resource for which a portion of its capacity has been contracted under a Resource Adequacy Plan. In such cases, the resource is obligated to fulfill is availability obligations only to the extent of the Resource Adequacy Capacity of the resource. The resource may Bid the balance of its capacity into the CAISO markets, but is not obligated to do so. Such a

Partial Resource Adequacy Resource may also Bid non-zero RUC availability and be eligible for RUC award for the portion of the capacity of the resource that is not contracted under Resource Adequacy.

Q. How can imports be utilized to meet the Resource Adequacy requirement?

A. The rules associated with how import resources may count toward meeting a Resource Adequacy obligation are also the province of the Local Regulatory Authorities. As a default, the CAISO has adopted rules similar to rules adopted by the CPUC. Under those rules, there are four types of imports or System Resources: Dynamic Resource-Specific System Resources, Dynamic System Resources, Non-Dynamic Resource-Specific System Resources and Non-Dynamic System Resources.

For Non-Dynamic System Resources, the Scheduling Coordinator must have sufficient allocation of capacity at the import Scheduling Point to satisfy deliverability requirements. The Scheduling Coordinator must also demonstrate that the import is covered by Operating Reserves in the sending Control Area and cannot be curtailed for economic reasons. Eligibility as Resource Adequacy Capacity would be contingent upon a showing of securing, in any intervening Control Areas, transmission for the operating hours making use of highest priority transmission offered by the intervening Transmission Operator that cannot be curtailed for economic reasons.

Dynamic Resource-Specific System Resources, Dynamic System Resources and non-Dynamic Resource-Specific System Resources are to be

treated similarly to resources within the CAISO Control Area, except that they will be subject to the deliverability screen like other import. Eligibility as a Resource Adequacy Resource would be contingent upon a showing that the Scheduling Coordinator had secured transmission through any intervening Control Areas for the operating hours that cannot be curtailed for economic reasons or bumped by higher priority transmission. Since these System Resources are either tied to specific resources or are dynamically scheduled, these resources do not come with Operating Reserves just like any other Resource internal to the CAISO.

h. AVAILABILITY

Q. Please describe the CAISO's requirements as to how Resource Adequacy Resources will be made available to serve Load.

A. The CAISO Tariff specifies the manner in which Scheduling Coordinators must make their Resource Adequacy Resources available to the CAISO for Dispatch consistent with the requirements of the Local Regulatory Authorities. These availability requirements are similar to the existing must-offer obligations except they apply specifically to those resources that have been identified as Resource Adequacy Resources. The availability obligations proposed by the CAISO attempt to balance operational needs of the CAISO Controlled Grid with the physical and potential contractual limitations of such Resource Adequacy Resources. These requirements differ slightly according to whether the

Scheduling Coordinator representing an LSE in conjunction with their respective Local Regulatory Authority elects to be a Reserve Sharing LSE or a Modified Reserve Sharing LSE.

Q. How will Scheduling Coordinators for Reserve Sharing LSEs make Resource Adequacy Resources available to the CAISO in order to ensure system reliability?

A. Except where explicitly excluded, Resource Adequacy Resources for Reserve Sharing LSEs must either Schedule or Bid Resource Adequacy Capacity into the Day-Ahead Energy and Ancillary Service Markets, Day-Ahead RUC, and, to the extent physically capable, the Hour-Ahead Scheduling Process (HASP) and Real-Time Market.

Q. How will Scheduling Coordinators for Modified Reserve Sharing LSEs make Resource Adequacy Resources available to the CAISO in order to ensure system reliability?

A. Except where explicitly excluded, Resource Adequacy Resources for Modified Reserve Sharing LSEs must either Schedule or Bid Resource Adequacy Capacity into the Day-Ahead Market sufficient to meet 115% of its forecast Demand every hour. However, only those resources selected in the Day-Ahead Market or Day-Ahead RUC will be obligated to be available be available for HASP and RTM. Any Resource Adequacy Resource not selected in the Day-Ahead Market will not

be obligated to offer into the HASP and RTM, but, in the same manner as all Participating Generators, shall respond to the CAISO in case of an Emergency or to prevent an imminent Emergency. Modified Reserve Sharing LSEs are subject to no resource-specific requirements.

Q. How will the CAISO consider Resource Adequacy Resources in its optimization?

A. Resource Adequacy Resources that do not Self-Schedule all of their capacity will be subject to the CAISO's optimization for Energy and Ancillary Services for the remainder of the Resource Adequacy Capacity, subject to an offer obligation. Capacity from Resource Adequacy Resources that Bid Energy or Ancillary Services into the IFM will be considered in the CAISO's RUC process with a RUC Availability Bid equal to $0/MW, and Capacity from Resource Adequacy Resources selected in RUC will not be eligible to receive an availability payment.

Q. Why must Resource Adequacy Resources bid into RUC with a $0/mw availability bid?

A. Resource Adequacy Resources already have been contracted to make their resource available. As a result such a resource should bid $0 to avoid inappropriate opportunities by withholding Resource Adequacy Capacity in order to force the CAISO to increase the price for RUC availability. The CPUC recognized this issue and directed that Resource Adequacy Capacity in plans

under its jurisdiction must be available to the Day-Ahead RUC process at no additional cost.

Q. Does the CAISO propose any availability requirements on Liquidated Damage Contracts?

A. Yes. To the extent consistent with the terms and conditions of the contract, the Energy supporting Liquidated Damage Contracts must be self-scheduled or Bid into the Day-Ahead Market. Since Firm Liquidated Damages Contracts do not have a specific resource associated with the Energy delivery, the CAISO will be unable to obligate a specific resource to make itself available to RUC in order to make a resource commitment decision or create a Default Energy Bid on its behalf if a Bid is not submitted.

Q. What happens if the CAISO does not dispatch a Resource Adequacy unit in the Day-Ahead Market?

A. Long-Start Resource Adequacy Units, i.e., those with Start-Up times greater than 5 hours, that are not committed in the Day-Ahead Integrated Forward Market or RUC will be released from any further Resource Adequacy obligation for the relevant operating day. Short-Start Resource Adequacy Resources included in the plans of Reserve Sharing LSEs will be required to bid their resources in the HASP; or bid into the Real-Time Market. As I've previously discussed, Short-Start Resource Adequacy Resources included in the plans of Modified Reserve

Sharing LSEs will be required to bid their resources in the HASP, or bid into the Real-Time Market.

Q. What is a Short-Start Unit?

A. The CAISO proposes to define Short-Start Units as those resources with start times plus minimum run times of five hours or less. The CAISO uses this definition because the MRTU software has been designed with a 5-hour look-ahead for Real-Time Dispatch purposes and because this longer time horizon offers economic and operational benefits. By using a Start-Up time plus minimum run-time of less than 5 hours to evaluate the dispatch of units, the CAISO will provide increased Dispatch efficiency by allowing some resources that otherwise would have shut down prior to the end of the first hour(s) to stay committed if they are determined to be necessary in the next hour(s).

Q. Why does the CAISO need Short-Start Units to be available in HASP and Real-Time?

A. Because of forced outages or actual loads higher than the Day-Ahead Load forecast, the CAISO needs capacity after the Day-Ahead IFM/RUC have completed. While the magnitude of this need for additional capacity on a system-wide basis may be relatively small, it is not known in advance where the need will occur. Transmission limitations require that adequate additional capacity be available throughout the system to address these contingencies and assure reliability. Therefore, the CAISO proposes that the must-offer requirement for

Short-Start RA resources not expire after the Day-Ahead Market. Resource Adequacy Resources with the physical capability to respond to a CAISO dispatch instruction should have the obligation to be available in Real-Time. The necessary compensation for meeting the offer obligation into Real-Time would be established between LSEs and suppliers through their negotiation of bilateral contracts. For a Short-Start resource, the offer obligation is designed to ensure that the ISO will be able to call upon available resources in the Real-Time Market to the extent that Energy is needed. Inasmuch as the Resource Adequacy Resources are already being paid for their capacity, there is no economic reason for those resources to withhold capacity in the Real-Time Markets. As the Commission explained in the April 26, 2001 Order:

> [U]nder competitive conditions, a generator that has available energy in real time should be willing to sell that energy at a price that covers its marginal costs, since it has no alternative purchaser at that time.

95 FERC at 61,355-56.

Q. Should Supply receive additional compensation for making its Short-Start Unit available after the Day-Ahead Market and RUC?

A. To the extent that Short-Start resources can be identified as meeting a specific need, such as restoring Operating Reserves after a contingency, the CAISO may develop additional products that would allow Short-Start resources to be compensated for their service. Aside from this, Short-Start resources may seek

additional compensation by bidding the cost of their Energy. Besides this, such Short-Start resources have been compensated via the RA contracts.

I would note, however, that the CAISO proposes to design a post-Day-Ahead mechanism that potentially would release a portion of Short-Start resources not committed in the Day-Ahead processes and that are not anticipated to be needed in Real-Time, *e.g.*, recovery of operating reserves after a contingency. The CAISO anticipates that a manual mechanism can be developed and made available for Release 1 of the MRTU project, and will work with stakeholders to design the process and parameters.

It should also be noted that a Short-Start resource that has not otherwise been scheduled in the Day-Ahead Market maintains the opportunity to make sales to others, as well as having the opportunity to reflect additional Energy costs of Dispatch in Real-Time over those of being scheduled Day-Ahead in its Energy bid. The Short-Start resource, of course, is still free to engage in transactions outside the CAISO markets.

Q. What happens if the CAISO only calls on part of the output of a Resource Adequacy Resource?

A. As a general matter, Resource Adequacy Resources that have been committed by the CAISO in the Day-Ahead Market or the RUC process for part of their Resource Adequacy Capacity or have Self-Scheduled for part of their Resource Adequacy Capacity must remain available to the CAISO through Real-Time for the scheduled and non-scheduled portions of their Resource Adequacy Capacity.

Capacity of a Resource Adequacy Resource that is not Recourse Adequacy Capacity is not subject to this requirement. Long-Start Units are treated no differently from Short-Start Units in this regard.

Q. Are there additional MRTU provisions that may affect the availability requirements for Long-Start Units?

A. Yes. Certain Long-Start Units may have Start-Up time greater than 18 hours, and thus not be able to start up in time for the immediate trading day. Under section 27.4.1 of the MRTU Tariff, those Extra Long-Start Units may receive a multi-day Start-Up instruction for future days beyond the immediate trading day.

Q. Are there any similar provisions that would affect other arrangements?

A. Yes. Contractual arrangements with options that expire prior to the Day-Ahead Market will have to be treated similarly to resources with Start-Up times greater than 18 hours and may receive instructions for future days beyond the immediate trading day. The CAISO intends to encourage Local Regulatory Authorities to develop criteria such that new contractual arrangements that qualify as Resource Adequacy Capacity will not have such limitations and will have the ability to be dispatched in Day-Ahead IFM, RUC, or the HASP process.

Q. How are Use-Limited Resources to be made available to the CAISO?

A. The Scheduling Coordinator for the Use-Limited Resource will make it available to the CAISO by either self-scheduling the maximum availability or submitting a

Schedule or Bid in the Day-Ahead Market for capability. The CAISO will optimize the Dispatch of the Use-Limited Resource in the Day-Ahead Market while recognizing the constraints of the Use-Limited Resource's plan. If requested by the CAISO, the Scheduling Coordinator for the Use-Limited Resource will attempt to reschedule its Energy in recognition of a system reliability concern but only to the extent that the change is possible without violating the unit's daily Energy limit. In the case of a System Emergency, the CAISO may, in accordance with the provisions of this CAISO Tariff, request additional assistance from the Use-Limited Resource.

Q. How are Hydro resources made available?

A. Because of its multi-purpose limitations (e.g. irrigation, recreational, and power production), and the fact the Hydro is generally a Use-Limited Resource, the CAISO has concluded that Hydro should be scheduled or offered in the Day-Ahead Market based on expected deliveries for the next trading day. For these reasons, Hydro Resource Adequacy Resources will not be obligated to offer into RUC and must only offer into Real-Time to the extent possible.

Q. What are Limited-Use Non-Dispatchable Resources and how are Non-Dispatchable Resources made available?

A. Non-Dispatchable Resources are resources that only deliver Energy on a as-available basis. Examples of Non-Dispatchable resources are Qualifying Facility, Participating Intermittent Resources and solar resources. Non-Dispatchable

Resources that are also Resource Adequacy Resources are expected to schedule in the DAM and HASP the expected as-available level and are exempt from offering into RUC and RTM.

Q. How is capacity from jointly owned units made available to the CAISO in Real-Time?

A. The Scheduling Coordinator is only required to bid the portion of the capacity of that has been identified as Resource Adequacy Capacity in the Real-Time Market.

Q. What are the Resource Adequacy requirements with respect to exports?

A. Resource Adequacy Capacity may be utilized to serve an export Bid. An export Bid may be scheduled into the CAISO markets and be cleared by the Energy being provided by Resource Adequacy Capacity. Such an export may Bid, but should not be self-scheduled, for the quantity of Energy being provided by Resource Adequacy Capacity. At its sole discretion, the CAISO may curtail exports from a Resource Adequacy Resource to prevent or alleviate a System Emergency.

Q. What happens if a Resource Adequacy Resource fails to submit a Bid?

A. At the close of the Day-Ahead Market, the CAISO will determine if all Qualifying Capacity from Resource Adequacy Resources that is obligated to offer has been Bid, and will insert an Energy Bid established in the Master File for any

Qualifying Capacity that is not Bid into the CAISO Market and for which the CAISO has not received notification of an outage. In addition, the CAISO will determine if all Qualifying Capacity from Short-Start Resource Adequacy Resources that are obligated to offer has been Bid into the Day-Ahead Market and the HASP and Real-Time Market and will insert an Energy Bid established in the Master File for any Qualifying Capacity that is not Bid and for which the CAISO has not received notification of an outage.

4. COMPLIANCE

Q. Please describe the proposed compliance program.

A. The CAISO's compliance function differs depending on whether the focus is on LSEs or suppliers. The CAISO anticipates that the primary role in enforcing Resource Adequacy standards will be undertaken by the respective Local Regulatory Authority with respect to obligations imposed on LSEs. If the CAISO's review of an annual or monthly plan reveals deficiencies, the CAISO will report the deficiencies to the CPUC or other Local Regulatory Authority and Scheduling Coordinator scheduling for the LSE and will coordinate with the Local Regulatory Authority to request that the Scheduling Coordinator scheduling Demand revise the plan, as appropriate. However, as noted above, because of the more operational nature of the obligation on Modified Reserve Sharing LSEs to schedule in the Day-Ahead Market 115% of their daily Demand Forecast, the CAISO proposes to impose a surcharge on Scheduling Coordinators that fail to satisfy this requirement.

Moreover, the CAISO's current Enforcement protocol contains provisions that may be applicable to Scheduling Coordinators who fail to comply with the program. If, for example, a Scheduling Coordinators representing an LSE fails to provide the CAISO with an annual or monthly plan, it would be subject to Enforcement Protocol Section 6.1 of the CAISO Tariff. The same would be true for a resource that failed to comply with the requirement to submit a Supply Plan.

The CAISO anticipates taking the primary role in enforcing supplier obligations. Failure of a Resource Adequacy Resource to make itself available to the CAISO or to operate the Resource Adequacy Resource by placing it online in a manner consistent with a submitted Bid or Default Energy Bid would not only be subject to the financial consequences arising from market operations, but would also be subject to the sanctions set forth in Enforcement Protocol Section 2 of the CAISO Tariff.

Q. Will the CAISO be imposing reporting requirements on Generators?

A. Yes. To ensure that the expectations of the Generators are the same as those reflected in the supply plans of the LSEs, Scheduling Coordinators representing Generating Units, System Units or System Resources supplying Resource Adequacy Capacity are to provide the CAISO with annual and monthly plans verifying their agreement to provide the Resource Adequacy Capacity This will better assist the CAISO in monitoring the Resource Adequacy program and provides greater confidence that the resources will be there when needed.

V. BACKSTOP CONTRACTING AUTHORITY

Q. Under the current CAISO tariff can the CAISO enter into contracts for supply to ensure system reliability?

A. Yes. As I described in connection with the CAISO's existing reliability responsibilities, under the current tariff, if the CAISO's forecast shows capacity will be insufficient to meet Applicable Reliability Criteria during peak Demand periods, then the CAISO is to facilitate the development of market mechanisms to bring the CAISO Controlled Grid during peak periods into compliance with the Applicable Reliability Criteria (or such more stringent criteria as the CAISO may impose). The CAISO can engage in contracts for Ancillary Services, short-term Generation supply contracts with Generators, and Load curtailment contracts.

Moreover, if the CAISO concludes that it may be unable to comply with the Applicable Reliability Criteria, the CAISO is to take such steps as it considers necessary to ensure compliance, including the negotiation of contracts through processes other than competitive solicitations.

Q. Does the CAISO propose to maintain this contracting authority?

A. Yes. While the CAISO would hope not to have to use its authority under these existing sections, it is crucial that the CAISO have the ability to ensure reliability criteria are satisfied. The CAISO must have the backstop ability to enter into supply arrangements if circumstances require such action to maintain sufficient

Supply to meet system Demands. Because the CAISO might use this authority when LSEs fail to meet the Resource Adequacy requirements included in the Resource Adequacy Plans (or when a Scheduling Coordinator fails to submit a complaint Resource Adequacy Plan), the CAISO is proposing to revise the allocation to address such circumstances.

Q. How will the costs of the contracts be allocated if they are used as a backstop for meeting the capacity needs that would otherwise have been met if LSEs had met the Resource Adequacy requirements of the CPUC and other Local Regulatory Authorities?

A. Costs incurred by the CAISO pursuant to these backstop contracts to meet Local Capacity are allocated in two tiers: First to Scheduling Coordinators representing a deficient LSE proportional to their deficiency of Local Capacity responsibility up to the aggregate Local Capacity deficiency, and any remainder to each Scheduling Coordinator that serves Load in the TAC Area in accordance with the LSE's proportionate coincident share, on a gross Load basis, of the previous annual peak Demand in the TAC Area. Costs incurred by the CAISO pursuant to these backstop contracts to meet other than Local Capacity Reliability Criteria will also be allocated in two tiers where the first tier is allocated to any Scheduling Coordinator representing a deficient Load- Serving Entity proportional to their non Local Resource Adequacy deficiency up to the aggregate non-local deficiency and any remainder will be allocated to each Scheduling Coordinator pro rata based upon the same proportion as the Scheduling

Coordinator's metered hourly Demand bears to the total metered hourly Demand served in that hour.

Q. What changes is the CAISO proposing with respect to the RMR program for MRTU?

A. In the interim RMR will be maintained. After MRTU and Resource Adequacy are fully implemented and a tariff-based reliability backstop is developed, the CAISO will evaluate the need for the maintaining the Reliability Must-Run contract. On a daily basis the selection and dispatch of RMR resources will be performed in coordination with the Day-Ahead Integrated Forward Market (IFM) in the Pre-IFM market mitigation passes.

VI. BACKSTOP RELIABILITY TARIFF

Q. What is a backstop reliability tariff?

A. A backstop reliability tariff provides an additional tool for the CAISO to identify and compensate additional capacity not already contracted under Resource Adequacy or under Reliability Must Run to maintain reliability.

Q. Why would such a tariff be necessary?

A. The need for such a backstop could be beneficial for two reasons. A backstop tool could compensate for either insufficient procurement by LSEs under Resource Adequacy or a new constraint that was not foreseen during the Local

Capacity Requirement and deliverability studies in support of Resource Adequacy. A backstop is only intended to meet an unfilled reliability need and is not intended as a substitute method of contracting for capacity by LSEs. In this regard, a tariff approach to backstop reliability may provide a more flexible and more appropriate backstop mechanism than contracting methods, which may get in the way of the LSEs' primary role to ensure Resource Adequacy.

Q. Is the CAISO proposing a backstop reliability tariff as part of MRTU?

A. No. However, the CAISO intends develop a tariff-based backstop mechanism. The IEP complaint EL05-146-000 and its proposed Reliability Capacity Services Tariff ("RCST") may provide a framework for developing a tariff-based reliability backstop to Resource Adequacy. With regards to RCST, the CAISO is continuing settlement negotiations in this case and as a result is not prepared to incorporate the results of those negotiations into the MRTU tariff at this time.

Q. Thank you. I have no further questions at this time.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation))	**Docket No. ER06-___-000**

I, Mark Rothleder, declare under penalty of perjury, that the foregoing questions and answers labeled as my testimony were prepared by me, with the assistance of others working under my direction and supervision; and that the facts contained in my answers are true and correct to the best of my knowledge, information and belief.

Executed on: 2/6/06
Date

Mark Rothleder