BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Promote Policy And Program Coordination and Integration in Electric Utility Resource Planning	Rulemaking 04-04-003

REPLY COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON MODIFICATION TO THE INTERIM RESOURCE ADEQUACY REQUIREMENTS (RAR) DECISION (D.) 04-10-035

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The California Independent System Operator Corporation ("CAISO") respectfully submits its reply to opening comments to the Assigned Commissioner's Ruling Providing for Comments and Replies on Modification to the Interim Resource Adequacy Requirements (RAR) Decision (D.) 04-10-035, issued on February 8, 2005 ("ACR").

I. INTRODUCTION AND SUMMARY

In its opening comments, the CAISO addressed the two major issues raised by the ACR. The first issue requested input on whether the magnitude of the resource adequacy requirement ("RAR") should be based upon separate monthly peaks or an annual system-peak. All parties, including the CAISO, appear to favor either a monthly or seasonal, rather than an annual approach.

The second issue raised by the ACR addresses the appropriate scope of the obligation that resources procured to satisfy the RAR must be made available to the CAISO. Although the opening comments on this issue may superficially appear to produce two distinct and irreconcilable positions, closer scrutiny reveals considerable consensus. Pacific Gas & Electric Company ("PG&E"), San Diego Gas & Electric Company ("SDG&E"), the CAISO, and the supplier community all unequivocally approve of the Commission's physical "capacity-based" RAR that imposes on contracted for capacity an "all hours" obligation to be available to the

CAISO for optimal dispatch. Each of these parties, however, expressly recognizes that the all hours obligation cannot be wholly unqualified. Rather, the all hours obligation must accommodate those resources that have legitimate physical or use limitations that prevent their full capacity from being available for all hours of every day.

The Joint Parties[1] mistakenly assume that a unit's legitimate physical and other use limitations will be ignored and, as a result, reach false conclusions that should be rejected. In particular, contrary to the contentions raised by the Joint Parties, the all hours obligation will not require that load serving entities ("LSEs") contract to fill-in the "off-peak" gaps created by legitimate unit unavailability. Indeed, once the Joint Parties are disabused of this misunderstanding, the Joint Parties' assertion that a monthly or seasonal peak all hours obligation "will result in unneeded and costly procurement in-off peak hours to replace those resources that exist specifically to meet on-peak loads" disappears along with much of the participants disagreements. (Joint Parties at 1-2.)

Despite the significant consensus, fundamental fissures in the parties' respective vision of the RAR do exist. The depth of these differences depends on resolution of ambiguity in the Joint Parties' opening comments. On the one hand, the Joint Parties appear to acknowledge that the availability obligation to the CAISO should extend beyond local-area capacity to encompass non-local resources procured to cover those hours for each month that an LSE's load is within 10% of that LSE's contribution to monthly system peak. (Joint Parties at 6.) On the other hand, the Joint Parties could be viewed as rejecting any availability obligation beyond local capacity requirements. Both proposals are incompatible with the CAISO's market redesign ("MRTU") and the objectives of the RAR. In fact, the latter interpretation constitutes an explicit rejection of

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[1] The "Joint Parties" are Southern California Edison Company, The Utility Reform Network, California Large Energy Consumers Association, California Manufacturers and Technology Association, and the Alliance for Retail Energy Markets.

the Commission's vision of implementing a capacity-based RAR. It would also be a stark departure from the position advocated by The Utility Reform Network throughout the workshops, but consistent with the views advanced by SCE and other energy service providers for counting as eligible RAR capacity system-energy or Firm Liquidated Damages ("Firm LD") contracts. The CAISO remains willing to consider transition proposals, but is steadfastly against eviscerating the RAR by creating an incoherent and likely ineffective hybrid capacity and energy resource adequacy paradigm. Stated simply, allowing Firm LD contracts to predominate the class of non-local area resources will defeat both the long-term availability objective of RAR to ensure that sufficient physical resources exists to serve California load and the short-term availability objective of ensuring sufficient physical resources are committed to serve California load.

Even if the Joint Parties concede that a top 10% hours availability obligation exists, this limitation also jeopardizes reliability of the grid and conflicts with MRTU. First, the CAISO has designed MRTU with an availability obligation as more expansive than simply providing access to resources for local reliability. The RAR availability obligation constitutes a pillar of the CAISO's proposed MRTU market power mitigation proposal by addressing the threat of physical withholding. Second, a top 10% methodology will not support optimal system dispatch and injects substantial operational complexity. The purpose of an all hours obligation is to ensure that on any given day a sufficient set of resources exists from which to efficiently serve load, procure operating reserves and otherwise ensure that sufficient capacity is on line to serve the next day's load. As noted in the CAISO's opening comments, to somehow limit, be it in quantity or temporally, the operator's access to a full set of resources is misguided and risky.

Accordingly, the CAISO requests that the Commission use the ACR to clarify that the RAR is a physical capacity requirement. The Commission should further clarify that the RAR applies to each hour of the year, that the eligible capacity must be made available, subject to legitimate use or energy limitations, to the CAISO for system dispatch during all hours of the obligation period, and that LSEs must procure sufficient eligible capacity to meet forecasted monthly or seasonal peaks plus the 15-17% planning reserve margin ("PRM").

II. THE JOINT PARTIES' OBJECTION TO THE ACR ON POTENTIAL ADVERSE COST IMPACTS RESTS ON MISUNDERSTANDINGS

As noted, all parties are in agreement that capacity procured to satisfy local area requirements must be subject to an all-hour must-offer obligation. The Joint Parties, however, object to extending a similar obligation to non-local area resources. Their fear is that such an all hours obligation when coupled with the a monthly, annual, or seasonal peak procurement requirement "will result in unneeded and costly procurement in off-peak hours to replace those resources that exist specifically to meet on-peak loads." (Joint Parties at 1-2.) This fear is unfounded and rests on a misunderstanding of the RAR.

A. The Joint Parties' Concerns Are Met By Recognizing Use and Energy Limitations

The CAISO, PG&E, and other parties, acknowledged in their opening comments that not all qualifying resources are available during all hours due to legitimate physical or regulatory characteristics. The CAISO described in its opening comments how MRTU intends to accommodate the practical implementation of such an all hours requirement, while accounting for availability limitations.[2] In the role of system dispatcher, the CAISO optimizes the resources provided based upon the current and expected system conditions. The CAISO market design provides that the day-ahead combined Integrated Forward Market (IFM) and Residual Unit

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[2] CAISO opening comments at page 9 state, "In the role of system dispatcher, the CAISO optimizes the resources provided based upon the current and expected system conditions. The logic of the day-ahead combined Integrated Forward Market (IFM) and Residual Unit Commitment (RUC) process is to enable the CAISO to commit and schedule RAR and other offered resources to operate during the hours of the next day when they are expected to be most valuable. Recognizing that certain resources may have periods in which they physically are unable to operate or have legitimate use limitations that prevent their full capacity from being available for all hours of every day, the MRTU design incorporates provisions and procedures to utilize such resources optimally while respecting their use limitations, thus enabling these resources to comply fully with their must-offer obligations."

Commitment (RUC) process enables the CAISO to commit and schedule RAR and other offered resources in a manner that maximizes their value to LSEs. In other words, the CAISO has anticipated and provided for the need to accommodate resources with legitimate use-limitations within the construct of an all-hours must-offer obligation, and therefore these elements are not in conflict. The practical implication is that, contrary to the hyperbolic allegations leveled by the Joint Parties, no party, including the CAISO, advocates ignoring these limitations by requiring LSEs to fill in the gaps created by the unavailability of certain resources during off-peak hours.

The Joint Parties' error can be illustrated by the hypothetical on page 9 of their opening comments. This hypothetical describes an LSE with a 1000 MW monthly peak load forecast and a resulting RAR obligation of 1,150 MW after accounting for the planning reserve margin. The LSE procures a portfolio of eligible capacity that covers the 1,150 MW peak load and provides 700 MW during off-peak hours. It will be assumed that the difference between the 1,150 MW peak and 700 MW off-peak capability is due to various technical limitations or, potentially during a short transition, due to contract limitations.[3] The Joint Parties assume that the LSE will be required to procure 450 MW of off-peak capacity to levelize its portfolio at the monthly peak level. This is simply untrue - the LSE will not be required to procure additional off-peak capacity.

[3] Consistent with the Commission, the CAISO seeks to implement the RAR based on capacity products. It should be noted that while the recommended requirements for procurement of capacity and offering all available RA capacity into the CAISO market addresses the need for forward physical procurement to ensure system reliability, the CAISO continues to feel that forward energy contracting for a significant portion of LSE loads is also essential to hedge against market power and price volatility in the spot market for energy.

The following graph helps illustrate the CAISO's point.

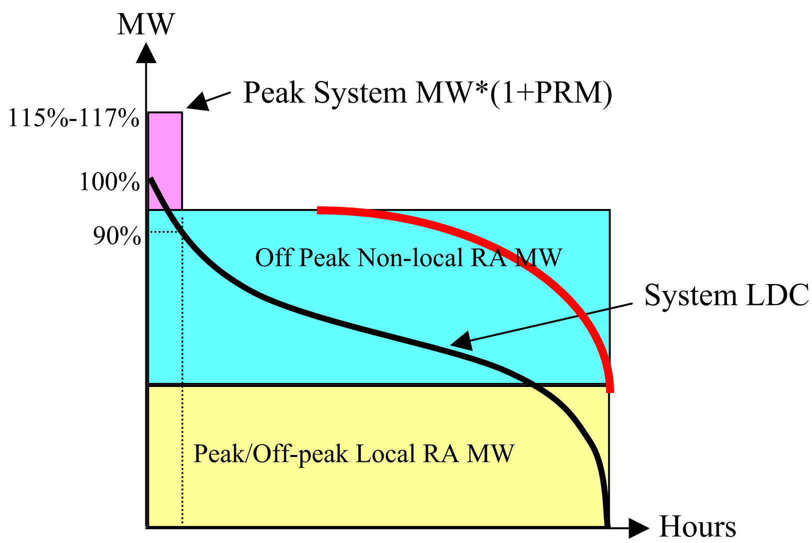

Figure #1

<u>The Pink Strip</u>. The top (pink) strip represents when the system-wide load exceeds 90% of the system-wide peak. The width of this strip represents the number of hours the RAR resources must meet both a capacity and a duration (capability to produce energy) criteria as described in detail in Section IV of the CAISO's opening comments.[4] Given that a supplier with an energy or use limited resource would normally attempt to maximize its profits by operating the unit only during peak periods when prices are highest, it can be properly assumed that the pink strip will be met through energy and use limited resources. However, to the extent LSEs intend to count on use-limited resources to meet their RAR obligation during these peak hours,

[4] As further discussed in Section IV below, the CAISO requests that the Commission defer final determination of the appropriate counting conventions for energy or use limited resources until after the parties have had the opportunity to comment on the Phase 2 workshop report.

there must be a demonstration that these resources are collectively capable of meeting their RAR capacity and duration obligation for the strip of hours.[5]

The Yellow Strip. The bottom (yellow) strip represents a subset of the system-wide RAR capacity that is needed for local reliability. This subset must be able to produce energy when called upon practically all the time (unless it is on maintenance or forced outage). Depending on the local Resource Adequacy Requirements this could represent 25% to 35% of the system-wide RAR capacity. The share of each LSE to meet the local RAR dictates the portion of the LSE's RAR that must be in this category.

The Blue Strip. The middle (blue) strip represents a subset of the system-wide RAR that is not necessarily needed for local reliability, but is needed to ensure system-wide resource adequacy. The CAISO contemplates that this subset would also be subject to a must offer obligation to the extent it is not on maintenance or forced outage.[6] Notwithstanding the CAISO's intent to identify the minimum amount of capacity in each local area necessary to respond to large contingencies, it is important to clarify that the CAISO cannot, and does not intend, to identify the minimum amount of local capacity that would be necessary to respond to *all* contingencies or possible system conditions. Thus, the CAISO's approach inherently embraces the understanding that the CAISO may be required to commit from the blue strip additional resources in the day-ahead and real-time timeframes in order to address operating conditions that arise on the grid or in the CAISO's markets.

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[5] Without a duration criteria for use-limited resources, the CAISO will rely on these resources. Yet, when called upon to provide any energy service, during a time of system need, the CAISO may find that the resource is unable to provide energy.

[6] The must offer obligation (MOO) should not be confused with availability requirement. For example, if a resource identified in RAR month ahead report is forced out on a given day (or part thereof), the resource would still count towards meeting the RAR (i.e., the resource is not expected to show up in the market and the LSE need not provide a substitute resource).

The arched line (red) shows how the available RA capacity, beyond that procured in the local areas, is effectively reduced because the use or energy limited resources have legitimate limitations on their availability. If we assume the month of August will have 744 hours of obligation, then an additional 704 hours extend beyond the 40 hours prescribed by top 10% criteria. Yet, some resources will be able to show they have legitimate use-limitations and are unable to run for the additional time. Thus, the available capacity within the middle section of this figure will not be capable of fully covering the defined box. Rather, it will diminish with the number of hours beyond those required to meet the top 10% of hours. This principle is reflected by the downward slope of the redline. Moreover, the CAISO concurs with the Joint Parties that, based on the expected resource mix needed to satisfy an LSE's monthly peak load plus the PRM, an appropriate reserve margin will likely exist during non-peak hours so as to obviate the need for additional procurement, so long as the resources are made available to the CAISO. (See Joint Parties at 8-9.) The CAISO has previously stated that on any given day and for any hour a sufficient set of resources must be provided to the CAISO from which to efficiently serve load, procure operating reserves and otherwise ensure that sufficient capacity is on line to serve the next day's load.

In the aggregate, the blue strip should consist of sufficient non-use limited resources to be capable of meeting system-wide energy needs plus PRM outside the system peak hours. However, if the quantity of use or energy limited resources becomes a disproportionately large proportion of the total RA resources, there may be the need to define the characteristics and set technology limits on the portfolio of resources made available to the CAISO.[7] At the present

[7] For example, combustion turbines can provide valuable peaking capabilities but are unable to provide load following services. Thus, it would not be prudent for California to develop an unbalanced portfolio that is heavily weighted with CTs to meet the capacity requirements of the RAR but significantly reduce the resources available for reliability services. Therefore, CAISO recommends the CPUC take up this issue in a subsequent phase of the RAR implementation.

time, the resource mix is not expected to cause any negative reliability impacts in this regard, but this is an issue that should be monitored by the Commission and the CAISO.

B. Once the Limitations of Units Are Accommodated, a RAR Based Only on the Top 10% Hours Does Not Provide Cost Savings

The Joint Parties allegations of inefficiency and financial waste relate solely to the misconception that an all hours availability obligation would require the procurement of *additional resources* for off-peak hours beyond that needed to satisfy the peak load and planning reserve margin. In other words, the Joint Parties do not, and cannot, claim that under a capacity based RAR, the cost of reserving capacity to satisfy the top 10% peak hours of a month would be materially less than reserving that capacity for all hours of the entire month and, perhaps, seasonally. Accordingly, once the "additional procurement" misconception is clarified, the Joint Parties' primary reason to object to an all hours obligation virtually disappears.

As noted above, the Joint Parties appear to concede that a must-offer obligation, subject to legitimate unit unavailability, will apply to non-local capacity resources procured to meet 115% of monthly peak loads in those hours when load are within 90% of forecasted monthly peak.[8] As set forth in section 5.2 of the Phase 1 "Workshop Report on Resource Adequacy Issues," the number of hours greater than 90% of the monthly peak averages about 40 hours for each of the five summer months. The peak 40 hours cannot reasonably be predicted in advance of the month and, as a result, the resource can satisfy its commitment obligation only by being available in all potential hours in which the peak may occur. Thus, by reserving the capacity for an unpredictable peak 40 hours in a month, the LSE is precluding that resource from making

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[8] At page 6 of their opening comments, the Joint Parties state: "the minimum local-area capacity requirements established by the CAISO should be considered year-round requirements, and, therefore, should only be procured by the LSEs on a year-round basis. For *all other resources, the LSE must-offer obligation* should apply only to the extent such resources are available and needed to meet load." (Emphasis added.) The "all other resources" could only mean other RAR resources, which the Joint Parties acknowledge remain subject to some "LSE must-offer obligation."

itself available on a firm basis to other markets during the upcoming RAR period. In other words, from the supplier's perspective, the commitment is for all peak hours. This fact, plus the absence of other formal capacity markets in the WECC, will lead the resource to attempt to recover its going forward fixed costs based on the capacity payment for the 40-hour commitment as potentially supplemented by revenue from the CAISO's energy and ancillary services markets. This is true also because most units – even those which may be able to operate virtually all hours – have little opportunity to earn infra-marginal rents by selling outside of California during the off-peak hours of a month. Consequently, the cost of reserving capacity for the 40 peak hours of a month versus all hours of the month will likely be identical or nearly so. Finally, the CAISO notes that by making the obligation monthly or seasonal, the RAR does not preclude potential economic efficiencies gained by allowing resources needed to meet California's summer, but not winter, peak an opportunity to take advantage of seasonal load diversity in the WECC.

III. THE COMMISSION SHOULD REJECT THE JOINT PARTIES' IMPLICIT DENIAL OF A CAPACITY-BASED RAR

Although the CAISO has assumed that the Joint Parties accept the Commission's vision of a capacity-based RAR by conceding the need to impose an availability obligation on non-local area capacity resources for, at least, the top 10% peak hours of the month, the Joint Parties comments can equally be read to reject the implementation of a capacity-based RAR in its entirety. If this is the intent of the Joint Parties, it should be disregarded by the Commission as inconsistent with the ACR's definition of the objectives of the RAR, which are to ensure resources necessary to serve load are available when needed and to complement the CAISO design by replacing the FERC must-offer obligation.

A. As a Mechanism to Mitigate Market Power By Physical Withholding, the RAR Availability Obligation Must Extend Broadly to Physical Capacity

The Joint Parties criticize the ACR for failing to acknowledge that the FERC must-offer obligation was imposed as a market power mitigation tool during the energy crisis, not as a fixed cost recovery mechanism. (Joint Parties at 11.) This point is misplaced. The Commission properly recognizes that the RAR obligation is intended to replace the FERC must-offer requirement, regardless of its purpose. The CAISO recently stated that in its going forward MRTU, "the exercise of market power through physical withholding will be addressed through bilateral must-offer provisions that will be a standard component of resource adequacy contracts."[9] Thus, the Commission and the CAISO both view the RAR obligation as a market power mitigation tool. The FERC must-offer applies to all hours and all non-hydroelectric resources because the threat of market power is not limited to load pockets or times of daily or monthly peak conditions. Indeed, SDG&E accurately stated in its opening comments that the upheavals in 2000-2001 that led to the FERC must-offer obligation occurred in both peak and off-peak seasons as well as around the clock. Accordingly, the extremely truncated scope of the obligation advanced by the Joint Parties fails to satisfy this key objective of the RAR obligation and will exacerbate California's vulnerability during periods of capacity scarcity.

B. The MRTU Design Contemplates Explicit Capacity Payments to Augment Revenues Received Through CAISO Spot Markets

The RAR goal of availability encompasses the notion of financial viability of suppliers and the commitment of such suppliers to the California market even beyond the prevention of market power. With respect to the long-term existence of sufficient physical generating capacity, and contrary to the Joint Parties' suggestion, revenue adequacy is not only a concern for that small fraction of resources minimally needed for local reliability, but also for the total set

[9] CAISO White Paper, "Proposed MRTU Market Power Mitigation Provisions," (Feb. 23, 2005) at 11, http://www.caiso.com/docs/2002/08/23/200208231358035858.html.

of capacity based resources that California must have available to reliable system electric service. For example, as noted in the CAISO's opening comments, it is anticipated that the local capacity requirements for the Los Angeles basin may be in the range of 6000 MW, whereas SCE's system peak load is approximately 21,000 MW. Even after accounting for SCE's import allocation and in-state retained generation, SCE must contract for in-state deliverable generation to meet its load needs. By rejecting an availability obligation on such resources, the Joint Parties are implicitly rejecting a coextensive capacity requirement applicable to such resources. Indeed, the "essence" of existing capacity systems "is that LSEs are required to contract for a specified amount of capacity that must be made available in day-ahead markets and is subject to recall by the ISO during shortage conditions, without regard to the price of power in external markets."[10] The implication is that the Joint Parties seek to rely on energy contracts to satisfy the non-local capacity requirement.

In the absence of an installed reserve requirement, generation owners will not choose to keep capacity in operation for dispatch unless their gross operating margin exceeds their avoidable fixed operating costs. Energy and ancillary service markets, in theory, can be structured to allow the marginal generator the opportunity to recover its going-forward costs. However, in order to do so, prices of energy and ancillary services must be allowed to rise to a sufficiently high level during shortage conditions such that the marginal capacity supplier required to meet established reliability criteria is able to recover its going-forward costs during these shortage hours. As SDG&E noted, this is not the model proposed by the CAISO in its MRTU, which contemplates a $250 soft energy bid cap and a $250 hard cap for ancillary services. Moreover, leading commentators have concluded that even the $1000 bid cap adopted in PJM has "materially reduced the incentive to keep capacity available in order to supply power

[10] Hogan, Harvey & Pope, "Comments on the California ISO MRTU LMP Market Design," (Feb. 23, 2005) at 123, http://www.caiso.com/docs/2002/08/23/200208231358035858.html.

during shortages and made it unlikely that spot prices alone would keep the necessary capacity available."[11]Long-term contracting alone may not provide the solution given the established linkage between forward prices and expected future spot prices: "the price of a future or forward specified for delivery at time T is approximately equal to the expected spot price at time T."[12] Consequently, none of the eastern ISO's have relied on the structure proposed by the Joint Parties, but rather have embraced the adoption of capacity markets in an attempt to preserve existing capacity and stimulate incentives for new infrastructure.

C. Firm LD Contracts Do Not Ensure Commitment of Resources To Serve California Load

With respect to the RAR's objective of ensuring short-term reliability through the commitment of physical capacity to serve California load, the Joint Parties' energy-only solution is equally deficient. The Joint Parties' derogatorily accuse the CAISO of being willing to waste ratepayer money by advocating a capacity-based obligation simply because "the CAISO may not trust that the economic incentives for other (non-local-area) resources to meet their contract obligations will be sufficient to ensure that enough of those non-local-area resources are running to avoid the declaration of an emergency." (Joint Parties at 8.) The Joint Parties are correct that the CAISO does believe the economic incentives in current Firm LD contracts are sufficient, but they are incorrect that there is no logical or empirical basis for the CAISO's conviction.

CAISO is not alone in its opposition to Firm LD contracts as eligible RA capacity. For example, SDG&E[13] concurs that adopting a $250 bid cap will likely allow suppliers to write physically unhedged financial energy contracts that, during times of scarcity, do not provide assurance of delivery of the contracted-for energy. (SDG&E at 4.) To the extent current Firm

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11 *Id.*

12 Stoft, "Power System Economics," (2002) at p. 90.

13 PG&E is also clear that after a transition period, Firm LD contracts "will still be used and retain value toward satisfying an LSE's energy needs, but would not be counted toward meeting RA capacity obligations." (PG&E at 2.) The CAISO cites to SDG&E only because its comments describe the deficiencies inherent in such contracts from a resource adequacy standpoint.

LD products are viewed as more cost-effective than a bundled energy and capacity contract, this outcome is, in part, because the Firm LD does not include the capacity reservation. Simply put, the seller is permitted to chase the highest price to a non-CAISO market, leaving the CAISO and potentially California vulnerable to a shortage condition.

The following discussion from LECG and Dr. William Hogan of Harvard University is also instructive to this debate:

> The essence of existing ICAP systems is that LSEs are required to contract for a specified amount of capacity that must be made available in day-ahead markets and is subject to recall by the ISO during shortage conditions, without regard to the price of power in external markets. The ICAP contract therefore assures that the contracted capacity is available to the ISO for commitment and is available to the market rather than exported in real-time during peak conditions. … Thus, a key link between the CPUC resource adequacy mechanism and the MRTU market design for addressing short-term reliability needs is that the resource adequacy mechanism needs to establish a recall right for the resources covered by the mechanism, without regard to external market prices or whether exports were scheduled in day-ahead markets. However, under the current MRTU market design, exports of energy that are scheduled in the day-ahead market are not subject to recall by the Cal ISO in real-time, even to avoid load shedding. This means that as noted in Section II, in the event of regional power shortages, external systems can enter into bilateral contracts at prices in excess of $250/MWh, schedule these exports in the DAM, and be assured that these exports will flow in real-time.[14]

The Joint Parties will likely respond that the CAISO's concerns can be addressed through a "top-down" assessment. Such an assessment has been repeatedly touted as an assurance that sufficient aggregate internal generation and import capability exist to cover peak demand plus the PRM. The "top-down" assessment does not resolve the concerns expressed by the CAISO and others. The assessment purports to compare the sum of existing physical resources and available import capacity with the amount of RAR physical capacity and Firm LD contracts as reflected in the LSE reports. The theory suggests that should the comparison indicate sufficient

[14] Hogan, Harvey & Pope, "Comments on the California ISO MRTU LMP Market Design," (Feb. 23, 2005) at 123, http://www.caiso.com/docs/2002/08/23/200208231358035858.html.

capacity exists, then there is no need to worry that the sellers of the Firm LD contracts will actually provide or that substitute energy will be available.

There are five notable issues with the top-down assessment theory. First, the Firm LD contracts typically indicate the delivery point, but inherently obscure the injection point for the energy. As a result, it is not possible to perform a deliverability analysis to assess whether the expected energy can flow to California loads during peak conditions. Second, there is no mechanism to determine whether the identified resources within California will have contracts to run to support internal load or create counter flows on the California interties so sufficient energy can flow into the state. Since these facilities are not RA resources, they will not be under an obligation to offer into the CAISO markets and the CAISO will not able to commit them to operate absent a system emergency. Third, as noted during the above discussion on revenue adequacy, if these non-RA resources are unable to sign contracts with parties outside California that generate sufficient revenue, then the resources are at risk of retirement, further degrading California's resource adequacy. Fourth, the potential for price divergence between the CAISO and the rest of the WECC creates the real risk that suppliers will have clear financial incentives to sell their energy outside of California. Finally, if the top-down assessment indicates that a shortage exists, then it is not clear who will have the obligation to construct additional infrastructure to correct the deficiency. A capacity-based paradigm permits identification of the deficient LSEs and avoids the problems associated with reliance on a top-down assessment.

IV. THE COMMISSION SHOULD DEFER FINAL DETERMINATION OF COUNTING RULES FOR ENERGY OR USE LIMITED RESOURCES UNTIL CONSIDERATION OF THE PHASE 2 WORKSHOP REPORT

In the CAISO's opening comments, it attempted to clarify the appropriate application of this "top 10% hour" approach. The CAISO noted that the approach constitutes a necessary parameter for qualifying capacity from energy or use limited resources because, without a qualifying parameter beyond the 4 hours for 3 consecutive days operating requirement, LSEs could potentially over-rely on capacity from energy or use limited resources that cannot actually produce energy to meet the system load. Simply put, if the RAR obligation is to vary by monthly peak, the capacity resources made available to the CAISO should be capable of being converted to energy to meet contingencies and system needs. Therefore, the CAISO advocated that the two requirements set forth in the Decision at section 5.2 should be applied, with modifications, to all months of the year. The requirements, as modified by the CAISO, are: (1) a unit must be able to operate for four (4) hours per day for three consecutive days and (2) energy or use limited resources must, (if not capable individually must be aggregated), be able to run a minimum number of hours per month based on the number of hours that loads in the control area exceed 90% of peak demand in that month.

The Commission must address how to count energy and use limited resources. Nevertheless, the CAISO expressly requests that the Commission presently defer any resolution of this issue until its general decision on the Phase 2 workshops. Based on the CAISO opening comments, PG&E approached the CAISO to discuss their concerns over the CAISO's proposed approach. CAISO agrees that California's hydroelectric units have unique, desirable characteristics, such as their fast ramp rates, ability to provide Automatic Generation Control and spinning reserves, and their ability to follow load, all of which are needed to run the system reliably as a control area operator. Further, CAISO wishes to retain access to resources such as these by implementing a RAR that truly recognizes the value of hydroelectric resources. The core issues raised by the ACR can be resolved without reference to the CAISO's proposal for energy and use limited resources. Thus, the CAISO's opening comments properly framed the issue, which can, and should, be addressed in the workshop report. Thus, the CAISO believes the Commission should allow the parties the additional opportunity to address the topic in response to the workshop report.

V. CONCLUSION

For the reasons set forth above and it its Opening Comments, the CAISO believes that the Commission should clarify that the intent of D.04-10-035 was to impose on LSEs an RAR that ensures units are made available to the CAISO in all hours of the month based on either a monthly or seasonal peak load obligation.

Dated: February 28, 2005

Respectfully Submitted:

By:______________________________
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CERTIFICATE OF SERVICE

I hereby certify that I have served, by electronic mail, a copy of the foregoing Reply Comments of the California Independent System Operator Corporation on Modification to the Interim Resource Adequacy Requirements (RAR) Decision (D.) 04-10-035 to each party in Docket No. R.04-04-003.

Executed on February 28, 2005, at Folsom, California.

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