Exhibit No.: _____
Commissioner: Peevy
Administrative Law Judges: Walwyn, Halligan and Allen
Witness: Robert C. Kott

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

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| Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development | R.01-10-024 |

# OPENING TESTIMONY OF ROBERT C. KOTT REGARDING THE LONG-TERM PROCUREMENT PLANS OF THE INVESTOR OWNED UTILITIES ON BEHALF OF THE CALIFORIA INDEPENDENT SYSTEM OPERATOR

**Submitted by the California Independent System Operator**

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June 23, 2003

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**Submitted by the California Independent System Operator**

My name is Robert C. Kott, Manager of Reliability Contracts in the Contracts and Special Projects Department of the California Independent System Operator Corporation (CA ISO). My duties on behalf of the CA ISO and my qualifications are submitted as an attachment to this testimony. I am submitting this testimony on behalf of the CA ISO. The purpose of my testimony is to set forth the CA ISO's recommendations and comments regarding the long-term plans of the Investor Owned Utilities (utilities) with respect to utility procurement of capacity and its potential impact on Reliability Must Run (RMR) generation.

In particular, my testimony explains the issues that the CA ISO believes must be considered in developing contracts for long-term procurement which may be intended at least in part to address reliability needs currently met by RMR Agreements between the CA ISO and the owners (RMR Owners) of RMR generating units. By RMR Generating units the CA ISO means Generating units that are located within transmission constrained areas (Local Reliability Areas) and that must be on-line at certain times to ensure local area reliability.

First, the CA ISO notes some of the advantages and issues associated with replacing RMR Agreements between the CA ISO and RMR Owners with contracts, such as long-term Power Purchase Agreements (PPAs) between the utilities and RMR Owners. There are both technical and contractual issues that must be addressed so that the CA ISO continues to have adequate contractual rights to ensure that RMR generating units will be on line when they are needed. Second, the CA ISO presents in more

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detail its initial thoughts regarding certain technical requirements and contractual approaches to continue to assure local area reliability. Third, the CA ISO provides comments on the need for ongoing coordination to ensure that no double recovery of costs results from the existence of utility contracts and RMR Agreements with the CA ISO. Fourth, the CA ISO provides comments regarding the issue of replacing old inefficient generating units with newer more efficient units or less costly transmission projects and thus potentially reducing RMR costs. Fifth, the CA ISO provides current information from its 2004 Local Area Reliability Service (LARS) process to inform the CPUC of the amount of capacity that is currently needed to meet local area reliability requirements.

The CA ISO notes upfront that it is possible that the RMR Agreement will in the future be replaced by other features in the wholesale electricity market or a CPUC sponsored program for local availability requirements to assure adequate local area reliability. Nonetheless these comments apply while RMR Agreements remain.

## I. AN INTRODUCTION TO THE RMR AGREEMENT AND THE LARS PROCESS.

The RMR Agreement is a contract between the CA ISO and RMR Owners. Initial RMR Agreements were approved by the Federal Energy Regulatory Commission (FERC) in conjunction with the restructuring of the California electricity market as a means of mitigating the localized market power that would otherwise accrue to the owners or others who control the dispatch of certain generating plants. Those plants, because of their location and the configuration of the transmission system, must run at certain times to maintain the reliability of the transmission grid controlled by the CA ISO. Broadly speaking, the RMR Agreement requires that the owners or operators of RMR generating units generate energy (or provide ancillary services) at those times, and in such amounts, as the CA ISO may designate in order to preserve local reliability or to manage intra-zonal congestion.

The terms of the RMR Agreements currently in effect, other than certain rates and operating characteristics that are unit-specific, are substantially the same for all RMR generating units, and were adopted in a multiparty settlement (which included CPUC staff) on a *pro forma* RMR Agreement. The settlement was filed with the FERC in April 1999 and approved by FERC the following month.[1] Certain

[1] California Independent System Operator Corp., 87 FERC ¶ 61,250 (1999).

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changes to the *pro forma* RMR Agreement were negotiated among the same parties and were filed with and approved by FERC in fall 2000[2].

As is explained in more detail below, the RMR Agreement provides for cost-based payments in exchange for certain dispatch and other rights by the CA ISO. The utility in whose service territory an RMR generating unit is located is responsible for the payments made to RMR Owners under the RMR Agreement. The *pro forma* RMR Agreement is a one-year agreement that can be extended from year to year by the CA ISO.

The CA ISO undertakes an assessment to determine local area reliability needs every summer in the context of a LARS process. The CA ISO issues a Request For Proposals (RFP) inviting proposals for generation, transmission or load management projects to meet the local area reliability needs identified during the assessment. Based on the results of these proposals and comparing these to the cost of existing RMR Agreements, the CA ISO determines the resources that will be used in the next year to meet local area reliability needs. Extending existing RMR Agreements is one of the choices considered by the CA ISO.

The LARS process is a four-step process:

1. The CA ISO Grid Planning staff prepares technical studies identifying the local area reliability needs for the entire CA ISO Controlled Grid[3]. These studies also identify the "effective" generating units – those units that can address reliability problems in these local areas.

2. A screening process is undertaken to identify those units eligible for an RMR Agreement. Units smaller than 10 MW are ineligible for an RMR Agreement unless those units are aggregated within a common area. Units subject to providing emergency service under mutual assistance agreements are also ineligible for an RMR Agreement since it is presumed an RMR Agreement is not necessary to ensure those units will operate as required for local reliability problems.

3. A competitive solicitation is conducted in which proposals for generating units, transmission projects and load management are submitted to meet identified local reliability needs.

4. The responses to the RFP are evaluated and recommended RMR designations are presented to the CA ISO Governing Board for its approval.

[2] California Independent System Operator Corp., 93 FERC ¶ 61, 089 (2000).

[3] The 2004 technical studies identify reliability needs for the following areas: Humboldt, Battle Creek, North Coast/North Bay, Greater Bay Area, Sierra, Stockton Area, Fresno Area, Vaca-Dixon, Los Angeles Basin, and San Diego County.

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## II. THE CA ISO'S LONG-TERM VISION FOR RMR AGREEMENTS.

In the long term, the CA ISO considers there are advantages to having the RMR Agreements between the CA ISO and RMR Owners replaced with a combination of bilateral capacity contracts between the utilities and RMR Owners and appropriate contractual or other mechanisms to preserve the CA ISO's ability to maintain local area reliability, which it currently has through RMR Agreements between the CA ISO and the RMR Owners. Two advantages of having the utilities enter into agreements that replace the RMR Agreements between the CA ISO and RMR generating unit owners are:

1) Utilities have the ability to enter into multi-year long-term contracts, whereas the *pro forma* RMR Agreement is a one-year agreement that can be extended annually by the CA ISO. Moreover, the CA ISO LARS process described above is a year-to-year process that evaluates local area reliability needs for the coming year only. The utilities in developing long-term procurement plans can review local area reliability needs on a longer term basis, and potentially adopt alternatives that will reduce local area reliability needs over the long term. (The CA ISO is also currently considering how local area reliability needs can be better addressed in the annual transmission expansion planning process that is described in the testimony of Robert Sparks.)

2) The utilities as load serving entities have capacity and energy requirements to meet the resource needs of their customers, apart from needs that arise from local area reliability requirements. If the utilities procure the services needed to meet local area reliability needs, these requirements can be assessed in the context of more general capacity and energy needs. Potentially, utilities could enter into long-term contracts that satisfy both local area reliability needs and more general capacity and energy requirements at a lower cost than buying these two types of services separately.

In order for utility contracts to replace RMR Agreements between the CA ISO and RMR Owners, two key issues need to be addressed. First, market power issues must be considered and addressed. Second, contractual or other mechanisms must be in place to afford the CA ISO the dispatch

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and other rights it requires to address local area reliability needs.

Market power issues arise because by their nature units required for local area reliability have locational market power. Accordingly it will be important to ensure that the prices in long-term contracts between utilities and generators in Local Reliability Areas do not reflect locational market power. In the context of the RMR Agreement, disagreements between the CA ISO, RMR Owners, the utilities and other interested parties about a fair payment under the RMR Agreement can ultimately be submitted to FERC for its determination as to generators subject to FERC jurisdiction[4].

Further, as is discussed in more detail in the next section of this testimony, it is important that adequate contractual or other mechanisms are in place to afford the CA ISO the rights it requires to maintain local area reliability, including but not limited to adequate dispatchability. The section below discusses contractual requirements.

## III. REQUIREMENTS FOR LONG-TERM POWER PURCHASE AGREEMENTS AND RMR AGREEMENTS.

### A. TECHNICAL AND CONTRACTUAL REQUIREMENTS.

In the event that a utility desires to execute a PPA with the expectation that it will reduce its RMR cost exposure, the PPA should provide the utility sufficient rights to permit the utility to enter into an RMR Agreement (or a similar agreement) with the CA ISO. These rights include, among others, the ability to (i) dispatch the units to operate during hours and at levels as requested by the CA ISO, (ii) require, in certain circumstances, the units to provide ancillary services, and (iii) pre-empt energy delivery when ancillary services are required.

The utilities may reduce RMR costs by replacing older more expensive RMR generation with newer and potentially less expensive RMR generation. Nonetheless, an RMR Agreement or an alternative agreement involving the CA ISO would still be required so that the CA ISO's rights under the *pro forma* RMR Agreements with RMR Owners are preserved and the CA ISO can continue to

[4] The CA ISO has continued to propose to FERC additional mechanisms to mitigate local market power to be included in the CA ISO tariff. If FERC accepts these mechanisms they could, in combination with longer term bilateral agreements that provide for reasonably priced capacity in local reliability areas, ameliorate market power concerns. Certainly to the extent FERC accepts the CA ISO's proposals for mechanisms to mitigate local market power, utilities may have more leverage to negotiate reasonably priced long-term local capacity contracts.

dispatch RMR generating units as needed to maintain local area reliability. Moreover, the contractual arrangements would have to provide appropriate incentives to the RMR Owners, the utilities and the CA ISO to ensure that CA ISO dispatch instructions under the agreements continue to be honored. Because of the amount of detail and work that would be required to develop a new agreement, the CA ISO's strong preference is to continue to use the *pro-forma* RMR Agreement.

The RMR Agreement (or its replacement) should be between the CA ISO and the party entitled to dispatch and market the Energy and Ancillary Services produced from and provided by the RMR generating unit. If the utilities obtain such rights from RMR Owners through a PPA, the utilities could enter into RMR Agreements with the CA ISO, or the RMR Owners may be required to assign existing RMR Agreements to the utilities under Section 2.2(c) of the *pro forma* RMR Agreement. In addition, the CA ISO may be open to discussing other contractual arrangements provided that it ultimately retains adequate authority to dispatch units needed to maintain local area reliability.

B. TIMING CONSIDERATIONS.

In reviewing use of long-term PPAs to replace RMR Agreements between the CA ISO and RMR Owners, it is also important to understand timing considerations. The *pro forma* RMR Agreement is an annual agreement that the CA ISO has the right to extend on an annual basis by giving notice to the RMR Owner no later than October 1 of the calendar year in which an RMR generating unit is subject to an RMR Agreement. Thus, in order for a PPA to replace an RMR Agreement in a subsequent year, the CA ISO would have to be fully satisfied that the PPA and other contractual arrangements are adequate well before October 1 of the expiring year and, as to new generating units, would have to have adequate certainty that the new generating unit(s) will be on-line in time to meet the local area reliability needs. The CA ISO typically undertakes its LARS assessment for subsequent year needs during the summer of the expiring year. The CA ISO management presents its recommendations for RMR designations in a subsequent year to the CA ISO Governing Board during the meeting held in September of the expiring year.

For example, a utility may wish the CA ISO to take into account in its annual determination of RMR requirements for 2005 a new generation unit that is to be made available to the utility under a PPA

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before June 1, 2005. The utility may desire the new unit to displace an RMR Agreement between the CA ISO and an existing RMR generating unit. For the CA ISO to consider this possibility, the utility would have to have demonstrated to the CA ISO at the latest by September 1, 2004, that it has the rights to enter into an RMR Agreement with the CA ISO as to the new RMR generating unit and that that the generating unit will indeed be on-line when it is needed. In addition, in the case of this example, the new generating unit could only be used to displace the existing RMR Agreement if the local area reliability need arises after June 1, 2005.

The CA ISO notes that in order to allow a new generating unit that is not yet on-line to displace an existing RMR Agreement, it will require solid evidence that the new generating unit will be in place when it is needed. This is because pursuant to the *pro forma* RMR Agreement, if the CA ISO does not extend an RMR Agreement as to a particular generating unit on October 1 of the expiring year, the CA ISO may not re-instate the RMR Agreement as to that unit during the one year period following the termination. If proposed new generation is competing with other units that are not yet subject to an RMR Agreement with the CA ISO, the CA ISO can consider each alternative resource proposed during the LARS process and determine which will meet its local reliability requirements most economically.

Further, any new agreements the utilities sign that may be able to address RMR requirements should consider the fact that the *pro forma* RMR Agreement has a term of one Calendar Year; the CA ISO does not have the right to terminate an RMR Agreement early on the basis that it no longer requires services from a particular RMR generating unit. As such, the utilities should coordinate with the CA ISO to avoid paying for twice for reliability services; once under an RMR Agreement that is still in effect and again in a new PPA.

C. EFFECT OF THE AVAILABILITY OF CONTRACTS TO REPLACE THE RMR AGREEMENT.

In the context of the LARS process, the CA ISO seeks to meet local area reliability needs with the alternatives that provide the best overall value. To the extent that utilities can show in the context of the LARS process that there are less expensive alternatives to meet local area reliability needs, the CA ISO will likely select these alternatives. The CA ISO would likely welcome replacing an RMR

Agreement for a existing high cost generating unit with an RMR Agreement for a unit that has lower total costs including both the fixed and variable components that are reimbursed under the RMR Agreement.

## IV. ONGOING COORDINATION IS NEED TO AVOID DOUBLE RECOVERY OF GENERATING UNIT COSTS.

The *pro forma* RMR Agreement was written to prevent double recovery of its costs by an RMR Owner. In theory, owners should receive under the RMR Agreement payments that equal the costs of operating the generating unit that exceed the portion of those costs that owners can obtain through market transactions. These payments include both fixed and variable cost components. To date the level of fixed payments are negotiated between the CA ISO, RMR Owners and the utilities with the participation of staff from the CPUC and the Electricity Oversight Board (EOB). In theory the payment for fixed costs should be calculated as the greater of (i) the net incremental costs of operating the unit under the RMR Agreement[5] or (ii) the percentage of the owner's fixed costs that are not recovered through market transactions. Generating units that are very uneconomic can opt to have all of their fixed costs covered under the RMR Agreement subject to restrictions on their ability to participate in electricity markets. The variable payments are made when the owner chooses to deliver energy in a "non-market" transaction in which the owner receives recovery of the costs of producing the MWhs and in return credits to the CA ISO any revenue received from the market. The result of these payment arrangements should be that the utility that is responsible for payment of the charges under the RMR Agreement subsidizes the portion of the RMR generating unit energy costs that are not paid for by market prices. However, to ensure this result, it is important that the CA ISO be aware of the revenues a RMR Owner may be obtaining through bilateral contracts when negotiating the rates for a particular generating unit under an RMR Agreement.

[5] The net incremental costs are those costs imposed on an Owner as a result of entering into a RMR Agreement with the CA ISO. These costs exclude those costs that could be attributed to not being able to exercise local market power. Testimony submitted before the Federal Energy Regulatory Commission has identified four categories of such costs: (1) costs of administering the contract, (2) costs of keeping the plant operational during short periods when it would have been shut down if not for its RMR obligations, (3) net going-forward costs of units that, absent the contract, would be shut down, and (4) opportunity costs of having to generate to meet RMR reliability requirements, rather than buy, in the real-time market. The testimony of Dr. Joe D. Pace on behalf of PG&E in FERC Docket No. ER98-495-000.

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The CA ISO has worked closely with staff from the CPUC, the EOB and the utilities during the development of each RMR Agreement to ensure that generation owners are not receiving double recovery for their costs. Ongoing coordination among the CA ISO, CPUC, EOB and applicable utility will continue to be important in the context of the development of RMR Agreements for any new generation, whether executed with the utilities under a PPA or directly with the generation owner, to avoid a double recovery of costs by RMR Owners. In addition, the CPUC will have to require appropriate accounting by the utilities to track revenues they may receive under an RMR Agreement with the CA ISO.

## V. REDUCING RMR COST BY EXPLORING LESS EXPENSIVE ALTERNATIVES.

The CA ISO considers that the utilities should in the context of the long-term procurement planning process analyze whether some of the older more expensive RMR generating units could be replaced with more efficient and potentially less expensive new RMR generating units or transmission projects. A good number of the RMR generating units are older units that are uneconomic or that will require extensive capital investment to continue operations for various reasons such the inability to meet environmental limitations. Under the RMR Agreement, the CA ISO (and hence the utilities and their customers) pays a significant proportion, if not all, of the fixed costs of the older less economic RMR generating units, including capital additions needed to maintain the units in operation. The CA ISO considers that it is likely that some of older more expensive RMR units could be replaced by new more efficient and economic units, particularly where utilities require additional energy and capacity in any event to meet the needs of their customers. It should be noted that in areas where an older more expensive unit is required because there are no alternatives in place, a new RMR generating Unit would have to be installed and operational before the older unit could be shut down and released from its RMR Agreement.

In the context of analyzing potential transmission projects that may be more cost effective than existing or new generation alternatives, the utilities should consider the benefits such projects provide to address both local transmission constraints and transmission planning needs. The utilities should then include this analysis in any proposals provided to the CA ISO for new transmission projects such that all

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benefits may be considered and the most cost effective overall solutions are selected to meet the needs of the CA ISO's annual transmission planning and LARS processes.

## VI. INFORMATION ON CURRENT LOCAL AREA RELIABILITY NEEDS.

To give the CPUC information on local area reliability needs, the CA ISO is including herein a summary of the data from the 2004 LARS process. As described above, the CA ISO conducts the LARS process to determine which generation units, transmission projects and load management projects are required to meet its to meet local area reliability needs for the ensuing calendar year. For the 2004 LARS process, the CA ISO has completed the technical studies that among other things indicate the level of reliability requirements in each local area. These requirements are presented in Table 1 and Table 2 below to demonstrate the magnitude of capacity the CA ISO requires in each local area and any associated sub-areas. The *2004 Reliability Must-Run Technical Study of the ISO-Controlled Grid, May 2003 final version*, included as an attachment to this testimony, describes the specific details of the LARS process including a description of the local areas and local sub-areas listed in the tables and the specifics of the system limitations that give rise to the requirements listed.

Table 1 – 2004 Local Reliability Requirements in Local Areas

| Local Areas | Utility Service Area | Number of Sub-Areas | Requirement (MW) |
|---|---|---|---|
| Humboldt | PG&E | - | 128 |
| Battle Creek | PG&E | - | 102 |
| North Bay Aggregate | PG&E | 2 | 560 |
| Vaca-Dixon | PG&E | - | 33 |
| Greater Bay Area | PG&E | - | 4,087 |
| Sierra Aggregate | PG&E | 3 | 288 |
| Stockton Aggregate | PG&E | 3 | 301 |
| Fresno Aggregate | PG&E | 5 | 1,558 |
| LA Basin Aggregate | SCE | 2 | 860[6] |
| San Diego County | SDG&E | - | 1,888 |
| **Total** | | | **9,805** |

[6] The RMR requirement for this area is X MW + the single largest unit selected for RMR contract during the LARS process.

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Table 2 – 2004 Local Reliability Requirements of Local Sub-Areas

| Local Areas w/ Sub-Areas | Local Sub-Areas | Requirement (MW) |
|---|---|---|
| North Bay Aggregate | Eagle Rock | 234 |
| | Fulton | 326 |
| Sierra Aggregate | Placer | 57 |
| | Drum-Rio Oso | 173 |
| | Colgate | 58 |
| Stockton Aggregate | Tesla | 251 |
| | Valley Springs | 10 |
| | Lockeford | 40 |
| Fresno Area | Panoche | 1,476 |
| | McCall | 575 |
| | Henrietta | 10 |
| | Reedley | 52 |
| | Herndon | 206 |
| LA Basin | Western[7] | 305[8] |
| | Eastern | 555 |

[7] The South Coast and Orange County RMR sub-areas were merged for 2000 forming the Western RMR sub-area.
[8] The RMR requirement for this area is X MW + the single largest unit selected for RMR contract during the LARS process.