# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

California Independent System	)	Docket Nos. ER06-615- 000
Operator Corporation	)	ER06-615

# REPORT AND MOTION OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON RESIDUAL UNIT COMMITMENT SELF-PROVISION

### I. INTRODUCTION AND SUMMARY

The California Independent System Operator Corporation (the ISO) submits in this report reasons for the inclusion or exclusion of the ability to self-provide in the residual unit commitment (RUC) process in compliance with the order issued by the Federal Energy Regulatory Commission (Commission) conditionally accepting the ISO's tariff amendment in support of its new locational marginal price (LMP)-based market. Concurrently, the ISO requests that the Commission find that this report satisfies the Commission's compliance requirement. The ISO further requests that the Commission determine that the ISO is not precluded from including the functionality to self-schedule RUC in the future should the ISO and stakeholders determine there is such a need.

### II. BACKGROUND

On April 1, 2009, the ISO launched its new LMP-based market. The Commission authorized ISO's new market design in a series of orders subject to the adoption of specific enhancements at a later time. Since April 1, 2009, the ISO has

<sup>&</sup>lt;sup>1</sup> Cal. Indep. Sys. Operator Corp., 116 FERC ¶ 61,274 P 172 (2006) ("MRTU September 2006 Order") at P172.

The ISO submits this motion pursuant to Rules 212 and 2008(a) of the Commission's Rules of Practice and Procedure, 18 C.F.R. §§ 385.212, 385.2008(a)(2011).

continuously evaluated the performance of its new markets and pursued changes to address inefficient market issues. Following the Commission's *MRTU September* 2006 Order, the ISO adopted a stakeholder initiative through which the ISO could obtain input on how to prioritize the development and implementation of various proposed market design features.<sup>3</sup> This process has since evolved into the ISO road-map process and the ISO market initiatives catalog process. The ISO also continues to engage in numerous stakeholder activities to modify its market rules as industry requirements evolve.

The RUC process is a residual security-constrained unit commitment process conducted in the ISO day-ahead market following the integrated forward market (IFM). The IFM is based on bid-in supply and demand, whereas the RUC is conducted to ensure sufficient capacity is committed based on forecasted internal load and bid-in supply. Resources committed in RUC are paid the cost to start-up and their cost to reach minimum load. Resources that are not under a resource adequacy contract are also paid the RUC availability payment. These costs are allocated to internal ISO load in two tiers. In the first tier the ISO calculates each scheduling coordinator's RUC obligation based on the scheduling coordinator's net negative ISO demand deviation and their share RUC bid costs based on their virtual supply awards. Net negative ISO demand deviations are the difference between the amount of demand the scheduling coordinator has scheduled in the day-ahead market and its actual metered demand. If after this first tier allocation there remain

MRTU September 2006 Order at P 1402.

See ISO Tariff Section 11.8.3.

<sup>5</sup> See ISO Tariff Section 11.8.6.5.3.

any RUC costs to be allocated, the ISO allocates such residual amounts to metered load. The ability to self-provide RUC would consist of a mechanism that enables internal ISO load to avoid those costs if it can be shown that sufficient resources are committed to meet their load.

## III. REPORT ON SELF-PROVISION OF RESIDUAL UNIT COMMITMENT CAPACITY

In the MRTU September 2006 Order, the Commission directed the ISO to continue to work with market participants on the of the issue of RUC self-provision, and to provide reasons for the inclusion or exclusion of RUC self-provision no later than three years after the launch of the new market. 6 Prior to implementing the ISO tariff in support of the LMP-market, the ISO determined through stakeholder processes that the majority of market participants did not believe the RUC selfprovision feature was an essential component of the ISO market. However, in response to the ISO tariff amendment in support of new LMP-based market in 2006, the Sacramento Municipal Utility District (SMUD) requested that the Commission order the ISO to adopt this feature. SMUD stated that although the ISO did not provide entities the ability to self-provide RUC capacity, the ISO did provide the opportunity for metered sub-system to opt-out of the RUC process all together. SMUD argued that there was no material difference between the "opt-out" provision and the RUC self-provision proposal that the ISO did not include in the initial release of its new market design. SMUD requested that if the Commission did not direct the ISO to include RUC self-provision in the initial release, the Commission should require the ISO to allow entities serving load outside the ISO balancing authority area such as SMUD to opt-out of the RUC process.

<sup>&</sup>lt;sup>6</sup> See footnote 3.

In the same order, however, and also in response to SMUD's protest, the Commission determined that the ISO should not allocate RUC costs to export schedules because the RUC process was not established to ensure that on-line capacity was made available to meet needs outside the ISO's control area. Accordingly, on compliance, the ISO filed and the Commission accepted tariff language that allocates the cost of committing units through RUC in two tiers: first to unscheduled internal ISO load and secondly to all internal load as described above.

This essentially means that the entities serving load external to the ISO balancing authority are not assessed any costs associated with RUC. As a result, external load serving entities such as SMUD do not need RUC self-provision. The Commission, however, ordered that the ISO should still continue to work with market participants and that by Release 2 of the ISO's LMP market<sup>8</sup> provide the Commission with reasons for the inclusion or exclusion of RUC self-provision in its markets.

Accordingly, for the past five years, the ISO has continued to list this feature of the ISO market as a potential enhancement in its road-map stakeholder process. Throughout this time, stakeholders have rated this item very low in the list of ISO upcoming market enhancements. While Powerex has recently expressed a possible

MRTU September 2006 Order at P 171.

In its 2006 filing in support of its new market design, the ISO stated it anticipated that Release 2 of its LMP-based market enhancements would be launched within three years of the implementation of the original market design (i.e., Release 1). See MRTU September 2006 Order at P 33. Therefore, the Commission's reference to Release 2 indicates the Commission's directive that the required changes be implemented three years after the launch of the ISO's LMP-based markets.

See 2011 Market Design Initiatives Catalog,
<a href="http://www.caiso.com/Documents/Final2011MarketDesignInitiativeCatalog.pdf">http://www.caiso.com/Documents/Final2011MarketDesignInitiativeCatalog.pdf</a>; Revised Catalogue of Market Design Initiatives, October 18, 2010,
<a href="http://www.caiso.com/Documents/Revised2010Catalogue-MarketDesignInitiatives.pdf">http://www.caiso.com/Documents/Revised2010Catalogue-MarketDesignInitiatives.pdf</a>.

interest in this feature in the future, no party has expressed a current need for the ISO to develop this feature. This lack of expressed interest in the feature is not surprising given the observed minimal costs associated with the RUC process.

The ISO has observed that from February 1, 2009 through the end of February 1, 2010, the RUC capacity committed and costs associated with such capacity were very low. <sup>10</sup> As shown in Table 1 below, the RUC awarded capacity during this time was less than 47,000 MWs and the costs associated with this capacity was less than \$200,000. While the table also illustrates that these amounts increased significantly in 2011, the ISO has explained in the FERC Docket No. ER11-4580, that this increase is in part attributable virtual bidding and may have been exacerbated to certain virtual bidding practices at the ISO interties. The Commission approved the suspension of virtual bids at the interties on November 28, 2011. The ISO is in the process of developing rules that will allow for the reinstatement of convergence bidding at the interties but that will not cause the adverse market outcomes observed in 2011. <sup>11</sup>

Trade Date	al RUC BCR ettlement <sup>1</sup>	RUC Awards Costs (Total Dollars) <sup>2</sup>	RUC Awards Revenue (Total Dollars) <sup>3</sup>	RUC Award Quantity (MW) <sup>4</sup>
2009	\$ 6,751,970	82,339	119,529	19,576
2010	\$ 1,218,866	43,577	83,082	26,773
2011	\$ 6,489,286	531,935	1,131,574	201,399
Total	\$ 14,460,123	657,851	1,334,186	247,747

Under the ISO market design, capacity contracted under local resource adequacy programs that is committed in the RUC process, is not compensated through the ISO market. RUC awards consist of the RUC capacity that is compensated through the ISO market and excludes capacity that is under a resource adequacy contract.

See California Independent System Operator Corporation, Initial Comments filed on March 16, 2012, in FERC Docket No ER11-4850.

The ISO has concluded that under the current market design there is no urgency for the inclusion of this feature and it should not be compelled to pursue such enhancements under the current market design.

#### IV. MOTION

With the submission of this report, the ISO respectfully requests that the Commission find that the ISO has met the requirements in paragraph P 172 of the *MRTU September 2006 Order*. The ISO also requests that the Commission explicitly find that the ISO may submit a tariff amendment under Section 205 of the Federal Power Act at a later time to incorporate such functionality into its market.

The ISO's market design will change over the next several years as a result of the increased participation of variable energy resources in the ISO market and the removal of significant capacity from its fleet due to retirements mandated by state restrictions on use of use of once-through cooling in California's coastal and internal waterways. In anticipation of these significant changes, the ISO has commenced numerous stakeholder processes that will consider market design changes. Through the upcoming stakeholder processes, the ISO and stakeholders may find that there is a greater need for RUC self-scheduling and, therefore, the Commission

http://www.caiso.com/informed/Pages/StakeholderProcesses/IntegrationRenewableResources.aspx.

<sup>&</sup>lt;sup>1</sup> Total RUC BCR Settlement – includes total RUC compensation for all resources committed in RUC, which includes the total RUC start-up and minimum load costs and RUC availability payments.

<sup>&</sup>lt;sup>2</sup> RUC Awards Costs – Payments made to resource committed in RUC excluding payments for start-up and minimum load costs.

<sup>&</sup>lt;sup>3</sup> RUC Awards Revenue – is the total RUC Awarded capacity above minimum load that is paid the RUC availability price.

<sup>&</sup>lt;sup>4</sup> RUC Awarded Quantity – the MWs committed in RUC that are not subject to resource adequacy contracts.

<sup>&</sup>lt;sup>12</sup> See e.g.,

should not preclude the ISO from developing such functionality should it be necessary in the future.

### V. Conclusion

For the foregoing reasons, the ISO respectfully requests that the Commission accept the ISO report and grant the requested motion.

Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 28<sup>th</sup> day of March, 2012.

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