UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

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

MOTION OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION FOR EXTENSION OF TIME TO IMPLEMENT CERTAIN COMMISSION MANDATED MARKET ENHANCEMENTS

The California Independent System Operator Corporation (ISO) hereby submits this motion for an extension of time[1] to delay the implementation or consideration of the six market enhancements mandated by the Federal Energy Regulatory Commission (Commission) in its orders preceding the implementation of the ISO's substantial market redesign in 2009. The ISO requests this extension of time to enable the ISO to finalize a number of important initiatives addressing necessary changes to the ISO market design to address significant changes to the fleet of available resources in the upcoming years and evaluate the inclusion of these Commission mandated items in the context of those changes.

I. Executive Summary

Three years ago, the ISO launched its new locational marginal price (LMP)-based market. Since then the ISO has adopted numerous market enhancements. The Commission directed many of these enhancements in its orders accepting the ISO's tariff in support of the new market design. Some enhancements were identified after the launch of the ISO market by the ISO and its stakeholders through efforts to evaluate market results.

[1] 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)(2010).

The ISO recognizes the importance of complying with the Commission's requirements and has expended significant time and resources to develop measures necessary to ensure the proper operations of the ISO market. In addition to working on the needed enhancements, since the launch of the ISO's new market, the ISO has actively evaluated necessary market design enhancements to address California's environmental and energy policies. The ISO has launched numerous market design stakeholder processes and has expended significant time and effort toward this goal. These state level mandates are likely to require changes to the ISO market rules, software, and processes that may either eliminate the need for certain mandated enhancements or incorporate these enhancements. Many of these changes will be developed, and in some cases implemented, over the next two years. For these reasons, the ISO respectfully requests an extension of time until April 2014, to consider and implement six market enhancements, which the Commission previously ordered the ISO to implement by "Release 2"[2] of the ISO's Market Redesign and Technology Upgrade (MRTU). The ISO asks for an extension in implementation of the following five market features:

1) a two-tier allocation of real-time bid cost recovery uplift;[3]

2) bid cost recovery for units running over multiple operating days;[4]

3) multi-hour constraints in the residual unit commitment process;[5]

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[2] In the *MRTU September 21 Order* the Commission directed the ISO to adopt a number of market enhancements in "Release 2." In its initial tariff filing in support of the 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 21 Order* at P 33. Therefore, the Commission's reference to Release 2 indicates the Commission's directive that the required changes be implemented by April 1, 2012, three years after the launch of the ISO's LMP-based markets.

[3] *Ca. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274 at P 611 (2006) (*MRTU September 2006 Order*); *order on reh'g*, 119 FERC ¶ 61,076 at PP 323-331 (*April 2007 Rehearing Order*).

[4] *MRTU September 2006 Order* at P 533.

4) ancillary services substitution;[6] and

5) exports of ancillary services.[7]

The ISO also requests an extension of time to consider the California Energy Commission's proposal concerning any over-collection of transmission losses.[8]

As required by the Commission, since 2006, the ISO has conferred with stakeholders to prioritize numerous market enhancements requested by stakeholders. Through this process, stakeholders have largely supported the reprioritization of the above listed items. In some cases, stakeholders have requested that the ISO no longer pursue the required changes. In other cases, stakeholders continue to request that the ISO implement the changes, but do not express a need to prioritize these items above other needed enhancements in light of the changing needs of the ISO grid. At this time, the ISO does not believe that there is sufficient evidence to eliminate these requirements and, therefore, is not asking the Commission to relieve the ISO of these requirements. Instead, the ISO asks for an extension of the date on which the ISO must implement these market features. There is no evidence of any significant adverse impact to the market from delaying implementation of any of these enhancements.

Therefore, the ISO asks that the Commission grant an extension of time up to and including April 2014 to consider and implement the six enhancements. The extension of time will enable the ISO and stakeholders to consider more closely whether and how the ISO and stakeholders should integrate the Commission-

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5 *Id.* at P 1280; and *April 20 MRTU Order* P 56.

6 *Id.* at P 303.

7 *Id.* at P 355.

8 *Id.* at P 1402

mandated enhancements into the overall market design. Prior to April 2014, the ISO will submit a filing with the Commission with either the proposed tariff provisions to implement the Commission-mandated enhancements or, if supported by stakeholders and actual evidence, an explanation of why these enhancements are no longer needed under the ISO's changing market design.

II. Background

On April 1, 2009, the ISO launched its new locational-marginal pricing (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 continuously evaluated the performance of its new markets and pursued changes to address inefficient market issues. The ISO has designed and implemented in compliance with Commission requirements that have provided significant market enhancements.[9] As a result, the ISO LMP-based market has performed exceptionally well, has not been wrought with continued market issues, and is functioning at stable and reliable levels.[10] In some cases, however, the changes made to the ISO market design were necessary to address behavior that was having a significant impact on the ISO market.[11] These changes have required considerable efforts on the part of the ISO staff and stakeholders that the ISO would

[9] For example, the ISO implemented: scarcity pricing in November 2010 (FERC Docket No. ER10-500); multi-stage generation modeling in December 2010 (FERC Docket No. ER10-2106), and convergence bidding in February 2011 (ER10-1559).

[10] *See* ISO Market Performance Reports http://www.caiso.com/Documents/Market%20performance%20reports; and Department of Market Monitoring Reports http://www.caiso.com/market/Pages/MarketMonitoring/MarketIssuesPerfomanceReports/Default.aspx.

[11] *See* Tariff Revision and Request for Expedited Treatment, FERC Docket ER11-3149; and Tariff Revision and Request for Waiver of Sixty Day Notice, FERC Docket No. ER11-3856.

otherwise have applied to implementing other Commission-mandated enhancements.

Throughout 2011, the ISO conducted extensive stakeholder processes to determine the market changes that will be required to accommodate these dramatic changes to the ISO system. The ISO conducted the Renewable Integration Market and Product Review – Phase 1 (RIMPR-1) process to identify near term market design enhancements to assist in facilitating the integration of a significant amount of variable output renewable resources. In doing so, the ISO expended substantial effort examining potential changes to its current design including the Participating Intermittent Resource Program used to integrate wind resources. The RIMPR-1 process resulted in a proposal to change the energy bid floor and bid cost recovery, for which the ISO will soon file a tariff amendment with the Commission. The ISO is still conducting a stakeholder process that is considering additional bid cost recovery changes that will be needed to accommodate the changes proposed as part of the RIMPR-1 process. In addition, the ISO also conducted the Renewable Integration and Product Review – Phase 2 (RIMPR-2) during 2011. This stakeholder process established a comprehensive market design vision and roadmap to integrate renewables into the ISO and resulted in individual initiatives the ISO is currently conducting, such as the flexible ramping product and forward procurement of flexible resources, among many others.

Other efforts related to the upcoming dramatic changes to the ISO system have included several extensive studies to evaluate the operational impacts of integrating 33 percent renewable generation into California's electric grid and revisions to the ISO's transmission planning process to more efficiently integrate these increased levels of renewable generation into the grid.

III. Market Design Stakeholder Processes to Evaluate and Prioritize Market Enhancements.

In the *MRTU September 2006 Order,* the Commission directed the ISO to initiate a stakeholder process by the end of 2006 to obtain input on how various proposed market design features, other than convergence bidding, should be prioritized after Release 1.[12] This process has since evolved into the market design initiatives roadmap process, through which the ISO identifies and prioritizes proposed market design changes. Through this stakeholder process, the ISO identifies and collects information regarding proposed market design changes and then, working with stakeholders, prioritizes each change based on an analysis of the estimated costs and benefits going forward.[13] The ISO further categorizes each proposed market design change as either discretionary or non-discretionary. The discretionary market design initiatives are ranked annually through the market design initiatives process to determine the highest priority enhancements that provide the most benefit to the ISO market and stakeholders. Non-discretionary market design changes include changes required by the Commission and changes that are required to address a significant reliability or market efficiency issue. This process helps the ISO to evaluate and manage all of its market enhancements and obtain input from the stakeholders on the need and priority of each enhancement.[14]

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[12] *See MRTU September 2006 Order* at P 1402.

[13] Stakeholder materials related to the market design initiatives process are available on the ISO's web site:
http://www.caiso.com/informed/Pages/StakeholderProcesses/MarketDesignInitiativesProcess.aspx

[14] The catalogs and stakeholder comments developed through this process are contained on the following website going back to 2010:
http://www.caiso.com/informed/Pages/StakeholderProcesses/MarketDesignInitiativesProcess.aspx

IV. Motion for Extension of Time.

The ISO respectfully requests an extension of time of six Commission-mandated items to allow it and stakeholders to consider the adoption of these enhancements in the context of the larger market design changes the ISO is currently examining. The ISO submits that good cause exists to grant the ISO this extension of time. If granted, the extension of time will not create significant adverse impacts to the market or any specific market participant. Below, the ISO provides an explanation of each of the mandated items, how the ISO expects to deal with each item, stakeholder comments on the need for the functionality collected in the ISO's market design initiatives process, and the ISO's observations on the performance of the ISO market without the mandated item.

A. The ISO requests an extension of time to April 2014 to implement two-tier rather than single tier allocation of real-time bid cost recovery uplift.

Under the current tariff requirements, bid cost recovery amounts incurred in the real-time market are allocated to all load serving entities in a single-tier allocation according to their measured demand, which includes all metered demand plus exports from the ISO balancing authority area.[15] Bid costs recovery uplift derives from payments made to supply resources to guarantee their bid costs in the event that they are committed in areas of their bid curve where the bid is higher than the market clearing locational marginal price (LMP), and provides recovery for the resource's start-up and minimum load costs.[16] The real-time market uplift derives such payments to resources committed in the real-time market as opposed to those

[15] ISO Tariff Section 11.8.6.6.

[16] *See* ISO Tariff Section 11.8.

committed in the integrated forward market (IFM) and residual unit commitment (RUC) both conducted in the day-ahead market.

In response to the ISO February 9, 2006 tariff filing in support of its new market, the State Water Project argued that this general allocation scheme results in the socialization of real-time bid cost recovery costs without regard to the fact that these costs are attributed to load whose schedules are not in balance.[17] The State Water Project objected to this allocation and argued that the real-time bid cost recovery should be allocated in the same manner as day-ahead bid cost recovery, which provides for a two-tiered allocation approach.[18]

The Commission agreed with the State Water Project finding that the ISO had not justified the socialized allocation of real-time uplift costs and that the State Water Project's recommendation to allocate real-time bid cost recovery costs in a two tier method similar to the day-ahead was reasonable. Accordingly, the Commission ordered the ISO to modify the tariff accordingly in a compliance filing to be submitted within 60 days of the date of its order.[19]

The ISO requested rehearing of the Commission's *MRTU September 21 Order* directive on the two-tier bid cost recovery allocations arguing that it is impossible to allocate real-time bid cost recovery uplift costs in two tiers in the same way that it allocates day-ahead bid cost recovery costs.[20] The ISO asserted that while the two-tier IFM and RUC approach follows cost causation rationale, this rationale does not exist in the real-time market. The ISO argued that the two-tier

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17 *MRTU September 21 Order* at P 537.

18 *See e.g.*, ISO Tariff Section 11.8.6.4.1.

19 MRTU September 21, Order at P 539.

20 April 20 Rehearing Order at P 308.

approach would be impossible in a situation where the ISO forecast is not met in the day-ahead market, and, as a result, the procurement of RUC capacity is required. The ISO further argued that in cases where real-time demand is less than the capacity committed in the RUC process, those RUC capacity costs cannot be allocated according to cost causation principles because the costs were caused by a disparity between the forecast and real-time demand.

The Commission granted rehearing with respect to the two-tier allocation of real-time bid cost recovery costs because it agreed that the disparities between the forecast and real-time demand are problematic and could lead to costs which cannot accurately be attributed to a specific market participant. The Commission also agreed that cost causation principles are difficult to follow in situations where procurements are made in order to assure grid reliability. The Commission therefore granted the ISO its rehearing request and accepted the language in section 11.8.6.6 as originally filed. However, the Commission also directed the ISO to work with stakeholders to develop a proposal for two-tiered allocation of real-time bid cost recovery costs that could be included in Release 2.[21]

The ISO first attempted to address this requirement through the convergence bidding stakeholder process to resolve the issue concurrently with the implementation of convergence bidding. At that time, the issue was also prioritized as high by certain stakeholders during the ISO's market initiatives roadmap process. Therefore, the ISO posted an issue paper in October 2008 that outlined possible methodologies for creating a two-tier structure for real time bid cost recovery uplift.[22] This issue paper was discussed at a convergence bidding stakeholder meeting held

[21] April 20 Rehearing Order at P 309.

[22] *See* Issue Paper on ISO website at http://www.caiso.com/205b/205bf1653cf60.pdf.

in November 2008. The ISO resumed discussions on this topic at the July 2009 convergence bidding stakeholder meeting. However, after the ISO and market participants gained additional experience with the actual market, the issue became less significant and participants did not rate this as a high priority.

In particular, in 2011, the ISO was constrained to divert its attention to address another real-time uplift to the ISO market incurred in the form of the real-time imbalance energy offset. While the real-time bid cost recovery uplift has ranged from $21 million to $54 million/year for 2009-2011, the real-time bid cost recovery imbalance energy offset has ranged from approximately $94 million to $138 million. As explained in the ISO filing in FERC Docket ER11-4850, the real-time imbalance energy offset increases were in large part due to convergence bidding practices at the ISO interties, which the ISO initially addressed through the suspension of convergence bidding at the interties and is now about to propose additional measures to allow for the reinstatement of convergence bidding at the interties in a prudent and reasonable manner.

In addition, a significant portion of the high-levels of bid cost recovery uplift in 2011 was due to adverse market participant behavior, which the ISO addressed with two emergency filings that eliminated costs related with those practices.[23] Once these issues were addressed, the issue of the real-time bid cost recovery became less important. Because the real-time bid cost recovery uplift has not been substantial otherwise, stakeholders have indicated little need for this enhancement,

[23] *See* footnote 11 .

particularly when compared to other more pressing issues, and have not objected to the ISO's recommendation to address this issue at a later time.[24]

Year	RT BCR $	Real-Time Imbalance Energy $
2009	20,751,107	94,183,051
2010	25,500,508	113,157,453
2011	54,710,013	138,102,863
Total	154,326,635	345,443,367

In the interim, a number of other issues have arisen related to the need to evaluate more closely the ISO's allocation of costs that have in the past been spread to market participants given the difficulties in identifying the true cost causing agent. The ISO has therefore launched a new stakeholder process intended to develop cost allocation principles that appropriately balance a fair assessment of the contributing elements to costs causation.[25] The goal of this initial stakeholder effort is to develop guiding principles for allocating ISO market costs among market participants that will be applied to all market related costs. The ISO plans to first apply these guiding principles to the flexible ramping product currently being developed. Later in 2012, the ISO will commence a subsequent stakeholder initiative to review existing cost allocations to ensure they are consistent with the cost allocation guiding principles developed through this process. The ISO will address this allocation through that process.

[24] *See 2011 Market Design Initiatives Catalog,* at http://www.caiso.com/Documents/Final2011MarketDesignInitiativeCatalog.pdf.

[25] *See* http://www.caiso.com/Documents/StrawProposal-CostAllocationGuidingPrinciples.pdf.

Consequently, the ISO requires an extension of time to implement a two-tier cost allocation scheme for the real-time uplift. The ISO respectfully requests that the Commission's directive stipulated in paragraph 309 of the Commission's April 20 Rehearing Order be extended to April 2014 to provide the ISO sufficient time to complete it's comprehensive review of cost allocation schemes and develop an appropriate allocation for the real-time market bid cost recovery uplift more appropriate with the ISO's new market design. The extension of time does not adversely impact market participants and allows the ISO and stakeholders to fashion a better solution that is consistently applied across the market.

B. The ISO requests an extension of time to implement bid cost recovery for units running over multiple operating days from 2012 to April 2014.

Under the current market design, a resource's eligibility for bid cost recovery is determined based on the resource's commitment during a given trading day. This is because the current market commitment processes consider whether to commit a resource based on the resource's parameters as they apply for a twenty-four hour period. For example, resources must submit operational parameters such as run-times and start-up times. Under the current paradigm, if the resource's minimum run-time exceeds the twenty-four period, the resource's minimum run time beyond run hours in the current day is not considered in the optimization. This means that if a resource's run time exceeds a twenty-four hour period, the ISO may commit a resource during a twenty-four hour period based on its start-up costs having to be recovered within the day of being optimized. However, in calculating the bid cost recovery payments, the ISO does not spread the cost of start-up over multiple days or account for revenues outside of the 24-hour period in which a unit was committed. For example, if the ISO committed a unit in hour-ending 23:00 which then ran for the

next two days, only the revenue for hour ending 23:00 and 24:00 on day one would be included in the day one bid cost recovery calculation to cover start-up costs. Under the mandated enhancement, the ISO is required to instead consider whether to include revenues and costs over the entire commitment period, which may cross over to subsequent days. However, this bid cost recovery accounting requires that the ISO enhance the commitment algorithm to account for costs/revenues over the entire commitment period.

This current characteristic of the ISO market design was embodied in the original tariff amendment filed by the ISO in 2006 to implement its new market. In response to the tariff amendment, Southern California Edison argued that the ISO tariff was problematic because it did not fully consider units which have run-times that exceed 24 hours, requesting that the ISO tariff be modified to divide the start-up costs by the total run-time of the unit even if the run-time exceeds 24 hours. The ISO agreed to make the appropriate software enhancements to allow for this change in Release 2 of the ISO's new market design. The Commission agreed and ordered the ISO to develop and file with the Commission a plan for units facing these types of constraints for implementation no later than Release 2.[26]

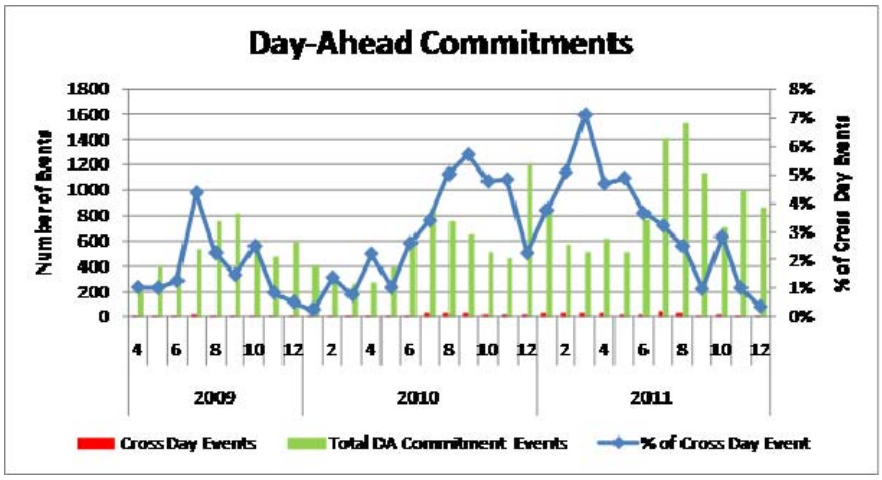
The ISO has determined that this issue is best addressed in the context of market enhancements to consider multi-day unit commitment of resources. Given the extensive analysis and market design changes required to consider market enhancements to integrate renewable resources and account for the retirement of capacity due to California's once-through cooling requirements, any changes to

[26] *MRTU September 21 Order* at P 533

multi-day unit commitment requirements are best considered in the context of the new market design.

The ISO has observed that in only 3 percent of all day-ahead commitments for the period of 2009-2011 an ISO commitment crossed the day boundary. Figure 1 below illustrates the amount of cross day commitment events relative to the total number of commitment for each month.

Figure 1: Day-Ahead Market Commitments 2009- 2011



This low occurrence of such events has made this issue less urgent and resulted in relatively low ratings in the ISO's market initiatives process.

Most recently, in considering the need for new flexible ramping capacity products to address additional variability on the ISO grid, stakeholders have raised and the ISO is considering questions regarding the current day-ahead market design where the ISO optimizes for energy and ancillary services based on bid in demand in the IFM and subsequently performs the residual unit commitment based on forecasted demand.[27] One of the issues to be considered is whether there is the

[27] *See e.g., Flexible Ramping Products, Second Revised Straw Proposal* http://www.caiso.com/Documents/FlexibleRampingProductSecondRevisedStrawProposal.pdf. *See also, comments by stakeholders*

need to redesign the IFM and RUC, including the simultaneous optimization of IFM and RUC, which would require significant changes to the commitment rules and corresponding bid cost recovery rules.

The ISO and stakeholders will be better placed to evaluate changes to the bid cost recovery calculations to reflect the true costs units with run times that cross operating days in the context of any needed changes to the commitment rules coming out of the ISO's current stakeholder efforts. Therefore, the ISO intends to start a new stakeholder process in 2013 to consider this issue in the context of the changing market rules. Accordingly, the ISO respectfully requests an extension of time for the requirement in paragraph 533 of the Commission *MRTU September 21 Order* to April 2014.

C. The ISO requests an extension of time to implement multi-hour constraints in the residual unit commitment process from 2012 to April 2014.

Currently, the residual unit commitment process (RUC) optimizes individual hourly constraints. In response to the ISO's tariff amendment in support of its new market design, Southern California Edison argued that the ISO's tariff proposal did not honor all bid parameters of system resources because the ISO tariff section 31.5.1.1 requires the ISO to consider system resources that are eligible to participate in RUC on an hourly basis.[28] Therefore, the RUC cannot consider other bid parameters such as multi-block hourly intertie constraints submitted in conjunction with energy bids to the day-ahead market by system resources. Southern California Edison argued that this could result in the ISO committing a system resource in RUC

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http://www.caiso.com/Documents/Flexible%20ramping%20product%20-%20stakeholder%20comments%7CComments%20on%20second%20revised%20straw%20proposal.

[28] *See MRTU September 21 Order* at P 141.

for a period that is inconsistent with the scheduling coordinator's offer for the resource.[29]

The Commission found reasonable Southern California Edison's arguments and in the *MRTU September 21 Order* ordered the ISO to examine whether such software changes could be implemented by Release 1 and report in a compliance filing within 60 days of the date of this order whether changes to Release 1 are realistic and if not when the ISO can implement the software changes.[30] The ISO sought rehearing of the Commission's order contending that the Commission should not require it to honor multi-hour block constraint bids as a bidding parameter.[31] Among other things, the ISO argued that the Commission should relieve the ISO from the requirement to adopt this enhancements because the residual unit commitment process designates capacity, not energy, to be available in real time and that although a resource is obligated to submit a real-time energy bid for RUC capacity accepted in the day-ahead market, there is no guarantee that the ISO will dispatch the energy associated with the RUC capacity in real time. In addition, because the real-time market processes do not dispatch resources for energy on a multi-hour basis, the ISO asserted that the Hour-Ahead Scheduling Process (HASP) cannot observe the multi-hour block constraints for dispatch. On compliance with the Commission's directives in the *MRTU September 21 Order*, the ISO also reported that this enhancement would have cost approximately $500,000, including support for additional functional and integration testing, and would take up to 14 additional weeks to develop and test.

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29 *Id.*

30 *MRTU September 21 Order* at P 143.

31 April 20 MRTU Rehearing Order at P 56.

In response to the ISO's rehearing request, the Commission agreed with the ISO that there could be limitations to the value of the multi-hour constraint bids. The Commission found that while there can be instances where capacity selected in RUC could have associated energy dispatched in real time (*e.g.*, generators producing energy at minimum output), and agreed that there are limitations to the value of multi-hour block constraint bids.[32] The Commission also considered the information in the ISO's November 20, 2006 compliance filing, regarding the cost and implementation timeline for such an enhancement and found that the costs of implementation and potential delay to the new market outweighed the potential benefits of including this functionality at that time. Consequently, the Commission granted the ISO's request for rehearing on this matter and directed the ISO to implement this bidding parameter in Release 2 instead.

Since the start of the ISO's new market design on February 1, 2009, the RUC market has been rather limited and the lack of this functionality has not proven to pose any market efficiency or performance issue. The ISO has observed that for 2011, for example, out of 9761 total RUC or resource adequacy import schedules, only 41 of the schedules had the hourly block flag set in IFM. This represents less than 0.5% of all intertie RUC schedules that may be constrained by the hourly blocks in the real-time. Because of limited number of issues observed as a result of the absence of this feature, the item has been repeatedly rated as a low priority.[33]

The ISO has determined that this market enhancement is best considered in the context of its market redesign efforts to address the changing nature of available resources with the addition of significant amount of variable energy resources and

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[32] *Id.*

[33] *See* footnote 14.

the removal of conventional capacity due to California's once-through cooling requirements. In particular, as described above, as the ISO considers necessary changes to the design of the IFM and RUC processes part of the ISO day-ahead market. Further, because the delayed implementation of this functionality was wholly supported by stakeholders, it is reasonable to delay making changes to the market to include this functionality until the ISO has settled on a new IFM/RUC market design.[34] Therefore, the ISO respectfully requests that the requirements in paragraph 56 of the Commission's April 20 Rehearing Order be extended to April 2014.

D. The ISO requests additional time to assess whether and how to develop more flexibility in connection with ancillary services substitution as part of its renewable integration market and product review initiative.

As part of the *MRTU September 2006 Order*, the Commission recognized the ISO's commitment to provide scheduling coordinators with the ability to substitute ancillary services for reasons other than an outage as part of Release 2.[35] Various market participants argued that additional flexibility could increase the efficiency to the ancillary services procurement process and provide for a secondary ancillary services market.[36] The Commission directed the ISO to address the flexibility of ancillary services procurement in future market releases.[37]

Since the start of the ISO's new market, the ISO has considered multiple enhancements to its ancillary services market to make ancillary service procurement more efficient. As directed by the Commission, the ISO implemented market functionality to allow for the procurement of ancillary services in the hour ahead

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34 *See* footnote 14.

35 *MRTU September 2006 Order* at P 301. *See also April 2007 Rehearing Order* at P 87.

36 Id. at PP 296-299.

37 *MRTU September 2006 Order* at P 303.

scheduling process at the interties.[38] The ISO also developed and implemented a scarcity pricing design for ancillary services.[39] The ISO developed a tool for procuring regulation based on projected needs in a given operating hour.[40] More recently, the ISO has implemented a flexible ramping constraint[41] and is also developing a flexible ramping product to procure sufficient ramping capability through economic bids [42] as well as a performance payment for regulation service.[43] As a result of the time and effort devoted these and other market enhancement issues, the ISO has not developed a proposal to allow for ancillary service substitution for reasons other than an outage.

As part of its 2011 market design initiatives process, the ISO solicited comments from stakeholders to assess the priority of various market design issues. In connection with this effort, Southern California Edison submitted comments that stated it expects the ISO to include the issue of ancillary service substitution in phase 2 of the ISO's renewable integration market and product review initiative.[44] The ISO did not receive any additional comments from stakeholders on this issue.

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38 *California Independent System Operator Corp.*, March 3, 2010 letter order accepting tariff revisions in Docket No. ER10-479. http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12327980

39 *California Independent System Operator Corp*., 133 FERC ¶ 61,113 (November 2010).

40 ISO Technical Bulletin 2009-12-02: AS Procurement - Regulation dated December 20, 2009. http://www.caiso.com/Documents/TechnicalBulletin-ASProcurement-Regulation.pdf.

41 *California Independent System Operator Corp* 137 FERC ¶ 61,191 (December 2011).

42 Information concerning the ISO's flexible ramping product stakeholder initiative is available at the following Web site: http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleRampingProduct.aspx

43 Information concerning the ISO's pay for performance regulation stakeholder initiative is available at the following Web site: http://www.caiso.com/informed/Pages/StakeholderProcesses/PayforPerformanceRegulation.aspx

44 See ISO's final market design initiatives catalog for 2011 at 23. http://www.caiso.com/Documents/Final2011MarketDesignInitiativeCatalog.pdf See also, Comments of SCE dated August 1, 2011 at p. 3. http://www.caiso.com/Documents/SCEComments_2011MarketDesignInitiative.pdf.

The ISO will explore ancillary services substitution for reasons other than an outage, stakeholder processes associated with its renewable integration market, and product review. The ISO expects this effort will unfold over the next 24 months. For this reason, the ISO respectfully requests that the Commission grant the ISO an extension of time, up to and including April 2014, to address whether it is necessary to allow for ancillary services substitution for reasons other than an outage.

E. The ISO requests additional time to assess whether and how to implement functionality that will support exports of ancillary services as part of its renewable integration market and product review initiative

As part of the proceedings that led to the *MRTU September 2006 Order*, various parties argued that the ISO should develop market functionality to support export bids of ancillary services.[45] The Commission directed the ISO to develop software to support exports of ancillary services in the future through stakeholder processes and to propose necessary tariff changes to implement this feature no later than Release 2 of its market software enhancements.[46]

As explained in this motion, the ISO is examining numerous market enhancements to facilitate the integration of variable energy resources in the most efficient means possible. The ISO is also exploring a mechanism to compensate flexible operating capacity to support load and supply variability.[47] As part of its 2011 market design initiatives process, the ISO received comments from various market participants on this issue. Neighboring balancing authority areas and independent

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[45] *MRTU September 2006 Order* at PP 348-354.

[46] *MRTU September 2006 Order* at P 355.

[47] Information concerning the ISO's flexible ramping product stakeholder initiative is available at the following Web site: http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleRampingProduct.aspx

generator interests expressed support for developing this functionality.[48] Southern California Edison recommended that the ISO make this matter a low priority item.[49]

While entities may arrange for exports of ancillary services prior to the hour ahead scheduling process by arranging for on-demand obligations to other control areas, the ISO believes there is merit in examining whether providing export bid capability for ancillary services can be developed in the ISO's market optimization. This functionality could assist neighboring balancing authority areas balance variable resources seeking to provide renewable power to California load serving entities. In addition, this functionality may provide revenue opportunities for resources with flexible operating capacity interconnected to the ISO's balancing authority area. The ISO, however, has yet to initiate a stakeholder process to discuss the development of export bid functionality for ancillary services. The ISO commits to examine the benefits of developing this functionality and commits to file a report with the Commission by April of 2013 concerning the status its efforts to examine functionality to allow for export bids of ancillary services. If the ISO identifies sufficient benefits from this functionality, it will commence a stakeholder process with the aim to implement this functionality in the spring of 2014. For this reason, the ISO respectfully requests that the Commission grant the ISO an extension of time, up to and including April 2014, to propose necessary tariff changes to implement export bids for ancillary services. If the ISO determines the cost of this market functionality

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[48] *See* ISO's final market design initiatives catalog for 2011 at 25. http://www.caiso.com/Documents/Final2011MarketDesignInitiativeCatalog.pdf

[49] *Id.*

outweighs its benefits, the ISO will seek appropriate relief to modify the requirement that it develop and implement this market feature.[50]

F. Transmission Losses over collection

In response to the ISO's initial filing in support of its new market in 2006, the CPUC requested that the Commission direct the ISO to initiate a stakeholder process to address additional issues related to the integration of intermittent resource issues into Release 2, including transmission line loss over-collection issues.[51] The Commission directed the ISO to address additional issues related to the integration of intermittent resource issues, including transmission line loss over collection issues, in Release 2.[52]

In response to the Commission's directives and the numerous the renewable portfolio standard (RPS) and other state policies, the ISO launched a stakeholder process on July 8, 2010, through the release of its first discussion paper to consider market changes to accommodate the entry of numerous variable energy resources, primarily wind and solar generation, into its power system over the coming decade.[53] The stakeholder process was divided in various parts over time to address more near term issues and longer-term market design changes that might be necessary to address the changing nature of the ISO fleet of supply resources. The ISO took a phased approach to addressing reforms to the California ISO's market design and

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[50] As part of its dynamic transfers tariff amendment, the ISO did not propose to allow resources within the ISO's balancing authority area to submit dynamic export schedules of ancillary services The ISO believes this issue requires a separate initiative. See, ISO transmittal letter dated July 29, 2011 in FERC Docket ER11-4161 at 8-9.

[51] *MRTU September 2006 Order* at PP 1396 and 1397.

[52] *MRTU September 2006 Order* at PP 1402.

[53] *See* Website listing numerous papers associated with this effort. http://www.caiso.com/Documents/Renewable%20integration%20market%20and%20product%20review%20phase%201%20-%20papers%20and%20proposals.

market procedures with an initial focus on incentivizing increased operating flexibility – additional range and speed of operational ramps to address load-following, and the anticipated higher frequency and magnitude of over-generation conditions. This first phase culminated with a limited set of proposed changes to the ISO market design, approved by the ISO board of governors on December 15, 2012, that include the reduction of the energy bid floor from -$30/MWh to -$150/MWh, and changes to the bid cost recovery netting methodology. The ISO will be submitting a tariff amendment with the Commission in 2012 to address these changes. In connection with the proposed changes to the bid cost recovery netting methodology, the ISO is developing additional rules to align incentives to follow ISO-issued dispatch instructions, which it will be requesting approval of by its board of governors in the second quarter of 2012, with a tariff change to follow later in the year.

As the ISO wrapped up the first phase, the ISO commenced a subsequent stakeholder process to address longer term issues and potential market design changes.[54]

The ISO is about to also launch a new stakeholder process to consider any changes that may be necessary to the ISO's allocation of the over-collection of marginal losses. In the context of this effort and its consideration of possible market changes to address the changing nature of ISO grid resources, the ISO will be better placed to evaluate the additional issues related to the integration of intermittent resource issues, including transmission line loss over collection issues as directed by

54 http://www.caiso.com/informed/Pages/StakeholderProcesses/RenewableIntegrationMarketProductReviewPhase2.aspx

the Commission. Accordingly, the ISO requests an extension of time to April 2014, to address any such issues.

V. Conclusion

For the foregoing reasons, the ISO respectfully requests that the Commission grant this motion for an extension of time, until April 2014 to comply with the directives in the *MRTU September 2006 Order* and *MRTU April 2007 Order*, as described further above.

Respectfully submitted,

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Dated: March 28, 2012

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 28th day of March, 2012.

/s/ Anna Pascuzzo
Anna Pascuzzo