

CAISO White Paper

Use of a Single Meter by Multiple Scheduling Coordinators

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1. Introduction

On June 7, 2006, FERC issued an order in ER98-3760 directing the CAISO to address the current prohibition on the use of multiple Scheduling Coordinators (MSCS) at a single meter. *Order Addressing Outstanding Issues Relating to California Independent System Operator*, 115 FERC ¶ 61,300 P. 23 (2006) (June 2006 Order). This issue dates back to the design of the CAISO's markets prior to start up. One of the design principles was that only one SC could represent any individual meter. When the CAISO markets were first established based on this principle, a few market participants protested this feature of the market design and, in response, in October 1997, FERC issued an order directing the CAISO to develop software that could permit the use of MSCS at a single meter and to report to on its progress.¹ The CAISO was not able to develop the software prior to start but did conduct a poll in 1999. At that time, market participants did not identify the capability for MSCS to utilize the same meter as a priority. In its June 2006 Order, however, FERC directed the CAISO to develop the software to implement this functionality or to propose alternatives and to submit a progress report within three months or by September 7, 2006 .

The purpose of this paper is to initiate stakeholder discussion of the MSCS feature, particularly to obtain parties' input regarding the specific functionalities desired and the importance of having such a feature relative to other market enhancements being considered and to discuss alternatives.

2. Proponents of MSCS

In January 2000, Dynegy Power Marketing, Inc. ("Dynegy"), the Turlock Irrigation District ("Turlock"), the Energy Producers and Users Coalition ("EPUC"), the Cogeneration Association of California ("CAC"), and the Northern California Power Agency ("NCPA") submitted their initial brief on the MSCS issue. They argued that allowing MSCS at a single meter would open substantial sources for Ancillary Service (A/S) to the market and believed MSCS could be accommodated by requiring the CAISO to develop software changes.

3. MSCS in the CAISO Markets

While conceptually simple, the complexity of implementing MSCS functionality should not be underestimated. First, there is huge gap between allocating shares of costs and revenues (the settlement aspects) and managing the daily bidding and operating activities (the operational aspects). Shares of a physical unit cannot simply be treated as independent sub-units because of many physical constraints of the unit such as minimum operating level, ramping rates, etc., as well as the need to make unit commitment

¹ *Order Conditionally Authorizing Limited Operation of an Independent System Operator and Power Exchange, Conditionally Authorizing Transfer of Control of Facilities on an Interim Basis to an Independent System Operator, Granting Reconsideration, Addressing Rehearings, Establishing Procedures and Providing Guidance*, 81 FERC, 61,122 at 61,509 (1997).

decisions on a whole unit basis. Second, both the current Real Time Market Application (RTMA) and the future MRTU Real Time Market (RTM) issue dispatch instructions every 5 minutes. Monitoring real-time compliance with such instructions when real-time energy bids are submitted by multiple SCs from the same unit will require software capabilities that do not presently exist. Third, additional bid validation rules would need to be implemented to ensure that bids from multiple SCs for the same unit do not in total exceed the capacity of the unit. Other issues may be identified as the MSCS capability is explored further.

4. MSCS Benefits and Costs

The CAISO agrees that there may be certain benefits associated with MSCS based on the notion that MSCS will bring more competitive bids into the markets. However, other factors such as implementation costs and reliability impacts need to be considered. For example, awarding A/S to multiple SCs offering capacity from the same resource may pose problems for A/S dispatch and compliance monitoring. It should also be noted that with the introduction of A/S trades it is possible for one SC with a resource to provide A/S services to another SC. Therefore it is not clear how having multiple SC offering capacity from the same resource will ultimately increase the amount of reserves available since the physical resource itself is physically limiting the amount of reserves that can be provided from a single resource.

5. A Possible “Settlements Only” Approach

To avoid many of the complications and concomitant costs of fully implementing MSCS in the CAISO markets from an operational standpoint, one approach would be for the multiple SCs to designate a single representative SC to interact with the CAISO for operational purposes, and to apply MSCS as a settlement provision only. The representative SC would interact with the CAISO to receive unit commitment and dispatch instructions, resolve disputes, etc. The representative SC would also combine bids from multiple SCs to form a single bid curve that complies with all the normal CAISO market rules and also attributes different bid segments to the various SCs. The CAISO markets would utilize the single bid curve so that market performance would not be adversely affected. The settlement system would then use MSCS bids and shared metering to settle with each of the SCs associated with the unit. Market participants are asked to consider and comment on whether such an option could provide the comparable MSCS functionality.

6. Other Options

The first option is not to implement MSCS at this time, or in conjunction with MRTU Release 1, but to defer consideration of MSCS in the context of post-Release 1 market enhancements. This option will allow the CAISO to maintain its focus on implementing MRTU Release 1 without adding further costs or complications. In relation to this option, market participants are asked to consider whether the Physical Inter-SC Trade provisions of MRTU could be used to accomplish the objectives of the MSCS feature.

At the other extreme is option 4, which is to fully implement MSCS for energy as well as A/S, for bidding, operations, and settlements. The CAISO believes that this option will impose the greatest cost and implementation risks for reasons mentioned above, and asks market participants to consider whether the expected benefits are likely to outweigh the costs and risks.

Intermediate options 2 and 3 are variations on the settlements approach described in section 5 above. Both would require a single designated SC per meter for scheduling and operational purposes, and would implement any new MSCS capability primarily as a settlement feature. Option 2 would allow MSCS in energy settlements only, whereas option 3 would extend this to A/S settlements as well.

7. Summary of Options

The following table summarizes the CAISO's initial ideas about alternative approaches for implementing the MSCS feature. At this time these are not yet fully developed proposals, and therefore market participants are asked to consider them as high-level design concepts and offer suggestions regarding their desirability and their further design as practical market features. Parties are also invited to suggest other possible approaches.

Option	Short description	Benefit	Cost	Implementation Risk	CAISO preference
1	Defer any new MSCS functionality until post Release 1; consider using IST.	No new functionality or design effort required at this time.	Possibly no cost if IST is a workable alternative.	None	1
2	Representative SC is designated for bidding and operations; implement MSCS in energy settlements only.	Achieves MSCS capability in market settlements with minimal impact on market performance or operations.	Modifications to settlement system.	Medium	2
3	Representative SC is designated for bidding and operations; implement MSCS in both energy and A/S settlements.	Achieves MSCS capability in market settlements with some impact on market performance or operations.	Modifications to settlement system.	Medium-High	3
4	Full scale implementation of MSCS in bidding, operation and settlement.	Provides maximum MSCS functionality	1. Concerns about operational impacts must be addressed, 2. Redesign required for bidding, operational and settlement systems.	High	4

