

Stakeholder Comments Template

Subject: Market Initiatives Roadmap – High Level Ranking Process

Submitted by	Company	Date Submitted
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The ISO is requesting written comments on the *Preliminary Results of the High Level Prioritization of Market Enhancements* published on the ISO website and discussed at the July 23rd, 2009 stakeholder meeting. This template is offered as a guide for entities to submit comments; however participants are encouraged to submit comments in any form. Comments are due by July 30th, 2009.

All documents related to the Market Initiatives Roadmap Process are posted on the ISO Website at the following link: <http://caiso.com/1fb1/1fb1856366d60.html>

Upon completion of this template please submit (in MS Word) to MIRoadmap@caiso.com. Submissions are requested by close of business on Thursday, July 30, 2009.

Please answer the following questions on the results of the high level ranking:

1. Introduction

Southern California Edison "SCE" appreciates the opportunity to provide comments on the CAISO's report, entitled "Preliminary Results of High Level Prioritization of Market Enhancements, dated July 13, 2009. SCE views the effort to prioritize and plan future market enhancements as important because it will help the CAISO and stakeholders focus resources on the initiatives with the highest overall value in achieving the CAISO's long term market design vision.

SCE would like to raise two market design issues that we feel should be treated as near term market enhancements and should be viewed as software deficiencies that require immediate correction, rather than new issues for the Roadmap. First, the CAISO must address the current process of using forecast demand in the Local Market Power Mitigation (LMPM) passes of the pre-IFM process to ensure that enough supply is available to clear IFM bid in demand. Differences between CAISO forecast demand as

currently calculated and applied to the market power runs of the IFM can result in economic resources not be selected in the IFM even though prices indicate the resource is economical to operate. And as we have seen, this process can result in extreme distortions to day-ahead prices. The mid/long-term solution is to use the bid-in demand for the market power runs, but we understand this will require material software changes. In the mean time, this item requires immediate attention and a solution could include simply changing the approach the CAISO uses to determine the forecast to be used in the market power runs.

Second, the CAISO needs to improve the process for determining the initial conditions (on/off) of resources in the IFM. CAISO's current IFM initial condition management process fails to recognize resources that are operating in real-time but not scheduled in the IFM, and provides no process for SC's to inform the CAISO when the initial conditions are likely to be incorrect. As a result, resources may be seen as "off" for the next days IFM and may not be committed, due the need to incur a start-up costs and to honor shut down and restart times, event though the resources will be operating and fully available for the IFM.

2. Should rankings be different for the initiatives that the ISO ranked "High" in the preliminary ranking process? If yes:

SCE supports the item titled "Procedure to Apply RA-MOO for a Subset of Hours". We view this item as essential to better support implementation of the current Resource Adequacy (RA) structure and to better align with CPUC RA rules. In addition, SCE is appreciative of the CAISO's efforts to expedite the policy and design phases of the items titled "Ability to Bid Start-Up and Minimum Load Costs & LMPM". Specifically, SCE is supportive of the MSC opinion of allowing at two part start-up cost bid. Such a design change would allow SCs to properly represent fixed start costs (O&M costs) to the CAISO's market software.

Below are SCE's recommended changes to the preliminary scores developed by the CAISO for "High" ranked market design initiatives.

Multi-Day Unit Commitment in the IFM

Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Moderate Improvement	7	Moderate Improvement	7
Improve Efficiency	Moderate Improvement	7	Significant Improvement	10

	CAISO Preliminary Ranking		SCE Proposed Ranking	
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a Majority of MP	7
Market Participant Implementation Impact	Minimal Impact	7	Minimal Impact	7
ISO Implementation Impact	Moderate Impact	3	Moderate Impact	3
Total		31		34

SCE believes this item will have a significant impact on market efficiency and should be given a market efficiency ranking of 10 (high). First, we have observed through daily market operations that without an extended look-ahead period the IFM software routinely does not schedule resources that the ISO will ultimately need for the next day to maintain grid reliability. As has been current practice these resources are not scheduled in the IFM, but are needed for grid reliability so they are committed through the use of exceptional dispatches or RUC. Incorporating an extended look-ahead period into the IFM software should eliminate the need for the CAISO to use exceptional dispatches or RUC to solve this particular problem. Similarly, the lack of extended look-ahead functionality at times causes the IFM to decommit resources towards the end of the day, even though the resources remain economic in the extended market day(s). As a result, if this resource is now needed in the next day's IFM the market will incur additional and unnecessary start-up cost. Another observed uneconomic result is that the reevaluation of start-up costs may result in a resource not being committed even though if left online over midnight the resource would have been economic based on its incremental energy costs. Both of these scenarios have the potential to increase total costs to consumers.

Second, with just a 24 hour look-ahead period the current IFM design contains a bias towards resources with smaller start-up costs and more flexible start-up and shut down characteristics. While SCE recognizes the CAISO's has a manual process for committing long-start units, current market operations indicate the process is not always effective in economically scheduling long-start resources. Outside of exceptional dispatch the only way for SCs to get the IFM to recognize the economics of long-start resources is to self-schedule the resource online. As a result, SCs forego the ability to recover start-up and potentially even minimum load costs. The implementation of extended look-ahead functionality in the IFM would improve and some cases eliminate the requirement for the current manual long-start process and significantly reduce the need for SCs to self-schedule units in the IFM under many circumstances.

Simultaneous RUC and IFM

Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Moderate Improvement	7	Moderate Improvement	7
Improve Efficiency	Moderate Improvement	7	Significant Improvement	10
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a Majority of MP	7
Market Participant Implementation Impact	Minimal Impact	7	Minimal Impact	7
ISO Implementation Impact	Moderate Impact	3	Moderate Impact	3
Total		31		34

SCE continues to be concerned that RUC as currently designed will not function effectively with the introduction of future MAP initiatives such as virtual bidding. SCE views the redesign of RUC as an important market initiative and sees a redesigned RUC as being a major improvement to market efficiency. The current RUC design is limited in that it is handed a solution by the IFM that limits RUC ability to optimize (RUC can't decommit units) efficiently, especially when the IFM solution is severely constrained. Add virtual bidding to the mix and the potential for the IFM to provide RUC with an infeasible "physical" solution increases significantly. SCE believes the simplest way to address this problem is to simply stop pricing RUC. The CAISO now has in its tariff a Standard Capacity Product, as well as requirements for all market participants to secure capacity. These provisions now put the CAISO's position much more comparable to the Eastern ISO's concerning capacity and must-offer requirements. SCE recommends the CAISO increase the impact score for market efficiency to 10 (high) and further consider implementing improvements to the current RUC design, including the elimination of RUC prices, to coincide with the introduction of virtual bidding at the very latest.

Load Aggregation Point Granularity

Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Moderate Improvement	7	Moderate Improvement	7
Improve Efficiency	Significant Improvement	10	Minor Improvement	3
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a small subset of MP	3

	CAISO Preliminary Ranking		SCE Proposed Ranking	
Market Participant Implementation Impact	Moderate Impact	3	High Impact	0
ISO Implementation Impact	Minimal Impact	7	Moderate Impact	3
Total		34		16

SCE questions the CAISO's scores for improving market efficiency, desired by market participants, and both market participant and CAISO systems impacts. First, SCE feels the CAISO staff has overstated the potential benefits that increased LAP granularity may have on market efficiency. We have performed an analysis of the average IFM prices for our service territory and based on the concentration of our load, we do not see significant price dispersion between the LAP price and individual nodal prices that would justify increasing the number of LAPs in our service territory at this time. As such, SCE recommends the CAISO modify the score for improve market efficiency, at a minimum, to a 3 (minor).

Second, SCE questions the CAISO's score of 7 for the desired by stakeholder category. Based on the majority of feedback from stakeholders on the roadmap conference call it is clear that participants have significant concerns and unanswered questions. Given the feedback from the participants on the conference call the CAISO should revise its score for desired by market participants to a 3 (few).

Third, SCE believes that the preliminary scores provided by the CAISO under feasibility are higher than they should be. With respect to market participant implementation impact SCE views this initiative as being a 0 (high impact). Increased LAP granularity has significant impacts on SCE systems such as load forecasting, bidding, and settlements. In addition, this initiative has significant impacts on SCE's Transmission Organization as it pertains to having in place accurate metering to properly measure and communicate demand at these new locations.

Finally, we believe impacts on CAISO systems will be greater than the preliminary rankings indicate. Increasing the number of LAPs will impact the CAISO's SIBR rules for load bidding, market settlements, and the CAISO CRR processes. In particular, SCE is concerned about the impacts this initiative will have on long-term and annual CRR's that have been issued prior to this change taking affect. We have similar concerns on the impacts this initiative will have on the already complicated and cumbersome load migration process.

Bid Cost Recovery for Units Running Over Multiple Operating Days

	CAISO Preliminary Ranking	SCE Proposed Ranking
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Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Moderate Improvement	7	Moderate Improvement	7
Improve Efficiency	Moderate Improvement	7	Moderate Improvement	7
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a Majority of MP	7
Market Participant Implementation Impact	Minimal Impact	7	Moderate Impact	3
ISO Implementation Impact	Minimal Impact	7	Minimal Impact	7
Total		35		31

SCE is supportive of this effort but feels that the CAISO has underestimated the impact to both market participants and CAISO systems. A Bid Cost Recovery (BCR) design that spans multiple days, months or invoices (with Payment Acceleration) will require changes to both CAISO and market participant settlement systems. Depending upon the specific design of the system and the business processes employed such a change could have moderate impacts on market participants. Based on the description of the issue in the market design catalogue we recommend at a minimum the CAISO lower the market participant implementation impact score to moderate (3).

Rules to Encourage Dispatchability of Wind and Solar Resources

Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Significant Improvement	10	Significant Improvement	10
Improve Efficiency	Moderate Improvement	7	Moderate Improvement	7
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a Majority of MP	7
Market Participant Implementation Impact	Minimal Impact	7	Moderate Impact	3
ISO Implementation Impact	Moderate Impact	3	Moderate Impact	3
Total		34		30

SCE supports enhancing the market to improve the integration of intermittent resources. We look forward to the stakeholder process discussed by the CAISO on the market initiatives roadmap conference call to develop the scope of this initiative. Without a defined high level scope of the market design changes needed it is difficult for SCE to provide specific comments on the preliminary ranking provided by the CAISO. On the surface it does appear that the market participant implementation impact score of 7 (minimal) may be high and this initiative has the potential to have more of a moderate impact on participant internal systems and processes. SCE understands that the CAISO has a very limited grading scale but the market participant implementation impact score may ultimately fall somewhere in the middle between moderate and low impact.

3. Should rankings be different for the initiatives that the ISO ranked “Medium” or “Low” in the preliminary ranking process? If yes:

Two-Tier Real-Time Bid Cost Recovery Methodology

Criteria	CAISO Preliminary Ranking		SCE Proposed Ranking	
	Impact	Score	Impact	Score
Grid Reliability	Minimal Improvement	3	Minimal Improvement	3
Improve Efficiency	Moderate Improvement	7	Significant Improvement	10
Desired by Market Participants	Desired by a Majority of MP	7	Desired by a Majority of MP	7
Market Participant Implementation Impact	Minor Impact	7	Minor Impact	7
ISO Implementation Impact	Moderate Impact	3	Moderate Impact	3
Total		27		30

SCE feels that the CAISO preliminary ranking of 7 (moderate improvement) for market efficiency for this market initiative is understated, especially when you take into consideration virtual bidding. As SCE stated in our July 24th virtual bidding comments we seek a formal commitment from the CAISO to allocate costs using a methodology similar to what is done in the Mid West ISO (MISO). Such a methodology would allocate costs based on true cost causation principles both over time and at specific locations. Such an approach would almost certainly require a two-tier allocation of real-time uplift. SCE recommends the CAISO commit to a MISO-like cost allocation methodology, inclusive of two-tier RT BCR, within 1-year after implementing virtual bidding.

4. Are there initiatives that were missing from the Market Design Catalogue (or the presentation)?

SCE has no comments on this section at this time.

5. Do you have any comments on or suggestions to improve the annual roadmap process?

SCE remains concerned that the Roadmap process may not work for comprehensively designing and integrating multiple features aimed at addressing major market structure changes. Of note, the integration of significant amounts of intermittent resources will likely require multiple new market enhancements that must work together as a “package”. The current process also fails to consider, in any detailed fashion, the true impact of integration and the interaction of implementing a host of stand-alone items. Put simply, will the software be able to deal with all of these items? What will it do to software performance? How do we test the items collectively to see if they result in unintended consequences?

As a minor improvement to the current process the CAISO should consider not providing an initial score for the “desired by stakeholder” and “stakeholder impact” categories when it conducts its preliminary ranking. Rather, it could wait until after receiving formal feedback from stakeholders before including the score for these two categories in the overall initiative score. This approach may alleviate some confusion and allow for objective feedback from stakeholders.