

Stakeholder Comments Template

Subject: Market Initiatives Roadmap – High Level Ranking Process

Submitted by	Company	Date Submitted
CPUC Staff: Energy Division Kirk Bracht (kw@cpuc.ca.gov), 415-703-2868 (Renewable Integration, Transmission) Ed Charkowicz (eac@cpuc.ca.gov), 415-703-2421 Aram Shumavon (sap@cpuc.ca.gov), 415-703-5228 (SCP, RA-MOO, RUC) Karl Meeusen (kkm@cpuc.ca.gov), 415-703-1567 (DR) Anne Gillette (aeg@cpuc.ca.gov), 415-703-5219 (Renewable Integration) Keith White (kwh@cpuc.ca.gov), 415-355-5473 (Renewable Integration) Legal Division Christopher Clay (cec@cpuc.ca.gov), 415-703-1123 Elizabeth Dorman (edd@cpuc.ca.gov), 415-703-1415 (LAP Granularity)	California Public Utilities Commission	July 31, 2009

ISO RANK	ISO Total Score	Initiative As Proposed
----------	-----------------	------------------------

1 38 Apply RA - MOO rules to a subset of Hours.

The CPUC staff supports a high level designation for RA-MOO improvements.

2 35 SCP Enhancements to subject a larger majority of the RA fleet to availability standards.

CPUC staff supports a high level designation for enhancements to the Standard Capacity Product, but cautions that any timeline put forth by the CAISO should be carefully coordinated with CPUC schedules to ensure synchronized processes given the great number of overlap of issues.

3 35 BCR for units running over multiple hours.

The CPUC staff agrees that this initiative deserves a top five status.

4 34 Rules to encourage dispatchability of Wind & Solar resources.
RT Dispatchability of Wind and Solar during Overgeneration and Congestion

The CPUC staff agrees that rules to encourage dispatchability of wind and solar resources initiative deserves high level status. The CPUC staff also believes this initiative has synergies with other intermittent and Ancillary Services initiatives noted herein, and where these initiatives intersect, there should be an effort to ensure they are accomplished singularly or together in the most effective and efficient manner.

5 34 Load Aggregation Point Granularity. *Increased LAP granularity will mitigate the need for uneconomic adjustments and provide locational price signals for demand response.*

The CPUC staff believes that the CAISO's rating of the importance of the reconsideration of Load Aggregation Point (LAP) Granularity (Item 2.11) is too high given the youth of the new MRTU markets and the ongoing efforts to improve the quality of market solutions resulting in Locational Marginal Prices. A wide variety of the items described in the Market Design Initiatives Catalogue could significantly impact the calculation of nodal prices. Several complex legal, technical and policy issues must be analyzed and addressed before the CAISO should submit a LAP granularity proposal to FERC. This includes substantial coordination between the CAISO and Local Regulatory Authorities.

The CPUC conditioned its support of the MRTU market structure as a whole upon the inclusion of the current LAP price cost allocation mechanism. (*Notice of Intervention, Limited Protest, and Comments Of The California Public Utilities Commission On The California ISO's MRTU Tariff*, filed on April 10, 2006 in Docket No. ER06-615 at pp. 16-18.) As explained by the FERC in its *Order Conditionally Accepting The California Independent System Operator's Electric Tariff Filing To Reflect Market Redesign And Technology Upgrade*, issued on September 17, 2006, in FERC Docket No. ER06-615 ("September 2006 Order"), "consumers in congested, high-priced areas should not be punished based on infrastructure investment decisions made under the prior regulatory regime[:]" and that that increased LAP granularity may create an "economic hardship." (September 2006 Order, 116 FERC ¶ 61,274 at ¶¶ 595, 611.) The FERC stated that it expected that the "CAISO will provide the relevant information [. . .], which may include market studies or other analysis, to justify the proposed number of disaggregated LAP zones it proposes to adopt when it makes its compliance filing." (*Order Granting In Part And Denying In Part Requests For Clarification And Rehearing*, issued on April 20, 2007 in FERC Docket No. ER06-615 at ¶ 326.) The Market Initiatives Catalogue lists several high priority initiatives to improve Real Time market performance, which will result in modifying Locational Marginal Price calculations, upon which the CAISO's market analysis will likely rely. The MRTU market should be at a point where its operations are not subject to substantial adjustments before such analysis may be conducted; otherwise, such analysis would not reflect actual market conditions.

Beyond this, there may be state law impediments to increasing granularity of LAPs with respect to retail customer rates. For example, Assembly Bill 1 from the First Extraordinary Session (Ch. 4, First Extraordinary Session 2001) (AB 1X) signed into law on February 1, 2001, (available at http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_0001-0050/abx1_1_bill_20010201_chaptered.html) to address the energy crisis of 2000-2001,

reads in part, “In no case shall the commission increase the electricity charges in effect on the date that the act that adds this section becomes effective for residential customers for existing baseline quantities or usage by those customers of up to 130 percent of existing baseline quantities [. . .].” Emerging new Demand Response market products and smart grid technologies may reduce the impacts of increased granularity in LAP pricing that could run afoul of AB1X; but only if such products and technologies and products are functionally available for residential customer use prior to an increase in LAP granularity. The CPUC staff therefore believes that the LAP granularity stakeholder process should be timed so that it can take into consideration the successful integration of effective Demand Response options into the MRTU market and residential ratepayers’ homes.

Additionally, the proposed increase in granularity of LAP prices implicates the CPUC’s jurisdiction to set retail rates and approve expenses related to the procurement of energy. The FERC acknowledged that the question of whether to pass through nodal costs to retail customers falls within the CPUC’s purview. (*Order Granting In Part And Denying In Part Requests For Clarification And Rehearing*, issued on April 20, 2007 in FERC Docket No. ER06-615 at ¶ 328.) Given the number of current and proposed initiatives to improve the quality of MRTU market solutions, CPUC staff believes that the stakeholder process to increase LAP granularity should await these more fundamental market improvements and reduce the potential for jurisdictional conflict.

6 31 Simultaneous RUC in IFM. *There is potential for market efficiencies, better handling of over gen conditions and potential elimination of market pass-by being able to simultaneously solve RUC and IFM.*

CPUC staff supports a high level designation for simultaneous RUC operation and emphasizes that a move to eliminate a price for RUC should be considered first or simultaneously.

The CPUC staff agrees that RUC integration is theoretically an important issue, from a practical stand point the CPUC staff believes that the level of effort required may be more than initially expected. The CPUC staff sees many other initiatives which may provide more substantial positive impacts, and in light of the recent developments in market operations addressing Exceptional Dispatch and RUC commitments staff believes this initiative should be lower on the list of high ranking issues. If new information indicates that this initiative will have substantial positive impact then we the CPUC staff may reconsider.

7 31 Multi-day unit commitment in the IFM. *Extending the commitment horizon may increase the efficiency of the commitment results and reduce cycling of resources **that may** improve reliability.*

CPUC staff believes this will have a greater impact on Market Efficiency than reflected in the ISO score, and should therefore be ranked in the top tier of initiatives. Staff believes that MP implementation impact maybe overstated, and actually be minimal.

Though this initiative may be problematic from an ISO software implementation perspective, CPUC staff believes many benefits will accrue from this initiative which may decrease the frequency of RUC and Exceptional Dispatches. This initiative and the Initial Conditions initiative are conceptually linked, and CPUC staff believes synergies may result between them and alleviate some of the transition from day to day as well as morning ramp issues experienced currently in the market.

8 31 DA schedule of intermittent resources.

The CPUC staff believes the DA scheduling of intermittent resources is an important issue which is needed to accurately reduce the imbalance and supplemental energy in real time. The CAISO should raise the importance of this issue in anticipation of the increase in the amount of state-mandated renewable resources. The CPUC would like to work with the CAISO and other stakeholders to better understand how the accurate intermittent 24 hour forecast could be used for the DAM to provide enough forecast certainty to schedule intermittent resources to minimize costs to consumers.

9 31 Ability to bid Start Up and Min Load in IFM.

The CPUC staff believes this initiative is ranked too high. There is not enough information at this time to determine any positive effects on market efficiency, nor determine to what extent market power abuses can be prevented. Therefore, staff believes this initiative is premature and potentially supplants other more worthy initiatives.

The CPUC staff believes that the recent changes to allow updating of Start Up and Min Load every thirty days is a significant step toward addressing the problems encountered with the six month update paradigm. Staff believes that the CAISO should take a wait and see attitude and evaluate the effects of the recent changes before embarking on this next round. If the CAISO considers taking up this initiative for more frequent bidding of Start Up and Min Load in the IFM a thorough review of potential market abuses must be undertaken and robust Local Market Power Mitigation measures should be implemented.

10 31 Weighted Least Squares method of CRR Optimization Algorithm.

11 30 Ramping Capacity Constraints.

The CPUC staff believes that addressing ramping capacity constraints should be elevated higher in the ranking because we believe that market participants desire this more than reflected in the CAISO score, and that market participant implementation impact may be less than moderate thus deserving a higher score for that criteria as well.

The benefits from improving ramping capacity are manifest throughout the market and the lack of adequate ramping has been the referred to as a major contributor to real time market volatility. Additionally, CPUC staff believes that improving ramping flexibility and capacity will have significant long term and corollary benefits on integrating renewable resources into the grid. Because of the symbiotic relationship with these other initiatives the CPUC staff believes this initiative and these others need to be evaluated together to maximize their synergies.

- [Rules to encourage dispatchability of Wind & Solar resources.](#)
- [DA schedule of intermittent resources](#)
- [AS for non- generation resources](#)
- [Enhanced DEC Market](#)

Because the market is still digesting many enhancements since Go-Live and many current initiatives are works-in-progress yet to be implemented we believe reserving this initiative as high level is justified to ensure it gets adequate attention in the near term. We understand that it may be premature to specifically identify ramping proposals, though we think it is desirable to continue to discuss and formulate ramping alternatives early as precursor to development of related initiatives and to maximize the synergies between them. The CPUC staff are very interested in ensuring that ramping capacity issues are resolved so that they do not become a deterrent to the integration of renewables according to schedule.

12 30 Modifications to market rules for DA Intertie Schedules.

The CPUC notes that the CAISO should bring this issue to the WECC Operating Committee's interchange, scheduling and accounting subcommittee and its e-tagging work group. Moreover, given that many of these e-tagging issues are at the interties these should also be noted in the WECC USF and SIS groups.

13 Late Addition Lossy/Lossless Shift Factors.

The CPUC staff believe that Lossy/Lossless shift factor initiatives needs further vetting before it receives high level ranking. Though it may be important, much more needs to be discussed and understood before we would raise it in the rankings. There are other issues which provide a more predictable outcome with greater potential impact.

14 Late Addition Expand Pool of Resources to IFM - Relax LMPM All Constraints Run.

The CPUC staff disagrees with elevation of this initiative to high level status. Though relaxing the LMPM All Constraints run may be relatively easy to implement, that alone may not recommend it as the best solution to the CFCD problem of under-forecasting load. The root causes negatively affecting CFCD accuracy need to be fully explored and understood to ensure the solution addresses causation.

The decision to use the LMPM bid pool came out of the stakeholder and MRTU design process. The rationale for limiting the pool of resources considered in the IFM in this manner is intended to avoid the potential for relatively high priced unmitigated bids to be dispatched which may set prices in the IFM.

The CPUC Staff agree with the original rationale for limiting the pool of resources based on the LMPM all constraints run, and the reasons for creating the bid pool out of the LMPM all constraints run still appear to have merit.

One of the contributing factors leading to high Day Ahead prices is believed to be that "a relatively extreme re-dispatch of resources" may be caused by significantly higher bid-in demand than the CFCD used to create the bid pool in the LMPM. The occurrence of significant divergences between the bid-in demand clearing in the IFM versus the CFCD used to create the LMPM bid pool appears to be relatively rare (Though CPUC staff notes it did occur recently on July 26th).

At this time there is not enough evidence to establish that a lower average IFM bid cost would result by eliminating the LMPM All Constraints limitation on the rare extreme day, nor that it

would offset the potential for an overall increase in average IFM bid costs for the vast majority of normal days.

The CPUC Staff understands the need to improve the systems to produce a more efficient and effective day ahead market. However, because design changes may have far reaching effects and unintended consequences the CPUC Staff supports a robust and thorough effort to analyze the risks and benefits. Until all other options are analyzed and evaluated to determine which achieves the desired objective, the CPUC staff feels it is premature to focus on this particular option and elevate it to high level in advance of other more worthy initiatives.

15 Late Addition Initial Condition Management - Transition IFM schedule over the midnight hour from one day to the next.

The CPUC staff believes this initiative is worthy of high level status and would like to see this initiative advanced upward in the high level category. We believe that significant benefits may be realized from this initiative and help alleviate another cause of RT market volatility surrounding the day over day turn from one IFM schedule to the next.

16 Late Addition RT Performance Issues.

The CPUC staff appreciate the inroads the CAISO has made in addressing market performance overall and specifically RT performance issues. We believe continued effort is required to address ongoing RT market volatility and view this as area as high level. We realize that this is a general initiative that reserves resources for addressing specific issues and solutions as they become clarified in the stakeholder process.

17 Late Addition AS for non-generation resources - Spin, Reg Up/Down.

CAISO is preparing to deal with increased renewable resource integration, direct bid-in Demand Response as ordered by FERC order 719, and the shut down of the once through cooling resources. In order to address these challenges, the CAISO must look to alternative, but no less reliable, means to provide AS. Currently the CAISO is conducting the 33 Percent Renewables Integration Study and the Participating Load Pilot. These projects will provide greater detail regarding the specific challenges and some potential resources. CPUC staff believes this item should receive at least a rating that would place it in the high priorities for the CAISO.

18 Late Addition Enhanced DEC Market.

19 Late Addition Exports allowed to participate in BCR.