

# Stakeholder Initiatives Catalog

## *Rankings*

Dated: November 5, 2013  
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### **Summary:**

Attached are the rankings of Calpine on our top five initiatives for the upcoming year. We appreciate the CAISO's consideration of our priorities.

In addition to the rankings, we submit that one of our ongoing and overall concerns is the absence of transparency to the operation of the CAISO and its models. While understanding that reliability may demand certain actions, we continue to be concerned about the use of non-priced constraints. We prefer to allow the CAISO to do what it needs to do to maintain reliability, but will continue to demand that it reveal its actions transparently, then find ways to put a price on its actions.

In this regard, we congratulate the CAISO for tackling the use of Minimum Online Capacity (MOC) constraints through the development of Contingency Modeling Enhancements. We support the continued development and implementation of this initiative but have not included this "In Progress" initiative on our list.

Nonetheless, MOCs will continue for reliability purposes unaddressed by CME and these MOCs and other devices (e.g., RUC commitments) place unpriced capacity and energy on the grid. As highlighted below, recent Market Performance and Planning meetings have begun to expose the volumes of unpriced minimum-load energy injected into the grid. Our rankings are greatly influenced by our interest in eliminating the price-suppressive effects of these actions.

**Initiative 1: Eliminate Unpriced Constraints**

		Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
			10	7	3	0	Use 0, 3, 7, or 10
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	10
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	X
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
						<b>Total</b>	<b>37</b>

**Grid Reliability** – If all constraints are priced, LMPs will reflect the true costs of serving load. This price transparency will encourage both existing and new resources to provide resources in the right locations.

**Improving Overall Market Efficiency** – Having all actions by the CAISO be reflected in prices will send the right consumption and conservation signals to load and production signals to resources.

**Market Participant Implementation Impact** – Immaterial changes to MP systems would be required.

**ISO Implementation Impact** – CAISO costs would depend on the solution selected.

**Initiative 2: Extended Pricing Mechanism**

		Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
			10	7	3	0	Use 0, 3, 7, or 10
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	10
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	X
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
						<b>Total</b>	<b>37</b>

One solution to the problem of unpriced constraints is to develop a modification to LMP that reflects the cost of units at Minimum Load. The CAISO has recently (last MPP Forum) begun to expose the amount of energy injected without price.

**Grid Reliability** – The number of units that are held at minimum load is likely to grow significantly in the future as renewable penetration increases. Price suppression, both in DA and RT will increase, threatening the viability of needed conventional resources.

**Improving Overall Market Efficiency** – Having all actions by the CAISO be reflected in prices will send the right consumption and conservation signals to load and production signals to resources.

**Market Participant Implementation Impact** – Immaterial changes to MP systems would be required.

**ISO Implementation Impact** – CAISO costs would depend on the solution/vendor/method selected. However, it is anticipated that this modification may or would be done as a post-processing step without costly intrusion into the LMP models.

**Initiative 3: Hourly BCR**

		Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
			10	7	3	0	Use 0, 3, 7, or 10
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	10
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	X
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
						<b>Total</b>	<b>37</b>

**Grid Reliability** – Further separation of BCR will encourage the continuous RT economic bids that are needed to meet the increasing demands for flexibility.

**Improving Overall Market Efficiency** – As opined by the MSC, separate decisions should be allowed separate BCR treatment in order to encourage independent and continuous bids.

**Market Participant Implementation Impact** – Immaterial changes to MP systems would be required.

**ISO Implementation Impact** – CAISO development cost would be limited to settlements functions.

**Initiative 4: Modify Resource Adequacy Replacement Rules**

		Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
			10	7	3	0	Use 0, 3, 7, or 10
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	5
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	X
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
						<b>Total</b>	<b>35</b>

**Grid Reliability** – RA replacement rules do not necessarily impact reliability and changing an illogical replacement rule can be done with no reliability impact.

**Improving Overall Market Efficiency** – Forcing a resource that is sold as system to replace with a local resource (if LCR tables show it to be a local resource) creates efficiency, equity and fairness concerns.

**Market Participant Implementation Impact** – Immaterial changes to MP systems would be required, but risk to sellers and costs to buyers would be reduced.

**ISO Implementation Impact** – Immaterial changes to RA deficiency modeling may be required.

**Initiative 5: Data Transparency**

		Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
			10	7	3	0	Use 0, 3, 7, or 10
A	Benefit	Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	7
B		Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	X
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	9
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	8
						<b>Total</b>	<b>34</b>

**Grid Reliability** – More transparency on grid operating conditions will improve situational awareness on the part of Market Participants.

**Improving Overall Market Efficiency** – Knowing grid conditions, such as operating limits, constraint values and transmission outages during or before real time will improve the understanding and reaction to price movements.

**Market Participant Implementation Impact** – Immaterial changes to MP.

**ISO Implementation Impact** – Changes to OASIS or other reporting systems may be required.