



Stakeholder Comments

CAISO Stakeholder Catalog and Roadmap

November 17, 2015

Submitted by	Company	Date Submitted
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CESA appreciates the opportunity to comment on the CAISO's 2017 Stakeholder Initiatives Catalog process. CESA offers both general comments as well as comments in response to the CAISO's proposed rankings for discretionary items, as published in the November 3, 2016 Stakeholder Meeting Slides.¹

CESA represents 70+ companies engaged in the energy storage industry, including large developers, small developers, manufacturers, software and support providers, etc.

1. Lowering the bid floor should be ranked and pursued right away.

The CAISO's process for lowering the negative bid floor is opaque. For instance, it appears the CAISO has full discretion of when to pursue this change – stakeholder input should guide the process instead. Thus, the process should be clarified and listed as a priority item, which it is to CESA.

As a discretionary item, the initiative would rank very high. The recent stakeholder proposal listed numerous market efficiency benefits. Many but not all stakeholders support the initiative. The change will improve grid reliability. The market implementation costs will be de minimus, as will be the implementation costs for market participants.

¹ http://www.caiso.com/Documents/Agenda_Presentation_Draft2017PolicyInitiativesRoadmap.pdf

CESA recommends the CAISO list the following scoring for Lower the Bid Floor

Initiative	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Market Participant Implementation (\$ and Resources)	ISO Implementation (\$ and Resources)	Total
Neg. Bid Floor	7	10	7	10	10	44

Finally, as stated in previous comments², the current bid floor creates a barrier to resources seeking to participate in CAISO markets. FERC’s new Notice of Proposed Rulemaking (NOPR), Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators³ directs the elimination of barriers to market participation by energy storage. A bid floor change will likely be necessary for allowing full access.

2. Pay for Performance Regulation should score higher.

CESA agrees that Pay for Performance reforms are needed.⁴ In 2017, the CAISO increased procurement of regulation, and it remains clear that the CAISO’s current design may not

² See CESA’s Comments on the ESDER Initiative Phase 2, <http://www.aiso.com/Documents/CEsAComments-EnergyStorageandDistributedEnergyResourcesPhase2-SecondRevisedStrawProposal.pdf>

“Negative Bid-Floor rules should be lowered to -\$300 or lower to accommodate the costs of PDR resources. Many PDRs may seek to sell services to the CAISO market. In some cases the costs of these services could exceed the limit currently established as the CAISO’s negative bid-floor. It would be unreasonable for the CAISO to prevent participation by prohibiting resources from reflecting their costs. The negative bid-floor should thus be lowered significantly, e.g. to \$-300/MWh or lower. For symmetry with the bid cap, the bid floor should be set at -\$1000/MWh.

Consider a PDR resource seeking to increase its load by 1 MW for an hour in response to CAISO dispatch. Such a resource would face a retail energy settlement of 1 MWh. Roughly assuming a retail rate of \$.25/kWh, such a resource would have actual costs of \$250/MWh. These costs would be represented as -\$250/MWh in the CAISO’s market. A key barrier to this resource is the current bid floor limit of -\$150/MWh. The bid-floor limit is thus unreasonable.

It is reasonable to consider the timing of when retail energy users may need to increase energy consumption to support CAISO grid needs, e.g. during periods of over-generation. Under some retail rates, even off-peak periods can have high rates. As just one example, a PG&E TOU rate can have an off-peak rate of \$0.37400 cents/kWh if consuming over 200% of Baseline. Further, on peak rates, which may not reflect overgen conditions, can have costs of \$0.56171 cents/kWh. A Negative bid-floor of -\$300 is likely too low. http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDULES_E-6.pdf. The CAISO should look to Commercial and Industrial rates, such as PG&E’s A-6 rate, for more information.

Other benefits to a lower bid-floor exist. CESA and others have advanced efficiency-related arguments in favor of a lower negative bid-floor in the CAISO “Self Schedules Bid Cost Recovery Allocation and Bid Floor Initiative”. CESA believes that rules that prevent a resource from reflecting its costs and competing in CAISO markets may be discriminatory and should be avoided, especially when such resources may also provide market liquidity, competitiveness, and efficiency. The CAISO has a good record of pursuing robust market designs and this proposed change will fit with this pattern, relying on key guiding principles to ensure its markets promote both efficiency and non-discriminatory access.

³ FERC RM 16-23-000, AD 16-20-000, November 17, 2016.

⁴ See comments of ARES

adequately allow for the procurement of *fewer* MWs of Regulation if resources are faster and more accurate, in line with an intent of FERC Order 755. With more renewables coming online, an apparent driver for the increased regulation procurement, as well as extremely low accuracy scores from many regulation resources, further inefficiently high procurement levels are expected.

Changing the Pay for Performance procurement structure to apply an accuracy adjustment to both capacity and mileage is a simple enhancement that could be accomplished quickly.

CESA therefore recommends Pay for Performance score

Initiative	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Market Participant Implementation (\$ and Resources)	ISO Implementation (\$ and Resources)	Total
Regulation Pay for Performance Enhancement	3	7	3	10	10	33

3. CESA supports Day Ahead Procurement of Flexible Ramping Capacity

The CAISO’s DAM should yield a realistic solution for operating the grid. To the extent that the DAM solution lacks needed ramping capabilities, e.g. for intrahour variability and uncertainty, the DAM solution will be inaccurate with high certainty. CESA believes this work should begin now, rather than waiting on information regarding the real-time performance of FRP. A key question should be DAM to Real-Time price divergence based on the lack of intrahour ramping constraints in the DAM.

Initiative	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Market Participant Implementation (\$ and Resources)	ISO Implementation (\$ and Resources)	Total
DAM FRP	3	10	7	10	7	37

4. Rescoring GIDAP updates to allow for more reasonable assumptions for energy storage charging is needed.

The CAISO’s GIDAP process should allow for studies of energy storage interconnections with reasonable expectations of charging and discharging. An assumption that energy storage resources will charge at peak times is unreasonable, and creates excessive costs for energy storage interconnections. CESA recommends the following scoring for this initiative.

Initiative	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Market Participant Implementation (\$ and Resources)	ISO Implementation (\$ and Resources)	Total
GIDAP reforms for energy storage charging	3	3	7	10	10	33

5. CESA supports Extended Pricing Mechanisms which should have improved scoring as a discretionary initiative

Extended pricing mechanisms can improve commitment decisions overall market efficiency. CESA believes extended pricing will also reduce uplifts and improve the meaningfulness of LMP pricing. CESA recommends higher scoring for this initiative, and CESA supports it.

Initiative	Grid Reliability	Improving Overall Market Efficiency	Desired by Stakeholders	Market Participant Implementation (\$ and Resources)	ISO Implementation (\$ and Resources)	Total
Extended Pricing Mechanisms	3	7	7	7	3	27