

Discretionary Initiatives High Level Ranking Template

Instructions

Please use this template to rank your top five discretionary market design initiatives.

1. Select five market design initiatives¹ from the October 17th version of the Stakeholder Initiatives Catalog.
2. Provide the name of the initiative.
3. In the “High Level Prioritization Criteria Matrix” provide a score of 0, 3, 7, or 10 for each of the four criteria in green boxes.
4. Provide a total tally of your score for each initiative.
5. Below the matrix, provide detailed explanations for each criterion using as much space as you need. Providing a rationale for the ranking and considering these initiatives over others is critical to this ranking process. Since dollar and resource estimates are understandably approximate at this level, the qualitative discussion will be given more emphasis. Similarly, the numerical rankings are informative and may help to organize discussion but the qualitative information will be critical for the ISO as we compare initiatives.

¹ Infrastructure and planning initiatives will not be ranked as they are considered separately and there are only two discretionary initiatives.

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NRG Energy, Inc.'s ("NRG's") comments are in **bold blue text**.

Initiative 1: 8.3 – Multi-year forward capacity pricing mechanism

High Level Prioritization Criteria Matrix

		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	
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	3
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	0
						Total	23

Grid Reliability (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

Ensuring that existing resources that are need to meet reliability needs more than a single year out will bolster grid reliability.

Improving Overall Market Efficiency (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

Clearing capacity requirements through a centralized mechanism will provide additional transparency regarding capacity and flexibility requirements.

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Market Participant Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

Market participants must set up systems to facilitate participation in the clearing mechanism (submitting offers, reporting bilateral transactions, arranging for and verifying settlements).

ISO Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

NRG expects the CAISO will have to implement, operate and maintain this clearing mechanism for both the CPUC-jurisdictional entities and the non-jurisdictional entities subject to its tariff, so NRG expects the impact on CAISO systems will be substantial.

The proposed ranking score for this issue – only 23, though NRG holds that the benefits of this initiative would be substantial - highlights the skewed nature of the CAISO's ranking system. "The "0" and "3" scores for implementation that reflect the expectation that a centralized multi-year forward procurement mechanism will require significant implementation effort by the CAISO and market participants Those implementation scores will, in effect, counter and dilute the high scores for grid reliability and market efficiency. Where an initiative has substantial benefits, the fact that it requires significant implementation efforts on the part of the CAISO or market participants should not unduly dilute its ranking score. For example, one could argue that the implementation of the nodal market would have only scored a 20 in this ranking process, as the presumed "10" rankings for reliability and market efficiency would have been offset by the "0" rankings reflecting the significant amount of implementation effort required by both market participants and the CAISO.

Initiative 2: 3.10 - Incorporating Pricing of Minimum Online Non-Modeled Constraints and the Effect of Exceptional Dispatch into LMPs

High Level Prioritization Criteria Matrix

		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	7

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C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	
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	3
						Total	27

Grid Reliability (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

While this effort likely will not change the actions that the CAISO takes to ensure reliability, it should help produce market prices that reflect those actions. Producing market results and prices that reflect the CAISO's reliability actions was one of the key justifications underlying the implementation of the CAISO's nodal market.

Improving Overall Market Efficiency (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

See above.

Market Participant Implementation Impact (\$ and resources) (provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –

This effort should have little or no market participant implementation costs.

ISO Implementation Impact (\$ and resources) (provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –

This effort likely imposes moderate to significant CAISO implementation costs.

Initiative 3: 11.7 - Data Transparency

High Level Prioritization Criteria Matrix

	Criteria	HIGH	MEDIUM	LOW	NONE	Your Score
		10	7	3	0	Use 0, 3, 7,

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							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	7
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	
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	3
						Total	27

Grid Reliability (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

Additional information on actions the CAISO must take to maintain grid reliability will help market participants understand the CAISO's needs and provide the CAISO with the reliability tools needed.

Improving Overall Market Efficiency (provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –

Additional information on reliability actions and their impact on prices will make the CAISO's prices more meaningful and help signal the need for investment in certain areas.

Market Participant Implementation Impact (\$ and resources) (provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –

No impact.

ISO Implementation Impact (\$ and resources) (provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –

Providing additional information will impose a time and dollar cost on the CAISO, though it is not clear what those costs will be.

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Initiative 4: 5.4 - 30-minute operating reserve

High Level Prioritization Criteria Matrix

		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	
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	3
						Total	30

Grid Reliability *(provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –*

Mandatory reliability standards require the CAISO to relieve transmission overloads in 30 minutes. The CAISO has steadfastly refused to procure additional ten-minute reserves to address its 30-minute need for dispatchable generation. Moreover, the CAISO recently acknowledged that it uses exceptional dispatch to position resources at their minimum dispatchable levels so those units can respond to address overloads following a contingency. A 30-minute reserve product could reduce the need for ongoing exceptional dispatch.

Improving Overall Market Efficiency *(provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –*

Market efficiency improves whenever the CAISO can use market products, instead of out-of-market actions, to maintain grid reliability.

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Market Participant Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

Market participants will have to modify their systems to be able to bid and settle this new product.

ISO Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

Creating a new reserves product will likely entail significant CAISO effort and cost.

Initiative 5: 11.9 – Rescheduled Outages

High Level Prioritization Criteria Matrix

		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	7
C		Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
E		ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	3
						Total	27

Grid Reliability *(provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –*

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Generators must take maintenance outages to maintain the availability of their resources. Having the CAISO move or cancel outages affects generators ability to take outages and imposes a financial risk. Addressing this risk will promote grid reliability.

Improving Overall Market Efficiency *(provide a detailed explanation of how and why this initiative provides an improvement in grid reliability) –*

Reducing the financial risk of moving or cancelling outages should reduce the need to reflect this risk in RA contracts, which could lower RA prices.

Market Participant Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

If the CAISO provides compensation for moving outages of RA units, market participants will need to be able to settle those charges and payments.

ISO Implementation Impact (\$ and resources) *(provide a detailed explanation of what you expect the impact to be in terms of \$ and resources) –*

The CAISO will need to modify its settlement systems to collect and disburse moneys to market participants.