#### Instructions

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

- 1. Select five market design initiatives<sup>1</sup> from the November 5, 2013 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.

#### Comments from:

Name	Company	Date Submitted		
Brian Theaker	NRG Energy, Inc. ("NRG")	November 22, 2013		

#### **Initial Comments:**

1. In the October 3 draft of the Stakeholder Initiatives Catalog ("SIC"), the CAISO included Voltage Support procurement in initiative 5.2 ("Blackstart, Voltage Support and System Restoration") and classified this combined initiative as "In-progress and FERC-mandated". However, in the November 5 version of the SIC, the CAISO segregated Voltage Support to its own initiative (6.7) and classified this initiative as "Discretionary". Further, in the November 5 SIC the CAISO listed this initiative among the twelve initiatives suggested to be deleted.

While FERC's June 11, 2013 Order in ER13-1274 (143 FERC ¶ 61,228) did not expressly direct the CAISO to initiate a stakeholder process regarding voltage support procurement, it would be hard to interpret FERC's language as expressing support either for the CAISO deleting this initiative or for indefinitely deferring a stakeholder process with regards to voltage support procurement:

<sup>&</sup>lt;sup>1</sup> Infrastructure and planning initiatives will not be ranked as they are considered separately and there are only two discretionary initiatives.

"However, we note that in CAISO's June 22, 2009 status report, CAISO stated that it would initiate a stakeholder process on the market-based procurement of voltage support outside of exceptional dispatch once it had obtained several additional months of data. After nearly three additional years of market operation, we expect that CAISO has sufficient information to reinitiate the stakeholder process on the market-based procurement of voltage support. If CAISO has new information suggesting that a long term solution for procuring voltage support outside of exceptional dispatch is no longer necessary, CAISO should file an updated report with the Commission."

Consequently, this initiative should be re-classified as FERC-mandated. NRG will not rank this initiative among its top five initiatives even though NRG strongly supports moving forward with this initiative.

2. Similarly, in the November 5 SIC, the CAISO has classified initiative 9.8 – Use-Limited Resource Adequacy Criteria and Must-Offer Obligation - as Discretionary, even though the CAISO noted that it intended to respond to FERC's long-standing directive to apply the Standard Capacity Product rules to demand response as soon as possible as part of this initiative. For this reason, this initiative should also be classified as FERC-mandated. Because this initiative should be classified as FERC-mandated, NRG will not rank this initiative among its top five initiatives even though NRG also supports moving forward with this initiative.

NRG's ranking of its top five initiatives follows.

### **Initiative 1: Eliminate Unpriced Constraints (4.7) / Extended LMP (4.9)**

#### LOW **NONE Your Score** HIGH **MEDIUM** Criteria Use 0, 3, 7, 3 10 7 0 or 10 7 Significant Moderate Minimal No **Grid Reliability** Improvement **Improvement** Improvement Improvement Improving Overall Significant Moderate Minimal 10 **Benefit** No impact Market Efficiency improvement improvement improvement Desired by a Universally Desired by Desired by small subset No apparent desired by majority of Stakeholders of desire stakeholders stakeholders stakeholders

#### **High Level Prioritization Criteria Matrix**

D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E	Fea	ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	0
							27

While the CAISO has listed these as separate initiatives, NRG combined these initiatives into a single initiative. The goal is the same: to move the true cost of reliably operating the CAISO Controlled Grid into transparent prices and away from non-transparent uplifts. On its own, eliminating un-priced constraints would not accomplish this goal if doing so simply resulted in additional unit commitments at minimum load. Similarly, extended LMP, on its own, would no accomplish this goal if the CAISO continued to manage constraints outside of market mechanisms.

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

This initiative will not likely improve grid reliability *per se*, as it does not envision implementing or enforcing reliability constraints that are not already enforced. What this initiative is intended to do is to increase the number and quality market price signals that result from the enforcement of constraints. To the extent that these improved market price signals result in improved reliability, this initiative may improve reliability, but that would be a secondary effect.

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

This initiative will increase the number and quality of market price signals that result enforcing constraints. This, in turn, will decrease uplift costs and improve market efficiency.

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

This initiative is unlikely to have a significant impact on market participant expenditures and resources.

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

This initiative is likely gong to require significant CAISO resources and expenditures, as it will require significant modifications to the CAISO's market optimization software.

# **Initiative 2: Hourly Bid Cost Recovery (4.11)**

#### **High Level Prioritization Criteria Matrix**

			HIGH	MEDIUM	LOW	NONE	Your Score
		Criteria	10	7	3	0	Use 0, 3, 7, or 10
Α		Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	3
В	Benefit	Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
С	Be	Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	$\times$
D	-easibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E	Fea	ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	3
							26

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

Market participants may be more willing to submit more moderate real-time offers to provide balancing energy if they expect that profits they earn in some real-time hours will not be siphoned away to pay BCR in other hours. Additional balancing energy offers will improve the depth of the CAISO's balancing energy market, which would improve the CAISO's ability to respond to real time balancing needs, which would in turn improve reliability.

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

Again, market participants may be more willing to submit more and more moderate real-time offers to provide balancing energy if they believe that profits they earn in some hours will not be siphoned away for BCR payments in other hours. This may improve market liquidity, and, correspondingly, market efficiency.

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

There should be little implementation impact on market participants.

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

This initiative, which would significantly impact the CAISO's market settlement systems, is likely to require substantial CAISO effort and resources.

### **Initiative 3: Improved Transparency (12.8)**

#### **High Level Prioritization Criteria Matrix**

			HIGH	MEDIUM	LOW	NONE	Your Score
		Criteria	10	7	3	0	Use 0, 3, 7, or 10
A		Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	7
В	Benefit	Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	7
С	Be	Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	$\times$
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	10
E	Fea	ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	3
							27

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

Competitive markets thrive on information. Improved information about how the CAISO markets address reliability issues would allow market participants to better respond to CAISO needs,

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

Competitive markets thrive on information. Improved information about how the CAISO markets address reliability issues would allow market participants to better respond to CAISO needs, which would improve market liquidity and market efficiency.

**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 to market participants.

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

Minimal to moderate impact to CAISO systems (in creating the reporting structures).

#### **Initiative 4: Preferred Resource Operating Characteristics (9.2)**

#### **High Level Prioritization Criteria Matrix**

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

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

With the CAISO, CPUC and CEC proposing that half of the resources that are projected to be needed to replace SONGS and the retiring OTC units be preferred resources, it is essential that all parties – the system operator, load-serving entities and the market participants that will be competing to provide these resources - clearly understand how preferred resources will count towards meeting local capacity requirements and how overall reliability will be maintained under a greater reliance on preferred resources.

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

Understanding how preferred resources count towards meeting reliability needs will result in more efficient and effective procurement of such resources.

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

While there will likely be significant impact in terms of resources during the policy phase of this initiative, the CAISO *implementation* costs are likely to be small.

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

While there will likely be significant impact in terms of resources during the policy phase of this initiative, the market participant *implementation* costs are likely to be small.

#### **Initiative 5: Modify Resource Adequacy Rules (9.3)**

#### **High Level Prioritization Criteria Matrix**

			HIGH	MEDIUM	LOW	NONE	Your Score
		Criteria	10	7	3	0	Use 0, 3, 7, or 10
A		Grid Reliability	Significant Improvement	Moderate Improvement	Minimal Improvement	No Improvement	0
В	Benefit	Improving Overall Market Efficiency	Significant improvement	Moderate improvement	Minimal improvement	No impact	10
С	Be	Desired by Stakeholders	Universally desired by stakeholders	Desired by majority of stakeholders	Desired by a small subset of stakeholders	No apparent desire	$\times$
D	Feasibility	Market Participant Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
E	Fea	ISO Implementation Impact (\$ and resources)	No Impact	Minimal Impact	Moderate Impact	Significant impact	7
			Total	24			

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

This initiative should have no impact on grid reliability. The CAISO will still have the ability to acquire local area resources as needed.

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

Currently, the CAISO's requirement that resources within local RA areas that are sold as system RA must be replaced by local resources. Given the disparity between local and system RA process, and further given that this requirement effectively provides RA buyers with an attribute for which they did not pay, eliminating this requirement should improve market efficiency by better aligning the product obtained with the price paid.

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) –

NRG does not expect that this initiative would require any changes to CAISO systems, though it would require changes to CAISO – and LSE procurement – practices.