Stakeholder Comments Template

Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements fourth revised straw proposal that was published on March 17, 2020. The proposal, stakeholder meeting presentation, and other information related to this initiative may be found on the initiative webpage at: http://www.caiso.com/StakeholderProcesses/Resource-Adequacy-Enhancements

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on April 14, 2020.

<table>
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<tr>
<th>Submitted by</th>
<th>Organization</th>
<th>Date Submitted</th>
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<tbody>
<tr>
<td>Steve Greenleaf (916) 802-5420</td>
<td>Brookfield Renewable Trading and Marketing LP (Brookfield)</td>
<td>April 14, 2020</td>
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Please provide your organization’s overall position on the RA Enhancements fourth revised straw proposal:

- [ ] Support
- [ ] Support w/ caveats
- [ ] Oppose
- [ ] Oppose w/ caveats
- [ ] No position

Please provide your organization’s comments on the following issues and questions.

1. **System Resource Adequacy**

   Please provide your organization’s feedback on the System Resource Adequacy topic as described in section 4.1. Please explain your rationale and include examples if applicable.

   Brookfield is generally supportive of the CAISO’s proposal to transition to an unforced capacity RA regime and agrees that such a regime will support the procurement of reliable resources to provide RA and will permit the CAISO to eliminate, or reduce reliance on, the existing RA availability incentive mechanism and the related complex resource substitution rules. Brookfield supports continued consideration of the UCAP concept, subject to the development of further details by the CAISO and a clearer
assessment of the impact on existing RA contracts and the balancing of benefits and burdens between load-serving entities and RA suppliers.

a. Please provide your organization’s feedback on the System RA Showings and Sufficiency Testing topic as described in section 4.1.1. Please explain your rationale and include examples if applicable.

No comment.

b. Please provide your organization’s feedback on the Planned Outage Process Enhancements topic as described in section 4.1.2. Please explain your rationale and include examples if applicable.

No comment.

i. Please provide your organization’s feedback on when bids should be submitted and how and when they could be changed under Option 2: CAISO procures all planned outage substitution capacity, and what are the implications of doing so under any proposed option.

No comment.

ii. Please provide your organization’s feedback on whether or not the Planned Outage Substitution Capacity Bulletin Board is necessary and, if so, why given the effort to develop and maintain.

No comment.

c. Please provide your organization’s feedback on the RA Import Provisions topic as described in section 4.1.3. Please explain your rationale and include examples if applicable.

Brookfield opposes certain elements on the CAISO’s import RA proposal. Brookfield recommends that any new import RA rules be balanced and not adversely – and unnecessarily – impact market liquidity. Brookfield recommends a blended approach where load-serving entities (LSEs) can continue to rely on a suite of products to satisfy their RA obligations while providing the CAISO with the confidence that supply will be available when needed. Specifically, Brookfield does not support the CAISO’s proposal to prohibit firm energy contracts from counting as import RA resources and to require firm transmission from source to sink.

Use of Firm Energy Contracts

With respect to firm energy contracts, Brookfield recommends that Western System Power Pool (WSPP) Schedule C firm energy contracts – which are backed by operating reserves – continue to count as import RA resources (in contrast WSPP Schedule B contracts are resource-specific and thus unit contingent). WSPP Schedule C contracts
are a reliable source of RA and are more reliable than buying RA from a single generator because they are firm and have liquidated damages provisions, which means that if the initial supply source of the firm energy goes offline, the seller must replace that capacity or face penalties. In contrast, an RA contract with a single generator is less reliable because if the generator is forced out, it may be unwilling or unable to replace any related energy on an hourly basis. California LSEs and import RA suppliers have successfully used these contracts to satisfy their RA commitments and deliver firm supply to California. A strict prohibition on the use of these contracts to supply RA would reduce supply and liquidity in the market, which could unnecessarily increase import RA prices and costs and may exacerbate concerns about system-level market power. As with many aspects of the RA program (e.g., use of energy- or use-limited resources consistent with the maximum cumulative capacity (MCC) buckets), use of a diversified portfolio of resources is necessary and appropriate both to ensure reliability at reasonable prices. Energy contracts imported at the CAISO interties are an important element and, based on the CPUC’s analysis, represent a significant amount of the existing import RA. At a minimum, firm energy contract should be allowed to satisfy a portion of an LSE’s RA requirements so long as the energy is not sourced from within the CAISO and the source is identified in the day-ahead timeframe via an E-tag.

In addition, today, LSEs and import RA suppliers use WSPP Schedule C firm energy contracts to satisfy both firm RA and renewable/low-carbon energy requirements. Prohibiting firm energy contracts from counting as RA will increase procurement costs, increase the contracting burden on parties, and will likely strand existing contract value (or necessitate a burdensome grandfathering regime). Relying on the very liquid market for these products (WSPP Schedule C) is not a risk and is a cost-effective approach to ensuring California has adequate access to firm supply. The CAISO and certain stakeholders have at times referred to the capacity market rules in place in the Eastern ISOs/RTOs. However, an important consideration is that these markets rely on centralized capacity markets wherein market participants – both load-serving entities and suppliers – have access to a fairly liquid source of capacity and the rules between regions are more easily coordinated. In contrast, the LSEs in California and import RA suppliers have traditionally – and successfully – relied upon an industry-standardized product that is traded across the CAISO and bilateral markets. Restricting use of that existing RA product would reduce import RA supply and while the CAISO states that LSEs could still use firm energy contracts for energy hedging purposes, unbundling the RA and energy attributes would unnecessarily increase costs.

**Firm Transmission Requirement**

Similar to the proposed prohibition on firm energy contracts counting as RA, a source-to-sink firm transmission requirement is unnecessary and will limit the number of market participants able to provide import RA. Brookfield, as an import RA supplier that possesses certain firm transmission rights to the California border (NOB) is concerned that a full source-to-sink firm transmission requirement would unnecessarily restrict suppliers who have firm transmission rights to the California border from being eligible to sell import RA. It is Brookfield’s experience that forward (T-45 or prior) procurement of
firm transmission across the Pacific Northwest and Desert Southwest transmission systems is challenging since much of the transmission capacity is only made available closer to the operating day, after native load requirements have been assessed and the capacity released. Moreover, in more highly meshed networks like the Bonneville Power Administration’s transmission system, firm transmission is generally made available along multiple paths or flowgates closer to or in the operating timeframe (and thus is typically not a delivery constraint) whereas the direct paths to California are more subscribed. Thus, a full source-to-sink requirement in the T-45 or earlier timeframe is unnecessary and would limit participation in the import RA market.

Backstop Capacity Procurement Provisions

Please provide your organization’s feedback on the Backstop Capacity Procurement Provisions topic as described in section 4.2. Please explain your rationale and include examples if applicable.

Consistent with our above comments on the import RA issue, and for the reasons stated above, Brookfield opposes any rule that would prohibit non-RA firm energy contracts from qualifying to provide backstop capacity under the CAISO’s capacity procurement mechanism.

d. Please provide your organization’s feedback on the Capacity Procurement Mechanism Modifications topic as described in section 4.2.1. Please explain your rationale and include examples if applicable.

No comment.

e. Please provide your organization’s feedback on the Making UCAP Designations topic as described in section 4.2.2. Please explain your rationale and include examples if applicable.

No comment.

f. Please provide your organization’s feedback on the Reliability Must-Run Modifications topic as described in section 4.2.3. Please explain your rationale and include examples if applicable.

No comment.

i. Please provide your organization’s feedback on an appropriate availability incentive design to apply to RMR resources after the removal of the RAAIM tool.

No comment.
g. Please provide your organization’s feedback on the UCAP Deficiency Tool topic as described in section 4.2.4. Please explain your rationale and include examples if applicable.

No comment.

2. Please provide your organization’s feedback on the implementation plan, including the proposed phases, the order these policies must roll out, and the feasibility of the proposed implementation schedule, as described in section 5. Please explain your rationale and include examples if applicable.

No comment.

3. Please provide your organization’s feedback on the proposed decisional classification for this initiative as described in section 6. Please explain your rationale and include examples if applicable.

No comment.

Additional comments

Please offer any other feedback your organization would like to provide on the Resource Adequacy Enhancements fourth revised straw proposal.