



## Stakeholder Comments Template

### Resource Adequacy Enhancements

This template has been created for submission of stakeholder comments on the Resource Adequacy Enhancements third revised straw proposal that was published on December 20, 2019. 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](mailto:initiativecomments@caiso.com). Submissions are requested by close of business on **January 27, 2020**.

Submitted by	Organization	Date Submitted
<i>Dennis Cakert</i> <a href="mailto:Dennis@hydro.org">Dennis@hydro.org</a> 202-697-2404	<i>National Hydropower Association</i>	<i>January 27, 2020</i>

The National Hydropower Association (NHA) appreciates this opportunity to comment on the California ISO (CAISO) Resource Adequacy (RA) Enhancements third revised straw proposal issued December 20, 2019. This proposal considers methodologies for determining forced outage rates and unforced capacity value for thermal, hydropower and storage resources. The CAISO is also proposing modifications related to RA imports and flexible capacity. These provisions may influence the value and dispatch of hydropower as the CAISO seeks to enhance reliability and operability within a transforming, decarbonizing grid.

NHA represents more than 240 companies, from Fortune 500 corporations to family-owned small businesses. Our diverse membership includes public and investor-owned utilities, independent power producers, developers, equipment manufacturers and other service providers. As a national association, we have members across the country, including California and its neighboring states in the Southwest and Pacific Northwest. The treatment of hydropower in this proposal will affect our members.

A principle of CAISO's RA enhancement initiative is to ensure the program reflects the evolving needs of the grid. NHA agrees that "[g]reater resource accountability should produce market signals that promote procurement of better performing resources with improved operational reliability and availability."<sup>1</sup> As an emission free, flexible resource with nearly all the attributes necessary for a reliable and resilient electric grid, hydropower is well-positioned to support the

<sup>1</sup> CAISO Resource Adequacy Enhancements – Third Revised Straw Proposal, December 20, 2019. Page 16.

region's transition to a decarbonized system<sup>2</sup>. At the same time, hydropower can have some unique use limitations related to environmental operational constraints and seasonal water availability. CAISO's RA enhancements should reflect these constraints while recognizing the generally predictable and reliable nature of hydropower as a capacity resource.

**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 5.1. Please explain your rationale and include examples if applicable.

CAISO proposes to apply a seasonal availability approach for determining unforced capacity (UCAP) to hydropower resources that incorporates summer and winter availability factors and hourly availability during times of tight supply. The approach will incorporate historical derates and forced outages while excluding planned outages, force majeure outages and transmission outages.<sup>3</sup>

CAISO's approach to modeling hydropower at the project level (a bottom-up approach) as opposed to a top-down approach makes sense for hydropower resources. Assuming homogenous forced outage rates among a technology type, as a top-down approach would do, is not a good fit for hydropower because each project is unique. For example, individual projects can be subject to a wide array of environmental restrictions or operational limitations (ranging from insignificant to very significant) that affect their availability at any given time. Other projects may have a very low forced outage rate due to storage capacity or coordination benefits with other projects within a river system. The rate of forced outages related to mechanical issues could also vary widely depending on project age, unit type and rehabilitation status.

In addition, while the UCAP will be applied to storage resources, the proposal does not discuss pumped storage hydropower. NHA notes that pumped storage can have operational characteristics very different than battery storage. NHA requests CAISO work with NHA and other stakeholders to ensure pumped storage is properly evaluated from a Resource Adequacy perspective.

NHA suggests further discussion among hydropower operators, the CAISO and the California Public Utilities Commission around hydropower calculations, specifically the appropriate accounting mechanism to address loss of water due to drought or environmental restrictions. Further, additional detail around the interplay between UCAP calculations and the use of outage cards for use-limited hydropower resources would be helpful.

NHA supports the CAISO's proposal that provides run-of-river hydropower may, but is not required to, submit bids in the day-ahead market.<sup>4</sup> NHA views this approach as appropriately recognizing that some run-of-river hydropower has limited ability to bid into the day-ahead market while other run-of-river hydropower has predictable capability and should not be treated as intermittent

---

<sup>2</sup> Please see NHA's comments submitted on the CAISO's Resource Adequacy Revised Straw Proposal, July 24, 2019.

<sup>3</sup> CAISO Resource Adequacy Enhancements – Third Revised Straw Proposal, December 20, 2019. Page 17.

<sup>4</sup> Ibid. Page 38.

CAISO also indicates that it is considering potential provisions that limit opportunities to submit inaccurate forecasts for strategic purposes. NHA members would appreciate clarification around this proposal and look forward to identifying methodologies, in coordination with the CAISO and CPUC, that recognize inherent forecasting uncertainties without unduly penalizing hydropower for accommodating multiple uses.

The CAISO asks for stakeholder feedback on the use of NERC Generation Availability Data System (GADS) or CAISO Outage Management System (OMS) data for calculation forced outage and derate data. CAISO's proposal for the transition period appears reasonable, but ultimately, in order to reduce duplicative regulatory reporting requirements for market participants, the CAISO should consider aligning the OMS and GADS approaches wherever possible.

## **2. Flexible Resource Adequacy**

NHA generally supports the CAISO's proposal to connect forward procurement and market and operational needs into a single, flexible RA product. NHA also agrees that CAISO should align the proposed flexible RA product with the proposed imbalance reserve product in the Day Ahead Market Enhancement Initiative.

Of note, the CAISO's proposal would allow imports to provide flexible RA, provided it meets certain eligibility criteria.<sup>5</sup> NHA supports this change because it treats internal and external resources equitably. Hydropower is uniquely positioned to provide fast ramping and grid flexibility; this proposal may incentivize optimal dispatch. At this time, NHA has no additional comments regarding additional eligibility criteria.

## **3. Local Resource Adequacy**

No comments at this time.

## **4. Backstop Capacity Procurement Provisions**

No comments at this time.

### **Additional comments**

As outlined in our comments in response to the Revised Straw Proposal on July 24, 2019, NHA continues to support import RA requirements that weed out speculative supply by ensuring that import RA contracts are backed by actual physical resources. NHA does not have a position on whether or not resource specific requirements for RA imports are necessary.

---

<sup>5</sup> Ibid. Page 74.