ACC Comments on the CAISO's 2018-19 TPP Study Scope for Increased Capabilities for Transfers of Low Carbon Electricity between the Pacific Northwest and California Informational Study

April 25, 2018

The American Wind Energy Association California Caucus (ACC) appreciates the California Independent System Operator's (CAISO) efforts to conduct a Special Study to address the request from California Energy Commission (CEC) Chair Robert B. Weisenmller and California Public Utilities Commission (CPUC) President Michael Picker. As part of this Special Study, CAISO will explore near-term and long-term solutions which may allow for increased transfer capability and resource sharing between the Pacific Northwest and California. ACC supports consideration of various low carbon options to help the state of California with potential phase out of the Aliso Canyon storage facility, including the potential for clean energy resources physically located outside the CAISO to address system needs.

In the following sections, ACC provides comments on several components of the CAISO's Proposed Study Scope:

1. This study should be the first part of a broader Aliso Canyon phase out study which includes an assessment of various regional clean energy resources that could help address California's needs.
2. CAISO should include a sensitivity as part of the Study Scope which will serve to evaluate increased wind resources in the Pacific Northwest.
3. CAISO should engage in broader stakeholder outreach as the study scope is implemented.

This Study Scope Should be the First Part of a Broader Effort

ACC supports the California agencies in exploring various low carbon resource options to facilitate Aliso Canyon's potential phase out. The Study Scope provided by the CAISO offers a useful first step in the process. However, the scope of the current study is fairly narrow and, almost exclusively focused on hydro resources from the Pacific Northwest. Therefore, the study will not, on its own, provide sufficient information to determine if increased hydroelectric generation from the Pacific Northwest is the preferred method for supporting a phase out of Aliso Canyon.

This is a laudable first step in considering Aliso Canyon phase out options, but the CAISO and other California agencies should ensure that a variety of resource options, from a various of

locations are studied to help California in accessing the lowest cost, and most beneficial resources to support Aliso Canyon phase out. Before taking actions that require substantial investments, California agencies will need to study a number of possible options to help determine the best mix of generation and transmission to address Aliso Canyon phase out. It is likely that a mix of various resource types and geographic locations are best situated to achieve California's state policy goals in the most reliable and economical manner, while ensuring the greatest reduction in GHG emissions.

Going forward, the California agencies and the CAISO should continue to explore other resources, such as regional wind, which may also be able to assist in transitioning to new, zero-emission resources following Aliso Canyon phase out.

To the extent possible, the CAISO and other agencies should leverage previous study work in this evaluation. For instance, the resource assumptions and transmission additions studied for the CAISO's 50% RPS and ITP Study can be leveraged for use in a study that assumes Aliso Canyon phase out. These assumptions, once integrated and run through CAISO's models can help determine the benefits of regional wind. Similar studies should be performed for other resource and geographies which might be able to address Aliso Canyon phase out. To the extent possible, all studies should include the same methodology and valuation components - including quantification of the potential Resource Adequacy benefits - that the CAISO is proposing to use as part of this Special Study.

ACC looks forward to future study efforts at the CAISO, and elsewhere, to further explore various strategies and replacement resources to reliably and cost effectively phase out Aliso Canyon. A comprehensive assessment should be undertaken before any substantial investment decisions are made to facilitate increased transfers from Pacific Northwest hydro.

Sensitivities for Additional Wind

Wind energy frequently helps reduce the CAISO's total flexible capacity requirements (for example, see Table 4 of the CAISO's 2019 Local RA Needs study, which illustrates that wind reduces the need for flexible RA overall in most months).[1] ACC believes that, in addition to northwest hydro, other diverse renewable resources (both existing and new) may also help support California's needs arising from Aliso Canyon phase out.

For this study, CAISO has suggested that the base case will use the renewable resource assumptions contained in the Default Scenario. Additionally, CAISO has indicated it may run a sensitivity on the 42 MMT renewable resource portfolio. ACC suggests that, in addition to the

[1] Draft Flexible Capacity Needs Assessment for 2019, CAISO, April 2018, available at: http://www.caiso.com/Documents/2019DraftFlexibleCapacityNeedsAssessment.pdf

42 MMT scenario CAISO is considering, CAISO should also perform a study with additional renewable resources, especially incremental wind resources, in the Pacific Northwest. If additional transfer capability between California and the Pacific Northwest exists, it is likely that new (or repowered) wind generation in the Pacific Northwest may utilize some of that capacity.

Therefore, ACC strongly supports an additional sensitivity as part of this Special Study with additional renewable resources in the Pacific Northwest, in addition to the sensitivity on California's 42 MMT renewable portfolio. As discussed below, CAISO will likely need to expand its stakeholder outreach to secure the information necessary to properly conduct this sensitivity

More Diverse Stakeholder Outreach should be Conducted

ACC appreciates that the CAISO is already working with a large group of stakeholders in developing the details of the study. These stakeholders include: CEC, CPUC, Bonneville Power Authority (BPA), Los Angeles Department of Water and Power (LADWP), and Southern California Edison (SCE) and many other utilities.

ACC encourages the CAISO to engage in more diverse outreach to stakeholders, particularly in the northwest. A more diverse set of stakeholders will be critical to providing additional input on potential hydro availability and in exploring future generation resources in the Pacific Northwest. For example, CAISO should engage with the Northwest Power and Conservation Council (NPCC) on a variety of topics including hydro availability and resource adequacy of the Northwest, which may influence the ability of the northwest to share resources with CAISO. CAISO should also engage existing generation owners and developers with existing and planned renewable facilities in the Pacific Northwest. In particular, CAISO should conduct outreach to generators with assets that will age over the study period to assess the potential for repowers (particularly with wind owners in BPA's territory). This stakeholder outreach can help develop a case of increased wind generation in the Pacific Northwest which can be used to conduct the sensitivity case ACC recommended above.

In conclusion, ACC supports the CAISO's efforts and the collaboration of various stakeholders that is occurring to conduct the proposed study scope. ACC looks forward to the results of the study effort and to additional study efforts around Aliso Canyon phase out.

Sincerely,

Danielle Osborn Mills
Director, AWEA California Caucus
danielle@renewableenergystrat.com
(916) 320-7584