California Independent System Operator 250 Outcropping Way Folsom, CA 95630

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Eagle Crest Energy Comments on the 2018 Stakeholder Initiatives Catalog and Roadmap

Eagle Crest Energy ("ECE") appreciates this opportunity to comment on the CAISO's draft 2018 Stakeholder Initiatives Catalog ("Catalog"), Three-Year Roadmap (Roadmap), and 2018 Annual Plan").

ECE compliments the CAISO's efforts to craft a long-term stakeholder initiatives strategy to support market development in the CAISO footprint and throughout the WECC. The Catalog, Roadmap, and Annual Plan lay out a realistic path to help accomplish these objectives that balances the relative need for action with available CAISO and stakeholder resources.

ECE's specific comments support two proposed 2018 initiatives: (1) Storage as Transmission; and (2) Resource Adequacy (RA) Enhancements, Tracks 1 and 2. Both initiatives are important to long-term storage development as the CAISO seeks to manage higher Renewables Portfolio Standard (RPS) levels in the future.

Storage as Transmission initiative

This proposed initiative is motivated by: (1) FERC's January 2017 policy statement regarding utilization of storage resources for multiple services when receiving cost-based rate recovery; and (2) the need to consider storage roles, responsibilities, costs, and operation as a transmission facility to provide grid services under the CAISO tariff.

ECE supports inclusion of this initiative in the Annual Plan and the Roadmap. The issues flagged for consideration in this process are all relevant and appropriate.

ECE has just one suggestion – modification of the Roadmap to include a more definitive timeline for the process start and conclusion. While the Annual Plan shows the initiative commencing in the second quarter of 2018 and continuing through year-end, the Roadmap does not explicitly include implementation timing. More timing detail would be helpful to both the CAISO and stakeholders, to help them manage allocation of resources to this initiative.

RA Enhancements Track 1 – Separate Flexible RA Requirement

The Catalog and Roadmap include an RA Enhancements Track 1 item for a new or revised RA capacity assessment, to ensure procurement of resources to better meet CAISO operational needs. ECE's comments in the Flexible Resource Adequacy/Must-Offer Obligation Phase 2 ("FRAC-MOO2") initiative supported separation of the current full capacity deliverability assessment for resource adequacy from resource qualification to sell flexible capacity.

Specifically, the CAISO should develop separate qualification criteria for: (1) the current peak-demand-based RA deliverability assessments for Local and System RA, and the associated Net Qualifying Capacity ("NQC") values; and 2) the Flexible RA ("FlexRA") framework, and the associated Effective Flexible Capacity ("EFC") values.

If the CAISO does not implement these RA program changes in the FRAC-MOO2 process, it should do so through the RA Enhancements Track 1 initiative in 2018-9.

In the future, higher Renewables Portfolio Standard requirements will drive the need for increased amounts of renewables and energy storage, while increasing ramping needs and potential seasonal/hourly over-supply conditions. At the same time, lower load growth (due to greater energy efficiency and behind-the-meter distributed resources) will likely reduce the proportion of those new resources that must be fully deliverable to meet peak demands.

Explicit separation of RA requirements to meet peak demand from those to meet ramping and other operational needs would help ensure that the flexible resources the CAISO needs are procured, without the need to build costly transmission through the interconnection process that is not needed to serve load reliably. New and existing flexible Energy-Only and Partial Capacity Deliverability Status resources willing to assume must-offer obligations can provide the operating characteristics the CAISO needs for this purpose, regardless of whether they qualify to provide peak-based system or local RA capacity. In other words, FlexRA should serve operational requirements and performance metrics rather than a peak availability test.

RA Enhancements Track 1 – Full RA Credit for Energy Storage Resources

ECE's comments in the FRAC-MOO2 initiative also supported RA NQC and FlexRA EFC credit for the full operating range of energy storage facilities, including situations where there is a short transition time from charge to discharge mode (or vice versa).

As with the separate FlexRA/EFC requirement described above, the CAISO should incorporate this element into the RA Enhancements Track 1 initiative if it is not implemented in the FRAC-MOO2 process.

For a pumped storage project, this methodology would award RA/FlexRA credit to the entire pumping/generation range, because such projects can provide the CAISO operating benefits over that full range. A short transition between modes (simply the equivalent of a start-up time for the second mode) should not result in an NQC and/or EFC award that ignores half the value provided to CAISO markets and operations.

RA Enhancements Track 2 – Orderly Retirement of Older Fossil-Fuel Resources

The CAISO proposes in Track 2 a set of reforms – including multi-year RA requirements and a modified RA showing timeline – designed to ensure procurement of needed resources to transition to a low-carbon grid and enable orderly retirement decisions.

This multi-year approach is important for an orderly, cost-effective process to address distressed resources that may be required to assure reliability. A multi-year approach should assure that the resources required to maintain reliability and supplant fossil fuel resources – such as storage, transmission and new generation – are developed in a timely manner and in the locations required.