

COMMENTS OF EAGLE CREST ENERGY ON THE LARGE ENERGY STORAGE SPECIAL STUDY

March 3rd, 2017

Eagle Crest Energy (ECE) appreciates the opportunity to comment on the initial conclusions presented in the Large Energy Storage Special Study update (Update) and discussed at the February 28th Transmission Planning Process (TPP) meeting (Meeting). ECE recognizes the challenges of conducting a study of this nature to assess the benefits of large energy storage, given the uncertainties in the resource mix and the dynamics of the grid, as California approaches the current 50% renewable energy mandate and ambitious carbon goals (and considers higher future targets).

The Update covered work to date on this third large storage study the CAISO has conducted in the prior and current t TPP, and the first to consider a project larger than 500MW under a 50% RPS scenario. ECE supports the CAISO's efforts to assess and compare the benefits and costs of large storage facilities of different sizes.

ECE also supports the CAISO's plan to continue to refine the current study by using a range of feasible values for key assumptions, to provide a range or "bookend" cost and benefit estimates of large storage facilities. The CAISO should take the time necessary to build a solid set of analytics on the benefits of large storage projects (such as pumped storage), and consideration of a range of realistic assumptions will result in a study with durable and reliable conclusions.

This rigorous assessment is an important first step toward constructing a solid analytical framework that policy makers can use to decide on future development of large storage facilities. The size, cost, and long lead times of large storage projects, and the benefits that they can provide beyond those monetized in electricity markets, make them difficult to sponsor by any one entity. Thus, approval and construction of such facilities will likely have to result from larger policy decisions.

ECE is concerned, however, the CAISO may feel obligated to include study results in the final 2016-2017 Transmission Plan (Plan), given the firm TPP timelines, despite the incomplete status of the study. Despite the CAISO staff's considerable expertise and hard work, the study results presented at the Meeting were apparently completed very shortly beforehand, and they provided system-level benefits estimates based on only one set of assumptions (not ranges or "bookends").

Those assumptions did not seem to be fully supported by CAISO staff, may be inconsistent with other TPP study results (e.g., 50% RPS Special Study estimates of significant potential renewables curtailments), and showed much smaller benefits estimates than the Bulk Energy Storage Special Study supplement issued just last fall.

Moreover, the summary information provided at the Meeting, and the very short deadline for these comments (just three days later), do not allow a meaningful opportunity for stakeholder review and comment on that information. Likewise, the CAISO will not have sufficient time for careful consideration and incorporation of any such input by the current March 31st deadline for completion of this year's TPP cycle and issuance of the final Plan.

For these reasons, ECE suggests that the study results presented on February 28th not be included in the Plan, and that the CAISO's work in this area continue separate from the TPP during 2017. Specific recommendations are given below.

Recommendations

- **Remove the Large Energy Storage Special Study from the TPP**, by excluding the study results presented on February 28th from the final 2016-2017 Transmission Plan.
- **Continue this work outside the TPP framework through 2017 in a separate stakeholder process.** This work would include refining the study assumptions and analytical framework to develop a range of benefits or “bookend” estimates needed to support policy decisions on large-scale storage. These assumptions should be consistent with available public information and vetted in the stakeholder process. ECE is prepared to provide technical information in the coming weeks.