Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments in the Energy Storage Interconnection stakeholder initiative.

Submit comments to <a>EnergyStorage@caiso.com

Comments are due April 14, 2014 by 5:00pm

The presentation discussed during the April 7 stakeholder meeting may be found at:

http://www.caiso.com/Documents/Agenda-Presentation-EnergyStorageInterconnectionApr7_2014.pdf

The ISO is requesting that stakeholders provide comments in one or both of the following two subject areas:

- Issues and/or questions of more immediate concern relating to the submission of interconnection requests in the Cluster 7 application window. To the extent possible, the ISO will seek to address such issues/questions prior to the close of the Cluster 7 application window (i.e., prior to April 30).
- Policy issues that may require more comprehensive examination through this initiative. As a reminder, policy issues relating to interconnection of energy storage to the ISO controlled grid are within the scope of this initiative. In contrast, interconnection below the ISO controlled grid, and market and rate issues, are examples of subject areas <u>not</u> within the scope of this initiative.

To aid the ISO in differentiating between comments in these two subject areas, please insert your comments under the appropriate heading below. Thank you.

<u>Issues/questions of more immediate concern relating to the submission of interconnection</u> <u>requests in the Cluster 7 application window:</u>

Category 1

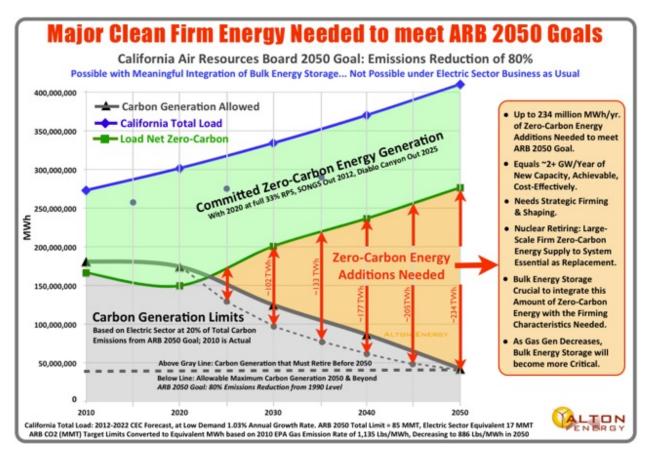
- A. A primary concern is that when we file an Interconnection Request into Cluster 7 that CAISO faithfully studies our request in a fair and appropriate manner, consistent with the Policy Need for Large Scale Bulk Energy Storage in California. It is inappropriate to take and use a \$250,000 Study Deposit and not perform a reasonable Study consistent with Policy Needs for such Energy Storage, along with FERC and CPUC guidelines.
- B. Splitting of the Generation and Load Absorption Portions into two separate Studies is totally inappropriate and a breach of proper steps to meet Policy Goals. Large Bulk Energy Storage located electrically near larger Variable Preferred Resources should be studied in Cluster 7 to utilize the Full Transmission Capacity of those resources already Studied for those resources, because the Policy Purpose of the Bulk Energy Storage in such locations is to make reliable and dependable the GHG Free Energy from those resources, not to expand upon or increase the GHG Free Energy Capacity from such electrically close facilities.
- C. In Cluster 7, Bulk Energy Storage located electrically close, such as at the same major substations as the Variable Preferred Resources should be studied as Absorbing the Over Generation of the Variable Resources, or of other Resources at times when the Variable Resources are Operating at or near their maximum capacity. Then, the Bulk Energy Storage should be Studied as Delivering its Capacity within the sum of the Variable Generation Capacities that are Electrically Close, and not to ever exceed the sum of the Full Capacity of the Variable Resources that are Eclectically Close.
- D. In Order to Meet Policy Goals in California, it is necessary that the Substantial Gas Fired Generation (GFG) fleet be phased down in its total energy Generation, the number of MWH that the GFG Generators produce must be drastically reduced, starting now, and accelerating heavily 2020 and beyond, or State Policy Goals will not be met. Thus, it is absolutely necessary that GFG Generators rapidly decrease MWH Generation, and not be used for other than filling in Energy when Preferred Resources cannot deliver the volume of Energy Needed for Reliable Electric Service. Thus, Energy Storage in Cluster 7 must be Studied for all of its Generation Dispatch Prior to any GFG being Dispatched in any of the Studies performed in Cluster 7, or Cluster 7 will Fail to Meet State Policy Goals

appropriately, and will be considered a failure by CAISO to conduct proper studies. See the below Graphic related to State Policy Goals of ARB superimposed on CA Energy Mix, and the need for proper and effective studies and the reduction of GFG Generation due to State Policy Goals is very clear and can be adapted and used by CAISO from currently available Policy information.

Policy issues that may require more comprehensive examination through this initiative:

Category 2

The Graphic attached immediately below shows way ARB GHG Policy Goals will Impact the availability to use GFG with major reductions in Energy from GFG occurring very near term. Thus, it is critical that CAISO expand upon the Study Adjustments from those it proposed in its April 7, 2014 Presentation, and which are discussed above. In the greater, longer term period, CAISO must adapt its Study process to achieve the Study of Large Scale Bulk Energy Storage based on an overall application of the principles discussed above for Cluster 7, but applied not just to Electrically Close facilities, but to all facilities across the full Grid being Studied.



Alton Energy Figure 1

The above Figure 1 Graphic, shows the GFG substantially decreasing in the years to be Studied in Cluster 7, and much more so as time marches on. The solid line representing the Top of the GFG generation limits within GHG Goals by year are taken from the ARB Scoping Plan that was adopted in the 2008 to 2011 time range, but remains consistent with the same Policy Goals being evaluated in the currently underway ARB Scoping Plan Update, Figure 6, Constant Rate of Decrease Method. The Dashed Curve with related data in Figure 1 Above is taken from the Constant Percentage Decrease Method from the same ARB Scoping Plan Update Figure 6. The conversion factors used for converting from Tons of Carbon to MWH of Electricity are provided in the footnotes and notes in Figure 1, easy to follow.

In addition to the discussion above, please refer to the Alton Energy filings in TPP related to Large Scale Bulk Energy Storage, which provides information and alternatives to consider Energy Storage as a Transmission Asset which is an alternative that may work and be practical, but it appears that CAISO is not conducting its Studies in TPP to be consistent with State Policy, so this alternative must be looked at and evaluated much more thoroughly than it appears CAISO is currently doing.

CAISO must engage Stakeholders, and must work diligently to properly Study Large Scale Bulk Energy Storage in California carefully and properly, or the CAISO Studies could simply be the single most significant cause of California NOT meeting its GHG Policy Goals.

We appreciate the opportunity to comment in this new Stakeholder process. This process is new and timing is very short, we have substantially further input and comments to provide and interactively progress on this important subject as we are afforded the opportunity to do so.

Respectfully Submitted,

Hal Romanowitz, PE

CEO

Alton Energy, Inc.