BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems.	R.10-12-007 Filed December 16, 2010

REPLY COMMENTS OF ALTON ENERGY, INC. ON PROPOSED DECISION ADOPTING ENERGY STORAGE PROCUREMENT FRAMEWORK AND DESIGN PROGRAM

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Pursuant to Rule 14.3 of the California Public Utilities Commission's ("Commission's") Rules of Practice and Procedure, Alton Energy hereby submits these reply comments on the *Proposed Decision Adopting Energy Storage Framework and Design Program*, issued September 3, 2013 ("Proposed Decision").

I. INTRODUCTION.

Alton Energy appreciates the extensive efforts of the Commission in this Proceeding, and specific interest in its Market Transformation Goals for energy storage. We find it unfortunate that although AB 2514 does not call for the exclusion of any technology, particularly not the most cost-effective one, that large pumped hydro has drawn special attention for its treatment in this Proceeding. This special attention for Pumped Hydro Storage largely comes from its substantial efforts in this Proceeding to help quantify its benefits. At the same time, other similarly situated and equally impactful technologies may likely consume and swamp much of the Allocated Mandate, resulting from the pending Decision in this Proceeding. We see that as Unintended Consequences, and strongly urge the Commission to treat all technologies the same,

so that all will be similarly impacted in this Proceeding, even if they chose to not volunteer data in this proceeding to assist the Commission in reaching its evaluations and results. Alton Energy believes that SCE in their opening comments offered the framework of a solution to the likely unintended consequences we see.

Alton Energy has several suggestions for how the Commission may more specifically support a viable procurement process for large pumped hydro storage. We appreciate the time and consideration of these comments.

II. UNINTENDED CONSEQUENCE APPLICATIONS OR TECHNOLOGIES.

Based on recent discussions, Alton Energy sees the following potential large energy storage applications consuming much or all of any procurement:

Up to 1,200 MW of ~ 15 minute capacitor, battery, or other form of energy storage integrated as a part of a HVDC Light Terminal on the transmission system, or similar application as a part of a SVC or other FACTS Device.

Up to 500 MW or 600 MW of ~ 15 minute or longer capacitor, battery or other form of energy storage integrated as a part of a solar generating plant, or other large generator, or extended series of smaller generators.

Up to 750 MW or so of ~ 15 minute or more thermal energy storage integrated as a part of a solar thermal storage device, including a solar generator, or other solar thermal application that may qualify under the proposed Allocations.

Our concern is that some can propose and sell projects with very moderate, short duration storage, which is cheap to accomplish, and does not really provide that much storage capacity, but is included and will qualify, and use up the allocation and at the same time eliminate the most important applications that give 4 hours or more. This is not to mention the loss of the long-

life potential of technologies if not procured, such as large pumped hydro (75-100 years - which significantly increases cost-effectiveness).

There are likely additional potential applications that did not actively participate in these Proceedings to assist the Commission in reaching a Decision, who by their lack of participation may benefit in a way not intended, and preclude the achievement of intended results and objectives of this Proceeding. Alton Energy believes that all technologies and applications should be treated fairly and equally, and that entities should not be rewarded for silence and non-participation.

III. THE BEST SMALL PUMPED HYDRO STORAGE MAY BE EXCLUDED.

It appears likely that setting the upper limit of Small Pumped Hydro Storage at "up to 50 MW" is likely to exclude the most cost effective and efficient small pumped hydro applications due to the physical characteristics of the most cost effective and efficient small high head pumped hydro which will likely require a minimum design rating of 75 MW or 85 MW or so due to physical design limits.

Alton Energy believes this is yet an additional unintended consequence of the hard limit of "up to 50 MW" for only Pumped Hydro Storage, and must be corrected to treat all technologies fairly and equally, and maximize the value received from them.

IV. SOLUTION TO UNINTENDED CONSEQUENCES

It appears that SCE's suggestion of allowing inclusion of "up to 50 MW" of any project is a reasonable way to achieve the stated Market Transformation Goals of this Proposed Decision, while not excluding any single application on size alone.

Such a "up to 50 MW" inclusion limitation should apply to all technologies for New Projects, and thus effectively not completely exclude Large Pumped Hydro Storage, and any

other large applications and technologies that would similarly consume much of the Proposed Decision Allocations and Phasing. Thus, Large Pumped Hydro and other large applications should also compete in the other Proceedings as has been outlined.

Alton Energy supports SCE's proposal to allow 50 MW of any pumped hydro storage project to be eligible towards the Procurement Target (for new projects),[1] but such does not limit the total amount contracted by a single utility. Pumped hydro projects should also be allowed to contract up to 50 MW increments of the total project capacity to multiple utilities or off-takers, and each utility or off-taker that procures up to 50 MW would be allowed to count that procured capacity towards their Procurement Target.

V. INCLUDE A PATH FORWARD FOR LARGE PUMPED STORAGE.

Large Pumped Hydro Storage is the single technology participating actively in this Proceeding that offers a combination of many hours of energy storage, and large efficient capacity that has been evaluated here as very cost effective, a principal goal of AB 2514 that is being missed by its exclusion.

Many parties commented on and support inclusion of pumped storage in the procurement target and/or a statement of explicit Commission support for its continued development.[2] Large Pumped Hydro Storage is a mature and cost-effective technology that can address many system goals identified in AB 2514; however, it still faces major barriers to commercialization, and the best and most important recent improvements to the technology are new in the United States and are the most important capabilities to move to Commercially Mature status in California. It

[1] This should be for new installed projects after the Qualified Date for Storage Projects in this PD.
[2] Alton Energy, Brookfield, CalWEA, CEERT, CESA, Clean Coalition, Eagle Crest, EDF, GPI, IEP, PG&E, SCE, and SDG&E.

appears very likely GHG Goals in California cannot be met cost effectively and timely, unless Large Pumped Hydro Storage is allowed to Commercially Mature.

Alton Energy urges and supports inclusion of CEERT's recommendation that each utility be required to enter into at least one bilateral contract for pumped energy storage by 2020, but that their transmission domain procurement targets be expanded by 500 MW each (instead of the 400 MW recommended by CEERT). As a minimum, some path forward for Commercial Inclusion of Large Pumped Hydro Storage is critical to meeting the Goals of AB 2514.

The Findings of Fact and Conclusion of Law should consider the recommended language modifications proposed in the comments of Alton Energy, Brookfield, EDF, Eagle Crest, and CESA regarding the treatment of pumped hydro storage.

VI. CONCLUSION.

Alton Energy appreciates this opportunity to submit reply comments to the Proposed Decision.

Respectfully submitted,

/s/
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/s/
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Date: September 30, 2013