



November 3, 2017
Chron # ER&D 17-17

Mr. John Mathias
California Energy Commission, MS-20
1516 Ninth St.
Sacramento, CA 95814

Dear Mr. Mathias:

In accordance with AB 2514, on March 1, 2012, the SMUD Board of Directors (Board) initiated a process under which staff would consider energy storage options through SMUD's integrated resource planning process (IRP). Based on the IRP findings, staff committed to return to the Board with either a proposed recommendation for appropriate energy storage procurement targets, or a recommendation that the Board defer establishing energy storage procurement targets until more viable and cost-effective energy storage systems become available.

In 2014, staff returned to the Board with an in depth analysis of new technologies and business models of energy storage systems on the market and found that, despite a decline in energy storage prices, energy storage was not financially viable for SMUD at that time. Consequently, on September 4, 2014, the SMUD Board determined that all energy storage systems, with the possible exception of pumped hydro storage, were not viable and cost-effective to develop by 2016, and thus did not adopt energy storage procurement targets. On October 28, 2014, SMUD forwarded a copy of the Board's resolution 14-09-02 and staff report on its assessment of storage.


AB 2514, as amended, requires the governing boards of the publicly owned electric utilities to reevaluate prior determinations of storage targets every three years. Since the Board's decision in 2014, SMUD staff investigated various energy storage technologies, including the 400 MW pumped hydro storage project at Iowa Hill, to determine if any have become viable and cost-effective for SMUD. SMUD has decided not to proceed with the proposed Iowa Hill pumped storage project due to cost, financial risk and changes in the electric utility business. Throughout the Iowa Hill investigation, SMUD continued to investigate and test new technologies to identify cost-effective energy storage targets. SMUD staff has found that despite a significant drop in energy storage prices large scale energy storage is still not cost-effective for SMUD ratepayers, though that is anticipated to change in the 2023 to 2027 time frame.

Nevertheless, SMUD staff has determined that the behind-the-meter energy storage market has potential value. Therefore, staff recommended and the SMUD Board approved adoption of an energy storage target of 9 MW of behind-the-meter storage capacity to be procured by the end of 2020.

Accordingly, I have attached a copy of Board Resolution No. 17-09-07 adopted on September 21 2017, and SMUD's 2017 Storage Procurement Final Report, which is the staff report on its assessment of storage at this time.

If you have any questions, please let me know.

Sincerely,

A handwritten signature in blue ink that reads "Lupe Jimenez". The signature is fluid and cursive, with a large loop at the end of the last name.

Lupe Jimenez
Manager, Research & Development Office

Attachments