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.

Rulemaking 10-12-007 (Filed December 16, 2010)

OPENING COMMENTS OF THE VOTE SOLAR INITIATIVE

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January 21, 2011

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Pursuant to Rules 1.4(b) and 6.2 of the Commission's Rules of Practice and Procedure, and the *Order Instituting Rulemaking* issued December 21, 2010 (OIR) in this proceeding, The Vote Solar Initiative (Vote Solar) submits the following opening comments.

I. BACKGROUND

Vote Solar is a California non-profit, public benefit corporation with Internal Revenue Code ("I.R.C.") § 501(c)(3) status, working to fight global warming, increase energy independence, decrease fossil fuel dependence, and foster economic development by bringing solar energy into the mainstream. Vote Solar works principally at the state level, helping to implement the suite of policies necessary to build robust, sustainable and long-term solar markets. Founded in 2002, Vote Solar has approximately 50,000 members nationwide, approximately 8,000 of which are Californians. The vast majority of the approximately 8,000 Californian members are individuals receiving residential electric service from one of the California investor owned utilities ("IOU").

A major focus of Vote Solar's current efforts is the informed and effective integration of large penetrations of solar energy onto the grid. To this end, Vote Solar is

participating in a number of regulatory proceedings¹ and stakeholder groups,² and is closely following related research developments to insure recognition of their findings where appropriate.³ As stated in Assembly Bill (AB) 2514 and echoed in the OIR, energy storage systems (ESS) will likely play a pivotal role in renewables integration through addressing intermittency issues.⁴ Accordingly, Vote Solar has a direct, specific and critical interest in this proceeding that no other party can represent.

II. PROCEDURAL ISSUES

Vote Solar has no objections to the categorization of this proceeding as quasilegislative. On the other hand, due to a lack of sufficient information, Vote Solar is unable to adequately assess the need for hearings at this time. Instead, assuming that the October 1, 2013 completion date indicated in Ordering Paragraph 6 of the OIR remains applicable, Vote Solar recommends that the need for hearings be determined in late 2012. If the proceeding completion date is changed, Vote Solar recommends determining the need for hearings approximately seven to nine months prior to the revised expected completion date of this proceeding.

III. SCOPING ISSUES

Vote Solar is generally supportive of the guidance provided in the OIR and of the observations and recommendations reflected in Appendix A of the OIR (Staff Report). In addition to the elements already captured in the OIR and Staff Report, Vote Solar

¹ For example, see generally California Public Utilities Commission, Order Instituting Rulemdking to Integrate and Refine Proarement Policies and Consider Long-Term Procurement Plans, R.10-05-006. Available at: <u>http://docs.cpuc.ca.gov/published/proceedings/R1005006_doc.htm</u>; The Federal Energy Regulatory Commission, Integration of Variable Energy Resources, RM10-11-00. Availableat: <u>http://www.ferc.gov/whats-new/comm-meet/2010/111810/E-1.pdf</u>

² For example, see generally California Independent System Operator, Integration of Renewable Resources. Available at: <u>http://www.caiso.com/23bb/23bbc01d7bd0.html</u>

³ For example, see generally PV Power Output Variability: Correlation Coefficients, Thomas E. Hoff, Clean Power Research, and Richard Perez, The State University of New York at Albany. Available at: <u>http://www.cleanpower.com/Content/Documents/research/capacityvaluation/PV%20Power%20Output%20</u> <u>Variability%20-%20Correlation%20Coefficients.pdf</u>; Understanding Variability and Uncertainty of Photovoltaics for Integration with the Electric Power System, Mills, Ahlstrom, Brower et al (December 2009). Available at: <u>http://eetd.lbl.gov/ea/emp/reports/lbnl-2855e.pdf</u>; Western Wind and Solar Integration Study, prepared by GE Energy for the National Renewabe Energy Laboratory (May 2010). Available at: <u>http://www.nrel.gov/wind/systemsintegration/pdfs/2010/wwsis_final_report.pdf</u>; Implications of Wide-Area Geographic Diversity for Short-Term Variability of Solar Power, Andrew Mills and Ryan Wiser, Lawrence Berkeley National Laboratory (September 2010). Available at: http://eetd.lbl.gov/ea/ems/reports/lbnl-3884e.pdf

 $^{^4}$ OIR at pp. 1-2 and 4.

requests the Commission pay particular attention to the consideration of hydroelectric pumped storage (Pumped Storage) issues.

Pumped Storage is vitally important because it can address solar energy intermittency with low or no carbon impact, the technology is mature and proven, and California is uniquely blessed with both robust hydroelectric resources and excellent solar insolation. For these reasons, Vote Solar strongly agrees with Energy Secretary Steven Chu that investment in Pumped Storage is an important renewables integration consideration. ⁵ Nevertheless, Vote Solar equally believes that a thorough review of existing⁶ Pumped Storage capabilities and current utilization is needed. Only through a comprehensive review can California be certain that existing facilities are being effectively deployed and, therefore, whether or not, and to what degree, acquisition of new facilities is appropriate.

Along these lines, Vote Solar applauds Administrative Law Judge DeBerry's December 23, 2010 ruling (Ruling) cancelling the January 25, 2011 prehearing conference scheduled in the Application of Pacific Gas and Electric Company to Recover Pumped Storage Study Costs (A.10-08-011). The Ruling states that because "the comments in R.10-12-007 may impact the direction and issues in [A.10-08-011] it is reasonable to review [the R.10-12-007] comments before considering how to scope [the A.10-08-011] proceeding." Indeed, Vote Solar agrees that this proceeding can and should directly inform the outcome of A.10-08-011. The A.10-08-011 procedural schedule should, at a minimum, be completely synchronized with the procedural schedule of this proceeding. Alternatively, A.10-08-011 could be consolidated with this proceeding.

On a final note, Vote Solar urges the Commission to carefully consider the overlapping jurisdictional issues inherent in a comprehensive evaluation of ESS.

⁵ Remarks of Steven Chu, Secretary, U. S. Department of Energy, Center for American Progress forum, February 23, 2009. Available at <u>http://www.hydroworld.com/index/display/article-</u>

display/5283147802/artides/hrhrw/hydroindustrynews/pumpedstoragehydro/Energy_secretary_urges_pumped_storage_investment_to_support_grid.html

⁶ "Existing" Pumped Storage facilities should include not only those under Commission jurisdiction (e.g. Pacific Gas and Electric Company's Helms facilities), but also non-jurisdictional facilities that present cooperative potential such as those owned by the California Department of Water Resources and out of state facilities.

Footnote 15 of the Staff Report echoes this sentiment by stating that a "cost benefit analysis for energy storage may need to consider costs and benefits that may be outside the jurisdiction of the" Commission. Cooperation with, and consideration of, implicated jurisdictions will likely play a key role in the re-thinking of "the historic model of electric system planning"⁷ needed to fully realize renewable energy and ESS potential.

WHEREFORE, Vote Solar respectfully requests the Commission consider the above stated comments.

Respectfully Submitted,

___/s/_____

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Dated: January 21, 2011

⁷ Staff Report at p.1.

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of the **OPENING COMMENTS OF THE VOTE SOLAR INITIATIVE** on all parties identified on the attached service list(s). Service was effected by transmitting the copies via e-mail to all parties who have provided an e-mail address and by First Class mail to the assigned Commissioner, the Administrative Law Judge and any party without an indicated e-mail address.

Executed this 21st day of January, 2011, at Folsom, California.

<u>/s/ Kelly M. Foley</u>

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CALIFORNIA PUBLIC UTILITIES COMMISSION

Service List For:

Proceeding: R1012007 - CPUC - OIR PURSUANT Last changed: January 20, 2011

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