BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	Rulemaking 12-03-014 (Filed March 22, 2012)

TECHNICAL COMMENTS OF THE VOTE SOLAR INITIATIVE

ON STAFF'S PROPOSED SCENARIOS

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	Rulemaking 10-05-006 (Filed May 6, 2010)

TECHNICAL COMMENTS OF THE VOTE SOLAR INITIATIVE ON STAFF'S PROPOSED SCENARIOS

Pursuant to the email sent on August 29, 2012 by Commission Staff person Noushin Ketabi, The Vote Solar Initiative (Vote Solar) provides the following limited response to key technical question #5. Question # 5 asks:

Is a 19% conversion from nameplate small PV capacity to peak production appropriate? If not, wha t data source and metho d publically available sh ould be used for this calculation?

I. CONVERSION FROM NAMEPLATE

Vote Solar assumes that the 19% figure for conversion from nameplate of small photovoltaic (PV) capacity was derived using the Net Qualifying Capacity (NQC) methodology established for Resource Adequacy (RA). Namely, a qualifying capacity (QC) is derived using a 70% exceedance methodology for the hours from 1-6pm, during the April to October summer months. Generally speaking, by using the hours from 1-6pm, the NQC approach drastically reduces PV nameplate because PV peaks and then begins to drop around 2pm, followed by precipitous drop at 5pm. In other words, near term RA planning, which relies on the NQC approach, evaluates only 1 hour of peak PV production and 4 hours of declining production.

On the other hand, long term planning analysis is almost always organized around hourly production values, thus utilizing an RA driven PV conversion method is inappropriate. PV produces much more than 19% of name-plate during the early to mid-hours of the afternoon, and a little less than 19% in the late afternoon. The overly averaging impact of the RA NQC approach is misleading in the context of planning system wide, long term needs. In particular:

(1) PV provides a significant injection of energy during the early to mid-afternoon hours, which provides a significant system benefit. A 19% calibration largely obviates this benefit.

(2) The CAISO has already expressed concern for solar-driven ramps in the 2020 time period. At a minimum, a solar hourly production model is needed to properly analyze ramp related impacts. A flat assignment of 19% to a putative 5 hour peak window obscures the important details of daily PV production cycles.

II. DATA SOURCES

Vote Solar recommends utilizing the CEC 6-parameter PV model database populated by large amounts of data for a wide variety of actual California installations. Additionally, the most recent versions of NREL's Solar Advisor Model (SAM) use libraries with information from the CEC database and provide a wealth of information about expected production profiles for solar PV in California.

Respectfully Submitted,

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