

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee the
Resource Adequacy Program, Consider Program
Refinements, and Establish Annual Local
Procurement Obligations

Rulemaking 11-10-023
(Filed October 20, 2011)

**SIERRA CLUB AND VOTE SOLAR OPENING COMMENTS ON STAFF PROPOSALS
AND WORKSHOP**

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Dated February 18, 2014

**SIERRA CLUB AND VOTE SOLAR OPENING COMMENTS ON
STAFF PROPOSALS AND WORKSHOP**

Pursuant to the Phase 3 Scoping Memo filed August 2, 2013 and February 4, 2014 email by Administrative Law Judge David M. Gamson, the Sierra Club and Vote Solar submit the following opening comments on the December and January Workshops and Energy Division Proposals.

I. A Determination of Effective Load Carrying Capacity (ELCC) Should Factor Complementary Policies Needed to Meet State Energy and Climate Objectives

The ELCC Staff Proposal cites to studies showing the ELCC value of solar resources steadily declining with increased solar deployment “because very high penetration scenarios likely no longer face significant capacity shortfalls during times when solar PV is generating.”¹ This conclusion assumes that consumption patterns remain static and fails to account for policies that will likely be needed for California to meet its greenhouse gas objectives. Achieving the State’s target of reducing greenhouse gas pollution to 80% below 1990 levels by 2050 will require decarbonization of the transportation sector through increased use of electric vehicles as well as energy storage. The state has made both of these priorities via the Governor Brown’s 2012 ZEV Action Plan, which establishes a roadmap for 1.5 million zero-emission vehicles on the road by 2025, the CAISO’s Vehicle-Grid Integration (VGI) Roadmap, and Assembly Bill (AB) 2514, which directed the Commission to establish energy storage targets for the state’s investor owned utilities², among others.

Because solar resources provide predictable zero-carbon energy, electric vehicle tariffs that incentivize charging during peak solar production will facilitate clean integration of the transportation fleet. Under this likely scenario, the ELCC for solar resources would not decline with increased solar penetration because energy consumption will increase during peak solar periods as electric vehicles are increasingly deployed.

Additionally, in D.13-10-040 the Commission established an energy storage target for

¹ CPUC, Energy Division Staff Proposal Outline, Effective Load Carrying Capacity and Qualifying Capacity Methodology for Wind and Solar Resources, Jan, 16, 2014, p. 12.

² Public Utilities Code Section 2836(a)(3).

PG&E, SCE and SDG&E of 1,325 MW by 2020. In the Assigned Commissioner’s Ruling on July June 6, 2013, the Commission cited the following guiding principles, pursuant to the requirements of Assembly Bill 2514:

Energy storage has the potential to transform how the California electric system is conceived, designed, and operated. In so doing, energy storage has the potential to offer services needed as California seeks to maximize the value of its generation and transmission investments: optimizing the grid to avoid or defer investments in new fossil-power plants, integrating renewable power, and minimizing greenhouse emissions.³

As with VGI, stationary storage has the significant potential for modifying load shapes, providing the ability to absorb potential emission free over-generation, preserving the value of solar PV as a peak resource while maximizing greenhouse gas benefits.

While we do not yet know the exact details of low carbon policies like EV charging tariffs or specific details for energy storage procurement agreements and their impact on load shape, a myopically derived ELCC that devalues solar and sends a market signal that functions to suppress additional deployment of solar resource runs the risk of undermining state climate and energy policy objectives. With reduced solar development due to declining ELCC values, the opportunities for effective low carbon charging policies will be diminished. We can and should expect future energy and climate policies like energy storage procurement agreements, EV charging tariffs and time of use periods to harness the predictable clean energy generated by solar resources. To avoid the risk of interfering with these critical objectives, the Commission should not adopt ELCC values that decrease the capacity value of solar at this juncture.

II. The Sierra Club and Vote Solar Strongly Support the Staff Proposal’s Inclusion of Energy Storage Charging Functionality in Determining its EFC

The Staff Proposal on Quantifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources appropriately recognizes that “EFC should incorporate dispatchable load/[energy storage] charging because

³ AB 2514 Sec. 1 (Stats. 2010).

these operational modes can address ramping needs.”⁴ Valuation of energy storage charging as a system resource is critical to removing barriers to cost-effective deployment of storage resources and optimizing the use of storage in meeting system flexibility needs.

Sierra Club and Vote Solar note that in its most recent Draft Final FRACMOO Proposal, CAISO proposes an EFC for energy storage that does *not* account for the charging capability of this resource. This significant omission functions to deprive the state of an important tool in integrating renewables, needlessly increases reliance on fossil fuels – thereby undermining achievement of state climate objectives, and frustrates energy storage deployment by failing to capture a revenue stream for a potential storage service. Moreover, a determination of EFC value is squarely within the jurisdictional competence of the PUC, not the CAISO. In moving forward with the Staff Proposal, the Sierra Club and Vote Solar strongly encourage the Commission to retain its proposed incorporation of energy storage charging in determining the EFC value of energy storage resources.

Dated: February 18, 2014

Respectfully submitted,

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⁴ CPUC, Energy Division Staff Proposal Outline, Quantifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources, Jan, 16, 2014, p. 5.