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

RESPONSE OF THE LARGE-SCALE SOLAR ASSOCIATION ("LSA") TO "KEY TECHNICAL QUESTIONS FOR PARTIES IN RESPONSE TO ENERGY DIVISION PROPOSED SCENARIOS FOR USE IN THE 2012 LTPP (R.12-03-014)"

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Sept. 7, 2012

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On August 29, 2012, Energy Division staff ("Staff") distributed by email a document entitled "Key Technical Questions for Parties in Response to Energy Division Proposed Scenarios for Use in the 2012 LTPP (R.12-03-014)." Staff requested responses not exceeding two pages in length by Sept. 7, 2012, with copies distributed to the service list but not filed in the docket of this proceeding. The response of the Large-scale Solar Association ("LSA") to Questions 1, 2 and 6 is attached. LSA has no comment on Questions 3, 4 and 5.

Before addressing the specific questions, LSA wishes to make several initial comments. First, while LSA appreciates the opportunity to comment on technical errors in Staff's proposed scenarios, LSA does not believe that individual party review should be relied upon to catch all potential errors in the project data contained in the 33% RPS Calculator which was used to create the scenarios. The short turn-around time for this technical review (even with the recent two additional days) makes it virtually certain that any such review will be incomplete. Moreover, the Calculator with its multiple tabs and often cryptic acronyms, notes and presentation is simply too complex to be readily understood by many such reviewers. Instead, LSA recommends that each utility becharged with the responsibility of verifying the accuracy of the data for projects with which they have power purchase agreements (PPAs) and for generic projects located in its service area.

Second, LSA notes that it is also extremely difficult to understand the transmission assumptions included in the Calculator and compare them with the CAISO's Transmission Planning Process ("TPP") assumptions and approved 2011-2012 Transmission Plan. The nomenclature used in

the Calculator and scenarios is not uniformly consistent with the CAISO's. In addition, it is not clear how the Calculator and scenarios deal with transmission projects that are interdependent or support development across multiple CREZ. The Calculator also appears to contain confusing assumptions for the West of Devers project, which seems to be treated as "minor upgrade" for Imperial CREZ projects, but as new transmission for Riverside East CREZ projects. Further clarification of the Calculator and scenario transmission assumptions is necessary before LSA can comment on their technical accuracy.

Third, based on the discussion at the August 24th workshop, LSA understands that Staff is not asking parties to comment on the costs assumed for different types of generation or for transmission and distribution ("T&D") infrastructure. However, according to the August 24th presentation as well as the Assigned Commissioner's Ruling on Standardized Planning Assumptions, Att. p. 7 issued on June 28, 2012 ("June 28th ACR"), one of the two primary questions in this proceeding is what mix of resources will minimize cost to customers over the planning horizon. The Calculator contains a variety of resource cost assumptions, many of which appear to be largely unchanged from the 2010 LTPP. The roadmap for this proceeding should explicitly identify when and how generation and T&D resource cost assumptions will be updated and addressed by the parties.

Respectfully submitted,

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Sept. 7, 2012

KEY TECHNICAL QUESTIONS FOR PARTIES IN RESPONSE TO ENERGY DIVISION PROPOSED SCENARIOS FOR USE IN THE 2012 LTPP (R.12-03-014)

Questions:

- 1. Are there any technical errors in the proposed scenarios, scenario tool, or 33% RPS Calculator?
- Use of the RPS portfolio developed for the base case in all of the remaining scenarios, resulting in failure to achieve 33% in the higher load scenarios: The RPS portfolio must be adjusted in each scenario in order to achieve California's 33% RPS goals in all of the scenarios. Otherwise, this LTPP will be planning for a future in which California won't meet 33% RPS if net loads are higher than those assumed in the base case. For example, the adjusted 2022 net demand for the base case is 248,268 GWh, while 2022 net load for the "no new DSM" and "replicating TPP" cases is 265,210 GWh. An RPS portfolio designed to achieve the base case 33% target of 81,928 GWh would be almost 5,600 GWh shy of achieving the 33% target of 87,519 for these higher load cases.
- Calling case 1A "environmental": The selection criteria used to construct the RPS portfolio for
 case 1A do not reflect a full range of environmental considerations, such as air and GHG
 emissions. The name also invites confusion, since in the 2010 LTPP the high DG case was called
 "environmentally constrained". LSA recommends that case 1A be called "constrained location."
- Import assumption: At the workshop, a CAISO representative stated that the assumed imports appear to be 4,000 MW higher than the levels historically experienced and diverge significantly from imports that have been used in the ISO Deliverability Assessment. LSA is concerned with using an import assumption that diverges substantially from actual experience unless there is reason to expect that the future will be significantly different, which has not been presented. LSA recommends that the scenarios use historical expected imports as calculated by the CEC, consistent with the June 26th ACR, p. 15.
- 2. Staff has assumed a resource with no current COD estimate in the Energy Commission's list of siting cases (http://www.energy.ca.gov/sitingcases/ALL_PROJECTS.XLS), but meeting other criteria, would be online by 2017. Is this a reasonable assumption? If not, please provide a year and justification.

 Yes.
- 6. Please provide a prioritization of staff's proposed scenarios and portfolios and briefly (no more than 1 page) explain the rational for this prioritization.

Recommended Priorities: 1) Base; 2) Early SONGS Retirement; 3) Replicating TPP (high load scenario); 4) High DG

Reasons: Since the key question for this proceeding is the need for new resources to ensure adequate reliability, after the base case, the scenarios in which system reliability is most likely to be stressed should receive priority. In LSA's view, these are Scenario 1B "Early SONGS Retirement" (given that plant's current uncertain status) and a high load case. LSA does not believe it makes any sense to pursue Scenario 1E, as it does not differ significantly from the base case even though it is denominated as the "high load" sensitivity. Instead, LSA recommends that Scenario 2A "Replicating TPP Assumptions"

1

¹"Net Supply" values for 2022 for these scenarios using the "ScenarioTool" spreadsheet posted at http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/ltpp_history.htm

should be the next priority. It offers the opportunity both to examine a high load case and to develop scenarios specifically for use in the CAISO's TPP, which is one of the identified objectives of this case. (Scoping Memo, p. 9) For this scenario, an RPS portfolio should be developed using the higher net load consistent with this case (as LSA stated in response to Question 1) and transmission assumptions consistent with CAISO's approved 2011/2012 TPP. Doing so would be consistent with the June 28th ACR adopting standardized planning assumptions, which stated that a "sensitivity case with ISO approved transmission that is not yet CPUC approved may be created." (p. 16)

Differences between the goals of the CPUC's LTPP and the CAISO's TPP justify use of differing planning assumptions to create scenarios specifically for use in the CAISO's TPP. While the LTPP resource portfolio can be planned based on an average (1 in 2 year) load projection and a reserve margin, transmission plans in the TPP need to be based on reasonably adverse system conditions to be able to deliver resources from alternative resource areas to those assumed in the LTPP. For example, in a dry hydro year, California load would likely receive more of its resources from the Desert Southwest rather than the Pacific Northwest, necessitating more transmission capacity on that path than expected in the base portfolio. In a wet hydro year the situation would likely be reverse. In addition, in any individual year within the planning horizon, there is a 50% chance that load can also be higher than the load in the base portfolio in the LTPP. Because of the long lead time in developing transmission projects, tying the CAISO TPP to the base portfolio and projected load in the LTPP can result at best in an inefficient, and at worst, in an unreliable transmission system. Therefore, LSA recommends giving priority to examining Scenario 2A "Replicating TPP Assumptions" in collaboration with the CAISO.

A high DG scenario (based on achieving Governor Brown's 12,000 MW goal) should be the next priority after these three scenarios. However, the T&D and system operating costs associated with high levels of DG are not as well developed as the transmission costs for larger scale generation. Consequently, while LSA believes a high DG scenario should be examined in connection with operational flexibility needs, it is not clear that the costs associated with this scenario can be sufficiently well developed to permit legitimate comparison with the costs of other scenarios. As LSA observed in its initial comments, the timing and manner in which resource cost assumptions will be reviewed should be defined explicitly as part of the 2012 LTPP proceeding roadmap.

The value of modeling the remaining scenarios/sensitivities is less clear, as either their results do not materially differ from other cases (e.g., "low load" and "high load"), or they are based on preliminary data that is likely to change (e.g., "environmental", which relies on preliminary DRECP data). In addition, LSA does not believe it would be useful to create a new "base load RPS" case as Green Power Institute suggested at the August 24th workshop. The RPS portfolio used for the scenarios and modeling should be based on contracted projects reflecting "sunk" or "committed" procurement decisions, consistent with the June 28th ACR's adopted standardized planning assumptions.