

**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)

**OPENING BRIEF
OF THE CALIFORNIA WIND ENERGY ASSOCIATION
ON TRACK 4 ISSUES**

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*On behalf of the California Wind Energy
Association*

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Pursuant to Rule 13.11 of the Rules of Practice and Procedure of the Public Utilities Commission (“Commission”) and the briefing schedule and instructions established by Administrative Law Judge David Gamson in his November 4, 2013, email communication, the California Wind Energy Association (“CalWEA”) submits this Opening Brief in the above-captioned proceeding.

I. Introduction & Summary

The long-term procurement plan (“LTPP”) Track 4 Decision presents an important opportunity for the Commission to promote holistic planning and procurement by connecting LTPP Track 4 and the Energy Storage procurement programs, as was anticipated and encouraged in the Commission’s Energy Storage Decision.¹ Such holistic planning and procurement will reduce overall costs to ratepayers by simultaneously achieving both program goals given the ability of storage resources to serve local reliability needs. Further, if California’s leadership on greenhouse-gas-reduction and clean energy policies is to attract significant followership, California must show the way towards achieving these goals as efficiently as possible.

To that end, CalWEA recommends, in this Opening Brief, the following Commission actions in this case:

- The Commission should adopt Southern California Edison Company’s (“SCE”) Transmission and Preferred Resources Scenarios, including focusing Track 1

¹ R.10-12-007, Decision 13-10-040 Adopting Energy Storage Procurement Framework and Design Program, 10/21/13 (“Energy Storage Decision”).

procurement on strategic Track 4 needs, and should authorize SCE to procure up to 500 MW and San Diego Gas & Electric Company (“SDG&E”) to procure up to 350 MW of resources in their respective service territories, each conditioned on simultaneously fulfilling these utilities’ energy storage procurement requirements; and

- The Commission should enable and encourage SCE and SDG&E to work with Pacific Gas and Electric Company (“PG&E”) and other load-serving entities to cooperatively fulfill the balance of the energy storage mandate.

II. Background

A. Summary of SCE Proposed Approach

SCE’s analysis found an overall need for 2,802 MW of new LA Basin Generation and 436 MW of SDG&E load shed to address overall reliability needs in the SONGS Study Area (expanded Los Angeles Basin) resulting from the San Onofre Nuclear Generating Station’s (“SONGS”) closure and once-through-cooling (“OTC”) retirements in the 2022 timeframe.² SCE also testified that an additional 500 MW (rounded up from 484 MW) of new resources located in the LA Basin would be needed to meet California Independent System Operator (“CAISO”) Reliability Standards.³ However, SCE’s testimony describes a strategy that would substantially reduce that 2,802-MW need through SCE’s LA Basin Transmission scenario, which consists of SCE’s proposed Mesa Loop-In Transmission Project (“Mesa Loop-In Project”), and pursuit of an aggressive Preferred Resources Scenario, which consists of procurement of preferred resources,⁴ including energy storage resources, strategically targeted to the southern Orange County area.^{5,6} SCE anticipates that some portion of these strategically located

² See *Track 4 Testimony of Southern California Edison Company*, R.12-03-014 (Exhibit No. SCE-1) (“SCE Opening Testimony”), at p. 6.

³ SCE Opening Testimony at p. 7.

⁴ Preferred Resources are defined in the State’s Energy Action Plan II as follows: “The Energy Action Plan supports a ‘loading order’ of Preferred Resources to meet California’s increasing energy needs. Energy efficiency and demand response are first, followed by renewable sources and clean distributed generation. To the extent that these efforts are unable to satisfy increasing energy and capacity needs, the state supports clean and efficient fossil-fueled generation. Concurrently, electricity transmission infrastructure must be improved to support the development of renewable energy sources.”

⁵ The Mesa Loop-In Project reduces the generation need by approximately 1,196 MW, while the Preferred Resources Scenario would reduce the generation need by approximately 551 MW. SCE Opening Testimony at pp. 8 and 10.

⁶ SCE also proposes contingent siting and procurement options to provide backstop generation if either or both of these projects fail to materialize. SCE Opening Testimony at p. 61. CalWEA takes no position on

Preferred Resources may be obtained through its Track 1 procurement process⁷ (previously authorized to address the retirement of OTC units), and SCE plans to submit a separate application to acquire the remaining resources through its proposed “Preferred Resources ‘Living’ Pilot Program” (“Living Pilot”).⁸

To avoid load shedding in SDG&E’s territory, SCE calculates that 353 MW can be added in SDG&E’s territory.⁹ CAISO indicated, similarly, that a generation addition of 300 MW in the San Diego local area could lead to a reliability outcome comparable to managing the forecasted reliability shortfall with a 500-MW load drop.¹⁰

B. Summary of SDG&E Proposed Approach

SDG&E presents a nebulous range of possible needs for local resources, beginning from a finding of need for between 620 and 1,470 MW of dependable capacity, which could be reduced by between 1,000 and 1,400 MW as a result of identified transmission additions¹¹ (creating a potentially significant negative need). Given various uncertainties, including the timing of building transmission, SDG&E initially proposed to procure between 500 and 550 MW of local capacity in an RFO that would be open to all supply-side technologies, including renewables, energy storage and conventional generation.¹²

C. Summary of CPUC Energy Storage Decision

Since the Commission’s decision on LTPP Track 1, the Commission adopted its Energy Storage Decision, which imposes a mandate on the three investor-owned utilities and other Load-Serving Entities (“LSEs”) to acquire 1,325-MW of energy storage resources within the 2020-2024 timeframe regardless of viability or cost-effectiveness.^{13,14} This timeframe is virtually the

this element of SCE’s proposal.

⁷ *Id.* at p. 4. The Commission’s Track 1 LTPP decision requires SCE to procure at least 150 MW of capacity from Preferred Resources and at least 50 MW from energy storage resources within the West Los Angeles sub-area of the Los Angeles basin local reliability area. D. 13-02-015 at p. 130-131.

⁸ SCE Opening Testimony at p. 50 (“SCE presently plans to submit an application detailing a proposal for the Pilot to initiate this collaborative process and to seek any necessary funding to support the Pilot”).

⁹ SCE Rebuttal Testimony at p. 45 (citing CAISO Testimony at p. 24).

¹⁰ *Track 4 Rebuttal Testimony of Robert Sparks on Behalf of the California Independent System Operator Corporation*, R.12-03-014 (Exhibit ISO-2) at pp. 6-7.

¹¹ *Prepared Track 4 Direct Testimony of San Diego Gas & Electric Company*, R.12-03-014 (Exhibit SDG&E-1) (“SDG&E Opening Testimony Anderson”), at p. 11-12.

¹² *Id.* at 12.

¹³ Energy Storage Decision at p. 26. The procurement targets set for 2014, 2016, 2018 and 2020 represent

same timeframe being considered in this LTPP Track 4 proceeding. Of the mandated storage resources, SCE's obligation is for 580 MW and SDG&E's obligation is for 165 MW.¹⁵

The Commission appropriately recognized in its Energy Storage Decision that it is important that coordination exist among the various proceedings addressing issues relevant to energy storage, including the LTPP proceedings.¹⁶ The Energy Storage Decision also recognized that storage procured pursuant to another proceeding should count towards the energy procurement storage targets.¹⁷

III. The Commission Should Adopt SCE's Transmission and Preferred Resources Scenario and Authorize SCE to Procure up to 500 MW and SDG&E to Procure up to 350 MW of Resources in Their Respective Service Territories, Each Conditioned on Simultaneously Fulfilling Their Energy Storage Procurement Requirements

A. The Commission Should Approve SCE's LA Basin Transmission Scenario

The Commission should approve SCE's LA Basin Transmission scenario to develop the Mesa Loop-In Project for the several reasons stated by SCE.¹⁸ As noted above, the Mesa Loop-In Project would reduce the need for new LA Basin Generation. In addition, CalWEA has expressed support for this project in the CAISO's 2013-14 Transmission Planning Process based on CalWEA's full engagement over the years in various initiatives aimed at determining the most beneficial transmission upgrades to meet the state's reliability, economic and policy goals. The Mesa Loop-In project has taken various forms in the plans produced by these initiatives, including the CAISO's TPP, the Desert Renewable Energy Conservation Plan, the Renewable Energy Transmission Initiative, the California Transmission Planning Group ("CTPG"), and the

the number of MW that must be pending contract, under contract, or installed after the end of those procurement cycles. An IOU may seek to defer up to 80 percent of MWs to later procurement periods based on a showing that it cannot procure enough operationally or economically viable projects to meet the targets within a given period. By no later than the end of 2024, the IOUs must have the full 1,325 MW installed under an "absolute installation requirement."

¹⁴ CalWEA opposed the proposed energy storage decision since it would mandate non-cost-effective and/or non-viable storage resources despite the fact that the Commission has found in the LTPP proceedings that there is no system need for flexible resources through 2022. *See Opening Comments of the California Wind Energy Association on Proposed Decision Adopting Energy Storage Procurement Framework and Design Program*, 9/23/13, R.10-12-007. Nevertheless, the decision has been made and should now be implemented as cost-effectively as possible.

¹⁵ Energy Storage Decision at p. 15.

¹⁶ *Id.* at p. 67.

¹⁷ *Id.*

¹⁸ SCE Opening Testimony at p. 17.

Tehachapi Renewable Transmission Project. CalWEA has also had the opportunity to review and confirm the many reliability, economic and policy benefits that would ensue from the project. We are particularly supportive of the specific proposal made by SCE in the CAISO 2013-2014 TPP stakeholder process as it is the least costly, and has the least environmental impact, of all the possible variations of this project, while capturing the vast majority of its benefits.

B. The Commission Should Approve SCE’s Preferred Resources Strategy

The Commission should also approve SCE’s Preferred Resources Strategy, which aims to target Track 1 Preferred Resources and energy storage procurement in the strategic southern Orange County area, which will allow Track 1 procurements (resulting from OTC retirements) to simultaneously address Track 4 needs (resulting from SONGS’ retirement), thus reducing the remaining Track 4 need that SCE proposes to address, in part, through its proposed Living Pilot.¹⁹ .²⁰ This type of simultaneous procurement should reduce the overall cost of meeting multiple goals.

C. The Commission Should Approve SCE’s Request for Authorization to Procure up to 500 MW of New Generation in the LA Basin and Authorize SDG&E to Procure up to 350 MW of New Generation in SDG&E’s Service Territory, Conditioned on Simultaneously Satisfying Energy Storage Goals

The Commission should approve SCE’s request for up to an additional 500 MW of new generation in the LA Basin and 300-350 MW of new resources in SDG&E’s service territory to address the remaining local reliability needs, based on the testimony cited above. Importantly, however, in authorizing these resources, the Commission should direct these utilities to simultaneously fulfill their respective storage mandates, and to fulfill the balance of need consistent with the Commission’s Loading Order policy.²¹ No more cost-effective opportunity for storage is likely to arise in the timeframe of the mandate than the location-constrained need that is now presenting itself in the wake of SONGS’s closure. This location constraint will necessarily raise the cost, and add risk to the intended timelines, of attempting to locate gas-fired resources and associated transmission facilities in these areas,²² which ultimately may prove

¹⁹ The Track 1 Preferred Resources strategy “may offset a portion of the Preferred Resources need in the [Living] Pilot area...” SCE Opening Testimony at p. 50.

²⁰ SCE plans to submit a separate application for the Living Pilot program to seek any necessary funding. SCE Opening Testimony at 51.

²¹ See *supra* note 4.

infeasible – all of which makes energy storage relatively more competitive and feasible. Further, SCE has identified an even more specific location -- the vicinity of the Johanna and Santiago substations -- where resource additions would be highly valuable in addressing the local reliability need.

Moreover, although SCE, CAISO and other utilities and stakeholders will be working to define the specific characteristics that Preferred Resources and energy storage resources must have to meet local reliability needs,²³ most storage resources are scalable both in capacity and energy values, can sustain upward or downward ramps, respond for defined periods of time, react quickly, and are more easily sited and interconnected to transmission and distribution facilities in desirable locations. As a result, these resources are more likely than Preferred Resources to have the required combination of characteristics necessary to address local reliability needs: location, timing, and duration of energy savings or load reductions, as well as other characteristics well-suited to local reliability needs.

In Track 1, which SCE very sensibly proposes to focus on the strategic southern Orange County area, the Commission authorized SCE to procure 400 MW of additional Preferred Resources and/or energy storage resources beyond the minimum requirement of 150 MW of Preferred Resources, 50 MW of energy storage resources, 1,000 MW of gas –fired generation, and 200 MW of any resource type.²⁴ This presents an opportunity for SCE to procure up to 650 MW of energy storage resources,²⁵ which is more than enough opportunity to fulfill SCE’s 580-MW energy storage mandate from the Commission’s Energy Storage Decision, apart from SCE’s Living Pilot and 500 MW of additional resource authorization, which will present additional opportunities for energy storage.

SDG&E’s 353 MW of local capacity procurement should consist of at least 165 MW of energy storage to address SDG&E’s energy storage mandate.

Requiring SCE and SDG&E to fulfill their storage mandates in the process of meeting Southern California’s local reliability needs will lower the total cost of meeting both goals, given

²² SCE’s Track 1 Testimony, which has been incorporated into this Track 4, discusses the significant challenges to siting new generation in the LA Basin and the significant time constraints to construct new generation and new transmission now faced by the State. SCE Opening Testimony at pp. 3-4.

²³ SCE Opening Testimony at p. 52.

²⁴ SCE Opening Testimony at p. 56.

²⁵ 50 MW minimum storage minimum requirement + 200 All Technologies minimum requirement + 400 additional authorized Preferred Resources and storage = 650 MW.

that the utilities are required to fulfill the storage mandate within the 2020-2024 timeframe *regardless of viability or cost-effectiveness*.²⁶ Establishing a storage requirement in the context of this Track 4 is sensible in view of the Commission’s Loading Order policy -- which is to ensure that Preferred Resources are acquired whenever “they are feasibly available and cost effective,”²⁷ precisely because, unlike the Energy Storage Decision, the Loading Order does not mandate Preferred Resources regardless of viability or cost-effectiveness. Thus, it is very important to apply energy storage resources where they are most likely to be the most viable and cost-effective. Moreover, simultaneous procurement is consistent with directives in the Energy Storage Decision requiring the energy storage proceeding to be coordinated with LTPP and allowing storage procured pursuant to another proceeding to count towards the energy procurement storage targets.²⁸

Because the storage resources may not translate one-for-one toward the capacity needs identified in the CAISO’s and the utilities’ studies (storage resources may be more or less effective in meeting the identified need, depending in part on the type and location of resources procured), the utilities should also be directed to report to the Commission on how their storage procurements will affect remaining reliability needs (to be met by SCE through its Living Pilot, and by SDG&E through its planned multi-source procurement).

D. The Commission Should Enable SCE And SDG&E To Work With PG&E and Other Load-Serving Entities to Cooperatively Fulfill the Balance of the Energy Storage Mandate

As explained above, both SCE and SDG&E can most cost-effectively fulfill their storage mandates in the Track 1 and Track 4 local reliability procurement contexts, while having a combined remaining need for some 750 MW of resources.²⁹ No such local reliability (or flexible resource) need was identified on the rest of the CAISO grid in Track 2 of this LTPP proceeding,

²⁶ See *supra* note 15.

²⁷ The Commission’s 2010 LTPP Decision 12-01-033 (at p. 21) states: “[T]he utilities should ... procure additional energy efficiency and demand response resources [above mandated levels] to the extent they are feasibly available and cost effective. If the utilities can reasonably procure additional energy efficiency and demand response resources, they should do so. This approach also continues for each step down the loading order, including renewable and distributed generation.”

²⁸ Energy Storage Decision at p. 67.

²⁹ Per note 25, SCE has a Track 1 resource requirement of 650 MW plus 500 MW from this Track 4, less 580 MW storage requirement = 570 MW remaining need. SDG&E will have a 350-MW Track 4 need, less its 165 MW storage requirement = 185 MW remaining need. 570+185 = 755 MW

denying PG&E and other LSEs of any significantly more cost-effective applications of energy storage. The only resource need that has been identified in this entire LTPP proceeding is the local reliability need being addressed here in Track 4.

To encourage SCE and SDG&E to fulfill as much of the local reliability need as possible with energy storage resources, thus facilitating the most cost-effective achievement of the Commission's energy storage mandate, the Commission should authorize and encourage SCE and SDG&E to develop mutually acceptable business arrangements with the other LSEs in meeting the latter group's energy storage requirements by helping to satisfy Southern California's local reliability need.

IV. Conclusion

For all of the foregoing reasons, and to achieve the Commission's goals of promoting local reliability and energy storage in a cost-effective manner, the Commission should adopt the recommendations set forth in this Opening Brief.

Respectfully submitted,

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