

Decision 16-09-007 September 15, 2016

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U 39-E) for Authorization to Procure Energy Storage Systems during the 2016-2017 Biennial Procurement Period Pursuant to Decision 13-10-040.

And Related Matters.

Application 16-03-001
(Filed March 1, 2016)

Application 16-03-002
Application 16-03-003

DECISION APPROVING STORAGE PROCUREMENT FRAMEWORK FOR THE 2016 BIENNIAL PROCUREMENT PERIOD

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DECISION APPROVING STORAGE PROCUREMENT FRAMEWORK FOR THE 2016 BIENNIAL PROCUREMENT PERIOD

Summary

This decision approves, with slight modifications, the applications of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company that set forth their procurement plans for the 2016 energy storage procurement process. The adopted modifications clarify how energy storage projects funded by the Self-Generation Incentive Program are counted towards utility storage goals, eliminate the contingency provision proposed by San Diego Gas & Electric Company related to adoption of its proposed time-of-use periods in Application 15-04-012, and add a requirement for additional information for evaluation purposes in the applications for approval of 2016 contracts.

These applications are closed.

1. Background

On December 16, 2010, the Commission opened Rulemaking (R.) 10-12-007 to implement the provisions of Assembly Bill (AB) 2514 (Stats. 2010, Ch. 469). AB 2514 directed the Commission to determine appropriate targets, if any, for each Load-Serving Entity (LSE) as defined by Pub. Util. Code § 380(j) to procure viable and cost-effective energy storage systems and set dates for any targets deemed appropriate to be achieved.

Consistent with AB 2514,¹ the Commission's energy storage procurement program is guided by three purposes:

¹ See Pub. Util. Code § 2835(a)(3).

- 1) Optimization of the grid, including peak reduction, contribution to reliability needs, or deferment of transmission and distribution upgrade investments;
- 2) The integration of renewable energy; and
- 3) The reduction of greenhouse gas emissions to 80 percent below 1990 levels by 2050, per California's goals.

In response to this state mandate, the Commission adopted Decision (D.) 13-10-040, its "Decision Adopting Energy Storage Procurement Framework and Design Program." D.13-10-040 directs Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) to file on or before March 1, 2014, and biennially thereafter through 2020, an application for approval of a plan to procure energy storage resources to address the targets and policies of the Commission's Energy Storage Procurement Framework and Design Program.² The energy storage framework and procurement applications for the 2014 biennial period were subsequently approved in D.14-10-045. The instant applications are for approval of the 2016 biennial period framework.

In compliance with D.13-10-040, PG&E, SCE, and SDG&E filed procurement applications on March 1, 2016. PG&E proposes to procure 115.3 Megawatts (MW), and may count 4.7 MW of existing eligible projects

² According to D.13-10-040, Appendix A at 2, "Southern California Edison Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company shall procure under contract (i.e., pending contract, under contract, or installed) 1,325 MW of energy storage by 2020 with the requirement that the overall procurement goal of 1,325 MW will be installed and delivered to the grid no later than the end of 2024, where MW represents the peak power capacity of the storage resource in terms of maximum discharge rate." Specific procurement targets were allocated to each of the investor-owned utilities according to transmission, distribution, and customer grid domains.

towards its 2016 procurement target. SCE states that it has already exceeded its 2016 procurement targets but will hold a 2016 Energy Storage Request for Offers (RFO) to solicit up to 20 MW of resource adequacy-eligible energy storage projects in specified locations. SCE is also exploring additional use cases to include in its 2016 solicitation. SDG&E proposes to solicit up to 140 MW in its 2016 Preferred Resources Local Capacity Requirement Request for Offers from five different resource types, including energy storage. In addition, SDG&E plans to issue a Request for Proposals for up to 4 MW of Distribution Reliability/Power Quality energy storage resources.

On March 23, 2016, the assigned Administrative Law Judge (ALJ) issued a ruling authorizing the extension of time for the filing of responses/protests and replies. Protests and responses were filed on April 11, 2016 by the Office of Ratepayer Advocates (ORA); The Utility Reform Network (TURN); Marin Clean Energy and Sonoma Clean Power Authority (jointly CCA Parties); City of Lancaster; the Alliance for Retail Energy Markets and Direct Access Customer Coalition (jointly AReM/DACC); California Energy Storage Alliance (CESA); Green Power Institute (GPI); MegaWatt Storage Farms, Inc.; and Stem, Inc. PG&E, SCE, and SDG&E filed replies on April 21, 2016.

A prehearing conference (PHC) was held on May 24, 2016. On June 3, 2016, the assigned Commissioner and ALJ issued a Scoping Memo laying out the issues to be addressed in the proceedings. Opening Briefs were filed on June 27, 2016 by PG&E, SCE, SDG&E, ORA, and CESA. Reply Briefs were filed on July 11, 2016 by PG&E, SCE, SDG&E, ORA, TURN, and jointly by AReM/DACC, CCA Parties, and City of Lancaster (jointly DA/CCA Parties).

2. Issues Before the Commission

In protests and discussion at the PHC, numerous potential issues were raised. It was clear during the discussion that many of the potential issues have already been resolved (or are being resolved) in other forums or are more properly considered when the utilities submit energy storage contracts for consideration. As such, the following issues were identified for the scope of this proceeding:

1. Should PG&E's, SCE's, and SDG&E's proposed procurement plans for the 2016 Biennial Solicitation be adopted?
2. Do the proposed procurement plans, including the evaluation methodologies for shortlisting the utilities' 2016 Energy Storage RFO protocols, comply with D.13-10-040 and D.16-01-032?
3. Have the utilities correctly counted existing eligible energy storage credits toward their 2016 energy storage procurement targets as directed in D.13-10-040 and D.16-01-032?
4. Are the safety requirements in the utilities' 2016 Energy Storage RFO protocols reasonable and will the utilities' proposed procurement plans ensure safe and reliable delivery of energy to customers?
5. Are the terms and conditions for the provision of energy storage services in the utilities' 2016 Energy Storage RFO protocols reasonable?
6. Should SDG&E be allowed to include a contingency provision in its selection process that shortlisted offers may be considered non-conforming in the event that the Commission does not adopt SDG&E's proposed time of use periods in A.15-04-012 as amended on February 9, 2016?

As discussed at the PHC, cost recovery will not be revisited in this proceeding, but will follow the framework already adopted by prior decisions.

The assignment of specific cost recovery approaches for contracts that count towards the 2016 solicitation will be considered in proceedings where approval of such contracts is addressed, not in the context of the 2016 plans. Further, calculation of the Power Charge Indifference Adjustment as it relates to energy storage is currently being addressed in A.15-12-003, et al. and will apply to contracts that result from the 2016 solicitation. We address each of the identified issues below.

3. Do the Proposed Procurement Plans, Including the Evaluation Methodologies for Shortlisting the Utilities' 2016 Energy Storage RFO Protocols, Comply with D.13-10-040 and D.16-01-032?

D.13-10-040 directs each investor-owned utility (IOU) to file an Application for approval of a plan to procure energy storage resources to address the targets and policies of the Commission's Energy Storage Procurement Framework and Design Program. Section 3.d of the Storage Decision lists the minimum information that must be included in the application,³ including:

- An updated table with estimates for biennial procurement targets for each storage grid domain from current year to 2020;
- Reference to: 1) needs study by the California Independent System Operator for the IOU's system, local, and flexible needs, if available; or 2) upgrade needs identified in the IOU's transmission or distribution planning studies;
- A list of all applicable rules and statutes impacting the procurement plan;
- An explanation of the type of storage resources and the associated MW quantities the IOU intends to procure, categorized by grid domains and use cases; and,

³ D.13-10-040, Appendix A at 7-8.

- A report on all storage resources procured to date in all Commission proceedings. In the report, the IOUs are directed to identify the type of storage technology, the capacity of the projects (in MW and MW hours (MWh)), the location of the project (city and zip code level if public), the proceeding in which it is procured, and the procurement mechanism (e.g., RFO, Renewable Auction Mechanism, the Self-Generation Incentive Program, etc.), applicable storage grid domain, status of the project, estimated online date, expected operational life, primary and secondary applications of the project, technology manufacturer and project owner and operator.

In D.16-01-032, the Commission addressed certain policy and program issues that needed to be resolved prior to the 2016 energy storage procurement solicitations, including target flexibility, technology eligibility, the RFO process, and target accounting rules for projects incentivized through the Self-Generation Incentive Program (SGIP).

With the exception of whether SGIP-funded energy storage projects are properly credited towards the IOUs' 2016 energy storage procurement targets (addressed in Section 4 below), most parties do not comment on the utilities overall adherence to prior Commission decisions. Consistent with D.13-10-040, the utilities have filed procurement applications "with any proposed modifications based on data and experiences from previous procurement periods."⁴ "An updated table with estimates for biennial procurement targets for each storage grid domain from current year to 2020" with accounting for any excess procurement or shortfall, and "any shifting MW between domains" is

⁴ D.13-10-040, Ordering Paragraph 4.

provided.⁵ The utilities have identified “upgrade needs” “in (their) transmission or distribution planning studies.”⁶ “A list of all applicable rules and statutes impacting the procurement plan” are provided as a part of the application.⁷ “An explanation of the type of storage resources and the associated MW quantities the utility intends to procure, categorized by grid domains and use cases” are given.⁸ The utilities have provided a detailed description of how they “intend to procure resources specifying the structure of any RFO or alternative procurement processes and related timelines.”⁹ “Operational requirements” to be applied are stated.¹⁰ The utilities have put forth a “proposed methodology for an analysis that evaluates bids on cost and fit.”¹¹ “Proposed storage equipment/power/services purchase agreements for successful bids involving

⁵ D.13-10-040, Appendix A at 7; *see* PG&E Application at 8; *see also* PGE-1 at 2-1 – 2-6; SCE-1 at 15-28, 20; *see also* SDG&E Application at 3.

⁶ D.13-10-040 Appendix A at 8; *see* PG&E Application at 8-9; *see also* PGE-1 at 3-1 – 3-8; SCE-1, at 11-14; *see also* SD-2 at 5-9.

⁷ D.13-10-040 Appendix A at 8; *see* PG&E Application at 11-12; *see also* SCE Application (Attachment 1); *see also* SDG&E Application, Attachment C.

⁸ D.13-10-040 Appendix A at 8; *see* PG&E Application at 11-12; *see also* PGE-1 at 3-1 – 3-8; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1 at 29-30; SD-1 at 8-10.

⁹ D.13-10-040 Appendix A at 8; *see* PG&E Application at 14-15; *see also* PG&E Application Appendix A, Storage Protocol; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1 at 31-34; *see also* SD-2 at 1-5.

¹⁰ D.13-10-040 Appendix A at 8; *see* PG&E Application at 12; *see also* PGE-1 at 4-1 – 4-6; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1 at 5-8; *see also* SD-2 at 5-10.

¹¹ D.13-10-040 Appendix A at 9; *see* PG&E Application at 15-16; *see also* PGE-1 at 5-1 – 5-27; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1 at 35-39, 40, *see also* SCE Application, Appendix C; *see also* SD-3 at 3-8.

third party owned or aggregated projects” are given.¹² “A report on all storage resources procured to date in all Commission proceedings” is included.¹³ “Request for cost-recovery authorization as appropriate” has been provided.¹⁴ Utilities have “conferred with Energy Division to establish the consistent evaluation protocols for assessing bids for benchmarking and general reporting purposes prior to the filing of any application.”¹⁵

PG&E has made modifications between its 2014 and 2016 solicitation proposals, requiring third-party and utility owned projects to have “Phase 1 (or equivalent) interconnection studies” completed prior to RFO participation eligibility.¹⁶ Such a requirement is consistent with our conclusion that “utilities should retain the flexibility to require interconnection studies.”¹⁷ PG&E’s 2014 RFO evaluation methodology has been modified in its 2016 RFO to include portfolio net capacity position in its portfolio adjusted value (PAV) determination.¹⁸ The PAV will ultimately be utilized by PG&E as “the common

¹² D.13-10-040 Appendix A at 9; *see* PG&E Application at 13; *see also* PG&E Application, Storage Protocol, *see also* Appendix F1, F2, F3; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1, Appendix B; *see also* SD-1 at 8-11.

¹³ D.13-10-040 Appendix A at 9; *see* PG&E Application at 6-7; *see also* PGE-1 at 2-1 – 2-6; *see also* SCE-1, at Appendix A; *see also* SCE Opening Brief, Attachment A; SCE-1, Appendix A; *see also* SDG&E Application, Attachment B.

¹⁴ D.13-10-040 Appendix A at 10; *see* PG&E Application at 16-17; *see also* PGE-1 at 6-1 – 6-8; *see also* SCE Opening Brief, *see also* Attachment A; *see also* SCE-1 at 47-48; *see also* SD-4 at 5.

¹⁵ D.13-10-040, Conclusions of Law 39; *see* PG&E Opening Brief at 5 ; *see also* PGE-1 at 5-1 – 5-27; *see also* SCE Opening Brief, Attachment A; *see also* SCE-1 at 40 (referencing joint utilities effort in collaboration with Energy Division).

¹⁶ PG&E Opening Brief at 5; *see* PGE-1 at 1-4 (Table 1-1).

¹⁷ D.16-01-032, Conclusion of Law 3.

¹⁸ PG&E Opening Brief at 6.

benchmark for comparison” of offers.¹⁹ As the addition of this value serves to enable utilities to reduce uncertainty and effectively quantify the value of these procurement projects, this modification is consistent with our holding that the Commission “should not require utilities to independently forecast potential future revenue streams with storage project bids where the value is uncertain or unquantifiable.”²⁰

SCE’s evaluation methodology includes “determining the revenue streams of benefits and costs,” and establishing a “quantitative metric that determines the relative costs and benefits of others.”²¹ Such measures comply with the direction of requiring “a proposed methodology for analysis that evaluates bids on cost and fit.”²²

SDG&E’s addition of a contingency provision in its RFO selection process of shortlisted offers is addressed in Section 6 of this decision.

We find that the proposed procurement plans of PG&E, SCE, and SDG&E comply with D.13-10-040 and D.16-01-032.

4. Have the Utilities Correctly Counted Existing Eligible Energy Storage Credits Toward Their 2016 Energy Storage Procurement Targets as Directed in D.13-10-040 and D.16-01-032?

To meet the customer-side domain of the energy storage target, D.16-01-032 determined that credit for SGIP-funded energy storage projects

¹⁹ PGE-1 at 5-6.

²⁰ D.16-01-032, Conclusion of Law 4.

²¹ SCE-1, at 35.

²² D.13-10-040 Appendix A at 9; *see generally* SCE-1 at 36-40.

should be evenly split between an unbundled customer's IOU and the Community Choice Aggregators (CCA)/Energy Service Providers (ESP).²³

However, the Commission did not specify how accounting for such SGIP procurement would be implemented and verified. In briefs, PG&E requested clarification regarding the effective date of the customer side SGIP credit split.²⁴ PG&E has interpreted D.16-01-032 to apply to SGIP storage projects coming online after the issuance of D.16-01-032.²⁵ SCE has "forecast(ed) SGIP-funded energy storage installations located in its territory that could overlap with CCA or ESP territories, and then halve(d) that MW amount."²⁶ SDG&E has shown the full amount as an expected offset against its targets as "the Commission has not established a framework for the implementation of the 50-50 split counting rules."²⁷ Regarding the identification of SGIP consumer procurement credit, SDG&E proposes a "process for a CCA or ESP to verify that the SGIP funded project is in their territory and to submit that request to the applicable utility."²⁸ ORA contends the Commission should "require utilities to confer" and validate procurement "with CCAs or ESPs in their respective territories prior to filing their 2018 energy storage procurement plan applications."²⁹

²³ D.16-01-032, Conclusion of Law 29.

²⁴ PG&E Opening Brief at 8.

²⁵ PG&E Opening Brief at 8.

²⁶ ORA Opening Brief at 3; *see* SCE-1 at 23.

²⁷ SDG&E Opening Brief at 10.

²⁸ SDG&E Opening Brief at 11.

²⁹ ORA Opening Brief at 4; *see* TURN Reply Brief at 2.

Because customer-specific SGIP information is held confidential, accessible only by the SGIP Program Administrators,³⁰ additional information is needed in order to properly assign the MWs associated with SGIP-funded storage to each LSE's storage target. Therefore, we direct the utilities to provide a breakout of SGIP-funded energy storage installations by bundled, CCA, and Direct Access customers as part of future biennial storage procurement plan applications. In addition, each utility should file a Tier 1 Advice Letter twice a year, on June 1 and December 1, containing the breakout of SGIP-funded installations, and serve it on parties to the current energy storage rulemaking (R.15-03-011), or any successor to the rulemaking. These Tier 1 Advice Letters are in addition to including the cumulative total in each utility's biennial storage procurement plan application. Finally, in order to ensure consistency in reporting, we direct the utilities to consult with the Commission's Energy Division staff to develop the content and format for reporting the allocation of credits for SGIP-funded projects.

This split applies prospectively to those SGIP projects online after adoption of D.16-01-032. SGIP projects online prior to D.16-01-032 are to be credited solely to utilities. The Commission has found evenly splitting SGIP funded project credit "between an unbundled customers' utility and the CCA/ESP to be reasonable and consistent with the concept of equity espoused in D.14-10-045."³¹

³⁰ The SGIP Program Administrators are PG&E, SCE, Southern California Gas Company, and the Center for Sustainable Energy for SDG&E.

³¹ D.16-01-032 at 43.

SDG&E must adjust its SGIP storage procurement calculation to reflect the above standard. PG&E and SCE are compliant with the SGIP credit methodology determined above. SDG&E shall split SGIP funded energy storage installations located in its territory consistent with the methodology set forth in D.16-01-032.

5. Are the Terms and Conditions for the Provision of Energy Storage Services in the Utilities' 2016 Energy Storage RFO Protocols Reasonable?

The utilities contend the terms and conditions for the provision of energy storage services in the utilities' 2016 Energy Storage RFO protocols are reasonable. PG&E states its 2016 ES RFO "builds off its earlier ES RFO cycle, approved in D.14-10-045," modified to include "pro forma term sheets" for purposes of "resource adequacy" and "turnkey storage projects."³² SCE's 2016 Opening Brief did not detail specific modifications between their 2014 and 2016 ES RFOs.³³ SDG&E argues its 2016 RFO includes "nearly identical requirements" to their 2014 RFO.³⁴ They note that their 2016 RFO terms and conditions have not received adverse comment from their independent evaluator.³⁵

We have reviewed the terms and conditions for the provision of energy storage services in the utilities 2016 Energy Storage RFO protocols and find them reasonable.

³² PG&E Opening Brief at 9.

³³ SCE Opening Brief at 5.

³⁴ SDG&E Opening Brief at 13.

³⁵ SDG&E Opening Brief at 13.

6. Should SDG&E Be Allowed to Include a Contingency Provision in its Selection Process that Shortlisted Offers May be Considered Non-Conforming in the Event that the Commission Does Not Adopt SDG&E's Proposed Time-of-Use Periods in A.15-04-012?

SDG&E proposes that in the event that the Commission does not approve SDG&E's proposed time-of-use (TOU) periods in A.15-04-012, it be allowed to unilaterally deem proposed behind-the-meter projects as non-conforming.³⁶ This contingency provision was in place for the 2014 All Source Local Capacity Requirement RFO for demand response products and is proposed as part of SDG&E's 2016 Preferred Resources Local Capacity Requirement RFO. SDG&E argues the contingency provision should be permissible as Commission failure to approve SDG&E's requested TOU period would result in "behind-the-meter storage devices ... operat(ing) in response to inaccurate price signals, (which) will result in the avoidance of some on-peak commodity and/or demand charges... subsidized by other customers, in violation of the RFO's conformance criteria."³⁷ CESA contends the condition set forth by SDG&E "creates a clear and unreasonable barrier for behind-the-meter energy storage to compete in this type of solicitation" by creating "a clear lack of certainty for potential bidders."³⁸

While SDG&E's independent evaluator (IE) agreed that failure to set accurate TOU periods would result in "payments non-commensurate with the benefits provided," the IE did not agree the receipt of such benefits could be

³⁶ SD-2, Attachment 2 at 14.

³⁷ SDG&E Opening Brief at 17. Conformance criteria is not defined.

³⁸ CESA Opening Brief at 3.

considered a “subsidy” in violation of the RFO’s conformance criteria.³⁹ Rather, establishing this condition violates the intent of D.13-10-040, promotion of “viable and cost effective energy storage applications,” through the imposition of uncertainty upon customer storage project bidders.⁴⁰

Addition of a unilateral non-conformity provision does not serve to reduce project uncertainty, or enable SDG&E to effectively quantify the value of these projects and violates the intent of D.13-10-040. Further, the Commission adopts TOU periods through a public ratemaking process. SDG&E’s position as to the proper TOU periods may or may not prevail in that process, and the Commission’s final decision, not SDG&E’s position, is what determines the adopted TOU periods, taking into consideration value and other factors. The arguments that SDG&E makes here appear more appropriately argued in A.15-04-012, where the Commission will decide the TOU periods. SDG&E may not include its proposed TOU contingency provision in its selection process.

7. Are the Safety Requirements in the Utilities’ 2016 Energy Storage RFO Protocols Reasonable and Will the Utilities’ Proposed Procurement Plans Ensure Safe and Reliable Delivery of Energy to Customers?

The scoping memo explicitly identified safety as an issue in the proceeding. In response, the utilities described their efforts to ensure the proposed contracts that result from the 2016 RFO will operate in a safe and reliable manner.

³⁹ SDG&E Opening Brief at 17.

⁴⁰ D.13-10-040 at 42; *see generally* LEGISLATIVE COUNSEL’S DIGEST, Cal. State Assemb. 469-2514, (2010).

PG&E requires offering parties to provide information about the safety history and practices of the entities that would construct, operate, own or maintain the projects. Shortlisted participants will be required to submit safety plans that would demonstrate responsible safety management during all phases of the project lifecycle.⁴¹

SCE addressed safety in its January 25, 2016 Reply to Protests. Like PG&E, the Request for Offers requires the offering party to develop a written plan for the safe construction and operation of the energy storage facility, consistent with the requirements of the pro forma contract.⁴² SCE's pro forma energy storage agreements also require the Seller to provide to SCE, prior to commencement of any construction activities on the Site, a report from an independent engineer (acceptable to both SCE and the Seller) certifying that the Seller has a written plan for the safe construction and operation of the Project in accordance with Prudent Electrical Practices, which are specifically defined.

SDG&E has stated its intent to "gather information regarding respondents' safety plans in the project or program description form and will evaluate, on a qualitative basis, proposed projects from a safety perspective based on this information."⁴³ "For utility-owned energy storage systems, SDG&E will undertake a comprehensive evaluation of all components of each respondent's offers. This evaluation will include a pre-evaluation process where SDG&E will evaluate counterparty risk, including the respondent's prior experience in safely constructing and operating energy storage systems, the technical merit of the

⁴¹ PGE-1 at 4-8.

⁴² SCE-1 at 32-33.

⁴³ SD-2, Attachment A at 18.

proposed system, including safety components, and overall project cost.”⁴⁴ “For third-party-owned energy storage systems ... respondents commit to operating and maintaining their facility in accordance with accepted electrical practices, applicable law and industry standards, including those that are related to safety.”⁴⁵

The Commission is committed to ensuring the safe deployment and interconnection of energy storage resources. Accordingly, the utilities are reminded of their critical role in ensuring the safe connection, operation, and maintenance of energy storage resources, as they carry the “ultimate responsibility for safety of resources connected to (their) facilities, regardless of whether those resources are utility owned or owned by entities under contract to the utilities.”⁴⁶ We find that PG&E, SCE, and SDG&E have addressed potential safety concerns in a proactive and responsible manner and that there are no obvious safety concerns that remain to be addressed.

8. Should PG&E’s, SCE’s, and SDG&E’s Proposed Procurement Plans for the 2016 Biennial Solicitation be Adopted?

Pending recalculation of existing eligible energy storage credits detailed in Section 4, and elimination of SDG&E’s RFO contingency provision detailed in Section 6, PG&E’s, SCE’s, and SDG&E’s proposed procurement plans for the 2016 Biennial Solicitation comply with D.13-10-040 and D.16-01-032, and should be adopted.

⁴⁴ SDG&E Opening Brief at 11.

⁴⁵ SDG&E Opening Brief at 12.

⁴⁶ D.16-01-032 at 54.

Regarding the use of storage for distribution deferral, ORA recommends that “in any application for approval resulting from an [Energy Storage] RFO, the relevant utility should include: (1) what purpose the upgrade will serve; (2) how the proposed energy storage system will meet the specific reliability needs of the area where it will be installed and operate; (3) a comparison between the costs of the deferred asset and the proposed energy storage system over the deferral period; (4) the length of the deferred asset’s useful life; and (5) the deferred asset’s online dates that are used to measure the deferral value of the energy storage system.”⁴⁷ PG&E agrees with ORA’s recommendation that an affirmative showing is needed to support any ‘distribution deferral’ storage projects for deferral projects, but opposes ORA’s recommendation that such projects must be ‘better and cheaper’ than the more traditional alternative.⁴⁸

We agree that the additional information ORA proposes is useful in evaluating contracts. In future applications for approval of distribution deferral projects resulting from an Energy Storage RFO, the utilities shall include:

- (1) what purpose the upgrade will serve;
- (2) how the proposed energy storage system will meet the specific reliability needs of the area where it will be installed and operate;
- (3) a comparison between the costs of the deferred asset and the proposed energy storage system over the deferral period;
- (4) the length of the deferred asset’s useful life; and
- (5) the deferred asset’s online dates that are used to measure the deferral value of the energy storage system.

⁴⁷ ORA Opening Brief at 4-5; *see* PG&E Reply Brief at 2; *see also* ORA Reply Brief at 2-3.

⁴⁸ PG&E Reply Brief at 3.

Such provision of information is consistent with the Commission's finding that utilities should retain the flexibility to include specific use-case or project variations in their energy storage RFOs," and that the utilities should retain the flexibility to require interconnection studies or specific site control information in their energy storage RFOs, but in either case should not be required to do so, as provision of information does not infringe upon the flexibility of the evaluation methodology itself.⁴⁹ However, we agree that utilities should not be required to show "energy storage used to defer or substitute an investment in a traditional asset must be able to meet resource needs commensurate with or better than the traditional asset it is intended to defer," as such a requirement would adjust the evaluation methodology itself and restrict utility flexibility to "procure the products and services in the manner that meets the utilities needs and risk tolerances."⁵⁰

9. Outstanding Procedural Matters

PG&E requested that the Commission modify the timing by which a utility must request postponement or deferral of its energy storage target to coincide with the date of the application for approval of energy storage contracts entered into as a result of the 2016 Request for Offer process. PG&E asserts "because the energy storage offers should be fully evaluated before drawing any conclusion about their viability, the Commission should extend the deadline for any deferral request to the date of RFO contract submission for the 2016 ES RFO."⁵¹ ORA supports this contention as it is "in alignment with the Commission's recognition

⁴⁹ D.16-01-032 Conclusions of Law 2 and 3.

⁵⁰ ORA Opening Brief at 5; *see* SCE Opening Brief at 6; *see also* PG&E Reply Brief at 3-4;

⁵¹ PG&E Opening Brief at 10.

in D.13-10-040 'that it is important that the Storage Framework include cost containment strategies that protect ratepayers."⁵² We agree that this change is appropriate and grant it for all three utilities and for future energy storage procurement cycles.

The following parties were granted party status but did not actively participate in the proceeding and thus their party status is rescinded and they will be moved to information only status consistent with the Scoping Ruling at 7: Utility Consumers Action Network, GPI; MegaWatt Storage Farms, Inc.; and Stem, Inc.

The Commission affirms all rulings made by the assigned Commissioner and assigned ALJ. All motions not previously ruled on are denied as moot.

10. Categorization and Need for Hearing

In the Assigned Commissioner and Administrative Law Judge's Scoping Ruling, the Commission affirmed that these Applications were ratesetting, and determined that hearings were not necessary. A formal change to the hearing determination was made in Resolution ALJ-330, therefore the ex parte rules as set forth in Rules 8.1, 8.2, 8.3, and 8.5 and §1701.3(c) no longer apply.

11. Comments on Proposed Decision

The proposed decision of ALJ Cooke in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on August 18, 2016 by PG&E, SCE, SDG&E, ORA, TURN, CCA Parties (including City of Lancaster), AReM/DACC, and

⁵² ORA Reply Brief at 4; *see generally* TURN Reply Brief at 2 (supporting postponement of deadline for requesting deferment).

CESA, and reply comments were filed on August 23, 2016 by PG&E, SCE, SDG&E, AReM/DACC, and CESA. Minor edits have been made throughout the decision to clarify the intent of the Proposed Decision.

12. Assignment of Proceeding

Carla J. Peterman is the assigned Commissioner and Michelle Cooke is the assigned ALJ in these proceedings.

Findings of Fact

1. The utilities have filed energy storage procurement applications with proposed modifications based on data and experiences from previous procurement periods.
2. Each utility provided an updated table with estimates for biennial energy storage procurement targets for each storage grid domain from current year to 2020 with accounting for any excess procurement or shortfall, and any shifting MW between domains.
3. Each utility identified upgrade needs in their transmission or distribution planning studies.
4. Each utility provided a list of all applicable rules and statutes impacting its energy storage procurement plan as a part of the application.
5. Each utility provided an explanation of the type of storage resources and the associated MW quantities the utility intends to procure, categorized by grid domains and use cases.
6. Each utility provided a detailed description of how they intend to procure resources specifying the structure of any RFO or alternative procurement processes and related timelines.
7. Each utility provided operational requirements to be applied.

8. Each utility proposed a methodology for analysis that evaluates bids on cost and fit.

9. Each utility provided proposed storage equipment/power/services purchase agreements for successful bids involving third party owned or aggregated projects.

10. Each utility provided a report on all storage resources procured to date in all Commission proceedings.

11. Each utility requested cost-recovery authorization, as appropriate.

12. Utilities have conferred with Energy Division to establish the consistent evaluation protocols for assessing bids for benchmarking and general reporting purposes prior to the filing of any application.

13. Using an offer's portfolio adjusted value will enable PG&E to reduce uncertainty and effectively quantify the value of these storage projects.

14. D.13-10-040 determined that Self-Generation Incentive Program funded energy storage systems may count toward each utility's procurement targets and may be shared with LSEs.

15. Utilities should retain the flexibility to require interconnection studies or specific site control information in their energy storage RFOs, but should not be required to do so.

16. Promotion of viable and cost effective energy storage is one intent of D.13-10-040.

17. Utilities carry the ultimate responsibility for safety of resources connected to their facilities, regardless of whether those resources are utility owned or owned by entities under contract to the utilities.

Conclusions of Law

1. The proposed energy storage procurement plans of PG&E, SCE, and SDG&E, comply with D.13-10-040 and D.16-01-032.
2. Utilities should retain the flexibility to require interconnection studies.
3. The Commission should not require utilities to independently forecast potential future revenue streams with storage project bids where the value is uncertain or unquantifiable.
4. PG&E and SCE have correctly counted existing eligible energy storage credits toward their 2016 energy storage procurement targets as directed in D.13-10-040 and D.16-01-032.
5. SDG&E has not correctly counted existing eligible energy storage credits toward its 2016 energy storage procurement targets as directed in D.13-10-040 and D.16-01-032.
6. PG&E, SCE, and SDG&E should provide CCAs and ESPs notice when SGIP customers receive incentive payments in their respective territories.
7. Splitting energy storage credits between utilities and LSEs should apply prospectively to SGIP projects online after D.16-01-032.
8. PG&E and SCE are compliant with the SGIP credit methodology.
9. SDG&E should split SGIP funded energy storage installations located in its territory consistent with the methodology set forth in D.16-01-032.
10. Modifications proposed by the utilities in their 2016 RFO are within the utilities discretion to procure the products and services in the manner that meets the utilities needs and risk tolerances.
11. The terms and conditions for the provision of energy storage services in the utilities 2016 Energy Storage RFO protocols are reasonable.

12. In any application for approval resulting from an ES RFO, utilities should include: (1) what purpose the upgrade will serve; (2) how the proposed energy storage system will meet the specific reliability needs of the area where it will be installed and operate; (3) a comparison between the costs of the deferred asset and the proposed energy storage system over the deferral period; (4) the length of the deferred asset's useful life; and (5) the deferred asset's online dates that are used to measure the deferral value of the energy storage system.

13. Utilities should not be required to show energy storage used to defer or substitute an investment in a traditional asset must be able to meet resource needs commensurate with or better than the traditional asset it is intended to defer.

14. SDG&E should not include a TOU contingency provision in its selection process.

15. The safety requirements in utilities 2016 Energy Storage RFO protocols are reasonable and will ensure safe and reliable delivery of energy to customers.

16. The Commission should allow a utility to request to defer energy storage procurement concurrent with its application for approval of contracts resulting from its 2016 and future Energy Storage RFOs.

17. After recalculation of existing energy storage credits detailed in Section 4 and elimination of SDG&E's RFO contingency provision detailed in Section 6 PG&E's, SCE's, and SDG&E's proposed procurement plans for the 2016 Biennial Solicitation comply with D.13-10-040 and D.16-01-032, and should be adopted.

O R D E R

IT IS ORDERED that:

1. When Pacific Gas and Electric Company submits an application for approval of contracts entered into as a result of the 2016 Request for Offer process, Pacific Gas and Electric Company must include the additional evaluation information detailed in Section 8. With these modifications, Application 16-03-001 is approved.

2. When Southern California Edison Company submits an application for approval of contracts entered into as a result of the 2016 Request for Offer process, Southern California Edison Company must include the additional evaluation information detailed in Section 8. With this modification, Application 16-03-002 is approved.

3. San Diego Gas & Electric Company must recalculate existing energy storage credits detailed in Section 4 and make a compliance filing within 15 days of the effective date of this decision specifying the total megawatts of energy storage it will solicit in its 2016 Request for Offers. San Diego Gas & Electric Company must eliminate the contingency provision related to adoption of its proposed time-of-use periods in Application 15-04-012 as detailed in Section 6. When San Diego Gas & Electric Company submits an application for approval of contracts entered into as a result of the 2016 Request for Offer process, San Diego Gas & Electric Company must include the additional evaluation information detailed in Section 8. With these modifications, Application 16-03-003 is approved.

4. The deadline to request deferral of meeting the 2016 energy storage goal is modified to coincide with the date of the application for approval of energy

storage contracts entered into as a result of the 2016 Request for Offer process. Any such request must be included in the application for approval of the 2016 energy storage contracts. This change is adopted for future energy storage procurement Requests for Offers.

5. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must provide a breakout of Self-Generation Incentive Program-funded energy storage installations by bundled, Community Choice Aggregators, and Direct Access customers as part of future biennial storage procurement plan applications. In addition, each utility must file a Tier 1 Advice Letter twice a year, on June 1 and December 1, containing the breakout of Self-Generation Incentive Program-funded installations, and serve it on parties to the energy storage rulemaking (Rulemaking 15-03-011), or its successor.

6. To ensure consistency in reporting, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must consult with the Commission's Energy Division staff to develop the content and format for reporting the allocation of credits for Self-Generation Incentive Program-funded projects.

7. Utility Consumers Action Network, Green Power Institute, MegaWatt Storage Farms, Inc.; and Stem, Inc. are converted from party status to Information Only status.

8. Applications 16-03-001, 16-03-002, and 16-03-003 are closed.

This order is effective today.

Dated September 15, 2016, at San Francisco, California.

MICHAEL PICKER

President

MICHEL PETER FLORIO

CATHERINE J.K. SANDOVAL

LIANE M. RANDOLPH

Commissioners

Commissioner Carla J. Peterman, being necessarily absent, did not participate.