

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Second Application of Pacific Gas and
Electric Company for Approval of
Agreements Resulting from Its 2014-
2015 Energy Storage Solicitation and
Related Cost Recovery (U 39 E)

Application 16-04-024
(Filed April 29, 2016)

**OPENING BRIEF
OF THE OFFICE OF RATEPAYER ADVOCATES
[PUBLIC VERSION]**

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I. INTRODUCTION

Pursuant to Rule 13.11 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure (Rules) and the schedule set forth by the July 25, 2016 Scoping Memo,¹ the Office of Ratepayer Advocates (ORA) timely submits this opening brief of Application (A.) 16-04-024, *Second Application of Pacific Gas and Electric Company (U 39 E) For Approval Of Agreements Resulting From Its 2014-2015 Energy Storage Solicitation And Related Cost Recovery* (Second Application), filed on April 29, 2016.

The Commission should reject Pacific Gas and Electric Company's (PG&E) Second Application. As confirmed by undisputed facts and matters of law, the Commission should issue a final determination that PG&E's Second Application is unreasonable and deny PG&E's requested relief. Specifically, the Commission's decision should make findings based on the following:

¹ *Scoping Memo And Ruling Of Assigned Commissioner And Administrative Law Judge* ("Scoping Memo")

- 1) PG&E’s proposed Agreement with Stem Energy Northern California LLC (Stem) is not cost-effective, as required by state law and established Commission policies;
- 2) PG&E’s evaluation process of the proposed Agreement failed to adhere to Least Cost Best Fit (LCBF) principles as required by the Commission;
- 3) The Commission should not approve proposed IOU projects solely based on a “learning opportunity” outside of the Electric Program Investment Charge (EPIC) Program;
- 4) The proposed contract is not needed for PG&E’s near or long-term Resource Adequacy (RA) obligations, so the proposed Agreement cannot be approved based exclusively on its RA benefits; and
- 5) PG&E failed to timely include the proposed Agreement in its First Application, as required by Decision (D.) 14-10-045, and lacks any justification for its late submittal in the Second Application.

In Appendix A, ORA submits proposed findings of fact, conclusions of law, and ordering paragraphs for Commission consideration.

II. BACKGROUND AND RELATED MATTERS

Ordering Paragraph 1 of D.14-10-045 directed the Investor-Owned Utilities (IOUs) to file the results of their respective 2014-2015 energy storage solicitations by December 1, 2015.² Pursuant to that order, PG&E timely filed Application (A.) 15-12-004 (First Application),³ requesting approval of seven energy storage contracts totaling 75 megawatts (MWs).⁴ PG&E noted in the application it was unable to complete negotiations with some potential counterparties and execute a contract in time to submit

² D.14-10-045, Ordering Paragraph (OP) 1(6), p. 119.

³ *Application of Pacific Gas and Electric Company for Approval of Agreements Resulting from its 2014-2015 Energy Storage Solicitation and Related Cost Recovery*, filed April 29, 2016 in A.15-12-004 (“PG&E’s First Application”).

⁴ PG&E’s First Application, A.15-12-004, p. 1. In that proceeding, PG&E’s opening brief states its Clarksville energy storage project cannot be developed in time to meet Critical Milestones, as defined in the Clarksville ESA: “Based on this, on May 24, 2016, PG&E and the Western Grid agreed to terminate this agreement effectively May 27, 2016.” See PG&E Opening Brief, p. 3, filed May 25, 2016.

with its First Application,⁵ and requested Commission authorization to file a new application in the event PG&E executed a contract for these resources.⁶

The subject of this brief, PG&E’s Second Application—filed well past the Commission December 1st deadline established in D.14-10-045 and without prior Commission authorization—includes an executed contract resulting from the negotiations of PG&E’s 2014-2015 energy storage Request for Offer (RFO). The Second Application requests approval and cost recovery of the Stem Agreement, which proposes to deliver 4 MW of RA and monthly flexible RA of aggregated behind-the-meter (BTM) storage.⁷

III. DISCUSSION

According to the Scoping Memo, “Consistent with the scope established for A.15-12-004, the reasonableness of the proposed contract is a primary issue.”⁸

California Public Utilities Code Section 451 requires that “all charges demanded or received by any utility . . . shall be just and reasonable.” The facts presented in this brief are undisputed as all the information is set forth in PG&E’s Second Application, Prepared Testimony, and responses to ORA’s data requests. The undisputed facts are relevant and material⁹ to the issue of whether the contract and associated cost recovery are just and reasonable. These undisputed facts show that, in light of applicable law and policy, PG&E failed to demonstrate the reasonableness of its Second Application.

The proposed contract offers no clear ratepayer benefits. First, the Stem contract is not cost-effective pursuant to State law and the CPUC’s established policies. Second,

⁵ PG&E’s First Application, A.15-12-004, p. 3.

⁶ PG&E’s First Application, A.15-12-004, p. 3.

⁷ PG&E Second Application, A.16-04-024, p. 1. Because PG&E’s First and Second Applications feature contracts that: (a) were executed under PG&E’s 2014-2015 energy storage RFO, (b) utilize the same evaluation methodologies, and (c) were evaluated by the same independent evaluator, the facts presented in PG&E’s First Application are relevant and material to the instant proceeding.

⁸ Scoping Memo, p. 2.

⁹ Cal. Evid. Code §§ 210, 350.

LCBF principles were not reflected in PG&E’s evaluation of the Agreement.¹⁰ Third, the proposed agreement is not needed to meet PG&E’s short or long-term RA obligations. Finally, PG&E’s failure to timely submit the contract in its First Application should preclude Commission consideration of the requested relief in the Second Application. Since PG&E cannot demonstrate that the proposed contract is just and reasonable; the Commission should deny PG&E’s requested relief of its Second Application.

A. The Commission Cannot Approve The Stem Agreement Because It Is Not Cost-Effective Or Economic

Several California statutes explicitly direct the Commission to ensure the energy storage procurement by the utilities is cost-effective. Assembly Bill (AB) 2514,¹¹ emphasizes cost-effectiveness

- ... An “energy storage system” *shall be cost effective*... (Pub. Util. Code § 2835(a)(3).)
- ... [T]he commission shall open a proceeding to determine appropriate targets, if any, for each load-serving entity to procure viable and *cost-effective* energy storage systems to be achieved by December 31, 2015, and December 31, 2020...the commission may consider a variety of possible policies to encourage the *cost-effective deployment* of energy storage systems, including refinement of existing procurement methods to properly value energy storage systems.¹² (Pub. Util. Code § 2836.)
- ... In adopting and evaluating appropriate energy storage system procurement targets and policies...the commission shall...ensure that the energy storage [is] technologically viable and *cost effective*. (Pub. Util. Code § 2836.2(d).)
- ... All procurement of energy storage systems by a load-serving entity...*shall be cost effective*. (Pub. Util. Code § 2836.6.)

¹⁰ Exh. PG&E-1C, Appx. C, p. C-34, fn. 41, which states, [REDACTED]

¹¹ Pub. Util. Code §§ 2835, et. seq.

¹² The Commission initiated R.10-12-007 to implement provisions of AB 2514.

Based on the above, state law establishes the fact that the Commission and the utilities share an equal responsibility to ensure the procurement of energy storage is cost-effective.

In D.13-10-040, which adopted the Energy Storage Procurement Framework and Design Program, the Commission clarified, “it is important that the Storage Framework include cost containment strategies that protect ratepayers.”¹³ While there is no standard mechanism to determine cost-effectiveness, the Commission held that energy storage projects will be “evaluated based on the net cost to ratepayers,”¹⁴ and granted the IOUs latitude to “propose their own methodology to evaluate the cost and benefits of bids.”¹⁵ Subsequently, in D.14-10-045, the Commission authorized PG&E¹⁶ to use an evaluation methodology combining the Net Market Value (NMV) and Portfolio Adjustment Value (PAV).¹⁷ D.14-10-045 also directed the IOUs to evaluate energy storage offers based on a Consistent Evaluation Protocol (CEP).¹⁸

¹³ *Id.*, p. 42.

¹⁴ *Id.*, pp. 56, 63; *See also* D.14-10-045, p. 6.

¹⁵ D.13-10-040, COL 37, p. 75. (“Each utility should be allowed to propose its own methodology to evaluate the costs and benefits of bids and evaluate the full range of benefit and costs identified for energy storage in the use-cases.”)

¹⁶ D.14-10-045, OP 1(8), p. 119.

¹⁷ Exh. PG&E-1, pp. 5-6 – 5-7. PG&E describes its evaluation, stating:

First NMV is computed for each Offer. NMV intends to represent the value of an Offer from the market perspective (e.g., the Generation/Market regulatory function). The NMV captures the market value provided by an Offer for Energy, A/S, and Capacity and compares it to the Offer’s cost. However, NMV does not include the benefits and costs associated with an Offer’s impact on PG&E’s portfolio. That is captured by PAV.

Second, PG&E makes explicit and systematic adjustments to NMV to incorporate the value of an Offer with respect to PG&E’s entire portfolio. To arrive at PAV, the NMV will be adjusted by criteria such as the Offer’s location, transmission network upgrade cost, benefit of deferred or avoided T&D investment costs, [] and effects on other generation in PG&E’s portfolio...

(continued on next page)

The undisputed material facts demonstrate that the proposed Agreement is not cost-effective under any circumstance. Under all three evaluation methodologies (NMV, PAV, and CEP) approved by the Commission, the proposed Agreement received [REDACTED] evaluations, as detailed below. Thus, the Commission should reject PG&E's Second Application, as the proposed contract violates state law and policy which requires energy storage to be cost-effective.

1. The NMV Of The Stem Agreement Does Not Support A Finding Of Reasonableness

The NMV denotes the economic merit of the offer by comparing the offer's market benefit to its costs.¹⁹ PG&E states it calculates the NMV of BTM energy storage offers by subtracting the variable and fixed costs of the offer from the market value of the offers' applicable energy components.²⁰

The NMV shows the contract is not cost-effective. The proposed Agreement recorded a [REDACTED]/kW NMV.²¹ Based on this score, the contract's pricing and resource-specific characteristics have poor economic merit and do not provide a net economic benefit to PG&E. As ORA-Table 1 illustrates, the proposed Agreement has the [REDACTED] [REDACTED] NMV amongst shortlisted contracts in PG&E's 2014-2015 energy storage RFO.

(continued from previous page)

Third, after the calculation of PAV is complete, PG&E considers qualitative criteria, including project viability, supplier diversity, and credit of the counterparty, the extent of proposed modifications to the standard for contract, counterparty concentration and technology diversity.

Lastly, Offers will be ranked using PAV as the common benchmark for comparison. Shortlisted Offers will typically be drawn from projects with the more favorable PAV results and qualitative criteria.

¹⁸ D.14-10-045, OP 1(8), p. 119.

¹⁹ Exh. PG&E-1, p. 4-2.

²⁰ Exh. PG&E-1, pp. 4-2 – 4-3. The applicable energy components are: (1) revenue from discharged energy minus cost of energy sued to charge the storage device, (2) ancillary services, and (3) capacity offered on a locational basis. *Id.*, p. 4-2.

²¹ Exh. PG&E-1, p. 4-5.

The only offers with [REDACTED] NMV results were PG&E's Old Kearney and Mendocino Purchase and Sale Agreements (PSA) that were rejected in D.16-09-004.²²

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²² "PG&E's proposed purchase and sale agreements are not cost-effective," D.16-09-004, Findings of Fact 3, p. 27.

ORA-Table 1²³
Final Shortlist – Economic Evaluations – NMV

Project Name	Storage Technology	Contract Type	NMV (\$/kW)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

The poor NMV results demonstrate the Agreement has low overall economic value and contradict PG&E’s representation that it is reasonable and in the ratepayers’ interest. For this reason, the proposed Agreement cannot be found cost-effective and should be rejected.

2. The PAV of the Stem Agreement Does Not Support a Finding of Reasonableness

The PAV examines the benefits and costs associated with an offer’s impact on PG&E’s portfolio. PG&E defines PAV as “an adjustment to NMV based on:

²³ Exh. PG&E-1C, Appx. C, pp. C-21, C-53. PG&E executed eight contracts, including its contract with Stem, as a result of its 2014-2015 Energy Storage RFO. Two of these contracts are utility-owned, and thus, not depicted here.

²⁴ On May 24, 2016, PG&E and Wester Grid Development, LLC terminated the Western Grid Agreement because of project development delays. PG&E Opening Brief filed in A.15-12-003, et al., p. 3.

(1) location, (2) transmission network upgrade costs, (3) transmission and distribution investment deferral value, (4) benefits due to increased efficiency for fossil generation, and (5) renewable generation curtailment support.”²⁵ The PAV of an offer illustrates an offer’s value to PG&E’s aggregate position—i.e., how valuable the offer is to PG&E’s specific position in reference to its resource needs and assets.²⁶ PG&E did not make any PAV adjustments to the selected Stem offer²⁷ other than to item (4) listed above, in which PG&E decreased the overall evaluation of the offer.

PG&E attributes a cost to system efficiency since, under the proposed Agreement, the energy storage system aggregation may not discharge into the California Independent System Operator (CAISO) markets in a way that reduces overall market costs.²⁸ PG&E assumed that BTM offers would be economically dispatched in response to the Seller’s respective retail rate schedules rather than CAISO market prices.²⁹ To mitigate potential perverse impacts to system efficiency from BTM contracts, PG&E modified its monthly capacity payments by subtracting an Energy Settlement amount from the monthly Capacity Payments it will pay to the energy storage Seller.³⁰ The Energy Settlement amount represents a “[REDACTED]” that attempts to [REDACTED]
[REDACTED]³¹ However, the Independent Evaluator (IE) acknowledges that, for this mechanism to work

²⁵ Exh. PG&E-1, p. 4-5.

²⁶ Exh. PG&E-1C, Appx. C, pp. C-65.

²⁷ The IE notes: (1) a location adjustment is unnecessary since all the BTM offers are within PG&E’s service territory; (2) transmission upgrade costs are not considered since the BTM offers are behind the retail meter; (3) transmission and distribution deferral are likewise not applicable, and (4) no renewable curtailment value was ascribed to the BTM offers because PG&E will not control the CAISO dispatch and charging may occur in response to retail price signals as opposed to wholesale price signals. Exh. PG&E-1, Appx. C, p. C-35.

²⁸ Exh. PG&E-1, p. 4-7.

²⁹ Exh. PG&E-1, p. 4-7.

³⁰ Exh. PG&E-1, p. 3-3.

³¹ Exh. PG&E-1C, Appx. C, p. C-26.

effectively, the Seller “ [REDACTED] ” and that “ [REDACTED] ”.³² In sum, PG&E’s PAV evaluation assigned no additional benefit to the BTM offers, including the Agreement, and its capacity payment mechanism may not result in improved system efficiency.

The proposed Stem Agreement recorded a [REDACTED]/kW PAV. In other words, the Agreement will contribute a [REDACTED] rather than a benefit to PG&E’s portfolio. The Agreement is also the [REDACTED] of all shortlisted contracts from PG&E’s 2014-2015 energy storage RFO in terms of PAV, as shown in ORA-Table2. Out of a total [REDACTED] shortlisted contracts, the Stem Agreement ranked [REDACTED] in PAV.³³ Importantly, the proposed Agreement ranked [REDACTED] than PG&E’s two Purchase and Sale Agreements (PSAs), which the Commission determined were not cost effective in D.16-09-004.³⁴

³² Exh. PG&E-1C, Appx. C, p. C-26. Additionally, the IE Report asserts that Stem’s [REDACTED] Exh. PG&E-1C, Appx. C, p. C-55. This suggests that regardless of Stem’s ability to [REDACTED]

³³ Exh. PG&E-1, Ch. 4, Attach. A.

³⁴ D.16-09-004, Finding of Fact 3, p. 27.

ORA-Table 2³⁵
Final Shortlist – Economic Evaluations – PAV

Project Name	Contract Type	PAV (\$/kW)
[REDACTED]	[REDACTED]	[REDACTED]

The IE Report states that the proposed Agreement’s valuation results “ [REDACTED] [REDACTED] ”³⁶ and that “ [REDACTED] [REDACTED] ”³⁷ The IE Report also observed that “ [REDACTED] [REDACTED] ”³⁸ Based on the above, the proposed Agreement is not cost-effective under this evaluation methodology, with the [REDACTED] PAV.³⁹ Because the purposes of energy storage

³⁵ Exh. PG&E-1C, Appx. C, pp. C-21 & C-27.

³⁶ Exh. PG&E-1C, Appx. C, p. C-27.

³⁷ Exh. PG&E-1C, Appx. C, p. C-57. As noted above, the Commission determined that PG&E’s two proposed PSAS, [REDACTED] were not cost effective. D.16-09-004, Finding of Fact 3, p. 27.

³⁸ Exh. PG&E-1C, Appx. C, p. C-34, fn. 41.

³⁹ Exh. PG&E-1C, Appx. C, p. C-27.

procurement are explicit⁴⁰ and all procurement must be cost-effective,⁴¹ the Stem contract cannot be found just and reasonable.

3. The CEP Score of the Stem Agreement Does Not Support A Finding Of Reasonableness

The CEP is a standardized benchmarking tool for the Commission to assess energy storage offers across all three utilities.⁴² The CEP is intended for reporting and benchmarking purposes.⁴³ In D.14-10-045, the Commission approved the IOUs' proposed CEP with two adjustments, including the weighting of qualitative factors of CEP and a revised CEP definition to clarify evaluation of concurrent benefits.⁴⁴ PG&E states, "To obtain the CEP results, PG&E's evaluations were re-run for shortlisted offers using the same costs and operating characteristics from the offers, replacing market prices with standardized, public data, and excluding certain non-quantifiable adjustments such as project viability and project diversity."⁴⁵

Using this methodology, the Agreement with Stem recorded a poor [REDACTED] CEP comparison result,⁴⁶ since the Agreement is ranked [REDACTED] out of the [REDACTED] shortlisted contracts.⁴⁷ Based on its CEP score, the Stem Agreement is the [REDACTED] final executed contract from PG&E's 2014-2015 energy storage (ES) RFO in terms of CEP as shown in ORA-Table 3.⁴⁸ The CEP value of the Stem Agreement further demonstrates that the Agreement is not cost-effective.

⁴⁰ Pub. Util. Code §§ 2835, 2836.4, and 2837.

⁴¹ Pub. Util. Code § 2836.6.

⁴² D.13-10-040, p. 63.

⁴³ *Id.*

⁴⁴ D.14-10-045, OP 1(8), p. 119.

⁴⁵ Exh. PG&E-1, p. 4-11.

⁴⁶ Exh. PG&E-1, Ch. 4, Attach. B.

⁴⁷ Exh. PG&E-1, Ch. 4, Attach. B.

⁴⁸ [REDACTED] m Agreement's NMV and PAV results, the Agreement's CEP value is [REDACTED] the Commission rejected in D.16-09-004.

ORA-Table 3
Final Shortlist – Economic Evaluations – CEP

Project Name	CEP
[REDACTED]	[REDACTED]

B. PG&E’s Evaluation Process Failed To Adhere To LCBF Principles

The Commission, through D.14-10-045, requires energy storage solicitations to “be consistent with the process outlined in D.07-12-052⁴⁹ or IOUs must justify another approach.”⁵⁰ D.14-10-045 approved PG&E’s PAV evaluation methodology, which applies “principles of its Least-Cost Best-Fit methodology, using quantitative and qualitative criteria based on information contained in the offer forms received through a

⁴⁹ D.07-12-052 refined the RFO process and evaluation criteria, and states in pertinent part: “[a] well-functioning competitive process requires that all bids – including the bids of utility-sponsored projects – are evaluated using criteria that are consistent with the goals of the RFO and in a manner that encourages competition among bidders to meet the objectives of the RFO.” D.07-12-052, p. 154. D.07-12-052 also identifies project viability as a criterion that deserves far greater scrutiny by the IOUs. D.07-12-052, p. 156.

⁵⁰ D.14-10-045, p 6.

storage RFO.”⁵¹ However, undisputed material facts demonstrate that PG&E’s evaluation of the Agreement is incomplete and flawed, and did not adhere to LCBF principles. The IE Report observed, “The methodology applied to BTM resources for the final evaluation does not fully reflect Least Cost Best Fit principles since [REDACTED]

[REDACTED]”⁵²

In evaluating the Stem offer, PG&E departed from the methodology it used to evaluate its final executed contracts presented in the First Application. Under the First Application, PG&E applied the following qualitative criteria in selecting the final contracts: (1) Project Viability; (2) Supplier Diversity;⁵³ (3) Credit; (4) Contract Modifications; (5) Counterparty Concentration; (6) Technology Diversity; and (7) Safety.⁵⁴ In the instant case, PG&E failed to assess project viability.⁵⁵ PG&E does not explain why it omitted this factor.

A showing of project viability is significant because the proposed Agreement requires Stem to aggregate between [REDACTED] [REDACTED]⁵⁶ in PG&E’s service territory by the project’s Initial Delivery Date.⁵⁷ PG&E indicates Stem has 170 commercial facilities installed across the state.⁵⁸ However, this statement does not demonstrate the project’s viability as PG&E does not indicate the status of Stem’s current installations in PG&E’s service territory. While the IE asserts that “it *appears* to the IE that the Stem BTM

⁵¹ *Application of PG&E for Authorization to Procure Energy Storage Resources (2014-2015 Biennial Cycle)*, filed February 28, 2014 in A.14-02-007, p. 16.

⁵² Exh. PG&E-1C, Appx. C, p. C-37. *See also* Exh. PG&E-1C, Appx. C, fn. 41, p. C-34.

⁵³ Supplier diversity is a PG&E contractual requirement applied to all executed contracts. Exh. PG&E-1, p. 4-8.

⁵⁴ PG&E’s First Application, A.15-12-004, Exh. PGE-1C, Vol. 4, Appx. C, p. C-12.

⁵⁵ PG&E did not provide an assessment of the offer’s ability to be successfully developed and to provide the offered products and services. *See* Exh. PG&E-1C, Appx. C, p. C-37. *See also* Exh. PG&E-1C, Appx. C, p. C-34, fn. 41.

⁵⁶ Exh. PG&E-1C, Appx. C, p. C-54.

⁵⁷ Exh. PG&E-1, Appx. B, p. B-7.

⁵⁸ Exh. PG&E-1C, Appx. C, p. C-54.

Project should have a reasonable prospect for success as required by the BTM ES [Resource Adequacy Agreement]”⁵⁹ the IE explicitly identifies PG&E’s absence of qualitative review as a weakness of the evaluation and ranking methodology.

C. “Project and Technology Diversity” And “Learning Opportunities” Cannot Serve as an Independent Basis for Contract Approval

Despite the poor economic values noted above, PG&E argues for the adoption of the Agreement based on two qualitative factors: (1) project and technology diversity, and (2) learning opportunity. Ultimately, the IE recommends approval of the Agreement because “

”⁶⁰ In response to ORA’s protest, PG&E argues it considered “other qualitative factors” in reviewing potential storage projects.⁶¹ PG&E argues the incremental cost “is justified by the experience it provides to PG&E,” as well as “contribute[s] to the diversity of the contracts” in the ES RFO.”⁶² Thus, PG&E endorses approval “in order to learn about how this type of resource would operate and provide value in the CAISO market.”⁶³

First, the Commission cannot justify approving the proposed Agreement using project and technology diversity as a standalone basis. In evaluating an energy storage project, technology diversity can be compelling when the other six factors enumerated in the Commission’s LCBF principles are present—but this is not the case here. In fact,

⁵⁹ Exh. PG&E-1C, Appx. C, p. C-56. (Emphasis added)

⁶⁰ Exh. PG&E-1, Appx. C, p. C-57.

⁶¹ Reply of Pacific Gas and Electric Company to Response and Protests, p. 3. *See also*, Exh. PG&E-1, p. 3-6. PG&E states that it sought to execute a BTM energy storage agreement in this RFO “in order to learn about how this type of resource would operate and provide value in the CAISO market.”

⁶² Reply of Pacific Gas and Electric Company to Response and Protests, p. 3.

⁶³ Reply of Pacific Gas and Electric Company to Response and Protests, pp. 3-4.

PG&E attempted similar arguments in support of its two PSAs recently rejected by the Commission in its First Application.⁶⁴ In that proceeding, the Commission stated:

PG&E concedes that on the basis of cost alone, these projects would likely not be selected, but argues that the Independent Evaluator agreed with the diversity benefits that these projects bring to the storage portfolio.⁶⁵

The Commission was not convinced by the project diversity attributes alone, and did not approve the PSAs as they were not cost-effective.⁶⁶ Here, the Commission should again follow the same reasoning and reject PG&E's arguments to approve the proposed Stem Agreement based on project diversity benefits, as the evidence clearly shows that the proposed Agreement is also not cost-effective.

Second, the Public Utilities Code and prior Commission decisions do not authorize “learning experiences” as justification to approve energy storage projects. Instead, the Commission devotes ratepayer investments for learning experiences in other established programs, such as the Electric Program Investment Charge (EPIC) program, where the Commission already authorized PG&E to invest in several energy storage research, development and demonstration opportunities.⁶⁷ Learning opportunities—such as the proposed Agreement PG&E describes in the instant case—fits squarely within the objectives of the EPIC Program, which identifies technology demonstration as:

Technology demonstration and deployment. The installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently

⁶⁴ A.15-12-003, et al.

⁶⁵ D.16-09-004, p. 13.

⁶⁶ “While we agree that there is value in adding diversity to the portfolio and gaining experience with using storage to support distribution deferral, given that the proposed purchase and sale agreements are not cost-effective, and also fail to guarantee the necessary capacity to meet forecasted overloads at the Old Kearney and Mendocino substations based on their online dates, we find that these agreements should not be approved.” D.16-09-004, p. 13.

⁶⁷ See ORA-2, Response to Question 2. See also D.13-11-025, Ordering Paragraph 7, p. 135 and D.15-04-020, Ordering Paragraph 1, p. 61.

reflective of anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks.⁶⁸

Furthermore, PG&E itself defines a demonstration project as the following:

Demonstration projects are by their nature designed to either identify promising strategies and technologies or provide learnings that the technology or strategy *will not* provide sufficient benefits to justify broader deployment. Hence PG&E expects that...projects may require additional pilots and/or demonstration to sufficiently assess operational and performance characteristics.⁶⁹

The proposed Agreement, by PG&E's own admission as a "learning opportunity," therefore falls within the scope of a demonstration project. With regard to EPIC-eligible investments, Commission unequivocally stated,

If PG&E, SDG&E [San Diego Gas & Electric), or SCE [Southern California Edison] propose other such expenditures outside of the EPIC investment plans, the utility will face a burden to explain why such expenditures could not have been considered within the EPIC program. Any such request should explain how they meet objectives and metrics of the EPIC program.⁷⁰

⁶⁸ D.12-05-037, OP 3, p. 100.

⁶⁹ *In the Matter of the Application of Pacific Gas and Electric Company for Approval of its 2012-2014 Electric Program Investment Charge Investment Plan (U39E)*, Attach. 1, filed November 1, 2012 in A.12-11-003, p. 6.

⁷⁰ *Id.*, OP 17, p. 106:

Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) shall no longer include technology demonstration and deployment expenditures in their general rate cases (GRC) unless specifically directed by the Commission to do so in a proceeding related to the Electric Program Investment Charge (EPIC). The investment plans for the EPIC program shall become the primary vehicle for considering utility proposals for the electric research, development, and deployment (RD&D) purposes. PG&E, SDG&E, and SCE may continue to request separate funding for electric RD&D in their energy efficiency and demand response budget applications. If PG&E, SDG&E, or SCE propose other such expenditures outside of the EPIC investment plans, the utility will face a burden

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PG&E has not met that burden in this Application. As such, the Commission should deny the proposed Agreement. PG&E may later seek approval of a similar agreement with Stem consistent with the EPIC program's explicit criteria.⁷¹

D. The Agreement Is Not Needed To Meet PG&E's RA Obligations

The Stem Agreement proposes to deliver 4 MW of RA and monthly flexible RA of BTM storage.⁷² Neither PG&E's Second Application nor its Response⁷³ to ORA's protest assert that PG&E has an RA need or that the proposed Agreement is critical for PG&E to meet its short or long term RA requirement. Even if such assertion were made, 4 MW is likely insufficient to resolve an RA shortfall given that it is a [REDACTED] of PG&E's total annual RA obligation.⁷⁴ The Commission cannot determine that the proposed Agreement is reasonable based on an assumed RA procurement need.

E. PG&E Should Be Allowed To Fill Any Procurement Shortfall In Its 2016 Energy Storage RFO If Its Second Application Is Denied

The Scoping Memo also put forth the following issue in the proceeding: "If the PG&E contract is not approved, PG&E will be short of meeting its 2014 energy storage goal. What should occur to remedy this shortfall?" On September 15, 2016, the Commission issued a final decision in A.15-12-003, et al., rejecting two proposed PSAs

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to explain why such expenditures could not have been considered within the EPIC program. Any such requests should explain how they meet objectives and metrics of the EPIC program. Any such applications shall be filed on the service list of the most recent EPIC proceeding and the most recent GRC proceeding of the relevant utility.

⁷¹ D.12-05-037, Ops 12 & 17, pp. 102-104, 106. *See also*, D.15-09-005, OP 3, p. 21.

⁷² PG&E's Second Application, A.16-04-024, p. 1.

⁷³ Reply of Pacific Gas And Electric Company to Response and Protests.

⁷⁴ [REDACTED]

in PG&E's First Application, worth a total of 2 MW of distribution-connected storage.⁷⁵ On July 25, 2016, PG&E served its "Storage Procurement Update" Exhibit on all parties.⁷⁶

As of August 2, 2016, PG&E procured 86 MW of energy storage towards its 2014 energy storage compliance target, excluding the two PSAs denied by D.16-09-004 and the 4 MW Stem Contract.⁷⁷ Therefore, PG&E is currently 4 MW short of its 90 MW 2014 target. Pursuant to D.13-10-040, a utility may defer up to 80 percent of its procurement target if it receives uneconomic offers.⁷⁸ In accordance with this flexibility, PG&E should be allowed to procure any resulting storage shortfall, in addition to the authorized 2016 energy storage compliance target,⁷⁹ in its 2016 Request for Offer. PG&E requested similar relief in its Comments on the Proposed Decision issued in A.15-12-003, et al.⁸⁰

F. PG&E Cannot Justify the Late Filed Second Application

In D.14-10-045, the Commission ordered the IOUs to file an application requesting approval of executed contracts from their respective 2014-2015 energy storage RFOs by December 1, 2015.⁸¹ PG&E timely submitted its First Application, but also

⁷⁵ D.16-09-004, Ordering Paragraph 4, p. 30.

⁷⁶ Exhibit PG&E-2. This Exhibit updates the information presented in A.16-03-001, PG&E Prepared Testimony, Chapter 2, Attachment A.

⁷⁷ Exhibit PG&E-2.

⁷⁸ "If the utilities can demonstrate that they have not received bids that are economically or operationally viable, or have not received sufficient bids to meet their procurement targets, they will be allowed to defer up to 80 percent of their procurement target to a later procurement period," D.13-10-040, Conclusions of Law 28, p. 74.

⁷⁹ The Commission approved PG&E's request to procure 115.3 MW of energy storage. D.16-09-007, p. 17.

⁸⁰ "In order to reduce uncertainty over what PG&E should do if the Commission rejects PG&E's distribution deferral agreements and/or its A.16-04-024 storage project, resulting in its storage count dropping below its 2014 targets, PG&E proposes that the PD be modified to direct PG&E to add any resulting shortfall to its procurement target for its 2016 ES RFO," Pacific Gas and Electric Company's Comments on the Proposed Decision, filed on August 9, 2016, p. 12

⁸¹ D.14-10-045, OP 1(6), p. 119:

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requested relief that it “may submit by a subsequent application one or more contracts, executed by the end of the first quarter of 2016, with any of the 2014 ES RFO participants with whom it is currently negotiating, for approval and counting toward PG&E’s energy storage target.”⁸² PG&E subsequently filed its Second Application to approve the proposed Stem Agreement on April 29, 2016, confirming that “[t]his is that agreement”⁸³ that resulted from PG&E’s stalled negotiations.

Given the overwhelming evidence showing the contract is a poor economic investment for ratepayers, PG&E’s reasons to accept the late submission of the proposed Agreement fails to justify Commission approval. The Commission did not authorize PG&E to late-file the Second Application due to the stalled negotiations with Stem. PG&E does not present any evidence that it requested an extension of time to comply with D.14-10-045 pursuant to Rule 16.6.⁸⁴ Without express authority to submit a subsequent application, it appears the Second Application is noncompliant and/or inconsistent with the Commission’s directive in D.14-10-045.⁸⁵

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SDG&E, PG&E, and SCE, in consultation with other affected parties, shall file an Application (including “Joint IOU Protocol”) requesting Commission approval of proposed PCIA methodology to determine above market stranded cost of bundled service storage along with signed contracts for the winning bids ***within one year of the December 1, 2014*** energy storage solicitation. [Emphasis Added]

⁸² PG&E’s First Application, A.15-12-004, p. 4.

⁸³ Exh. PG&E-1, Ch. 1, p. 1-1.

⁸⁴ Rule 16.6 states requests for extension of time to comply with a Commission decision or order may be made by letter or e-mail to the Executive Director, with a copy served at the same time on all parties to the proceeding and on the Administrative Law Judge Division by letter or email.

⁸⁵ PG&E also failed to file a Motion for Extension of Time pursuant to Rule 11.6, which states:

Motions for extension of time limits established in these rules or in a ruling of an Administrative Law Judge or Commissioner may be made orally, by e-mail, or by letter to the Administrative Law Judge. If other parties to the proceeding are affected by the extension, the party requesting the extension must first make a good-faith effort to ask such parties to agree to the extension. The party requesting the extension must report the results of this effort when it makes its

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IV. CONCLUSION

The record evidence does not support a finding that the Agreement is just and reasonable. PG&E itself acknowledges the poor economic performance of the Agreement. Even given the most favorable interpretation of the facts and law, PG&E has failed to demonstrate that the proposed agreement can be found to be just and reasonable. Therefore, ORA recommends the Commission deny PG&E's application, and reject PG&E's request to approve the proposed Agreement and associated cost recovery.

Respectfully submitted,

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request. If the extension is granted, the party requesting the extension shall notify all other parties to the proceeding of the extension, unless the grant of the extension is by oral ruling delivered on the record of the proceeding. If the extension is in regard to the time to file a document, the opening paragraph of the document shall indicate that the Administrative Law Judge has granted the extension. No extensions will be granted of time requirements established by statute, unless the statute permits extension or waiver of the requirement.

APPENDIX A

Proposed Findings of Fact

1. The Stem Agreement is not cost-effective under any of the evaluation methodologies approved in Decision (D.) 14-10-045, which includes the Net Market Value (NMV) and Portfolio Adjustment Value (PAV).
2. Under the Consistent Evaluation Protocol (CEP), approved in D.14-10-045, the Stem Agreement ranked poorly in comparison to PG&E's other shortlisted contracts.
3. PG&E did not follow Least Cost Best Fit principles in its evaluation of the Stem Agreement, as required by D.14-10-045 and D.07-12-052. This is a departure from PG&E's evaluation criteria used in Application 15-12-004.
4. "Project and Technology Diversity" and "Learning Experiences" are not sufficient factors by themselves to justify contract approval.
5. The Electric Program Investment Charge (EPIC) program is the appropriate venue to evaluate demonstration projects before large-scale deployment.
6. The Stem Agreement falls within the scope of a demonstration project.
7. PG&E failed to demonstrate the Stem Agreement's 4 megawatts (MW) of resource adequacy (RA) and monthly flexible RA of behind the meter (BTM) energy storage is necessary to meet its short or long term RA requirement.
8. D.13-10-040 allows a utility to defer up to 80 percent of its procurement target if it receives uneconomic offers.

Proposed Conclusions of Law

1. Public Utilities Code §§ 2835(a)(3), 2836, 2836.2(d), and 2836.2(d) requires energy storage systems to be cost-effective. Based on the NMV, PAV, and CEP evaluation results, the Stem Agreement cannot be found to be cost-effective.
2. PG&E's proposed Stem Agreement is not just and reasonable under California Public Utilities Code § 451.

Proposed Ordering Paragraph

1. The Second Application of Pacific Gas and Electric Company (U 39 E) For Approval of Agreements Resulting From Its 2014-2015 Energy Storage Solicitation and Related Cost Recovery is denied.