

Decision 16-12-004 December 1, 2016

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

Second Application of Pacific Gas and Electric Company for Approval of Agreements Resulting from Its 2014-2015 Energy Storage Solicitation and Related Cost Recovery. (U39E)

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

**DECISION REJECTING ENERGY STORAGE AGREEMENT**

**Summary**

This decision rejects an energy storage agreement proposed by Pacific Gas and Electric Company as part of its 2014 Request for Offers. The decision determines that Pacific Gas and Electric Company has not met its 2014 targets and that the 2016 storage target should be increased by four megawatts to account for this shortfall. This proceeding is closed.

**1. Background**

On December 16, 2010, the Commission opened Rulemaking 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 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.

In response to this state mandate, the Commission adopted Decision (D.) 13-10-040, its “Decision Adopting Energy Storage Procurement

Framework and Design Program.” The energy storage framework and procurement applications for the 2014 biennial period were subsequently approved in D.14-10-045.

In compliance with Ordering Paragraph 6 of D.14-10-045, Pacific Gas and Electric Company (PG&E) filed Application (A.) 15-12-004 seeking approval of the results of its 2014 Energy Storage Request for Offers. A.15-12-004 indicated that PG&E continued to negotiate with additional bidders and would submit a second application if those negotiations proved fruitful. The instant application is the result of those continuing negotiations. PG&E seeks approval for an agreement with Stem Energy Northern California LLC (Stem) to provide PG&E with a total of four (4) megawatts (MW) of resource adequacy resources aggregated from behind-the-meter storage devices.

A.16-04-024 was filed on April 29, 2016. Protests were timely filed by the Office of Ratepayer Advocates (ORA) and jointly by Marin Clean Energy and Sonoma Clean Power Authority. A Response was filed by Green Power Institute. PG&E filed a Reply. Administrative Law Judge (ALJ) Michelle Cooke held a telephonic prehearing conference on July 18, 2016. The assigned Commissioner and ALJ issued a scoping memo on July 25, 2016.

The scoping memo set September 23, 2016, for opening briefs surrounding the reasonableness of the contract, classification of the energy storage contract by type (which governs cost allocation), and what remedy should occur if PG&E has not met its 2014 Energy Storage target. Opening Briefs were filed on September 23, 2016, by PG&E, ORA, and Stem. Reply Briefs were filed on October 7, 2016, by PG&E, ORA, and Stem.

## **2. Issues Before the Commission**

The issues set forth in the scoping memo were:

1. Was the solicitation conducted in a fair and competitive manner?
2. In selecting winners, did PG&E apply the evaluation methodologies approved in D.14-10-045 correctly?
3. Were any deviations from pro forma contracts approved in D.14-10-045 warranted?
4. Are the prices, terms, and conditions resulting from the solicitations reasonable?
5. Should the contracts be approved?
6. Does the contract promote safe and reliable operation and maintenance of the energy storage systems?
7. Is the contract properly categorized by function?
8. 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?

The first three issues go to the question of reasonableness and whether the contract should be approved and thus the first five questions will be addressed together. Issues 6 and 7 are only relevant if the contract is approved, and Issue 8 is only relevant if the contract is not approved.

## **3. Is the Proposed Contract Reasonable?**

PG&E received over 200 offers consisting of more than 700 variations from more than 50 participants, which totaled over 5,000 MW of energy storage capability (including offer variations). PG&E's evaluation began with Net Market Value, then looked at Portfolio Adjusted Value<sup>1</sup> as the primary metric for

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<sup>1</sup> The Portfolio Adjusted Value is PG&E's proprietary evaluation methodology and was approved for use in D.14-10-045. Portfolio Adjusted Value illustrates an offer's value to

*Footnote continued on next page*

assessing cost-effectiveness. Where projects had similar Portfolio Adjusted Values, PG&E chose offers that would lead to a diverse set of final agreements representing multiple technologies, sizes, configurations, online dates, and terms.

During its evaluation process and discussion with potential counterparties, PG&E determined that the initial agreement structure for behind-the-meter projects needed to be modified to address needs unique to the behind-the-meter developers. PG&E notified all participants that submitted behind-the-meter offers to submit a new offer structured as a capacity agreement with an energy settlement component.

The agreement before us requires Stem to aggregate customers in PG&E's service territory to deliver four (4) MW of resource adequacy. Stem will develop, install, and operate energy storage projects at each customer site, provide charging energy to the storage projects through the customer meter, and deliver energy for on-site load reduction at the customer facility. The expected initial delivery date for the agreement is September 1, 2017, with a duration of five years. The initial delivery date can be as early as June 1, 2017, but not later than September 1, 2017. PG&E will pay Stem a monthly payment comprised of a monthly capacity payment minus a monthly energy settlement amount.

The Independent Evaluator reports that Stem should have a reasonable prospect for success in completing the project as required by the agreement. The Independent Evaluator recommends the Commission consider approval of the behind-the-meter agreement with Stem "based on the notion that experience

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PG&E's specific resource needs and assets, and is derived by adjusting the Net Market Value by criteria such as the Offer's location, transmission network upgrade cost, transmission and distribution investment deferral value, benefits due to increased efficiency for fossil generation, and renewable generation curtailment support (Exhibit PGE-1: 4-5).

with these types of resource adds value as a learning experience.”

(Exhibit PG&E-1C at C-57.) The Independent Evaluator describes the economics of the behind-the-meter projects and the Stem agreement’s position within that list under seal.

ORA recommends that the Commission not approve the Stem agreement because it is not cost-effective on either a Net Market Value or a Portfolio Adjusted Value basis, and was not competitive compared to other offers outside of the behind-the-meter sector. Citing the Independent Evaluator, ORA also notes that PG&E’s evaluation of behind-the-meter resources did not follow the Least-Cost Best-Fit evaluation methodology approved in D.14-10-045. (ORA Opening Brief at 13-14.) Additionally, ORA argues that the agreement is not needed to fulfill PG&E’s resource adequacy obligations and therefore the fact that the agreement provides resource adequacy is not adequate justification for approval.

Stem argues in favor of approval of the agreement because “[i]t contains an innovative pricing mechanism that encourages the project to more actively participate in the California Independent System Operator (CAISO) markets, thus providing higher value RA [resource adequacy] for California ratepayers.” (Stem Opening Brief at 1.) Stem argues that the pricing approach makes this agreement superior to traditional demand response programs and the early online date is beneficial for testing this pricing mechanism. Stem also notes that the agreement provides a superior resource to demand response because it will allow customers to maintain their operations without need for backup generators, reducing the local air quality issues that occur when backup generation is relied on to accomplish demand reductions. Stem believes this

“is the ideal project to demonstrate how clean [behind-the-meter] BTM storage can benefit California ratepayers.” (Stem Opening Brief at 7.)

Stem also argues its belief that the Energy Settlement subcontractor in the pricing mechanism will prove beneficial by encouraging the project to bid into the CAISO market more frequently at prices lower than the typical wholesale market clearing price, thus reducing the wholesale energy clearing price for all market participants. Stem argues that “this impact on the wholesale market clearing prices could translate into millions of dollars in savings for ratepayers.” (Stem Opening Brief at 9.)

PG&E’s primary argument in favor of the agreement is that it introduces additional diversity into PG&E’s storage portfolio and provides a low-cost means to gain experience utilizing behind-the-meter storage to deliver resource adequacy. PG&E states that it “made a cost/benefit tradeoff in order to consider other qualitative factors when evaluating potential storage projects.” (PG&E Opening Brief at 13.) “PG&E selected this offer from the final [behind-the-meter] BTM energy storage offers because it aligned with PG&E’s project attribute preferences.” (Exhibit PG&E-1: 3-6.)

We agree that there is value in adding diversity to the portfolio and gaining experience to support behind-the-meter storage, and support the inclusion of the innovative pricing mechanism in this contract that would encourage the project to bid into the CAISO market more frequently. Enabling multi-use storage applications, particularly as it relates to the participation of behind-the-meter energy storage assets in the wholesale market, is one of the key issues currently being considered in both the energy storage Rulemaking (R.) 15-03-011 as well as Phase 2 of the California Independent System Operator’s Energy Storage and Distributed Energy Resources

stakeholder initiative. With that said, given the requirement in Pub. Util. Code §§ 2835 *et seq.* for energy storage projects to be cost-effective, and for the reasons below, we ultimately conclude that the agreement should not be approved.

In comments on the proposed decision, Stem encourages the Commission to compare how its project compares to other, similarly situated behind-the-meter projects, and that the unique benefits of this agreement should be considered and evaluated. We disagree. The investor-owned utilities were given a wide degree of freedom to propose their own methodologies to evaluate the range of costs and benefits of energy storage bids. (D.13-10-040, COL 37 at 75.) As part of the 2014 energy storage procurement plan proceeding, parties had the opportunity to vet PG&E's proposed Portfolio Adjusted Value cost-effectiveness methodology, which was later adopted by the Commission in D.14-10-045, and used to evaluate PG&E's first application for its 2014 storage contracts in D.16-09-004. Amending PG&E's cost-effectiveness methodology at this stage, after bids have already been shortlisted, not only conflicts with the Commission's previous established policies, but would set an inconsistent standard to evaluate whether a project is cost-effective, as required by Pub. Util. Code §§ 2835 *et seq.*, and would be unfair to other potential 2014 energy storage providers that participated in PG&E's process.

Moving forward, we encourage PG&E to continue to seek new and innovative storage projects, and to work with bidders so that contracts may be structured in a way that aligns with PG&E's portfolio needs. We also remind PG&E that it is always free to pursue projects it believes are cost-effective within its normal planning and acquisition framework and support the reasonableness of those costs through ex-post reasonableness review as needed. From that perspective, there is also nothing prohibiting PG&E from working with Stem to

restructure the contract and refile the project in the next application cycle. If such a filing were to be made, we would consider the new filing on its own merits, and based on PG&E's approved cost-effectiveness methodology.

#### **4. Safety Considerations**

In its application, PG&E described its efforts to ensure that the proposed contract operates in a safe and reliable manner. For example, PG&E required 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 were required to submit safety plans that would demonstrate responsible safety management during all phases of the project lifecycle. (Exhibit PGE-1: 2-8; 4-9.) Because we do not approve the contract, there are no safety implications of this proceeding, and we need not decide this issue; however, were the contract approved, we would find that PG&E has addressed potential safety concerns in a proactive and responsible manner and that there are no obvious safety concerns that remain to be addressed.

#### **5. Is the Contract Correctly Classified?**

Classification of the contract by function is important as that function governs cost recovery and how and from whom any above market costs are recoverable. No party disputed that PG&E correctly characterized its energy storage agreement as serving the Generation/Market function. Because we do not approve the contract, this issue need not be decided.

#### **6. Has PG&E Met its 2014 Storage Procurement Obligation?**

PG&E's 2014 storage target was 50 MW connected at the transmission level and 24 MW connected at the distribution level after credits for other purchases, resulting in a total target of 74 MW. In D.16-09-004, we approved 70 MW of agreements. With denial of preapproval of the Stem agreement totaling

four (4) MWs, we must conclude that PG&E has not met its storage target from the 2014 request for offers process.

As part of the scope of this proceeding, we asked what remedy should occur if PG&E has not met its 2014 Energy Storage target. PG&E proposes that any shortfall be incorporated into its 2016 energy storage target. ORA agrees with this recommendation. The 2016 energy storage target was adopted in D.16-09-007. We agree that in light of the shortfall only being four MW, the simplest and most logical outcome is to add four MW to the adopted 2016 target, resulting in a new 2016 target of 119.3 MW. (*See* D.16-09-007 at 3.)

## **7. Outstanding Procedural Matters**

The parties have proposed that the following exhibits be admitted under seal because they contain market-sensitive data: Exhibits PGE-1C and ORA-2C. Good cause being shown, these exhibits are admitted under seal for durations consistent with the timing specified in Exhibit PGE-1: D-7 through D-10.

The following parties were granted party status but did not actively participate in the proceeding after the prehearing conference and thus their party status is rescinded consistent with the admonition in the Scoping Ruling at 5, and they will be moved to information only status: Marin Clean Energy and Sonoma Clean Power Authority.

The Commission affirms all rulings made by the Assigned Commissioner and Assigned Administrative Law Judge. All motions not previously ruled on are denied as moot.

## **8. 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-332, 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.

## **9. Comments on Proposed Decision**

The proposed decision of ALJ Michelle 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 by PG&E, ORA, Stem, and Green Power Institute, and reply comments were filed by PG&E, ORA, and Stem. Changes to the decision have been made throughout to address comments and improve clarity. Because the cost-effectiveness evaluation of the proposed contract was submitted under seal, we cannot reveal the specific Net Market Value or a Portfolio Adjusted Value of the Stem contract in this decision, other than to state that the contract was not cost effective under either standard.<sup>2</sup> Although Stem encourages us to compare how its project compares to other, similarly situated BTM projects, Pub. Util. Code §§ 2835 *et seq.* requires procurement of cost-effective energy storage systems and this project did not meet that standard.

## **10. Assignment of Proceeding**

Carla J. Peterman is the assigned Commissioner and Michelle Cooke is the assigned Administrative Law Judge in this proceeding.

### **Findings of Fact**

1. PG&E's proposed agreement with Stem is not cost-effective from either a Net Market Value or a Portfolio Adjusted Value standpoint.
2. As adopted in Decision 14-10-045, PG&E's 2014 storage target for the Transmission and Distribution Grid Domains is 74 MW.

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<sup>2</sup> See PG&E-1C at C-24, C-53, and C-54.

3. PG&E is four MW short of meeting its 2014 storage target.
4. Marin Clean Energy and Sonoma Clean Power Authority did not actively participate in these proceedings.

### **Conclusions of Law**

1. Because the proposed Stem contract is not cost effective from either a Net Market Value or a Portfolio Adjusted Value standpoint, the contract does not meet the requirements of Pub. Util. Code §§ 2835 *et seq.*
2. PG&E's proposed agreement with Stem should not be approved.
3. PG&E has not met its 2014 Energy Storage Procurement target established in D.13-10-040 and D.14-10-045.
4. Four MW should be added to the 2016 storage target adopted in D.16-09-007, resulting in a new target of 119.3 MW.
5. Exhibits PGE-1C and ORA-2C should be admitted under seal for durations consistent with the timing specified in Exhibit PGE-1: D-7 through D-10.
6. Because Marin Clean Energy and Sonoma Clean Power Authority did not actively participate in these proceedings, they do not maintain their party status consistent with the Scoping Ruling and should be shifted to information only status.

### **ORDER**

#### **IT IS ORDERED** that:

1. The proposed energy storage contract between Pacific Gas and Electric Company and counterparty Stem Energy Northern California LLC is not approved.
2. Pacific Gas and Electric Company's 2016 storage target is now 119.3 megawatts.

3. Exhibits PGE-1C and ORA-2C are admitted under seal for durations consistent with the timing specified in Exhibit PGE-1: D-7 through D-10. During this time frame, the specified information may not be publicly disclosed except on further Commission order or Administrative Law Judge ruling. If Pacific Gas and Electric Company believes that it is necessary for this information to remain under seal for longer than specified in Exhibit PGE-1: D-7 through D-10, the utility may file a motion showing good cause for extending this order by no later than 30 days before the expiration of this order.

4. Marin Clean Energy and Sonoma Clean Power Authority are converted from party status to Information Only status.

5. Application 16-04-024 is closed.

This order is effective today.

Dated December 1, 2016, at San Francisco, California.

MICHAEL PICKER

President

MICHEL PETER FLORIO

CATHERINE J.K. SANDOVAL

CARLA J. PETERMAN

LIANE M. RANDOLPH

Commissioners