

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

**RESOLUTION E-4941
September 13, 2018**

RESOLUTION

Resolution E-4941. Approves Pacific Gas and Electric Filing on Distribution Resources Plan Demonstration Project C Request for Offer Results.

PROPOSED OUTCOME:

- Approves Pacific Gas and Electric Company’s request to conclude the Demonstration Project C Request for Offers without executing any contracts.

SAFETY CONSIDERATIONS:

- There are no safety considerations.

ESTIMATED COST:

- This Resolution approves Pacific Gas and Electric Company’s intent to proceed with the traditional wire solutions for its Demonstration Project C. The costs will be included in its General Rate Case.

By Advice Letter 5259-E, Filed on March 26, 2018.

SUMMARY

On March 26, 2018, Pacific Gas and Electric Company (“PG&E”) filed Advice Letter (“AL”) 5259-E. PG&E seeks approval of its decision to conclude its Distribution Resources Plan (“DRP”) Demonstration Project C (“Demo C”) without executing any contracts. This Resolution approves PG&E’s request to

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conclude the Demo C Request for Offers (“RFO”). This Resolution finds PG&E has completed the requirements of the DRP Demo C RFO and Demo C.

Additionally, this Resolution requires PG&E to share its RFOs for solicitations vetted through the Distribution Planning Advisory Group with Energy Division prior to launch.

BACKGROUND

On August 14, 2014, the Commission issued Rulemaking (“R.”) 14-08-013 to establish policies, procedures, and rules to guide California investor-owned electric utilities (“IOUs”) in developing their DRPs, which were required by Public Utilities Code (“P.U. Code”) Section 769. On February 6, 2015, the Commission issued the *Assigned Commissioner’s Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning* which set out final guidance for the content and structure of the DRPs. Among the requirements, the utilities were required to propose Distributed Energy Resources (“DER”)-focused demonstration and deployment projects.

On February 16, 2017, and June 19, 2017, the Commission issued Decision (“D.”) 17-02-007 and D.17-06-012, respectively, which approved DRP Demonstration Projects proposed by PG&E in Application (“A.”) 15-07-006 filed on July 1, 2015, and which were updated on June 16, 2016,¹ and March 10, 2017.² The Commission approved PG&E’s Demonstration Project C which is intended to validate the ability of DERs to defer or avoid investments in traditional

¹ See *Revised Track 2 Demonstration Project Proposals of Pacific Gas and Electric Company (U39 E) Pursuant to May 17, 2016, Joint Assigned Commissioner and Administrative Law Judge’s Ruling* filed on June 16, 2017 in R. 14-08-013.

² See *Comments Pacific Gas and Electric Company (U39E) Requesting Approval of New Track 2 Demonstration Project C Pursuant to Decision No. 17-02-007* filed on March 10, 2017 in R.14-08-013. (March 10, 2017 Comments)

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distribution infrastructure and achieve net ratepayer benefits as estimated by the Locational Net Benefits Analysis (“LNBA”).³

PG&E originally proposed to use its Chico 12 kilovolt Distribution Planning Area (“DPA”) for its Demo C. In D.17-02-007, the Commission did not approve PG&E’s Demo C because in its comments on the proposed decision, PG&E indicated that its proposed location for Demo C was no longer viable due to “reduced equipment loadings,” and requested authorization to submit a revised Demo C. PG&E was ordered to file and serve Comments requesting approval for the new location for Demo C. PG&E filed such comments on March 10, 2017, and proposed using its Chowchilla 12 kilovolt DPA (El Nido Substation) as the new location for Demo C. D.17-06-012 approved the new location along with a confidential budget cap for the procurement costs to ensure that the costs of the Demo C were reasonable.

The new location was chosen because it is projected to require various distribution capacity upgrades that may be deferred with cost effective DERs. The project sought to defer building an additional distribution bank (replacement of existing distribution bank with a higher capacity bank).

Advice Letter 5259-E

PG&E submitted AL 5259-E on March 26, 2018. The AL included attachments: a) Independent Evaluator Report (“Public IE Report”) by Sedway Consulting, Inc., b) the Confidential Appendix A from Independent Evaluator Report (“Confidential IE Report”), c) Confidential PG&E Demo C Solicitation Results Summary (“Confidential RFO Results”), and d) Confidentiality Declaration.

³ The Distribution Resources Plan proceeding is currently overseeing development of a new analytical tool called the Locational Net Benefits Analysis that would calculate the value of DERs at every location on the distribution system, based on the types of utility spending DERs are able to defer or avoid, netted by the costs required to accommodate those DERs.

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On August 14, 2017, PG&E issued its 2017 DRP Demo C RFO. PG&E sought two distribution capacity requirements: “Baseload” and “Peaking.” Baseload refers to distribution capacity required 24 hours per day, each day of the relevant month. Peaking capacity refers to distribution capacity required four hours per day during the periods stated in its RFO. PG&E sought two (2) to four (4) megawatts (MW) of baseload capacity during months of April through September with a duration of 24 hours and frequency of seven times per week. PG&E also sought 1 MW of peaking capacity during the hours of five (5) to nine (9) P.M. in the months of April through September, with a frequency of 50 calls per year. During the months of June through August, the frequency of the peaking capacity was limited to a maximum of 15 calls per month, with a maximum of seven (7) consecutive days. During all other months, it was limited to seven (7) calls per month with a maximum of two (2) consecutive days.

PG&E received multiple offers from a variety of technologies including Front of the Meter Energy Storage, Behind the Meter Energy Storage, Renewable Distributed Generation, and Energy Efficiency.

PG&E ranked all the offers and constructed portfolios of offers to meet the baseload and peaking targets. The cost of all constructed portfolios exceeded the distribution deferral value—the cost of the least cost portfolio was more than 10 times greater than the distribution deferral value. Therefore, after consulting with the Procurement Review Group and Independent Evaluator, PG&E conclude not to pursue a contract because the DER solution was much more expensive than the traditional wires solution.

PG&E submits the Tier 3 AL in compliance with Ordering Paragraph 26 in D.17-02-007 requesting approval of its decision to conclude Demo C without executing any contracts, consistent with the cost cap guidance for reasonable demonstration project costs.

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NOTICE

Notice of AL 5259-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

PG&E's AL 5259-E was not protested.

DISCUSSION**PG&E'S DEMONSTRATION PROJECT C IS CONCLUDED**

The Commission has reviewed PG&E's AL and the attached public and confidential IE reports and Confidential RFO Results. PG&E sought deferral of the addition of a new bus station bank in the El Nido Substation. PG&E sought a maximum baseload capacity of 4 MW and peaking capacity of 1 MW either through stand-alone contracts or combination of contracts. PG&E received a variety of bids, none of which were cost-effective--the cost of the least cost portfolio was more than 10 times greater than the distribution deferral value. The projects were not cost-effective due to the size of the baseload need. The IE Report states:

PG&E's DRP Demo C RFO sought DER products that would help address distribution needs that included a baseload summer need for 2 MW – 4 MW of 24x7 generation or load reduction....[but] it became apparent that baseload needs are particularly difficult for DER products to meet cost-effectively.⁴

The Commission agrees with PG&E not to pursue a DER deferral opportunity offered in the Demo C RFO. This is reasonable given the high costs of the DER solution relative to the cost of the wires alternatives. Therefore, we conclude that

⁴ Public IE Report, p. 7

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PG&E has completed the requirement of the DRP Demo C RFO as outlined in D.17-07-007 and D.17-06-012.

REASONABLENESS OF DER DEFERRAL PROJECT

PG&E's RFO criteria for Demo C differs significantly from what PG&E originally proposed. PG&E originally proposed this project in its March 10, 2017 filing stating:

[the] projected overload condition could occur for extended periods (24 hours or longer) on both weekdays and weekends. It is anticipated that the need could occur up to 10 days per month, from June through August each year.⁵

But during its RFO, PG&E sought baseload capacity during months of April through September with a duration of 24 hours and frequency of seven times per week. This amounts to three times the frequency originally proposed. It is the Commission's determination that had this information been disclosed ahead of time, this project may have had more scrutiny from the Commission and from other parties to the proceeding. This may have enabled the Commission to order PG&E to find a more viable project for its Demo C.

While the Commission recognizes that electric distribution system is dynamic in nature and the need of a project may change, it is unclear if PG&E had any reasonable expectation that DERs could cost effectively meet a six month 24/7 capacity need and why this project was chosen. The Commission recommends that future deferral projects take into consideration the magnitude of the capacity asked for. In its proposal for Demo C though, PG&E does state that "one of the learning objectives of Demonstration Project C is to gain more experience and knowledge on whether a DER portfolio is feasible to meet the needs for which it was procured."⁶ This outcome has been met and is discussed further below. It is

⁵ March 10, 2017 Comments. p. A-6.

⁶ March 10, 2017 Comments. p. A-7.

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the hope that the outcome of this project will serve to inform PG&E, and other utilities, what projects are reasonable for DER deferral at this time.

LESSONS LEARNED

Although no contracts were pursued by PG&E for Demo C, the RFO and its results have yielded new information on costs to defer distribution upgrades with DERs and the types of projects that can or cannot be deferred. One of the lessons learned is that deferral by DERs of baseload need may be difficult to obtain cost-effectively--the IE Report states that due to the high cost of the DER solution to meet a baseload need "it may be best for PG&E to target circuit needs for future DRP RFOs that do not have a baseload need."⁷ Additionally, PG&E states:

longer distribution capacity need duration and higher capacity need frequencies limit the types of currently available DER technologies that are technically capable of providing the needed distribution capacity ... thereby potentially driving bid prices up. ...DER products and services may thus be more cost-effective when deferring distribution capacity investments targeted to address relatively limited capacity need duration and frequency.⁸

D.18-02-004, issued on February 15, 2018, established the Distribution Investment Deferral Framework ("DIDF") to identify and capture opportunities for DERs to cost-effectively defer or avoid traditional utility investments that are planned to mitigate forecasted deficiencies of the distribution system. As part of DIDF, D.18-02-004 implemented the Distribution Planning Advisory Group ("DPAG") to advise and recommend to the IOUs distribution deferral opportunities for

⁷ Public IE Report, p. 7

⁸ Advice Letter 5259-E, "Pacific Gas and Electric Tier 3 Advice Letter Filing on Distribution Resources Plan, Track 2, Demonstration Project C Request for Offer Results." p.6

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solicitation, and preparation of a Distribution Deferral Opportunity Report (“DDOR”) that includes details of candidate deferral projects and details on the expected performance and operational requirements of DERs. D.18-02-004 states:

The IOU’s proposed DPAG agendas shall, at a minimum, encompass a review of: 1) planning assumptions and grid needs report in the GNA [Grid Needs Assessment]; 2) planned investments and candidate deferral opportunities reported in the DDOR; and 3) candidate deferral prioritization. Importantly, as part of the discussion on candidate deferral opportunities, the IOUs shall present the underlying technical and operational requirements that a given DER alternative must provide in order to successfully meet the underlying grid need. Such technical requirements should be characterized within the DDOR under the “Expected performance requirements” attribute. We expect that any resulting distribution deferral RFO would not include technical or operational requirements above and beyond those presented to the DPAG.⁹

To ensure that requirements vetted through DDOR and DPAG are the only ones included in future solicitations, PG&E is ordered to share its RFOs with Energy Division 45 days prior to launch. Energy Division will review the RFOs to ensure that any new terms, not disclosed in DPAG, have not been included and will work with PG&E to resolve any issues Energy Division identifies as problematic. This will ensure that the projects discussed in the DPAGs are consistent with the final RFOs.

PG&E will also incorporate the lessons learned from the RFO into its Grid Needs Assessment, DDOR, General Rate Cases and competitive source process for procuring DER distribution deferral projects in future solicitations.

⁹ D.18-02-004 at 66.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

Comments to the Draft Resolution were filed on September 4, 2018, by the Coalition of California Utility Employees (CUE). CUE supports the Draft Resolution but did not propose any changes. However, the Commission discusses their comments below.

CUE states that "Energy Division now acknowledges that certain projects, such as those to meet a baseload need, likely cannot be deferred because the DER solution is not cost-effective."¹⁰ CUE goes further on to say:

DERs offer many attractive benefits, but deferring traditional distribution infrastructure is not one of them...the Commission should end this futile effort and instead focus on many other ways to use DERs to achieve the State's environmental and energy goals.¹¹

CUE's input is based on limited data which is not enough to draw the conclusion that DERs cannot defer traditional distribution infrastructure. PG&E's DRP solicitation for baseload capacity is probably the first of its type. It provided the Commission and the utility with valuable information. Through PG&E's DRP

¹⁰ Coalition of California Utility Employees Comments on Draft Resolution E-4941. p. 1

¹¹ Coalition of California Utility Employees Comments on Draft Resolution E-4941. p. 2

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solicitation, the Commission has learned what types of projects may be worth considering for distribution deferral for near-term future solicitations. We conclude that this is an ongoing learning process, and lessons learned will help in future solicitations. With the cost of DERs decreasing, it is premature to draw the conclusion CUE arrives at.

FINDINGS

1. PG&E filed AL 5259-E on March 26, 2018 in compliance with Ordering Paragraph 26 in D.17-02-007.
2. PG&E sought a DER deferral opportunity in its Demo C.
3. PG&E received multiple offers for its DRP Demo C.
4. PG&E did not find any DER solutions for its DPR Demo C that were cost effective, so no offers were shortlisted.
5. PG&E's decision not to pursue DER deferral opportunities offered in the Demo C RFO is reasonable and prudent given the cost of those DER deferral offers relative to the cost of the distribution wires alternative using the soft cost cap approved by the Commission.
6. PG&E significantly changed the need of Demo C from what was originally proposed.
7. The need of the project made it not cost-effective for DERs— PG&E sought two to four MW of baseload capacity for 6 months with a duration of 24 hours and frequency of seven times per week.
8. DER solutions for extended baseload needs may be difficult to obtain cost-effectively.
9. PG&E has completed the requirements of the DRP Demo C RFO as outlined in D.17-07-007 and D.17-06-012 and will incorporate the lessons learned from the RFO into its Grid Needs Assessment, Distribution Deferral Opportunity Report, General Rate Cases and competitive sourcing process for procuring

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DER distribution deferral projects in the future. No further action with respect to Demo C RFO is required.

10. It is prudent for PG&E to share its RFOs with Energy Division to ensure that it contains only requirements vetted through DPAG.

THEREFORE IT IS ORDERED THAT:

1. This Resolution approves Pacific Gas and Electric Company's Advice Letter 5259-E.
2. Pacific Gas and Electric Company has completed the requirements of the Distribution Resources Plan Demonstration Project C Request for Offers.
3. Pacific Gas and Electric Company will incorporate the lessons learned from the RFO into its Grid Needs Assessment, Distribution Deferral Opportunity Report, General Rate Cases and competitive sourcing process for procuring DER distribution deferral projects in the future.
4. PG&E is ordered to share its RFOs for projects vetted through DPAG with Energy Division 45 days prior to launch.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on September 13, 2018; the following Commissioners voting favorably thereon:

/s/ ALICE STEBBINS

ALICE STEBBINS

Executive Director

MICHAEL PICKER

President

CARLA J. PETERMAN

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

Commissioners