

Decision 17-06-012 June 15, 2017

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.

Rulemaking 14-08-013
(Filed August 14, 2014)

And Related Matters.

Application 15-07-002
Application 15-07-003
Application 15-07-006

(NOT CONSOLIDATED)

In the Matter of the Application of PacifiCorp (U901E) Setting Forth its Distribution Resource Plan Pursuant to Public Utilities Code Section 769.

Application 15-07-005
(Filed July 1, 2015)

And Related Matters.

Application 15-07-007
Application 15-07-008

DECISION ON REVISED TRACK 2 DEMONSTRATION PROJECTS

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DECISION ON REVISED TRACK 2 DEMONSTRATION PROJECTS

Summary

In Decision (D.) 17-02-007, the Commission addressed Track 2 Demonstration Projects C, D and E proposed by Pacific Gas and Electric Company (PG&E) in Application (A.) 15-07-006, Southern California Edison Company (SCE) in A.15-07-002, and San Diego Gas & Electric Company (SDG&E) in A.15-07-003.

Based on updated information regarding PG&E's proposed Chico location and SDG&E's proposed Circuit 470 location for Demonstration Project C, D.17-02-007 did not approve those locations, and directed PG&E and SDG&E to submit requests for approval of new locations for Demonstration Project C. On March 10, 2017, PG&E submitted a request for approval of a new location for its Demonstration Project C. SDG&E submitted a request for approval of a new location on March 13, 2017. Both of these new locations are approved, with the same conditions as required by D.17-02-007, including the soft cost cap.

In addition, D.17-02-007 did not approve the Demonstration Project E locations proposed by PG&E and SCE, but allowed PG&E and SCE to request approval of new locations for Demonstration Project E. PG&E did not seek approval of a new location. SCE submitted a request for approval of a new location for its Demonstration Project E on April 3, 2017. SCE's proposed new location is approved, with the same conditions as required by D.17-02-007, including the soft cost cap.

This decision resolves the current Track 2 issues. These proceedings remain open for consideration of other issues.

1. Background

The Order Instituting Rulemaking (OIR) that opened Rulemaking 14-08-013 included the question:

10) Should the DRPs [Distribution Resources Plans] include specific measures or projects that serve to demonstrate how specific types of DER [Distributed Energy Resources] can be integrated into distribution planning and operation? If so, what are some examples that IOUs [Investor Owned Utilities] should consider? (OIR at 7.)

The February 6, 2015 *Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning* (Guidance Ruling) directed the utilities to propose DER-focused demonstration projects, and provided more detailed guidance regarding what should be included in those demonstration projects. (Guidance Ruling, Attachment 1 at 5-7.) The utilities submitted their proposed demonstration projects in the applications filed on July 1, 2015, and in supplemental filings on June 17, 2016.

The January 27, 2016 *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, Including Deconsolidation of Certain Proceedings and a Different Consolidation of Other Proceedings* (Scoping Memo) identified the primary focus of Track 2 as being the design and authorization for Demonstration Projects C, D and E. (Scoping Memo at 8.)

In D.17-02-007, issued on February 9, 2017, the Commission approved SCE's proposed Demonstration Project C and SDG&E's Circuit 701 location for its Demonstration Project C, but did not approve PG&E's proposed Demonstration Project C and SDG&E's Circuit 470 location for Demonstration Project C, and directed PG&E and SDG&E to submit new Demonstration Project C proposals. The Commission did not approve PG&E's and SCE's proposed Demonstration Project E locations, but allowed PG&E and SCE to submit new

Demonstration Project E proposals. PG&E and SDG&E submitted new Demonstration Project C proposals, and SCE submitted a new Demonstration Project E proposal. No new Demonstration Project D proposals were directed or allowed.

1.1. Demonstration Project C

Demonstration Project C was described by the Scoping Memo:

Project C: Demonstrate DER Locational Benefits. This project will validate the ability of DER to achieve net benefits consistent with the LNBA [Locational Net Benefits Analysis].

In the proceeding leading to D.17-02-007, PG&E and SDG&E had proposed specific locations for their Demonstration Project C proposals. PG&E proposed to use its Chico 12 kilovolt (kV) Distribution Planning Area (DPA) for its Demonstration Project C, and SDG&E proposed to use two circuits for its Demonstration Project C: Circuit 701 connected to Mission Substation, and Circuit 470 connected to Felicita Substation.

Late in the proceeding, it became clear to PG&E that its proposed location was not suitable for Demonstration Project C, and SDG&E similarly determined that Circuit 470 was also not suitable for Demonstration Project C. Because of the timing of these determinations, the record of the proceeding did not have adequate detail to support the approval of new locations. Accordingly, D.17-02-007 did not approve PG&E's proposed Chico location and SDG&E's proposed Circuit 470 location, and directed PG&E and SDG&E to submit requests for approval of new locations for Demonstration Project C.

PG&E submitted its request for approval of a new location on March 10, 2017. PG&E proposes to use its Chowchilla Distribution Planning Area (Chowchilla DPA) for its Demonstration Project C. SDG&E submitted its request

for approval of a new location on March 13, 2017. SDG&E proposes to use Circuits 295, 298 and 597 connected to its San Marcos Substation for its Demonstration Project C.¹

Responses to PG&E and SDG&E were filed by the Commission's Office of Ratepayer Advocates (ORA), which recommends approval of both utilities' new proposed locations for Demonstration Project C, with the application of the cost cap adopted in D.17-02-007.

1.2. Demonstration Project E

Demonstration Project E was described by the Scoping Memo:

Demonstrate a microgrid where DERs (both customer-owned and utility-owned) serve a significant portion of customer load and reliability services. This project will demonstrate the use of a DER management system for controlling the resources. The project will develop, document, and implement a methodology for construction and operation/dispatch of the DER portfolio. The project will include both third-party-owned and utility-owned resources. (Scoping Memo at 8-9.)

D.17-02-007 did not approve the Demonstration Project E proposals of PG&E and SCE, but allowed them to submit new proposals. (D.17-02-007 at 17, 19, 38-39.) SCE submitted a new proposal; PG&E did not. SCE's new proposal for Demonstration Project E is proposed to be located in a rural area in Mono County. No responses were received to SCE's new proposal.

¹ In addition to the previously-approved Circuit 701.

2. Discussion

2.1. Demonstration Project C

Demonstration Project C is intended to demonstrate DER locational benefits. This project will validate the ability of DER to achieve net benefits consistent with the LNBA. (Scoping Memo at 8.)

2.1.1. PG&E

PG&E proposes to use its Chowchilla 12 kV DPA as the site for its Demonstration Project C. (PG&E March 10, 2017 Comments at A-2, A-5-6.)

PG&E describes the Chowchilla DPA as follows:

The Chowchilla DPA covers approximately 375 square miles of rural agricultural lands along Highway 99 in the San Joaquin Valley in an area within the PG&E service territory. Load growth in the Chowchilla DPA is generally to support an agricultural customer base, including dairies, cattle ranches, poultry, farms, orchards and associated agricultural processing and storage facilities. This area has seen steady growth in ground water pumping load. [...]

El Nido Substation serves the western side of the Chowchilla DPA and has experienced normal capacity overloads during 2015 and 2016. [...] To ensure sufficient capacity is available in the future to safely and reliably serve customers in the Chowchilla DPA, PG&E has identified that additional distribution bank capacity (replacement of existing distribution bank with higher capacity bank) is needed at the El Nido Substation by the year 2020.

Although the El Nido Substation distribution transformer (bank) has operated above its capacity limits in 2015 and 2016, PG&E has determined that a distribution bank capacity project at El Nido Substation can be deferred until year 2020 [...] The higher than normal rainfall in the years 2016 and 2017 combined with additional capacity added to the Chowchilla DPA in 2017 provides an excellent opportunity to test whether DERs can be procured to provide distribution capacity services that defer a

distribution infrastructure project. (PG&E March 10, 2017 Comments at A-5-6.)

PG&E's budget identifies \$2.05 million in non-procurement costs, broken down into the following categories: solicitation (\$1.25 million), project construction and testing (\$500,000), and demonstration results (\$300,000).

(Id. at A-8.) PG&E states:

PG&E also will provide its procurement cost estimate in its Tier 3 contract approval advice filing as required by D.17-02-007, consistent with the cost recovery and "soft" budget cap methodology adopted by the decision. (Id. at A-9)

ORA responded to PG&E's proposal, and after review and analysis, ORA recommended that the Commission approve PG&E's revised Demonstration Project C, including a budget cap, consistent with D.17-02-007. (ORA April 10, 2017 Reply Comments at 2.) ORA believes that the cost estimates in Appendix A to PG&E's March 10, 2017 Comments provide an adequate basis for the budget cap. (Id.) No other party responded to PG&E's revised proposal. Accordingly, PG&E's revised Demonstration Project C is approved with the non-procurement budget soft cap set at \$2.05 million, and the procurement budget soft cap set at the confidential five-year deferral value contained in ORA's confidential Appendix A. (Id.)

2.1.2. SDG&E

SDG&E originally proposed to use two circuits for its Demonstration Project C: Circuit 701 connected to Mission Substation, and Circuit 470 connected to Felicita Substation. This Commission approved Circuit 701, but did not approve the use of Circuit 470. (D.17-02-007 at 9.) In lieu of Circuit 470,

SDG&E proposes to use Circuits 295, 298 and 597, all of which connect to its San Marcos Substation. (SDG&E March 13, 2017 Comments at 2-3.)

SDG&E describes Circuits 295, 298 and 597 as follows:

The electrical load in the San Marcos area is comprised primarily of commercial and residential customers, and the majority of the forecasted growth is associated with several large customers as described in the city of San Marcos' redevelopment plan to create a walkable city center. The three identified circuits are located in the same Distribution Planning Area that was used for SDG&E's Demonstration Project B, and SDG&E believes using these circuits will result in a viable Demonstration C project.

Circuit 295 connected to the San Marcos Substation serves approximately 2,100 customers, with load comprised of a mix of residential and industrial load customers. SDG&E forecasts the load on circuit 295 to exceed the circuit's thermal capacity rating by 300kW in 2018 and by 420kW in 2020. The load growth on Circuit 295 is being driven by residential development.

Circuit 298 also connected to the San Marcos Substation serves approximately 1,350 customers, with load comprised primarily of commercial customers. SDG&E forecasts the load on circuit 298 to exceed the circuit's thermal capacity rating by 1.5MW in 2018 and by 3.3MW in 2025. The load growth on Circuit 298 is being driven by growth in commercial activity.

Circuit 597 also connected to the San Marcos Substation serves approximately 2,900 customers, comprised primarily of residential customer load. SDG&E forecasts the load on circuit 597 to exceed the circuit's thermal capacity rating by 0.67MW in 2018 and by 3.1MW in 2025. The load growth on Circuit 597 is being driven by commercial development. (Id.)

SDG&E's budget for Demonstration Project C has \$750,000 in non-procurement costs:

As directed in Ordering Paragraphs 24 and 25 of the Decision [D.17-02-007], SDG&E has worked with the Energy Division to develop a soft cost cap for SDG&E's Demonstration C project, and has, concurrent with the filing of these comments, submitted a Tier 2 Advice Letter to set the soft cost cap for SDG&E's Demonstration C project including procurement costs.

The estimated non-procurement cost associated with SDG&E's Demonstration C project is \$750,000, and includes costs associated with installing 100kW of smart [inverters], information technology hardware and software, and engineering, data analysis and reporting to comply with applicable requirements in the performance metric (Appendix B) in the Decision. (SDG&E March 13, 2017 Comments at 4.)

Unlike PG&E, SDG&E does not include the cost of its solicitation in its non-procurement budget. As a general matter, we prefer PG&E's approach; while we will not require modification of SDG&E's budget at this time, on a going-forward basis the utilities should include solicitation costs in the non-procurement budget.

ORA reviewed SDG&E's proposal, and recommends that the Commission approve SDG&E's Demonstration Project C and the corresponding budget cap, consistent with D.17-02-007. (ORA April 12, 2107 Reply Comments at 1.) No other party responded to SDG&E's revised proposal. Accordingly, SDG&E's revised Demonstration Project C is approved. The soft cap for the non-procurement budget is set at \$750,000 and the soft cap for the procurement budget will be determined via the Tier 2 Advice Letter filed per D.17-02-007.

2.2. Demonstration Project E

The Scoping Memo for this proceeding described Demonstration Project E as follows:

Demonstrate a microgrid where DERs (both customer-owned and utility-owned) serve a significant portion of customer load and reliability services. This project will demonstrate the use of a DER management system for controlling the resources. The project will develop, document, and implement a methodology for construction and operation/dispatch of the DER portfolio. The project will include both third-party-owned and utility-owned resources. (Scoping Memo at 8-9.)

2.2.1. SCE

For its Demonstration Project E, SCE initially proposed to deploy an inverter-only microgrid in a residential area adjacent to the University California, Irvine. (SCE June 17, 2016 Comments at 34; SCE July 29, 2016 Comments at 4.) The Commission did not approve that proposal, but allowed SCE to propose a new Demonstration Project E, using an existing microgrid project. (D.17-02-007 at 19 and 39.)

On April 3, 2017 SCE submitted comments proposing a new Demonstration Project E, located in Mono County. SCE describes the area:

The proposed microgrid electrical service area is composed of 10 circuits, which primarily serve the cities of Bridgeport, Lee Vining, Mono City, June Lake and other remote rural populations. The type of load within the proposed microgrid electrical area is composed of agricultural and residential customers, and also includes a major military base which causes populations in the area to fluctuate according to time of year. (SCE April 3, 2017 Comments, Attachment A at 8-9.)

SCE notes that due to the remoteness of the area and the single source 115 kV line that serves it, the proposed project area is susceptible to outages, so the proposed Demonstration Project would provide additional reliability to the existing distribution system. SCE also identifies other potential benefits, such as improvements in power quality, voltage stability and control, and reactive

support when the distribution system is islanded. SCE states that the proposed location has a good amount of distributed DERs and distributed load, and a diverse customer mix, including about 1000 residential and agricultural customers and one military base.

According to SCE:

Peak load within the established microgrid boundary is estimated at approximately 3.5 MW. Existing resources include rooftop PV on approximately 30 homes and on the military base with collective name plate capacity of 684 kW and two combustion engines with a collective name plate of 176 kW. The total customer collective nameplate within the microgrid boundary is approximately 860 kW.

An SCE owned hydroelectric generating plant also contributes to the relevant characteristics of the proposed Demonstration E Project location. [...]The Poole Plant can provide hydro generation up to a capacity of 11MW, depending on the level of the reservoirs.
(Id. at 11.)

No protests or responses to SCE's proposal were received by the Commission, the location appears to be reasonable, the cost of the proposal is low, and it appears to comply with the criteria set forth in the Guidance Ruling and the Scoping Memo. Accordingly, SCE's revised Demonstration Project E is approved with the total soft cap budget set at \$888,000.

3. Procedural Issues

Because this decision is approving revised Demonstration Projects consistent with the approvals granted in D.17-02-007, the revised Demonstration Projects are subject to the same requirements and conditions approved in that decision. The one exception to this is the schedule for the revised Demonstration Projects – the same schedule approved in D.17-02-007 will apply to the revised

Demonstration Projects, but with dates calculated from the date of this decision rather than D.17-02-007.²

ORA filed a *Motion For Leave To File Under Seal Appendix A Of Reply Comments Of The Office Of Ratepayer Advocates On Pacific Gas And Electric Company's Request For Approval Of New Track 2 Demonstration Project C* on the grounds that it contained information that PG&E had designated as confidential pursuant to statute. No party protested or otherwise responded to ORA's motion. ORA's motion for leave to file information under seal is granted.

4. Categorization and Need for Hearing

Track 2 of these consolidated proceedings is categorized as ratesetting. The Scoping Memo determined that hearings may be needed; hearings were requested by ORA on the initial proposals, and were held on August 10 and 11, 2016. Hearings were neither requested nor held on the revised projects.

5. Comments on Proposed Decision

The proposed decision of Administrative Law Judge Allen in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code. Because this is an uncontested matter where the proposed decision grants the relief requested, the comment period is shortened pursuant to Rule 14.6(c)(2) of the Commission's Rules of Practice and Procedure. Comments are due 10 days from the service of this proposed decision. No reply comments will be accepted.

² To the extent that the utilities are capable of complying with the schedule set forth in D.17-02-007 for the revised Demonstration Projects, the utilities may choose to do so, and shall inform the Commission's Energy Division in writing of their intent to do so.

Green Power Institute (GPI), PG&E and SDG&E filed comments on the proposed decision. GPI supports the proposed decision, and urges its expeditious adoption. PG&E and SDG&E point out that an incorrect version of Appendix A was attached to the proposed decision. For clarity and consistency, and because they are available as appendices to D.17-02-007 (and were attached to the proposed decision solely for convenience), Appendix A and Appendix B are no longer attached to this decision.

SDG&E also requests clarification that the requirement that a “third party expert” perform a process evaluation for Demonstration Projects C and E does not apply to aspects of SDG&E’s demonstration projects that utilize existing resources. (SDG&E Comments on Proposed Decision at 1 and 2.) SDG&E is correct. The utilities are not required to utilize a third party expert to do a process evaluation for the use of existing utility resources.

6. Assignment of Proceeding

Michael Picker is the assigned Commissioner and Peter V. Allen and Robert M. Mason III are the co-assigned Administrative Law Judges in this proceeding.

Findings of Fact

1. PG&E’s revised Demonstration Project C is in a reasonable location and has reasonable costs.
2. SDG&E’s revised Demonstration Project C is in a reasonable location and has reasonable costs.
3. SCE’s revised Demonstration Project E is in a reasonable location and has reasonable costs.
4. A cost cap including both procurement and non-procurement costs would help ensure that the costs of the revised Demonstration Projects are reasonable.

5. Utilities should obtain Commission approval for their procurement of revised Demonstration Project contracts.

6. The revised Demonstration Projects are intended to provide information that can be used in the deployment of DER.

7. Information about the revised Demonstration Projects should be comparable across utilities.

Conclusions of Law

1. PG&E's revised Demonstration Project C should be approved.
2. SDG&E's revised Demonstration Project C should be approved.
3. SCE's revised Demonstration Project E should be approved.
4. The requirements and conditions ordered in D.17-02-017 should apply to the revised Demonstration Projects, including the soft cost cap, contract approval process, reporting requirements, metrics, and ratemaking treatment.
5. Rate recovery for the reasonable costs of the revised Demonstration Projects should be approved.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company's revised Demonstration Project C in the Chowchilla Distribution Planning Area is approved.
2. San Diego Gas & Electric Company's revised Demonstration Project C on Circuits 295, 298 and 597 connected to the San Marcos Substation is approved.
3. Southern California Edison Company's revised Demonstration Project E in Mono County is approved.

4. The schedules for implementation of revised Demonstration Projects C and E are set forth in Appendix A to Decision 17-02-007, with the modification that the starting date will be the date of this decision.

5. All other requirements and conditions ordered in Decision 17-02-017 apply to the revised Demonstration Projects, including the soft cost cap, contract approval process, reporting requirements, metrics, and ratemaking treatment.

6. Rulemaking 14-08-013 et al., and Application 15-07-005 et al., remain open.
This order is effective today.

Dated June 15, 2017, at Sacramento, California.

MICHAEL PICKER

President

CARLA J. PETERMAN

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

Commissioners