PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Agenda ID: 20463
ENERGY DIVISION **RESOLUTION E-5202**
April 21, 2022

R E D A C T E D R E S O L U T I O N

Resolution E-5202. Pacific Gas & Electric Company Request for Approval of Mid-term Reliability Procurement Pursuant to Decisions 21-06-035 and 21-12-015.

PROPOSED OUTCOME:

- This Resolution approves Pacific Gas & Electric Company's nine energy storage contracts and related costs for a total of 1,598.7 megawatts of incremental capacity.

SAFETY CONSIDERATIONS:

- Pacific Gas & Electric Company's contractual terms and conditions require sellers to practice responsible safety management based on 1) standards for Prudent Electrical Practices, 2) all applicable laws and regulations, and 3) requirements of Pacific Gas & Electric Company's Contractor Safety Program.

ESTIMATED COST:

- Contract costs are confidential at this time.

By Advice Letter 6477-E, Filed on January 21, 2022.

SUMMARY

This Resolution approves nine energy storage contracts for 1,598.7 megawatts ("MW") of incremental capacity that Pacific Gas & Electric Company ("PG&E") procured to address 2023 and 2024 mid-term reliability, and 2023 summer reliability. These contracts include nine Long-Term Resource Adequacy Agreements ("LTRAA") with energy settlement ("ES"), including Beaumont ESS

I, LLC for 100 MW, Sanborn ESS I, LLC for 169 MW, Canyon Country ESS I, LLC for 80 MW, Moss Landing Energy Storage 3, LLC for 350 MW, Poblano Energy Storage, LLC for 100 MW, NextEra Energy Resources Development Corby Energy Storage for 125 MW, NextEra Energy Resources Development Kola Energy Storage for 275 MW, Nighthawk Energy Storage, LLC for 300 MW, and Caballero CA Storage, LLC for 99.7 MW. This Resolution approves the requested relief in Advice Letter ("AL") 6477-E.

BACKGROUND

On June 30, 2021, the Commission issued Decision ("D.") 21-06-035 to address the mid-term reliability needs of the electricity system within the California Independent System Operator's ("CAISO's") operating system by requiring at least 11,500 MW of additional net qualifying capacity ("NQC") to be procured by all of the load-serving entities ("LSEs") subject to the Commission's integrated resource planning ("IRP") authority. The capacity requirements are adopted annually, beginning with 2,000 MW by 2023, an additional 6,000 MW by 2024, an additional 1,500 MW by 2025, and an additional 2,000 MW by 2026.[1]

On December 6, 2021, in a separate proceeding, the Commission issued D.21-12-015, adopting several supply and demand-side requirements intended to ensure there is adequate electric power in the event of extreme weather conditions during the summers of 2022 and 2023.[2] Specifically, the Commission determined a need for contingency resources in the range of 2,000 to 3,000 MW to meet an effective PRM of 20-22.5%.[3] The Commission allocated the procurement responsibility for the additional contingency resources to the three large IOUs on a proportional load share basis.[4]

On January 21, 2022, PG&E submitted AL 6477-E requesting approval of nine LTRAA for a total of 1,598.7 MW of energy storage projects. The projects will (1) meet the requirement ordered in D.21-06-035 for August 1, 2023, and June 1,

[1] D.21-06-035 at 2, OP 1.
[2] D.21-12-015 at 2.
[3] *Id*. at 160-62, OP 3.
[4] *Id*.

2024, and also (2) meet a portion of the revised summer reliability procurement targets for 2023 adopted in D.21-12-015 (Summer Reliability Target).

The nine projects are summarized in the table below:

Project / Location	Technology	Counterparty	Megawatts (MW)	Duration	Contract Type	Commercial Operation Date	Contract Term
Beaumont Energy Storage Project / SP15	Lithium-Ion Energy Storage	Terra - Gen	100	4 hours	LTRAA with ES	08/01/23	15 years
Edwards Sanborn Energy Storage Project / SP15	Lithium-Ion Energy Storage	Terra - Gen	169	4 hours	LTRAA with ES	08/01/23	15 years
Canyon Country Energy Storage Project / SP15	Lithium-Ion Energy Storage	Terra - Gen	80	4 hours	LTRAA with ES	10/01/23	15 years
MOSS350 Energy Storage / NP15	Lithium-Ion Energy Storage	Vistra Corp	350	4 hours	LTRAA with ES	08/01/23	15 years
Inland Empire Energy Storage / SP15	Lithium-Ion Energy Storage	Strata Solar	100	4 hours	LTRAA with ES	04/01/24	15 years
Corby Energy Storage / NP15	Lithium-Ion Energy Storage	NextEra	125	4 hours	LTRAA with ES	06/01/24	15 years
Kola Energy Storage / NP15	Lithium-Ion Energy Storage	NextEra	275	4 hours	LTRAA with ES	06/01/24	15 years
Nighthawk Storage / SP15	Lithium-Ion Energy Storage	Tenaska	300	4 hours	LTRAA with ES	06/01/24	15 years
Caballero Energy Storage / ZP	Lithium-Ion Energy Storage	Origis Energy	99.7	4 hours	LTRAA with ES	06/01/24	15 years

The nine energy storage contracts were selected through a competitive procurement process conducted between June 18 and December 30, 2021 and overseen by an independent evaluator ("IE"). PG&E states that it evaluated offers based on Net Market Value (“NMV”) and shortlisted offers based on a combination of NMV, and other qualitative factors included in the solicitation protocol to achieve a shortlisted portfolio that could provide incremental MWs consistent with D.21-06-035. PG&E states that it also considered resources

located in Disadvantaged Communities ("DACs") as a qualitative factor when evaluating offers, consistent with Public Utilities Code Section 454.52(a)(1)(I).[5]

Regarding cost recovery, PG&E proposes that when used to meet the D.21-06-035 Mid-Term Reliability ("MTR") requirements, the LTRAAs and associated costs for capacity contracted are PCIA-eligible with an assigned vintage of 2021 for the duration of the contract term and the costs recovered will be net of any CAISO charges and market revenues, and net of any retained RA capacity value for bundled service customers. PG&E proposes that when used to meet the Summer Reliability Target, and prior to application towards the D.21-06-035 Mid-Term Reliability requirements, the LTRAAs and associated costs are eligible for cost recovery under the existing Cost Allocation Mechanism ("CAM") and will be recovered from all benefiting customers through the New System Generation Charge ("NSGC"). The cost recovered will be net of revenues and costs received in the CAISO energy and ancillary services market or net revenues and costs for energy and ancillary services' payments/charges received by the buyer from the seller as defined in the contract terms and conditions associated with the LTRAA with ES and pursuant to D.21-03-056 and D.21-12-015.[6]

In AL 6477-E, PG&E requests the following:

1. Approval of the storage projects and associated LTRAAs resulting from PG&E's 2021 MTR Request for Offers ("RFO") – Phase 1.
2. A finding that the LTRAAs identified and executed by PG&E pursuant to the MTR RFO – Phase 1 are consistent with the requirements of D.21-06-035 and that PG&E's MTR RFO -- Phase 1 solicitation was consistent with the Bundled Procurement Plan.
3. Pursuant to Ordering Paragraph 3 of D.21-06-035, a finding that the energy storage LTRAAs executed by PG&E, totaling 1,598.7 MW of zero GHG-emitting resources counts towards satisfying PG&E's incremental procurement obligations.
4. A finding that PG&E may apply LTRAAs with facilities that are intended to be brought online on or before August 1, 2023 toward its summer

[5] PG&E AL 6477-E at 7.

[6] *Id*. at 16.

reliability procurement target of 900 MW to 1,350 MW as established in D.21-12-015, and recover the costs associated with such LTRAAs through CAM, net of revenues, for the period that such LTRAAs are applied toward the summer reliability procurement targets.

5. A finding that the energy storage LTRAAs, and PG&E's entry into the LTRAAs, are reasonable and prudent for all purposes, and that any payments to be made by PG&E pursuant to the Agreements are recoverable in full by PG&E.
6. Any other and further relief as the Commission finds just and reasonable.[7]

NOTICE

Notice of AL 6477-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the AL was mailed and distributed in accordance with General Rule 4 of Commission General Order 96-B.

PROTESTS

PG&E's Advice Letter 6477-E was timely protested by the Public Advocates Office ("Cal Advocates") on February 10, 2022.

Cal Advocates recommends that the Commission:

- Consider the impact of energy storage charging on local reliability in the South-Bay Moss Landing Local Sub-Area in its decision to approve or deny PG&E's proposed procurement.
- Deny PG&E's request to approve the LTTRA with ES contract for the Vistra Moss Landing project because there are other higher valued projects with the same online date.
- Require PG&E to demonstrate the [redacted] under the NextEra Corby and Kola contracts is feasible, and only allow [redacted].

[7] *Id*. at 19-20.

- Order PG&E to designate and maintain the procurement requirement and method of cost recovery for each contract at the outset, rather than changing them during the life of the contracts as PG&E requests.[8]

PG&E REPLY TO PROTESTS

On February 17, 2022, PG&E timely responded to the protest of Cal Advocates.

In response to Cal Advocates' protest that the Commission consider the impact of energy storage charging on local reliability area, PG&E states that PG&E is not aware of any energy storage charging limits in the South Bay Moss Landing Local Sub-Area and the CAISO has not stated that energy limits will exist in the South-Bay Moss Landing Local Sub-Area that would limit the ability of Vistra Moss Landing to provide the sought-after system NQC.[9]

In response to Cal Advocates' protest that the Commission deny PG&E's request to approve the LTTRA with ES contract for the Vistra Moss Landing project [redacted], PG&E states that [redacted]. PG&E requests that the Commission disregard Cal Advocates' protest to deny the Vistra Moss Landing project.[10]

In response to Cal Advocates' recommendation that the Commission require PG&E to demonstrate that [redacted] can be accommodated at Corby [redacted], PG&E states that [redacted]

[8] Cal Advocates Protest at 2.

[9] PG&E Reply to Protest at 2.

[10] *Id*. at 2-3.

[redacted].[11]

Lastly, in response to Cal Advocates' request that the Commission order PG&E to keep the procurement requirement and cost recovery designation for each contract consistent through the life of the contract, PG&E states that this request is contrary to the Commission directives in D.21-06-035 and D.21-12-015. PG&E states that D.21-06-035 clarified that capacity procured after June 30, 2020, including that which was procured for emergency reliability purposes in Rulemaking 20-11-003, is eligible to count towards the procurement requirements under D.21-06-035. PG&E also refers to D.21-12-015, Ordering Paragraph 89, which states, in part: "Emergency reliability resources procured to meet the requirements of this decision may count toward existing Integrated Resource Plan ("IRP") requirements… If the IOU elects to recover the costs of the emergency resources from their bundled customers after the emergency procurement period, then the resource may count toward their IRP requirements." PG&E emphasizes that it will never double count any capacity, but may apply a portion of a resource's capacity, when in excess of its D.21-06-035 MTR requirements, toward its Emergency Reliability procurement targets for 2023 as adopted in D.21-12-015.[12]

DISCUSSION

The Commission has reviewed AL 6477-E, the protest, and the reply of PG&E. We consider issues raised by the protestant to AL 6477-E in the following discussion. However, we find that PG&E's request in AL 6477-E is reasonable overall.

Consistency with Commission decisions, D.21-06-035 and D.21-12-015

[11] *Id*. at 4.

[12] *Id*. at 4-5.

We find that PG&E's AL 6477-E filing is consistent with Commission decisions, D.21-06-035 and D.21-12-015. As directed in the D.12-06-035, PG&E filed a Tier 3 AL seeking approval of its LTRAA contracts with ES. The LTRAA contracts are for 1,598.7 MW of incremental storage capacity expected to be online by 2023 and 2024.

Further, AL 6477-E includes zero-emitting capacity with the following characteristics as required by Ordering Paragraphs 6 and 9 of D.12-06-035:

> (a) Be from a generation resource, a generation resource paired with storage (physically or contractually), or a demand response resource;
> (b) Be available every day from 5 p.m. to 10 p.m. (the beginning of hour ending 1800 through the end of hour ending 2200), Pacific Time, at a minimum; and
> (c) Be able to deliver at least 5 megawatt-hours of energy during each of these daily periods for every megawatt of incremental capacity claimed."
> …
> All contracts for resources, including imports, used to satisfy the requirements of this procurement order shall have a minimum duration of 10 years.

Some of the contracts in AL 6477-E also meet specific requirements for the procurement of additional supply-resources in D.21-12-015, including:

- Resources must be available during both the peak and net peak demand periods.
- Commercial Online Dates ("COD") by June 1, 2022, are preferred but resources with CODs by August 1, 2023, will be considered.
- New resources that have not yet reached full capacity deliverability status but are capable of providing energy/grid reliability benefits during the peak and net-peak periods will also be considered.[13]

Procurement Methodology, Evaluation, and Cost Reasonableness

[13] D.21-12-015 at 100, OP 76.

PG&E issued its MTR RFO – Phase 1 on June 18, 2021, to solicit offers to procure incremental resources with an expected online date of August 1, 2023, and June 1, 2024, to count towards PG&E's procurement requirement of a total of 1,601 MWs by June 1, 2024. On June 25, 2021, PG&E conducted a participants' conference via webinar. PG&E requested offers by July 23, 2021, and notified participants of their shortlist status on September 23, 2021.

PG&E retained Merrimack Energy Group, Inc. ("Merrimack") as the IE for its mid-term reliability solicitation efforts. Merrimack reviewed the protocol documents, monitored communications between PG&E and the participants, reviewed and commented on the evaluation results, shortlisting and final selection, monitored the status of short-listed offers, participated in meetings with the Procurement Review Group ("PRG"), and monitored the contract discussion and negotiation process with shortlisted participants. Merrimack reviewed the shortlist and the proposed evaluation results generated by PG&E. The IE was in general agreement with PG&E's overall shortlist selection and recommended the approval of all nine contracts executed by PG&E.[14]

We have reviewed PG&E's NMV bid evaluation analysis and the IE report. On balance, we concur with the IE that [redacted].[15] We find that PG&E has conducted a robust competitive solicitation with reasonable bid evaluation methodology.

Vistra Moss Landing Energy Storage Project

Cal Advocates raises the issue of charging the Vistra Moss Landing energy storage project in a locally constrained area, South Bay Moss Landing Local Sub-area. However, the charging limits in the 2022 Local Capacity Technical Study referenced by Cal Advocates is based on a 1 in 10 weather year with an N-1-1 contingency. We agree with PG&E that Vistra Moss Landing will be able to deliver the system NQC under the proposed PG&E LTRAAs. In addition, Cal

[14] PG&E AL 6477-E, Appendix J1, IE report, at 14, 45, 68, 71.
[15] *Id*. at 71.

Advocates recommends that the Commission deny the Vistra Moss Landing project because [redacted]. However, [redacted]. Further, the Vistra Moss Landing project was rated highly [redacted]. We agree with PG&E [redacted].

[redacted] **Provision**

Cal Advocates recommends that the Commission require PG&E to demonstrate that [redacted] can be accommodated at [redacted]. Furthermore, Cal Advocates argues that ratepayers should only pay for the [redacted] the Corby project [redacted] Provision addresses developer's risk of potential interconnection delays. In the event that projects can not come online by the expected online date due to interconnection delays or other reasons, ratepayers will not pay for any capacity that is not delivered.

Cost Recovery

D.21-06-035 authorized cost recovery of the MTR procurement via PCIA:

> To the extent that any resources procured in response to this order are subject to allocation using the power charge indifference adjustment (PCIA), the date of that adjustment shall be vintaged by the date of this order. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each file Tier 2 advice letters to update their balancing accounts to address the PCIA treatment as a result of this order. (OP 12)

D.21-06-035 also determined that the Emergency Reliability procurement in R.20-11-003 is eligible to be counted towards MTR requirements:

> Meanwhile, for the capacity procurement requirements in this order, we will allow LSEs to show procurement that they have conducted to support the Commission's orders or requirements in the context of the RPS program, as well as for emergency reliability purposes in R.20-11-003, as compliance toward the requirements herein.[16]

D.21-12-015 extended the CAM authority granted in D.21-02-28 and D.21-03-56 to summer 2023 procurement and allowed emergency reliability resources to meet IRP requirements:

> The Cost Allocation Mechanism (CAM) authority granted in Decision (D.) 21-02-028 and D.21-03-056 is extended to the summer 2023 procurement ordered in this decision. If an Investor-Owned Utility (IOU) uses such procurement to meet its bundled service Resource Adequacy (RA) requirements, it shall not recover the costs of the resource through CAM, but rather from bundled service customers. After the emergency procurement period, during which an IOU procures incremental reliability resources on behalf of all customers, ends, the IOU shall allocate RA benefits of any resources whose contracts extend beyond the emergency procurement period consistent with their approved cost recovery mechanism. (OP 86)
>
> Emergency reliability resources procured to meet the requirements of this decision may count toward existing Integrated Resource Plan (IRP) requirements. If an Investor-Owned Utility (IOU) elects to recover the costs of the emergency resources from all customers in its service territory during and beyond the emergency procurement period, then these resources will not count toward IRP requirements. If the IOU elects to recover the costs of the emergency resources from their bundled customers after the emergency

[16] D.21-06-035, at 80.

procurement period, then the resource may count toward their IRP requirements. (OP 89)

We agree with PG&E that the Commission authorizes it to recover the cost of the proposed energy storage projects via PCIA if they are used to meet the MTR requirements, and to the extent PG&E allocates capacity online on or before August 1, 2023 to meet its Summer Reliability targets, it can recover those costs via CAM.

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. Any comments are due within 20 days of the date of its mailing and publication on the Commission's website and in accordance with any instructions accompanying the notice. Section 311(g)(2) provides that this 30-day review period and 20-day comment period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution is neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments on <Month><Day>, 2022.

FINDINGS

1. Commission decision D.21-06-035 directed all Load Serving Entities to procure 11,500 megawatts (MW) of incremental September net qualifying capacity under the Commission's integrated resource planning purview over the course of four years, with 2,000 MW to be online by August 1, 2023, an additional 6,000 MW online by June 1, 2024, an additional 1,500 MW online by June 1, 2025, and an additional 2,000 MW online by June 1, 2026.
2. Commission decision D.21-06-035 ordered the three IOUs to file Tier 3 Advice Letters to request cost recovery for any procurement conducted as a result of the decision, except if the procurement is associated with a pumped storage resource or a utility-owned resource, for which full applications are required.

3. Commission decision D.21-12-015 adopted several supply and demand-side requirements intended to ensure that there is adequate electric power in the event of extreme weather conditions during the summers of 2022 and 2023.
4. PG&E's methodology to evaluate the energy storage bids in the competitive solicitation is reasonable.
5. The cost of the energy storage contracts is reasonable based on the robust competitive solicitation and bid evaluation methodology.
6. PG&E's request to recover the costs of the energy storage projects through PCIA for MTR procurement ordered in D.21-06-035 is reasonable.
7. PG&E's request to recover the costs of the energy storage projects online on or before August 1, 2023 via CAM when in excess of its D.21-06-035 MTR requirements, and counted toward its Emergency Reliability procurement targets for 2023 ordered in D.21-12-015 is reasonable.

THEREFORE IT IS ORDERED THAT:

1. The request of PG&E to approve the nine energy storage contracts totaling 1,598.7 MW as requested in Advice Letter 6477-E is approved.
2. The approved contracts are PCIA-eligible with an assigned vintage of 2021 for the duration of the contract term when used to meet the MTR requirements ordered in D.21-06-035.
3. PG&E is authorized to count capacity that is online on or before August 1, 2023, toward its summer reliability procurement target of 900 MW to 1,350 MW, as established in D.21-12-015, and recover the costs associated with such contracts through CAM, net of revenues, for the period that such contracts are applied toward the summer reliability procurement targets.

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 April 21, 2022; the following Commissioners voting favorably thereon:

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Rachel Peterson
Executive Director