PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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ENERGY DIVISION **RESOLUTION E-5250**
January 12, 2023

R E S O L U T I O N

Resolution E-5250. San Diego Gas & Electric Company Tranche 1 Mid-Term Reliability Contracts

PROPOSED OUTCOME:

- Approves San Diego Gas & Electric Company's three mid-term reliability contracts and related costs for a total of 200 megawatts of incremental capacity.

SAFETY CONSIDERATIONS:

- San Diego Gas & Electric Company's contractual terms and conditions require sellers to practice responsible safety management based on 1) Accepted Electrical Practices, and 2) mitigation of identified risks and vulnerabilities from long-term climate change.

ESTIMATED COST:

- Contract costs are confidential at this time.

By Advice Letter 4096-E, Filed on October 27, 2022.

SUMMARY

This resolution approves three San Diego Gas & Electric Company (SDG&E) contracts for 200 MW of incremental capacity procured to address 2023 and 2024 mid-term reliability (MTR). The Terra-Gen Edwards Sanborn contract is a resource adequacy (RA)-only 20 megawatt (MW) hybrid solar and storage project with expected online date of 6/1/2023. The Ormat Bottleneck and Aypa Cald contracts are tolling agreements for battery storage projects with expected online date of 6/1/2024 for 80 MW and 100 MW of capacity, respectively.

BACKGROUND

The Commission adopted decision (D.) 21-06-035 on June 24, 2021 to address mid-term electric system reliability needs for the 2023-2026 period arising from the retirement of the Diablo Canyon Nuclear Power Plant, as well as once-through cooling and other natural gas-fired units. The decision directs all load serving entities (LSEs) to undertake incremental electric system reliability procurement for the 2023-2026 compliance period. The decision requires procurement of 11,500 MW of incremental September Net Qualifying Capacity (NQC), with at least 2,000 MW by August 1, 2023, an additional 6,000 MW by June 1, 2024, an additional 1,500 MW by June 1, 2025, and an additional 2,000 MW by June 1, 2026. In addition, the decision requires that at least 2,500 MW of the resources procured by the LSEs collectively between 2023 and 2025 be from zero-emission resources that generate electricity, or generation resources paired with storage or demand response, to replace the current supply of energy from the Diablo Canyon Power Plant and ensure there is no resultant increase in greenhouse gas emissions upon its retirement.

D.21-06-035 specifies that SDG&E's total share of the procurement requirement is 361 MW, with 63 MW online by August 1, 2023, 188 MW by June 1, 2024, 47 MW by June 1, 2025, and 63 MW of long-lead time (LLT) resources by 2026. This is inclusive of a minimum of 78 MW of zero-emitting capacity by 2025. The investor-owned utilities (IOUs), including SDG&E, are required to file Tier 3 advice letters (ALs) for approval of MTR contracts, except in the case of utility-owned resources and pumped storage projects, in which case an application is required. MTR contracts are required to be at least 10 years in length and for resources incremental to the baseline used in need determination.

Ordering Paragraph 4 of D.21-06-035 permits an IOU to submit a Tier 2 AL to, upon mutual agreement with another LSE, adjust their respective capacity allocations, so long as the total capacity requirements in the decision remain the same. SDG&E and San Diego Community Power (SDCP) mutually agreed to adjust their respective procurement requirements to better reflect load migration between the two LSEs. As outlined in approved AL 3967-E, SDG&E and SDCP used the most up-to-date estimates of the volume and timing of anticipated load migration in the SDG&E service territory to refine, modify, and reallocate their respective procurement obligations without changing the total volume of procurement. After reallocation, SDG&E is now required to procure an additional 114.3 MW of capacity. SDG&E's revised total share of the procurement requirement is 475 MW with 83 MW online by August 1, 2023, 248 MW by

June 1, 2024, 62 MW by June 1, 2025, and 83 MW of LLT resources by 2026. This is inclusive of a minimum of 103 MW of zero-emitting capacity by 2025.

On September 30, 2021, SDG&E issued its 2023-2026 mid-term Integrated Resource Planning Request for Offers (IRP RFO) with offers due by no later than November 19, 2021. SDG&E reopened the RFO on April 26, 2022, for submission of new offers and/or updates to previously submitted offers with offers due by no later than May 11, 2022.

SDG&E discussed the RFO, the shortlist and the status of contract negotiations with its Cost Allocation Mechanism Procurement Review Group (CAM PRG) on multiple occasions. SDG&E responded to CAM PRG questions and follow-up items and incorporated CAM PRG feedback into its procurement processes and contract negotiations. Specific dates on which the CAM PRG was briefed on the RFO include October 15, 2021, November 19, 2021, December 17, 2021, January 21, 2022, February 9, 2022, March 18, 2022, April 15, 2022, May 20, 2022, June 17, 2022, July 15, 2022, August 19, 2022, September 16, 2022, and October 21, 2022.

On October 27, 2022, SDG&E submitted AL 4096-E requesting approval of three agreements procured through the IRP RFO. Two projects are standalone lithium-ion battery energy storage systems, and one project is a hybrid solar photovoltaic with lithium-ion battery project.

The projects are summarized in the table below.

Project Name	**Developer**	**Resource**	**Type**	**Capacity (MW)**	**COD**	**Term**
Edwards Sanborn	Terra-Gen	Hybrid	RA-Only	20	6/1/2023	15
Bottleneck	Ormat	Storage	Toll	80	6/1/2024	15
Cald	Aypa	Storage	Toll	100	6/1/2024	12

SDG&E states that it utilized net market value (NMV) and additional qualitative factors included in the solicitation protocol to achieve a shortlisted portfolio that could meet SDG&E's minimum mid-term procurement requirements. In order to determine the NMV, SDG&E used an Excel-based model and PLEXOS modeling software to conduct the NMV analysis. The value and cost streams for all the resources are used to calculate the NMV and a ranking by NMV from highest to lowest is then created. Value streams include capacity and may also include energy, ancillary services, and renewable energy credits. Cost streams include capacity and may also include energy, variable operation and maintenance, and transmission upgrades. A positive NMV indicates that a resource provides more benefits than costs. SDG&E conducts a qualitative analysis on the resources with the highest ranked NMVs to determine best fit for the portfolio before proposing a shortlist. Qualitative factors to determine resource fit included commercial online date, capacity size, contract duration, interconnection and permit status, local or system RA, and developer experience.

PA Consulting was assigned as the independent evaluator (IE) for the solicitation. SDG&E states that PA Consulting reviewed and evaluated the planning of the solicitation, including solicitation materials; participated in the pre-offer webinar; reviewed offers, including conformance and evaluation; assisted in shortlist development; was included in all written and verbal communication with offerors; and attended contract negotiations.

SDG&E requests a Commission finding that:

(1) Procurement of the contracts complies with the procurement requirements ordered by the D.21-06-035, and
(2) SDG&E is authorized to recover in rates the cost of the contracts via the modified cost allocation mechanism (MCAM) established in D.22-05-015 for any necessary backstop procurement or the Power Charge Indifference Adjustment (PCIA) for all other procurement undertaken in accordance with the D.21-06-035, subject to SDG&E's prudent administration of the contracts.

NOTICE

Notice of AL 4096-E was made by publication in the Commission's Daily Calendar. SDG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

SDG&E's Advice Letter 4096-E was timely protested by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) on November 16, 2022.

Investment Tax Credit

Cal Advocates states that the Inflation Reduction Act became law on August 16, 2022 extending the Investment Tax Credit (ITC) to standalone energy storage resources. According to Cal Advocates, the Bottleneck and Cald projects will qualify for a minimum 6% ITC, an increased rate of 30% if they meet labor standards, and a 40% rate if they are located in an energy community. Cal Advocates states that SDG&E did not make reasonable efforts to gain price reductions related to the ITC in its negotiations with Ormat for the Bottleneck contract or Aypa for the Cald contract.

Cal Advocates also asserts that SDG&E's management of negotiations with counterparties displays a lack of urgency, citing findings by the IE that "SDG&E's outreach was not a detriment to the robustness of the solicitation, but SDG&E's relative tardiness was"[1] as it took longer both to launch its solicitation and negotiate contracts than the other IOUs. Additionally, Cal Advocates states that SDG&E did not take comparable actions to the other IOUs in negotiations to realize ratepayer benefits of the ITC.

Cal Advocates requests that CPUC direct SDG&E to negotiate with Ormat and Aypa for ITC-derived price reductions and order SDG&E to incorporate a provision into its pro forma resource adequacy contracts going forward to ensure that ratepayers benefit from ITC benefits.

Valuation Methodology

Cal Advocates criticizes several aspects of SDG&E's valuation methodology. First, Cal Advocates states that by neglecting to factor contract duration into its quantitative least-cost/best-fit valuation criteria, SDG&E's methodology biases the ranking in favor of longer-term contracts. Cal Advocates states that SDG&E should not have agreed to extend the length of the Aypa contract from 10 to 12 years during contract negotiations. While the 12-year agreement had a greater NMV, the NMV/MW-year is smaller. According to Cal Advocates, the relative costs on a monthly basis are lower for the 10-year contract and, therefore, the CPUC should direct SDG&E to select the 10-year contract. Cal Advocates also requests that the CPUC direct SDG&E to improve its valuation methodology by including NMV/kW-month as the primary ranking metric in its least-cost/best-fit evaluation methodology for future procurement.

Additionally, Cal Advocates claims that SDG&E has failed to improve its modeling of ancillary service (AS) benefits as directed by Resolutions E-5117 and E-5139. According to Cal Advocates, SDG&E has modeled AS benefits based on prices from the past five years despite rapid deployment of storage capacity that has resulted in reduced AS costs in 2021 and 2022. Cal Advocates asserts that overvaluation of AS benefits may

[1] Public Independent Evaluator report at 13.

have resulted in selection of tolling agreements over RA-only offers. Cal Advocates requests that the CPUC direct SDG&E to select the RA-only offers for the Cald and Bottleneck projects unless SDG&E can demonstrate that the tolling offers provide equal or superior value based on reasonable AS assumptions.

SDG&E timely responded to the protest of Cal Advocates on November 23, 2022.

Contract Pricing and the ITC

SDG&E replies that Cal Advocates has misrepresented the contract pricing and associated negotiations by using a hypothetical price rather than the actual bid price as the baseline in its analysis. SDG&E also states that Cal Advocates' request for the Commission to order SDG&E to negotiate with Aypa and Ormat for ITC benefits is misplaced. SDG&E makes confidential arguments regarding the timeline and reasonableness of contract negotiations that dispute Cal Advocates' claims. Additionally, SDG&E states that any effort to restart negotiations would slow the approval process and jeopardize the projects as the Aypa and Ormat projects contain CPUC approval condition precedents.

SDG&E agrees with Cal Advocates' suggestion that going forward SDG&E should incorporate a provision into its pro forma RA contracts to ensure that ratepayers benefit from the ITC and states that it will do so.

Regarding Cal Advocates' assertion that SDG&E's approach to negotiations was deficient in comparison to that of the other IOUs, SDG&E responds that it strongly disagrees with this characterization. SDG&E states that reopening the solicitation in April 2022 was necessary due to changed market conditions and while it took more time, it allowed for a full review that was necessary in order to secure the best fit projects.

Valuation Methodology

SDG&E states that it updated its AS valuation methodology as required by Resolution E-5117. According to SDG&E, it met with Energy Division staff and interested parties on February 26, 2021 to walk through the evaluation model and methodology and provide an opportunity for questions and further clarification. SDG&E then provided written responses to the questions in March 2021. SDG&E then refined and improved its model documentation to make the process and inputs more transparent.

Additionally, SDG&E states that before the evaluation of the RFO started, SDG&E and the IE agreed on the evaluation methodology to be used. SDG&E states that it briefed the CAM PRG on the evaluation multiple times between October 15, 2021 and October 21, 2022 and provided its evaluation model workbook to Cal Advocates on March 23, 2022, September 16, 2022, and October 11, 2022 in response to data requests and at no time in the process did Cal Advocates raise concerns about the AS evaluation methodology until the October 11, 2022 data request at which point the tolling agreements with Aypa and Ormat had already been executed. SDG&E states that it cannot revise the evaluation methodology at this point without refreshing the evaluation of all offers and that this would take significant time and effort and would significantly delay SDG&E's planned timeline to contract resources and ensure they are online in time to meet CPUC requirements. SDG&E offers to continue to consider updates to its valuation methodology, including that for AS benefits, and to continue to update the model and data used for evaluation.

DISCUSSION

The Commission has reviewed the Advice Letter, the protest, and the reply of SDG&E. We address specific concerns in the following discussion, though we find that SDG&E's request in AL 4096-E is reasonable overall.

Valuation Methodology

Cal Advocates raises concerns about SDG&E's bid valuation methodology, particularly the valuation of AS and use of NMV rather than NMV/kW-month as the primary ranking metric in its least-cost/best-fit evaluation methodology.

In its response, SDG&E describes the process used to update its AS valuation methodology as directed by resolutions E-5117 and E-5139. The update process included meeting with Energy Division and interested parties and updates to the methodology in response to feedback. SDG&E and the IE agreed on the evaluation methodology to be used. This included consideration of NMV/MW in addition to NMV as recommended by the IE. Additionally, the CAM PRG was briefed multiple times throughout the evaluation process.

The IE report states that the IE reviewed SDG&E's shortlist analysis and conducted sensitivity analyses by considering alternative shortlists if parameters were varied such as procuring double the procurement target, not considering contract length, and selecting bids based on NMV/MW rather than NMV and that it concluded that the shortlist was reasonable.[2] Further, the IE recommends CPUC approval of the three contracts.

We find that SDG&E took reasonable steps to comply with Commission direction to update the AS valuation methodology and provided ample opportunity for input from parties and the IE. Additionally, while NMV/kW-month was not considered, contract duration was one of the qualitative factors considered by SDG&E in its least-cost/best-fit analysis. As such, we are satisfied that the selection process was not biased towards projects with longer contract terms. However, we acknowledge that the AS market is evolving rapidly as more battery storage resources come online. We agree that SDG&E should consider updates to its valuation methodology, including that for AS benefits, and continue to update the model and data used for evaluation in future procurements.

Contract Pricing and the ITC

Cal Advocates raises concerns regarding SDG&E's management of the RFO and negotiations with counterparties regarding the ITC. SDG&E objects to the characterization, replying that the additional time was necessary given unprecedented changes to the market that occurred during the course of the RFO.

We agree with Cal Advocates and the IE that SDG&E could have acted more expeditiously to launch the RFO and negotiate contracts given the competitive market environment and urge SDG&E to heed the IE's advice to "release its RFOs out more promptly and move with a greater sense of urgency when presented by the CPUC with a challenging procurement requirement."[3]

However, we also find that, overall, the solicitation was managed reasonably and agree with SDG&E that at this late date, any renegotiation of contracts would threaten SDG&E compliance with the MTR procurement requirements. Additionally, we find the IE's opinion that overall "SDG&E selected the most appropriate nonhybrid offers for projects coming online in 2023 and 2024 from those submitted for SDG&E's 2023-2026 Mid-term Reliability RFO"[4] and its recommendation of contract approval to be convincing.

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[2] Independent Evaluator report at 21.
[3] *Ibid* at 6.
[4] *Ibid* at 29.

We agree with the suggestion that SDG&E include provisions in its pro forma contract to ensure that ratepayers benefit from the ITC going forward.

General Compliance with D.21-06-035

We note that the IE determined that SDG&E's procurement process was reasonable and appropriate overall, and that the IE found each of the contracts for which SDG&E seeks approval to be reasonable.[5] Based on our review, we find that the solicitation process and agreements described in Advice Letter 4096-E comply with the requirements of D.21-06-035 overall, including reasonableness, permitting, and safety considerations.

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 was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments on December 7, 2022. No party provided comments on the draft resolution.

FINDINGS

1. D.21-06-035 directed SDG&E to procure 361 MW of incremental capacity to meet mid-term reliability needs.
2. SDG&E agreed to adjust its procurement allocation to better reflect anticipated load migration between SDG&E and SDCP. SDG&E's revised share of the mid-term reliability requirement is 475 MW.
3. The solicitation process could have been conducted more expeditiously. However, the solicitation process and agreements described in Advice Letter 4096-E generally comply with the requirements of D.21-06-035 to undertake procurement activities in support of the order.

[5] SDG&E AL 4096-E, Attachments B and D.

4. Procurement and administrative costs associated with the procurement agreements are reasonable and shall be recovered via the modified cost allocation mechanism established in D.22-05-015 for any necessary backstop procurement or the Power Charge Indifference Adjustment for all other procurement undertaken in accordance with the D.21-06-035, subject to SDG&E's prudent administration of the contracts.
5. It is reasonable for SDG&E to incorporate a provision into its pro forma RA contracts to ensure that ratepayers benefit from the investment tax credit going forward.
6. SDG&E should consider updates to its valuation methodology, including that for ancillary service benefits, and continue to update the model and data used for evaluation.

THEREFORE IT IS ORDERED THAT:

1. The request of the San Diego Gas & Electric Company for approval of three mid-term reliability contracts as requested in Advice Letter 4096-E is approved.

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 January 12, 2023; the following Commissioners voting favorably thereon:

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Rachel Peterson
Executive Director