

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

~~AGENDA ID# 22374~~

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ENERGY DIVISION

RESOLUTION E-5309

~~March 21, 2024~~

[March 21, 2024](#)

R E S O L U T I O N

Resolution E-5309 Southern California Edison Company's Mid-Term Reliability Energy Storage Contracts

PROPOSED OUTCOME:

- Approves Southern California Edison's mid-term reliability energy storage contracts.

SAFETY CONSIDERATIONS:

- SCE's Technology Neutral Pro Forma Contract requires the Seller to operate the energy storage facility in accordance with "Prudent Electrical Practices." See Section 6.01(a) of SCE's Technology Neutral Pro Forma Contract.
- SCE's Technology Neutral Pro Forma Contract also includes a provision providing that, prior to commencement of any construction activities on the project site, the seller must provide to SCE a report from an independent engineer certifying that the seller has a written plan for the safe construction and operation of the project in accordance with Prudent Electrical Practices.

ESTIMATED COST:

- Contract costs are confidential at this time.

By Advice Letter 5155-E, filed on November 29, 2023.

SUMMARY

This Resolution approves seven Southern California Edison (SCE) "Batch 1" Phase 2 and 3 Mid-Term Reliability (MTR) contracts for 1,562.4 megawatts (MW) of nameplate capacity, ~~expected to provide 1,187 MW of incremental September Net Qualifying Capacity (NQC)~~ for delivery periods ranging from 15 to 20 years. These seven contracts include resource adequacy (RA)-only or RA with financial settlement contracts for new in-front-of-the-meter (IFOM) energy storage projects. The contracts meet the procurement

requirements of OP 1 of Decision (D.) 21-06-035 and OP 2 of D.23-02-040 of Rulemaking (R.) 20-05-003. This resolution approves the requested relief in Advice Letter (AL) 5155-E.

BACKGROUND

A. Overview of Midterm Reliability Procurement Requirements

On June 30, 2021, the Commission issued (D.) 21-06-035, which takes steps to address the MTR needs of the electricity system for years 2023 through 2026. D.21-06-035 requires CPUC jurisdictional Load Serving Entities (LSEs) to undertake incremental procurement of 11,500 MW of additional September NQC, stipulating that at least 2,000 MW of these MW are to be brought online 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, 2026.¹

To replace the current supply of energy from Diablo Canyon Nuclear Power Plant (DCNPP) and to ensure there would be no resultant increase in greenhouse gas (GHG) emissions with its retirement, D.21-06-035 also requires that at least 2,500 MW of the total resource procured between 2023 and 2025 be either from zero-emission resources that generate electricity, generation resources paired with storage, or demand response. Specifically, the Decision requires that the “zero-emitting capacity shall have the following characteristics:

- (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.”²

As documented in Table 6 of the Decision, of the 11,500 MW procurement order, Southern California Edison Company (SCE) is assigned 3,948 MWs for its bundled service customer portion, with 687 MW to be online by August 1, 2023; 2,070 MW by June 1, 2024; 515 MW by June 1, 2025; and 687 MW of long-lead time (LLT) resources by 2026. Due to the deregistration of two community choice aggregators (CCAs); Western Community Energy (WCE) and the City of Baldwin Park; SCE’s total procurement requirement increased to 4,052 MW, with 705 MW to be online by August 1, 2023; 2,114 MW by June 1, 2024; 529 MW by June 1, 2025; and 705 MW LLT resources 2026. These revised totals include a minimum of 880 MW zero-emitting capacity by 2025. The MTR Decision also requires that

¹ OP 1 in [D.21-06-035](#) at 94.

² OP 6 in [D.21-06-035](#) at 96.

all contracts with resources (including imports), used to satisfy the MTR requirements shall have a minimum duration of 10 years, and provides that the Investor-Owned Utilities (IOUs) are authorized to seek cost recovery for most of their MTR procurement capacity (with the exception of pumped storage or utility-owned resources) through Tier 3 ALs.³

On February 23, 2023, the Commission subsequently adopted D.23-02-040, which required supplemental MTR procurement of 4,000 MW of September NQC, with 2,000 MW to be procured by June 1, 2026 and another 2,000 MW by June 1, 2027. SCE's share of this procurement is 684 MW for 2026 and 684 for 2027. The Commission also extended the online date for LLT resource procurement from June 1, 2026 to June 1, 2028.⁴

B. Overview of SCE's Midterm Reliability Procurement Process

SCE launched its MTR Request for Offers (RFO) on July 30, 2021 for incremental resources that can come online in the 2023 through 2024 timeframe. SCE's MTR RFO sought incremental zero-emitting resources or resources that otherwise meet Renewable Portfolio Standard (RPS) eligibility requirements that provide RA benefits.

The following table documents SCE's initial MTR RFO (Phase 1) schedule as published at the RFO launch.

[Table 1.](#)

Date	Phase 1 RFO Event
July 30, 2021	RFO Launch
August 4, 2021	Bidders' Conference
August 13, 2021	Offer Submittal for Fast Track
August 13, 2021	Indicative Offer Submittal for Standard Track
October 19, 2021	Shortlisting Notification for Fast and Standard Tracks
December 10, 2021	End of Contract Execution Period for Fast Track
March 4, 2022	Final Offer Submittal for Standard Track
April 29, 2022	Contract Execution for Standard Track

SCE's initial solicitation included RA-only and RA with put option contracts. SCE also expressed a preference for preferred and energy storage resources located in Disadvantaged Communities (DACs), and also expressed a preference for larger projects.

SCE utilized two tracks in the MTR RFO:

³ OP 13 in [D.21-06-035](#) at 97.

⁴ OP 2 in [D.23-02-040](#) at 87

1. Fast Track: Projects coming online by August 1, 2023, and select projects with June 1, 2024 online dates.
2. Standard Track: Projects that will fulfill the balance of the June 1, 2024 MTR requirements.

On October 29, 2021, SCE notified Fast Track bidders of their shortlist status and the additional eligibility requirements that bidders needed to satisfy to remain on the shortlist and proceed with negotiations. Next, on November 19, 2021, SCE held a webinar on MTR RFO pro forma contract updates.

On January 28, 2022, given the amount of time that had elapsed since initial offers were submitted, SCE sent a notice to the 2024 bidders asking them to confirm or refresh their initial offers. SCE also released a new product term sheet, the “Financially Settled Toll,” and allowed bidders to submit new 2024 offers for this solicitation.

On October 20, 2022, SCE launched Phase 2 of its MTR RFO for third-party incremental resource offers to come online in the years 2025 through 2026 timeframe. The RFO sought incremental zero-emitting resources and/or resources that otherwise meet RPS eligibility requirements that also provide RA benefits. SCE also provided specific guidance for procurement of resources eligible to meet its Diablo Canyon Replacement, including RA only and RA with Financial Settlement contracts for energy storage projects and RPS contracts, including RPS contracts for firm zero-emitting resources.⁵

The following table documents SCE’s Phase 2 MTR RFO schedule.⁶

[Table 2.](#)

Date	Phase 2 RFO Event
October 20, 2022	RFO Launch
October 26, 2022	Bidders’ Conference Webinar
November 28, 2022	Offer Submittal Due
December 16, 2022	Offeror Redline Comments on MTR Pro-Forma Due

⁵ SCE states that at the conclusion of Phase 1 RFO, it stopped using the “RA with Put” contract structure to “RA with Financial”, as the former was deemed administratively burdensome to manage. The RA with Financial contract structure provides SCE with an energy settlement payment that approximates energy arbitrage revenue (i.e., energy settlement payment that would reduce the overall payments to the bidder), accounting for the project’s round-trip efficiency factor (i.e., charging-discharging energy losses) and variable O&M cost (VOM). The energy market benefits are calculated from a formula that used actual day-ahead hourly market prices and operational/pricing parameters that were set by the Seller. The formula is designed to estimate the likely profits that the Seller might achieve in the daily energy markets. SCE AL 5155-E at 7, 11, and Appendix D at 21.

⁶ SCE AL 5155-E at 8.

January 26, 2023	30-Year Term Enabled for Long Lead Time Technologies
February 22, 2023	Shortlisting Notification
Date	Phase 2 RFO Event
March 3, 2023	Opportunity for Bidders to Update Pricing
May 19, 2023	Commercial Lockdown
May 26, 2023	Final Offer Submittal Deadline
June 30, 2023	Contract Execution Deadline

SCE launched Phase 3 of its MTR RFO on February 23, 2023 for supplemental incremental resources to come online during years 2026 and/or 2027 and for LLT resources, in accordance with D.23-02-040.

The following table documents SCE’s Phase 2 MTR RFO schedule.⁷

[Table 3.](#)

Date	Phase 23 RFO Event
February 23, 2023	RFO Launch
March 8 2023	Bidders’ Conference Webinar; 10 MW Minimum Capacity for RPS and 30-Year Collateral Requirement Updated
April 3, 2023	Offer Submittal Due
April 24, 2023	Offer Redline Comments on MTR Pro Forma Due
June 8, 2023	Shortlist Notification
June 9, 2023	Shortlist Deliverables Due
Q4 2023	Contract Execution Deadline

SCE states that since launching the MTR RFO Phase 2, bidders are requested to update potentially outdated pricing by March 31, 2023, because offers were originally received in November 2022. SCE adds that Phases 2 and 3 of SCE’s MTR RFO were combined into one single solicitation schedule, with contracts executed on a “first come first served basis” when ready.

C. Prior Mid-Term Reliability Procurement Contract Approval Requests

On March 4, 2022, SCE submitted AL 4739-E seeking approval of five energy storage contracts executed to meet a portion of its MTR procurement requirements for 2023 and 2024. The five contracts total 497 MW of nameplate capacity ~~and are expected to provide 462 MW of incremental September NQC~~ for MTR compliance under the ELCC methodology. On May 19, 2022 the Commission issued Resolution E-5205, approving the

⁷ SCE AL 5155-E at 8.

contracts in their entirety and approving all of the relief requested, with the exception of the request that the Commission delay enforcement of the 3 MW 2023 MTR procurement requirement associated with the City of Baldwin Park until 2024.⁸

SCE submitted AL 4800-E on May 19, 2022, seeking approval of another energy storage contract to meet a portion of its MTR procurement for 2023. The project has a nameplate capacity of 75 MW ~~and is expected to provide 72 MW of incremental September NQC~~ for MTR compliance. On August 25, 2022, the Commission issued Resolution E-5225, approving the advice letter in its entirety.⁹

On August 17, 2022, SCE submitted AL 4850-E seeking approval of five energy storage contracts and a solar photovoltaic (PV) contract to meet portions of its 2023 and 2024 MTR procurement requirements. The contracts provide 605 MW in nameplate capacity; ~~expected to deliver 433 to 445 MW of expected incremental September NQC~~, to be online by August 1, 2023, or June 1, 2024. The Commission approved the contracts under Resolution E-5234, issued on November 4, 2022.¹⁰

SCE submitted AL 4885-E on October 28, 2022, seeking approval of four energy storage contracts totaling 619 MW of nameplate capacity, ~~providing 565.2 MW of incremental September NQC~~ to meet portions of its 2023 and 2024 MTR procurement requirements. The Commission approved these contracts in Resolution E-5251 on December 9, 2022.¹¹

On December 16, 2022, SCE submitted AL 4920-E seeking approval of four energy storage contracts, totaling 372 MW of nameplate capacity, ~~delivering 338 MW of incremental September NQC~~ to meet portions of its 2023 and 2024 MTR procurement requirements. SCE also sought approval of modifications to contracts previously approved in Resolution E-5205, for Amendment No. 2 (Condor Contract) and Amendment No. 3 (Peregrine Contract) to the Tenaska/Falcon Energy Contract. The Commission approved these contracts in Resolution E-5253 on February 23, 2023.¹²

SCE submitted AL 4990-E on March 20, 2023, seeking approval of six energy storage contracts totaling 624.8 MW of nameplate capacity, ~~delivering 572 MW of incremental September NQC~~ to meet portions of its 2023 and 2024 MTR procurement requirements. The Commission issued Resolution E-5271 on June 8, 2023, approving these contracts.¹³

⁸ Resolution [E-5205](#).

⁹ Resolution [E-5225](#).

¹⁰ Resolution [E-5234](#).

¹¹ Resolution [E-5251](#).

¹² Resolution [E-5253](#).

¹³ Resolution [E-5271](#).

On October 20, 2023, SCE sought approval of the RWE Ventasso Contract, with Ventasso Energy Storage, LLC, in AL 5127-E. This incremental system RA-only contract is for 50 MW of nameplate capacity, ~~expected to provide 45 MW of incremental September NQC~~. The project is a transmission-connected, lithium-ion (Li-ion) battery energy storage located in San Diego, interconnecting via an existing Large Generator Interconnection Agreement (LGIA) at the 69 kV bus of SDG&E's El Cajon Substation. SCE also sought approval for an amendment to an existing contract for AES Alamitos 2, an energy storage project with 82 MW of nameplate capacity, ~~expected to provide 78.97 MW of September NQC compliance~~ for a 20-year delivery period. SCE requests approval to amend the contract from RA Plus Put Option to RA Only. On January 11, 2024, the Commission issued Draft Resolution E-5307. Approval of the Draft Resolution is pending a Commission vote on February 15, 2024.¹⁴

SCE states that, as a result of its Phase 1 MTR RFO, it has contracted for sufficient capacity to meet its 2023 and 2024 MTR procurement requirements.¹⁵

SCE submitted AL 5155-E on November 29, 2023, seeking approval of seven energy storage comprising MTR Phase 2 and 3 "Batch 1" contracts totaling 1,562.40 MW in nameplate capacity, ~~providing 1,187 MW of incremental September NQC~~. SCE is seeking approval of these contracts to meet a portion of its requirements to come online by June 1, 2025 or June 1, 2026 with expected delivery dates of April 1, 2025 for the Mordor 1 and Mordor 2 projects.

A table summary of all MTR contracts filed and approved to date can be found in Appendix A.

D. Selected MTR Contracts

SCE requests approval for Phase 2 and 3 MTR contracts for the following seven energy storage projects:

1. Two projects developed or purchased by AES Clean Energy Development, LLC, a subsidiary of AES Corporation. Both projects are transmission-connected lithium (Li)-ion energy storage batteries and have 15-year terms for RA Only and RA with Financial Settlement contracts. Both projects have a LGIA. The project details are as follows:
 - a. McFarland C is a project expected to provide 185 MW in nameplate capacity, ~~or 139 MW in incremental September NQC~~, with an Initial Delivery Date (IDD) of June

¹⁴ Draft Resolution [E-5307](#).

- 1, 2025. The project is located in Salome, Arizona and will share a point of interconnection with the previously approved McFarland A and B projects at the Hoodoo Wash 500 kV switchyard; it is also interconnecting on the Hassayampa – North Gila 500 kV line. SCE has contracted for RA with Financial Settlement.
- b. Bellefield 1 is a 500 MW nameplate capacity project ~~expected to deliver 383 MW incremental September NQC~~, with an IDD of June 1, 2026. The Mojave, California, project shares a point of interconnection with a solar resource at the SCE Windhub 220 kV. SCE has contracted for RA Only.
2. Two projects developed by ASHUSA, a subsidiary of Atlantica North America LLC. Both projects are Li-ion energy storage batteries located near the existing geothermal Coso project at the Inyokern substation, California. The projects are contracted for RA with Financial Settlement with a 15-year term. The LGIA for the Coso project has been amended to include Mordor 1 and Mordor 2; [the CAISO granted the Coso Project Full Capacity Deliverability Status \(FCDS\)](#). Both projects have an IDD of April 1, 2025. The projects' details are as follows:
- a. Mordor 1 is a project with 25 MW in nameplate capacity ~~expected to provide 19 MW in incremental September NQC~~ that will share a gen-tie and interconnection point at the Inyokern substation with the Coso project. The CAISO has approved the transfer of deliverability from the Coso project's Navy I (25 MW) to Mordor 1 through an Material Modification Request (MMR).
- b. Mordor 2 is a project with 20 WM in nameplate capacity ~~expected to provide 15 MW in incremental September NQC~~. The project will share a gen-tie and interconnection point at the Kramer substation with the Coso project. The CAISO has approved the transfer of deliverability from the Coso project's BLM (12 MW) and Navy II (8 MW) geothermal units to Mordor 2 through an MMR.
3. Three projects sponsored by TransGrid Energy, a subsidiary of Hanwha Solution Corporation. All are Li-ion energy storage batteries, located in Salome, Arizona and will be connected to the new Cielo Azul substation on the new Delaney – Colorado River (10-West Link) 500 kV transmission line. The projects are expected to meet energy community qualifications and the domestic content requirement of the Inflation Reduction Act. The project details are as follows:
- a. Atlas VII is a project with 300 MW in nameplate capacity ~~expected to deliver 225 MW in incremental September NQC~~, with a 15-year term, scheduled for IDD on June 1, 2025.
- b. Atlas VIII is a project with 382.40 MW in nameplate capacity ~~expected to deliver 293 MW in incremental September NQC~~ with a 20-year term, scheduled for IDD on June 1, 2026.

- c. Atlas IX is a project with 150 MW in nameplate capacity, ~~expected to deliver 113 MW in incremental September NQC~~, with a 15-year term, scheduled for IDD on June 1, 2025.

The table below provides a summary of the MTR Phase 2 and 3 “Batch 1” contract details [as provided by SCE AL 5155-E](#).

Table 4.

Developer and Project Name	AES McFarland C	AES Bellefield 1	ASHUSA Mordor 1	ASHUSA Mordor 2	TransGrid Atlas VII	TransGrid Atlas VIII	TransGrid Atlas IX
Storage Technolog y and Discharge Duration	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>	Li-ion, 4- hour <u>hr.</u>
Nameplate Capacity	185	25 <u>500</u>	20 <u>25</u>	300 <u>20</u>	382.4 <u>300</u>	150 <u>382.4</u>	500 <u>150</u>
<u>Incremental</u> <u>ELCC</u> Value (MW)	139	383	19	15	225	382.4 <u>293</u>	113
<u>Developer</u> <u>+ Project</u> <u>Name</u>	<u>AES</u> <u>McFarland</u> <u>C</u>	<u>AES</u> <u>Bellefield 1</u>	<u>ASHUSA</u> <u>Mordor 1</u>	<u>ASHUSA</u> <u>Mordor 2</u>	<u>TransGrid</u> <u>Atlas VII</u>	<u>TransGrid</u> <u>Atlas VIII</u>	<u>TransGrid</u> <u>Atlas IX</u>
Initial Delivery Date (IDD)	June 1, 2025	June 1, 2026	April 1, 2025	April 1, 2025	June 1, 2025	June 1, 2026	June 1, 2025
Contract Terms (Years)	15	15	15	15	15	20	15
Developer and Project Name	AES McFarla nd C	AES Bellefiel d 1	ASHUS A Mordor 1	ASHUS A Mordor 2	TransGr id Atlas VII	TransGr id Atlas VIII	TransGr id Atlas IX
Type and Interconne ction Point	Transmission , CAISO controlled at Hoodoo Wash 500 kV switchyard and the	Transmission , SCE Windhub substation 220 kV	Transmissi on, CAISO’s Inyokern 115 kV substatio n	Transmission , CAISO’s Kramer 220 kV substation	Transmission , new Cielo Azul substation at new 10- West-Link	Transmission , new Cielo Azul substation at new 10- West Link	Transmission , new Cielo Azul substation at new 10- West-Link

	Hassayampa – North Gila 500 kV line.						
Contract Type	RA w/ Financial Settlement	RA Only	RA w/ Financial Settlement	RA w/ Financial Settlement	RA Only	RA Only	RA Only
Location	Dateland, AZ	Mojave, CA	Little Lake, CA	Little Lake, CA	Salome, AZ	Salome, AZ	Salome, AZ

E. SCE Advice Letter Request

In AL 5155-E, SCE requests that the Commission adopt a resolution no later than February 12, 2024. In its request for relief, SCE specifically urges that the resolution contain the following:

1. Approval of the MTR Contracts in their entirety;
2. a finding that the MTR Contracts are consistent with the MTR Decision;
3. a finding that the MTR Contracts is for a total of 1,187 MW of expected incremental September ELCC NQC for purposes of MTR compliance;
4. a finding that the MTR Contracts and SCE's entry into them is reasonable and prudent for all purposes, and that any payments to be made by SCE pursuant to the MTR Contracts, are recoverable in full by SCE through the Portfolio Allocation Balancing Account (PABA), subject only to SCE's prudent administration of the MTR Contracts;
5. authorization for SCE to allocate the benefits and costs of the MTR Contracts, to all applicable customers¹⁶ as described via the PABA;
6. a finding that the Mordor 1 project (19 MW for MTR compliance) and Mordor 2 project (15 MW for MTR compliance) are fully incremental to the baseline for purposes of counting toward SCE's MTR procurement requirements pursuant to the Decisions; and
7. any other and further relief as the Commission finds just and reasonable.

NOTICE

Notice of AL 5155-E was made by publication in the Commission's Daily Calendar. Southern California Edison Company states that a copy of AL 5155-E was mailed and distributed in accordance with Section 4 of General Order 96-B.

¹⁶ Applicable customers include all customers responsible for the 2021 and/or 2023 subaccount of the PABA.

PROTESTS

No protests were filed to AL 5155-E.

DISCUSSION

The Commission has reviewed AL 5155-E and finds that SCE's request for approval and cost recovery of these seven MTR Contracts and the form and substance of the contracts in AL 5155-E to be reasonable.

A. Consistency with Requirements in Decisions

1. Procurement Methodology, Evaluation, and Cost Reasonableness

We find that SCE's AL 5155-E filing is consistent with Commission decisions D.21-06-035 and D.23-02-040. As directed in these decisions, SCE filed a Tier 3 AL seeking cost recovery for the seven MTR contracts.

SCE issued its Phase 2 MTR RFO on October 20, 2022, to solicit offers on incremental resources that can meet its system reliability for the years 2025 through 2026. SCE launched its Phase 3 RFO on February 23, 2023. SCE consulted the Procurement Review Group (PRG) regularly throughout the MTR RFO process, beginning with its announcement to the PRG on October 19, 2022 regarding the MTR RFO launch. SCE consulted with the PRG on March 3, 2023 and June 8, 2023, on its recommended shortlists for Phases 2 and 3, respectively. SCE subsequently consulted with the PRG on July 31, 2023, about McFarland C; on October 25, 2023, about Mordor 1 and 2, Atlas VII, VIII, and IX; and on November 17, 2023 about Bellefield 1.

SCE retained Sedway Consulting Inc. (Sedway) as the Independent Evaluator (IE) to oversee the MTR RFO. Sedway was involved in the review of MTR RFO documents, reviewed SCE's offer valuation process, participated in communications, conference calls and negotiation sessions; and reviewed email exchanges and other documents exchanged by SCE and bidders. Sedway also participated in the Procurement Review Group (PRG) communications and conducted its own independent parallel evaluation of the offers. In its report on the MTR RFO, Sedway offered several conclusions:

"Sedway Consulting (Sedway) concluded that SCE's evaluation design was rigorous and fair (and that) SCE's evaluation and selection processes were designed to treat all technologies and types of bidders fairly.... Sedway concluded that SCE administered its shortlisting and final offer evaluation and selection processes fairly and is procuring the best resources/contracts for addressing its Phase 2/3 MTR needs.¹⁷

¹⁷ SCE AL 5155-E, Confidential Attachment D at 74.

“Sedway Consulting does not view any major RFO component as needing to be changed to ensure that future solicitations are fairer or provide more efficient, lower cost results. Sedway believes that SCE has conducted a fair and rigorous solicitation for resources/contracts that will help it meet its MTR authorized capacity needs and concurs with SCE’s request for the CPUC’s approval of the MTR Phase 2 and 3 ‘Batch 1’ contracts.”¹⁸

The Commission has reviewed SCE’s bid evaluation analysis and the IE Report. We agree with IE’s finding that SCE procured the best resources for addressing the MTR needs. We find that SCE has conducted a robust, competitive solicitation with reasonable bid evaluation methodology and appropriately consulted the PRG and the IE throughout the MTR RFO process. The Commission finds the costs to be reasonable based on the competitive solicitation and bid evaluation methodology.

SCE states that it applied Least-Cost-Best-Fit (LCBF) principles in the evaluation process for the MTR RFO Phase 2 and 3, considering both quantitative and qualitative attributes of offers. The process involved shortlisting and final selection stages, with negotiations starting with shortlisted offers.

SCE notes that it conducted an initial conformance screen, a least-cost quantitative valuation, and a best-fit selection of offers. Each offer’s net present value (NPV) was calculated by projecting benefits and cost streams over the offer’s life, applying the time value of money, estimating total NPV, and ranking each offer by an NPV metric. After the NPV analysis, projects were selected to meet the procurement required by the Decisions. SCE calculated the incremental RA capacity to ensure that its obligations under the Decisions were met. The capacity counted for MTR compliance was determined using the ELCC report or the latest RA rules.

~~SCE states that, due to the extended nature of the MTR procurement timeline, it received requests for amendments of contracts to ASHUSA’s Morder 1 and Morder 2.~~ SCE estimated the NPV of the proposed amended contracts and compared it to the NPVs of remaining offers and executed contracts to ensure competitiveness. SCE, in conjunction with the IE, considered each offer’s qualitative components along with quantitative results during both the shortlist and final selection processes.

2. Quantitative Factors: Costs and Benefits

SCE states that it utilized its proprietary models to develop market price forecasts for RA capacity, electrical energy, ancillary services (A/S), and Renewable Energy Credits (RECs).

¹⁸ SCE AL 5155-E, Confidential Attachment D at 127.

These estimates were based on offer specifications, guidance from the Commission, CAISO rules, and dispatch models or generation profiles. The RA benefit for an offer was calculated based on its estimated RA quantity multiplied by an RA price forecast. To calculate the net day-ahead, real-time energy and A/S benefits, SCE produced forecasts for energy and A/S prices and delivery, using a security-constrained dispatch model. The REC benefit was calculated based on the amount of RECs an offer can provide. The quantitative factors considered in the valuation process included contract costs, debt equivalence, transmission network upgrade costs, and renewable integration costs. SCE also applied costs for energy storage charging depending on interconnection location and status of interconnection application.

3. Qualitative Factors: Viability, Location, Size

SCE states that it considered several qualitative characteristics in determining the shortlist and final selection of MTR RFO offers. These factors included project viability, the requirement that project must be new and incremental, proposed contract term, completeness of offer submittal materials, interconnection progress, company project development experience, technology employed, type of performance obligations and regulatory qualifications (e.g., RA), renewable resources (long duration energy storage resources, paired resources, firm, zero-emitting resources), and location in Disadvantaged Communities (DACs). SCE expressed a preference for larger size projects, with a minimum offer size of 20 MW or greater.

4. Incrementality

SCE states that it required that bidders' proposed projects be incremental to the baseline resource list; and based on its analysis, the seven IFOM energy storage projects are not on the baseline list of resources. The Coso Geothermal Power Project consists of three phases (Coso Project), and a portion of the deliverability originally assigned to these facilities has been assigned to battery storage projects using the shared geothermal resource. SCE states that incremental capacity was calculated by multiplying the nameplate capacity by the ELCC factor, using the ELCC report for the technology type and MTR compliance date.

SCE requests that the Commission issue a finding that:

“... the 25 MW Mordor 1 project (counting for about 19 MW for MTR compliance) and the 20 MW Mordor 2 project (counting for about 15 MW for MTR compliance) are fully incremental to the baseline for purposes of counting toward SCE’s MTR procurement requirements...” pursuant to OP 1 of D.21-06-035 and OP 2 of D.23-02-040...”

~~We note that eligibility and counting rules associated with IRP compliance are part of the IRP compliance process and will not be addressed as part of the disposition of this AL. As~~

~~described in Energy Division Staff's Responses to Frequently Asked Questions on Mid-Term Reliability Procurement Decision (D.) 21-06-035 and Filing Requirements Overview, LSEs must present additional compliance information, documentation, and engineering assessments for certain procurement categories.~~ We find that SCE has demonstrated that the Mordor 1 and 2 contracts are fully incremental to the MTR baseline, and that on this basis, cost recovery for these contracts is approved.

5. Resource Amounts, Technology Duration, Contract Terms, and Climate Change Mitigation

As stated in the previous section of this document, this AL process cannot make a determination on consistency with IRP requirements on resource amounts, technology duration, and contract terms. We reiterate that eligibility and counting rules associated with IRP compliance will not be addressed as part of the disposition of this Advice Letter request. Similarly, this process cannot make a determination on the AL's consistency with a decision issued in the Rulemaking on Climate Change Adaptation.

6. Safety

The MTR Contracts which SCE seeks approval requires the seller to operate the energy storage facility in accordance with "Prudent Electrical Practices," as a condition of SCE's Technology Neutral Pro Forma Contract.¹⁹ The Contract also includes a provision providing that, prior to commencement of any construction activities on the project site, the seller must provide to SCE a report from an independent engineer certifying that the seller has a written plan for the safe construction and operation of the project in accordance with Prudent Electrical Practices.²⁰

7. Disadvantaged Community Designations

Senate Bill (SB) 350 (de León, Chapter 547, Stats. 2015) describes disadvantaged community goals that are cross-cutting and therefore will be integrated into all policy areas. Thus, in evaluating SCE's MTR Contracts, the Commission analyzes the impacts of procurement activities on such communities.

¹⁹ SCE AL 5155-E at 18 (describing Prudent Electrical Practices as, "those practices, methods and acts that would be implemented and followed by prudent operators of electric energy storage facilities in the Western United States, similar to the Project, during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known or that should reasonably have been known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety"); Section 6.01(a) of SCE's Technology Neutral Pro Forma Contract.

²⁰ *Id.* at 24-25, Section 4.01(d) of SCE's Technology Neutral Pro Forma Contract.

The California Environmental Protection Agency (CalEPA) is responsible for identifying DACs for purposes of Cap-and-Trade program funding. CalEPA has defined DACs as:

- Census tracts receiving the highest 25% of overall scores in CalEnviroScreen 4.0,
- Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps but receiving the highest 5% of CalEnviroScreen 4.0 cumulative pollution burden scores, and
- Census tracts identified under the 2017 DAC designation (i.e., tracts qualifying as DAC under CalEnviroScreen 3.0) areas under the control of federally recognized Tribes.²¹

The CalEnviroScreen tool combines twenty indicators in “population” and “pollution burden” categories. SB 350 directs the Commission to also use CalEPA’s tool to identify disadvantaged communities.

SCE notes that consistent with Public Utilities Code Section 454.52(a)(1)(I)’s requirement to minimize localized air pollutants and other GHG emissions, with early priority on DACs, it expressed a preference in its MTR RFO for preferred and energy storage resources located in DACs. The Bellefield 1 project is located in a DAC. The procurement of this project is consistent with the Commission’s conclusions.²²

8. Cost Recovery

SCE proposes to allocate the costs associated with the MTR Contract to applicable customers,²³ using the Portfolio Allocation Balancing Account (PABA). Pursuant to AL 4589-E, costs and benefits associated with procurement complying with the MTR Decision will be recovered from applicable customers through the 2021 and/or 2023 vintage sub-account of the PABA and include incremental administrative costs.²⁴

The MTR Decision authorized cost recovery of the MTR procurement via the Power Charge Indifference Adjustment (PCIA):

“To the extent that any resources procured in response to this order are subject to allocation using the [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

²¹ “[Final Designation of Disadvantaged Communities Pursuant to Senate Bill 535](#),” May 2022.

²² Conclusions of Law 22 in [D.23-02-040](#) at 86.

²³ Includes bundled service customers and departing load customers with 2021 and/or 2023 vintage cost responsibility.

²⁴ Such costs include, but are not limited to, Independent Evaluator costs.

letters to update their balancing accounts to address the PCIA treatment as a result of this order.”²⁵

SCE submitted AL 5307-E on October 14, 2021 to account for the MTR procurement requirements and cost recovery associated with the return of Western Community Energy customers’ load to SCE’s bundled service. Pursuant to Energy Division’s disposition of AL 5307-E,²⁶ costs and benefits associated with procurement complying with the MTR Decision are recovered from applicable customers through the 2021 vintage subaccount of the PABA and include incremental administrative costs.²⁷

SCE proposes to allocate the costs associated with the MTR Contracts and incremental administrative costs (which include the IE costs) to applicable customers, which includes bundled service customers and departing load customers with 2021 vintage cost responsibility, using the PABA.

We find that SCE’s proposed cost recovery of this portion of Phase 2 and 3 MTR “Batch 1” contracts to be consistent with OP 12 of the MTR Decision and Energy Division’s approval of SCE AL 4589-E.

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 were neither waived nor reduced. Accordingly, comments on this draft resolution may be submitted no later than 20 days from the mailing date. This draft resolution will be placed on the Commission’s agenda no earlier than 30 days from today. If adopted by the Commission, the final resolution will be posted and available on the Commission’s website.

On March 6, 2024, the CPUC received two timely filed comment letters from SCE and the Public Advocates Office (Public Advocates). The Energy Division reviewed each comment

²⁵ OP 12 in [D.21-06-035](#) at 97.

²⁶ SCE AL 4589-E became effective on October 16, 2021.

²⁷ Includes, but is not limited to, Independent Evaluator costs.

letter for potential factual errors made within Draft Resolution E-5309. The CPUC appreciates all comments on this Draft Resolution and has taken these into account in finalizing this Resolution.

SCE noted three errors. First, SCE states that the Commission should include a finding that its Mordor 1 and Mordor 2 projects are fully incremental to the baseline for purposes of counting towards the utility's MTR requirements, as incrementality for these projects is a central provision for all long-term resources procured for MTR orders. The Public Advocates office cites the same error, noting that the Draft Resolution should make a definitive finding that the contracts are either incremental or not incremental to the MTR baseline. SCE requests immediate certainty about the incrementality of these projects in order to proceed with the Mordor 1 and 2 contracts. The Public Advocates state that delaying a finding of incrementality would result in SCE having a potential residual incremental capacity that it must fill, leaving ratepayers having to pay twice: once for the MTR project, then again for the residual incremental capacity that must be filled. SCE states that unless the Commission finds these projects to be incremental, they should not be procured for MTR altogether.

SCE also cites as support Commission Resolution E-5100, approving PG&E's AL 5826-E, a project procured under a similar set of circumstances. In that contract, 60 MW of deliverability was transferred from the same Coso Project to PG&E's Coso Project. In the Resolution, the Commission found that PG&E's Coso Project was fully incremental to the baseline, and did not adjust or reduce the incremental capacity even though the project was assigned deliverability from the same facilities (Navy II and BLM) that were included in the baseline.

Second, SCE notes an error in the Draft Resolution on page 9, stating that inaccurate values were listed for the nameplate capacity of AES Bellefield 1, ASHUSA Mordor 1, ASHUSA Mordor 2, TransGrid Atlas VII, TransGrid Atlas VIII, and TransGrid Atlas IV; and the ELCC value for TransGrid Atlas VIII.

Lastly, SCE states that on page 13 the Draft Resolution incorrectly interprets that SCE received requests for amendments of contracts to ASHUSA's Mordor 1 and Mordor 2. SCE clarifies that its Advice Letter was instead describing how the utility addresses requests for amendments to previously approved contracts and compares the contracts' NPVs with remaining offers and other executed contracts.

The Commission finds SCE and the Public Advocates' comments reasonable and has incorporated the revisions therein.

FINDINGS

1. In June 2021, D.21-06-035 directed LSEs to procure 11,500 MW of incremental September NQC 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. In June 2021, D.21-06-035 ordered the three large IOUs to file Tier 3 ALs to request cost recovery for any procurement conducted as a result of that decision, except if the procurement is associated with a pumped storage resource or a utility-owned resource, for which full applications are required.
3. In February 2023, Ordering Paragraph 2 of D.23-02-040 directed LSEs to procure an additional combined total of 2,000 MW of September NQC from non-emitting, storage, and/or renewable resources in 2026 and 2027, with resources required to be online by June 1 of each year.
4. By AL 5155-E, filed on November 29, 2023, SCE has submitted for approval seven energy storage "Batch 1" contracts intended to partially meet SCE's D.21-06-035 requirements.
5. [The two ASHUSA Mordor contracts for 45 MW of nameplate capacity, are fully incremental to the MTR baseline.](#)
- ~~5.6.~~ SCE's methodology to evaluate the bids in the competitive solicitation that resulted in contracts and amendments as presented in SCE AL 5155-E is consistent with the MTR Decisions D.21-06-035 and D.23-02-040.
- ~~6.7.~~ The cost of the Phase 2 and 3 "Batch 1" MTR Contracts presented in SCE AL 5155-E are reasonable based on the robust competitive solicitation and bid evaluation methodology.
- ~~7.8.~~ SCE's request in SCE AL 5155-E to allocate the benefits and costs of the "Batch 1" of MTR Phase 2 and 3 Contracts to all applicable customers via the 2021 and/or 2023 vintage PABA subaccounts, including incremental administrative costs, is reasonable, subject to SCE's prudent administration of the contracts.
- ~~8.9.~~ SCE's proposed cost recovery of the Phase 2 and 3 "Batch 1" MTR Contracts in SCE AL 5155-E is reasonable and consistent with OP 6 of D.19-11-016, OP 14 of D.20-08-045, OP 1 of D.21-06-035, OP 2 of D.23-02-040, and Energy Division's approval of SCE AL 4589-E.

THEREFORE, IT IS ORDERED THAT:

1. Southern California Edison's request in SCE AL 5155-E for approval of the seven energy storage projects under "Batch 1" of MTR Phase 2 and 3 and related costs for a total of 1,562.4 MW ~~of NQC, providing 1,187 MW of incremental September NQC under the ELCC methodology~~ [nameplate capacity](#), expected to

come online

April 1, 2025, June 1, 2025, and June 1, 2026, is approved.

2. Southern California Edison's request in SCE AL 5155-E, to allocate the benefits and costs of the "Batch 1" MTR Phase 2 and 3 Contracts to all applicable customers via the 2021 and/or 2023 vintage sub-account of SCE's Portfolio Allocation Balancing Account, including incremental administrative costs, 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 March 21, 2024; the following Commissioners voting favorably thereon:

Rachel Peterson
Executive Director

Appendix A

SCE Mid-Term Reliability Contracts Filed to Date							
Advice Letter and Resolution	Advice Letter Approval Date	Seller and Project Name	Technology Type	Contract Type	Expected Delivery Period	Name Plate Capacity	Contract ELCC Value for MTR Compliance
AL 4739-E, Resolution E-5205	May 19, 2022	AES Alamos BESS II	Energy Storage	RA w/Put	8/1/2023-7/31/2043	82 MW	79 MW
		Calpine Santa Ana III	Energy Storage	RA Only	8/1/2023-7/31/2038	40 MW	39 MW
		LS Power Gateway	Energy Storage	RA Only	8/1/2023-7/31/2038	75 MW	72 MW
		Tenaska/Facon Energy Condor	Energy Storage	RA Only	6/1/2024-5/31/2039	200 MW	181 MW
		Tenaska/Falcon Energy Peregrine	Energy Storage	RA Only	6/1/2024-5/31/2039	100 MW	91 MW
AL 4800-E, Resolution E-5225	August 25, 2022	NextEra Desert Peak Energy Storage II, LLC	Energy Storage	RA w/Put	8/1/2023-7/31/2038	75 MW	72 MW
AL 4850-E, Resolution E-5234	November 4, 2022	174 Power/Total Energies Silver Peak Solar, LLC – Silver Peak II Project	Energy Storage	RA w/Put	8/1/2023-7/31/2033	109 MW	105 MW
					6/1/2024-5/31/2034		99 MW
		174 Power/Total Energies Silver Peak Solar, LLC – Silver Peak III Project	Energy Storage	RA Only	8/1/2023-7/31/2033	110 MW	106 MW
					6/1/2024-5/31/2034		100 MW
		174 Power/Total Energies Silver Peak Solar, LLC –	Solar PV	Entire Output	6/1/2024-5/31/2034	7 MW	N/A

		Silver Peak PV Project					
		AES McFarland Solar A, LLC – McFarland Solar A Project	Energy Storage	RA Only	6/1/2024-5/31/2038	100 MW	91 MW
		Hecate Grid Humidor Storage 115 LLC	Energy Storage	RA Only	6/1/2024-5/31/2039	115 MW	104 MW
AL 4885-E, Resolution E-5251	December 9, 2022	Calpine Nova I	Energy Storage	RA w/ Put	6/1/2024-5/31/2039	230 MW	208.6 MW
		Calpine Nova II	Energy Storage	RA w/ Put	6/1/2024-5/31/2039	230 MW	208.6 MW
		Next Era Proxima RA Storage	Energy Storage	RA Only	6/1/2024-5/31/2039	90 MW	82 MW
		WPower Stanton	Energy Storage	RA Only	8/1/2023-7/30/2033	69 MW	66 MW
AL 4920-E, Resolution E-5253	February 23, 2023	Clearway Arica	Energy Storage	RA Only	6/1/2024-5/31/2039	15 MW	14 MW
		Clearway Rosamond	Energy Storage	RA Only	6/1/2024-5/31/2039	147 MW	133 MW
		Gridstor Santa Fe Springs	Energy Storage	RA Only	6/1/2024-5/31/2039	90 MW	82 MW
		Gridstor Upland	Energy Storage	RA Only	6/1/2024-5/31/2039	120 MW	109 MW
		Tenaska/Falcon Energy Condor	Energy Storage	RA Only	6/1/2024-5/31/2039	200 MW	181.4 MW
		Tenaska/Falcon Energy Peregrine	Energy Storage	RA Only	6/1/2024-5/31/2039	100 MW	90.7 MW
AL 4990-E, Resolution E-5271	June 8, 2023	Leeward AVEP BESS, LLC	Energy Storage	RA w/ Put	6/1/2024-5/31/2039	126 MW	114 MW
		MN8 Energy American Kings	Energy Storage	RA Only	6/1/2024-5/31/2039	73.8 MW	67 MW

		AES McFarland Solar B	Energy Storage	RA Only	6/1/2024-5/31/2034	150 MW	136 MW
		AES Raceway	Energy Storage	RA Only	6/1/2024-5/31/2037	80 MW	73 MW
		Calpine Nova IV	Energy Storage	RA w/Put	9/1/2024-8/31/2039	110 MW	100 MW
		TerraGen Sanborn	Energy Storage	RA Only	8/1/2023-7/31/2038	85 MW	82 MW
AL 5127-E, Draft Resolution E-5307	Pending Commission Voting Meeting on February 15, 2024	AES Alamitos 2 Amendment	Energy Storage	RA Only	6/1/2024-5/31/2044	82 MW	78.97 MW
		RWE Ventasso Contract	Energy Storage	RA Only	6/1/2024 - 5/31/2039	50 MW	45 MW
AL 5155-E, Draft Resolution E-5309	Pending Commission Voting Meeting on March 21, 2024	AES McFarland Storage C, LLC	Energy Storage	RA w/ Financial Settlement	6/1/2025-5/31/2045	185 MW	139 MW
		ASHUSA Mordor ES1, LLC	Energy Storage	RA w/ Financial Settlement	4/1/2025-3/31/2040	25 MW	19 MW
		ASHUSA Mordor ES2, LLC	Energy Storage	RA w/ Financial Settlement	4/1/2025-3/31/2040	20 MW	15 MW
		TransGrid Atlas VII, LLC	Energy Storage	RA Only	6/1/2025-5/31/2040	300 MW	225 MW
		TransGrid Atlas VIII, LLC	Energy Storage	RA Only	6/1/2026-5/31/2046	382.4 MW	293 MW
		TransGrid Atlas IX, LLC	Energy Storage	RA Only	6/1/2025-5/31/2040	150 MW	113 MW
		AES Bellefield 1	Energy Storage	RA Only	6/1/2026-5/31/2041	500 MW	383 MW
Total Capacity						4323.20	3925.27