PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Agenda ID #23625

ENERGY DIVISION **RESOLUTION E-5409**
August 14, 2025

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

Resolution E-5409. Pacific Gas & Electric Company Request for Approval of Mid-Term Reliability Procurement Pursuant to Decision (D.) 21-06-035 and D. 23-02-040 under Rulemaking (R). 20-05-003.

PROPOSED OUTCOME:

- This Resolution approves one Pacific Gas & Electric Company mid-term reliability contract and related costs for 80 megawatts of nameplate battery energy storage capacity.

SAFETY CONSIDERATIONS:

- The project will be owned, constructed, and operated by a third party. The seller of the project is responsible for the safe construction and operation of their facilities in compliance with standards for electrical practices and all applicable laws, including safety regulations.
- 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.
- Seller is required to have a project safety plan that demonstrates responsible safety management during all lifecycle phases, referencing applicable safety-related codes and standards and its own safety programs and policies, and describing the project design and key safety-related systems, including potential hazards and risk mitigations/safeguards. The seller is required to demonstrate and enforce its contractors' and subcontractors' compliance with the safety requirements, including CPUC General Order (GO) 167.

ESTIMATED COST:

- Contract costs are currently confidential.

By Advice Letter (AL) 7602-E, Filed on May 21, 2025.

SUMMARY

This Resolution approves PG&E's Advice Letter (AL) that requests approval of one mid-term reliability ("MTR") long term resource adequacy ("RA") agreement with energy settlement ("LTRAA w/ ES") storage contracts ("MTR Contract") with Calpine Corporation's ("Calpine") Pastoria Power, LLC (owner of Pastoria Power Bank Project) for a 15-year contract term for a total of 80 megawatts (MW) of nameplate capacity. Under the contract, deliveries are expected to begin on July 1, 2026. Pacific Gas and Electric Company ("PG&E") procured this resource to satisfy a portion of its MTR requirements. The MTR Contract for which PG&E seeks approval in AL 7602-E is summarized in the table below:

Counterparty (Project Name)	Resource Type	Contract Type	Capacity	Term	Initial Delivery Date
Calpine Corporation's Pastoria Power, LLC (Pastoria Power Bank Project)	4-hour duration, Lithium-ion (Li) energy storage	Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES)	80 MW	15 Years	07/01/2026

BACKGROUND

Overview of Mid-Term Reliability Requirements

On June 30, 2021, the Commission issued Decision ("D.") 21-06-035 ("MTR Decision") to address the mid-term reliability needs of the electricity system within the California Independent System Operator's ("CAISO") operating system by requiring at least 11,500 MW of incremental September net qualifying capacity ("NQC") to be procured by load-serving entities ("LSEs") subject to the Commission's integrated resource planning ("IRP") authority. The capacity requirements were specified by year, 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 February 28, 2023, the Commission adopted D.23-02-040, which ordered supplemental MTR procurement of 2,000 MW for 2026 and 2,000 MW for 2027 and changed the online date for long lead time ("LLT") resources[2] from June 1, 2026, to June 1, 2028. PG&E's

[1] Ordering Paragraph ("OP") 1 of D. 21-06-035.
[2] Long lead-time resources are defined by OP 2 of D.21-06-035 at 94-95.

annual share of the MTR procurement requirements ordered in both D.21-06-035 and D.23-02-040 are as follows:

Table 1: PG&E Annual MTR Procurement Requirements (MW NQC)

	2023	2024	2025	2026	2027	2028	Total
General MTR Capacity	400	1201	300	388	388		2677
Minimum firm Zero-Emitting Capacity[3]	500 total						
Long-Duration Storage (8+ hours)[4]						200	200
Firm Zero-Emitting Generation Paired with Storage, or Demand Response Resources[2]						200	200
Total Need	**400**	**1,201**	**300**	**388**	**388**	**400**	**3,077**

On February 15, 2024, the CPUC adopted D.24-02-047, modifying the procurement deadlines outlined in the two MTR Decisions. Specifically, D.24-02-047 allows for an extension of the D.23-02-040 2028 deadline to procure LLT resources, when certain conditions are met by an LSE.[5] Under this decision, LSEs that require an extension to the June 1, 2028 LLT resource deadline must procure generic capacity to cover the shortfall and still bring online LLT resources by no later than June 1, 2031.

Solicitation of the MTR Contract

PG&E issued an MTR Request for Offers (RFO) – Phase 1 on June 18, 2021, to procure resources for incremental NQC with expected online dates of August 1, 2023, and June 1, 2024; under which PG&E executed nine contracts for 1,598.7 MW of nameplate capacity. The Commission approved these contracts on April 21, 2022, in Resolution E-5202.[6] PG&E further issued its MTR RFO – Phase 2 on April 15, 2022, under which

[3] The amount in this row is a subset of the 2023, 2024, and 2025 columns, and is therefore not also added to the total.
[4] The Long Lead Time (LLT) resource requirements are divided into half from long-duration storage and half from firm, zero-emitting generation resources.
[5] OPs 16 and 19 of D.24-02-047.
[6] PG&E AL 7602-E at 2.

PG&E executed contracts for more than 300 MW of nameplate capacity. The Commission approved these contracts in Resolutions E-5262, E-5263, and E-5297.[7]

On February 7, 2023, PG&E issued its MTR RFO – Phase 3 to solicit offers to fulfill its MTR procurement requirements. The agreement for the Pastoria Power Bank Project (80 MW) is a result of this RFO. Prior to this submittal, PG&E submitted nine agreements from the MTR RFO – Phase 3 in advice letters 7177-E, 7299-E, 7356-E, and 7420-E.

Under the MTR RFO – Phase 3 solicitation, PG&E sought offers for zero-emitting, firm zero-emitting, long duration storage, and any other type of non-fossil-fueled resources. Participants were required to demonstrate site control, evidence that the project was on track to receive Full Capacity Deliverability Status (FCDS), and that the project was incremental to the 2019-2020 IRP RESOLVE/SERVM baseline used in the need determination.[8]

PG&E announced the issuance of the MTR RFO – Phase 3 by email to approximately 2,500 potential participants with information on the location of the solicitation documents, participant webinar information, and important action items. On February 15, 2023, PG&E conducted a participants' conference via webinar to explain the MTR RFO – Phase 3 solicitation protocol, form agreements, and the offer submittal process. PG&E requested that offers be submitted by March 16, 2023, and notified participants via email on May 10, 2023, regarding whether PG&E had selected their offers for the shortlist. PG&E states that due to changing market conditions, PG&E notified market participants that it had reopened the RFO on August 1, 2023, and accepted offers through December 15, 2023. PG&E states that it again re-opened the RFO on July 31, 2024, to accept standalone energy storage offers that had an online date of June 1, 2026, or earlier. PG&E accepted eligible offers between July 31 and August 22, 2024. Shortlisted participants from either re-opening were notified on a rolling basis.[9]

After receiving offers, PG&E provided participants with an opportunity to revise offers that were missing information or required clarification by sending deficiency notices requesting further information by a specified date. If an offer did not satisfy the solicitation's requirements and subsequent modification by the participant did not result in a conforming offer, or PG&E determined that an offer was in violation of the terms of

[7] *Ibid*.
[8] PG&E AL 7602-E at 4.
[9] PG&E AL 7602-E at 6.

the MTR RFO – Phase 3, PG&E considered these offers non-conforming and eliminated them from further evaluation.[10]

To evaluate the offers submitted under the solicitation, PG&E used Least Cost Best Fit ("LCBF") methodology where both quantitative and qualitative criteria were evaluated to achieve a shortlisted portfolio that could provide incremental NQC MW consistent with D.23-02-040 and D.21-06-035. Quantitative evaluation criteria consisted of the net market value ("NMV") based on benefits (energy, ancillary services, capacity, renewable energy credit value) and costs (fixed, variable, metered contract, and transmission network upgrade costs). Qualitative evaluation criteria consisted of financing, environmental characteristics, development plan, safety, prior experience, impact on disadvantaged communities, location, agreement or term sheet modification, supply chain responsibility status, technology diversity, and diversity of counterparties.[11]

PG&E initiated negotiations with each participant with a shortlisted offer and presented a solicitation overview, offer summary, and shortlist materials to the Procurement Review Group ("PRG"). The PRG was notified of PG&E's intent to execute the contract approved herein on July 17, 2024. Further, PG&E engaged an Independent Evaluator ("IE"), Merrimack Energy; which reviewed and provided feedback on the MTR RFO – Phase 3 documentation, reviewed and evaluated offers received and assisted in shortlist development, discussed with PG&E the reasons the offers were considered non-conforming, participated in feedback calls with participants that were not selected to be on the shortlist, and participated in contract negotiations that were held for each shortlisted participant.[12]

On May 21, 2025, PG&E filed a Tier 3 AL 7602-E with the Commission requesting approval of the MTR Contract with Pastoria Power. The project is a four-hour duration transmission-connected standalone lithium-ion battery storage resource. Pastoria Power is co-located with Pastoria Solar, a 105 MW project that targeted to provide the California Department of Water Resources ("DWR") with energy that will fulfill part of DWR's renewable energy procurement requirements under SB 100.[13] The Pastoria Project is in the city of Lebec, California, which is within the CAISO control area.

PG&E proposes that the cost associated with the MTR Contract presented in this AL are Power Charge Indifference Adjustment ("PCIA") -eligible with an assigned vintage of

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[10] *Ibid*.
[11] PG&E AL 7602-E Appendix B2, at 26, 36; Appendix E, at E-1, E-6.
[12] PG&E AL 7602-E at Appendix B2, at 18, 66.
[13] *See*, https://www.calpine.com/pastoria-solar-project/

2023 for purposes of D.23-02-040 procurement requirements for the duration of their term and the costs recovered shall be net of any CAISO charges and market revenues, and net of any retained resource adequacy capacity value for bundled service customers.[14]

NOTICE

Notice of AL 7602-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

PG&E's AL 7602-E received timely comment by the California Public Advocates Office (Cal Advocates) on June 10, 2025. AL 7602-E was not protested.

Cal Advocates states that the Pastoria contract is needed to meet PG&E's MTR needs and that prompt Commission approval of the Pastoria agreement will help ensure that the resource captures full tax credit benefits. Specifically, Cal Advocates notes that ratepayers could face exposure to greater contract costs with the potential expiration of the federal Investment Tax Credits (ITC), which was passed in the recent House of Representatives bill H.R. 1 on May 22, 2025, and is pending Senate approval.[15] Should the bill pass and is signed into law, all ITC benefits will be repealed for projects that begin construction more than 60 days following the date of the bill's enactment, and for projects that are placed in service after 2028, regardless of when their construction begins.[16] Cal Advocates notes that because developers would no longer be able to receive the Base Tax Credit, the Domestic Content Minimum, and/or Energy Commission Siting benefits, the contract's price could increase by 30% or greater.[17]

DISCUSSION

The Commission has reviewed PG&E AL 7602-E and finds that PG&E's request for approval of the MTR contract is reasonable, as discussed below.

Consistency with D.21-06-035 and D.23-02-040

We find PG&E AL 7602-E consistent with D.21-06-035. As directed in the decision, PG&E filed a Tier 3 AL seeking approval for cost recovery for the MTR Contracts described

[14] PG&E AL 7602-E at 9, 10.
[15] CalAdvocates, "Response to PG&E AL 7602-E", at 2.
[16] *Ibid*.
[17] CalAdvocates, "Response to PG&E AL 7602-E", at 4.

herein. D.21-06-035 requires PG&E to procure at least 2,302 MWs of incremental September marginal ELCC NQC. Of this total requirement 500 MW must come from firm zero-emitting generation resources paired with storage or demand response resources. The MTR Contract is for storage-only resources that are expected to help PG&E meet its general MTR requirements. The MTR Contracts may be also used to satisfy the Diablo Canyon Replacement requirement, as adopted in D.21-06-035, if PG&E is able to pair the energy storage resources with eligible generation.

The MTR Contract also appears to meet the general capacity requirements of D.21-06-035 and D.23-02-040, which dictate that all resources used for compliance with the decisions must be associated with a new resource, or an expansion of an existing resource, and that they are under a long-term contract of at least ten years. Final verification of specific resource eligibility for specific procurement categories is conducted via the IRP compliance process.

Procurement Methodology, Evaluation, and Cost Reasonableness

PG&E issued its MTR RFO Phases 1, 2, and 3 on June 18, 2021, April 15, 2022, and February 7, 2023, respectively, to solicit offers for incremental resources to meet its MTR procurement requirements. To evaluate solicitation offers PG&E used an LCBF methodology where quantitative and qualitative criteria were used to rank projects and create a shortlist. In accordance with D.04-12-048 PG&E's Procurement Review Group PRG was consulted on the design, administration, and evaluation of the RFO.

Additionally, PG&E retained Merrimack Energy as the IE for its MTR solicitation efforts, which participated in and undertook a number of activities in connection with the solicitation process.[18] In the IE Report attached to AL 7602-E, Merrimack Energy provides an evaluation of the MTR RFO – Phase 3's outreach activities and solicitation robustness, PG&E's bid evaluation and selection methodology, administration of the solicitation process, and fairness of the solicitation administration. Overall, Merrimack Energy states that the solicitation process was undertaken in a "fair and equitable manner" and that the evaluation methodologies applied to the different types of products were fair, reasonable and consistent and did not unduly bias against any technologies or product types. The IE recommends approving the MTR contract herein.

We have reviewed PG&E's MTR RFO – Phase 3 evaluation methodology and the IE Report. We agree with Merrimack Energy's general findings that the solicitation and

[18] PG&E AL 7602-E, Appendix B2 at 18, 41.

resulting selection of the Pastoria Project was conducted fairly and should be approved. Further, we agree with Merrimack Energy's specific finding that the contract cost is competitive when considering the project's delivery date, PG&E's 2026 requirement, and the avoided costs for MTR bridge capacity.

Sunsetting of the Investment Tax Credits and Contract Cost

In comments filed in support of AL 7602-E Cal Advocates notes the uncertainty around the ITC benefits and how prompt Commission approval of the Pastoria agreement will help to ensure that the resource captures full tax credit benefits. We agree with Cal Advocates' analysis and support of PG&E's request for approval of its MTR contract. The potential expiry of the ITC could burden ratepayers with additional costs to recover the lost ITC benefits.

Safety

PG&E states that under its RFO Protocol, it may consider qualitative factors that could impact the value of an offer -- including safety risks -- by conducting a safety review of the technology and contractor/developer records.[19] PG&E states that as a condition of remaining on its shortlist for negotiations, it requires all shortlisted participants to identify known safety-related hazards and risks, as well as the safety history of the participant and/or contractors. Participants are also required to identify their ability to mitigate safety risks and to comply with safety-related codes and standards.

Additionally, PG&E used enhanced safety provisions within the proposed agreements like those previously included in PG&E's RFOs with storage contracts, requiring sellers to practice "responsible safety management enforced by contractual terms and conditions" based on standards for Prudent Electrical Practices and all applicable laws and regulations. Under these provisions, the seller is required to have a project safety plan that demonstrates responsible safety management during all phases of the project lifecycle, including project design, construction, operation, and maintenance. PG&E states that "the project safety plan references the applicable safety-related codes and standards and the seller's current safety programs and policies," including a summary of the project design and description of key safety-related systems.[20]

The seller must also describe potential hazards and include risk mitigations and safeguards, such as operating procedures, incident response, and recovery plans. The seller may deviate from any specific procedures if the deviation is necessary to maintain safety requirements. PG&E states that the seller is also required to monitor and comply

[19] PG&E AL 7206-E, Confidential Appendix B1 at 13, 35.
[20] PG&E AL 7602-E at 9.

with changes to the safety requirements, even if such compliance requires modification to the project.[21] As additional project details become available during project development, PG&E states that it will continue to monitor and perform additional safety checks of the seller's project safety plans for consistency with the safety requirements of the agreement. The agreement terms provide PG&E with the ability to enforce those requirements or, in certain cases, terminate the agreement in the case of non-compliance.[22]

In addition to the safety considerations included above, Resolution ESRB-13 was approved on March 13, 2025. Resolution ESRB-13 modifies GO 167-C to implement the Senate Bill (SB) 1383 (Hueso, 2022) mandate to establish standards for the maintenance and operation of Energy Storage Systems; apply SB 38 (Laird, 2023) requirements for Emergency Response and Emergency Action Plans to Energy Storage System Owners; establish Logbook Standards for ESSs and other actions. These standards aim to improve the safety and reliability of electric generation and energy storage facilities located in California. PG&E's contract requires the seller to demonstrate operational and maintenance in accordance with GO 167.[23]

Cost Recovery

Ordering Paragraph 4 of D.23-02-040 authorized PG&E cost recovery of the MTR procurement via the power charge indifference adjustment (PCIA):

> "Any resources procured by an investor-owned utility in response to this order should be subject to Power Charge Indifference Adjustment (PCIA) vintage cost responsibility based on the effective date of this decision. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company may each submit a Tier 2 Advice Letter within 60 days of the effective date of this decision to update their balancing accounts to address this PCIA treatment."

In AL 7602-E, PG&E proposes to apply a 2023 vintage as this Agreement is entered into to meet the procurement requirements of D.23-02-040. Through this cost recovery methodology, the costs and benefits associated with this procurement complying with the Decisions will be recovered from applicable customers, which includes bundled customers and departing load customers with 2023 vintage cost

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[21] PG&E AL 7206-E, Confidential Agreement, at 24.
[22] *Ibid*.
[23] PG&E AL 7206-E, Confidential Agreement, at 35.

responsibilities. We find PG&E's proposed cost recovery to be consistent with OP 4 of D.23-02-040.

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 and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS AND CONCLUSIONS

1. D.21-06-035 Order Paragraph 13 directed PG&E to file Tier 3 Advice Letters for procurement approval and cost recovery for MTR Contracts, except for utility-owned resources and pumped storage projects, where full applications are required.
2. PG&E's share of the MTR procurement requirements under D.21-06-035 and D.23-02-040 is 400 MW online by August 1, 2023; 1,201 MW online by June 1, 2024; 300 MW online by June 1, 2025; 388 MW online by June 1, 2026; 388 MW online by June 1, 2027; and 400 MW of long lead time resources by June 1, 2028.
3. On May 21, 2025, PG&E filed AL 7602-E seeking approval of one 15-year MTR Contract to help PG&E meet its MTR requirements.
4. The MTR Contract is a long-term resource adequacy agreement with energy settlement for 80 MW of capacity from the Pastoria Power Bank Project.
5. PG&E's methodology used to evaluate the bids in the competitive solicitation that resulted in the MTR Contract presented in PG&E AL 7602-E is reasonable.
6. The MTR Contract presented in PG&E AL 7602-E is reasonable based on the robust competitive solicitation and bid evaluation methodology.
7. PG&E's request in AL 7602-E to allocate the benefits and costs of the MTR Contract to applicable customers via the 2023 vintage balancing accounts is reasonable.

THEREFORE, IT IS ORDERED THAT:

1. The request of Pacific Gas and Electric Company for approval of the Pastoria Power Bank Project mid-term reliability contract and related costs, as requested in Advice Letter 7602-E, is approved.

This Resolution is effective today.

The foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on August 14, 2025, the following Commissioners voting favorably thereon:

Commissioner Signature blocks to be added
upon adoption of the resolution

Dated ________________________________, at Sacramento, California.

APPENDIX

(CONFIDENTIAL)