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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of Pacific Gas and Electric
Company for Approval of its 2020 Energy
Storage Procurement Plan

(U 39 E)

Application No. 20-03-____

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) FOR
APPROVAL OF ITS 2020 ENERGY STORAGE PROCUREMENT PLAN**

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Dated: March 2, 2020

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I. INTRODUCTION AND SUMMARY

Pursuant to Assembly Bill (AB) 2514 and Decision No. (D.) 13-10-040, Pacific Gas and Electric Company (PG&E) by this Application requests that the Commission approve its 2020 Energy Storage Procurement Plan. This Application updates the Commission on the status of PG&E's energy storage projects that comply with the energy storage procurement targets established by AB 2514. PG&E provides notice and documentation through this Application that it does not have a need to conduct a 2020 Energy Storage Solicitation for this procurement cycle.¹

II. PG&E'S 2020 AB 2514 ENERGY STORAGE PROCUREMENT PLAN

D.13-10-040 set a target for PG&E to procure 580 megawatts (MW) of energy storage by the end of 2020, to be installed no later than year-end 2024. The Commission segmented the procurement into biennial cycles (2014, 2016, 2018, and 2020) and three domains (transmission, distribution, and customer), requiring the investor-owned utilities (IOUs) to file procurement plan applications by March 1 of the procurement cycle year and to hold a solicitation by no later than December 1 of the same year.

Since the Commission's final decision in D.13-10-040, PG&E has successfully executed solicitations for energy storage projects through AB 2514 Requests for Offers (RFOs) in 2014

¹ PG&E's Application complies with the requirements of Appendix A, Section 3.d of D.13-10-040, including incorporating by reference the list of all applicable rule and statutes impacting the procurement plan and other information provided in PG&E's prior 2018 procurement plan application, A.18-03-001, Section 2 and Appendix A.

and 2016. Additional storage capacity has also been developed under alternative CPUC-approved channels such as the Local Sub-Area Energy Storage RFO, Self-Generation Incentive Program (SGIP), Distributed Resources Plan (DRP)/Integrated Distributed Energy Resources (IDER) contracts, and Electric Program Investment Charge (EPIC) projects.

D.13-10-040 directed PG&E, Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) to file on or before March 1, 2014, and biennially thereafter through 2020, an application for approval of a plan to procure energy storage resources to address the targets and policies of the Commission’s Energy Storage Procurement Framework and Design Program. The energy storage framework and procurement applications for the 2014 biennial period were subsequently approved in D.14-10-045. The energy storage framework and procurement applications for the 2016 biennial period were subsequently approved in D.16-09-007. The applications for the 2018 biennial period were subsequently approved in D.18-10-036.

PG&E is submitting this Application to request approval of its 2020 Energy Storage Procurement Plan which notifies the Commission and stakeholders that PG&E does not have a need to conduct a 2020 Energy Storage Solicitation based on its updated energy storage procurement requirements and targets.

Update to 2018 Energy Storage Procurement Requirements and Targets

PG&E’s progress toward its AB 2514 targets was last summarized in Advice Letter 5427-E² in November 2018, demonstrating at the time that PG&E had fully met its 2018 Energy Storage targets. On June 4, 2019, PG&E submitted an update to Energy Division via a rolling data request for its AB 2514 targets. Since that time, additional growth has occurred in the distribution and customer domains; most prominently from DRP/IDER-contracted (23.19 MW) and SGIP-incented (23.885 MW) projects, respectively. Combined, these projects have resulted

² AL 5427-E was submitted on November 16, 2018, including a list of “Storage Resources Procured to Date in All Commission Proceedings” in Attachment A. The Commission’s approval was provided for on April 16, 2019.

in an increase in newly installed storage capacity of ~47 MW since our 2018 update. PG&E has captured current progress toward its AB 2514 targets in Table 1 below.

Table 1
PG&E Progress Toward Overall AB 2514 Targets

	Transmission	Distribution	Customer
Original Overall AB 2514 Target	310 MW	185 MW	85 MW
Revised Overall AB 2514 Target ³	458 MW	37 MW	85 MW
Progress	642.5 MW	59.69 MW	64.088 MW
Remaining (negative indicates procurement above target)	(184.5) MW	(22.69) MW	20.912 MW

As shown in the summary table, PG&E has met and exceeded its targets in both the transmission and distribution domains for the entire AB 2514 program. PG&E remains on track to exceed overall program targets for storage deployment in the customer domain. A full accounting of all storage resources procured to date from all Commission proceedings is included in the Attachment A to this Application.

Summary of Changes to PG&E’s List of AB 2514 Energy Storage Projects

As noted above, approximately 47 MW of newly installed storage capacity has occurred since PG&E’s last update of our AB 2514 storage.⁴ However, overall totals for storage contracts meeting AB 2514 targets saw a modest net decrease of ~13 MW, given the cancellation of two projects – Calstor Energy Storage (10 MW Customer) and Kingston Energy Storage (50 MW Transmission) – which were included in Advice Letter 5427-E. Even with this change in the

³ This row reflects moving 80% of the distribution domain target to the transmission domain, in accordance with D.13-10-040, Appendix A, p. 3.

⁴ See Appendix A, Advice Letter 5427-E.

transmission and customer domains, PG&E is on track to exceed targets in all three AB 2514 storage domains.

In looking back to progress made since PG&E's original 2014 solicitation, PG&E's progress is not only limited to meeting overall AB 2514 storage goals. Improvements have also been made to the solicitation process itself, based on lessons learned from previous RFO cycles.

When PG&E first began to solicit for energy storage projects, PG&E was open to all technology types at any stage of technological or development maturity. This resulted in certain storage projects failing, due to an inability to meet necessary contractual terms, as agreed to between PG&E and the project developer. Key hurdles impacting projects included a project developer's ability to satisfy interconnection requirements, project economics, and technology capabilities. PG&E subsequently has modified its procurement process to create more certainty and increase the probability for project success by requiring upfront documentation of key development steps such as demonstrating site control and requiring a complete Phase 1 interconnection study.

PG&E's Compliance with AB 2514 Energy Storage Goals

Because PG&E has exceeded or is on track to exceed all AB 2514 procurement targets, PG&E is notifying the Commission and stakeholders through this application that it will not conduct a 2020 Energy Storage Solicitation.

Going forward, energy storage technologies will continue to be deployed by PG&E, our customers, and the communities we serve to

- Increase resiliency efforts in response to the impacts of climate change and wildfire threats,
- Optimize the use of intermittent renewable energy resources,
- Defer the need for certain transmission and distribution infrastructure,
- Provide other grid services in the market, and
- Reduce overall GHG emissions.

Alternative procurement processes such as those under Integrated Resource Plans (IRP), SGIP, and DRP⁵ will also support increased growth and deployment of energy storage throughout California in the years to come.

Replacement Procurement in the Event of Contract Failure

PG&E monitors the status of energy storage contracts to ensure that AB 2514 targets are being met. If a future need arises, PG&E will implement additional ad hoc energy storage solicitations to meet those needs.

III. STATUTORY AND PROCEDURAL REQUIREMENTS

A. Statutory Authority

This Application is filed in compliance with AB 2514 and D.13-10-040.

B. Categorization and Relevant Safety Considerations - Rule 2.1(c)

PG&E proposes that this Application be categorized as a “quasi-legislative” proceeding.

C. Relevant Safety Considerations - Rule 2.1(c)

In D.16-01-017, the Commission adopted an amendment to Rule 2.1(c) requiring applications to clearly state the “relevant safety considerations.” The Commission has previously explained that the “safe and reliable provisions of utilities at predictable rates promotes public safety” (D.14-12-053 at pp. 12-13). As demonstrated in this Application, PG&E’s proposal in this proceeding supports the safe and reliable provision of electric service and establish predictable rates, all of which can help facilitate public safety.

D. Need for Hearing - Rule 2.1(c)

PG&E anticipates that evidentiary hearings will not be needed. PG&E’s proposed schedule is set forth in subsection F, below.

E. Issues to be Considered - Rule 2.1(c)

The principal issue presented in this Application is whether the Commission should approve PG&E’s request for approval of its updated Energy Storage Procurement Plan in compliance with AB 2514, D.13-10-040 and related Commission energy storage decisions.

⁵ Annual distribution deferral opportunities for energy storage are identified through the Distribution Investment Deferral Framework (DIDF) process that was established under the DRP proceeding.

F. Proposed Schedule – Rule 2.1(c)

File Application	March 2, 2020
Protest or Response	April 1, 2020
Reply	April 13, 2020
Prehearing Conference	April 15, 2020
Workshop	April 29, 2020
Concurrent Opening Briefs	May 22, 2020
Concurrent Reply Briefs	June 5, 2020
Proposed Decision	July 24, 2020
Decision	September, 2020

G. Legal Name and Principal Place of Business – Rule 2.1(a)

The legal name of the Applicant is Pacific Gas and Electric Company. PG&E's principal place of business is San Francisco, California. Its mailing address is Post Office Box 7442, San Francisco, California 94120.

H. Correspondence and Communication Regarding This Application – Rule 2.1(b)

All correspondence and communications regarding this Application should be addressed to Christopher J. Warner and Kingsley Cheng at the addresses listed below:

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I. Articles of Incorporation – Rule 2.2

PG&E is, and since October 10, 1905, has been, an operating public utility corporation organized under California law. It is engaged principally in the business of furnishing electric and gas services in California. A certified copy of PG&E's Restated Articles of Incorporation, effective April 12, 2004, is on record before the Commission in connection with PG&E's Application 04-05-005, filed with the Commission on May 3, 2004. These articles are incorporated herein by reference pursuant to Rule 2.2 of the Commission's Rules.

J. Balance Sheet and Income Statement - Rule 3.2(a)(1)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

K. Statement of Presently Effective Rates - Rule 3.2(a)(2)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

L. Statement of Proposed Changes and Results of Operations at Proposed Rates - Rule 3.2(a)(3)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

M. General Description of PG&E's Electric and Gas Department Plant – Rule 3.2(a)(4)

Because this submittal is not a general rate application, this requirement is not applicable.

N. Summary of Earnings – Rule 3.2(a)(5) and (6)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

O. Statement of Election of Method of Computing Depreciation Deduction for Federal Income Tax - Rule 3.2(a)(7)

Because this submittal is not a general rate application, this requirement is not applicable.

P. Most Recent Proxy Statement - Rule 3.2(a)(8)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

Q. Type of Rate Change Requested - Rule 3.2(a)(3)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

R. Notice to Governmental Entities – Rule 3.2(b)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

S. Publication – Rule 3.2(c)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

T. Notice to Customers – Rule 3.2(d)

Because this Application does not seek authority to increase rates, or to implement changes that would result in increased rates, this rule does not apply.

U. Service of Notice of Application

PG&E is serving notice of this Application on the service lists for A.18-02-016, et al., and R.15-03-011.

V. Exhibit List and Statement of Readiness

PG&E is ready to proceed with this case based on the Application.

IV. REQUEST FOR COMMISSION ORDERS

PG&E requests that the Commission issue appropriate orders approving PG&E’s 2020 Energy Storage Procurement Plan as fully compliant with the Public Utilities Code and Commission decisions, including AB 2514 and D.13-10-040, and granting such additional relief as the Commission may deem proper.

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V. CONCLUSION

PG&E respectfully requests that the Commission approve its Application for approval of its 2020 Energy Storage Procurement Plan in compliance with the requirements of the Public Utilities Code and Commission decisions.

Respectfully Submitted,
CHRISTOPHER J. WARNER

By: /s/ Christopher J. Warner
CHRISTOPHER J. WARNER

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Attorney for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: March 2, 2020

PACIFIC GAS AND ELECTRIC COMPANY
ATTACHMENT A
PG&E LIST OF STORAGE RESOURCES PROCURED TO DATE
IN ALL COMMISSION PROCEEDINGS

Project Name	Location	CPUC or CEC Procurement Track	Capacity by Domain			Duration of output (MWh)	Ownership (Utility Owned/Third Party/Other)	CPUC Decision (Approved, Denied or Withdrawn) & Date	Approving Document No.	Status as of March 2, 2020		Intended End Use (s)	Technology
			Transmission	Distribution	Customer					Online, Cancelled, Under Development	COD Date		

Cancelled AB 2514 Projects

Energy Nuevo Storage Farm	N/A	2014 ES RFO	20				Approved 9/15/2016	D.16-09-004	Cancelled			Flywheel
Molino Energy Storage	N/A	2014 ES RFO	10				Approved 9/15/2016	D.16-09-004	Cancelled			Lithium-Ion
Golden Hills Energy Storage	N/A	2014 ES RFO	30				Approved 9/15/2016	D.16-09-004	Cancelled			Lithium-Ion
Clarksville Energy Storage	N/A	2014 ES RFO		3			Withdrawn	D.16-09-004	Cancelled			Zinc Air Batteries
Old Kearney Energy Storage	N/A	2014 KES RFO		1			Denied 9/15/2016	D.16-09-004	Cancelled			Lithium-Ion
Mendocino Energy Storage	N/A	2014 ES RFO		1			Denied 9/15/2016	D.16-09-004	Cancelled			Lithium-Ion
Stem Energy Storage	N/A	2014 ES RFO			4		Denied 9/15/2016	D.16-12-004	Cancelled			Lithium-Ion
Calstor Energy Storage	N/A	2016 ES RFO			10		Approved 10/11/2018	D.18-10-009	Cancelled			Lithium-Ion
Kingston Energy Storage	N/A	2016 ES RFO	50				Approved 10/11/2018	D.18-10-009	Cancelled			Lithium-Ion
Total: Cancelled Projects			110	5	14							

On-Line or Under Development AB 2514 Projects

Henrietta D Energy Storage	Lemoore	2014 ES RFO		10		40	Third Party	Approved 9/15/2016	D.16-09-004	Under Development	5/1/2020	GHG Emission Reduction / Renewables Integration	Zinc Air Batteries
Cascade Energy Storage	Stockton	2016 ES RFO	25			100	Third Party	Approved 10/11/2018	D.18-10-009	Under Development	12/1/2022	GHG Emission Reduction / Renewables Integration	Lithium-Ion

Sierra Energy Storage	Jamestown	2016 ES RFO	10		40	Third Party	Approved 10/11/2018	D.18-10-009	Under Development	12/1/2023	GHG Emission Reduction / Renewables Integration	Lithium-Ion
Diablo Energy Storage	Pittsburg	2016 ES RFO	50		200	Third Party	Approved 10/11/2018	D.18-10-009	Under Development	12/1/2021	GHG Emission Reduction / Renewables Integration	Lithium-Ion
Llagas Energy Storage	Gilroy	2016 ES RFO		20	80	Utility	Approved 10/11/2018	D.18-10-009	Under Development	11/1/2021	Distribution Reliability	Lithium-Ion
<i>Subtotal: Online or Under-Development Projects</i>			85	30								

Other CPUC-Approved Projects

Vaca-Dixon Battery Energy Storage System (BESS)	Vacaville	Engineering, Procurement, and Construction (EPC) RFO		2	14	Utility	Approved 5/24/2012	D.12-05-037	Online	Q4 2012	Grid Optimization / Renewables Optimization	Sodium-Sulfur
Yerba Buena Battery Energy Storage System (BESS)	San Jose	Engineering, Procurement, and Construction (EPC) RFO		4	28	Utility	Approved 5/24/2012	D.12-05-037	Online	Q2 2013	Grid Optimization / Renewables Optimization	Sodium-Sulfur
Browns Valley Energy Storage	Browns Valley	Electric Program Investment Charge (EPIC) RFP		0.5	2	Utility	Approved 5/24/2012	D.12-05-037	Online	Q3 2016	Distribution Reliability / Grid Optimization	Lithium-Ion
Vistra Moss Landing Energy Storage	Moss Landing	Local Sub-Area ES RFO (Resolution E-4909)	300		1200	Third Party	Approved 11/8/2018	Resolution E-4949	Under Development	12/1/2020	Grid Optimization / Renewables Integration	Lithium-Ion
Hummingbird Energy Storage	Morgan Hill	Local Sub-Area ES RFO (Resolution E-4909)	75		300	Third Party	Approved 11/8/2018	Resolution E-4949	Under Development	12/1/2020	Grid Optimization / Renewables Integration	Lithium-Ion
mNOC AERS Energy Storage	BTM Aggregate in SB-ML Local	Local Sub-Area ES RFO (Resolution E-4909)		10	40	Third Party	Approved 11/8/2018	Resolution E-4949	Under Development	10/1/2019	Customer / Grid Optimization	Lithium-Ion
Moss Landing Energy Storage (UOG)	Moss Landing	Local Sub-Area ES RFO (Resolution E-4909)	182.5		730	Utility	Approved 11/8/2018	Resolution E-4949	Under Development	12/31/2020	Grid Optimization / Renewables Integration	Lithium-Ion

Gonzales pilot Bank 3 (IDER)	Gonzales	2018 RFO		1.02		4.08	Third Party	Approved 12/15/2016	D.16-12-036	Under Development	Jun-21	Distribution Investment Deferral	Lithium-Ion
Gonzales pilot Bank 4 (IDER)	Gonzales	2018 RFO		1.8		7.2	Third Party	Approved 12/15/2016	D.16-12-036	Under Development	Jun-21	Distribution Investment Deferral	Lithium-Ion
Santa Nella (Ortiga) - DRP	Santa Nella	2019 RFO		4.48		26.88	Third Party	Approved 2/8/2018	D.18-02-004	Under Development	May-22	Distribution Investment Deferral	Lithium-Ion
Santa Nella (Canal) - DRP	Santa Nella	2019 RFO		9.52		57.12	Third Party	Approved 2/8/2018	D.18-02-004	Under Development	May-22	Distribution Investment Deferral	Lithium-Ion
Huron - DRP	Huron	2019 RFO		6.37		63.7	Third Party	Approved 2/8/2018	D.18-02-004	Under Development	Apr-21	Distribution Investment Deferral	Lithium-Ion
SGIP Projects	Various	2014			10	N/A	Various	Approved 10/17/2013	D.13-10-040	Online	Various	Customer / Grid Optimization	Various
SGIP Projects	Various	2016			9.54	N/A	Various	Approved 10/17/2013	D.13-10-040	Online	Various	Customer / Grid Optimization	Various
SGIP Projects	Various	2018			10.663	N/A	Various	Approved 10/17/2013	D.13-10-040	Online	Various	Customer / Grid Optimization	Various
SGIP Projects	Various	2020			23.885	N/A	Various	Approved 10/17/2013	D.13-10-040	Online	Various	Customer / Grid Optimization	Various
<i>Subtotal: Other Procurement</i>				557.5	29.69	64.088							

Original AB 2514 Procurement Targets	310	185	85
Revised AB 2514 Targets*	458	37	85
AB 2514 Procurement Total (as of March 2, 2020)	642.5	59.69	64.088
Procurement Deficit/Surplus	-184.5	-22.69	20.912

* In accordance with D.13-10-040, 80% of the distribution domain was moved to the transmission domain.

* PG&E remains on track to exceed customer domain targets by 2024.