BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2027. (U 39 M).

Application A.25-05-009
(Filed May 15, 2025)

Exhibit: MGRA Ex-06-E1
ALJ: Darryl J. Gruen
ALJ: Elizabeth Fox
ALJ: John Larsen

CROSS-EXAMINATION EXHIBIT OF THE MUSSEY GRADE ROAD ALLIANCE

PACIFIC GAS AND ELECTRIC COMPANY 2027 GENERAL RATE CASE

EX-PG&E-16-6 / TYURIN ERRATA 1

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Dated: April 28, 2026
Updated: May 7, 2026

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q001
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q001
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47) states that "PG&E's CBI Program proposal is modeled using a 13 kWh battery, which is intended to cover critical loads during EPSS outages. This is particularly important if the intent is for CBI batteries to cover more than just critical loads and do so for PSPS events, which can last 24 hours or longer versus a typical EPSS outage duration of 2-3 hours."

QUESTION 001

Did PG&E's Direct Testimony state that CBI was designed to support EPSS outages but not PSPS outages, or is this new information? If in the direct testimony please specify location.

ANSWER 001

The connection between PG&E's CBI program proposal and EPSS outages is made in testimony through the fact that CBI is a permanent battery program: PG&E's direct testimony includes the statement, "As the EPSS program has scaled up, the battery programs have expanded to include permanent battery backup systems,"[1] which links its permanent battery programs, including the proposed CBI program, with EPSS outages.

PG&E also notes that the CBI program is described as significantly improving upon its "existing permanent battery direct install program,"[2] and the latter is described in the Customer Battery Expense Programs section under the heading "Permanent Battery Direct Install Programs (EPSS – Customer Mitigation (FPS))," which again links the permanent battery direct install activity to EPSS.[3]

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[1] GRC Exhibit (PG&E-4), Ch. 6, p. 6-53, lines 18-21

[2] GRC Exhibit (PG&E-4), Ch. 6, p. 6-62, lines 2-3

[3] GRC Exhibit (PG&E-4), Ch. 6, p. 6-57, lines 11-12

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q002
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q002
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47) states that "PG&E's CBI Program proposal is modeled using a 13 kWh battery, which is intended to cover critical loads during EPSS outages. This is particularly important if the intent is for CBI batteries to cover more than just critical loads and do so for PSPS events, which can last 24 hours or longer versus a typical EPSS outage duration of 2-3 hours."

QUESTION 002

What is the average PG&E residential customer power usage in kWh per day?

ANSWER 002

PG&E estimated typical residential customer electric usage at roughly 500 kWh per month or roughly 16.7 kWh per day in its recent rebuttal testimony.[1]

[1] Exhibit (PG&E 13), Ch. 2, p. 2-6, footnote 14.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q003
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q003
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47) states that "PG&E's CBI Program proposal is modeled using a 13 kWh battery, which is intended to cover critical loads during EPSS outages. This is particularly important if the intent is for CBI batteries to cover more than just critical loads and do so for PSPS events, which can last 24 hours or longer versus a typical EPSS outage duration of 2-3 hours."

QUESTION 003

What is the estimated cost per kWh per customer for PG&E's CBI initiative?

ANSWER 003

PG&E objects to this question as vague and ambiguous. Subject to and without waiving the foregoing objection, PG&E responds as follows:

PG&E interprets this question as requesting PG&E to estimate the forecasted CBI cost per participating customer divided by the typical kWh of usage per participating customer. On that basis, PG&E divided $20,000 divided by the kWh quantity calculated by multiplying 10 years by 12 months/year times 500 kWh/month, which equals $0.33/kWh.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q004
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q004
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-48) states that "PG&E's CBI Program $20,000 unit cost is not based on the more expensive installations that would be necessary if the permanent battery is meant to be a broad solution to all customers on a particular circuit or circuit segment. In PG&E's experience many residential customers assessed for a battery under the RSI Program can't be served due to a site condition that is difficult to remediate (e.g., significant unpermitted work, electrical system in disrepair)."

QUESTION 004

Does PG&E anticipate that the CBI program will require direct access to home electrical systems?

ANSWER 004

Yes.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q005
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q005
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-48) states that "PG&E's CBI Program $20,000 unit cost is not based on the more expensive installations that would be necessary if the permanent battery is meant to be a broad solution to all customers on a particular circuit or circuit segment. In PG&E's experience many residential customers assessed for a battery under the RSI Program can't be served due to a site condition that is difficult to remediate (e.g., significant unpermitted work, electrical system in disrepair)."

QUESTION 005

Has PG&E evaluated a Meter Socket Adapter (MSA) program similar to that supported by Southern California Edison? https://www.sce.com/business/smart-energy-solar/solar-for-business/grid-interconnections/meter-socket-adapter-program.

If yes, please provide the results of this evaluation. If no, explain why MSA adapters would be inappropriate for the CBI program.

ANSWER 005

Yes; PG&E's Meter Socket Adapter (MSA) program predates SCE's program, and the CBI program would leverage MSAs where possible as the current Residential Storage Initiative (RSI) permanent battery direct install program does today.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q006
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q006
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47, footnote 130) states that "SGIP commercial battery storage eligible costs in PG&E territory average over $400,000"

QUESTION 006

Provide full citation for the source of the PG&E average commercial battery system, including link and page number.

ANSWER 006

Please refer to attachment *"GRC-2027-PhI_DR_MGRA_011-Q006Atch01.xlsx"* for this calculation using SGIP data, including a link and date for the original data source.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q007
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q007
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47, footnote 130) states that "SGIP commercial battery storage eligible costs in PG&E territory average over $400,000"

QUESTION 007

What is the date of the publication?

ANSWER 007

The SGIP data used for this calculation was downloaded in March, 2026.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q008
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q008
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47, footnote 130) states that "SGIP commercial battery storage eligible costs in PG&E territory average over $400,000"

QUESTION 008

What is the estimated date range for the data used to derive the $400,000 average cost value?

ANSWER 008

The SGIP non-residential average energy storage cost is based on projects with interconnection dates in 2020 and 2021.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q009
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q009
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Brienden Realph (EPSS), Shawn Holder (PSPS) – Electric Engineering

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Rebuttal Testimony (p. 6-47, footnote 130) states that "SGIP commercial battery storage eligible costs in PG&E territory average over $400,000"

QUESTION 009

For commercial customers in areas projected to be subject to EPSS and PSPS shutoff during the 2027-2030 period, please provide an Excel spreadsheet showing the following estimated values for PG&E rate schedule classes AG-1, B-1, B-6, B10/B10S, E-19 and E-20:

a. Number of customers

b. Average kWh/month per customer

ANSWER 009

For PSPS and EPSS, see *attachment "GRC-2027-PhI_DR_MGRA_011-Q009Atch01.xlsx"* for number of commercial customers and average kWh/month per customer[1]. Some customers may be subject to both PSPS and EPSS. PG&E combined customers on rate schedules A1, A6, and A10 with these respective legacy versions of B1, B6, and B10. Additionally, we incorporated B19 and B20 with the current versions of E19 and E20, which are legacy schedules. PG&E defines "customers subject to PSPS" as:

1. Customers directly at risk of PSPS, specifically those served by overhead distribution facilities located within High Fire Risk Area (HFRA)
2. Customers located outside of HFRA who experience downstream service interruptions resulting from transmission or distribution circuits that are subject to PSPS; and

[1] Customer refers to service point (meter).

3. Customers located outside of HFRA who experience upstream service interruptions between the HFRA boundary and the next upstream protective device

PG&E defines “customers subject to EPSS” as:

1. Customers who are electrically downstream of a device that protects HFRA or EPSS Buffer areas with fast-trip technology.

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q010
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q010
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Testimony (PG&E-4, p. 6-62) states that PG&E intends to use a 10-year depreciation schedule for its battery assets.

QUESTION 010

Provide data used to support a 10-year depreciation schedule for current commercially available batteries that could be used in the CBI program

ANSWER 010

As indicated in testimony,[1] this is consistent with the similar Green Mountain Power program; it is also consistent with the minimum warranty period that PG&E expects to require in its competitive solicitation.

[1] 2027 GRC Exhibit (PG&E 4), Ch. 6, p. 6-62, lines 9-10

PACIFIC GAS AND ELECTRIC COMPANY
2027 General Rate Case Phase I
Application 25-05-009
Data Response

PG&E Data Request No.:	MGRA_011-Q011
PG&E File Name:	GRC-2027-PhI_DR_MGRA_011-Q011
Request Date:	April 3, 2026
Requester DR No.:	11
Requesting Party:	Mussey Grade Road Alliance
Requester:	Joseph Mitchell
Date Sent:	April 17, 2026
PG&E Witness(es):	Daniel Kushner - Electric Engineering, Vitaly Tyurin – Engineering, Planning and Strategy

SUBJECT: CUSTOMER BATTERY INITIATIVE (CBI) PROGRAM

PG&E Testimony (PG&E-4, p. 6-66, 6-64 fn 31) states that the estimated BCR for the CBI program is 0.9 based on the outage risk mitigation benefit.

QUESTION 011

Please show how the calculation of how the BCR value of 0.9 is obtained for the CBI program.

a. Describe and show how the 10-year depreciation schedule affects the BCR calculation. Specifically, are the benefits associated with the program calculated over the 2027-2030 period and do they extend over the depreciation schedule?

b. Does the CBI program envision replacement of the batteries at the end of the depreciation schedule and the continuation of the program?

ANSWER 011

PG&E objects to the question on the ground that the phrasing “show how the calculation of how” is confusing. PG&E interprets the question as seeking an explanation regarding how the BCR calculation for the CBI program was calculated. Subject to and without waiving this objection, PG&E responds as follows:

The CBI program described in Exhibit (PG&E-4), Chapter 6 is a risk mitigation that reduces outage risk associated with PSPS and EPSS outages as well as DOVHD impacts through the provision of backup power.

For purposes of calculating BCRs, PG&E estimates the aggregate duration of outages that the batteries can mitigate relative to the total aggregate duration. The supporting workpapers for these estimates are listed in the table below:

Risk Mitigated	Program Effectiveness	Description	Supporting Workpaper

PSPS	46%	Effectiveness based on the percent duration of the average PSPS event that a battery can accommodate.	Exhibit (PG&E-2),WP EO-WPSPS-M009_BTM Capital Battery Program_Errata.xlsx
EPSS	86.9%	An analysis performed using EPSS lookback data and event durations determined an estimated effectiveness for the program on WEPSS risk.	Exhibit (PG&E-2), WP EO-WPSPS-9_Battery EPSS and DOVHD Eff
DOVHD	45.8%	An analysis performed by SMEs determined an estimated effectiveness for the program on DOVHD risk.	Exhibit (PG&E-2), WP EO-WPSPS-9_Battery EPSS and DOVHD Eff

PG&E's capital forecast for the program includes battery equipment and installation costs based on best available information can be found in Exhibit (PG&E-2), Chapter 6.

The supporting workpapers for the BCR calculations are included in Exhibit (PG&E-2), WP EO-WEPSS-3b_CBR Input File (Battery)_Errata, Exhibit (PG&E-2), WP EO-WPSPS-3b_CBR Input File (Battery)_Errata, Exhibit (PG&E-2), WP EO-DOVHD-3b_CBR Input File (Battery)_Errata and the individual battery workpaper Exhibit (PG&E-2), WP EO-WPSPS-M009_BTM Capital Battery Program_Errata. The resulting BCR outputs are provided in Exhibit (PG&E-2), WP 1-14_GRC Mitigations and Controls and their CBRs_Errata.

In summary, applying the effectiveness assumptions shown above to baseline outage risk, assuming a 10-year benefit length and the relevant risk exposure, results in a net present value (NPV) of benefits of $72.11 million. Dividing this amount by the NPV of program costs of $75.59 million and Foundational Activity cost of $1.17 million yields a risk-adjusted BCR of 0.9.

a. The 10-year depreciation schedule is used as the program benefit life for BCR calculations. Benefits are not limited to the 2027-2030 time period. For example, the 2027 program benefit reflects the NPV of all benefits expected over the 10-year period from 2027 through 2036.

b. Batteries that fail after the 10-year depreciation schedule may be replaced if the need remains for that battery at the end of its life.

SGIP Administrator	Pacific Gas and Electric
Host Customer Sector	(Multiple Items)
Equipment Type	Electrochemical Storage
Fully Qualified State	Payment Completed
interconnection year	(Multiple Items)

Line #	Application Code	Interconnection years	Project Rated Capacity (kW)	Project Energy Storage Capacity (kWh)	Project Total Eligible Costs
1	PGE-SGIP-2017-3979	2020	1560.00	3132.00	$ 2,000,000.00
2	PGE-SGIP-2017-4008	2020	44.52	89.03	$ 164,096.00
3	PGE-SGIP-2017-4013	2020	29.68	59.36	$ 126,403.00
4	PGE-SGIP-2017-4388	2020	58.00	232.00	$ 198,000.00
5	PGE-SGIP-2018-4888	2020	348.00	696.00	$ 415,515.00
6	PGE-SGIP-2018-4890	2020	261.00	522.00	$ 337,550.00
7	PGE-SGIP-2018-4891	2020	348.00	696.00	$ 430,102.00
8	PGE-SGIP-2018-4905	2020	334.50	669.00	$ 850,007.00
9	PGE-SGIP-2018-4935	2020	1080.00	2160.00	$ 1,598,232.00
10	PGE-SGIP-2019-7413	2020	59.98	157.11	$ 1,634,488.00
11	PGE-SGIP-2019-7414	2020	29.99	76.94	$ 90,000.00
12	PGE-SGIP-2019-7450	2021	12.08	26.98	$ 77,521.00
13	PGE-SGIP-2019-7538	2020	29.99	78.56	$ 1,096,700.00
14	PGE-SGIP-2019-8920	2020	111.50	223.00	$ 269,234.00
15	PGE-SGIP-2019-8959	2020	10.00	26.40	$ 27,000.00
16	PGE-SGIP-2019-9080	2020	29.99	78.56	$ 90,000.00
17	PGE-SGIP-2019-9249	2020	29.99	78.56	$ 66,400.00
18	PGE-SGIP-2019-9250	2021	29.99	78.56	$ 697,023.00
19	PGE-SGIP-2020-0888	2021	210.00	348.00	$ 181,997.94
20	PGE-SGIP-2020-0903	2020	210.00	348.00	$ 238,067.40
21	PGE-SGIP-2020-0948	2021	25.00	66.00	$ 56,176.25
22	PGE-SGIP-2020-1665	2020	250.00	500.00	$ 382,349.00
23	PGE-SGIP-2020-22679	2020	111.50	223.00	$ 214,416.09
24	PGE-SGIP-2020-3046	2020	111.50	223.00	$ 261,275.14
	Grand Total	**48484**	**5325.207**	**10788.048**	**$ 11,502,552.82**

SGIP Administrator	Pacific Gas and Electric
Host Customer Sector	(Multiple Items)
Equipment Type	Electrochemical Storage
Fully Qualified State	Payment Completed
interconnection year	(Multiple Items)

Average of Total Eligible Costs	Count of Application Code
$ 479,273	$ 24

Tooltips

SGIP Quarterly Statewide Report

The definitions on this document are for reference purposes only. For program policy requirements, refer to the SGIP Handbook.

COLUMN HEADERS	
SGIP Administrator	Administrators of the SGIP are Pacific Gas & Electric, Southern California Edison, the Center for Sustainable Energy in the San Diego Gas & Electric territory, and Southern California Gas Company.
Application Code	The application code is automatically assigned by the database and identifies a unique SGIP application by Program Administrator, Program Year and the numerical order the application was received.
Program Year	Year the incentive application was accepted by the Program Administrator.
Fully Qualified State	Current state of the application in the review process.
Equipment Type	Type of technology installed under the project. Limit one type per Application Code.
Rated Capacity [kW]	Net continuous power output of the technology under the conditions defined in the SGIP Handbook for each technology.
Fuel Type	Type of fuel used by gas fired generating technologies. (Advanced Energy Storage, Wind, Waste Heat to Power, and Pressure Reduction Turbines are non-fuel technologies and values will be left blank).
Biogas Source	Onsite: Renewable fuel produced at the facility. Directed: Renewable fuel delivered to customers via a natural gas pipeline
Paired With	Generation and/or storage technology installed in conjunction with the SGIP-incentivized system.
Equipment Manufacturer	Name of the manufacturer who produced the equipment.
Current Incentive ($)	The latest and most current incentive allocation.
Incentive Level (1, 2(R/ET), 3(NR))	Indicates from which budget category the incentive for the project is deducted based on Program Year and Equipment Type as defined below.* Level 1: Retired incentive level designated to PV, Fuel Cells on renewable fuel, and Wind Turbine projects incentivized from 2001 to 2006. Level 2: Renewable and Emerging Technologies - Incentive levels and budget funding designated since 2011to Renewable and Waste Energy Recovery technologies (wind turbines, waste heat to power technologies, pressure reduction turbines) and Emerging technologies (Conventional CHP technologies operating on renewable fuel, fuel cells (CHP and electric-only), and applicable advanced energy systems (stand-alone and/or paired with renewable generation technologies)). Level 3: Non-Renewable fueled Conventional CHP Technologies - Incentive level and budget funding designated since 2011 to Conventional CHP technologies operating on non-renewable fuels and advanced energy systems paired with non-renewable generation
Budget Classification	Payment status based on the application's fully qualified state.
Type of Other Incentive	Funding from other sources received for the self-generation project.
Other Incentive Amount ($)	Amount of other ratepayer and non-ratepayer funding received for the SGIP project.
Total Eligible Costs	Total eligible project cost as defined in the SGIP Handbook (used in calculating the appropriate project incentive).
Host Customer Sector	Host customers are categorized by the following sectors: residential, commercial, government, non-profit.
Host Customer SIC/NAICS Code	The Standard Industrial Classification/ North American Industry Classification System code of a host customer.
City	Location of the project site where the technology is installed.
County	
Zip	

CHOICE OPTIONS		
Fully Qualified State	**Current state of the project in the application review process. Combination of Stage (Draft, Waitlist, RRF, PPM, ICF, Payment, Cancelled) and Status (Review, Technical Review, Suspended, Reserved, Confirmed, Inspection, Pending Payment, Completed, PBI in Process)**	
Draft	Project has been partially entered into the system by the Program Administrator. Customer has not yet received the application receipt letter.	
Waitlist	All projects received when incentive funds are exhausted in any one category will be placed in Waitlist Status for project review should funds become available.	
RRF Review	RRF First stage of application process: review and approval of Reservation Request Form and required attachments.	Program Administrator review.
RRF Technical Review		Review of all technical eligibility requirements.
RRF Suspended		The application is missing required documentation or needs clarification.
RRF Reserved		Approval of RRF and conditionally reserved funding for 3-step projects.
RRF Confirmed		Approval of RRF and confirmed funding for 2-step projects.
PPM Review	PPM Second stage of application process for 3-step projects only: review and approval of Proof of Project Milestone documentation	Program Administrator review.
PPM Technical Review		Review of technical eligibility requirements.
PPM Suspended		The application is missing required documentation or needs clarification.
PPM Confirmed		Approval of PPM and confirmed funding for 3-step projects.
ICF Review	ICF Final stage of application processing: review and approval of Incentive Claim Form and required attachments	Program Administrator review.
ICF Technical Review		Review of technical eligibility requirements.
ICF Suspended		The application is missing required documentation or needs clarification.
ICF Inspection		Project is scheduled for field verification .
ICF Pending Payment		ICF approved for eligible payment (50% upfront payment for PBI, 100% payment for non-PBI).
Payment Completed	**Payment**	All incentive payments have been completed.
Payment PBI in Process		Project has been paid a 50% upfront incentive and is receiving performance-based incentives up to the remaining 50% over 5 years.
Cancelled	The project was cancelled during the application process.	
Budget Classification	**Payment status based on the application's fully qualified state.**	

Electric Utility	Name of the Electric Utility providing service at the host customer's site.
Gas Utility	Name of the Gas Utility providing service at the host customer's site.
Installer Name	Name of the installer/ project developer of the self-generation equipment.
Date Received	Date the incentive application was received by the Program Administrator.
Interconnection date	Date the project was approved for interconnection to the electric utility grid.
Payment Completed Date	Date the final incentive payment was made for the project.
Cancelled Date	If applicable, the date the incentive application for the project was cancelled.

Waitlist	If applicable, projects received after incentive funds are exhausted in any one category may be placed in Waitlist Status for project review should funds become available.
Pending Reservation	Projects that have been entered into the system by the Program Administrator but have not yet received their initial reservation letter. This include all projects in the following statuses: Draft, RRF Review, RRF Technical Review, RRF Suspended.
Reserved	Active SGIP projects that have received a reservation letter and are in process of being completed (but have not been completed and paid). This includes all projects in the following statuses: RRF Reserved, RRF Confirmed, PPM Review, PPM Technical Review, PPM Suspended, PPM Confirmed, ICF Review, ICF Technical Review, ICF Suspended, ICF Inspection, ICF Pending Payment.
Paid	Projects that have received all incentive payments and are in the status "Payment Completed".
PBI in Process	Projects that are in the status "PBI in Process".
Cancelled	Projects that were cancelled during the application process and no incentive funds have been dispersed.

Footnotes:

"Incentive level designations have changed several times over the lifetime of the program. The historical designations were as follows:

Level 1: Retired incentive level designated to PV, Fuel Cells on renewable fuel, and Wind Turbine projects incentivized from 2001 to 2006.

Level 2: From 2001 to 2006, incentive level designated to Fuel Cells on non-renewable fuel. From 2006 to 2007, incentive level designated to Fuel Cells and Conventional CHP technologies operating on renewable fuel. From 2008 to 2010, Conventional CHP systems were not eligible for the SGIP leaving this incentive level designated to Fuel Cells operating on renewable fuel. In 2009, AES paired with an eligible generation technology became incentivized under this level. Since 2011, the incentive level is designated to renewable and emerging technologies including wind turbines, waste heat to power technologies, pressure reduction turbines, Conventional CHP technologies operating on renewable fuel, fuel cells (CHP and electric-only), and applicable advanced energy storage (stand-alone and/or paired with renewable generation technologies).

Level 3: From 2001 to 2006, incentive level designated to Conventional CHP technologies. From 2006 to 2007, incentive level designated to Fuel Cells and Conventional CHP technologies operating on non-renewable fuel. From 2008 to 2010, Conventional CHP systems were not eligible for the SGIP leaving this incentive level designated to Fuel Cells operating on non-renewable fuel. Since 2011, the incentive level is designated to Conventional CHP technologies operating on non-renewable fuels and AES systems paired with non-renewable generation

PRESS RELEASE

Lithium-Ion Battery Pack Prices Fall to $108 Per Kilowatt-Hour, Despite Rising Metal Prices: BloombergNEF

Clean Energy Clean Transport

December 9, 2025

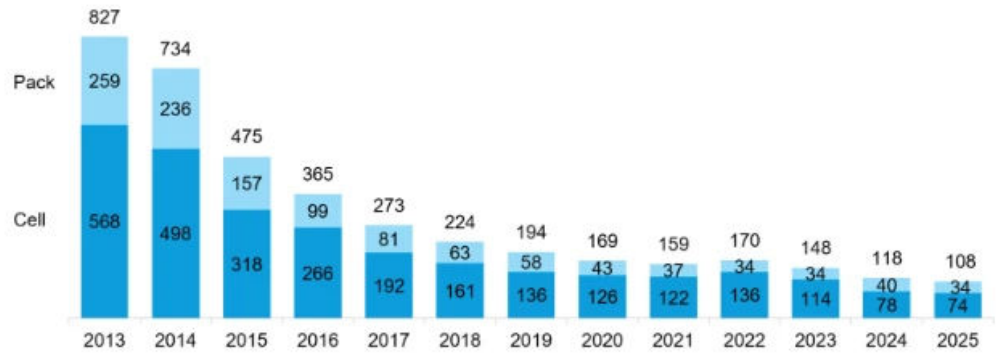
New York, December 9, 2025 – lithium-ion battery pack prices have dropped 8% since 2024 to a record low of $108 per kilowatt-hour, according to latest analysis by research provider BloombergNEF (BNEF). Continued cell manufacturing overcapacity, intense competition and the ongoing shift to lower-cost lithium iron phosphate (LFP) batteries helped drive down pack

prices despite an increase in battery metal costs according to BNEF's *2025 Lithium-Ion Battery Price Survey*.

Battery metal prices increased in 2025, in part due to supply risks at certain Chinese lithium assets and new cobalt export quotas in the Democratic Republic of Congo. However, metal price increases did not translate to higher annual prices for cells or packs. The industry ultimately absorbed these shocks through greater LFP adoption, long-term contracts, and broader hedging strategies.

China has consistently produced more cells than are needed for domestic electric vehicle and stationary storage demand, creating intense competition among manufacturers. The effect has been most pronounced in the stationary storage sector, where many suppliers can serve the same projects. China's dominance in LFP production has allowed its producers to meet nearly all global demand.

Volume-weighted average lithium-ion battery pack and cell price split, 2013-2025



Source: BloombergNEF 2025 lithium-ion battery price survey. Note: Historical prices have been updated to reflect real 2025 dollars. Weighted average survey value for 2025 includes 320 data points from passenger cars, buses, commercial vehicles, two- and three-wheelers and stationary storage. In EVs, the packs consist of cells, module housing, battery management system (BMS), wiring, pack housing and thermal management system. For stationary storage, we consider the battery rack, which holds stacked cells, modules, or packs, including the BMS, wiring and the rack housing.

BNEF's industry-leading battery price survey covers multiple battery end-uses, including different types of electric vehicles and stationary storage projects. Each sector typically requires different cells and packs to meet distinct performance metrics, leading to varied pricing dynamics across

these use cases. Battery pack prices for stationary storage dropped to $70/kWh in 2025, 45% lower than in 2024. This is the sharpest drop across all segments, making stationary storage the lowest-priced segment for the first time. Battery electric vehicles (BEVs) packs were the cheapest in the transport segment at $99/kWh – the second year that they were below the $100/kWh threshold.

Average LFP battery pack prices across all segments came in at $81/kWh while nickel manganese cobalt (NMC) packs were at $128/kWh. BNEF clients can find the full breakdown by chemistry, application and country **here.**

Evelina Stoikou, the head of BNEF's battery technology team and lead author of the report, said: "Cut-throat competition is making batteries cheaper every year. This is an important moment for the industry, as record-low battery prices create an opportunity to lower EV costs and accelerate the deployment of grid-scale storage to support renewables integration around the world. "

The report also covers regional differences in pricing. Average battery pack prices were lowest in China, at $84/kWh. Pack prices in the North America and Europe were 44% and 56% higher, reflecting higher local production costs and greater dependence on imported batteries, which typically have a premium compared to prices in China. The largest drop in pack prices was in China, down 13% in real terms from 2024, while North America and Europe saw declines of 4% and 8%, respectively. The drop in prices was higher in Europe than in North America due to the changing policy and tariff environment in the US. Many Chinese companies redirected their exports to European markets, where they adopted more aggressive pricing strategies to maintain global sales volumes and meet annual targets. This shift intensified price competition in Europe.

BNEF expects pack prices to decrease again in 2026, based on its near-term outlook, as raw material prices face upward pressure but adoption of low-cost LFP continues to spread. Over the longer term, ongoing investment in R&D, manufacturing efficiency and supply chain expansion is expected to support further technology improvements and cost reductions. Emerging technologies, including silicon and lithium metal anodes, solid-state

electrolytes, new cathode materials and new cell manufacturing processes, are also set to play a key role in driving the next wave of price declines.

The full report provides insights on:

- Battery prices across chemistries, regions and segments
- Raw material and battery component price dynamics
- BNEF's view of global prices in 2026 and beyond
- Key drivers behind price trends this decade
- Public statements and roadmaps from leading industry players
- Impact of tariffs and transport costs on battery prices

BloombergNEF clients can access the **full report here.**

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