

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

Agenda ID #22925
RESOLUTION E-5347
October 17, 2024

R E S O L U T I O N

Resolution E-5347. Pacific Gas and Electric Company requests approval to modify two *per se* reasonableness requirements established in Decision 18-05-040 for their medium- and heavy-duty (MDHD) electric vehicle (EV) charging infrastructure program, EV Fleet.

PROPOSED OUTCOME:

- This Resolution approves, with modifications, Pacific Gas and Electric Company's (PG&E) proposal in compliance with Decision (D.) 18-05-040 to modify one *per se* reasonableness metric: the modification of program site requirements. This Resolution denies PG&E's request to increase the program administration budget for EV Fleet.

SAFETY CONSIDERATIONS:

- There are no incremental safety considerations associated with this Resolution that have not already been disposed of in D.18-05-040.

ESTIMATED COST:

- There are no direct cost impacts associated with this Resolution. The California Public Utilities Commission authorized Pacific Gas and Electric Company's Electric Vehicle Fleet program via D. 18-05-040 and this Resolution does not modify those budgets.

By Advice Letter 7121-E (PG&E) filed on December 28, 2023.

SUMMARY

This Resolution approves Pacific Gas and Electric Company's (PG&E) to modify one *per se* reasonableness metric for its medium- and heavy-duty (MDHD) electric vehicle (EV) charging infrastructure program, EV Fleet: its program site requirements. This Resolution denies PG&E's request to increase the administration budget for the program.

Decision (D.) 18-05-040 Ordering Paragraph (OP) 31 establishes *per se* reasonableness metrics for PG&E's EV Fleet program. D.18-05-040 OP 2 allows PG&E, after consultation with its Program Advisory Council (PAC), to file a Tier 3 Advice Letter (AL) after two years of program implementation with a request to adjust program budgets or *per se* reasonableness requirements. On December 28, 2023, PG&E filed AL 7121-E to request a modification of its program site requirements and to request an increase in its program administration cap from 10 percent to 12 percent of the infrastructure budget.

This Resolution:

- Approves, with modifications, PG&E's request to modify its program site requirement.
- Denies PG&E's request to increase its program administration cap to 12 percent of the infrastructure budget.

BACKGROUND

This Resolution disposes of PG&E AL 7121-E.

1. Program Overview

On May 31, 2018, D.18-05-040 authorized PG&E to implement a MDHD charging infrastructure program, EV Fleet.¹

D. 18-05-040 calls for PG&E's EV Fleet program to construct all to-the-meter (TTM) infrastructure for program sites. For behind-the-meter (BTM) infrastructure, the Decision allows utility or customer ownership. In cases of utility ownership, the Decision envisioned that the program would cover 100 percent of BTM costs, if projects fall below cost thresholds established by PG&E. If customers choose to own BTM infrastructure, the program would provide a rebate covering up to 80 percent of the

¹ In D.18-05-040, this program is referred as Fleet Ready.

customer's installation costs or up to 80 percent of the average utility direct cost for installing the customer-side make-ready, whichever is lower.² In addition to covering make-ready infrastructure costs, EV Fleet provides electric vehicle service equipment (EVSE) rebates covering up to 50 percent of the cost for public transit buses, school buses, and non-Fortune 1000 company fleets located in DACs.³

2. *Per Se* Reasonableness Metrics

In OP 31, D.18-05-040 established *per se* reasonableness metrics for the EV Fleet program which are criteria that the program must meet to deem the adopted budget reasonable. These *per se* reasonableness criteria include a minimum of 700 program sites constructed, a minimum of 6,500 vehicles electrified, at least two electric vehicles procured by each site, a minimum of 25 percent of the infrastructure budget to be spent in disadvantaged communities (DACs), and sector-based targets.

Due to uncertain market conditions at the time of approval, D.18-05-040 OP 2 allowed PG&E, after two years of program implementation and after consultation with its PAC, to file a Tier 3 AL to adjust program budgets or *per se* reasonableness requirements. To support the request, OP 2 required PG&E to provide the following information: (1) a summary of program status to date; (2) a breakdown of utility-side, customer-side, and other costs by sector; (3) a description of the major cost drivers for utility-side and customer-side infrastructure; and (4) an explanation of any site cost caps the utility used to determine customer eligibility for the program or other metrics the utility used to control program costs. We provide a program update with this information in Section

3. Resolution E-5257

On April 1, 2022, PG&E filed AL 6546-E, requesting approval to modify three *per se* reasonableness metrics for the EV Fleet program: 1) extension of the program timelines, 2) elimination of its program site requirements, and 3) modification of the vehicle purchase requirements⁴ to allow the program to better support public charging sites for MDHD vehicles. On April 3, 2023, PG&E filed supplemental AL 6546-E-A to provide additional information related to its request to eliminate its program site requirement. Resolution E-5257 extended program timelines two years to December 31, 2026, rejected

² D. 18-05-040 OP 39

³ D. 18-05-040 OP 35

⁴ As established in D.18-05-040 OP 31, the EV Fleet program requires each participating site host to procure at least two electric vehicles or convert at least two diesel-fueled vehicles to electric vehicles.

without prejudice PG&E’s request to eliminate program site requirements, and denied PG&E’s request to modify vehicle purchase requirements.

4. Program Update

Pursuant to D.18-05-040 OP 2, PG&E filed PG&E AL 7121-E on December 28, 2023 in which they report on three years of program implementation.

4.1. Program Status to Date

Resolution E-5257 modifies D.18-05-040 OP 2 and requires PG&E to ensure a minimum of 700 sites are fully contracted for by December 31, 2026, while electrifying a minimum of 6,500 vehicles. As of September 30, 2023, PG&E has signed program contracts with 223 sites, which will electrify 4,612 vehicles. PG&E has completed construction at 61 contracted sites, electrifying 859 vehicles.

4.2 Breakdown of Utility-Side, Customer-Side, and Other Costs by Sector

Pursuant to OP 2, PG&E AL 7121-E provides cost data from fully invoiced sites as of September 30, 2023.

PG&E provides a cost breakdown for 45 sites across two sectors: school buses and all other sectors. PG&E does not have enough sites invoiced for other sectors to report on these separately. All customers shown in the table below chose to own BTM infrastructure; PG&E has not invoiced any projects with utility ownership of BTM infrastructure at the time of filing. The costs reflect utility costs and exclude costs incurred by customers.

Table 1: PG&E’s EV Fleet Cost Breakdown⁵

	School Bus	Other Sectors
Sites*	26 sites	19 sites
Vehicles	270 vehicles	256 vehicles
Average Make-Ready Cost of TTM Infrastructure	\$186,045	\$203,097
Average Rebate for Customer-Owned BTM Infrastructure	\$39,861	\$71,194

⁵ PG&E provided program costs for sites that were fully invoiced as of September 30, 2023.

Average EVSE Rebate	\$152,500	\$80,263
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4.3 Description of Major Cost Drivers for Utility-Side and Customer-Side Infrastructure

PG&E reports that on the utility side of the meter, infrastructure upgrades and civil improvements are driving project costs. Sites may require infrastructure upgrades to bring power to remote locations and areas without existing electrical infrastructure. Furthermore, sites requesting to add more than 300 kVA or higher-powered charging may need new transformers and other infrastructure upgrades. The costs of civil improvements vary based on the length and size of trenching. MDHD sites typically require heavily- reinforced concrete trenching, which can be difficult and expensive to restore.

4.4 Explanation of Site Cost Caps Used to Determine Customer Eligibility or Other Metrics Used to Control Program Costs

PG&E reports that it evaluates sites after customers submit program applications, with a site design and cost estimate. PG&E uses per-site and per-vehicle cost thresholds to determine if projects can be enrolled in the program. Sites below the per-site threshold are automatically approved. Sites above the per-site threshold must fall below the per-vehicle threshold to be approved. PG&E states that it consistently reviews and modifies these thresholds over time. On a case-by-case basis, EV Fleet may enroll some sites exceeding these thresholds if they have other merit, such as bringing outsized awareness of fleet electrification, or support the program in achieving DAC or Transit goals.

5. Request to Modify *Per Se* Reasonableness Metrics

In addition to providing a program update, PG&E AL 7121-E requests approval to modify two *per se* reasonableness metrics for PG&E's EV Fleet program, including: 1) requesting a reduction of its program site requirements, and 2) requesting an increase in the program administration spending cap from 10 percent to 12 percent of the infrastructure budget. We describe each requested modification and PG&E's justification below.

5.1. Reduce Program Site Requirements

OP 31 requires that PG&E allocate its \$148,546,450 infrastructure budget for EV Fleet to support a minimum of 700 sites and electrify 6,500 vehicles. This budget allows for an average cost per site of \$212,209⁶ and an average per vehicle cost of \$22,853. After four years of implementation, PG&E has gathered data that allows it to better predict program costs. The EV Fleet program is on track to meet or exceed its vehicle target but it will not be able to support 700 sites with the program's current budget. PG&E estimates that the overall cost per site for the program will be between \$336,673 and \$393,295 by the end of the program. Therefore, PG&E requests to lower the EV Fleet site goal to a range between 375 and 440 sites. PG&E states that a lower site goal will increase funding available per site to accurately reflect actual per site costs, account for ongoing construction cost inflation, and allow it to increase BTM support to customers.

i. Actual Site Costs

PG&E states that D.18-05-040 underestimated the funding needed for an MDHD site in the EV Fleet program by 71 percent on average; \$184,530⁷ compared with \$315,736 as shown by implementation data from September 30, 2023. As shown by the data in Table 1 below, average site cost exceeds the D.18-05-040 Appendix C budget estimates for all vehicle sectors. PG&E states the Decision underestimated costs per site, as well as the average number of vehicles per site.

⁶ D.18-05-040 Appendix C estimates that sites will cost \$184,530 on average. However, the site target set by the Decision implies that \$212,209 is available per site as this is the value for the infrastructure budget divided by the 700 site target.

⁷ See footnote 6 above.

Table 1: Trends by Sector as of September 30, 2023⁸

Vehicle Type	Average Total Site Costs ⁹		Average Cost Per Vehicle		Average Number of Vehicles Per Site	
	Decision Input ¹⁰	Program Data	Decision Input ¹¹	Program Data	Decision Input ¹²	Program Data
Transit Bus	\$341,071	\$411,452	\$28,423	\$25,986	12	15.8
School Bus	\$146,730	\$249,129	\$12,227	\$25,172	12	10.5
Medium-Duty (MD) Vehicles	\$148,097	\$302,484	\$12,341	\$8,989	12	33.7
Forklifts	\$132,613	\$225,534	\$6,911	\$21,785	19.2	10.4
Other Heavy-Duty (HD) Vehicles	\$341,071	\$480,870	\$8,768	\$21,785	38.9	25.0
Overall	\$184,530	\$315,736	\$11,594	\$15,099	15.9	20.9

ii. Construction Site Inflation

PG&E states that ongoing construction cost inflation is an additional factor impacting the average costs seen in Table 1. EV Fleet has seen per site costs increase an average of 6.3 percent per year and estimates that 5.3 percent of the cost growth can be attributed to inflation, with the remaining 1 percent attributable to increases in average site size over time. By forecasting expected enrollment by year through 2026 and escalating per site costs by 5.3 percent annually, PG&E expects the overall average site to cost \$336,673 by the end of the program.

⁸ Cost data reflect forecasted costs at project completion for all sites with signed contracts as of September 30, 2023 and exclude cancelled projects.

⁹ Average site cost includes TTM and BTM make-ready costs paid by PG&E. It does not include costs paid by customers.

¹⁰ Decision Inputs figure shows the “Estimated Cost per site- Total” column in D.18-05-040 Appendix C.

¹¹ Decision Inputs figure shows the “Total Budget” column divided by number of vehicles in D.18-05-040 Appendix C.

¹² Decision Inputs figure shows the “Number of Vehicles” column divided by “Number of Sites” in D.18-05-040 Appendix C.

iii. Need for Increased BTM Support

The EV Fleet program design envisioned that PG&E would cover all infrastructure work on both sides of the meter in cases of utility ownership or would rebate up to 80 percent of BTM costs in cases of customer ownership. In implementing the program, PG&E is only able to cover a much smaller portion of customers' costs than anticipated. PG&E estimates that the total cost for both TTM and BTM infrastructure averages \$665,000 per site¹³, which is more than three times the program's allotted funding per site. PG&E has only been able to offer utility BTM ownership to 3 percent of EV Fleet sites and for customer-owned BTM sites, PG&E can typically only rebate about 13 percent of customer costs on average. PG&E reports that many EV Fleet customers, particularly school sites, struggle to execute on their BTM scope of work due to inadequate funding, leading to delays, long energization timelines, and cancellations.

PG&E states that because EV Fleet already only provides minimal levels of BTM support, it cannot absorb continued cost inflation beyond simply rejecting higher-cost projects from the program. PG&E expresses concern that if Energy Division uses the same methodology used to modify Southern California Edison (SCE)'s site target in Resolution E-5257, simply dividing the infrastructure budget by the current average cost per site without accounting for future inflation, EV Fleet will have to reduce BTM incentives to zero by the end of the program to continue enrolling projects within the allocated budget. This would negate the value of the program, as it would be largely indistinguishable from other electrification pathways currently available to customers that do not offer BTM incentives.

PG&E quantifies its current level of BTM support per site at \$53,026 but states that adequate BTM support would be around \$157,000 per site, or 80 percent of the average BTM cost for a small site with between 2-9 vehicles. Providing this level of support would raise overall average spend per site to \$393,295 per site.

If the Commission lowers its site target, PG&E states it will work with its Program Advisory Council (PAC) to establish a new BTM incentive structure that increases support to customers in an equitable manner that targets customers with the greatest needs. PG&E proposes two potential approaches to increase BTM support:

¹³ As of the time of filing September 30, 2023.

1) PG&E may modify its structure to provide more BTM support to all customers regardless of fleet size; or 2) it may offer utility BTM ownership to specific segments such as schools and small businesses.

5.2. Increase Program Administration Spending Cap

With Resolution E-5257 granting an additional two years to EV Fleet for project enrollment, PG&E states that it may need additional administration budget to support the program. PG&E requests to increase the program administration budget cap from 10 percent to 12 percent of the infrastructure budget, or \$17,825,574. This is equivalent to a \$2,970,929 increase in allocated program administration spend. These funds would come from program contingency and would not require an increase to the overall program budget.

6. PAC Coordination

PG&E engaged with Energy Division Staff and its PAC on the proposed changes to *per se* reasonableness metrics. On November 1, 2023, PG&E hosted a PAC meeting with over 60 attendees to discuss its proposed adjustments and solicit feedback. PG&E states that if the Commission approves a lower site goal, PG&E will consult with its PAC to establish a new incentive structure for BTM infrastructure.

NOTICE

Notice of PG&E AL 7121-E was made by publication in the CPUC's Daily Calendar. PG&E states that a copy of the AL was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

AL 7121-E was not protested.

DISCUSSION

This section of the Resolution identifies how the CPUC disposes of the issues associated with PG&E's compliance with D.18-05-040 OP 2 reporting requirements and requested modifications to two *per se* reasonableness metrics pertaining to PG&E's EV Fleet program: 1) a modification of its program site requirements 2) and an increase in its program administration cap from 10 percent to 12 percent of the infrastructure budget.

We approve, with modifications discussed in this section, PG&E' proposed modifications to its program site requirements. We deny PG&E's request to increase its program administration cap.

1. Compliance with OP 2 Data Reporting

We find that in AL 7121-E, PG&E complies with the minimum data reporting requirements established in OP 2.

For the summary of program status to date, we find that PG&E provides sufficient information on the status of its program, including the number of sites and vehicles electrified to satisfy D.18-05-040 direction. PG&E has only completed construction at a low number of sites and therefore was unable to provide a detailed breakdown of how utility-side, customer-side, and other costs vary by sector. As this information is required reporting per the Senate Bill (SB) 350 reporting template¹⁴, we expect that as program implementation progresses more information will become available.

PG&E presents sufficient information on cost drivers to comply with D.18-05-040 OP 2. PG&E has explained its process for controlling costs but has not quantified a per site or per vehicle cost cap as these are continually evolving during the course of the program. We direct the Senate Bill (SB) 350 evaluator to document PG&E's cost cap practices and provide an assessment of the reasonableness of the caps in relation to targets and program budget in its annual evaluation report.

2. Request to Reduce Site Targets

PG&E requests the reduction of its requirement to install a minimum of 700 sites and requests a modified target ranging between 375 and 440 sites.

We find PG&E's request to reduce its site requirement complies with D.18-05-040 OP 2 requirements to provide program implementation data to inform modifications. As such, we find that PG&E's program implementation data from AL 7121-E should inform the calculation for new site requirements. These data show that PG&E's anticipated per site costs, ranging between \$336,673 and \$393,295, far exceed the

¹⁴ The SB 350 Standard Review Program template is found at the CPUC's SB 350 TE Programs page: [Transportation Electrification Activities Pursuant to Senate Bill 350](#).

average per site cost of \$212,209 forecast in the D.18-05-040 budget,¹⁵ meaning that adjusting these site targets is reasonable.

OP 31 establishes a minimum 6,500 vehicle and 700 site requirement for EV Fleet. The budget in D.18-05-040 Appendix C establishes a \$148,546,450 infrastructure budget for PG&E's EV Fleet. Given the OP 31 site requirement of 700 sites, this allows for an average cost per site of \$212,209. We use the same approach as the Decision budget of dividing infrastructure budget by average site cost to assess whether PG&E's proposed range of 375 to 440 sites is reasonable.

However, we find it reasonable to take inflation and the need to increase BTM support for EV Fleet customers into account when establishing the average site cost. We find it reasonable to use the high end of the average per site cost range provided by PG&E for three reasons: 1) it reflects the higher per site costs that PG&E has seen throughout four years of program implementation; 2) it provides flexibility to account for additional inflation that may occur in the final years of the program; and 3) it allows for the program to be able to provide additional BTM support to customers.

Therefore, we use PG&E's expected average cost per site figure of \$393,295 across all sectors for sites committed to the program. If we divide the infrastructure budget of \$148,546,450 by this average site cost of \$393,295, we find that PG&E could reasonably be expected to construct 377 sites through the program. To allow for flexibility given the cost drivers that PG&E describes in AL 7121-E, we find a new minimum of 375 sites to be reasonable. This adjusted site minimum falls within the range requested by PG&E in AL 7121-E.

3. Request to Modify Program Administration Budget

PG&E requests to modify a second *per se* reasonableness metric, the 10 percent cap on program administration spending, which it requests to increase to a 12 percent cap.

We find that PG&E has provided insufficient evidence to show that this increase is warranted. PG&E states that they "may" need additional funding given that the program is extended two years but do not demonstrate that they are likely to exceed the 10 percent threshold currently allocated for this budget category. Additionally, the

¹⁵ This budget can be found in D.18-05-040 Appendix C: Detailed Budget Calculations for PG&E Fleet Ready Medium-and Heavy-Duty Charging Infrastructure Program.

10 percent cap authorized in D.18-05-040 is more generous than amounts approved in recent decisions such as D.22-11-040 which authorized a six percent of program infrastructure budget cap for the Funding Cycle 1 program. Therefore, PG&E's request to increase the program administration budget is not reasonable and should be denied.

4. Safety Considerations

This Resolution approves, with modifications, PG&E's proposal to modify a *per se* reasonableness site metric originally established via D.18-05-040. This Resolution authorizes a lower site target for PG&E's program. PG&E must continue to comply with existing utility policy on safety requirements standards, as well as the TE Safety Requirements checklist adopted in 2018 via D.18-05-040. Thus, there are no incremental safety considerations associated with this Resolution.

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. Please note that comments are due 20 days from the mailing date of this Resolution. 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 will be mailed to parties for comments, and will be placed on the CPUC's agenda no earlier than 30 days from today.

FINDINGS

1. D.18-05-040 OP 2 allows PG&E, after consultation with its PAC, to file a Tier 3 AL after two years of program implementation with a request to adjust program budgets or *per se* reasonableness requirements by providing the following information: (1) a summary of program status to date; (2) a breakdown of utility-side, customer-side, and other costs by sector; (3) a description of the major cost drivers for utility-side and customer-side infrastructure; and (4) an explanation of any site cost caps the utility used to determine customer eligibility for the program or other metrics the utility used to control program costs.
2. The per site costs in D.18-05-040 were intended to cover up to 80 percent of BTM costs.
3. D.18-05-040 OP 31 requires PG&E to allocate its \$148,546,450 infrastructure budget for EV Fleet to support a minimum of 700 sites and electrify 6,500 vehicles.

4. The OP 31 site and vehicle target implies an average site cost of \$212,209.
5. As of September 30, 2023, PG&E's EV fleet program has signed contracts with 223 sites, which will electrify 4,612 vehicles.
6. As of September 30, 2023, PG&E's EV Fleet program has an average site cost of \$315,736, averaging across all sectors served by the program.
7. PG&E's EV Fleet program experienced 5 percent annual inflation on average between 2020 and 2023.
8. Site complexity and size has increased over time, but is a less significant cost driver than inflation.
9. PG&E's EV Fleet program has utility ownership for 3 percent of program sites, and is only able to provide on average a 13 percent BTM rebate for the remaining customer-owned sites.
10. It is reasonable to expect that PG&E's current average site cost of \$315,736 is unlikely to be representative of future costs due to inflation.
11. It is reasonable to expect PG&E's average site cost to be \$336,673 by the end of the program in 2026 given historical patterns of inflation seen in the program.
12. It is reasonable for PG&E to request to increase BTM support for customers, as low levels of BTM support have been cited by customers as a reason for withdrawing from the program and the program was intended to cover up to 80 percent of customer BTM costs.
13. School sites have been particularly affected by low BTM levels.
14. It is reasonable for PG&E to work with its PAC to establish a new incentive structure to meet customer needs.
15. Assuming an average estimated site cost of \$393,295, which accounts for future inflation and would allow PG&E to provide increased BTM support, it is reasonable to require PG&E's EV Fleet program to serve a minimum of 375 sites.
16. It is not reasonable to increase PG&E's administration budget given the needs demonstrated in AL 7121-E.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's request in Advice Letter 7121-E is approved, with modifications.
2. Pacific Gas and Electric Company's request to reduce its program site requirements is approved with modifications.

3. Pacific Gas and Electric Company is directed to document its cost cap practices for sites constructed through the EV Fleet program as part of the evaluation directed in D.18-05-040.
4. Per authority granted in D.18-05-040 Ordering Paragraph 2, Ordering Paragraph 31 is modified as follows: Pacific Gas and Electric Company's investments in make-ready infrastructure to serve the medium- and heavy-duty transportation sector through the Electric Vehicle Fleet program will be considered *per se* reasonable provided a minimum of 375 sites are fully contracted for by December 31, 2026 and 6,500 additional vehicles are electrified that are directly attributable to the authorized program, achieved by site hosts procuring at least two electric vehicles or converting at least two diesel-fueled vehicles to electric.
5. Pacific Gas and Electric Company request to increase its program administration cost cap from ten percent to twelve percent of the infrastructure budget for the Electric Vehicle Fleet program is denied.

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 October 17, 2024, the following Commissioners voting favorably thereon:

Rachel Peterson
Executive Director