# **Program Advisory Council Meeting** Q1 2025

**April 22, 2025** 





# Agenda

Introduction   Agenda   Safety	1 minute
Meeting Timeline   Market Update	3 minutes
EV Good News!	6 minutes
EV Fleet	8 minutes
EV Fast Charge	4 minutes
EV Charge Schools	4 minutes
EV Charge Parks	4 minutes
EV Fleet Advisory Services (FAS)	15 minutes
Flex Connect	20 minutes
VGI Pilots	10 minutes
ACT Expo	1 minute
Conclusion	1 minute

Public



### **Safety**

# Office Spring Cleaning Tips



#### Storage Is Good

Cabinets, drawers, boxes & shelves are all stylish storage solutions, so de-clutter what you already have and don't hesitate to get more.



#### Clear Desk = Clear Mind

A clear desk means a clear mind. Only have things that you absolutely need in arms reach



#### Clutter Is Unproductive

Clutter is a proven cause of unproductivity in the office. What can you throw away or better yet, recycle? You can't work efficiently without getting rid of the junk!



#### Organise Your Inbox, Digital Clutter Exists

Now is also be a good time to organise, clean and update your computer systems.



#### **Plants Reduce Stress**

Plants reduce stress, increase productivity and freshen up the environment, what are you waiting for?



#### Fresh Decor

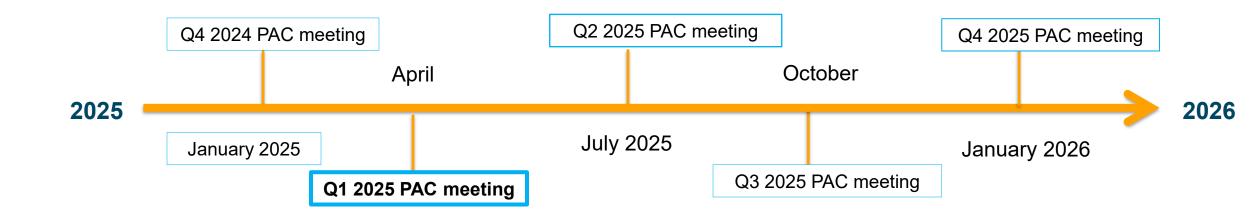
Not an essential step, but a great way to give all your Spring Cleaning efforts that finishing touch. It can really make a difference!



### Clean Energy Transportation Program Advisory Council Meetings

### **Overview**

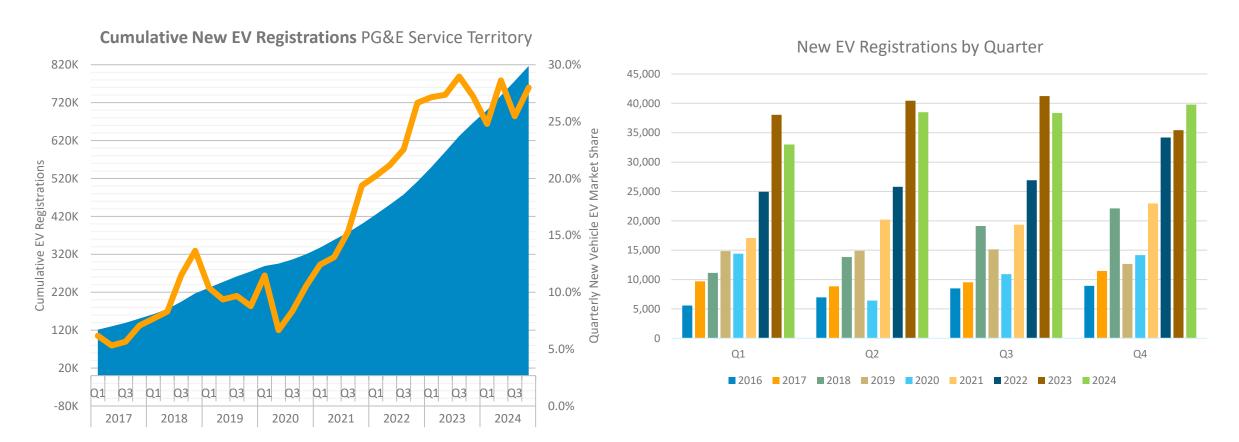
- PG&E has expanded our efforts on transportation electrification (TE) with several filings, pilots and programs in progress
- CPUC has directed PG&E to consult a Program Advisory Council (PAC) in the development of key TE pilots and programs to gain feedback from industry stakeholders
- This platform will serve to gather insight and feedback on PG&E's proposals and ongoing programs





# **EV Market Update**







### **EV Good News!**

### MSN:

### U.S. electric vehicle sales rise despite market challenges.

"In the <u>first quarter of 2025</u>, nearly <u>300,000 new EVs were sold in the U.S.</u>, reflecting an <u>11.4%</u> <u>increase</u> compared to the same period last year, according to a report from Kelley Blue Book. This growth indicates that despite various challenges, the EV market continues to expand, with <u>EVs representing approximately 7.5% of total new vehicle sales</u>, up from 7% a year prior."



W EV Pulse on MSN · 22h

U.S. electric vehicle sales rise despite market challenges

In the first quarter of 2025, nearly 300,000 new electric vehicles (EVs) were sold in ...

# **SB 350 Standard Review Projects**



# **EV Fleet Updates**





# **EV Fleet Program Update**

### Status as of 3/31/2025

	Sites	MDHD EVs Committed
Applications	675	-
Viable Contracts <sup>1</sup>	3372	6,629
Construction Complete	129	2,457
Activated	112	2,285

<sup>&</sup>lt;sup>1</sup>Viable contracts are all contracts signed to date excluding cancelled and withdrawn

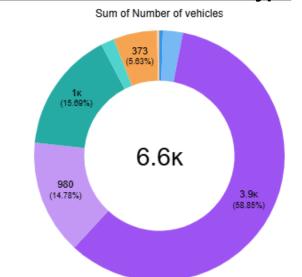
### **Program Budget Overview**

Spend-to-Date	Remaining Funds
\$73.3M	\$163.0M

### **Lessons Learned/Best Practices**

- Impact of ACF withdrawal 8 contracts and 4 applications across 7 unique customers have cancelled, directly citing ACF as a contributing factor
- Despite cancellations, program has strong momentum with 29 new applications, and surpassed Q1 contracts goal by 107%
- Strong momentum with city governments 41% of contracts signed in Q1 are with municipalities

### **Viable Contracts: Vehicle Type**





### **Program Highlights**

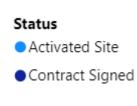
- Program has exceeded its vehicle target (6,500 vehicles), on track to meet updated site goal of 375 sites
- 153 of the 337 signed contracts (45%) are in DACs
- Signed 27 contracts in Q1, supporting 331 vehicles
- Program is seeing a diverse mix of vehicle types; medium duty vehicles are dominant due to various applications, availability, operational compatibility; school buses, heavy duty vehicles, and transit buses are also successfully enrolling in the program

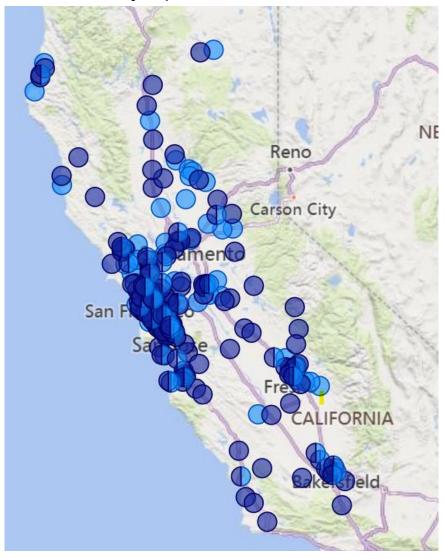
<sup>&</sup>lt;sup>2</sup> Does not reflect approximately 20 contracts that have expressed intent to cancel their project



### **Fleet Construction and Activation**

Activated sites and sites in construction by zip code





# **EV Fast Charge**





# **EV Fast Charge Program Update**

#### Status as of 3/31/2025

	Sites	Ports
Applications	272	1,225
Contracted Sites	39	204
Constructed	32	168
Activated	29	152

Contracted site counts exclude cancelled projects

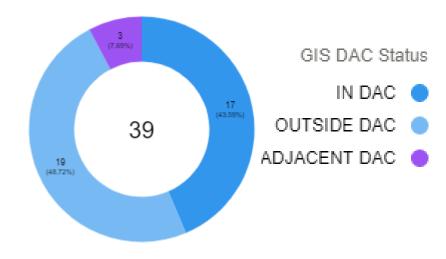
### **Program Budget Overview**

Spend-to-Date	Remaining Funds
\$19.5M	\$2.9M

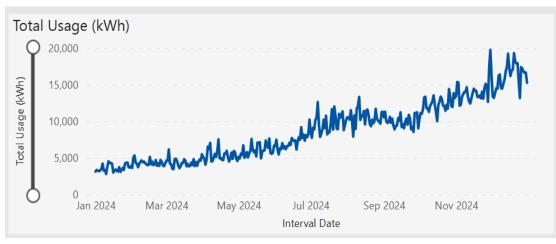
### **Lessons Learned:**

- Fast Charge Program participants are impacted by typical DCFC O&M challenges (e.g., hardware and software failures, vandalism, etc.)
- This represents is a gap in what Fast Charge program offers to customers.

### **DAC Targets: Signed Contracts**



### **Portfolio-wide Utilization Trends**



Source: SRP Evaluation Dashboard

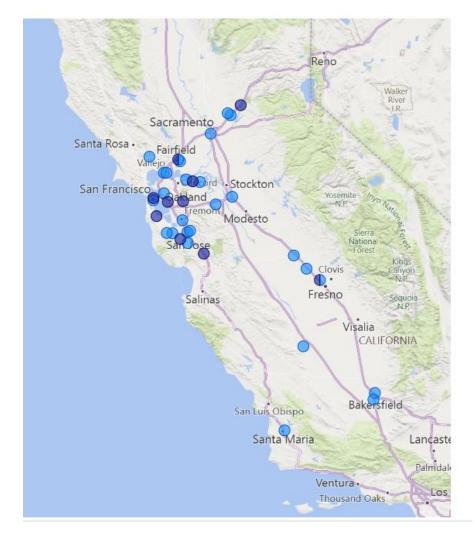


# **Fast Charge Sites Contracted and Activated**

Activated sites and sites contracted by zip code

#### Status

- Activated Site
- Contract Signed



# AB1082 & AB1083 Standard Review Projects



# **EV Charge Schools & Parks Update**





### **EV Charge Schools Program Update**



### Status as of 3/31/2025

	Sites	Ports
Applications	78	468
Contracted Sites	15	90
Constructed	12	72
Activated	12	72

### **Program Updates**

- No longer recruiting new sites
- Final site anticipated complete in Q4 2025
- EV Curriculum available online to every K-12 school in PG&E territory

https://www.energizeschools.org/evcurriculumportal.html

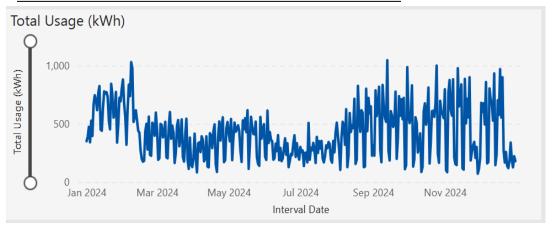
### **Program Budget Overview**

Spend-to-Date	Remaining Funds
\$4.75M	\$1.01M

### **Lessons Learned/Best Practices**

- Across all activated school sites, there was a generally steady amount of charger usage during 2024.
- Uptick in September likely due to school year start and additional site activation.

### Portfolio wide utilization



Source: SRP Evaluation Dashboard



# **EV Charge Schools Contract + Site Update**

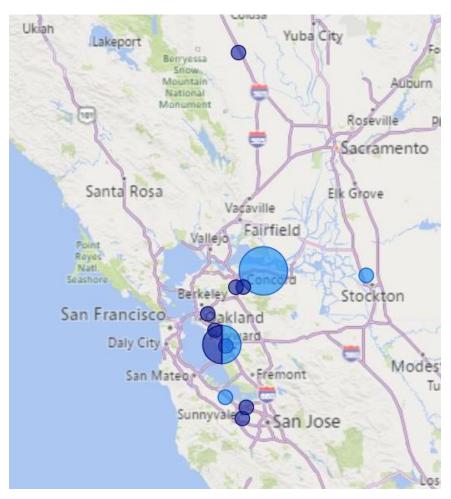


#### **DAC Status**

IN DAC

OUTSIDE DAC

### Sites with signed contracts\*



	In DAC	Outside DAC	Total
Contracts	6	9	15
Ports	36	54	90
DAC Percentage	40%	60%	100%



# **EV Charge Parks Program Update**

### Status as of 3/31/2025

	Sites	Ports
Applications	131	0
Contracted Sites	1	8
Constructed	0	0
Activated	0	0

### **Program Budget Overview**

Spend-to-Date	Remaining Funds
\$747K	\$4.7M

### **Lessons Learned / Best Practices**

- Proposed portfolio achieves 400% more DCFC chargers than originally anticipated. (12 actual vs 3 initially)
- When evaluating sites on a per kW basis for the Park's program, sites with DCFC were more cost effective in every case.

### **Program Update**

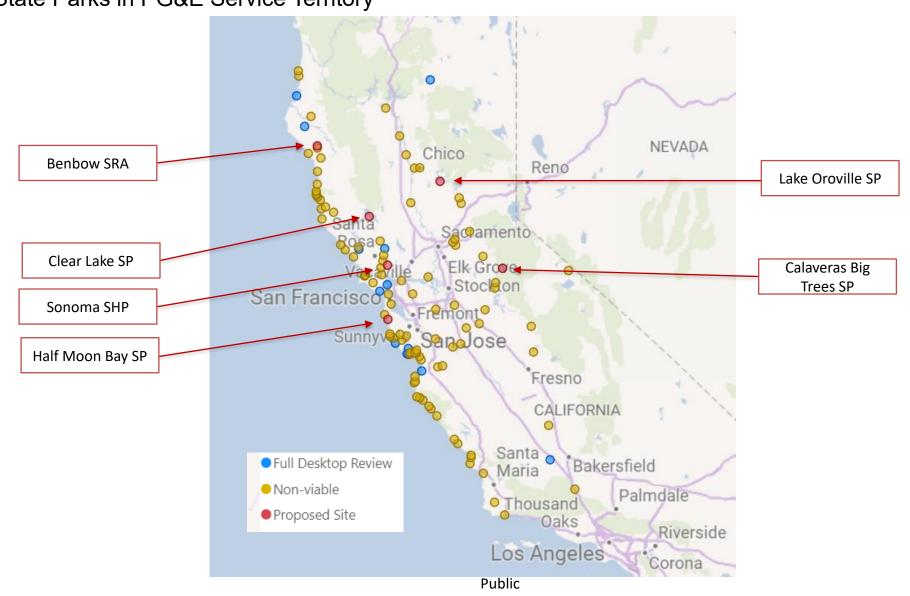
- All 130 parks in PG&E's service territory have been assessed and narrowed down to a proposed portfolio of 6 sites.
- Signed addenda for 3 of the 6 sites.
- Unable to move forward with contracts for additional 3 sites until disposition received for Tier 2 DAC AL filed on 2/21/25.
- PG&E in process of selecting hardware and software for Parks portfolio.





# **EV Charge Parks Sites Evaluated**

### State Parks in PG&E Service Territory



# **Additional Program Updates**



# **EV Fleet Advisory Services (FAS)**





# **EV Fleet Program Update**

### Status as of 3/31/2025

	Total
Applications Received	236
Unique Customers	22

### **Program Budget Overview**

Spend-to-Date	Remaining Funds		
\$0.98M	\$17.79M		

### **Program Updates**

- Beta launch ran from November 27 to March 31, provided services to roughly 10 customers
  - o Invite-only phase to test processes and gain experience while preparing for full launch
  - o Many customers expressed need for portfolio capacity checks, had concerns on resiliency
  - Surprised to find that most applicants have multiple sites generally municipalities engaged in master planning
- Full program officially launched on March 31, customers are able to receive suite of 13 services depending on where they are in their fleet planning
- Multi-pronged approach to begin marketing the program multiple email blasts, upcoming webinar, attending in-person events, utilizing PG&E's BES organization
- Working on contracts with 3 CBOs to do marketing and outreach, expected kickoff in April



# Challenges electrifying fleets

Many medium- and heavy-duty fleets struggle with going electric, but PG&E's **EV Fleet Advisory Services** are designed to help you navigate these challenges:



Lack of in-house knowledge on electric vehicles, charging, or using electricity as a fuel

We offer one-on-one consulting with an EV Fleet Advisor throughout your electrification journey



Complex internal decision-making on projects that impact business

We provide you with education and support so that you can feel confident in the choices that you are making for your EV project



Confusion around utility processes and concerns about capacity or reliability

We cut through the confusion by acting as your utility liaison on all matters related to your EVs and the grid



Worry about the costs to operate an electric fleet

We help you estimate the total cost of ownership of EVs, identify external funding, and optimize your operations so that you don't overpay for electricity



### **Available Services**

Interested customers can apply here: <a href="https://www.pge.com/evfleetadvisorsapplication">www.pge.com/evfleetadvisorsapplication</a>

You can choose the services that make sense for you:

# Just getting started

- Fleet Electrification 101
- Fleet Planning Study
- Basic Capacity Check\*

### Making a plan

- Portfolio Capacity Analysis\*
- EVSE Guidance
- VGI Overview
- Load Management & Rates Guidance
- Resiliency Guidance
- Site Review\*
- Moving Forward with Infrastructure\*
- Capacity Pre-Assessment\*

# Project is underway

 Service application tracking and liaison support\*

# Site is operational

 Rate Optimization and Load Management Analysis

<sup>\*</sup>These services are available to customers with basic eligibility, all other services are available only to customers with full eligibility



# **Eligibility Requirements**

Interested customers can apply here: <a href="https://www.pge.com/evfleetadvisorsapplication">www.pge.com/evfleetadvisorsapplication</a>

### **Basic Eligibility**

Includes site review, capacity check, service application, and non-wires alternatives support



Must be a PG&E non-residential electric customer



Operate at least one medium or heavyduty vehicle (class 2-8)



Agree to program Terms and Conditions

### **Full Eligibility**

Includes all services

(in addition to basic eligibility criteria)

Are located in an underserved community\*



Belong to one of these sectors:



**Schools** 



**Transit Agencies** 



Municipalities



Small Businesses (<500 employees)



# Gaps in support for Non-Res EV customers

Non-res customer segment	Available infrastructure programs	Available advisory programs
Priority MDHD fleet operators	EV Fleet (almost fully subscribed) Rule 29	EV Fleet Advisory Services; full eligibility (only through 2026)
Non-priority MDHD fleet operators	EV Fleet (almost fully subscribed) Rule 29	EV Fleet Advisory Services; basic eligibility (only through 2026)
MDHD public charging	Rule 29	None
Light duty fleet operators	Rule 29	None
Light duty public charging	Rule 29	None
Workplace charging	Rule 29	None
Multifamily housing charging	Rule 29	None

Significant opportunity to support these customers with the Transportation Electrification Framework Technical Assistance Program pending approval from the CPUC

# **Flex Connect**





### **PG&E's Flexible Service Connection Concept**

Flexible Service Connection is a bridge solution that aims to allow customers with controllable loads to connect to the system without waiting for a service upgrade



#### **Customer Value**

**Quicker connections** 

**Avoid Long Wait Times** 

More Available Energy

Improved Utility Partnership



#### **Distribution Value**

Improved customer experience

**Unlock Available Capacity** 

Higher Grid Utilization

Operational Flexibility



### **Energy System Value**

Support industry goals

**Timely Energization** 

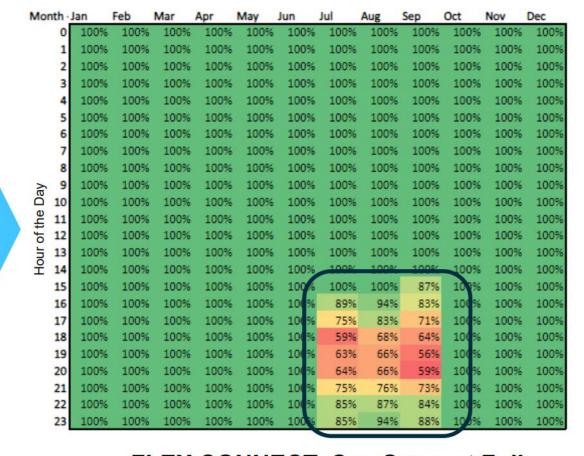
Cost Effectiveness

Manage Grid Constraints



### **Real World Example of Potential Benefits**

Month -	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
1	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
2	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
3	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
4	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
5	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
6	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
7	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
8	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
9 10	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
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Hour of the	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
o 12	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
j 13	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
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15	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
16	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
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21	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
22	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%
23	71%	71%	71%	20%	20%	20%	20%	20%	20%	20%	71%	71%



STATUS QUO: Planning Limits for 3.8MW EV Charging Station

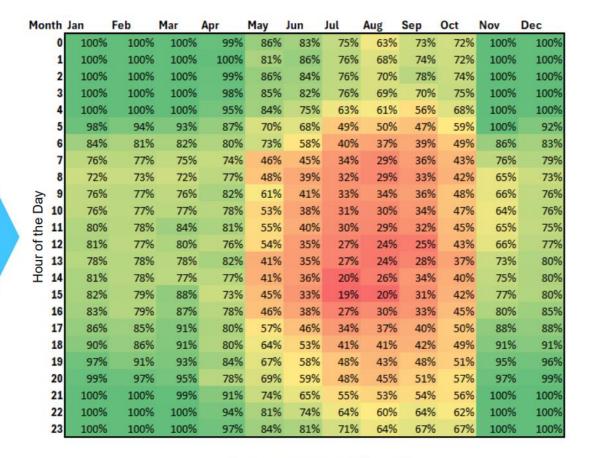
FLEX CONNECT: Can Support Full Request ~90% of the time on Average

**Key Takeaway** – If a customer can reduce consumption for 3 months during 3-11PM we can serve their full load request



### **Real World Example of Potential Benefits**

Mor	nth -	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	0	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	1	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	2	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	5	0%	0%	0%	0%	0%	0%	0%	0%	096	0%	0%	0%
	6	0%	0%	0%	0%	096	0%	0%	0%	0%	0%	0%	0%
	7	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	8	096	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3×	9	0%	0%	0%	0%	096	0%	0%	0%	0%	096	0%	0%
Day	10	096	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Hour of the	11	0%	0%	0%	0%	096	0%	0%	0%	0%	0%	0%	0%
of	12	096	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ī	13	0%	0%	0%	0%	096	0%	0%	0%	0%	0%	0%	0%
ĭ	14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	15	096	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	16	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
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	19	0%	0%	0%	0%	096	0%	0%	0%	096	0%	0%	0%
	20	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	21	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	22	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	23	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%



STATUS QUO: Planning Limits for 5MW EV Charging Station

**FLEX CONNECT** 

**Key Takeaway** – Some sites can still have access to partial power despite being limited to 0MW during the daytime hours



### **Customer Site Considerations**

### **Ideal Site**



- Existing Site, or in service in 2025-2026
- Long lead time for available grid capacity (18months+)
- Flexible loads (gen) or local generation available

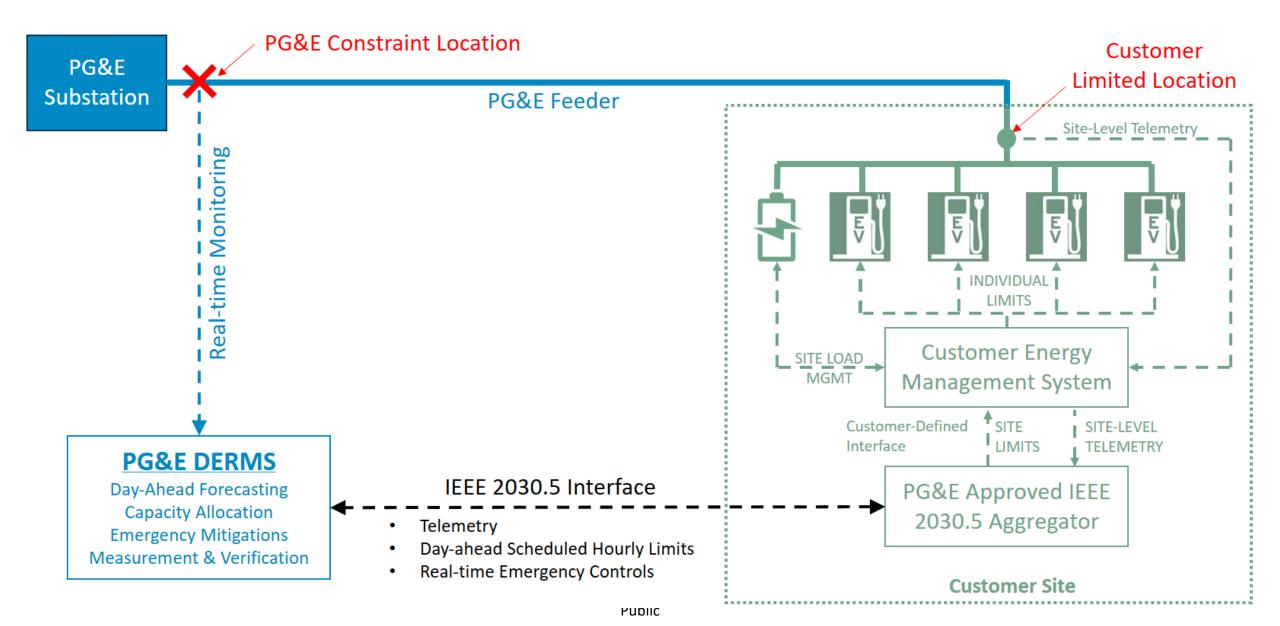
# Program Limitations



Not all capacity-constrained sites will be suitable due to local grid configuration and loading profile



### Flexible Service Connection – Illustrative Site Configuration





### Results So Far

### **PG&E Flex Connect Pilot Benefits Report**

January 2025

#### Site Details

Flex Connect Start Date: Site Name: 11/13/2024

Requested Capacity: 4.5 MW Charging Address:

0 MW Limit 03:00-21:00 daily **Existing Constraint:** Asset Type: 3 MW Limit 21:00-03:00 daily

### **Flex Connect Participation Highlights**

This Month

**Since Inception** 

+137 MWh

+235 MWh



68.7k miles (est)\*

117.7k miles (est)



2.6 MW

**Average Limit Increase** 

90%

Time with Added Capacity

2.2 MW

**Average Limit Increase** 

**Time with Added Capacity** 

### **PG&E Flex Connect Pilot Benefits Report**

January 2025

Site Name:

Asset Type: Wholesale Market Participating Battery

Address:

#### Site Details

Flex Connect Start Date: 10/31/2024

Requested Capacity: 6MW Charging

**Existing Constraint:** 2MW Charging Limit 24/7/365

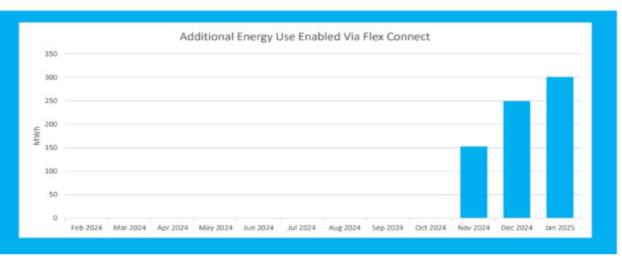
#### Flex Connect Participation Highlights

301 MWh

**Additional Energy Use Enabled This Month** 

703 MWh

**Enabled Since Inception** 





### **Scaling The Program**

- 15+ FlexConnect sites coming online in 2025
- Early adopter customer types:
  - Public EV Charging
  - EV Fleet
  - Market-Participating Batteries
  - Misc. Commercial & Industrial
- Integration costs reduce based on:
  - Sites that allow for local control of load/gen limits
  - Multi-site deployments

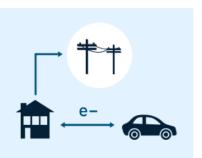
# **VGI Pilots**





# Vehicle to Everything (V2X) Pilot Programs

Pilot #1: Residential



**Enrollment:** We have 2 customers enrolled.

### **Eligible Equipment:**

- Ford 80 Amp Charge Station Pro and Sunrun Home Integration System paired with the Ford F-150 Lightning
- NEW!! GM Energy PowerShift e1.19 and V2H Enablement Kit paired with the Chevrolet Silverado EV, Equinox, or Blazer, GMC Sierra Denali, or Cadillac LYRIQ

Pilot #2: Commercial

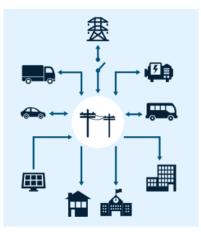


**Enrollment:** One customer with 74 chargers enrolled and able to export.

**Eligible Equipment:** 

- Tellus Power bidirectional chargers paired with BYD-RIDE School Buses
- Micro Bird and Blue Bird school buses paired with the Borg Warner RES-DCVC60-480 charger

Pilot #3: Microgrids



### **Phase 1 - Testing Cohort / Redwood Coast Airport Microgrid:**

- · Parking lot construction completed
- · Chargers installed and energized
- New completion date estimated Q3 2025

#### Phase 2 – Incentive Cohort

Open enrollment began Q4 2024

# **ACT Expo**





### 2025 Advanced Clean Transportation (ACT) Expo

- North America's largest advanced vehicle technology event
- Over 12,000 fleets, transportation industry executives, and sustainability leaders attend
- Focuses on solutions that can help fleets improve efficiency, reduce costs, and stay ahead in a rapidly changing market.
- Speaking on two panels
  - Fleets + Utilities: Partnerships for Success with Tesla and PepsiCo
  - Penske's EV Fleet project in Stockton with Hitachi and Penske

**April 28 – May 1, 2025 Anaheim Convention Center** 

**2025 Keynote Speaker** 





Best of all, our own Patti Poppe will be one of the keynote speakers!

# Conclusion



