

# PG&E's Clean Energy Transportation Portfolio

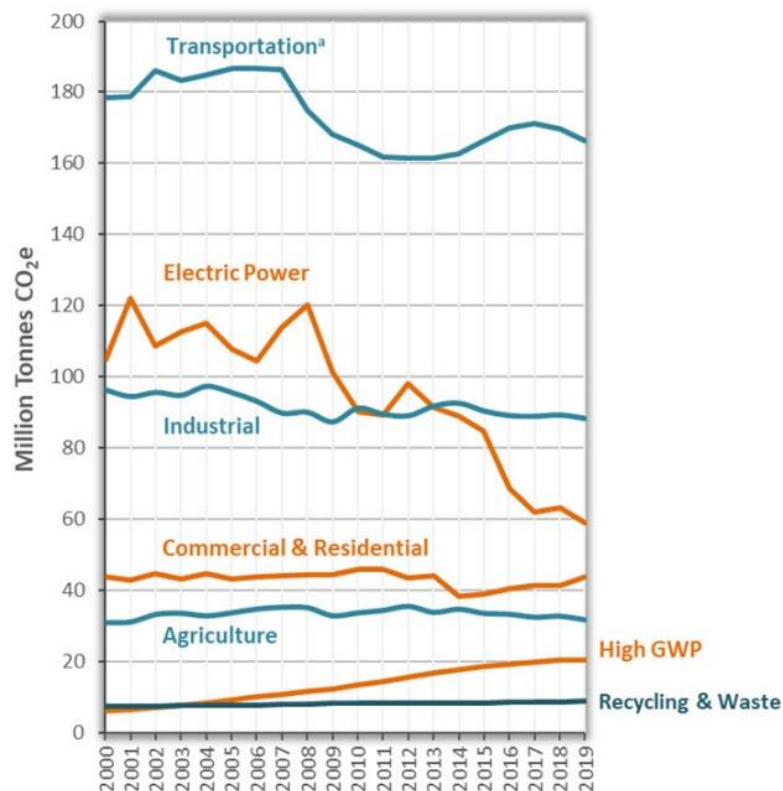
November 2021



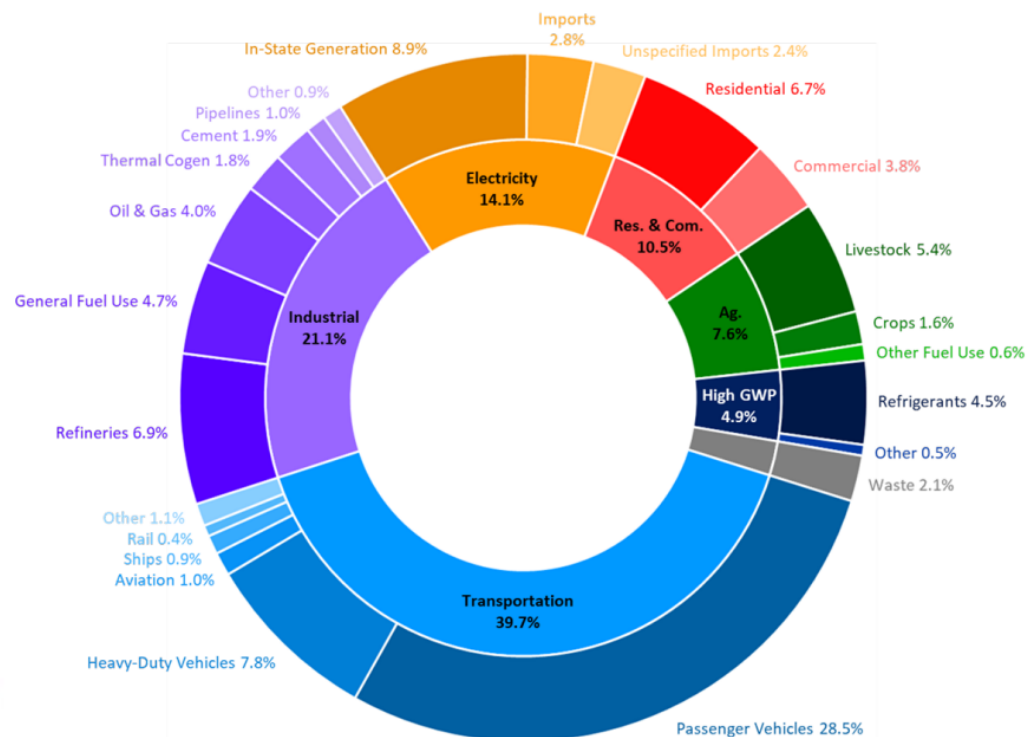
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# Importance of Transportation Electrification

California GHG Emissions Trend<sup>1</sup>



2019 California GHG Emissions<sup>1</sup>



## State Goals<sup>2</sup>:

100% ZEV sales of  
passenger vehicles by



2035

100% ZEV operations for  
drayage and off-road by



2035

100% ZEV operations for  
MHD vehicles by



2045



# EVs in PG&E Service Territory

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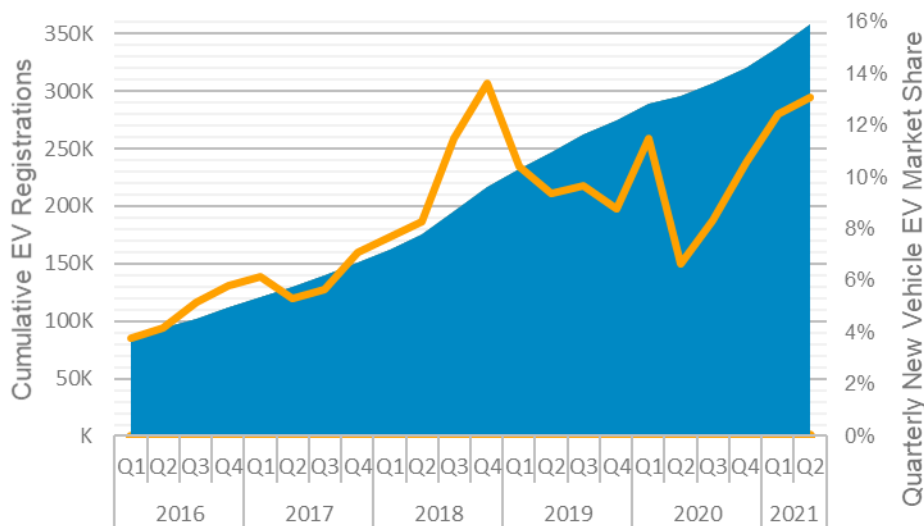
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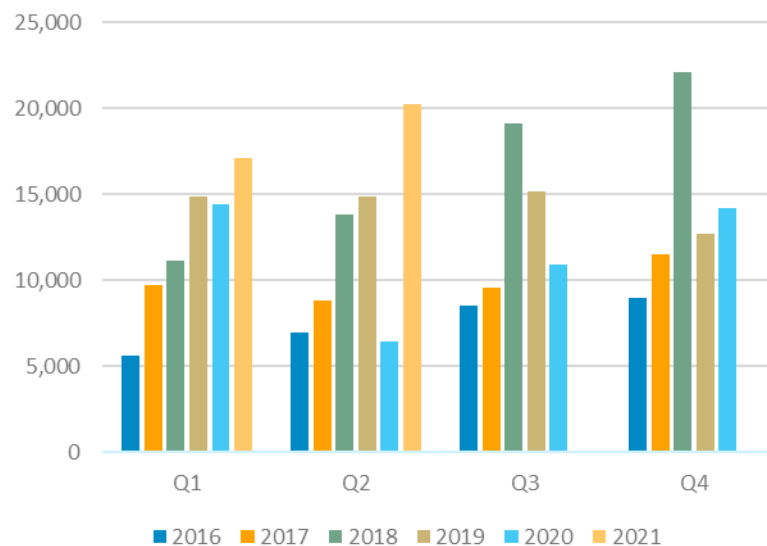
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EVs registered in PG&E service territory, through July of 2021

**Cumulative New EV Registrations**  
PG&E Service Territory



**New EV Registrations by Quarter**



EVs in Yolo County: **3,584**

EVs in Sacramento County: **20,824**

# Opportunity to Support EV Adoption and Affordability

- PG&E is committed to accelerating EV adoption and maintaining affordability of customer rates through the increased electric load from EVs.

## Mechanics of EV Load Growth & Affordability



PG&E invests in infrastructure to enable EV charging...

...and electric load grows as demand from electric vehicles increases

As electric load increases more than the investment, customer rates could go down

## PG&E Encourages EV Adoption and Load Growth

- Use trusted energy advisor role to **inform and educate customers** of benefits of EVs
- Reduce TCO** through affordable charging rates and non-ratepayer funded rebates
- Improve business operations and electric system readiness** to deliver best-in-class utility service
- Offer targeted customer programs** provide subsidized infrastructure installation and hands-on assistance

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## Start your research

- Use the [EV Checklist](#) for resources to learn more about EVs
- Visit PG&E's Electric Vehicle [webpage](#) to learn about the different EV models and types currently available

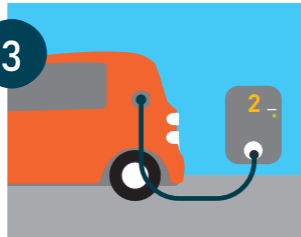
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## Understand the costs and the available incentives

- Use the [EV Savings Calculator](#) to estimate costs, savings, and incentives
- Check out [Access Clean California](#) to find state-funded programs and benefits

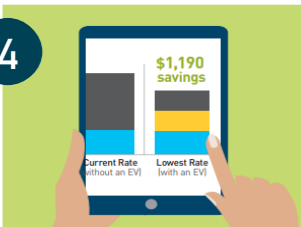
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## Learn about your charging options

- Learn about charging options that will suit your needs and the steps to install a charger in your home at [pge.com/evcharging](http://pge.com/evcharging).
- Use PlugShare's interactive map to plan your trip and find options for charging on the go at [plugshare.com](http://plugshare.com)

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## Decide on your rate plan

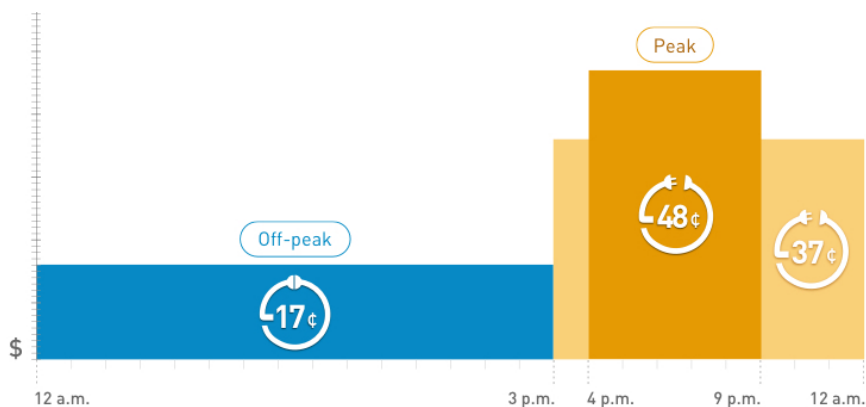
- PG&E offers special rates for EV owners in addition to standard residential rates. Find a rate that best fits your needs at [ev.pge.com](http://ev.pge.com)

# Residential and Commercial EV Rates

## EV2-A Home Charging

Whole home time-of-use rate offering customer \$1.60 per gallon equivalent when charging off-peak

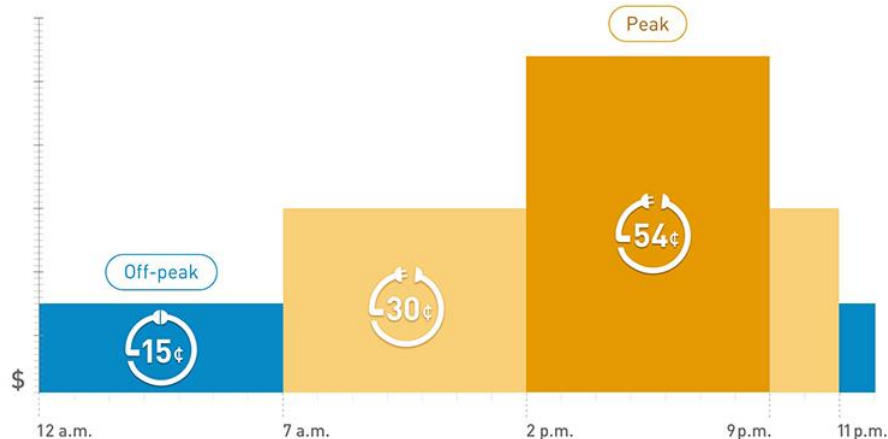
**LOWEST COST** Ideal charging times: 12 a.m. - 3 p.m.  
**HIGHER COST** Avoid or limit charging 3 p.m. - 12 a.m.



## EV-B Home Charging

Separate meter for their home and EV charging. Time-of-use rate equivalent to \$1.27 per gallon when charging off-peak

**LOWEST COST** Ideal charging times: 11 p.m. - 7 a.m.  
**HIGHER COST** Avoid or limit charging 7 a.m. - 11 p.m.



## Business EV rate (BEV)

The BEV eliminates demand charges and instead uses a monthly subscription pricing model to enable:

- More affordable charging
  - TOU pricing encourages charging at low-cost time for the grid
- Simpler pricing structures
- Improved certainty and budgeting

### High Use EV Rate:

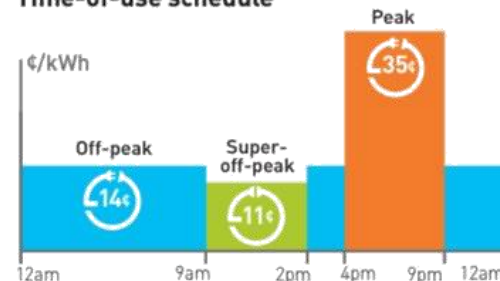
**\$95.56** / 50 kW block over 100kW\*

### Low Use EV Rate:

**\$12.41** / 10 kW block up to 100kW

### Energy Charge:

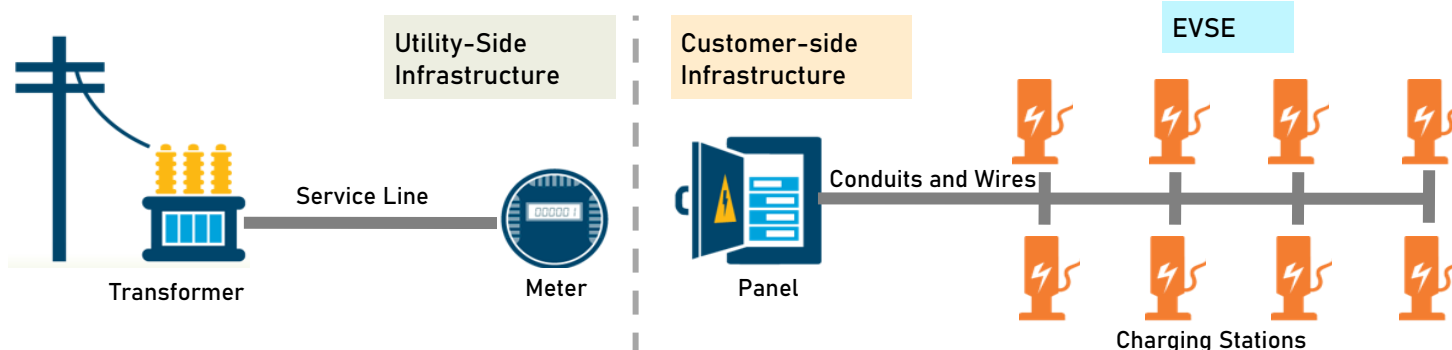
#### Time-of-use schedule\*



\* For Business High Use EV Rate Primary voltage, price of each 50 kW block is \$85.98

# Transportation Electrification Infrastructure Efforts

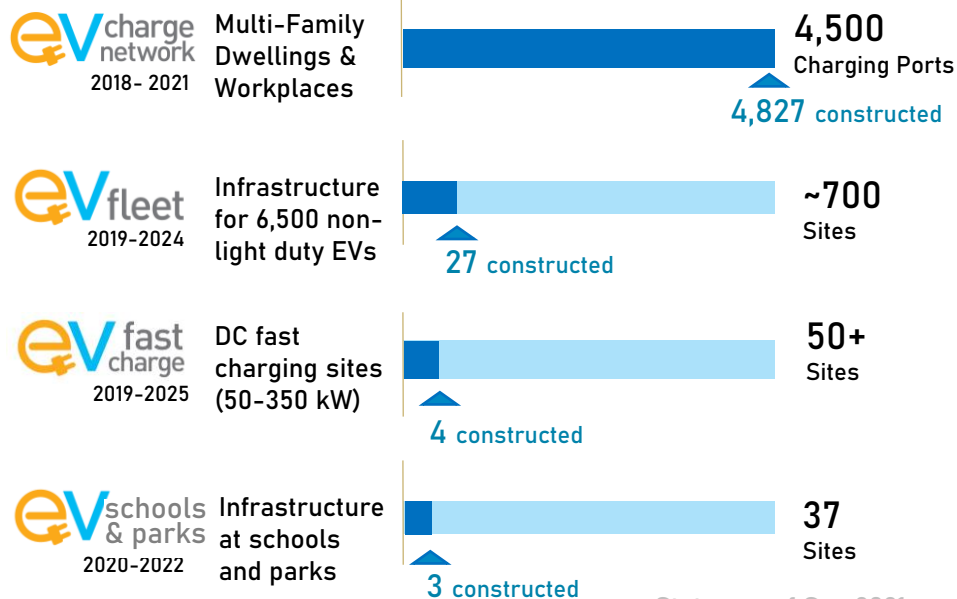
- PG&E supports EV charging infrastructure deployment through grid readiness and interconnections and specific customer EV programs.



## PG&E's utility-side of EV infrastructure efforts:

- Implementing **Electric Rule 29** which will cover additional service extension costs for commercial customers installing EV infrastructure.
- Assessing **cost-effective** ways to make **proactive investments** to ready grid for high EV adoption
- Improving **business operations** and **interconnection times** to deliver best-in-class utility service.

## PG&E's current customer EV programs:



# Upcoming EV Programs



## EMPOWER EV

\$4.13M from 2021-2023

- Equity program to support EV adoption among low-and-moderate income (LMI) customers with a home charger and panel upgrade rebate.
- Program will also test effective outreach strategies to LMI customers.
- Expected launch in Q4 2021.

LMI Customers (<400% FPL) to receive:

**\$500**

For a L1 or L2 charger

**\$2,000**

For a panel upgrade

**2,000**

Target number of customers served

Community-based organizations to perform outreach



Third-party implementer to coordinate outreach and installation



Customer

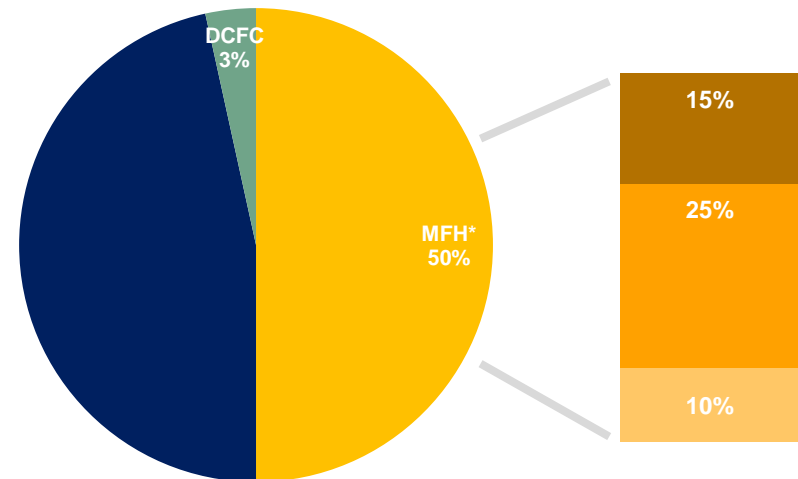


## EV Charge 2 (Proposed Oct 2021)

\$276M from 2023-2028

- PG&E has proposed a **five-year, \$276M program extension** to support installation of approximately **16,000 charging ports**
- Emphasis is on multi-location support of multi-family housing (MFH) residents
- Program design is built on lessons learned from EVCN, including significant unmet need

## Proposed Customer Segments, by Number of Ports



\*Includes public destination L2 and DCFC (50+ kW) sited near MFHs.





# PG&E EV Programs in Action!

## EV Fast Charge

PG&E installed 4 DC Fast Chargers open to the public at 7-11 in West Sacramento in Feb 2021.

The chargers are ChargePoint's Fast Charge model capable of 125 kW.



## San Joaquin Regional Transit District (RTD) Pilot (2018-2020)

PG&E partnered with RTD to demonstrate the lower TCO for MHD electric fleets.

Five 60 kW depot chargers were installed, and demand management was implemented for the existing overhead chargers to support RTD's 17 electric buses.





# PG&E EV Programs in Action!

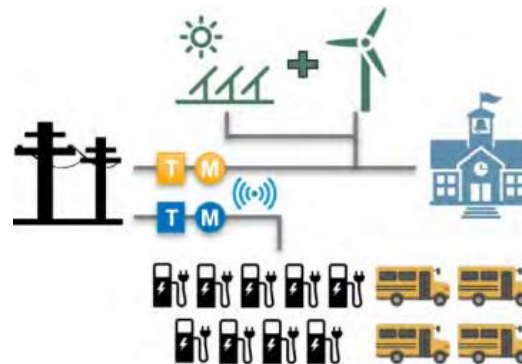
## Albertson's Idling Reduction Technology Pilot (2020)

PG&E partnered with Albertson's to demonstrate idle-reduction technologies for transportation refrigeration units (TRUs)

25 eTRUs were installed at the Albertson's distribution center in Tracy.



## Pittsburg Unified School District (2019)



PG&E partnered with Pittsburg Unified School District to install nine L2 chargers and charge management software to integrate onsite renewables

# Non-ratepayer EV Programs

- PG&E participates in the Low Carbon Fuel Standard (LCFS) Program and uses the revenue generated through the program to further support EV adoption through a statewide program and five proposed PG&E-specific programs.

Statewide



## CA Clean Fuel Rewards Program

A statewide program to provide up to **\$750** point-of-purchase incentive for the purchase or lease of a new EV

## Pre-Owned EV Rebate Program



\$1,000 rebate for customers who purchase a pre-owned EV; additional \$3,000 rebate for income qualified customers



## MUD and Small Business Direct Install Program

Fund third-party to install low-power chargers (Level 1 and Level 2) at MUDs and small businesses that have excess capacity on panel

## Resilient Charging Pilot



Detect, enroll and automate EV charging, testing customer valuation of incentive levels for direct load control in advance of PSPS events



## Residential Charging Solutions Pilot

Education and financial support to help customers install EV chargers while avoiding or lowering cost of panel and/or grid upgrades



## Research and Innovation Fund

Fund nascent technology proof-of-concept pilots or research studies to support EV adoption and charging

PG&E's LCFS Holdback Programs

# Questions



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