Move your Electrification Journey Forward

June 12, 2025

PG&E

Together, Building
a Better California

Agenda

- Safety (Dean Kunesh)
- SolTrans Electrification (Pat Carr)
- *New* – EV Fleet Advisory Services (Brandon Smith)
- EV Fleet Program (Jacob Panachaveettil)
- Q&A

Safety

Bee Safe this Summer!

1 When and where bees are active

- When
  - In spring, summer
- Where
  - In trees, on grass, in sand
  - Under roof eaves
  - On equipment

2 What can happen when bee stings

- Minor reaction
  - Minor swelling, redness, pain
- Severe reaction
  - Shortness of breath, difficulty swallowing, and shock

3 What to do

- Minor reaction
  - Wash the site with soap and water
  - Apply ice, ointment
- Severe reaction
  - Seek medical attention
  - Call 911

4 Bee Safety

- Avoid
  - Wearing strong scents
  - Making loud noises
  - Walking barefoot on grass or on sand

Source: [USDA Bee safety 101]

Transitioning to Battery Electric Buses for Municipalities and Small Operators

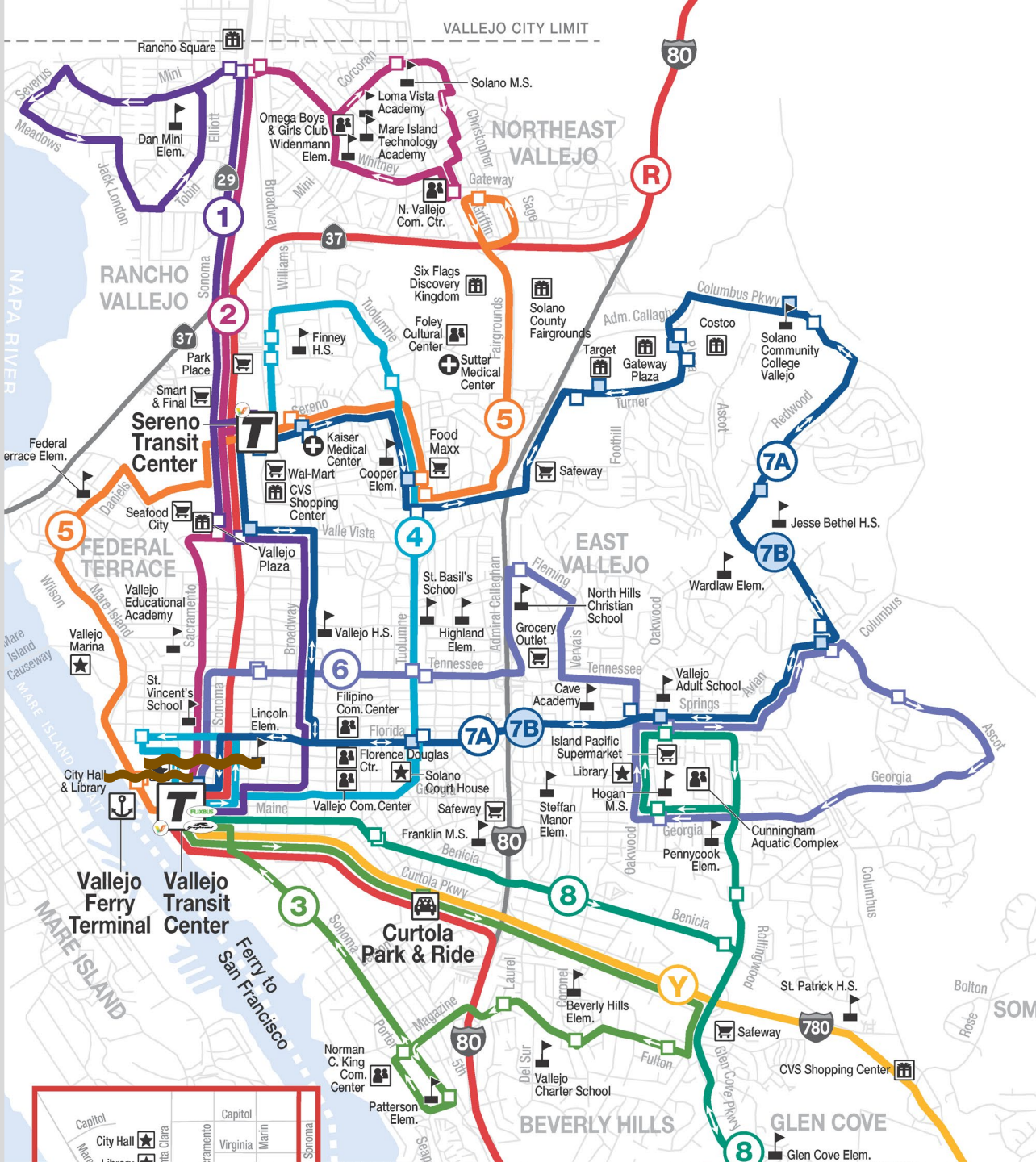
It’s No Small Fleet

Pat Carr
Electrification Project Manager,
SolTrans

June 12, 2025

About

- Located in Vallejo, Ca. in Solano County
- SolTrans became a JPA December 2010
- Employees: 14
- Operates 1 million trips annually on:
  - 12 local routes
  - 5 regional express routes
- 67 vehicles with plans to expand to 80
  - 16 diesel/electric hybrids
  - 21 CNG commuter coaches
  - 10 battery electric buses
  - 1 CNG low floor
  - 9 Diesel Commuter Coaches
  - 2 CNG & 8 unleaded paratransit vehicles



Initial Goals

- 100% Battery Electric Bus by 2033
- Future ready electric charging infrastructure design
- Scalable
- Utilize renewable electric energy
- Regionalize opportunity charging
- Utilize solar power to offset expenses

REVISED GOALS

- 100% zero-emission by 2036 with a mixture of Battery electric and hydrogen fuel cell buses
- Future ready electric charging infrastructure to include energy storage and solar energy.
- Utilize renewable electricity
- Design and build hydrogen fueling infrastructure
- Replace current CNG fleet with Hydrogen Fuel Cell Buses

Communicate goals to utilities partners, employees, and community to forge healthy relationships

Work with your executive director, financial team, grant writers, and community advocates to capture their perspective

Attend conferences and take advantage of all learning opportunities

Engage with Board and explore facility options

Make an agency visit and learn from their experience

Engage a firm to design charging infrastructure

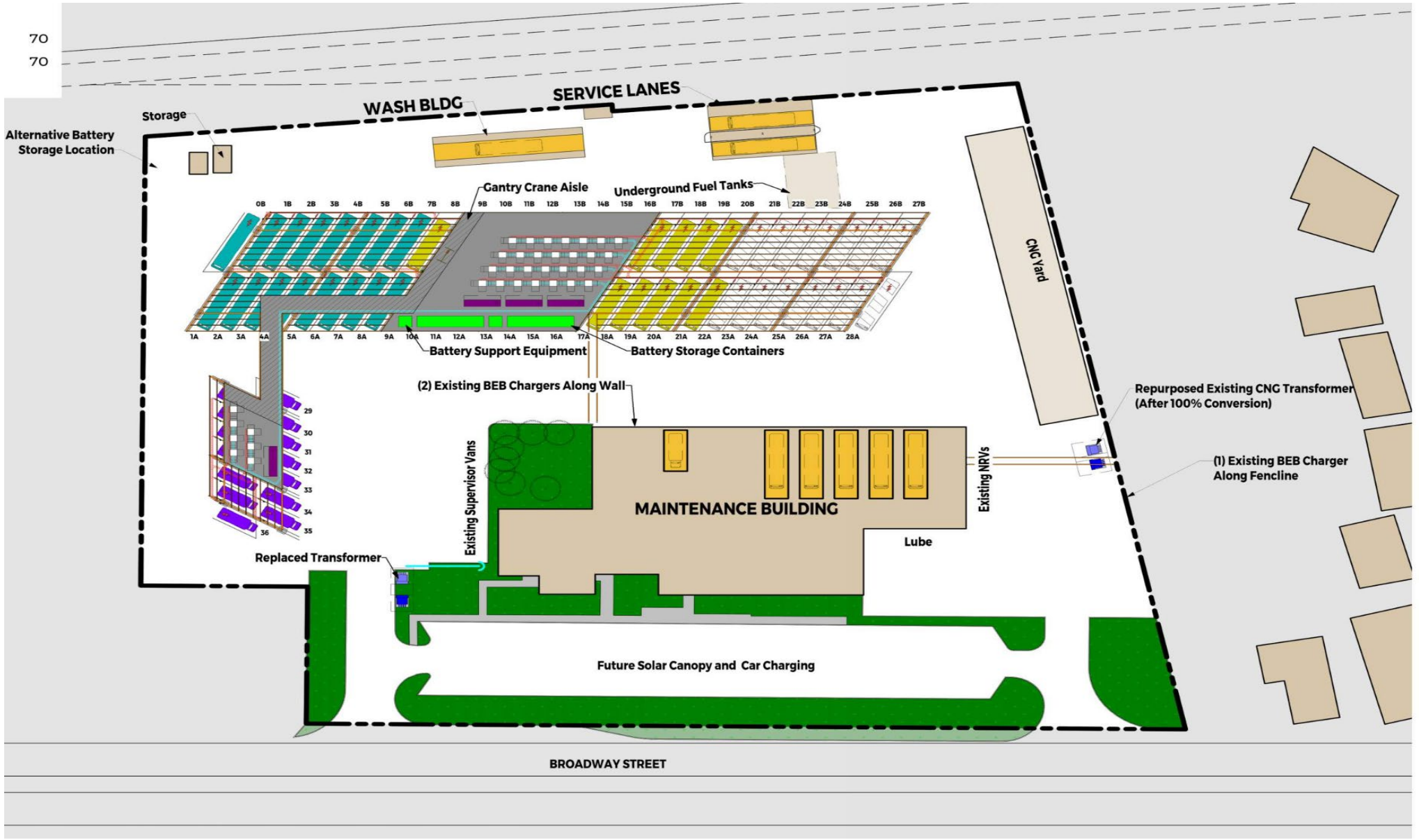
SolTrans

Consider modeling to help understand topography, weather impacts, and where enroute charging can be used

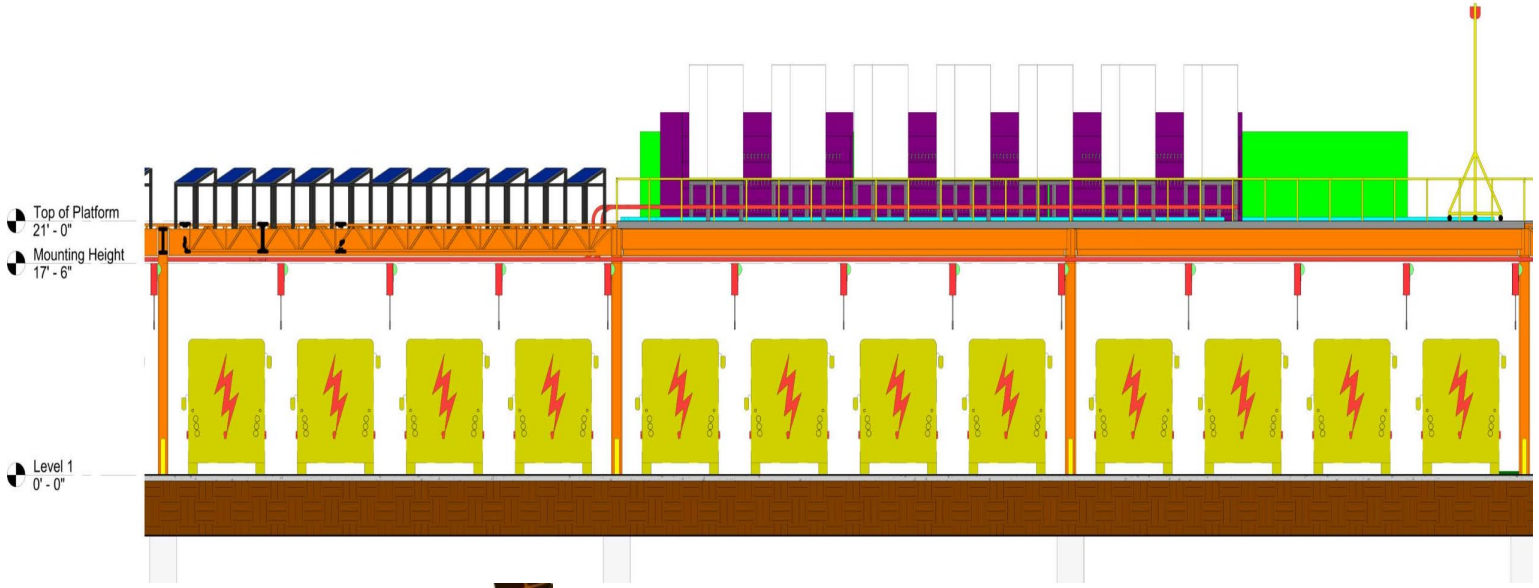
Stay in touch with agencies near you to work together for ZEV infrastructure, resources, and utilities

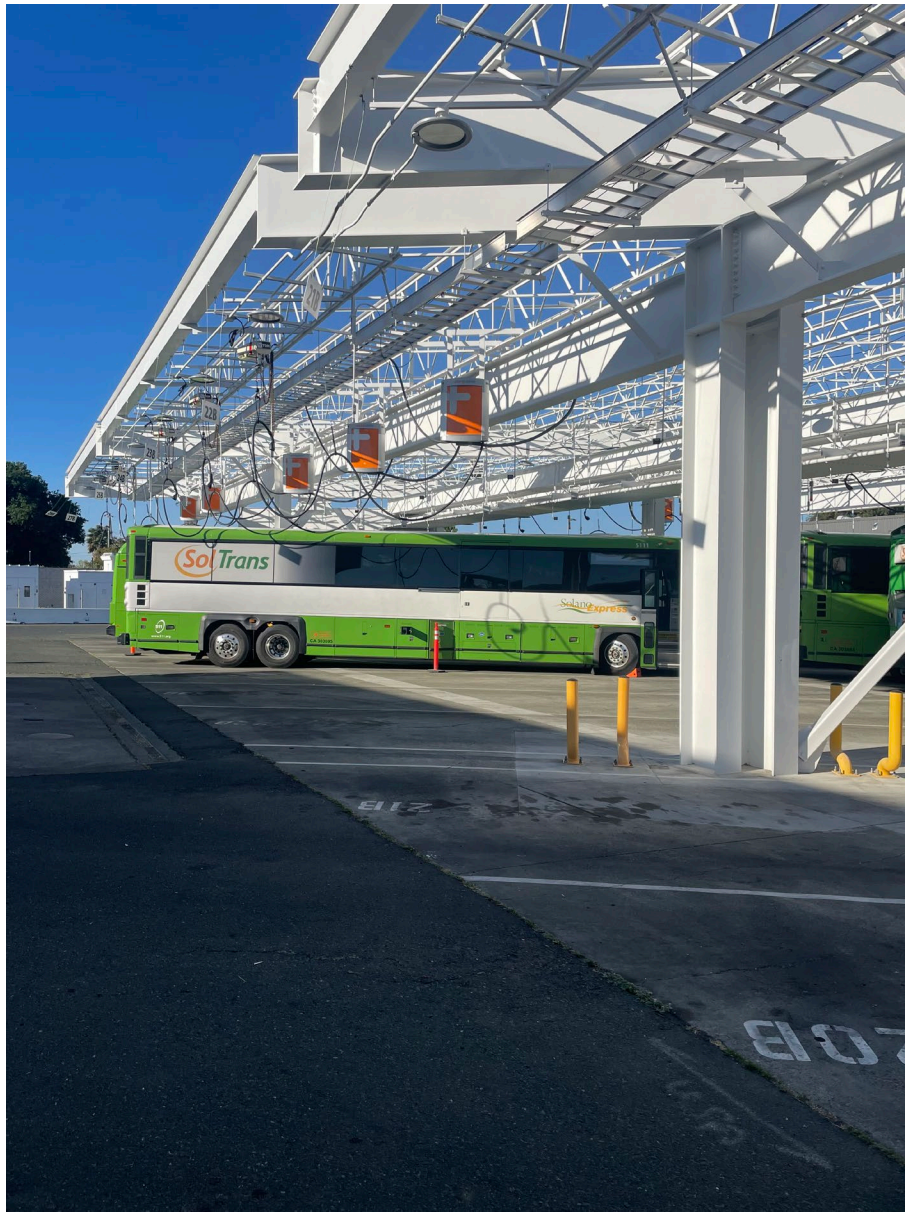
Get to work!

SolTrans O&M Facility Conceptual Design



SolTrans O&M Facility
Conceptual Design
Ground Level View




SolTrans


23B
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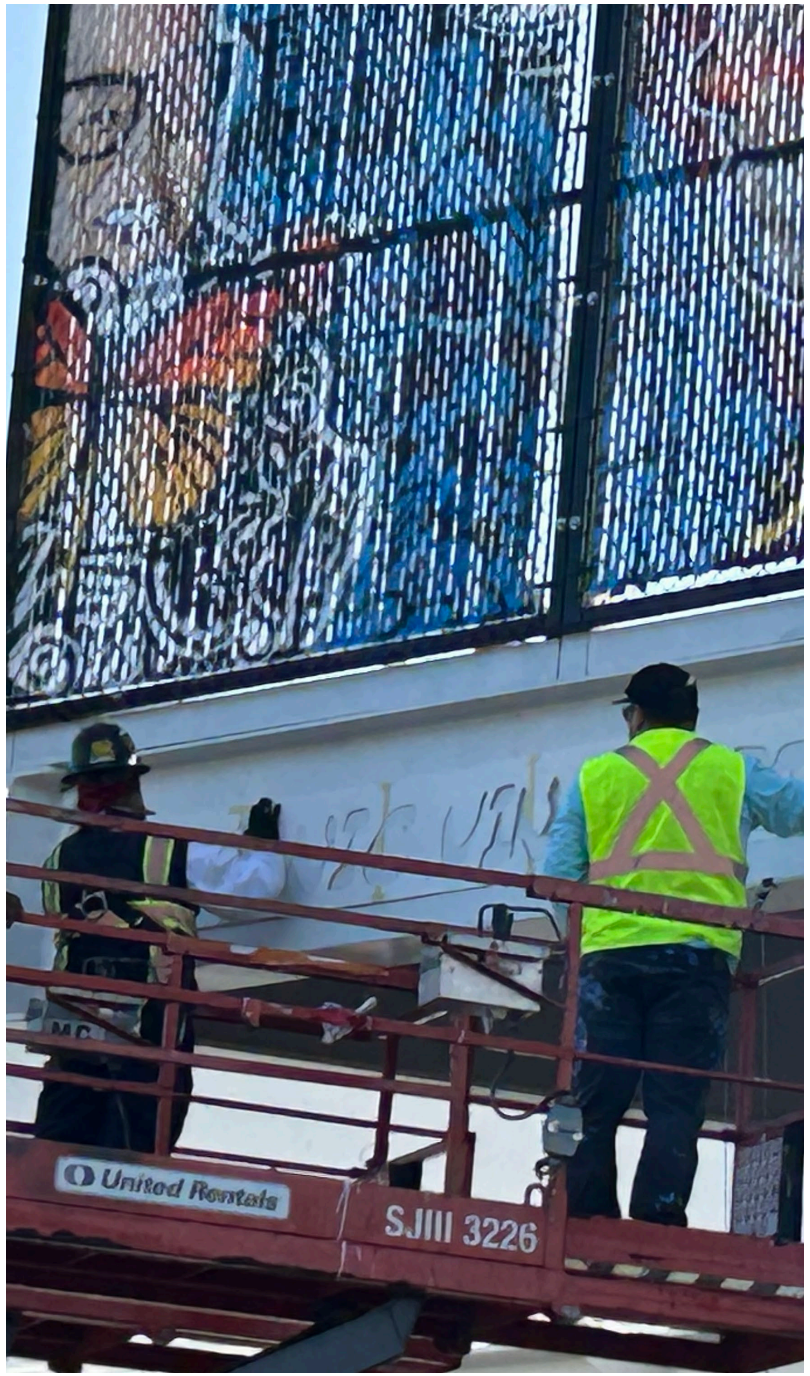
SolTrans
Solano Express
CA 303695
INJURED IN A CRASH?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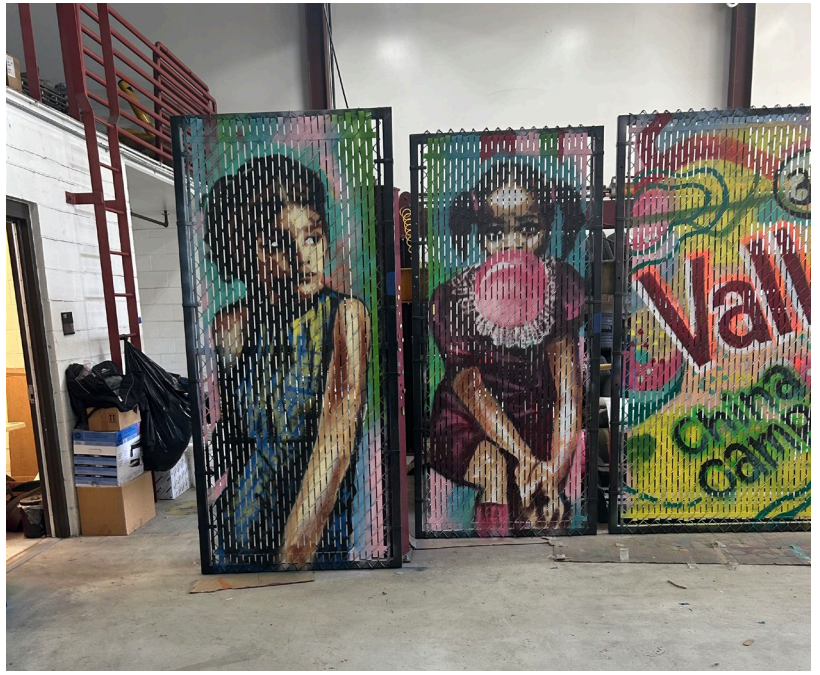


Vallejo
Benicia
Marti


12A
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17A


THANK
YOU
PG&E

Lessons Learned

When you have to dig underground be prepared for surprises and to increase your budget

Supply Chain Issues –Have your contractor provide timelines, orders, etc…

Ensure your contract manager is experienced in all areas of the project

Maintain good relationships with your contractor, operators, maintenance, and management staff

Touch base with utilities and funding partners early and often which is critical if you have delays

Include PIO for community engagement and project outreach

BE PATIENT

Next Steps:

- Charge management
- Energize charging infrastructure
- Apply for funding to add energy storage and solar
- Plan for hydrogen electric buses

EV Fleet Advisory Services

PG&E

Together, Building a Better California

EV Fleet Advisory Services at a glance

PG&E's EV Fleet Advisory Services offers personalized guidance from a Fleet Advisor who can help you switch your medium- and heavy-duty fleets to electric vehicles (EVs).

One-on-One support throughout electrification

Zero cost to fleets

Accepting applications through 2026

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

Fleet Electrification Customer Journey

Just getting started

1. **Initiation:** has first idea to electrify fleet
2. **Information gathering**: learns more about electrification and decides whether to proceed
3. **Consensus building**: seeks organizational support for electrification
4. **Funding**: applies for external funding and/or secures internal budget

Making a plan

5. **Planning:** determines details (locations, vehicles, chargers, utility needs, etc.)
6. **Vendor selection**: identifies suppliers for vehicles and chargers, contractors for infrastructure design and installation
7. **Site design**: hires electrical engineer to infrastructure design

Project is underway

8. **Utility application**: applies for utility service
9. **Infrastructure construction**: customer and PG&E build electrical infrastructure
10. **Site energization**: installs chargers and energizes site

Site is operational

11. **EV deployment and optimization**: learns to use vehicles and chargers, adjusts site operations as needed
12. **Operational**: enters a steady-state mode of operating EVs and maintaining equipment
13. **Expansion:** procures additional EVs and chargers

Our Advisors can support you at any phase

Just getting started

Our advisors can educate you on electrification basics, provide you with self-service resources, and perform a comprehensive analysis of your fleet

Making a plan

Our advisors can help you refine your site details to get your project going

Project is underway

Our advisors can assist you throughout your site construction when any questions or issues arise

Site is operational

Our advisors can help you optimize your operations so that you can maximize the benefits of your EVs

Eligibility Requirements

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 heavy-duty 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)

*Check with an advisor to see if your site is in an AB841 Underserved Community. More info can be found here.

Available Services

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

*These services are available to customers with basic eligibility, all other services are available only to customers with full eligibility

EV Fleet Advisory Services Process

1	**Submit your application**	Apply here: www.pge.com/evfleetadvisorsapplication It's easy! We only ask for basic information such as your name, address, type of operation, and where you are in your EV project journey.
2	**Eligibility check**	PG&E's advisory team reviews your eligibility for the program and determines the types of services you can receive.
3	**Intake call**	A dedicated Advisor conducts an intake call with you to share detailed program information and learn more about your needs.
4	**Service assessment**	Your Advisor will present you with a list of services to choose from that align with your needs and goals.
5	**Receive services**	Your Advisor will schedule follow up sessions and discussions to deliver on the services that you choose.

Thank You

Brandon Smith

Brandon.Smith3@PGE.com

SCAN ME for FLEET ELECTRIFICATION

EV Fleet Program

What is the EV Fleet Program?

EV Fleet is a ratepayer-sponsored program that is designed to accelerate EV adoption for medium duty, heavy duty (MDHD EVs) and off-road vehicles

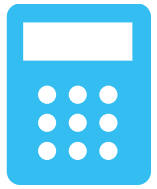
GOAL:

Support the deployment of

>6,500 MDHD EVs

BUDGET:

$236 million



TIMEFRAME:

Enrolling sites through 2026 or until funding is fully subscribed

What vehicles are eligible?

Medium duty
Class 2–6

(>6,000 lbs GVWR)

School buses, cargo vans, box trucks, cutaways, work trucks, etc.

Heavy duty
Class 7–8

Heavy duty trucks, transit buses, drayage, etc.

Off road

Class 1 forklifts, tractors, construction equipment, TRUs, ground support equipment, cargo handling equipment, etc.

What benefits does EV Fleet provide?

PG&E simplifies fleet electrification by offering:

Installation of electrical infrastructure up to the customer's meter **at no cost**

Incentives and rebates to offset out-of-pocket costs for construction and chargers

Comprehensive support throughout the completion of the EV charging project

Available incentives and rebates

CUSTOMER-OWNED

Utility assets
(e.g.: powerlines, transformer)

Meter

Electric panel/
switchgear

Charger

Plug-in
electric vehicle

To the meter (TTM) infrastructure

Fully paid for through the program (your EV meter will be connected to the grid for FREE)

Behind the meter (BTM) infrastructure

Eligible for incentive up to capped amount based on vehicle type**

Vehicle type	Per vehicle incentive
Transit buses and Class 8 trucks	$9,000 per vehicle†
Off-road vehicles	$3,000 per vehicle‡
School buses and Class 2-7 vehicles	$4,000 per vehicle†

EV supply equipment (EVSE)

Schools, transit agencies and sites in disadvantaged communities may receive EVSE rebates

EVSE power	Max. rebate amount*
Up to 50 kW	$15,000 per charger
50.1kW–149.9kW	$25,000 per charger
150 kW and above	$42,000 per charger

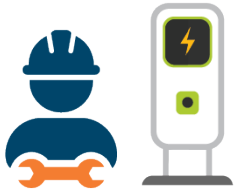
*Rebate not to exceed 50% of charger equipment. EVSE must meet minimum and standard requirements to be eligible for rebate. Fortune 1000 companies are not eligible.
**Incentive not to exceed 80% of customer out-of-pocket costs.
†Limited to 25 vehicles per site.
‡Limited to 50 vehicles per site.

Eligibility requirements

1 Be a PG&E electric customer

This includes Direct Access and retail customers, as well as customers receiving power from a Community Choice Aggregator.

2 Own or lease the property



Applicants must have authority to install charging infrastructure on their site.

3 Acquire at least 2 eligible EVs

Customers must plan to put into operation a minimum of two medium duty, heavy duty or off-road electric vehicles over the next 5 years.

4 Agree to all requirements

Customers must make a 10-year commitment to operate and maintain equipment, a 5-year commitment to provide EV usage data and agree to all terms and conditions.

Ready to apply

1	**Vehicle deployment plan**	Quantity, make and model of EVs that you plan to deploy over the next 5 years
2	**EV charger deployment plan**	Quantity, make, model, power level and datasheet for each EV charger that you plan to deploy **Approved Product List** (hosted by Southern California Edison)
3	**Map of EV charger location**	Map screenshot indicating the location where you plan to install your EV chargers
4	**Secured funding for out-of-pocket costs**	Grants or approved budget to cover cost of BTM infrastructure, vehicles and chargers
5	**Leadership approval**	Must have internal readiness to sign a contract to commit to the EV Fleet Program
6	**Proof of vehicle procurement**	Paid vehicle invoice, approved vehicle grant or a letter from board/owner/city council/etc
7	**Permission from property owner**	Property owner must be willing to sign an easement with PG&E for infrastructure installation

EV Fleet electrification process

SITE EVALUATION (3–5 months)

CUSTOMER TASK
PG&E TASK

START

CUSTOMER SUBMITS EV FLEET APPLICATION
1
Customer submits application through **pge.com/evfleet**

PG&E DESKTOP REVIEW AND PHONE SCREEN
2
PG&E develops a high level site assessment and meets with customer to confirm project scope

CUSTOMER INFRASTRUCTURE DESIGN
3
Customer works with electrical engineer to design behind-the-meter (BTM) charging system infrastructure, which includes charging stations

PG&E CAPACITY CHECK
4
PG&E estimates how much electrical capacity is needed and confirms availability

PG&E SITE WALK AND INITIAL DESIGN
5
PG&E surveys your site and provides initial design of your to-the-meter (TTM) infrastructure build-out

PG&E PROJECT REVIEW
6
EV Fleet team reviews project for acceptance into program

SIGN CONTRACT
7
All parties review and approve the proposal. Contract is signed.

FINAL DESIGN and EXECUTION

Depending on customer readiness, project execution can take 9–18 months

CUSTOMER BEGINS BTM CONSTRUCTION PROCESS
8
Customer hires a contractor to do BTM construction and obtains permits from local jurisdiction
2–12 months

PG&E FINAL DESIGN
9
PG&E finalizes TTM design
2–3 months

CUSTOMER BTM CONSTRUCTION
10
- Construct electrical infrastructure from switchgear to chargers
- Install charging equipment
- Complete municipal inspections

Timing varies by customer

PG&E TTM CONSTRUCTION
11
PG&E constructs utility infrastructure and installs meter
2–3 months

PG&E TURNS ON SERVICE
12
PG&E activates your service after inspections are complete
2–4 weeks

CUSTOMER COMMISSIONS CHARGERS
13
Ensure equipment is functioning as intended—test charger voltage and ensure network connectivity
Timing varies by customer

PG&E ISSUES QUALIFYING REBATES
14

COMPLETE

Business EV rate structure

1

Customers choose subscription level, based on charging needs

High Use EV Rate:

$95.56 / 50kW block over 100kW*

Low Use EV Rate:

$12.41 / 10kW block up to 100kW

Customers that want to **manage charging loads** can opt for a lower subscription level.

2

Subscription remains consistent month-to-month

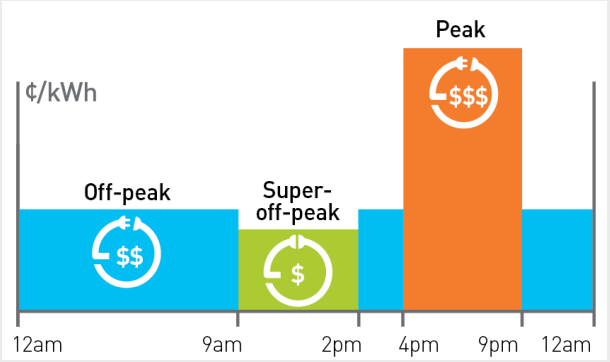
If site charging power exceeds subscription, several customer communications are triggered, and overage fees may apply.

Customers **can change subscription level** to suit their charging needs.

3

Energy usage is billed based on time-of-use pricing

Energy Charge:



~$1.91 per e-gallon

Depends on vehicle type, season, and time of day for charging

Compare e-gallon rate savings to gas/diesel

Visit the **Business EV Rate website** for more information

* Values for Business High Use EV Rate Secondary (BEV2-S) voltage. For Business High Use EV Rate Primary (BEV2-P) voltage, the price of each 50kW block is $85.98. Please refer to the Business EV Tariff for exact values.

EV Fleet Savings Calculator

Note: Values shown for illustrative purposes. Please refer to the EV Fleet Savings Calculator at **Fleets.pge.com** for exact values.

EV Fleet Savings Calculator

Annual Fuel Savings	Savings Per Mile	Annual LCFS Credits	Revenue Per Mile	Annual GHG Emissions Saved
$299,000	$0.64	$143,000	$0.31	866 Tons

VEHICLES

3x Tesla Semi

Miles per vehicle	300
Days Operating	Weekdays
Charging:	9pm - 5am

6x Kenworth K370e

Miles per vehicle	100
Days Operating	Weekdays
Charging:	9pm - 5am, 2pm - 4pm

1x Ford E-transit

Miles per vehicle	100
Days Operating	Weekdays
Charging:	9pm - 5am

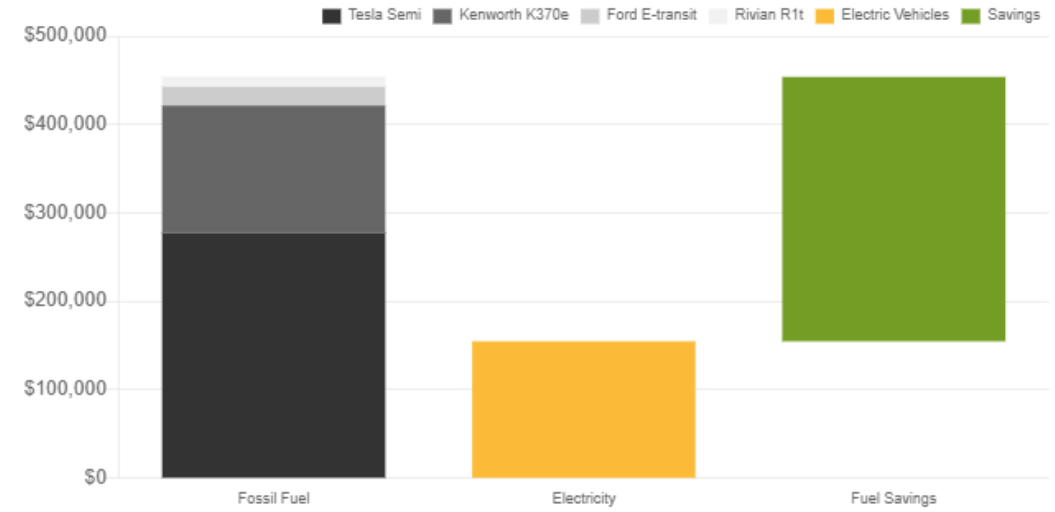
3x Rivian R1t

Miles per vehicle	60
Days Operating	Weekdays
Charging:	9pm - 5am

FINANCIAL | ELECTRICITY | VEHICLES | CHARGERS | EMISSIONS

Based on your selections, using electricity instead of fossil fuel saves **$299,000** per year.

ANNUAL FUEL COSTS



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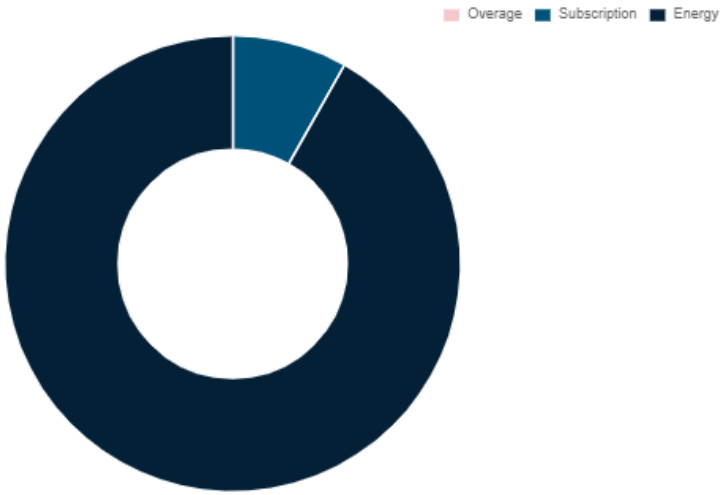
FINANCIAL | ELECTRICITY | VEHICLES | CHARGERS | EMISSIONS

To maximize BEV rate inputs, we have set your rate to **Business High Use EV**, with a subscription level of **11 blocks**. Check out the Business EV Rate Calculator to explore your options.

The total monthly cost would be **$12,874**, which includes the cost to recharge to full and the subscription charges.

BEV COST COMPONENTS



Note: Values shown for illustrative purposes. Please refer to the EV Fleet Savings Calculator at **Fleets.pge.com** for exact values.

EV Fleet Savings Calculator

LCFS Calculator

The Low Carbon Fuel Standard is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits.
— Low Carbon Fuel Standard Homepage

The Low Carbon Fuel Standard (LCFS) is administered by the California Air Resources Board (CARB). Participation requires registration, which entities can do so here. The LCFS program is set to continue through at least 2030.

The calculation below is based on the methodology provided by CARB, which assumes a decreasing carbon intensity of fossil fuels. This tool makes no assumptions about a similar decreasing carbon intensity of the California Grid, therefore it is recommended to use the results of 2021 for a typical year.

The calculation below also assumes a flat LCFS credit price of $150. This value is not guaranteed going forward and can change at any time. See the latest LCFS credit prices here. A single LCFS credit represents 1 metric ton of carbon, and credit prices are often referred to as $ ___ /MT (dollars per metric ton).

LOW CARBON FUEL STANDARD

ENERGY DISPLACED PER YEAR: 730,000

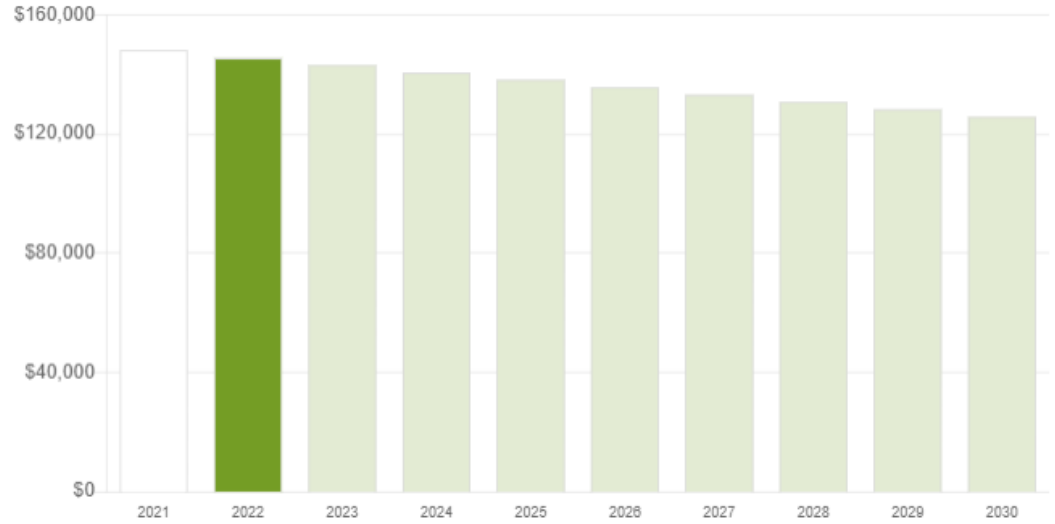
10,000 — 10,000,000

730,000 kWh; equivalent of **19,543** gallons of diesel

ELECTRICITY SOURCE: California Grid

Carbon neutral generation creates more LCFS credits. Carbon neutrality can be acheived with clean on-site generation or Renewable Energy Credits (RECs).

ESTIMATED LCFS REVENUES



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Q&A