

# Public EV Fleets Program

November 16, 2022



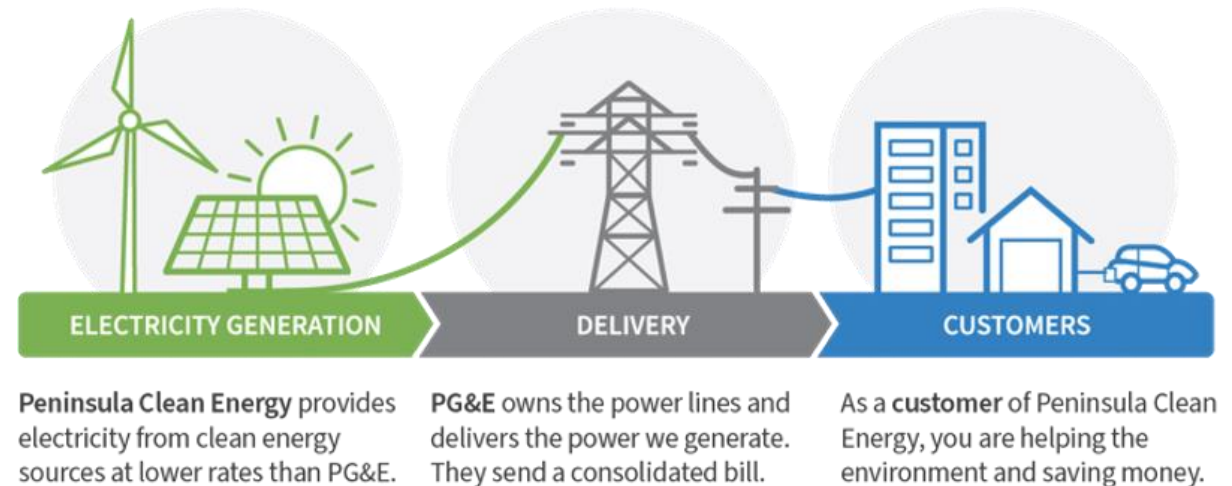
# Peninsula Clean Energy



Peninsula Clean Energy is the not for profit locally-led electricity provider for San Mateo County and Los Banos.

**Mission:** To reduce greenhouse gas emissions by expanding access to sustainable and affordable energy solutions

## How it works



# Today's Agenda

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1. Team Introduction
2. PCE's Public EV Fleets Program Overview
3. Services Being Offered
4. Next Steps for Fleet Managers
5. Questions & Answers



# Project Team

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Lead Consulting Team from **Optony**:



**Phillip Kobernick**  
Transportation Program Manager  
Peninsula Clean Energy



**Byron Pakter**  
CEO



**Natalie Hanson**  
Director of Energy  
Programs



**Coleman Thompson**  
Energy Analyst

# What is the Public EV Fleets Program?

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## Program Summary:

1. Help you **plan** for fleet-wide transition to EVs, **install** EV charging, **maximize savings** with energy management
2. Free service from Peninsula Clean Energy
3. Some funding available from Peninsula Clean Energy, in addition to state rebates
4. Open to all local public agency fleets
5. Program open until 2025



# What Will You Receive?

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## 1. EV Fleet Replacement Plan

- *What vehicles should I buy? What is their TCO and savings?*

## 2. Fleet EV Charging Needs Assessment

- *How many chargers will I need when the whole fleet goes EV?*

## 3. Charging Installation Plans

- *How can chargers be installed at my depot?*

## 4. Permit-Ready Plans (if needed)

- *I need 100% engineered plans for my agency to hire a contractor*

## 5. Funding Overview

- *Which rebates apply to my project?*

## 6. Energy Optimization Plan

- *How can managed charging maximize my savings?*

## 7. Energy Management Services (optional)

- *I need a system to manage my charging*

# Program Benefits for Your Fleet

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## Why participate?

1. Help you meet upcoming CARB fleet regulations
2. Green Fleet Policy or Climate Action Plan
3. Reduce fuel costs
4. Reduce preventative maintenance costs

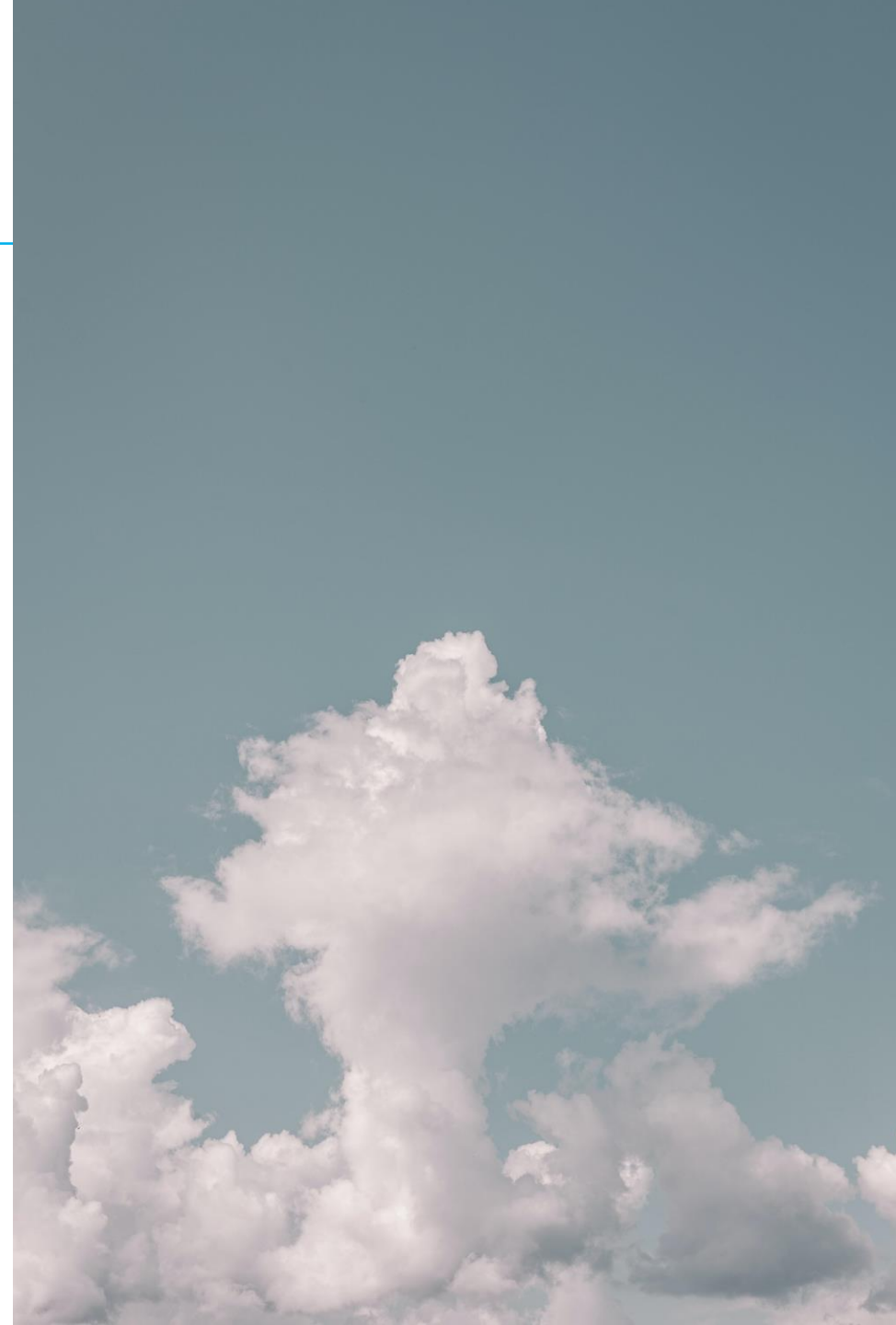


# California Air Resources Board (CARB)

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## CARB's **Advanced Clean Fleets Regulation** and what that means for you:

- **50% EV new** annual purchases by **2024**
- **100% EV new** annual purchases by **2027**
- Limited exceptions, but don't expect broad exceptions to the mandate





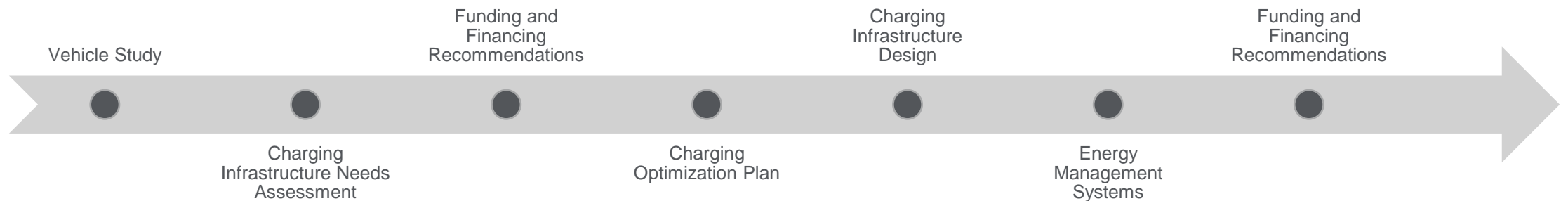
# Services Offered

## Whole Fleet Assessment

- Fleet Vehicle Study
- Charging Infrastructure Needs Assessment
- Charging Optimization Plan
- Funding and Financing Recommendations

## Charging Infrastructure Project

- Charging Infrastructure Design
- Energy Management Systems
- Funding and Financing Recommendations



# Vehicle Study

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1. Customized vehicle replacement timeline for each fleet
2. Assessment of EV suitability
3. Comparisons of Total Cost of Ownership between EV option(s) and existing internal combustion engine vehicles
4. Estimated annual energy needs for charging a future fleet of EVs

## **Inputs:**

1. Fleet master inventory
2. 1-year of fueling transactions

## **Deliverables:**

- 1) Vehicle study report
- 2) Spreadsheet-based model

# Charging Infrastructure Needs Study

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1. Identification of a priority charging site
2. Recommendation of EV charging needs by 2025, 2030, 2035 based on vehicle replacement timeline
3. Modeling of electrical load impacts based on charging needs
4. Estimate of charger quantity and power needs

## **Inputs:**

1. Anticipated fleet electrification timeline
2. Priority domicile facility identified; list of vehicles domiciled at the site

## **Deliverables:**

- 1) Charging infrastructure needs report
- 2) Spreadsheet-based model
- 3) Fleet electrification pro-forma for selected priority site
- 4) Presentation of results

# Charging Infrastructure Design

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1. Site walk at priority domicile location to gather electrical capacity information
2. Review of facility as-built drawings
3. Electrical assessment to determine ideal location for EV charging infrastructure
4. Determination of electrical capacity
5. EV charging project cost estimates

## **Inputs:**

1. Domicile facility as-built drawings

## **Deliverables:**

- 1) Cost estimates for hardware and installation costs
- 2) Engineering bid documents

# Charging Optimization & Management

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1. Vehicle charging schedules per site based on vehicle duty cycles
2. Simulation of expected unmanaged charging load per site
3. Suggested charging schedule

## **Inputs:**

1. Anticipated EV inventory (task 1)
2. Charging needs (task 2)

## **Deliverables:**

- 1) Charging optimization recommendations
- 2) 1 year of complimentary access to ChargePilot (optional)



# Detailed Funding & Financing Plan

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1. Identification of best incentives to pursue for EV and EV charging infrastructure funding or financing
2. Overview of 3<sup>rd</sup> party financing strategies for consideration

## **Deliverable:**

- 1) Memo summarizing the available relevant funding programs, application checklist, and summary of 3<sup>rd</sup> party financing strategies

# Funding from Peninsula Clean Energy

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- Targeted gap-funding assistance (after state/local rebates)
- Can be used for EV chargers, EV incremental cost, installation, energy management subscriptions, etc.
- All vehicle types/classes are eligible

Incentive structure, based on scale of unfunded project component\*:

Unfunded Project Scope	Local Agencies	Schools
<\$100K	Up to 25% or \$25K per project (whichever is less)	Up to 50% or \$50K per project (whichever is less)
>\$100K		Up to 50% or \$100K per project (whichever is less)

\* Net all other incentives and replacement depreciation

# Example 1

City X replaces 10 Nissan Frontiers with 10 F-150 Ls

Project Component	Unit Costs	Total Costs
Incremental vehicle cost	\$10K each x 10	\$100K
Level 2 chargers, purchase and install	Chargers: \$7K each x 10 "Make-Ready": \$2K each x 10	\$90K
PCE EV Ready Funding	10 L2 chargers: \$5K each x 10 10 Make Ready: \$2K each x 10	(\$70K)
PG&E EV Fleets	\$4K per truck X 10	(\$40K)
CVRP	\$2K per truck X 10	(\$20k)
	Remaining Balance	\$60K

More funding if located in Disadvantaged Community (DAC)

# Example 2

## County Y replaces 5 prison transport buses with EV alternative

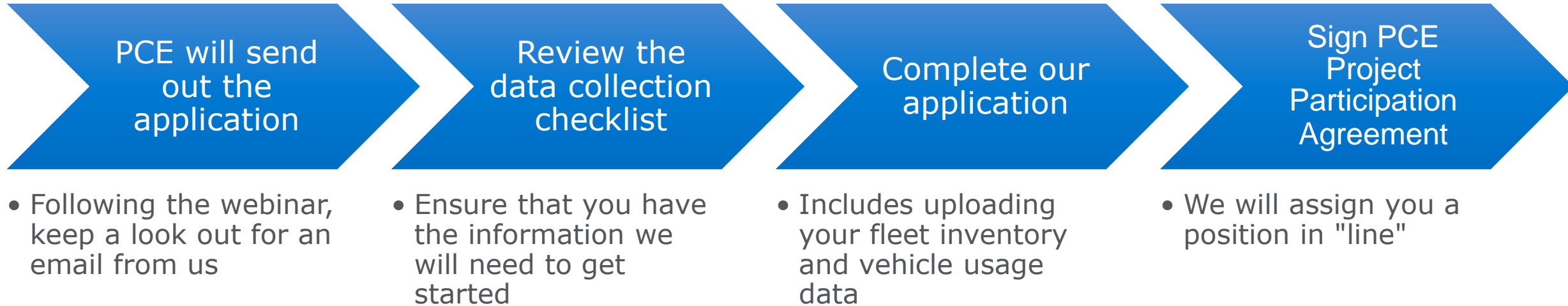
Project Component	Unit Costs	Total Costs
Incremental vehicle cost	\$150K each x 5	\$750K
Low power Level 3 chargers, purchase and install	Chargers: \$80K each x 5	\$400K
HVIP	\$120K per truck X 5	(\$600K)
BAAQMD Carl Moyer	\$400K* per truck X 5	(\$2M)
Remaining Balance		\$0

\* Exact details TBD

Up to \$25K from PCE Public EV Fleets Program also available, if needed

# Next Steps for Interested Fleets

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# Data Collection Checklist

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## Vehicle Inventory

- Equipment ID or VIN
- Vehicle make/model
- Odometer reading
- Fuel type
- Life expected years or miles
- Manufacture year
- Domicile facility and address

## Vehicle Usage Data

(at least one of the following)

- 12 months of fueling transactions
- Annual vehicle mileage
- Vehicle telematic data

# Timing

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## **Duration:**

- 6-9 fleets total (~3-5 in year 1)
- Projects expected to take 6-12 months per fleet (not including construction)

## **Timing:**

- All interested fleets to complete intake application, open now
- Intake application due to PCE by December 16 to be considered for Year 1
- Year 1 projects to begin January 2023

# How Fleets Will be Selected

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## **Year 1 Priority fleets (3-5 fleets in year 1):**

- Climate Action Plan or Green Fleet Policy with targets
- Fleet asset inventory with estimated replacement (or acquisition date), vehicle domicile location, etc.
- Fueling or mileage records
- Larger EV or EV charging projects

# What if our fleet is not ready?

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## 1. In the next 6-12 months:

- a) Identify and locate your vehicles
- b) Track daily/weekly/monthly vehicle usage
- c) Compile fueling transactions
- d) Record odometer readings

## 2. Request our sample fleet data collection spreadsheet:

- a) Review data collection spreadsheet and identify the data gaps your fleet has in the high priority data category

## 3. Collect data on a random or representative sample of vehicles, if fleet-wide data collection is not possible

## 4. Contact us if you have further questions

# Questions? Contact us:

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