

Regional Working Group – 3rd Meeting



Municipal Fleet Electrification Study for the City of Fremont

October 8th, 2020

PROJECT BACKGROUND

- Funded through the Bay Area Air Quality Management District Climate Protection Grant program
- Purpose: To help the City of Fremont think strategically about ways to achieve robust decarbonization across fleet and facilities, develop free tools & share conclusions and best practices with the region
- Supports Air District goals of reducing air pollution and the impacts of climate change



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Agenda & Housekeeping

- Welcome, Project Background (10:00a – 10:05a)
- EVFleet.tools Update – Facilities Assessment Tool (10:05a - 10:15a)
- Current & Upcoming Air District EV Grants (10:15a - 10:25a)
- Panel Discussion: EV Infrastructure Opportunities & Incentives (10:25a – 11:05a)
- Q&A(11:05a – 11:25a)
- Closing (11:25a – 11:30a)



Meeting Purpose

1. Provide update on beta version of EVFleet.tools – Facilities Assessment Tool
2. Panel on Regional EV Infrastructure Incentives featuring PG&E & CCAs
3. Identify best practices and lessons learned to maximize impact of incentive programs



EVFLEET.TOOLS

SUMMARY OF RESOURCES AVAILABLE/UNDER DEVELOPMENT

1. Municipal Fleet Electrification Planning Tool
2. Facilities Assessment Tool
3. Best Practices & Resources on:
 - “EV First” Purchasing Policies
 - Telematics
 - Licensed EV Identification tools
 - EV Procurement
 - Smart & Managed Charging
4. Project Updates



FACILITIES ASSESSMENT TOOL -- APPROACH

1. Builds on Fleet Planning Tool, based on expected vehicle electrification at a given facility in a chosen year
2. Designed to address two questions related to the feasibility of installing charging infrastructure:
 - Can that facility meet expected charging need with existing electrical infrastructure?
 - Is that facility a good fit for Distributed Energy Resources?
3. User flow combines qualitative information & instructions with Excel-based tool

FACILITY ASSESSMENT TOOL

Basic Functionality

Facility Data Acquisition & Organization

Remaining Power Capacity Calculations

Simplified Determination of Infrastructure
Needs

DER Feasibility Scoring

Simplified Power Management Calculations

FEEDBACK WELCOME

1. Seeking user feedback from fleet/sustainability managers.

- Email Tina.hu@prospectsv.org or sam.hill-cristol@optonyusa.com

2. Other next steps;

- Exploring integration with other BAAQMD resources



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City of Fremont EV Planning Working Group

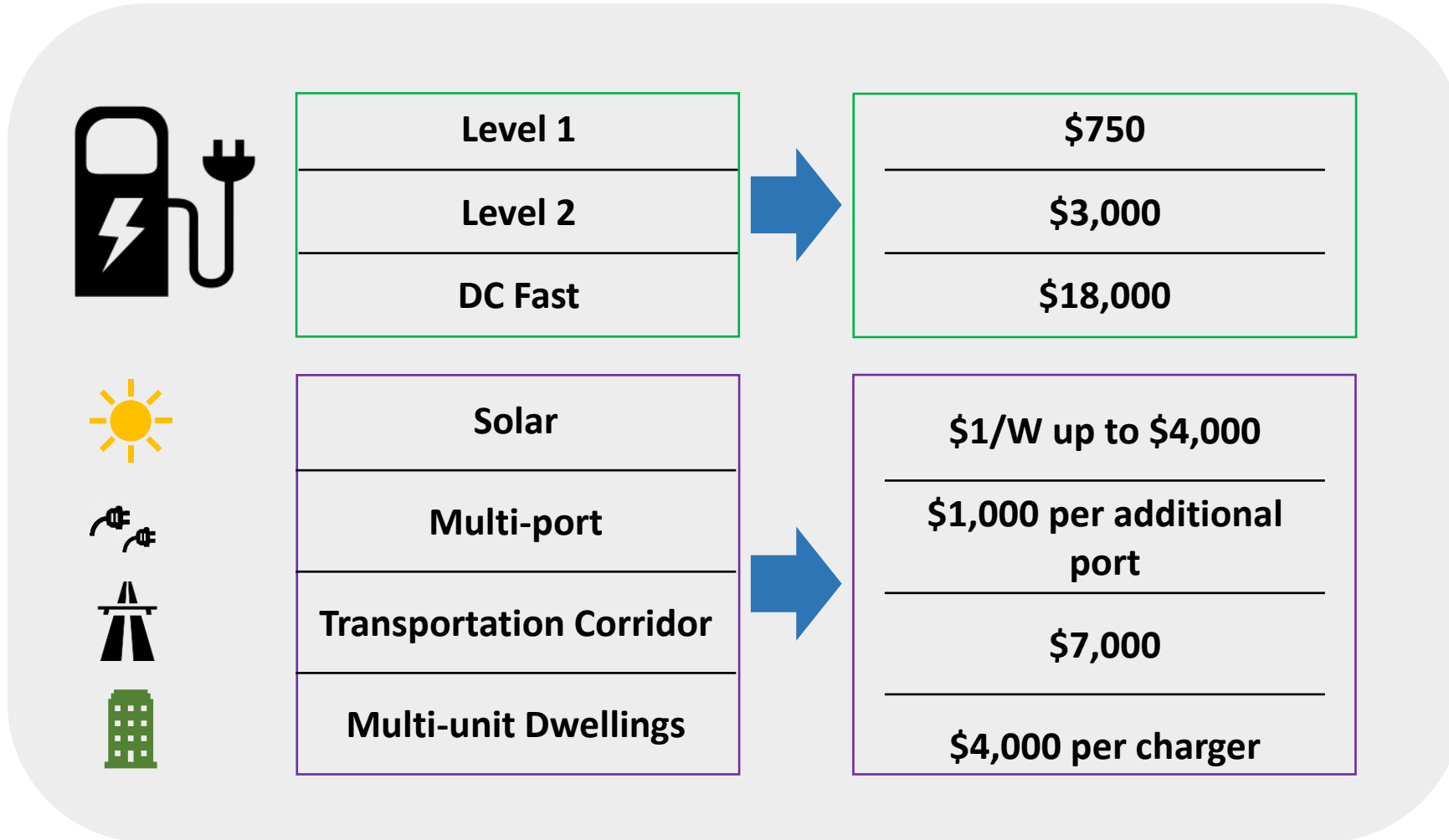
October 8, 2020

Mark Tang
Staff Specialist
Technology Implementation Office

Charge! Program (FYE 2019)



FYE 2019



Minimum eligibility & requirements



- Light-duty fleets
- Publicly-accessible EV Chargers
 - Private chargers to support public fleets are eligible
 - Provide an inventory of EV's that will utilize the chargers
- Qualify for a minimum of \$10,000 in grant funds
- Meet usage requirements
- Project life of a minimum of 3 years
- Reimbursement
- Co-funding eligible

www.baaqmd.gov/charge

Incentive Funding Offered by Air District



Program Name, Description, and Website	Status	Revenue Source
Carl Moyer Funding to replace heavy-duty on- & off-road vehicles and equipment, marine engines, and locomotives www.baaqmd.gov/moyer	Open	CMP, MSIF, CHP, FARMER
Community Health Protection Grant Program Funding to replace old, high-polluting vehicles and equipment www.baaqmd.gov/ab617grants	Open	California Climate Investments
Lower-Emission School Bus Program Funding for bus replacements, engine repowers or electric conversions, natural gas tank replacements, and electric charging & alternative fueling infrastructure projects www.baaqmd.gov/lesbp	Open	CMP, MSIF, CHP
Vehicle Buy Back Program Funding to scrap 1997 and older vehicles and equipment www.baaqmd.gov/vbb	Open	MSIF
Clean Cars for All Funding for low-income owners to retire and replace their vehicles with a cleaner option www.baaqmd.gov/cleancarsforall	Open	California Climate Investments
Climate Tech Finance Program Subsidized financing to help Bay Area facilities adopt emerging technologies that reduce greenhouse gas emissions www.baaqmd.gov/ctf	Open	Ibank

Contact Information



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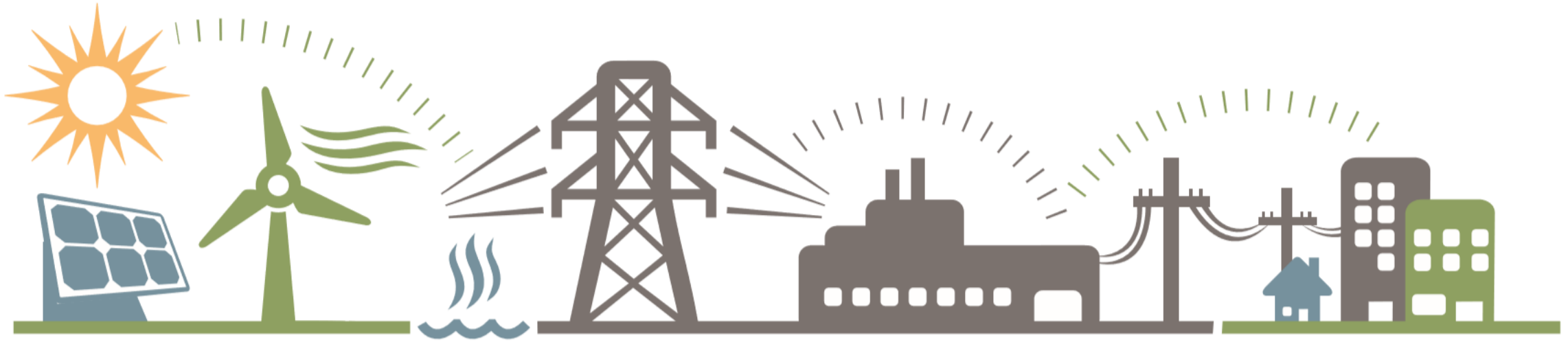


EV INFRASTRUCTURE OPPORTUNITIES & INCENTIVES PANEL

EV INCENTIVE SURVEY RESULTS

- **53%** identified themselves as having made **Minimal Progress** (*“we’ve deployed an initial group of charging stations and EVs”*).
- **46%** of respondents’ **organizations do not provide budget** to support fleet electrification
- **65%** noted CCAs or the utility as **the preferred source of funding for their fleet electrification efforts** and **52%** noted BAAQMD as there second choice

LOAD SERVING ENTITY RELATIONSHIP



ELECTRICITY

CCA procures clean energy sources

DELIVERY

IOU delivers energy and maintains the grid

CUSTOMER

Cleaner energy, local control and competitive rates!

PANELIST INTRODUCTIONS

1. Jyoti Rao, EV Fleet Program Manager, PG&E
2. Phillip Kobernick, Program Manager, Peninsula Clean Energy
3. Zac Thompson, DER Program Associate, East Bay Community Energy
4. Zoe Elizabeth, Senior Energy Consultant, Silicon Valley Clean Energy
5. Brett Wiley, Customer Program Manager, MCE

PG&E EV Fleet Program

Zero Emissions support for Medium & Heavy-Duty Vehicles

October 8th, 2020



Together, Building
a Better California





EV Fleet Program overview

PG&E will help you install EV make-ready infrastructure for medium- and heavy-duty fleets

\$236 million
budget over 5 years
FROM 2020–2024

700+ sites
SUPPORTING
6,500 new EVs

Support conversion of commercial and public fleets to electric

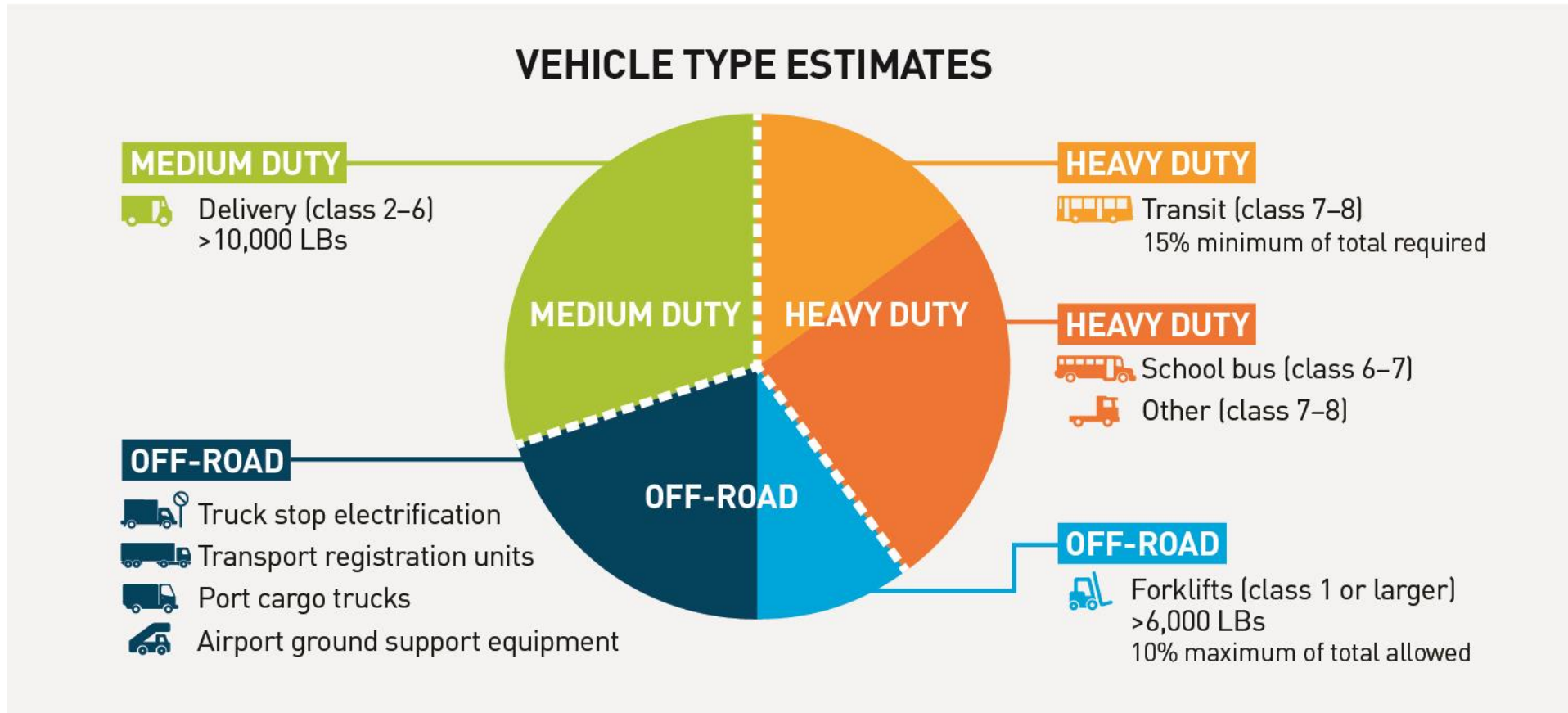
EXAMPLES:

Delivery vehicles, school buses, transit buses, and more...



EV Fleet vehicle sector mix

EV Fleet supports a diverse mix of medium- and heavy-duty vehicle types*

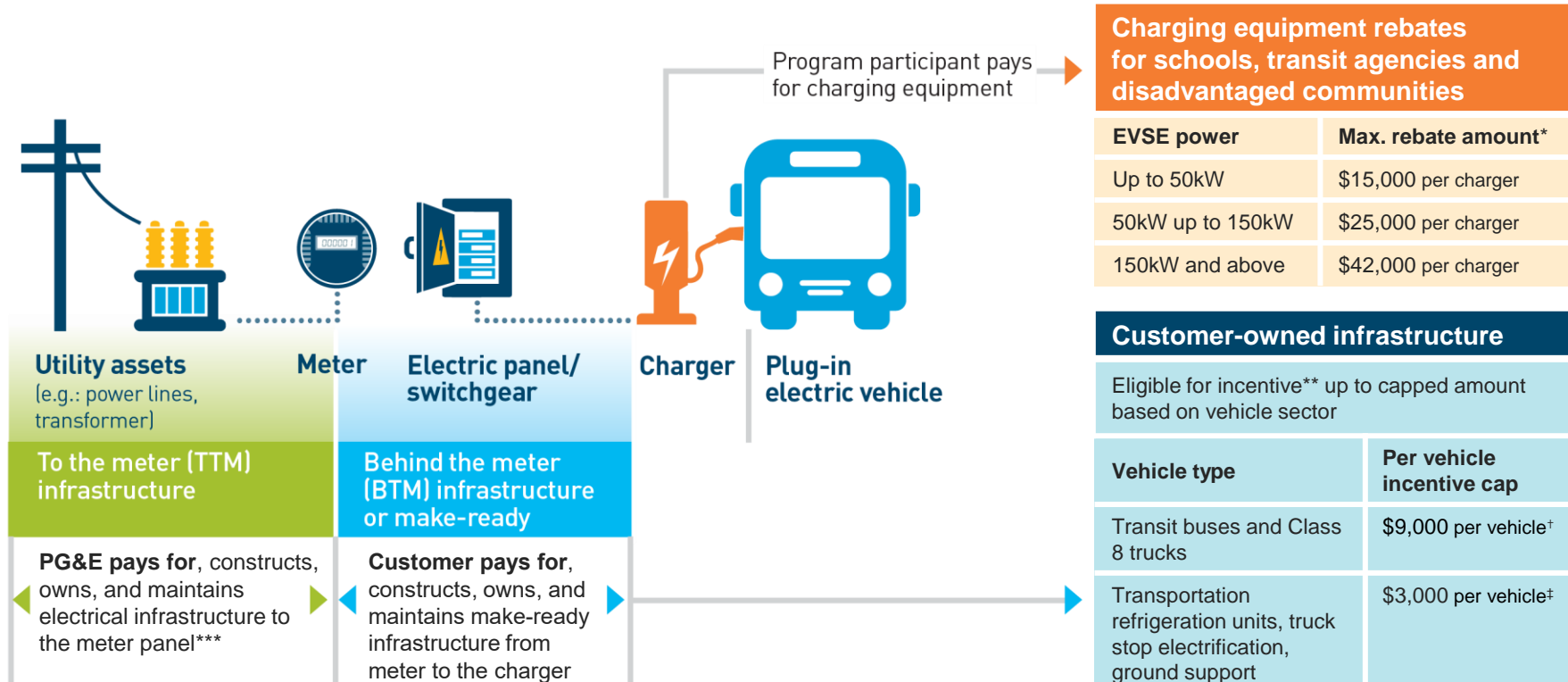


*Actual representation of vehicle types subject to vary based on program implementation, project costs, and market readiness



EV Fleet – Rebates & Incentives

PG&E pays for infrastructure cost up to the customer meter



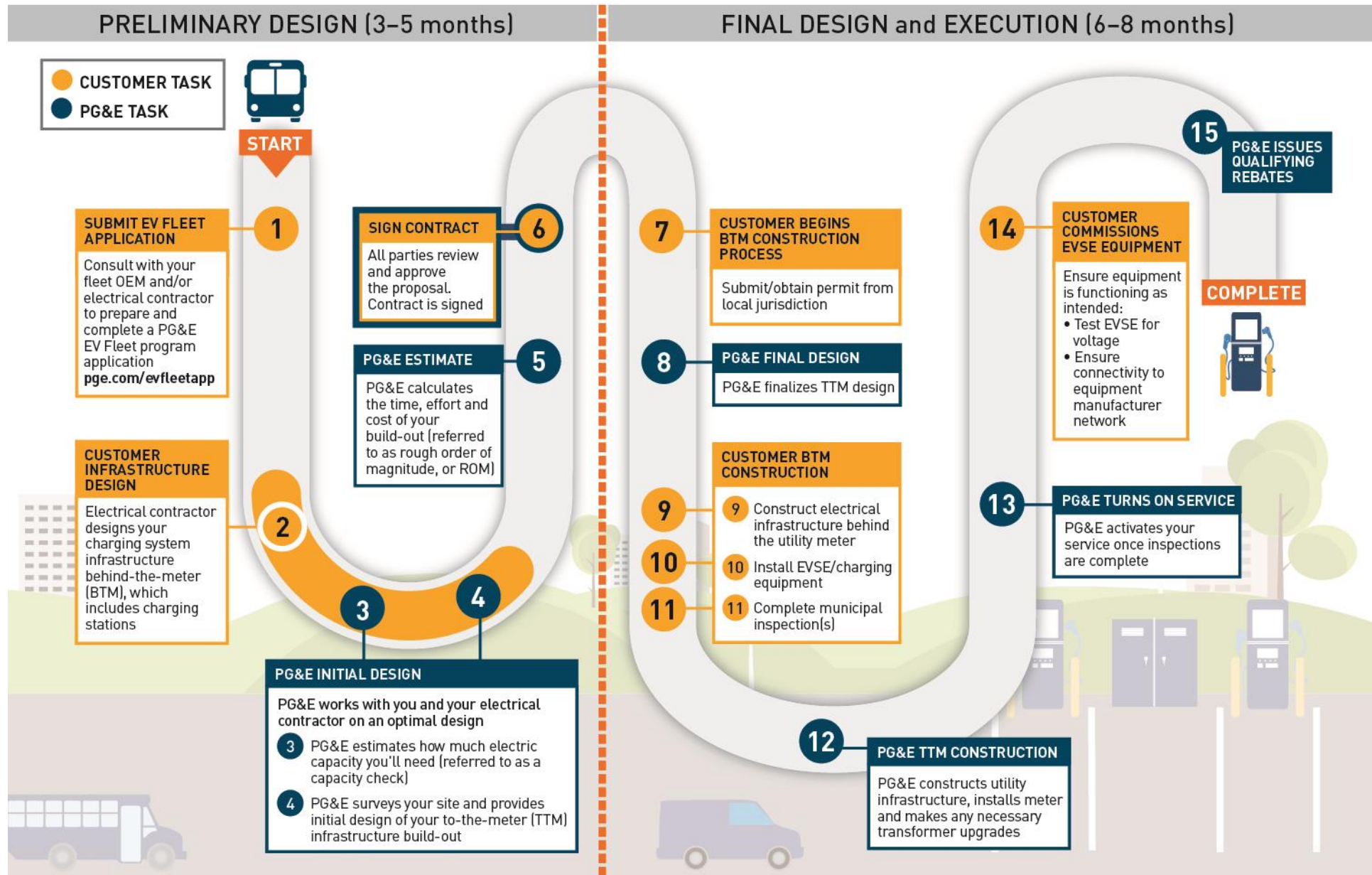
*Rebate not to exceed 50% of charger equipment and installation costs.
 EVSE must meet minimum and standard requirements to be eligible for rebate.
 Fortune 1000 companies are not eligible.

**PG&E provides an incentive that is equal to the lesser amount of either 80% of the customer-owned make-ready infrastructure costs or the incentive cap, as described, on a per vehicle basis

† Limited to 25 vehicles per site.

‡ Limited to 50 vehicles per site.

EV Fleet customer journey map



1. Funding Tool:

[Funding Filtering Tool](#)

[In collaboration with CARB, BAAQMD, etc.]

2. Vehicle Availability Tool:

[Distribution & Delivery Sector](#)

[Shuttle Bus Sector](#)

[In collaboration with Marketing and OEMs]

3. Cost Savings Tool:

<https://fleets.pge.com/>

Next Steps:

- Collaborate with the Grant/Funding agencies to understand which grants are stackable vs not
- Collaborate with regulatory bodies to get alignment between policies and utility programs

Connect with us!



Learn more and submit an interest form at
www.pge.com/evfleet

Thank you!

Jyoti Rao

Sr. Program Manager

EV Fleet Program

j9rk@pge.com



What is Peninsula Clean Energy?



Peninsula Clean Energy is San Mateo County's locally-led electricity provider. We are reducing greenhouse gas emissions and offering customer choice at competitive rates.

Proposed PCE Program

Support

Trainings, site
design and
setup

Funding

Gap funding
assistance

V2B

Demonstration
with local
agency

EV Ready

- Workplace and multi-family EVSE rebates and free technical assistance
- Fleet EVSE that are also available as workplace chargers are eligible

L1: \$2,000/port

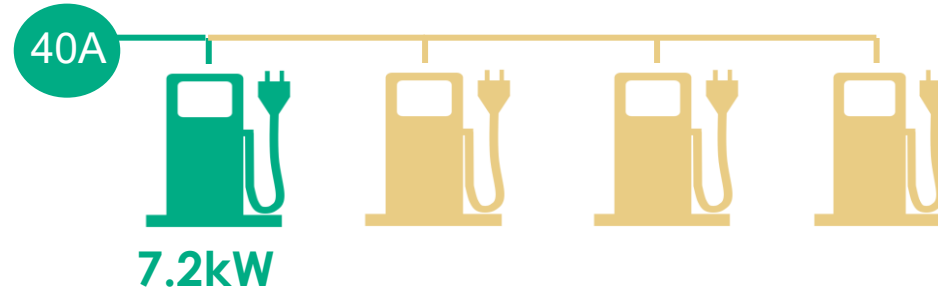
L2: \$4,500/port

More details/apply at
<https://www.peninsulacleanenergy.com/ev-ready-incentives/>

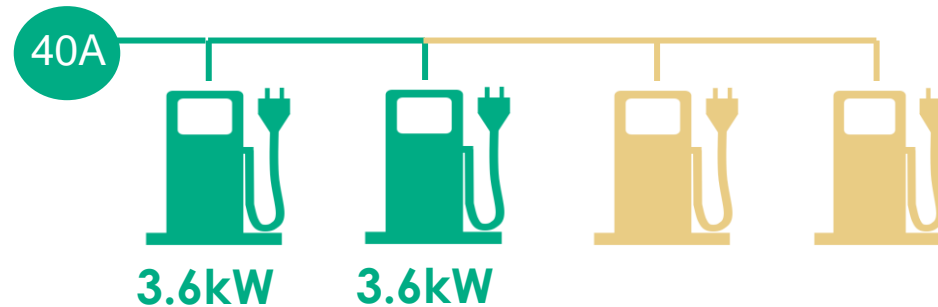


Avoid Upgrades with Energy Mgmt.

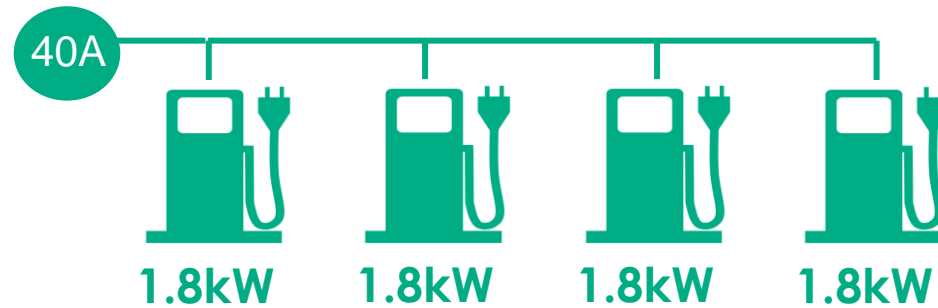
Circuit Sharing: Multiple charging stations share the same electrical circuit



When one EV is actively charging, all circuit power is delivered to that station



Power is divided evenly as additional EVs are actively charging on the same circuit



EBCCE's Municipal Fleet Electrification Program

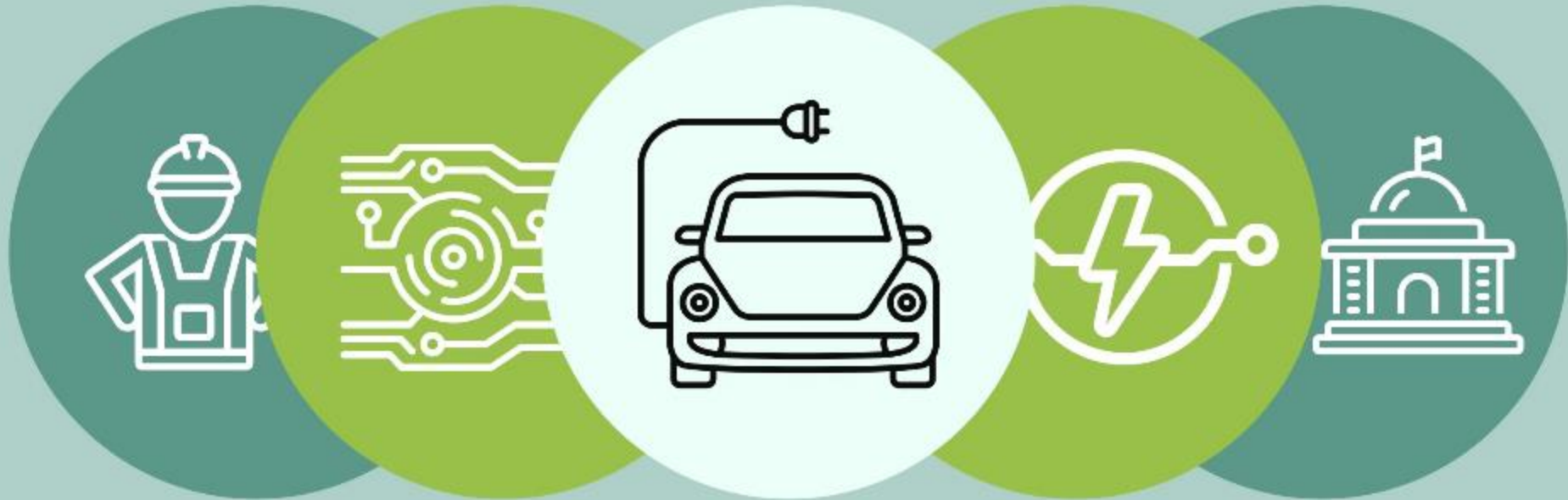
- Funding development of Fleet Electrification Plans
 - Alameda County, Cities of Albany, Berkeley, Dublin, Hayward, Oakland
 - Fleet and domicile facility analyses, GHG reduction and TCO analyses
 - EV adoption, charging infrastructure and solar + storage deployment
- Connecting municipalities to funding opportunities
 - Alameda County CALeVIP project coming in 2021

Lessons Learned

- Understanding Cities' budget cycles and procurement methods
 - Procurement requirements (contracts, policies, etc.)
 - Aligning vehicle transition prioritization with near-term budget
 - Importance of long-term budget planning
- Importance of collecting good vehicle data
 - Informs near-term vehicle transition feasibility and charging infrastructure strategy
 - Slow down to go faster

SVTEC

Silicon Valley Transportation Electrification Clearinghouse



WORKFORCE

INDUSTRY

UTILITY

GOVERNMENT

A collaboration of public, private, and nonprofit sector leaders working to advance transportation electrification in Silicon Valley by overcoming policy, regulatory, financial, and knowledge-based barriers.

Staying focused on the scale of the challenge

To electrify transportation we must:

1. Increase available funding
2. Reduce costs

Increasing funding

1. Curated up-to-date information on incentives:
<https://www.svcleanenergy.org/svtec/>
2. Application support
3. Grant proposal support

Collaborating on the hardest issues

1. Streamlining EV permitting
2. Reducing time and costs of interconnection

Providing knowledge and education

1. Quarterly meetings – RMI presentation
2. Regional recognition awards honor and share best practices

SVCE's EV Programs

- [FutureFit: EV Assist](#)
- [DCFC Incentives for Sites Near MUD's](#)
- [CALeVIP](#)
- [EV.Energy](#)
- [EV Match](#)
- Fleet Planning – 2021



Municipal Fleet Electrification Panel

Brett Wiley
Customer Programs Manager
MCE

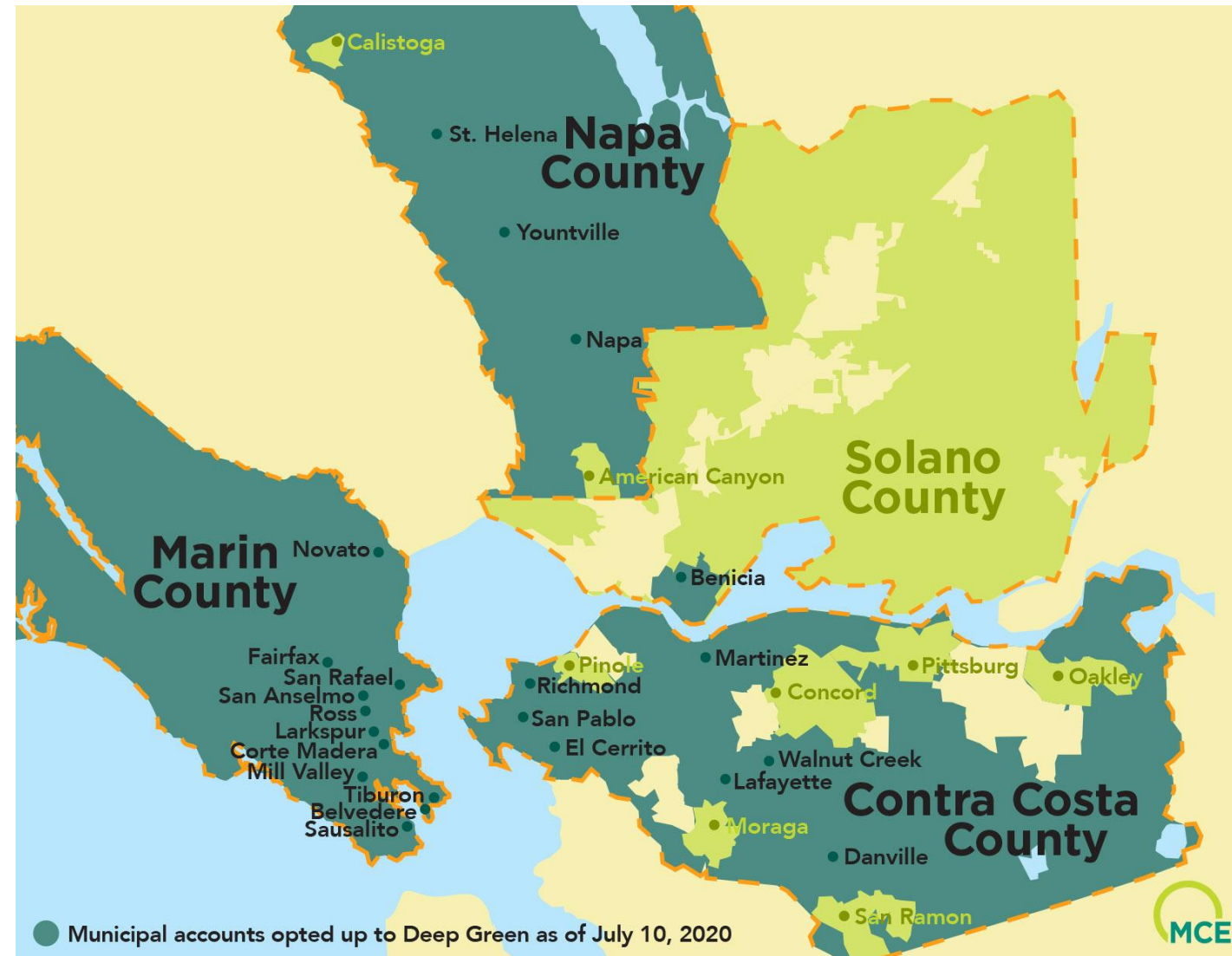
MCE & 34 Member Communities

Marin County
+ 11 cities

Solano County
+ 1 city

Napa County
+ 5 cities

Contra Costa County
+ 13 cities



About MCE

2008 | MCE formed

2010 | Service launched

2020 | Serving 480,000+
customer accounts



MCE^{EV}_e

CHARGING PROGRAM



Eligible locations: Workplaces and multifamily properties (MCE customers)

Project Size: 2-20 Level 2 ports (per site)

Rebate Amount: \$3,000/port + \$500/port bonus for Deep Green customers

Technical Assistance: Provided by MCE

Layered Services & Stackable Incentives

Interested? Email bwiley@mceCleanEnergy.org

Peer Collaboration

We are stronger and more informed together.

Examples:

- CCA Program Managers
- Air District's EV Coordinating Council
- Muni EV Planning Working Group



Program Design: Layering Services

Comprehensive Solutions

- Problem: Access to EV charging = 2 of top 3 barriers to EV adoption
- Solution: Increase EV charging
- Why an “infrastructure only” program cannot fix the problem?
 - No in-house support → technical assistance
 - Ongoing costs → Rate & Pricing, Low Carbon Fuel Standard (LCFS)
 - Utilization → “ ” + User Engagement (Pre & Post)
 - Access to a vehicle → income qualified EV rebate, EV car share
- Other layers w/ ease: opting up to 100% renewable, incentive stack

Program Design: Layering Services

Case Study: LAPD Fleet Electrification



MAYOR GARCETTI ANNOUNCES THAT CITY OF LOS ANGELES IS NOW HOME TO LARGEST ELECTRIC VEHICLE FLEET IN THE U.S.

JUNE 8, 2016

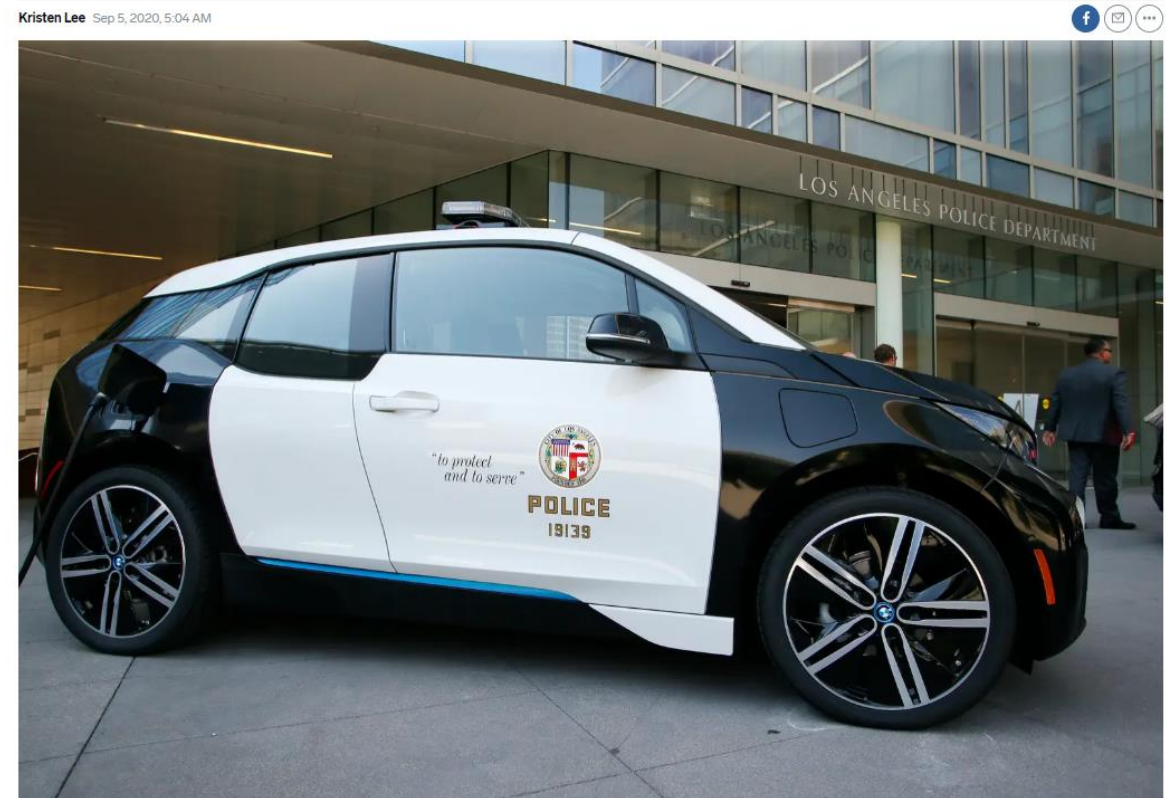
- 3 year lease on 100 BMW i3s (2017 model: 81 mile range)...with plans for 300 total
- EV charging: 100 L2 + 4 DCFC
- Commitment from Mayor and LAPD Chief
- \$10.2M

Program Design: Layering Services

Case Study: Employee Engagement

- Most of the i3s had less than 10K miles. Some had less than 1K miles.
- Most cited reason for lack of use: staff concerned about range
- Only used for admin purposes. Why not parking enforcement?

The Los Angeles Police Department's barely used fleet of BMW i3 EVs is being sold for dirt cheap



Source: Business Insider

LCFS and Contracts

Monetizing Zero Carbon Transportation

- Brief Primer on LCFS Market & Credits
- LCFS Credit: 22 cents/kWh*....
- MCE A-10B 100% renewable: 25 cents/kWh**
- Important: read your EV charging vendor contracts. Default term for most is they claim your credits.

*Estimate from a vendor @ \$200 credit price, subject to change

**Includes PG&E T&D + PCIA

Thank You!

Brett Wiley

bwiley@mceCleanEnergy.org





QUESTIONS?

NEXT STEPS

WORKING GROUP MEETING #4

Tentatively: 1st week of January 2021**

Part 1: Phase 3 & 4 Conclusions & Lessons Learned

Part 2: Best Practices & Project Wrap Up

Target Audience: Local Government Facility Planners, Facility Managers and Sustainability Staff, Regional LSEs, EVSE Suppliers, DER solutions providers

** Exact date subject to change.



THANK YOU!

QUESTIONS?

Email tina.hu@prospectsv.org or sam.hill-cristol@optonyusa.com