

Program Advisory Council Meeting

Q4 2021

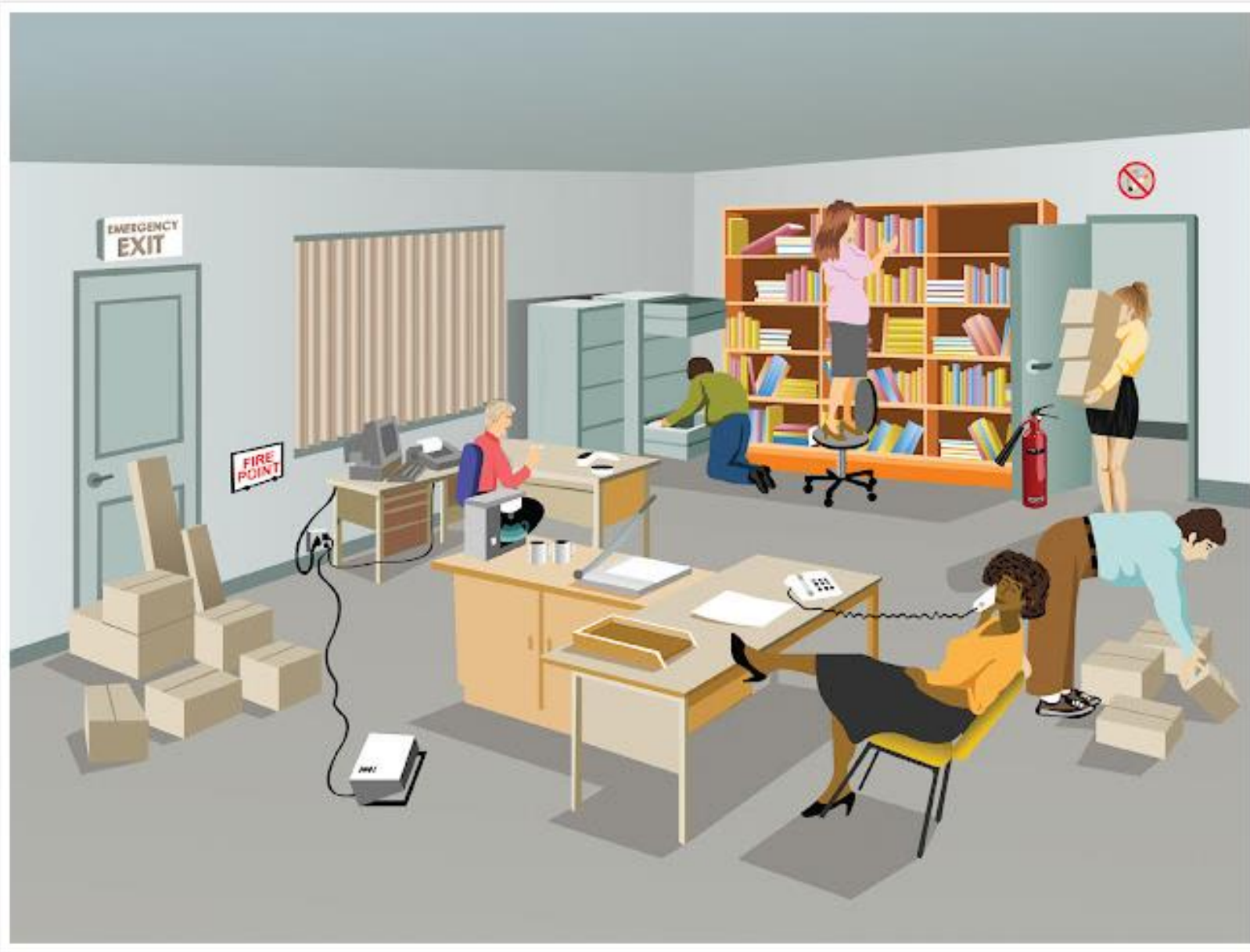


Together, Building
a Better California



Agenda

Safety / Introductions	5 Minutes
SB 350: Standard Review Project Updates	15 Minutes
Schools and Parks Programs Updates	10 Minutes
Empower EV Update	5 Minutes
LCFS Holdback Programs Update	10 Minutes
EVCN Detailed Update	20 Minutes
EVC2 Update	10 Minutes
Questions	15 Minutes



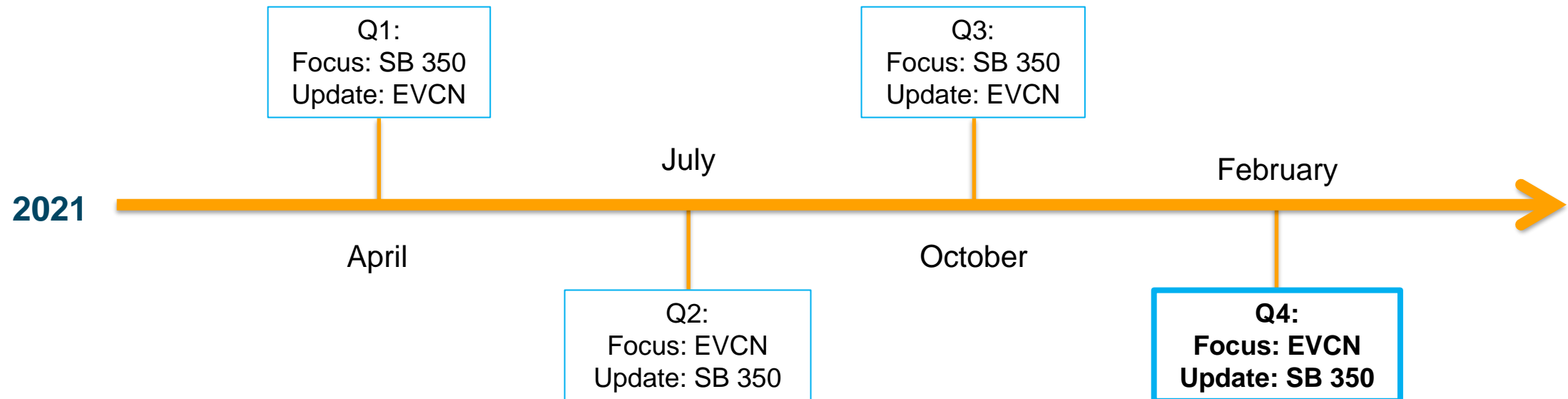




Clean Transportation Program Advisory Council

Overview

- PG&E has expanded our efforts on transportation electrification, with a number of filings, pilots and programs in progress
- CPUC has directed PG&E to consult a Program Advisory Council in the development of these 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



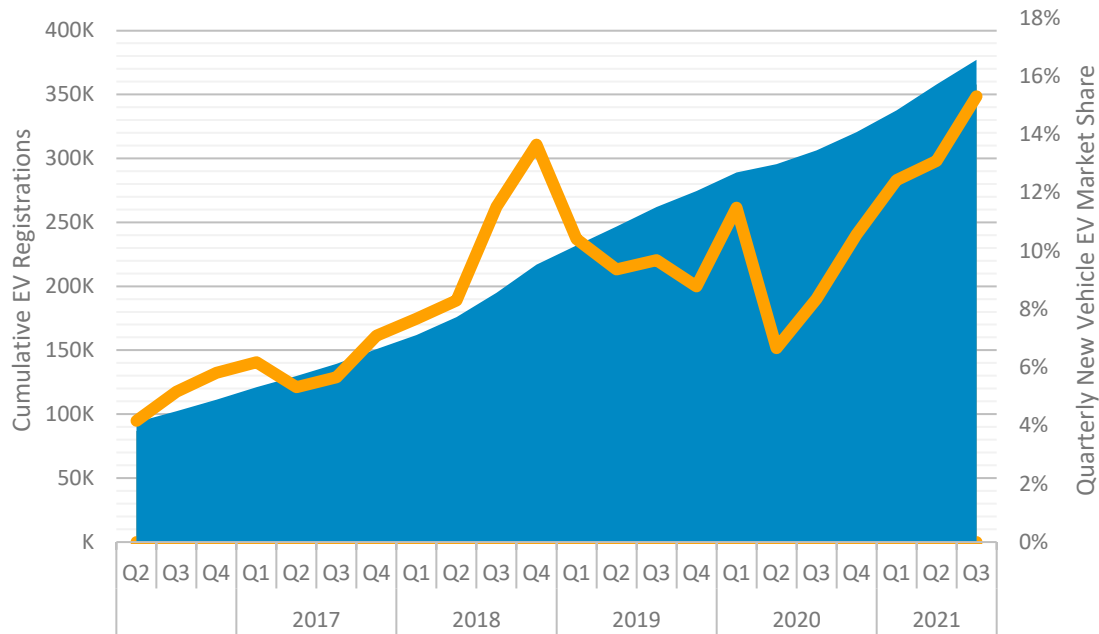


EV Market Update

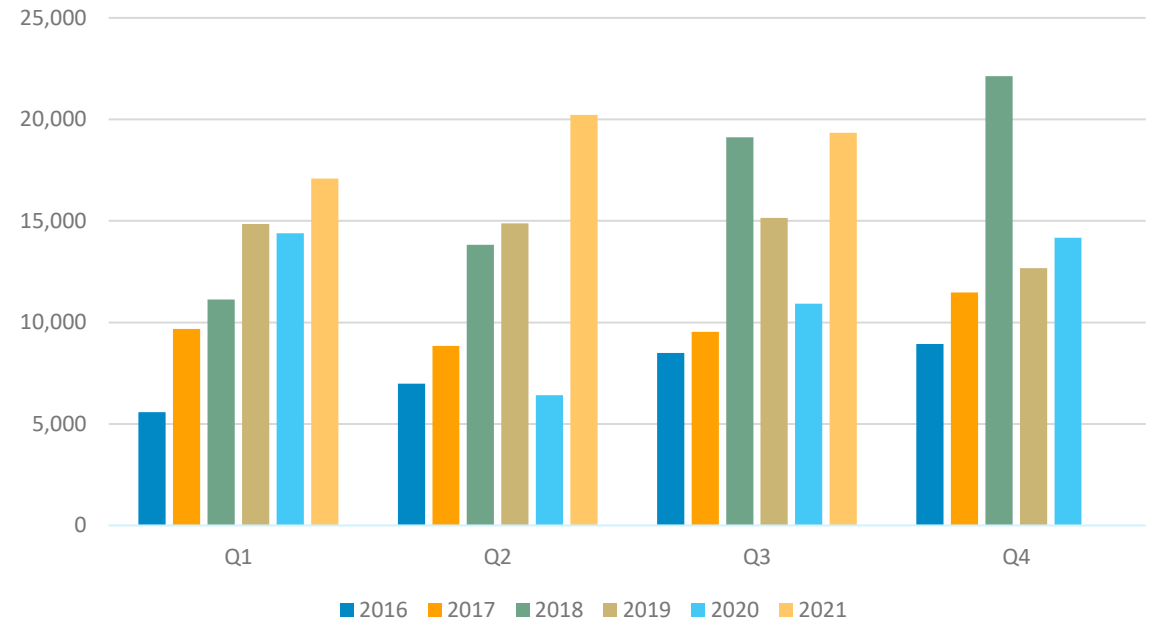
3 9 0 , 7 6 8

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

Cumulative New EV Registrations PG&E Service Territory



New EV Registrations by Quarter



SB 350

Standard Review Projects



Together, Building
a Better California

EV Fast Charge



Together, Building
a Better California

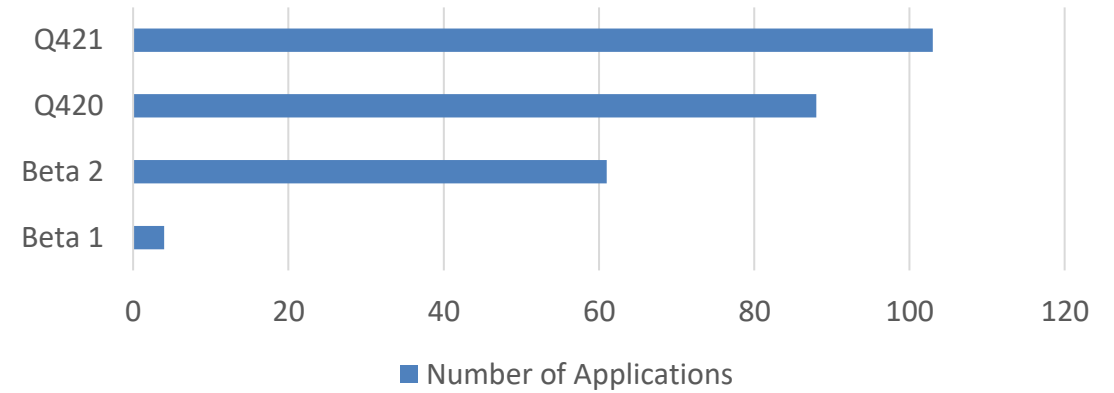


EV Fast Charge Program Update

Status as of 12/31/2021

	Sites	Ports
Applications	256	1154
Contracted Sites	17	87
Final Design	13	71
Constructed	4	16
Activated	4	16

Applications by Solicitation Window

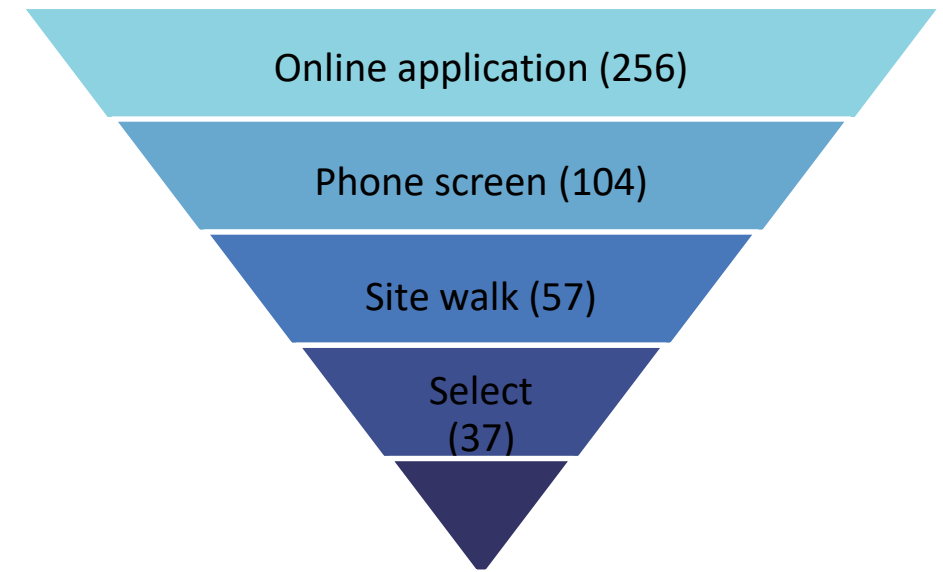


Program Budget Overview

Spend-to-Date	Remaining Funds
\$4.6M	\$17.8M

- **Customer acquisition:** No additional site solicitations planned; program on track to be fully subscribed in 2022
- **Qualified Vendors** No additional vendor RFQs planned
- **Technology:** More applicants with higher kW chargers

Site Evaluation Progress Gates

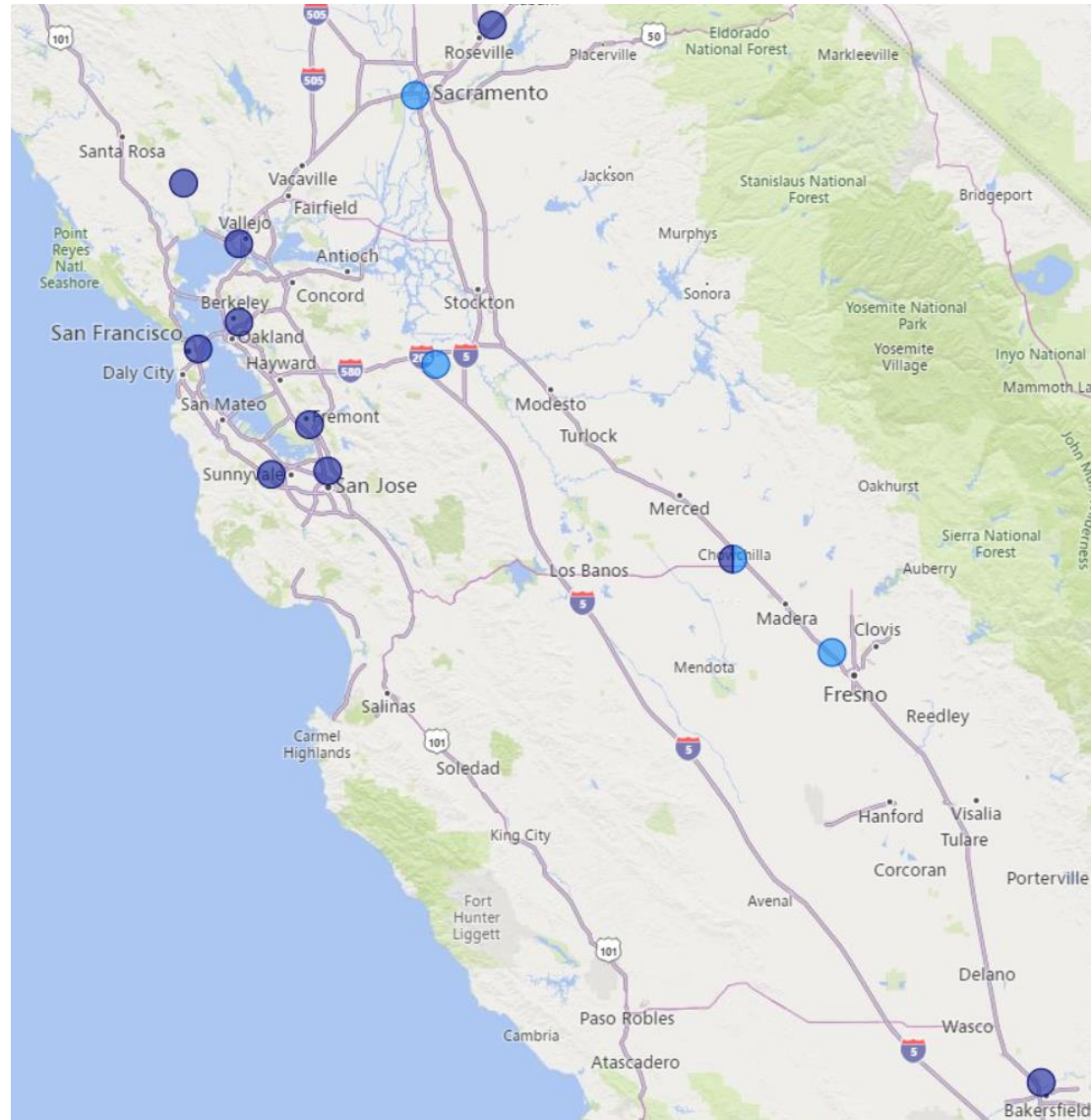


Fast Charge Construction and Activation

Activated sites and sites in construction by zip code

Status

- Activated
- In Construction



EV Fleet



Together, Building
a Better California



EV Fleet Program Update

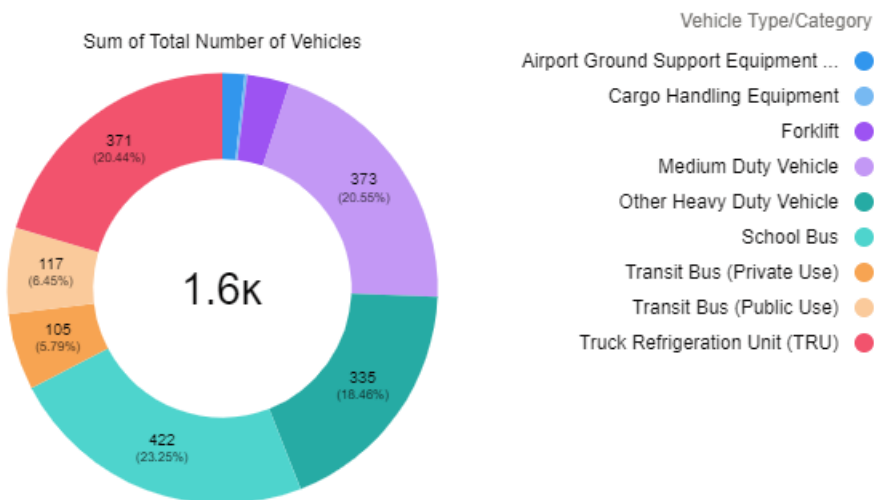
Status as of 12/31/2021

	Sites	EVs
Applications	201	-
Viable Contracts ¹	91	1,514
Final Design	62	737
Construction Complete	30	322
Activated	29	313

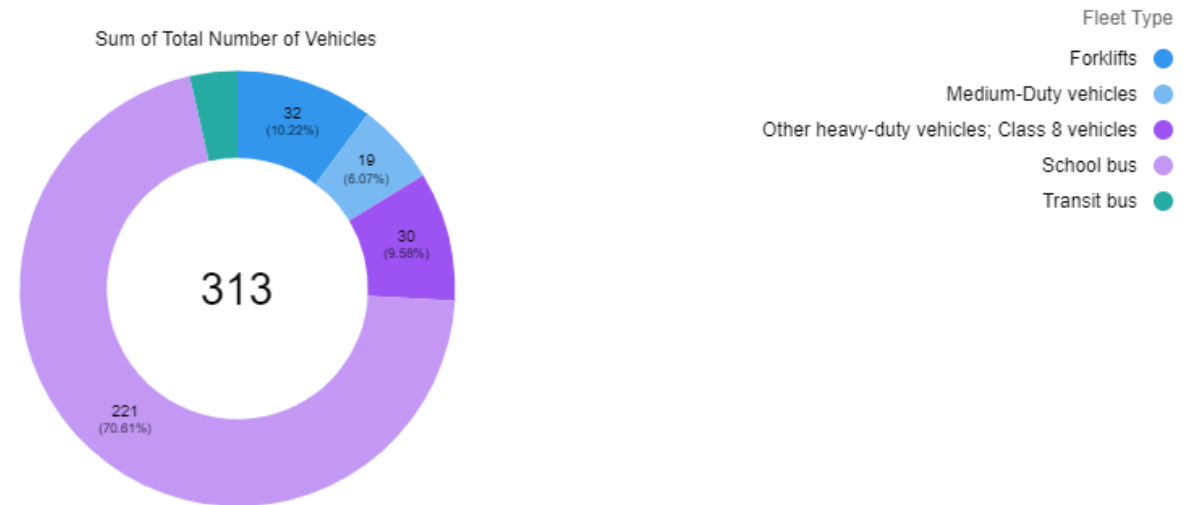
Program Highlights

- The program currently has **91 signed contracts (equating to ~1,514 committed EVs) and 29 activated sites**
- 35 of the 91 signed contracts (**38%**) are in **DACs**
- Program is seeing a good mix of vehicle types
- Program budget = \$236.3M; **Spend-to-date = \$25.4M**
- Program will allow site hosts to deploy vehicles and chargers for 5 years after contract execution
- T3 Advice Letter delayed, expected in a couple of months

Viable Contracts: Vehicle Type



Activated: Vehicle Type



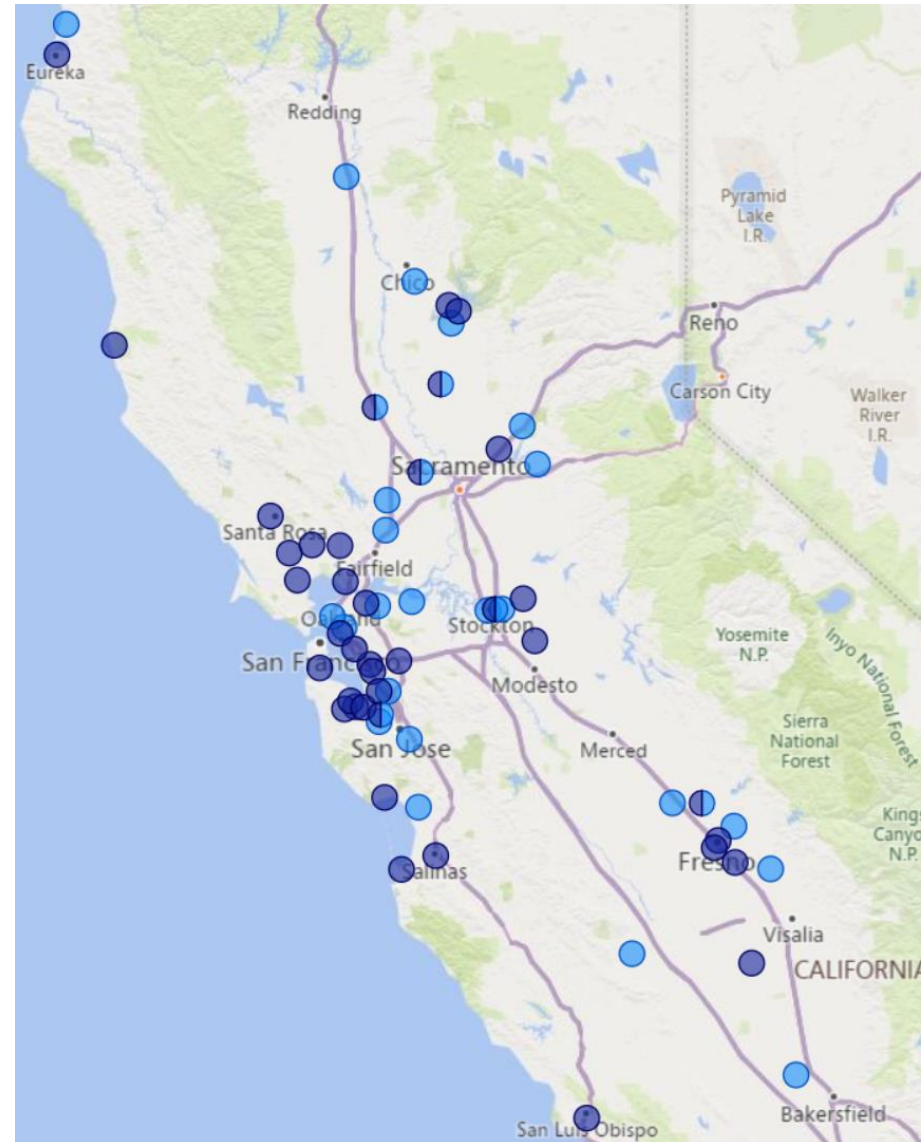
¹Viable contracts are all contracts signed to-date excluding cancelled and withdrawn.

Fleet Construction and Activation

Activated sites and sites in construction by zip code

Status

- Activated
- In Construction



EV Charge Schools & Parks Update



Together, Building
a Better California

Status as of 12/31/2021

56

Applications in 2021
336 Ports

14

Applications in DAC
25%
84 Ports

37

Applications in Non-DAC
66%
222 Ports

5

DAC Adjacent
9%
30 Ports

10

Contract Issuance*
18%
60 Ports

46

Sites Waitlisted
82%
276 Ports

Waitlist Reasons

- Cost Prohibitive – Trench Length, 16 Sites, 35%
- Cost Prohibitive – Tx Capacity, 8 Sites, 17%
- Cost Prohibitive – Step Down Tx, 6 Sites, 13%
- Cost Prohibitive – Primary Service, 4 Sites, 9%
- Cost Prohibitive – ADA, 4 Sites, 9%
- Cost Prohibitive – Step Down Tx + Trench Length, 3 Sites, 6%
- Cost Prohibitive – Step Down Tx + ADA, 2 Sites, 5%
- Other – 3 Sites, 6%

Program Updates

- EV Curriculum vendor under contract
- Curriculum under development
 - Curriculum deployment in Q3'22
 - Every K-12 School in PG&E Territory will have access to curriculum & teacher training (> 1000 schools)

Program Budget Overview

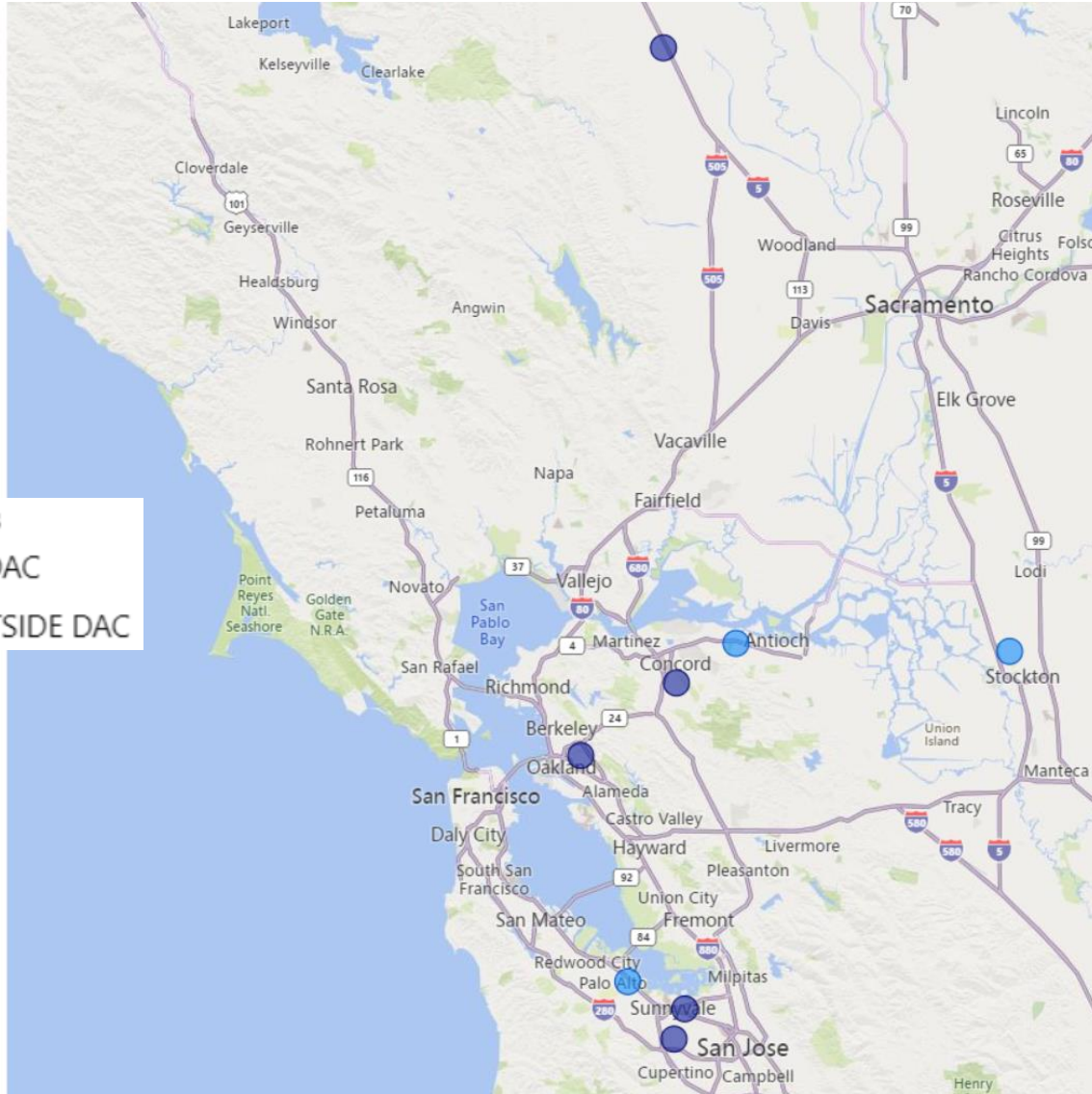
Spend-to-Date	Remaining Funds
\$537k	\$5.22M



Targeting 6 Ports per site

* 8 executed contracts; 1 outstanding with customer; and 1 contract pending issuance

Sites with signed contracts as of 12/31/2021



Status
● IN DAC
● OUTSIDE DAC

8

Contracts signed in 2021
48 Ports

3

Contracts in DAC
< 40%
18 Ports

5

Contracts in Non-DAC
> 60%
30 Ports

4

Owner Option
Contracts
50%
24 Ports

4

Sponsor Option
Contracts
50%
24 Ports

- Good geographic dispersion
- Trending to achieve 40% DAC target
- Hard to reach communities are in program



EV Charge Parks Program Update

Status as of 12/31/2021

	Sites	Ports
Applications	-	-
Prelim Viable Sites¹	-	-
Contracts	-	-
Installations	-	-

Program Update

- Preliminary site assessment list under review with Parks
 - Identified 34 State Parks (potentially eligible)
- Parks have contracting documents and easements under review
- Meeting with Parks on a monthly cadence
 - Parks have a new Project Manager

Program Budget Overview

Spend-to-Date	Remaining Funds
\$319K	\$5.22M

Program Scope

	Scope	Time	Budget	Sites	DAC	Rebates
Parks Program	15 parks/beaches 40 L2 ports 3 DCFC	2 years	\$5.54M	State parks/beaches (fleet and public)	25% of sites	PG&E Sponsorship

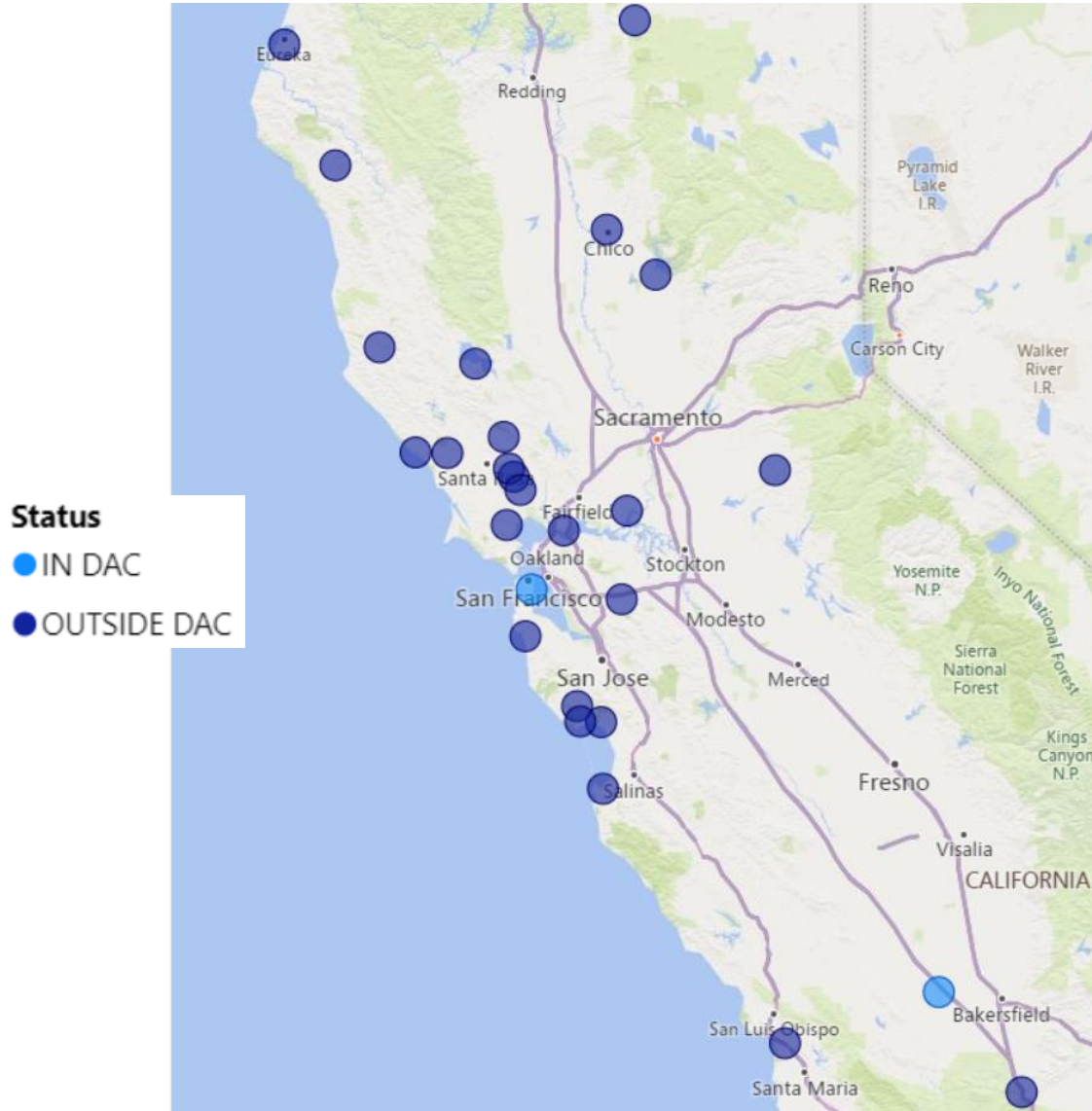
Additional Program Components

- Awareness raising: Signage and PR efforts for parks/beaches
- Exploring opportunities to deploy chargers in Tribal Communities



¹Prelim viable sites have either undergone a desktop review and are proceeding to site walk or have received a site walk & site design is pending.

EV Charge Parks Site Update



- PG&E analysis identified 34 potentially eligible State Parks and Beaches sites for EV Charge Parks Program
- Some dots represent more than 1 Park due to overlapping zip codes

Empower EV Program Update



Together, Building
a Better California

LCFS Holdback Programs Update



Together, Building
a Better California



LCFS Holdback Programs Update

Low Carbon Fuel Standard (LCFS): CARB regulation to reduce emissions from transportation fuels via a carbon market.

- PG&E generates credits for providing low-carbon fuels and uses the revenue as a non-ratepayer source of customer program funding.
- PG&E proposed 5 programs in June 2021; CPUC approved in December 2021
- Programs #1, #2, and #3 have equity components; #4 is a resiliency program

#1: Pre-Owned EV Rebate Program

Post-purchase rebate for pre-owned EVs. \$1,000 base rebate, additional \$3,000 for income-qualified customers.

\$86.6M
2022-2024

RFP out
Q3 launch target

#2: MFH + Small Business Direct Install Pilot

Install low-power chargers (Level 1 and Level 2) at multifamily housing and small businesses with capacity on panel.

\$25.2M
2022-2024

Q4 launch target

#3: Residential Charging Solutions Pilot

Educational resources and financial support to install residential EV charging and avoid panel upgrades.

\$7.3M
2022-2024

Q4 launch target

#4: Resilient Charging Pilot

Software to communicate and/or actively manage EV charging prior to a PSPS event to ensure they are fully charged.

\$4.8M
2022

Contracting
Q3 launch target

#5: Research & Innovation Fund Pilot (non-holdback)

Fund small proof-of-concept pilots and research studies, including data/analysis, hardware, or software.

\$0.2M
2022+
(rolling)

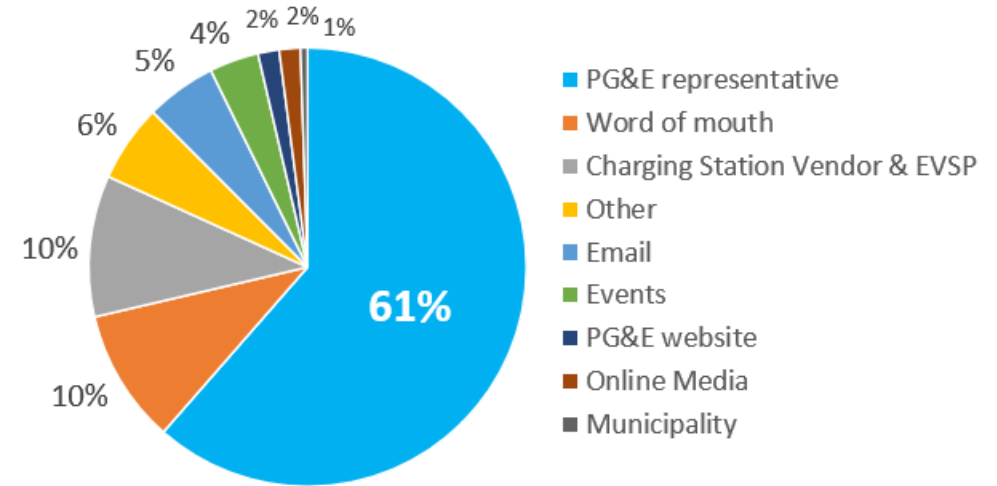
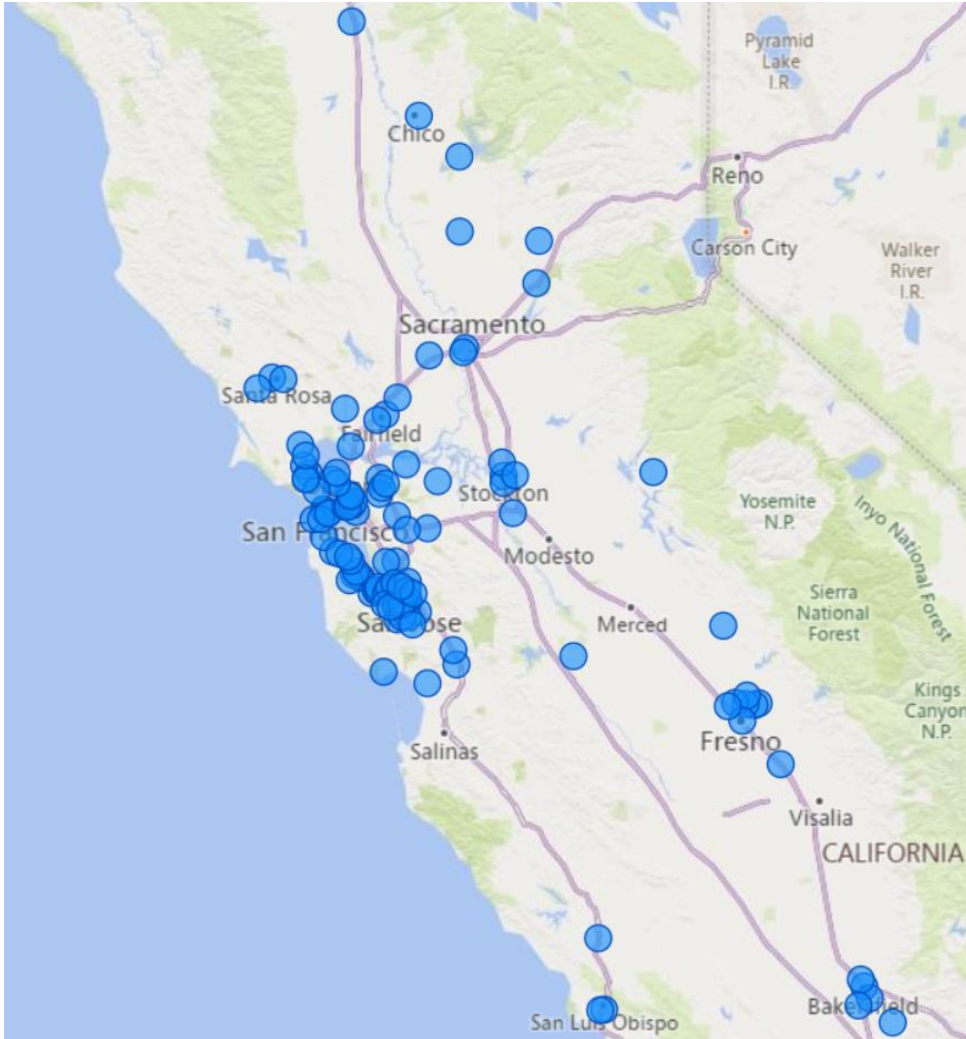
As needed

EVCN Update



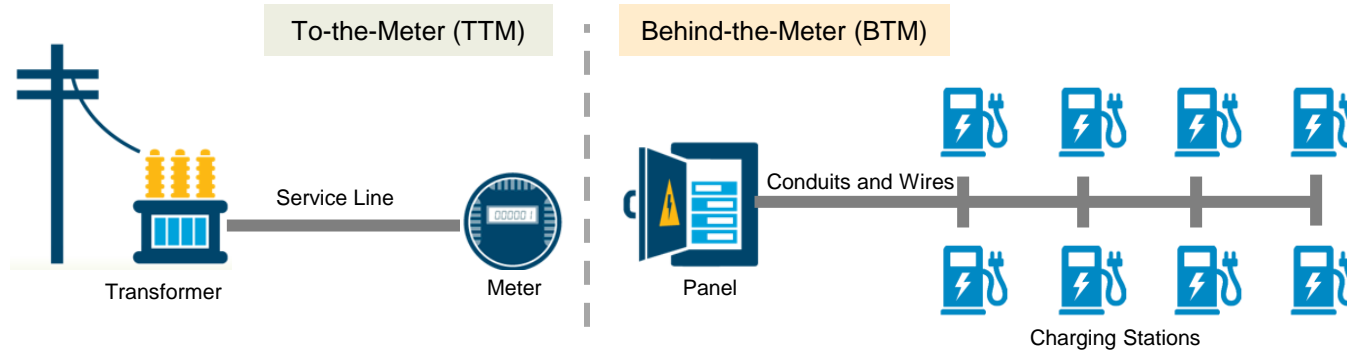
Together, Building
a Better California

EVCN Site Location and Sourcing



- EVCN had success offering infrastructure to customers over a broad geography and across 66 cities
- EVCN Sourced the sites in several ways with the majority coming from PG&E representatives, word of mouth, and vendors

EVCN Infrastructure Coverage Review



	Cost category	TTM	BTM	EVSE = Charger Charge Owner (site host owns) Charge Sponsor (PG&E owns)	Rebate	Participation payment
EVCN	Details	PG&E-installed/owned	PG&E-installed/owned	Charge Owner: Customer-installed/owned	Rebate to customer	n/a
				Charge Sponsor: PG&E-installed/owned	n/a	Customer payment, unless MUD/DAC
	Cost data availability ²	Yes TTM labor (internal PG&E, and design/construction vendor contract costs)	Yes BTM labor (internal PG&E, and design/construction vendor contract costs)	Charge Owner: Not available	Yes	n/a
				Charge Sponsor: Yes	n/a	Yes
		Yes Project-level costs: <ul style="list-style-type: none"> • Design / Permits • Materials • Associated overhead 		-	-	
EVC 2		(Covered under Rule 29)	(Covered under EVC 2 program request, where applicable)			

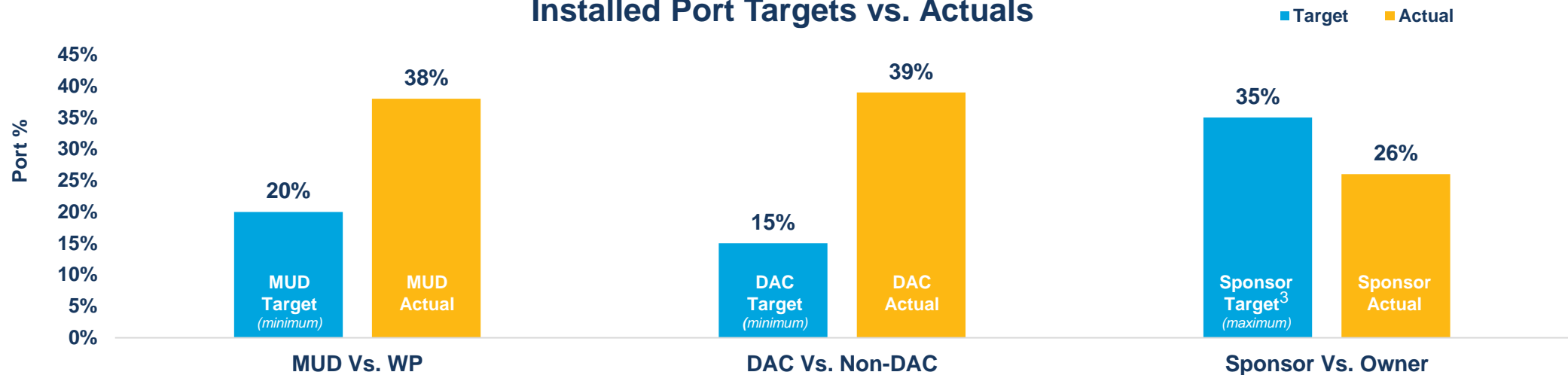


EVCN Construction Overview

Program Overview	Ports (Dec 2021)
Applied	15,828
Viable ¹	4,827
Final Design	4,827
Constructed	4,827

Highlights
<ul style="list-style-type: none"> Overall: Completed 4,827 ports at 192 sites <ul style="list-style-type: none"> 107% of 4,500 targeted ports Avg. Cost Per Port: \$17,504² Avg. Ports Per Site: 25 ports Spend to Date: \$117M Funds Remaining: \$13M

Installed Port Targets vs. Actuals

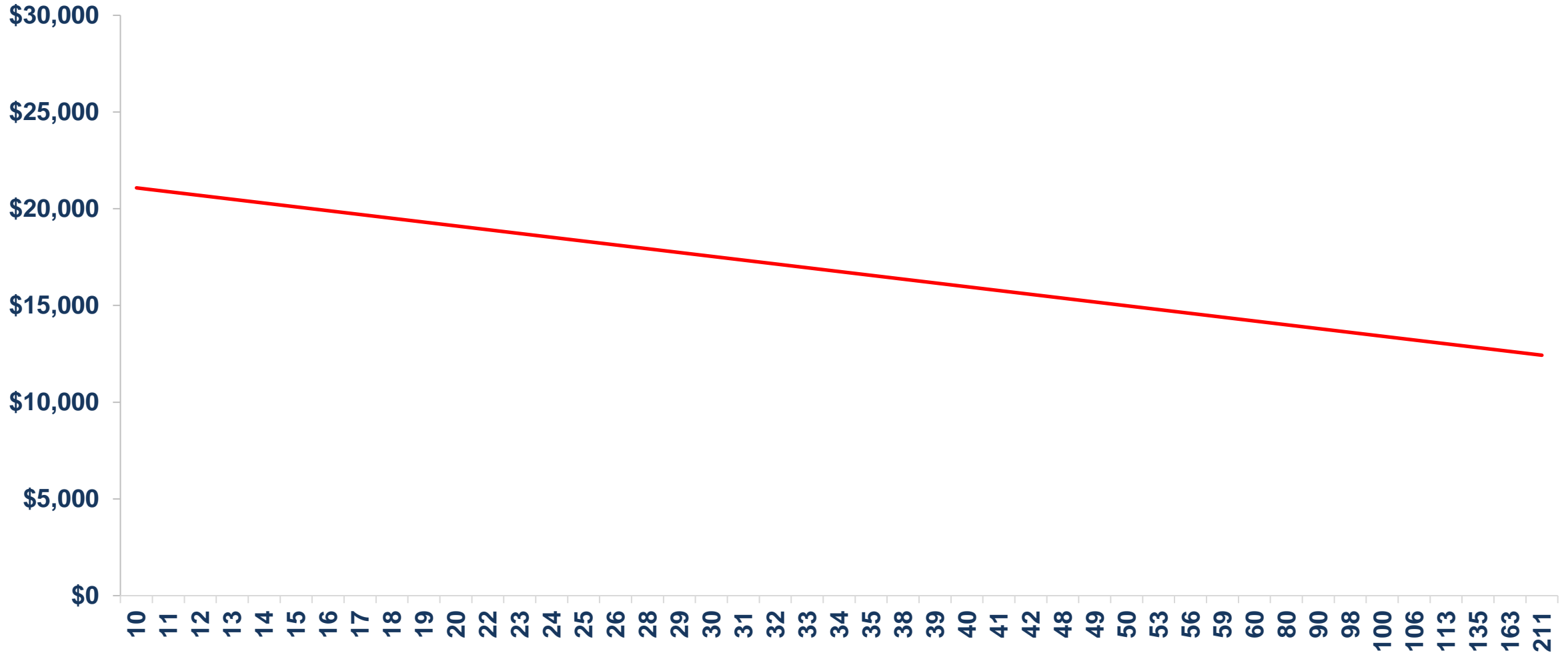


Notes: ¹ Viable sites are those sites for which contracts are signed and the project will be constructed; ² Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ³“Sponsor” figures calculated based on originally approved 7,500 port target, per decision



EVCN Cost Per Port Trend

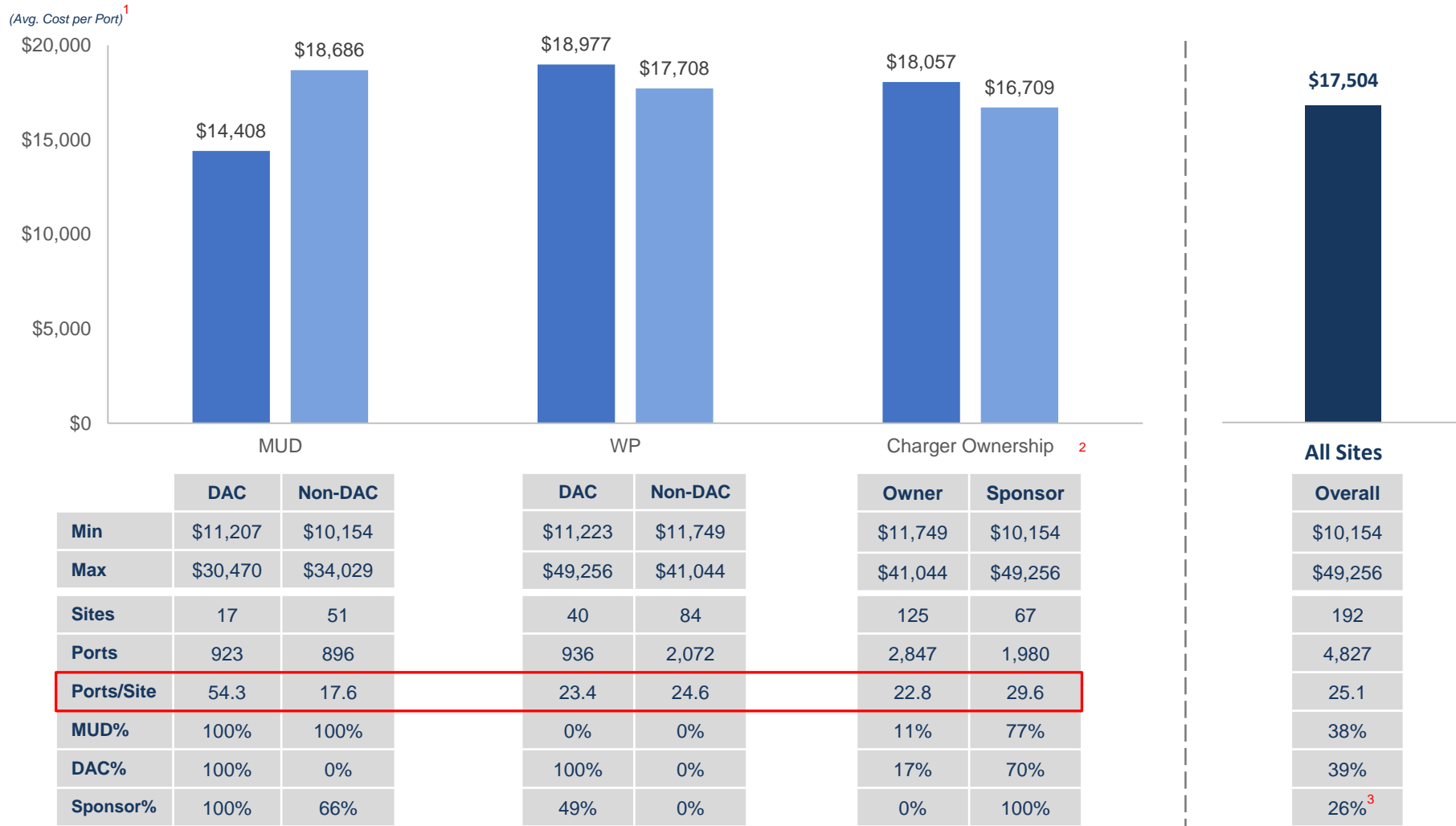
(Avg. Cost per Port)¹



Note: ¹ Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison



EVCN Segment Breakdown



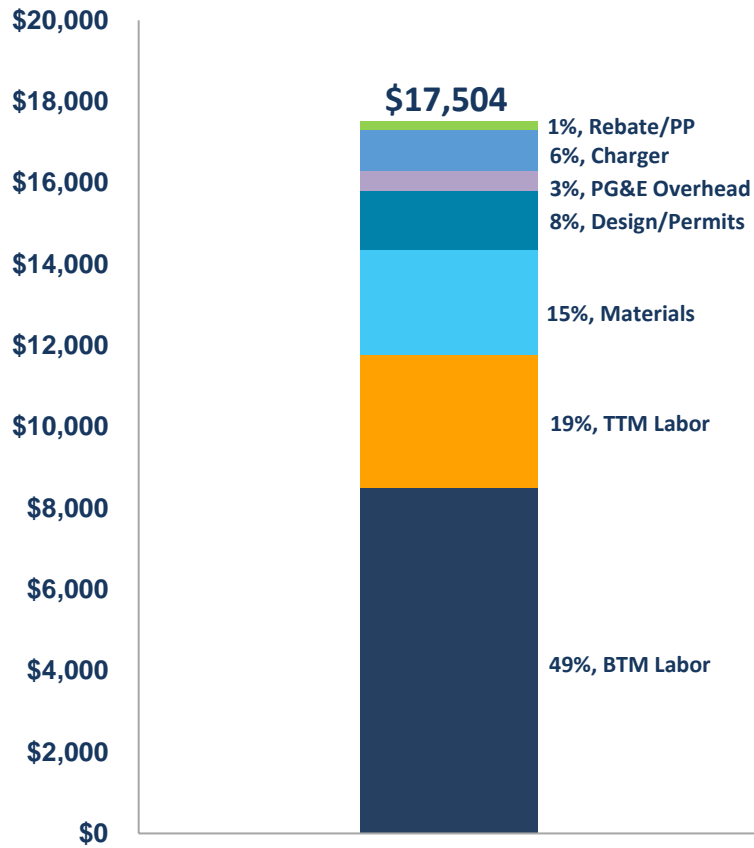
Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ²Owner = site host owns EVSE and Sponsor = PG&E owns EVSE; ³Figure calculated based on originally approved 7,500 port target, per decision



EVCN Individual Site Breakdown

Avg. Cost per Port by Category

(Avg. Cost per Port) ¹



Project Costs	Includes	TTM vs. BTM	Capital vs. Expense	
Included in Reported \$ Cost /Port	Rebate / Participation Payment	<ul style="list-style-type: none"> Charge Owner: PG&E pays rebate Charge Sponsor: PG&E receives payments (PG&E owned chargers) <ul style="list-style-type: none"> Except for MUD/DAC, where participation payment = \$0 	BTM	Expense
	Charger	<ul style="list-style-type: none"> Charge Owner: N/A Charge Sponsor: PG&E buys chargers 	BTM	Capital
	PG&E Overhead	<ul style="list-style-type: none"> Overhead for labor associated with the project Includes contract OH costs 	Both	Capital
	Design / Permits	<ul style="list-style-type: none"> Design & Eng after contract signed (excl site eligibility design/permits) <ul style="list-style-type: none"> Includes both vendor costs & PG&E labor (e.g. ADE time – Assoc Distribution Eng) Permit fee checks issued by vendors or by PG&E 	Both	Capital
	Materials	<ul style="list-style-type: none"> Meter panels, wire, etc. 	Both	Capital
	TTM labor	<ul style="list-style-type: none"> Construction contractor labor 	TTM	Capital
	BTM labor	<ul style="list-style-type: none"> Construction contractor or internal crew labor 	BTM	Capital

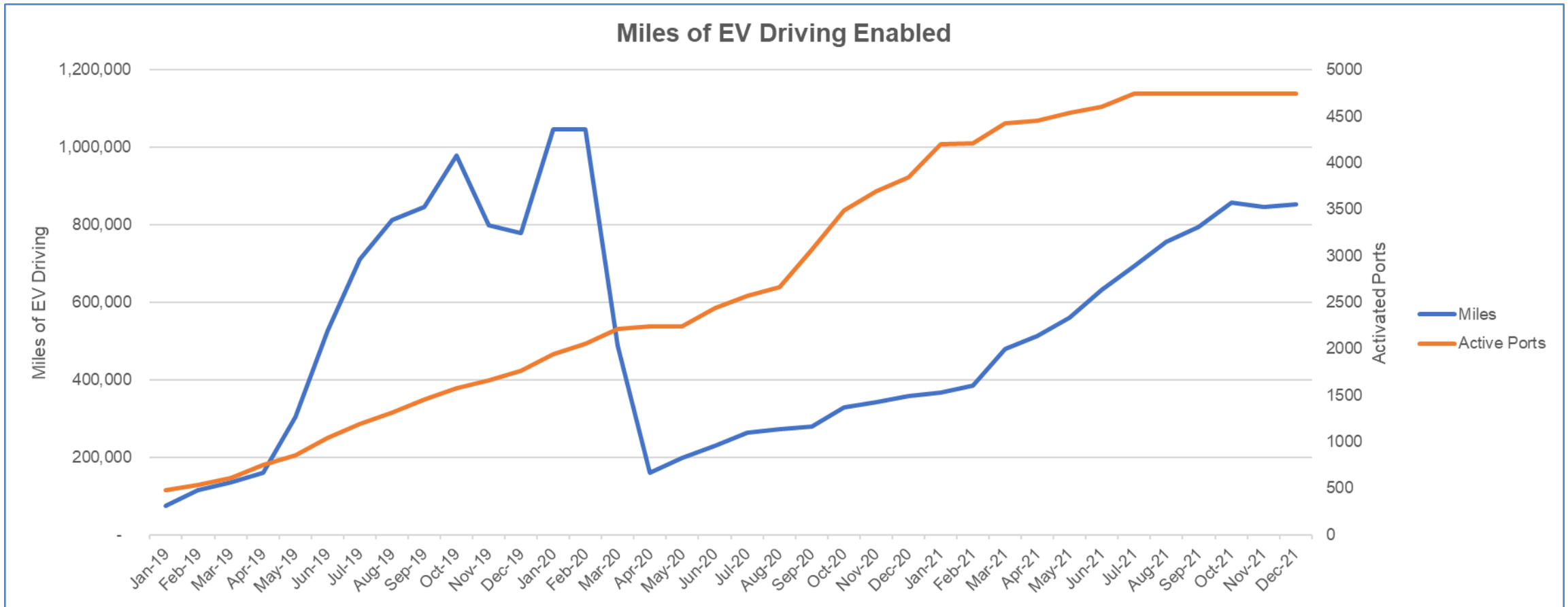
Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



EVCN Utilization Insights

Key Insights

- Impacts of COVID-19 are clearly seen from March 2020 onward
- Most recent months have seen a greater increase in usage than new ports



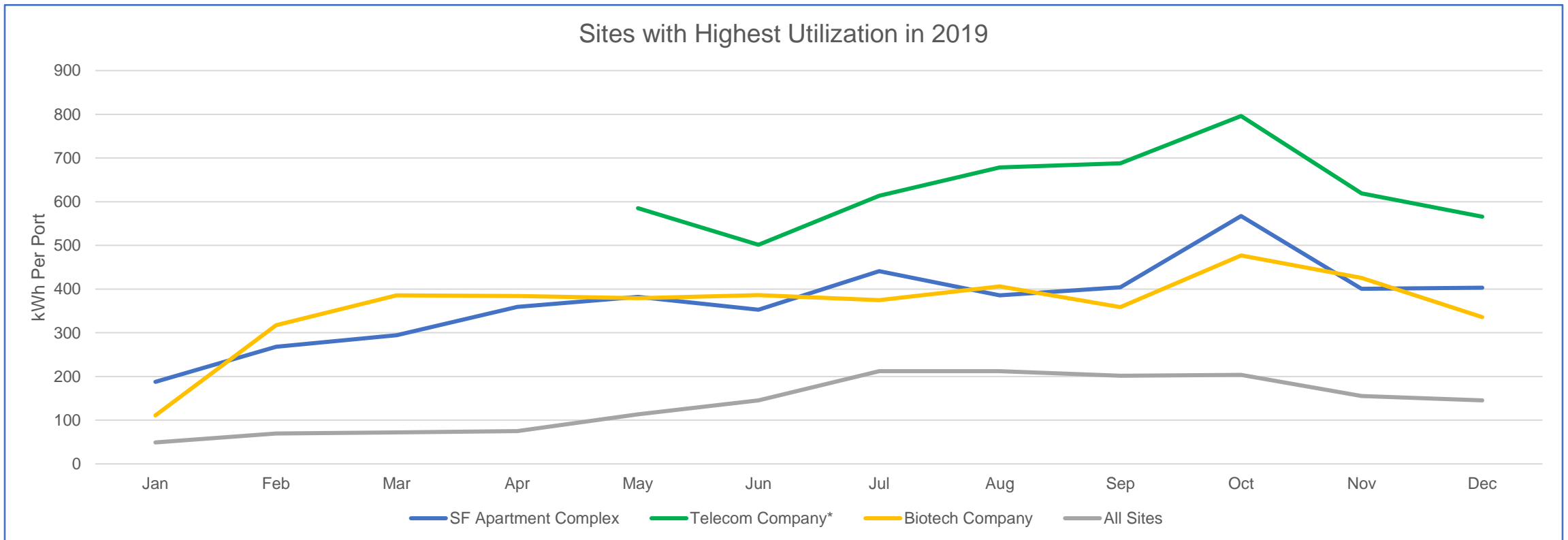
Note: 2018 utilization not shown due to limited sample size. Miles enabled assumes 3 miles per kWh of charging.



EVCN Highly Utilized Sites Insights

Key characteristics of site hosts with highest utilized sites:

- Offered reduced or free charging at their sites
- Conducted launch events and sent out info to employees about installed chargers
- One site host created internal app to notify drivers when chargers became available



Site names have been anonymized to protect privacy.

* Comprised of 14 individual projects at a single company's locations.

EVC2 Update



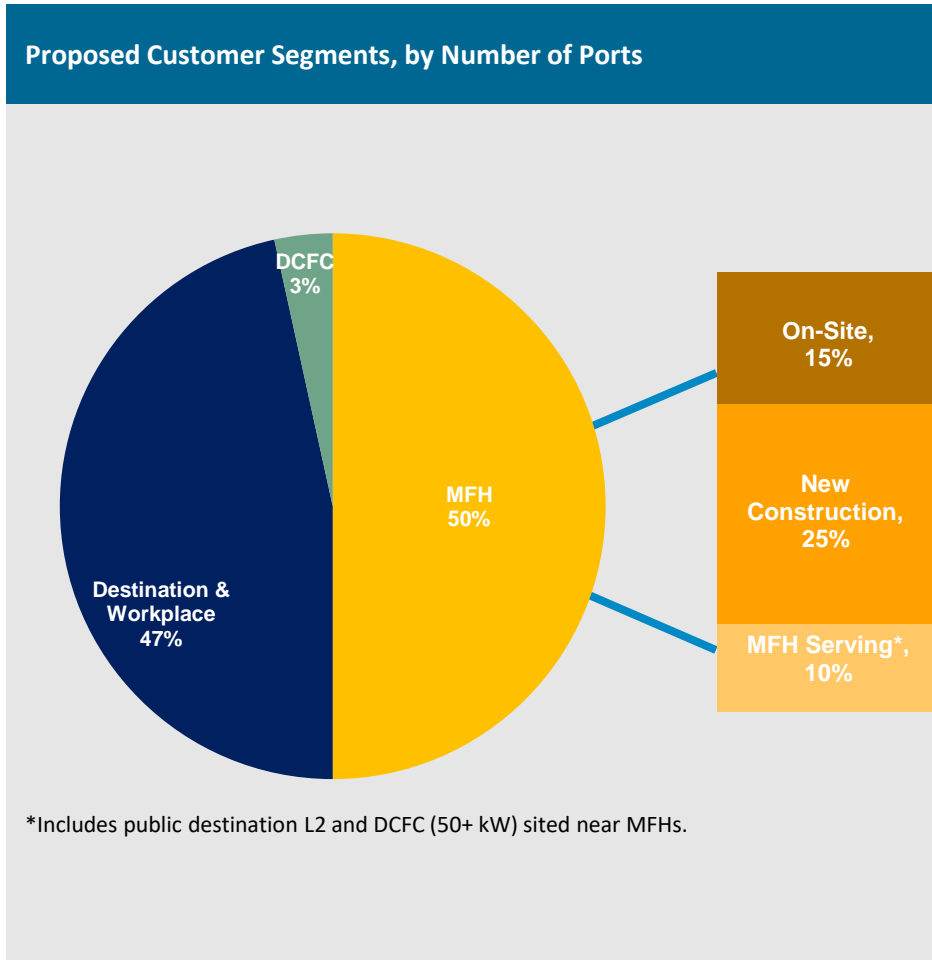
Together, Building
a Better California



EV Charge 2 Proceeding Update

- 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

	EVC 2 (BTM only¹)
Implementation	2023 – ME&O 2024-2028 – Install ports 2029 – Post-energization ME&O
Investment	\$276M
Make-ready & EVSE owned by PG&E	At most 50%²
AB 841 Prioritized Communities (AB841 PCs)	At least 50%²
PG&E-built ports	10,900 L2 1,100 DCFC
New construction rebates	4,000 L2
Locations	MFH, Workplace, Public



Community workshop Early March 2022
Intervenor testimony served March 2, 2022
Rebuttal testimony served April 6, 2022
Status conference April 20, 2022
Report on status conference by PG&E filed April 29, 2022
Evidentiary hearing Early June 2022
Opening briefs July 8, 2022
Reply briefs August 5, 2022
Proposed decision October 2022
Commission decision Q4 2022

1. To-the-meter (TTM) work associated with EVC 2 infrastructure deployment will be completed under Rule 29: EV Infrastructure Rule, as per AB 841.
 2. As required by D. 21-07-028.



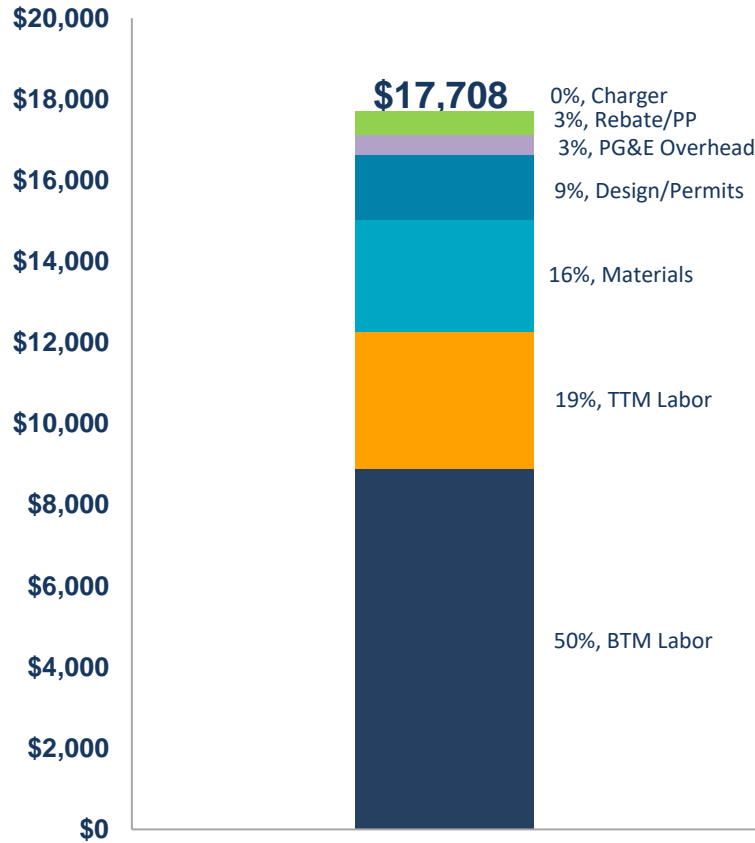
Example Calculation of BTM Only Cost

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

For Illustration Purposes Only

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



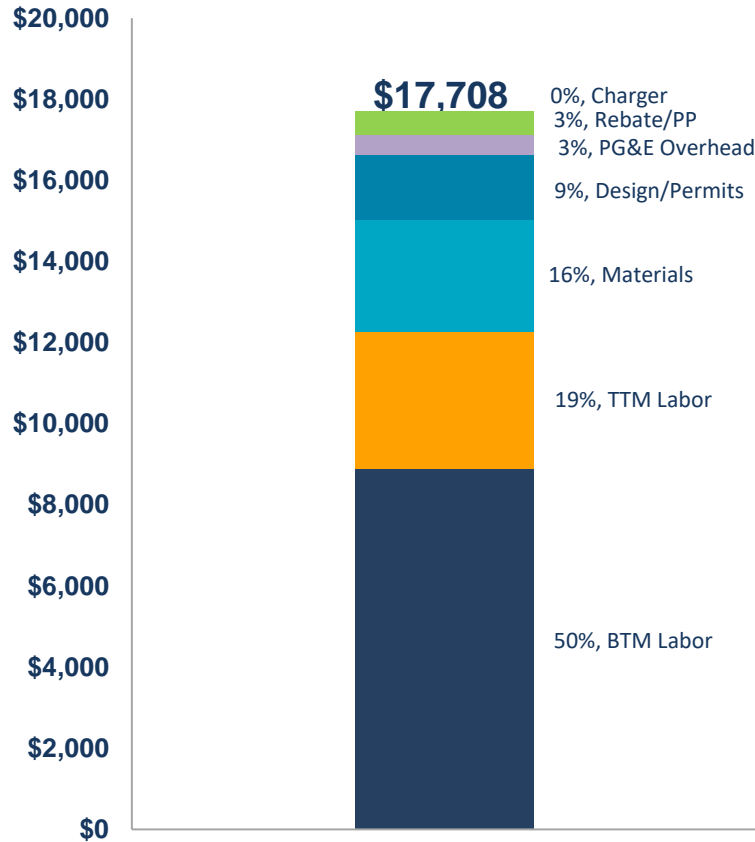
Example Calculation of BTM Only Cost

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

For Illustration Purposes Only

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Step 1 – Calculate the TTM to BTM Labor %

28% TTM, Relative to BTM Labor
(19% TTM / 19% TTM + 50% BTM)

72% BTM, Relative to TTM Labor
(50% BTM / 19% TTM + 50% BTM)

Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



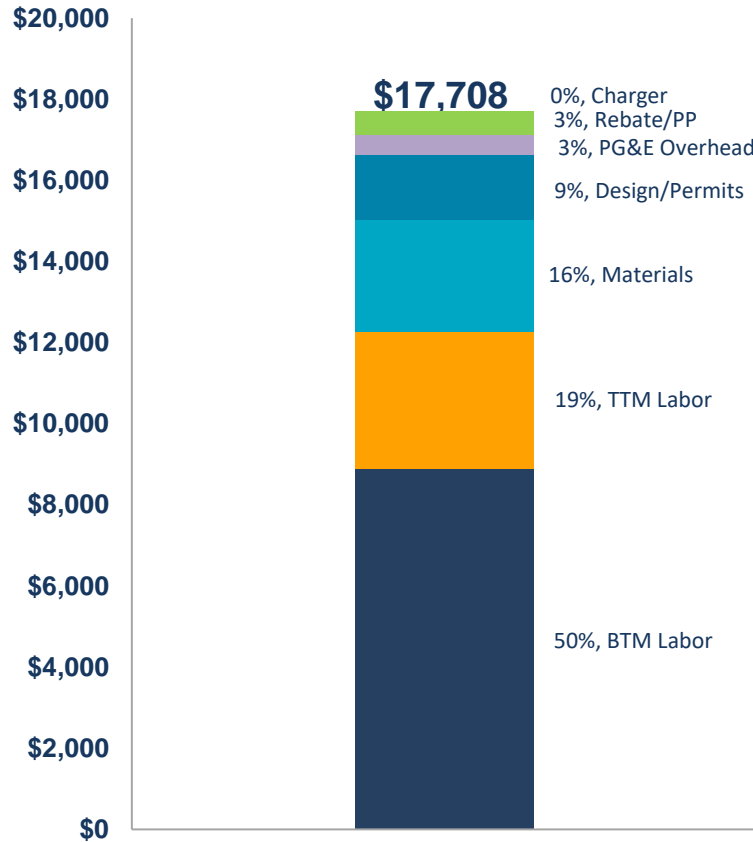
Example Calculation of BTM Only Cost

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

For Illustration Purposes Only

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Step 2 - Allocate Shared Costs Using %s from Step 1

Allocate Shared Costs between TTM and BTM
(28% TTM / 72% BTM)

28% TTM, Relative to BTM Labor
(19% TTM / 19% TTM + 50% BTM)

72% BTM, Relative to TTM Labor
(50% BTM / 19% TTM + 50% BTM)

Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



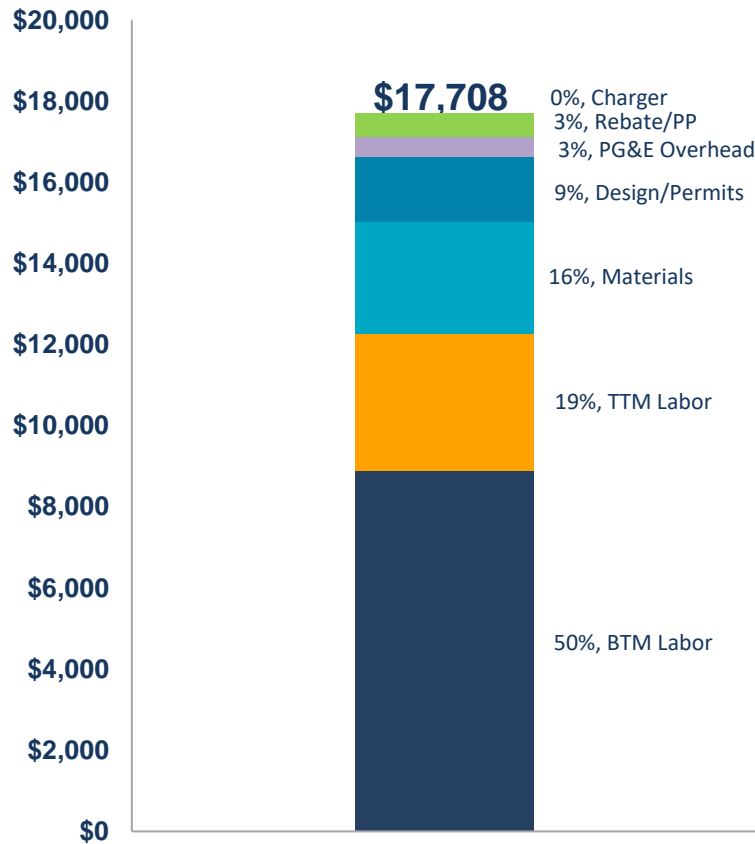
Example Calculation of BTM Only Cost

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

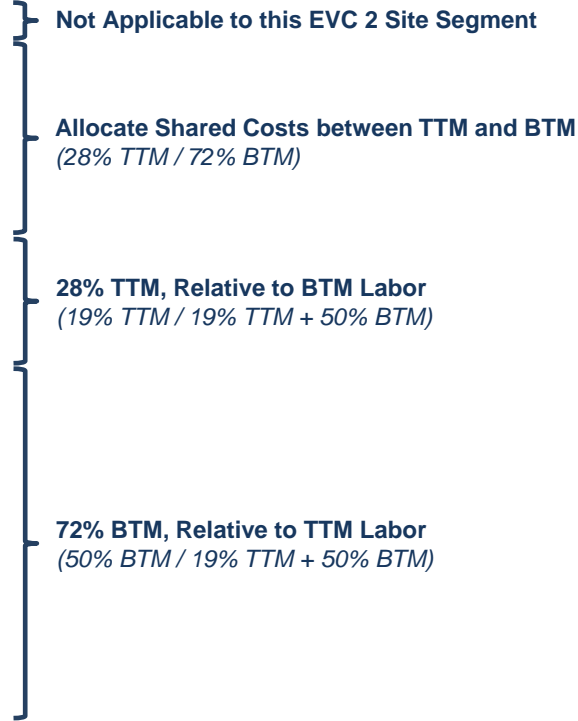
For Illustration Purposes Only

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Step 3 – Omit Costs Not Applicable to EVC 2



Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



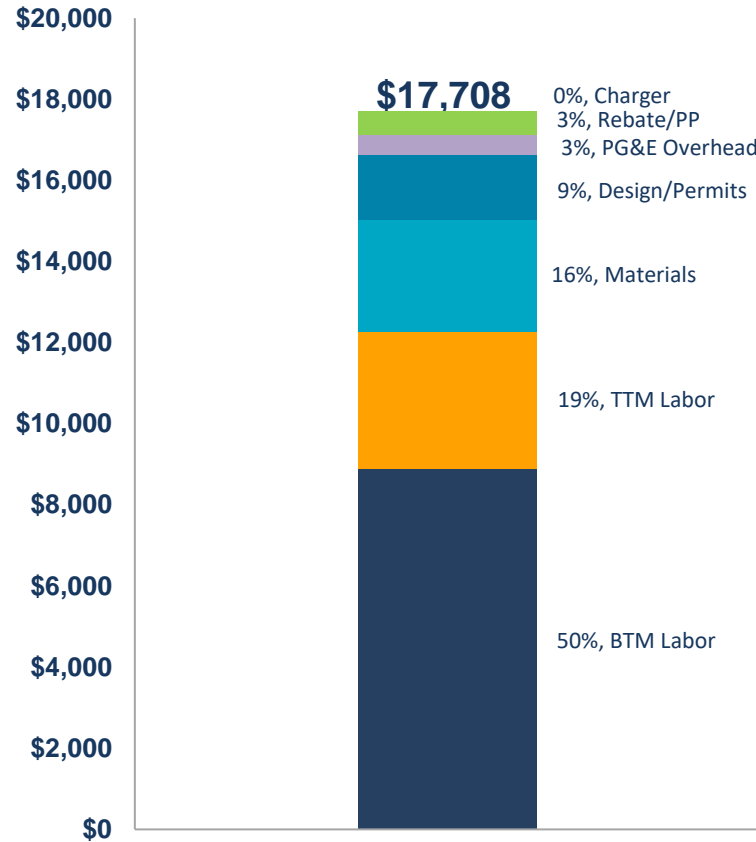
Example Calculation of BTM Only Cost

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

For Illustration Purposes Only

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Step 4 – Calculate Amounts

EVC 2

	<u>TTM</u>	<u>BTM</u>
Not Applicable to this EVC 2 Site Segment	\$0	\$0
Allocate Shared Costs between TTM and BTM (28% TTM / 72% BTM)	\$1,344	\$3,524
28% TTM, Relative to BTM Labor (19% TTM / 19% TTM + 50% BTM)	\$3,838	\$0
72% BTM, Relative to TTM Labor (50% BTM / 19% TTM + 50% BTM)	\$0	\$8,883
	<u>\$4,731</u>	<u>\$12,407</u>

Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



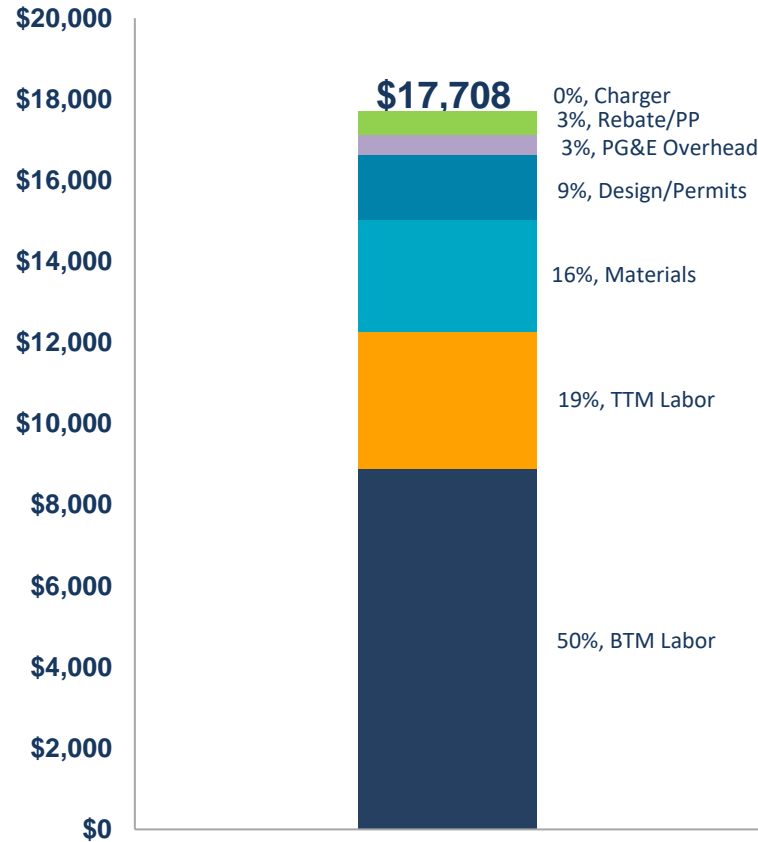
Example Calculation of BTM Only Cost

For Illustration Purposes Only

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Not Applicable to this EVC 2 Site Segment

Allocate Shared Costs between TTM and BTM (28% TTM / 72% BTM)

28% TTM, Relative to BTM Labor (19% TTM / 19% TTM + 50% BTM)

72% BTM, Relative to TTM Labor (50% BTM / 19% TTM + 50% BTM)

EVC 2

	TTM	BTM
	\$0	\$0
	\$1,344	\$3,524
	\$3,838	\$0
	\$0	\$8,883
		\$12,407
Step 5 – Deduct Customer WTP		(\$2,500)

Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data



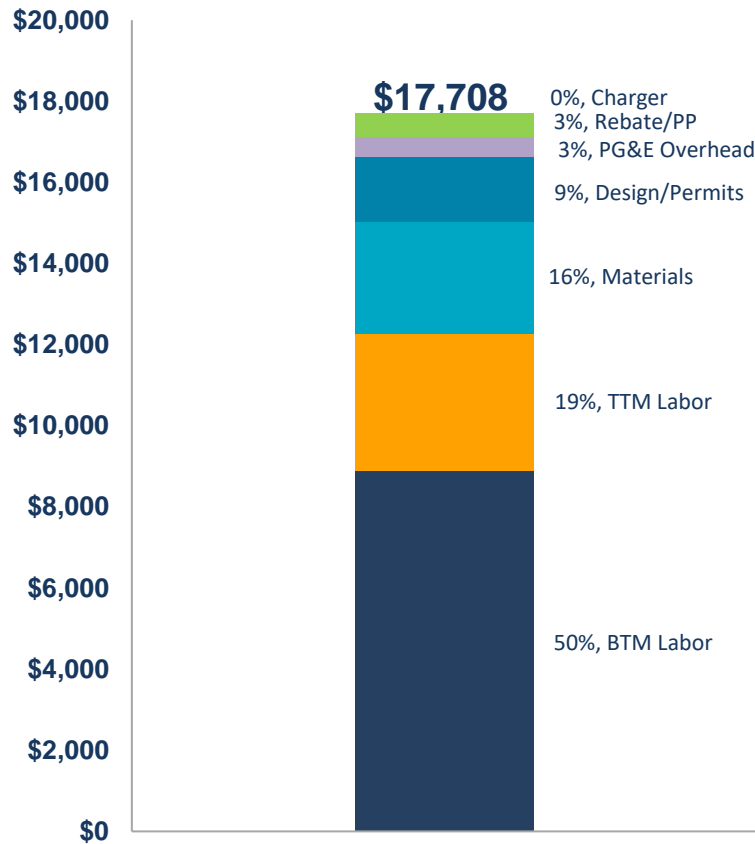
Example Calculation of BTM Only Cost

For Illustration Purposes Only

	Avg. Cost Per Port
All EVCN Sites	\$17,504
Workplace, Non-DAC, Owner Sites	\$17,708

Avg. Cost per Port by Category

(Avg. Cost per Port)¹



Not Applicable to this EVC 2 Site Segment

Allocate Shared Costs between TTM and BTM (28% TTM / 72% BTM)

28% TTM, Relative to BTM Labor (19% TTM / 19% TTM + 50% BTM)

72% BTM, Relative to TTM Labor (50% BTM / 19% TTM + 50% BTM)

EVC 2

	TTM	BTM
	\$0	\$0
	\$1,344	\$3,524
	\$3,838	\$0
	\$0	\$8,883
		\$12,407
		(\$2,500)

Step 6 – Calculate BTM only rate

\$9,907

Note: ¹Cost per port reported here excludes Project Manager time and meter costs; cost per port figure not suitable for IOU apples-to-apples comparison; ² Cost data based on rule-of-thumb data

Questions



Together, Building
a Better California

Appendix



Together, Building
a Better California



®