Program Advisory Council Meeting Q2 2021

July 28, 2021

Together, Building a Better California

Agenda

Safety / Introductions	**9:00 – 9:10**
Programs Status Update	**9:10 – 9:15**
SB350 SRP Updates	**9:15 – 9:25**
Schools & Parks Updates	**9:25 – 9:35**
Empower EV Update	**9:35 – 9:45**
EVCN Detailed Update	**9:45 – 10:15**
Questions	**10:15 – 10:30**

Safety

- What is Heat-Related Illness?
- What are the warning signs?
- How do I prevent it?

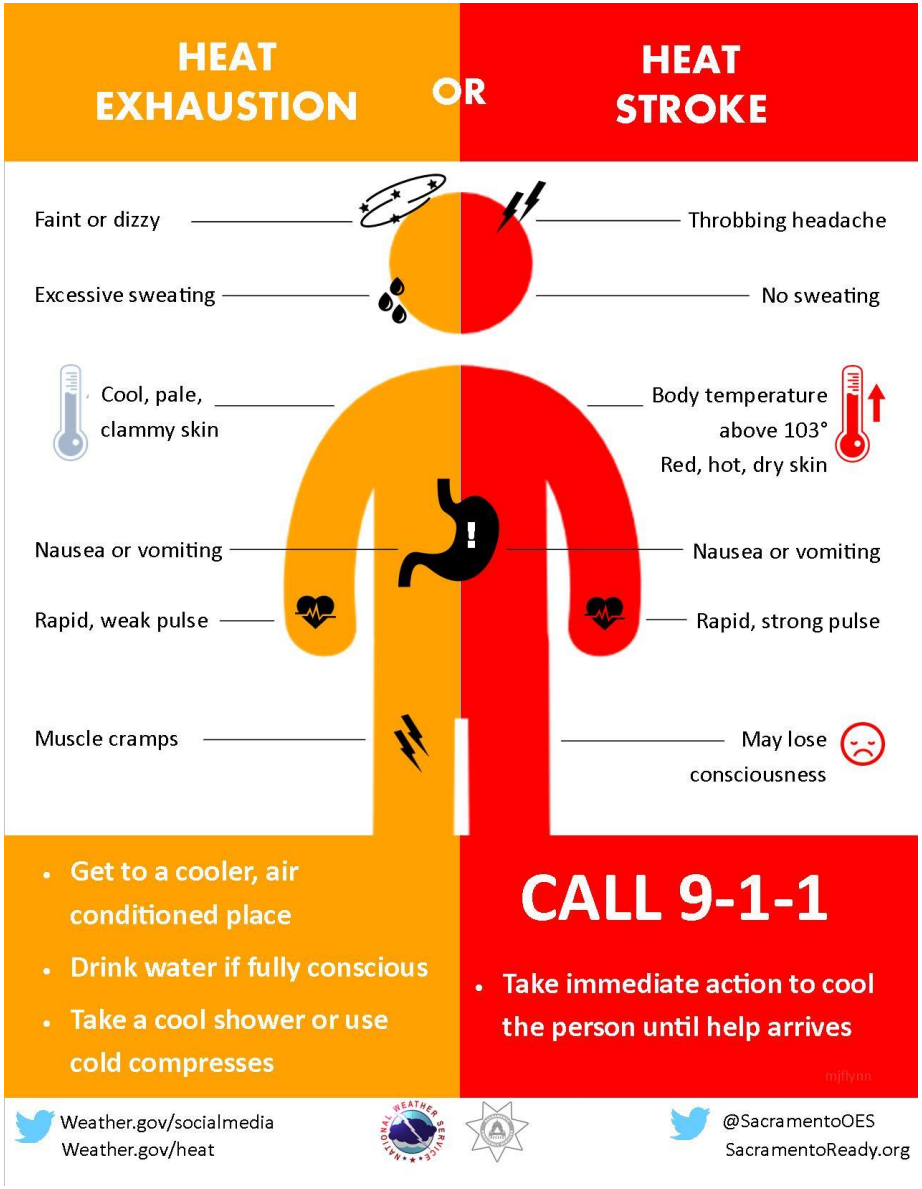
Safety

Extreme heat can vary depending on your location.

Heat illness results when the body is unable to cool itself down fast enough via sweating and the body's temperature rises too fast.

Damage can result to the brain and other vital organs.

Elderly people, children, outdoor work environments, people with disabilities.



Safety

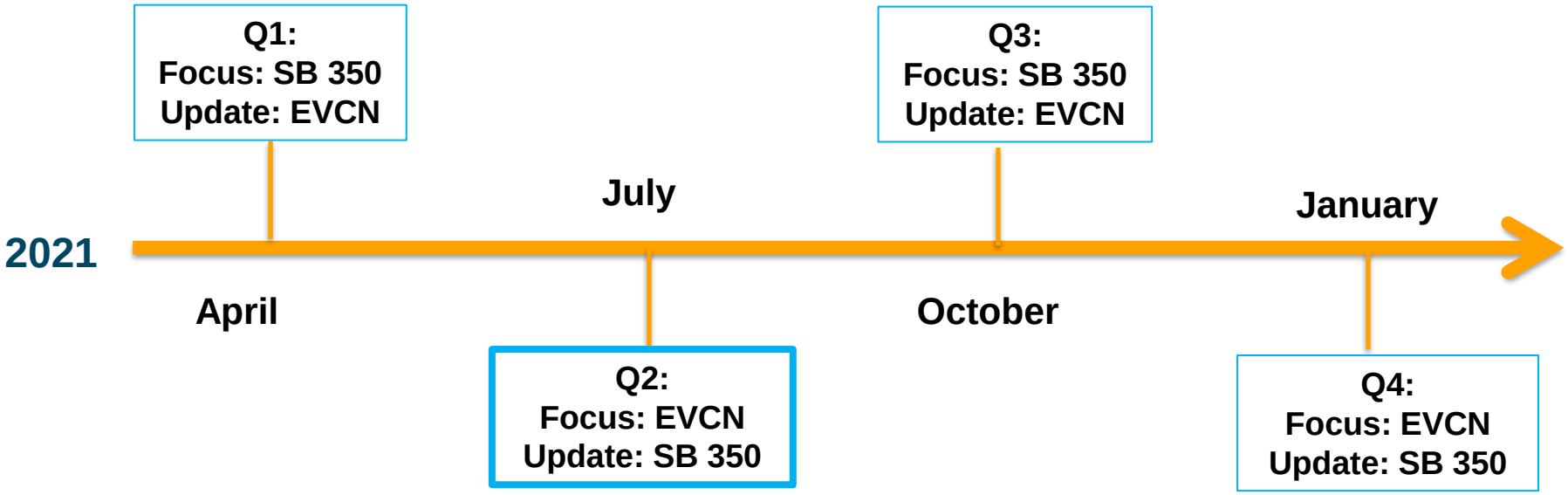
Tips:

- Pace yourself!
- Use the buddy system and check each other's condition!
- Plan ahead (pack drinks and parking locations).

Clean Transportation Program Advisory Council

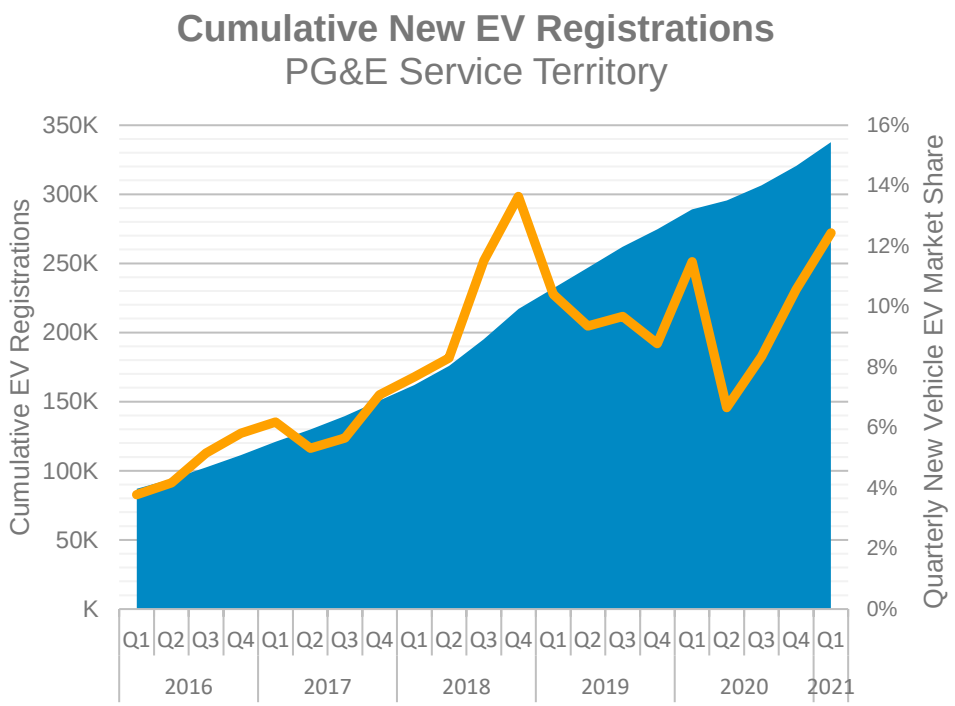
Overview

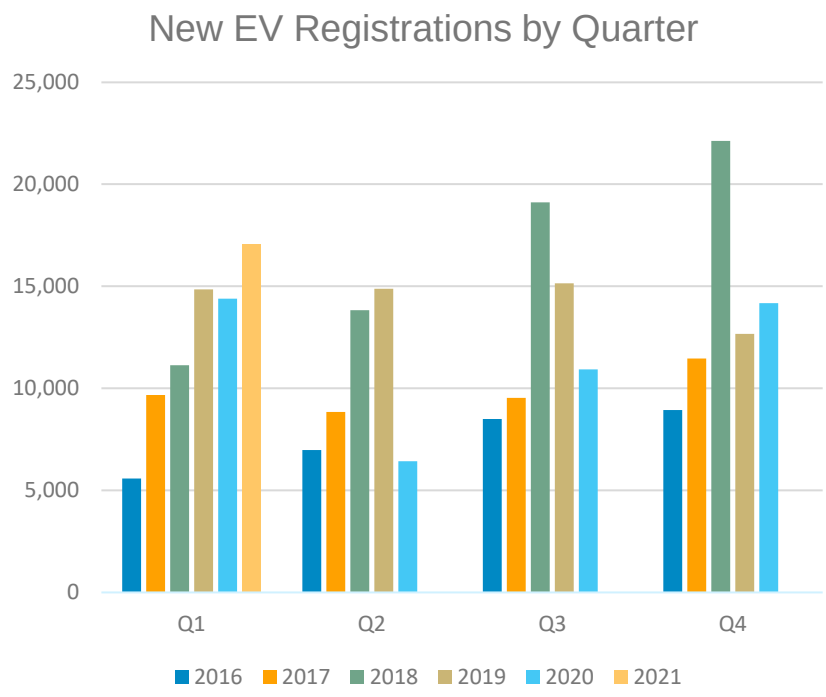
- PG&E has expanded our efforts on transportation electrification, with a number of filings, pilots and programs in progress
- CPUC has directed PG&E to consult a Program Advisory Council in the development of these pilots and programs to gain feedback from industry stakeholders
- This platform will serve to gather insight and feedback on PG&E's proposals and ongoing programs



EV Market Update

351,992 **EVs registered** in PG&E service territory, through May of 2021





Source: EPRI, Based on external registration data through May 2021

Program Portfolio Update

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Programs Status Updates

- EVCN installations are nearly complete, and construction for Fleet and Fast Charge continue with no delays due to PSPS or COVID restrictions.
- In Q2 2021,
  - EVCN: 245 ports (6 projects) were substantially complete
  - EV Fleet: 2 projects were substantially complete
- Through June 2021, PG&E has installed over 105% of target EVCN ports (4,749 ports out of 4,500 port target)

EV Fleet Update

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EV Fleet Program Update

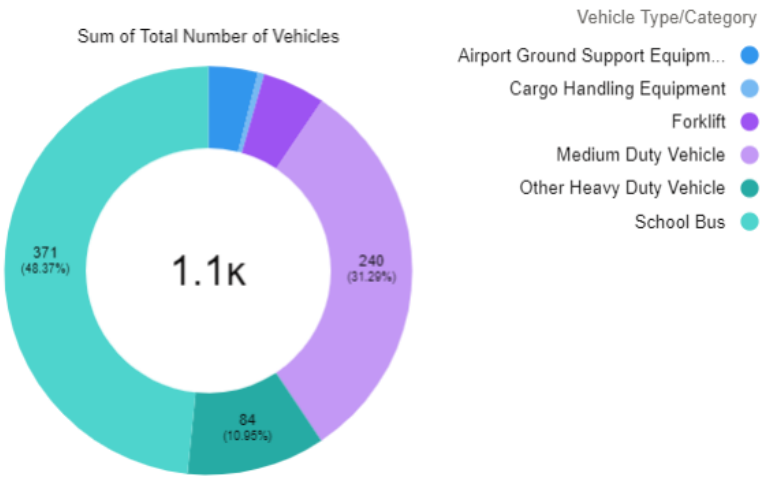
Status as of 6/30/2021

	Sites	EVs
Applications	153	-
Viable[1]	67	1,121
Final Design	53	642
Construction substantial complete	24	255
Activated	17	190

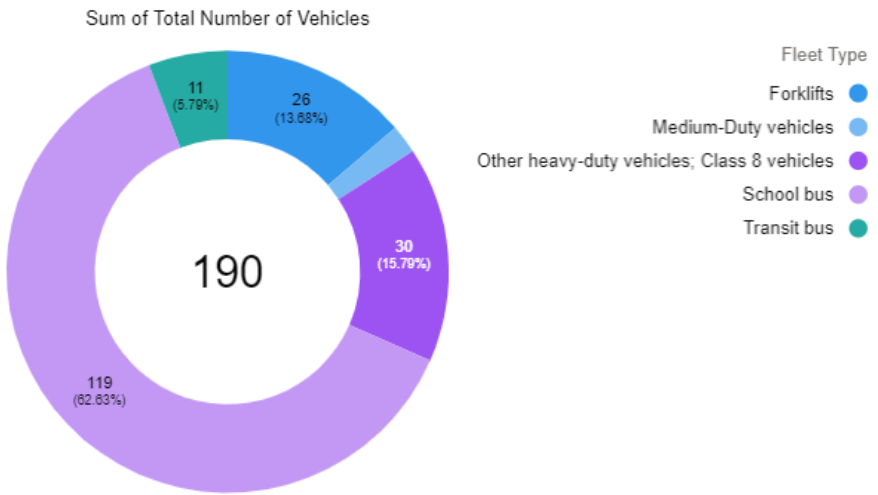
Highlights

- The program currently has **67 signed contracts (equating to ~1,100 committed EVs) and 17 activated sites**
- 26 of the 67 signed contracts **(39%) are in DACs.**
- Dominant fleet type continues to be **school buses**.
- Program budget = $236.3M; **Spend-to-date = $20.6M**

Viable Contracts: Vehicle Type



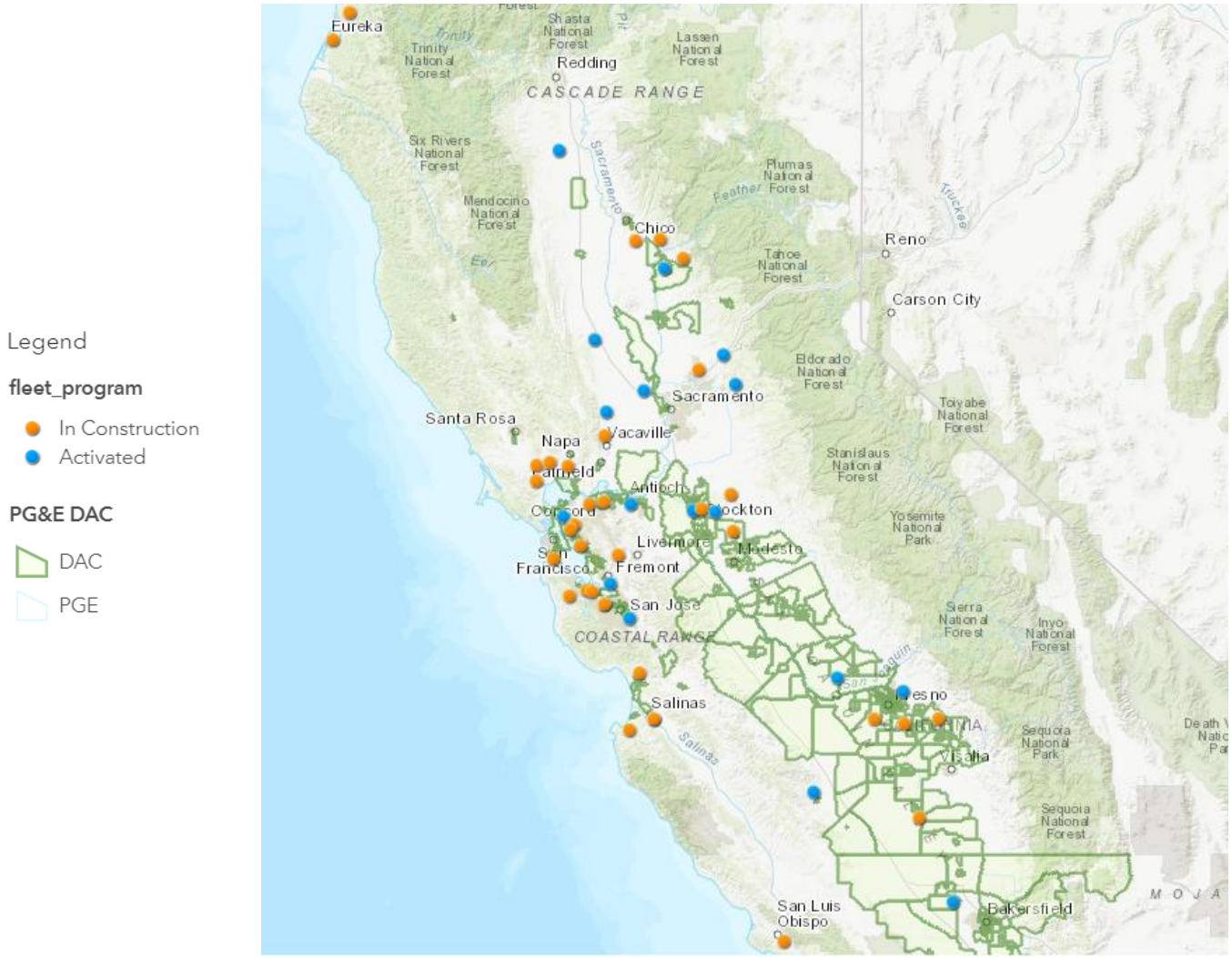
Activated: Vehicle Type



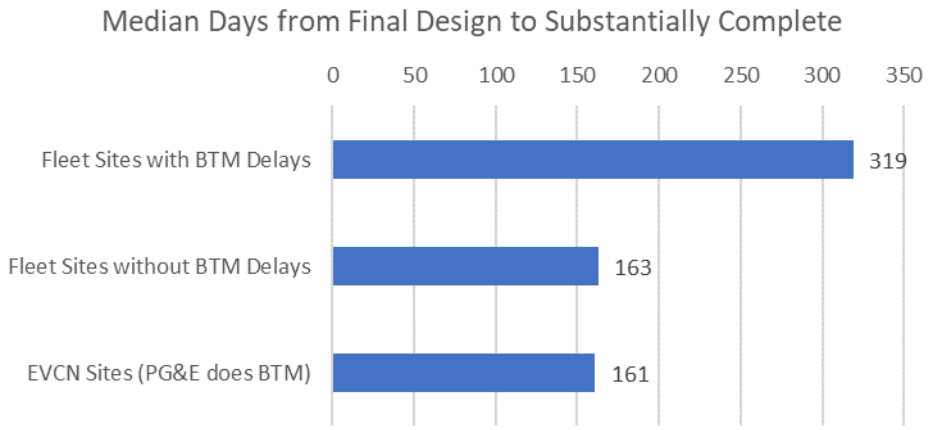
[1]Viable contracts are all contracts signed to-date excluding cancelled and withdrawn.

Fleet Construction and Activation

- Activated sites and sites in construction updated on public map
- Sites are summarized by zip code to maintain site host anonymity



Fleet Cycle Time Update



For sites that are still in-process, July 14th was used as hypothetical completion date
Only sites where contract was signed >6 months ago are included in this analysis

- Site host BTM construction delays are the most common driver of project completion delays
- Reasons for site host BTM delays include:
  - RFP challenges – getting started, finding bidders, negotiating with vendors
  - Internal decision making related to paying for BTM work
  - Lack of familiarity with BTM construction (ex, ordering wrong materials) and AHJ process
- Comparison with EVCN demonstrates that cycle times are shorter when PG&E is responsible for BTM

EV Fast Charge Update

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EV Fast Charge Program Update

Status as of 6/30/2021

	Sites	Ports
Applications	153	689
Contracted Sites	16	79
Final Design	7	32
Constructed	2	8
Activated	2	8

Program Budget Overview

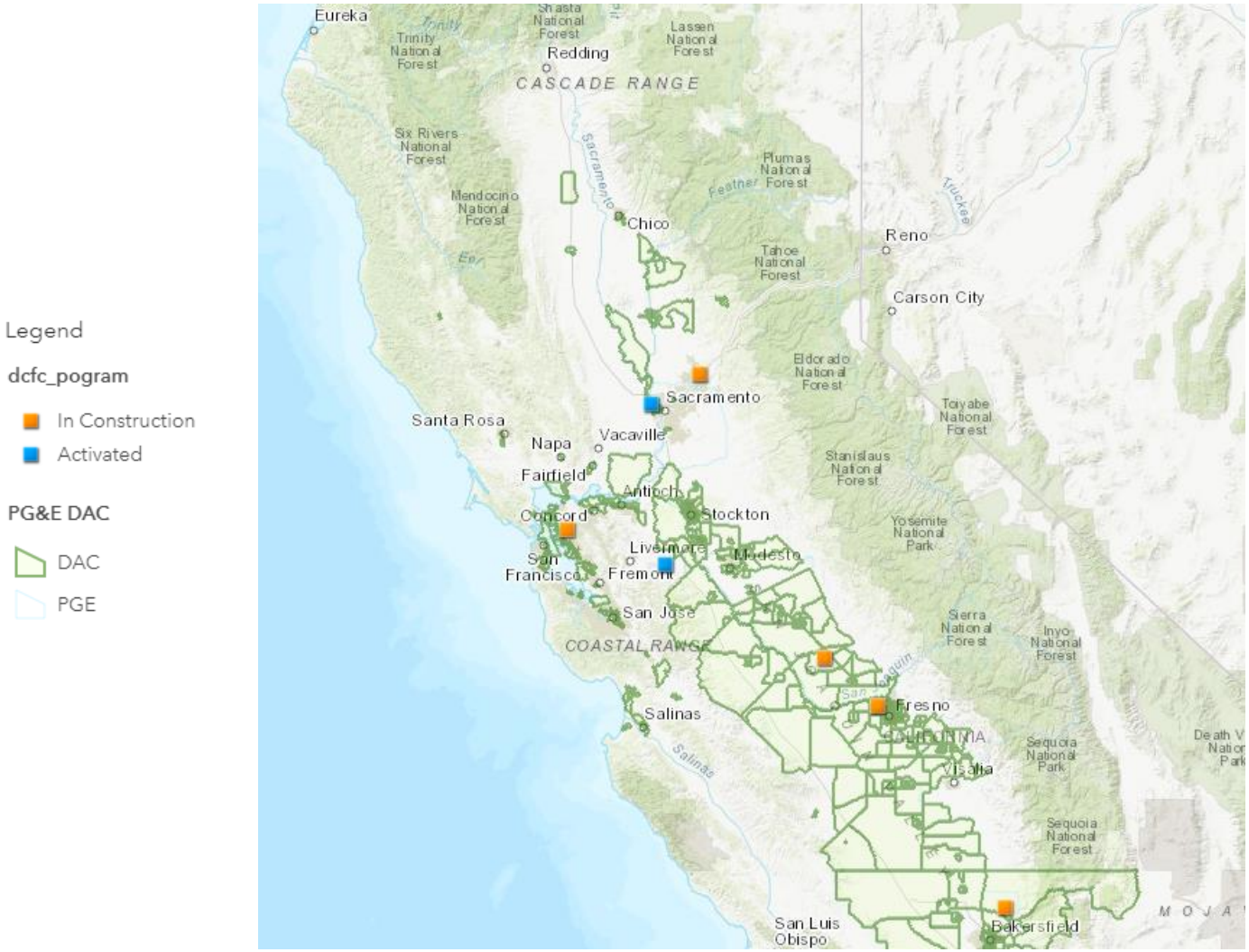
Spend-to-Date	Remaining Funds
$3,251,473	$19,148,527

- **Customer acquisition:** Next site solicitation in August
- **2 activated sites:** (Both 7-Eleven): W. Sacramento; Tracy
- **Usage is increasing** at sites month over month

Activated Fast Charge Site at West Sacramento

Fast Charge Construction and Activation

- Activated sites and sites in construction updated on public map
- Sites are summarized by zip code to maintain site host anonymity



EV Charge Schools Update

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EV Charge Schools Program Update

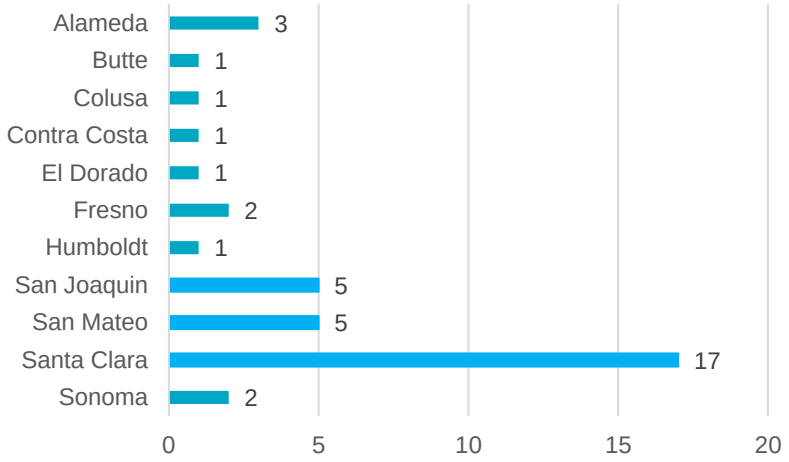
Status as of 6/30/2021

	Sites	Ports
Applications	39	230 (appx)
Prelim Viable Sites[1]	8	48
Contracts	-	-
Installations	-	-

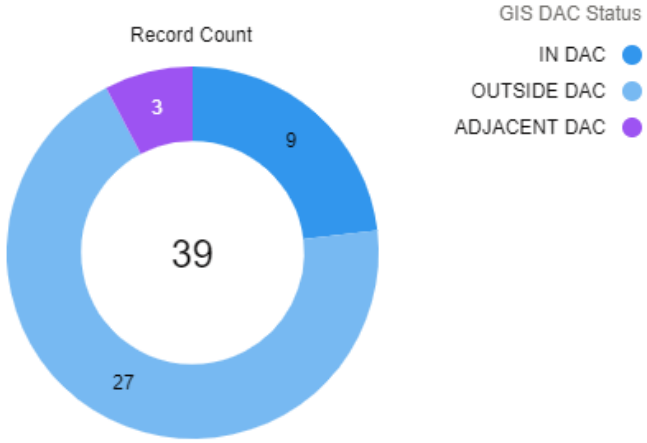
Program Budget Overview

Spend-to-Date	Remaining Funds
$315k[2]	$5.45M

Applications by County (11)



Applications by DAC Status



Preliminary Insights & Customer Communications:

- ADA: costs are high/concern over allocating additional parking spaces
- TX upgrades & long trench lengths = higher costs
- Marketing outreach email sent end of June to 1,140 schools
- Excitement around EV/Sustainability curriculum

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

[2]Approximately $150k is systems and tools platform spend.

EV Charge Parks Update

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EV Charge Parks Program Update

Status as of 6/30/2021

	Sites	Ports
Applications	-	-
Prelim Viable Sites[1]	-	-
Contracts	-	-
Installations	-	-

Program Budget Overview

Spend-to-Date	Remaining Funds
$255k[2]	$5.29M

- **Progress Update**
  - In communication with Parks
  - Good initial conversations
  - Needs assessment underway
  - Starting to evaluate sites & perform desktop reviews

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

[2]Approximately $150k is systems and tools platform spend.

Empower EV Update

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Empower EV Overview

Program Goals

- Serve 2000 customers in 1 year within the approved budget
- Customer Satisfaction <-- *program survey and feedback line*
- Gain deep understanding of LMI EV customers and lessons learned that can be scaled to future programs
- Test efficacy of bundled offerings <-- *used EV rebate + EV rates + infrastructure*

Key Stats

$4.13M

Budget from 2021 - 2023

- Income eligibility is at or under 400% FPL
- Program implementation estimated October 2021-October 2022

$500 Point-of-sale L1, L2 charger cost coverage for low- and moderate-income residents **+ $2,000** Panel upgrade and/or installation cost coverage **= $2,500** Program budget per household

Empower EV Update

Tier 2 Advice Letter due to CPUC by August 3, 2021

Scope of Work completed

Program Implementation and Budget will flow through the following tasks:

- **Task 1:** Develop the Program Implementation Strategy, including timeline of specific customer application, survey, premise assessment, and installation steps
- **Task 2:** Develop a quarterly forecast and budget aligned with monthly invoicing processing, including tasks, deliverables, and milestones
- **Task 3:** Assist PG&E with Tier 2 Advisory Letter content for CPUC
- **Task 4:** Develop an application form and process, Voluntary Driver Behavior Survey questions, and CRM/Access Clean California portal for securing customer information and monthly data tracking
- **Task 5:** Develop marketing, education, and outreach (ME&O) strategies and materials, including CBO roles and responsibilities; and execute ME&O
- **Task 6:** Implement program, including procurement of EVSEs and administration of Voluntary Driver Behavior Survey
- **Task 7:** Collect and analyze monthly data, report to PG&E
- **Task 8:** Deliver the Final Evaluation Report

Anticipated program kick off in Q4 2021

EVCN Update

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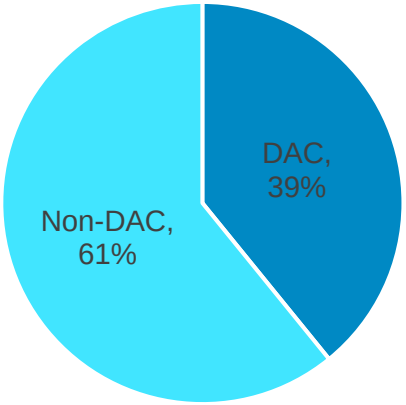
Overall EVCN Progress Update

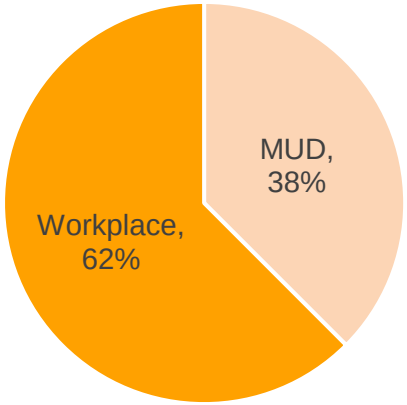
Status as of 06/30/2021

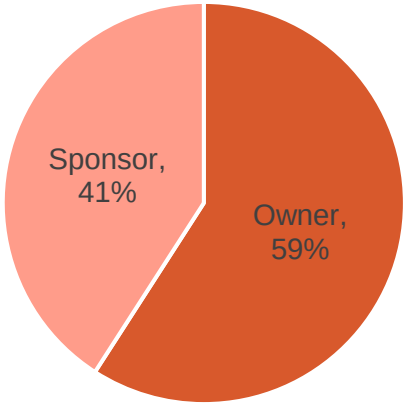
	Ports	Sites
Submitted	15,833	816
Viable[1]	4,827	192
Final Design	4,827	192
Construction substantial complete	4,749	190
Activated	4,559	186

- **Customer acquisition** complete: application portal closed Q2 2019
- **Site eligibility** complete: all customer agreements in place
- **Construction** at a steady pace and on target to be completed by Q4 2021

Installed port portfolio



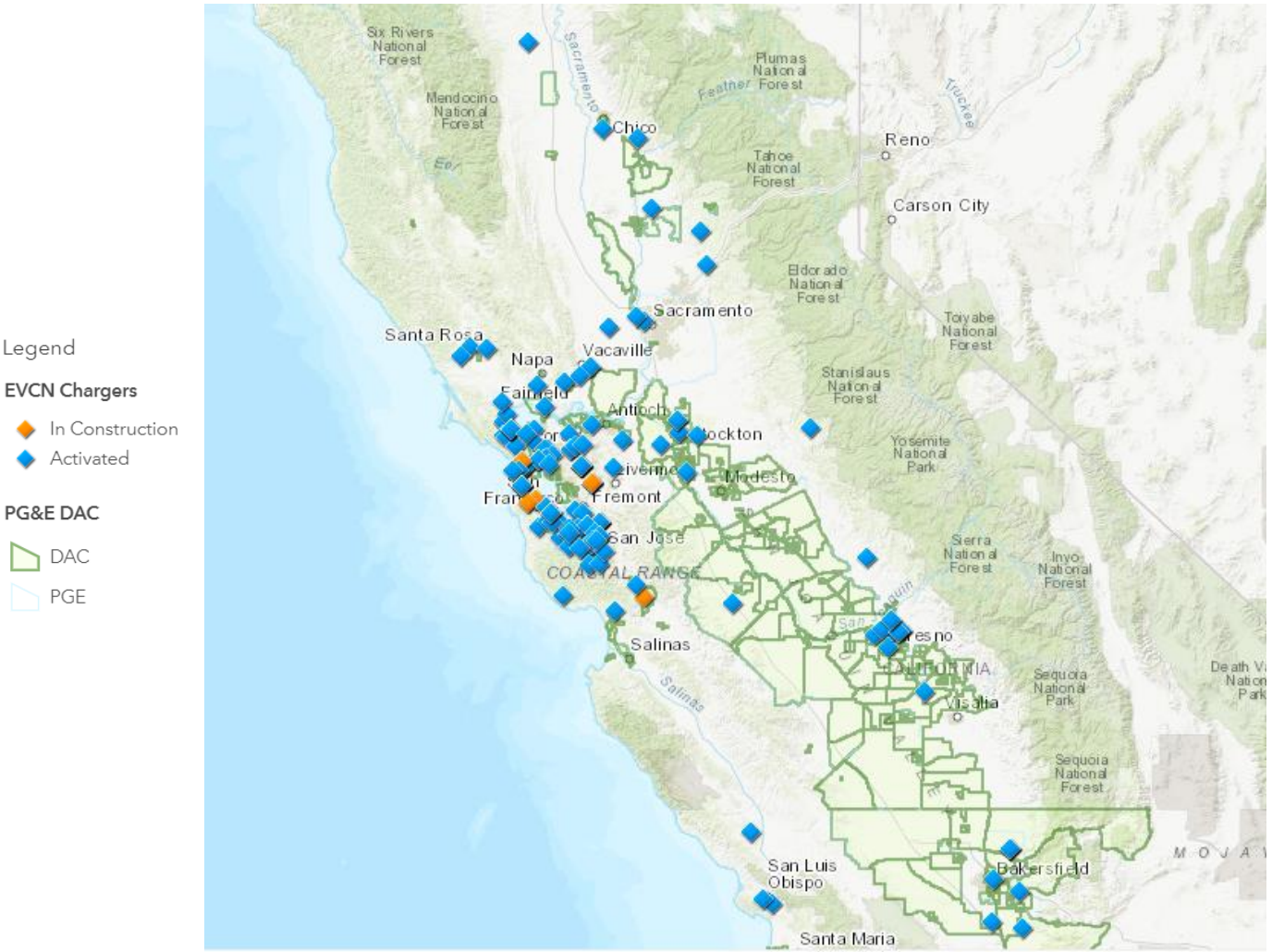




Notes: [1] *Viable sites are those sites for which contracts are signed and the project will be constructed*

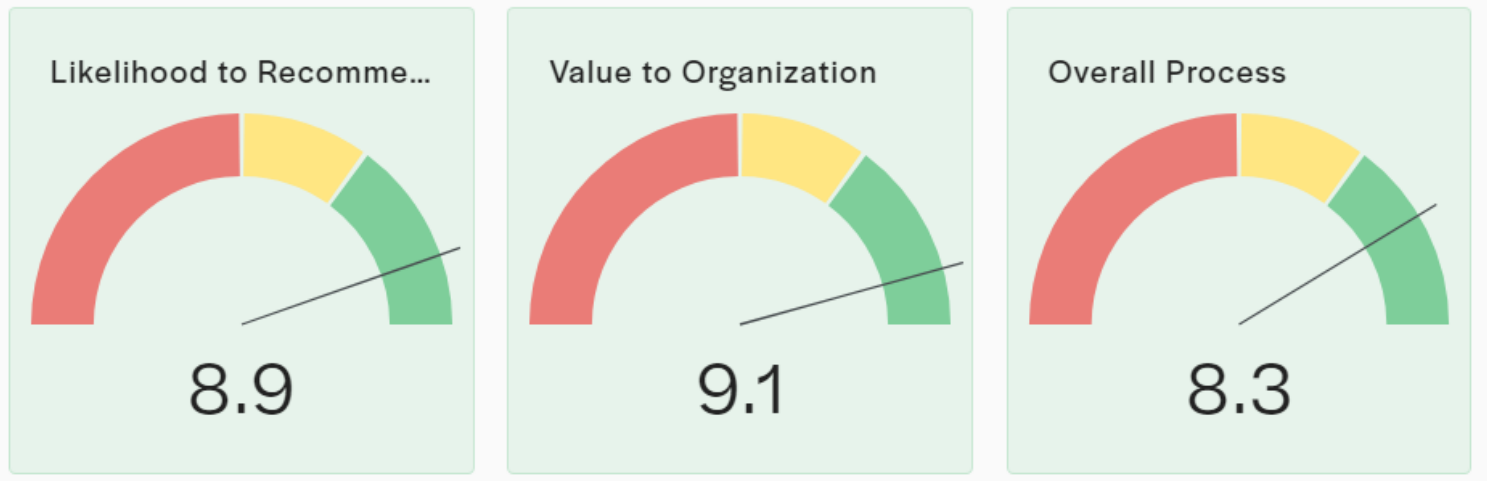
EVCN Construction and Activation Map

- Activated sites and sites in construction updated on public map
- Sites are summarized by zip code to maintain site host anonymity



Customer satisfaction remains high throughout the program

Customer Experience and Satisfaction

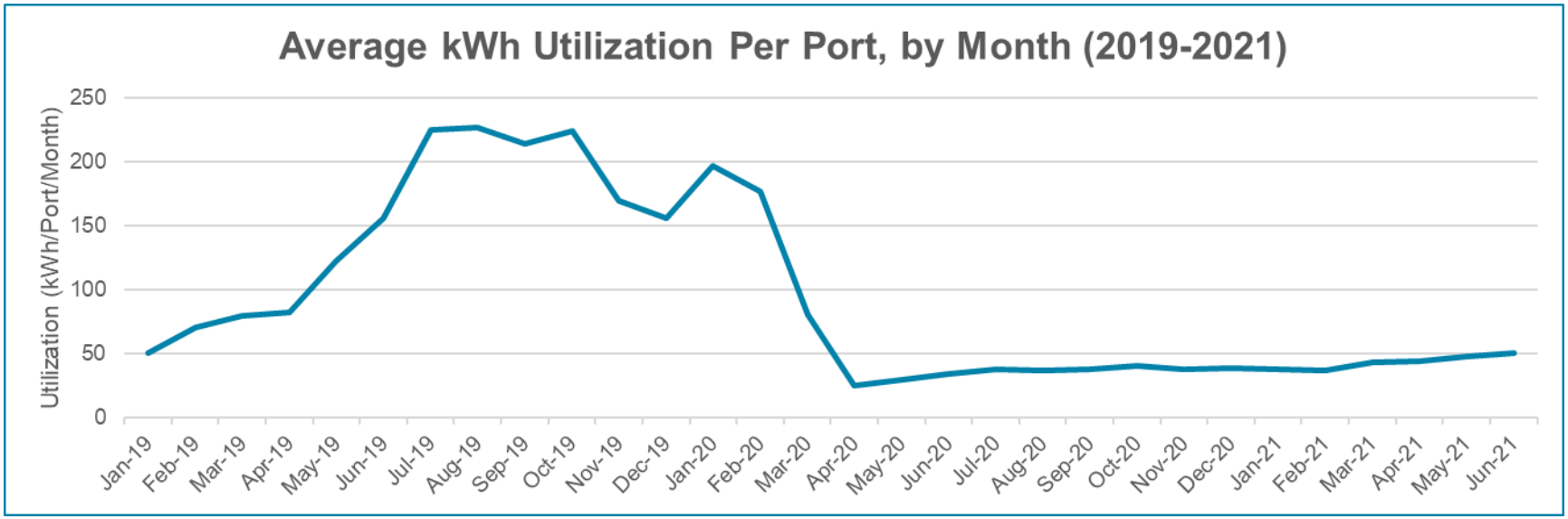


- PG&E issues a customer satisfaction survey to program participants after project completion. PG&E has received survey responses from 42 customers through Q2 2021
- Survey respondents rated PG&E well on “Likelihood to Recommend” and “Value to Organization,” and the “Overall Process” rating has steadily increased through program deployment.

Overall utilization was much higher pre-COVID, however has steadily increased since early 2020

Key Insights

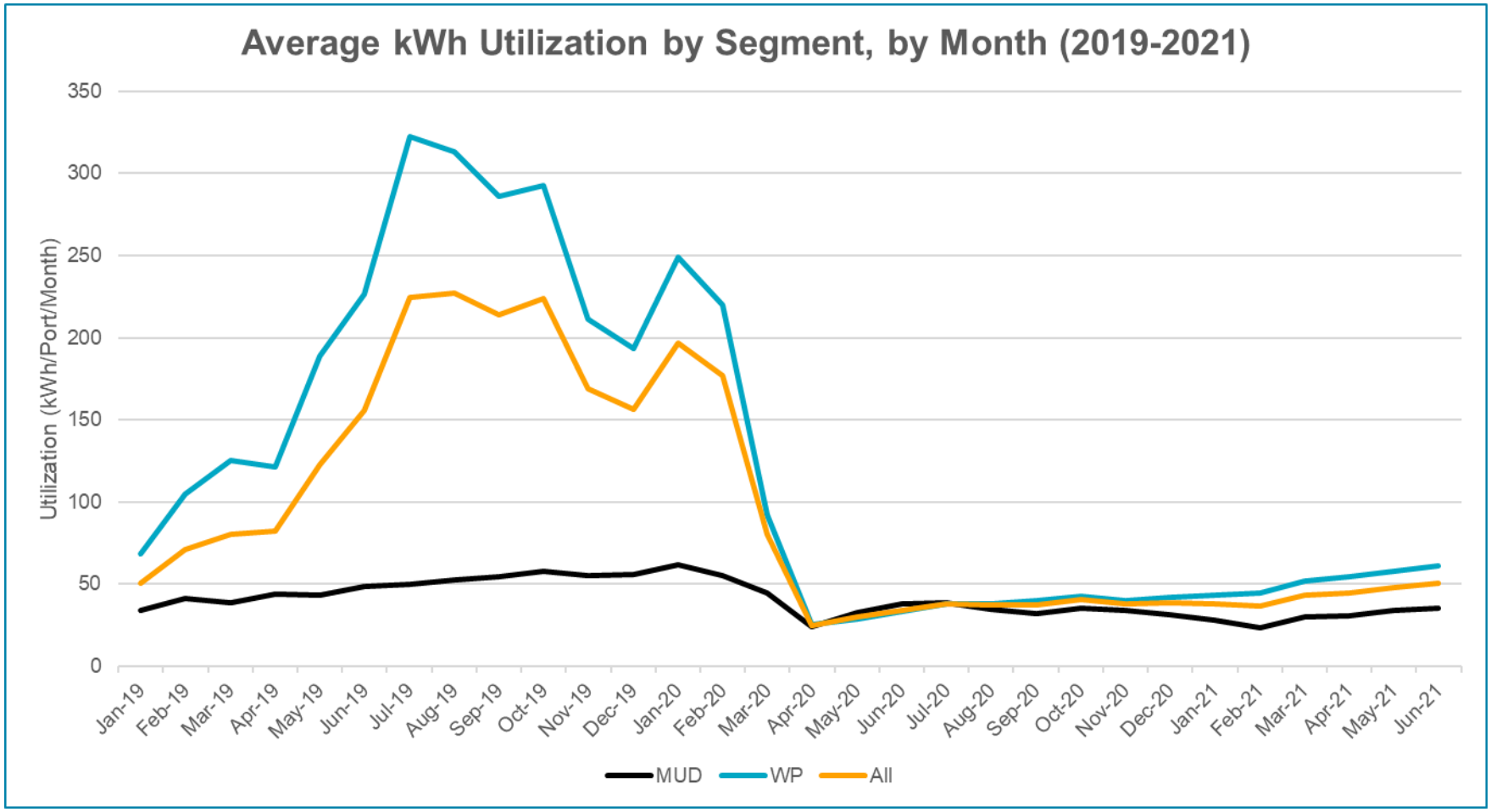
- Impacts of COVID-19 are clearly seen from March 2020 onward
- Since March 2019, there has been a steady increase in usage over time



	2019				2020				2021	
	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2
Active Sites	37	52	75	93	113	120	137	153	160	167
Active Ports	556	858	1313	1657	2065	2292	2717	3350	3800	4112

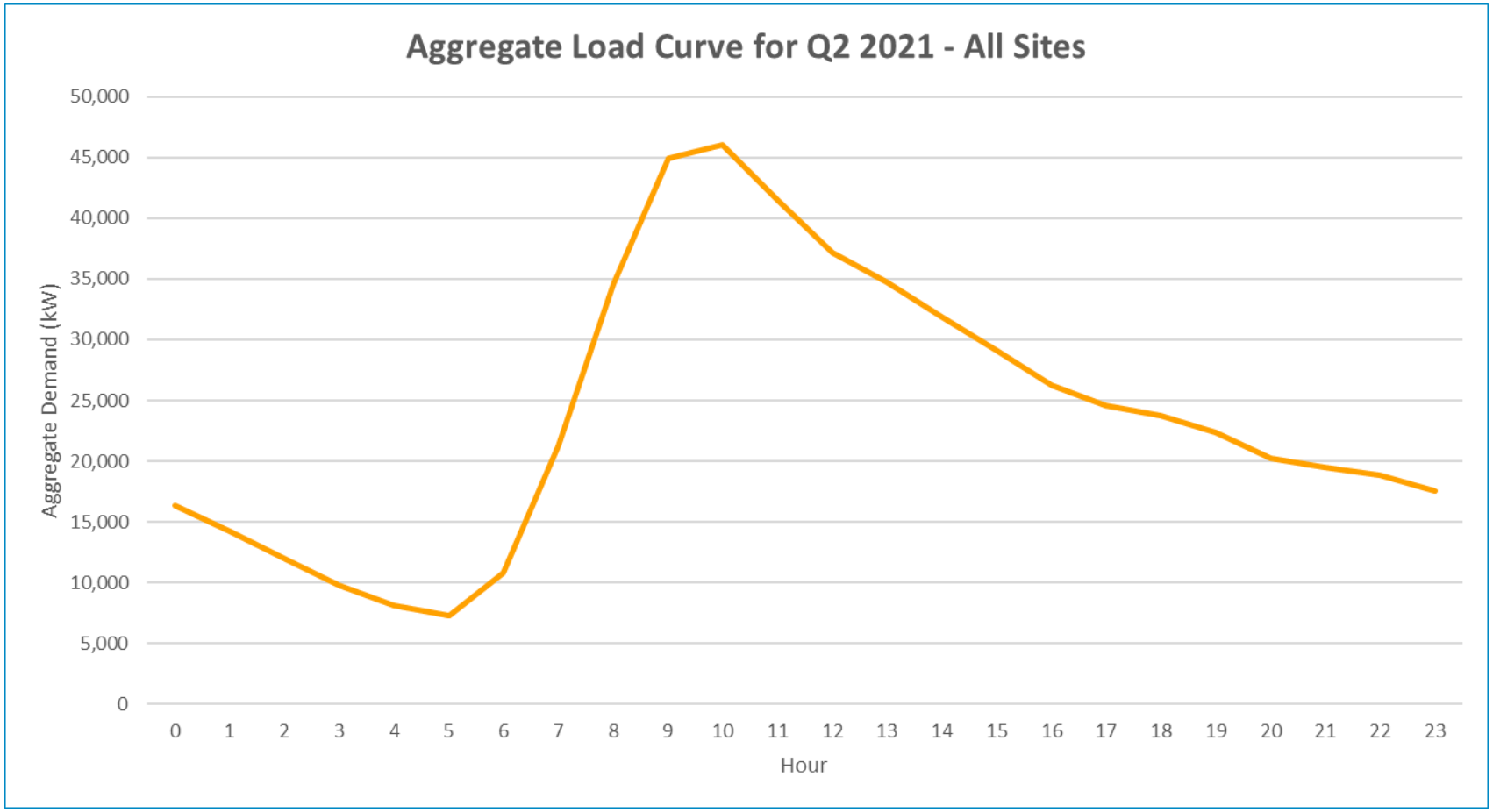
Note: For each month, kWh were included for ports that were active during the entire month and had usage data available. 2018 utilization not shown due to limited sample size. In bottom-most table, active sites and ports designates those that were active for at least a full month during the quarter and usage data is available.

Workplaces have shown higher average utilization per port over the lifespan of the program



Note: For each month, kWh were included for ports that were active during the entire month and had usage data available. 2018 utilization not shown due to limited sample size.

During Q2 2021, highest charging levels occurred from 8 AM to 1 PM with lowest levels from 2 AM to 6 AM



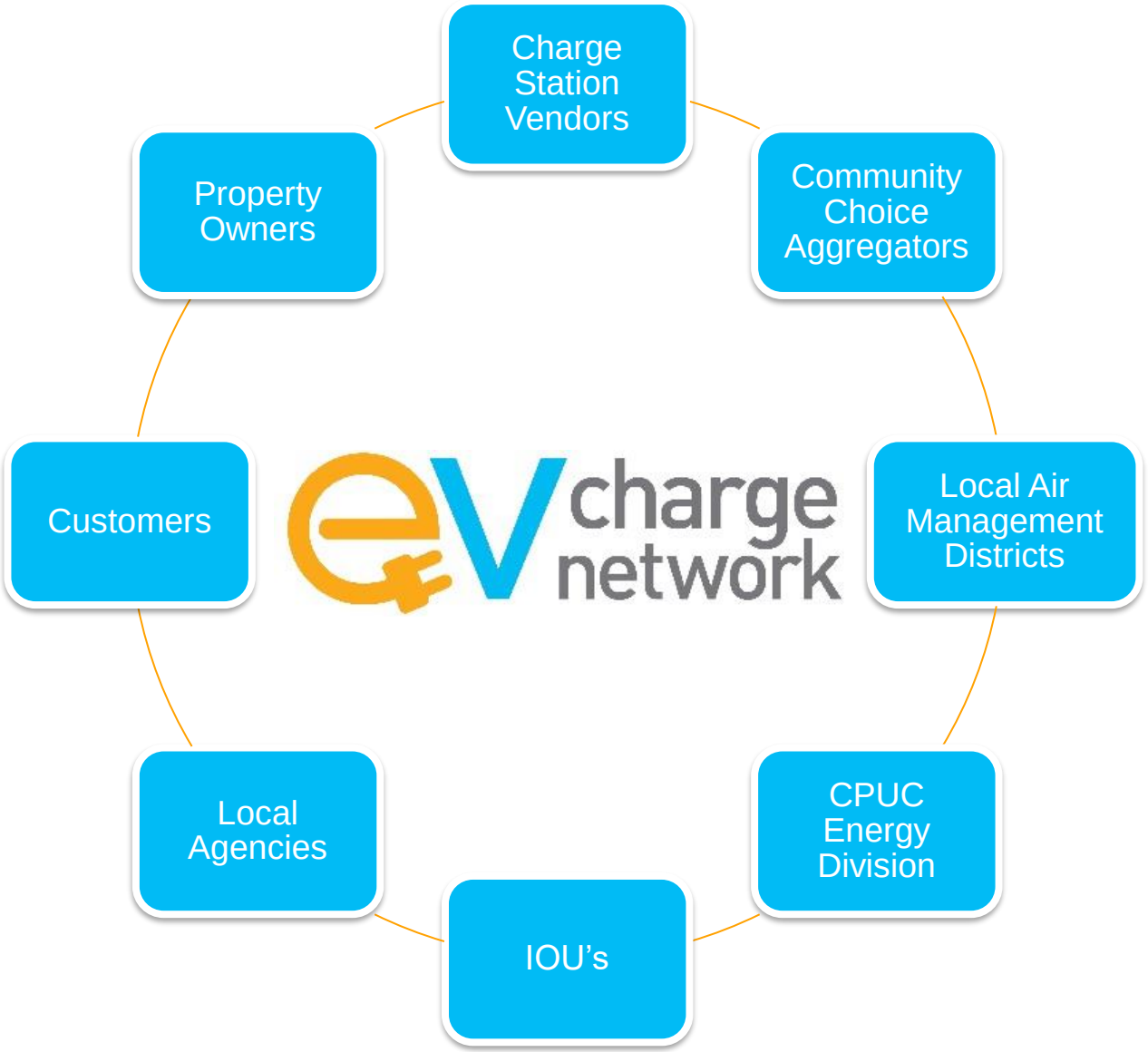
Lessons Learned

1. Stakeholder Engagement & Customer Support

2. Solidarity in Struggles

3. Cost Efficiencies

Stakeholder Engagement



Successful Customer Support

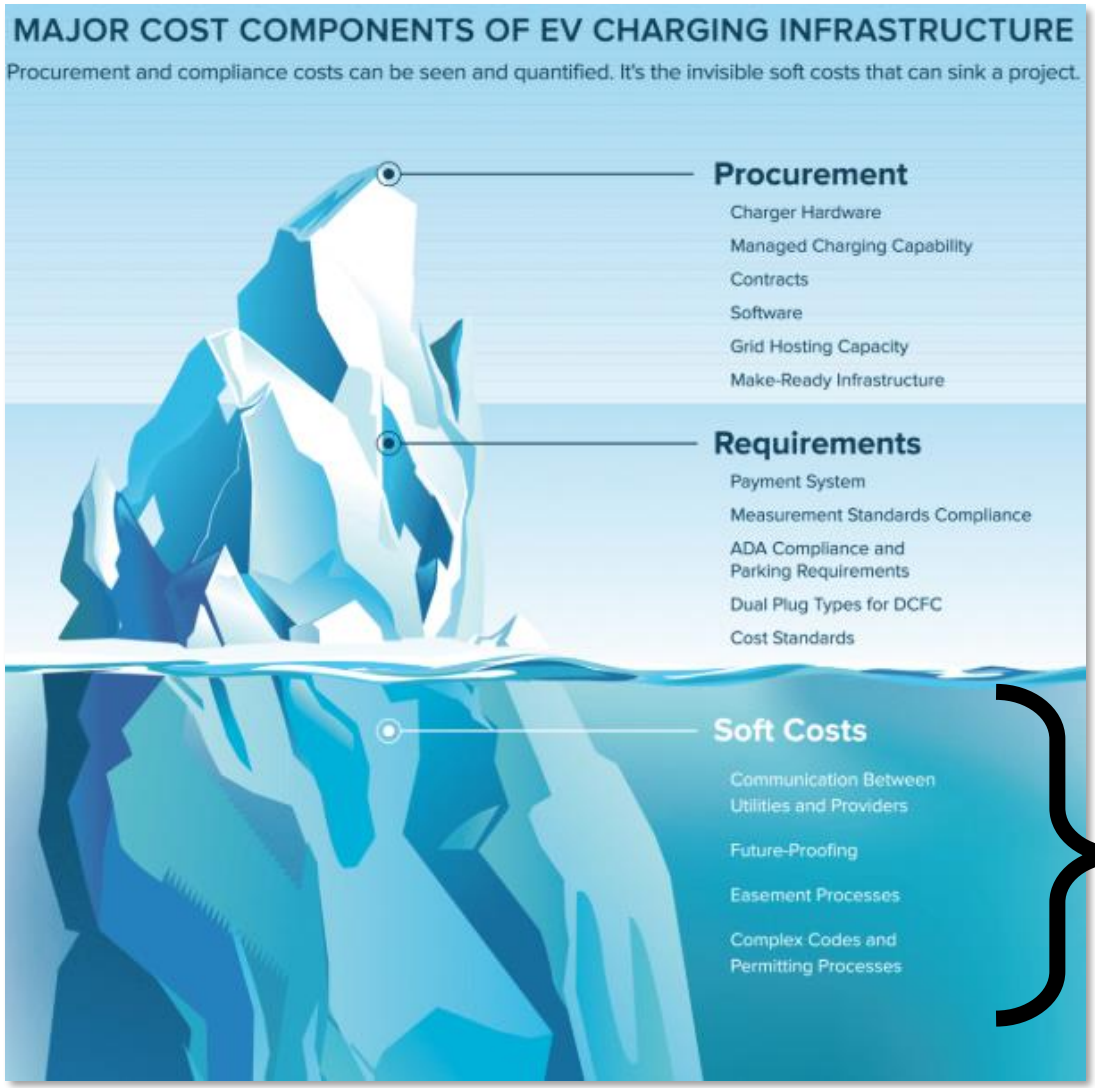
EVCN MUD & DAC Goals vs Forecast Actuals

	% of sites goal	% of sites forecast	% of ports forecast
EVCN MUD	20%	37%	~40%
EVCN DAC	15%	29%	~40%

EVCN customers strongly preferred utility ownership of the EVSE for its simplicity and turn-key nature; the same is true of BTM infrastructure.

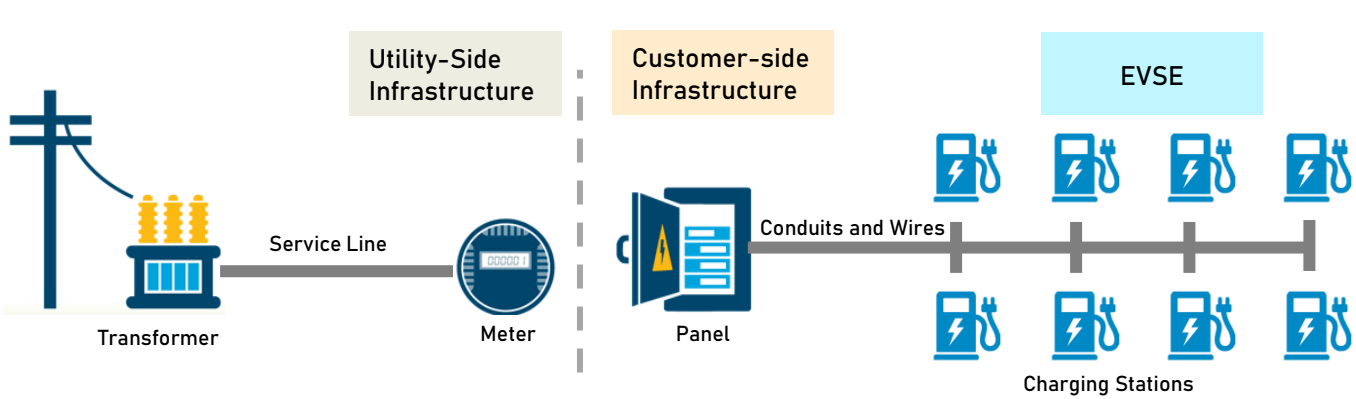
- ~60% of 220 EVCN multi-unit housing (MUD) applicants requested PG&E ownership
- ~77% of 75 viable multi-unit housing customers selected PG&E ownership
- 100% of 21 viable MUDs in DACs opted for utility ownership

Solidarity in Struggles



Source: https://rmi.org/wp-content/uploads/2020/01/Major-cost-components-of-EV-charging-infrastructure-1-e1578526192871.png

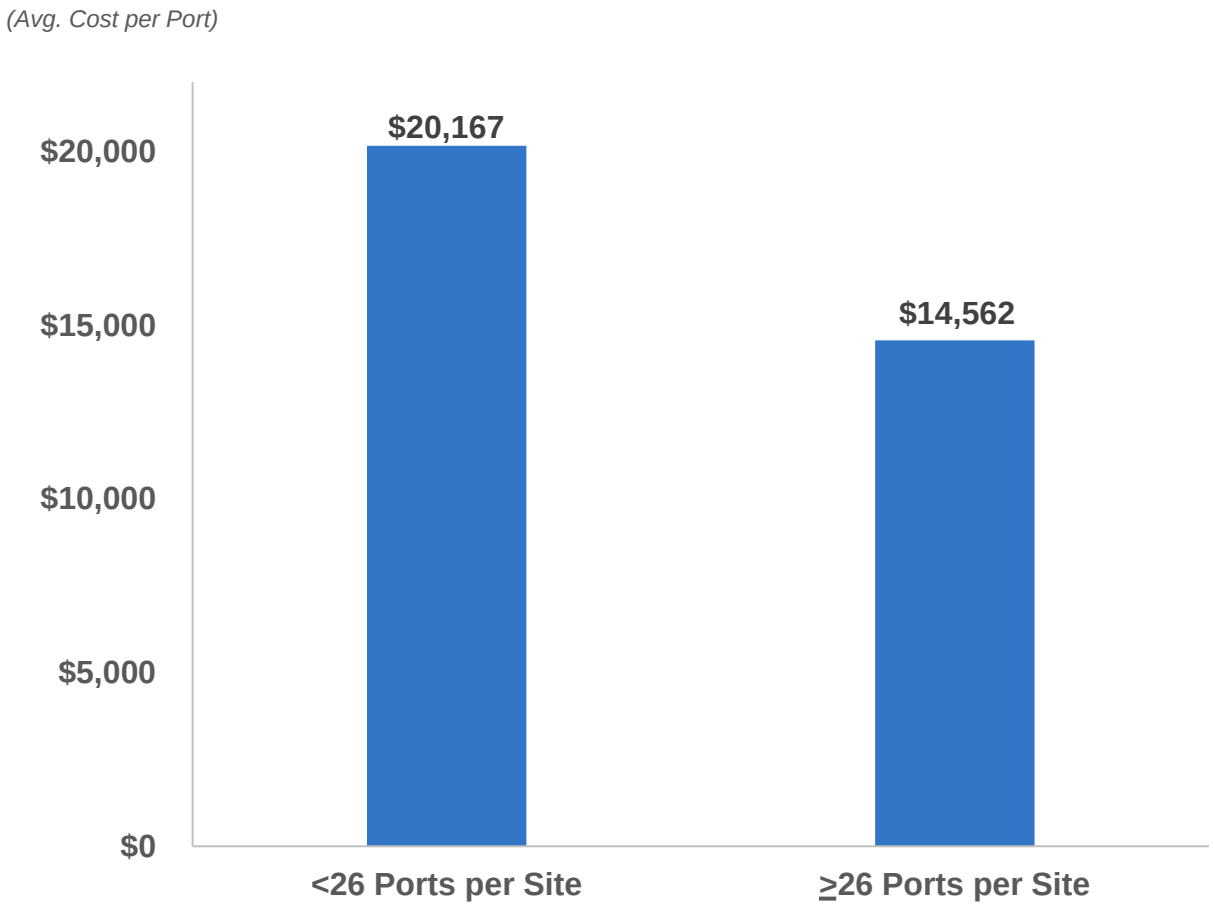
The EVCN make-ready program covers infrastructure costs on both sides of the customer meter



Cost category	Utility-Side Infrastructure (To-the-Meter, TTM)	Customer-side Infrastructure (Behind-the-Meter, BTM)	EVSE = Charger Charge Owner (site host owns) Charge Sponsor (PG&E owns)	Rebate	Participation payment
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

Higher port count sites enable economies of scale in average cost per port, resulting from fixed costs

Avg. Cost per Port, by Project Size (n=179 sites, through Q2 2021) – 38.5% delta



Fixed Costs Include:

- Design
- Permits
- Some materials (e.g. meter / distribution panel)
- Some TTM and BTM construction labor (e.g. linear feet of trenching and/or conduit, mobilization / demobilization)

Note: *The segmentation of projects above and below 25 ports per site is informed by 1) ADA compliance-related scope considerations, and 2) an observable decrease in avg. cost per port at sites with more than 25 ports*

Questions

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Appendix

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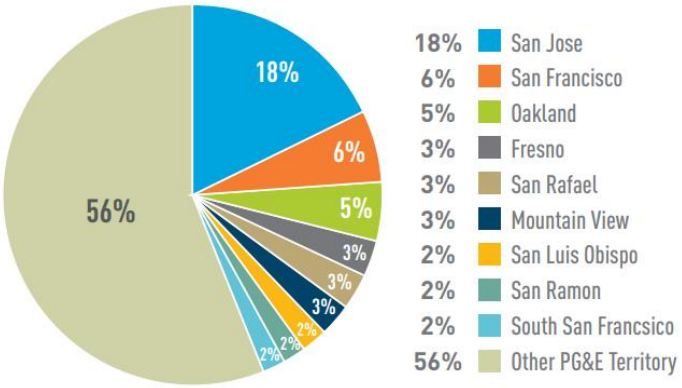
Site and port distribution across PG&E's service area is broad

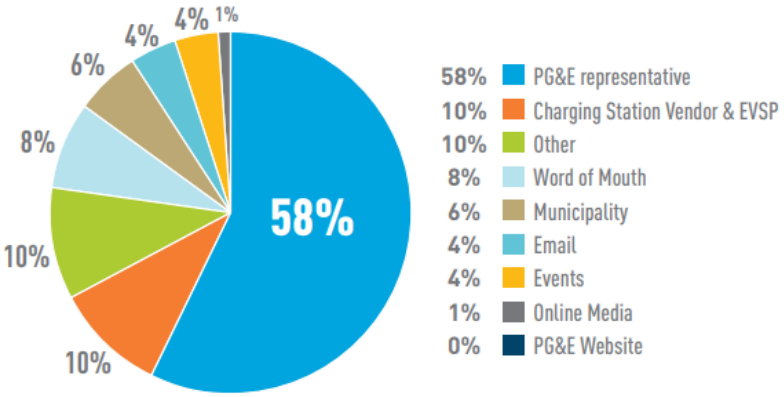
While there are multiple sites in some top cities, EVCN had success offering infrastructure to customers over a broad geography and across 66 cities

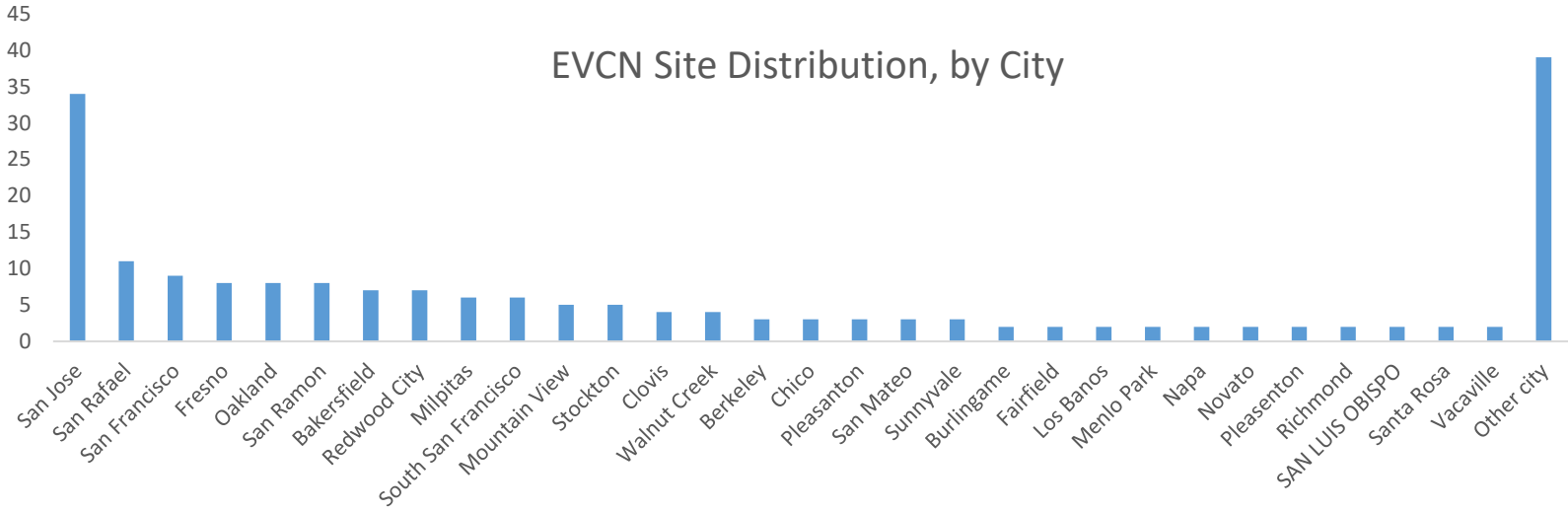
EVCN applicants by geography



*56% represents 134 additional cities

EVCN Program applicant source





Note: Other City represents an additional 36 cities