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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U 338-E) for Approval of its Charge Ready and Market Education Programs	Application 14-10-014

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) CHARGE READY PILOT PROGRAM REPORT

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Dated: **June 1, 2020**

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Southern California Edison Company (SCE) hereby submits its Charge Ready Pilot Program Report, attached hereto as Attachment A. The information contained in this report supersedes all prior reports submitted by SCE.

Respectfully submitted,

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June 1, 2020

Attachment A

Charge Ready Pilot Program Report

Southern California Edison Company's

Charge Ready Pilot

Quarterly Report

1st Quarter, 2020

June 1, 2020

CHARGE READY PILOT QUARTERLY REPORT

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CHARGE READY PILOT
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Background

The Charge Ready and Market Education programs were developed to support California's policies to reduce greenhouse gas (GHG) and air pollutant emissions, in an effort to meet the state's Zero-Emission Vehicle (ZEV) goals. The Charge Ready Pilot deploys electric infrastructure to serve qualified electric vehicle (EV) charging stations throughout Southern California Edison's (SCE) service territory, while the Market Education program targets car buyers, to help them gain awareness of EVs and the benefits of fueling from the grid.

The Market Education program also includes a launch of SCE's advisory services, to include specific education and support related to electrifying fleets, EV charging, reducing GHG footprints, and other related transportation electrification (TE) areas for business customers. Each program was designed in two phases, with a smaller-scope Phase 1 Pilot to prepare for a broader Phase 2.

The Pilot's objectives are to inform and refine the program's design and cost estimates and develop success measures for a subsequent Phase 2. The Pilot's quarterly reports include key metrics and updates about progress, achievements, and lessons learned.

On December 13, 2018, the California Public Utilities Commission approved SCE's request for an additional $22M (2014$) to continue implementing the Pilot. The Pilot's quarterly reports will include key metrics on the additional approved funding and is referred to as "Bridge" to separately track progress.

1. EXECUTIVE SUMMARY

1.1. Pilot Description

Charge Ready was developed to reduce barriers to EV adoption by deploying electric infrastructure to serve EV charging stations (EV supply equipment, or EVSE)[1] at long dwell-time locations where EVs are usually parked for at least four hours. These locations provide adequate time for most EV drivers to fully recharge their vehicles.

The Pilot was open to eligible non-residential customers in the following long dwell-time location market segments:

- Workplaces
- Multi-Unit Dwellings (MUDs), such as apartment buildings
- Fleets
- Destination centers, such as sports arenas or malls

Through Charge Ready, SCE installed, owned, maintained, and paid all related costs for make-ready stubs serving EVSE, including:

- Electric distribution infrastructure, such as transformers, service lines, and meters dedicated to EV charging equipment deployed under the Pilot.
- Customer-side infrastructure, such as panels, step-down transformers, wiring and conduits, and stub outs, to allow for EVSE installations.

Participating customers were responsible for procuring, installing, and maintaining qualified EVSE, including electrical energy and networking costs, but received rebates applicable against some or all of the EVSE and installation costs.

SCE established an Advisory Board comprised of customers, industry stakeholders, and representatives of disadvantaged communities (DACs). The board provided useful input and guidance to SCE during the pilot implementation and execution.

1.2. Pilot Summary for Quarter

Pilot

By the end of the first quarter in 2020, SCE reserved funding for a total of 1,301 charge port commitments at 81 sites. Of the 1,301 committed charge ports, 628 charge ports (48%) are in DACs, which is considerably higher than

[1] As EVSE may typically include one, two, or four charge ports, with varying costs and demand (kW), SCE uses charge port (rather than EVSE) as the preferred unit to provide detailed reporting about Charge Ready.

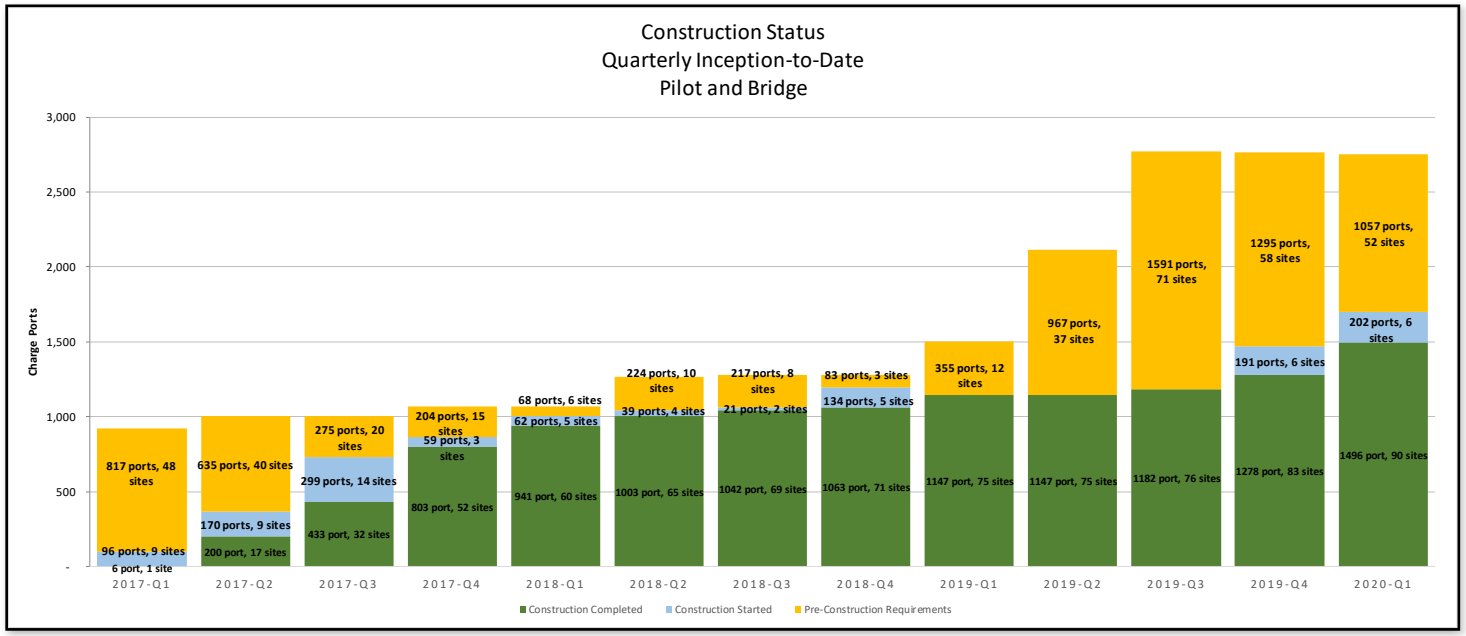
the Pilot's requirement to deploy 10% of charge ports in DACs.

Several projects continued forward through the construction and installation process. SCE efforts included infrastructure construction and post-installation verification to confirm equipment installation while customers continued procuring qualified charging stations, granting easements in the property where the charging infrastructure will be deployed, and completing the charging station installations.

Bridge

As of Q1 2020, 67 sites with 1,454 ports have reserved funding. A majority of applications are currently in the Procurement and Pre-construction stages. Several customers have completed their charging station procurement and submitted the required documentation. Figure 1.1 below shows the construction status for Pilot and Bridge.

Figure 1.1 Construction Status Quarterly Inception-to-Date



The following tables summarize the Pilot's costs recorded as of the end of Q1 2020.

Table 1.1 Pilot Summary for Quarter 1, 2020

	Planning Assumptions	Inception-to-3/31/20	Variance to Planning Assumptions	% Variance
Capital				
Utility-side Infrastructure	$3,469,474	$2,929,424	$540,050	16%
Customer-side Infrastructure	$7,586,387	$13,106,841	($5,520,454)	-73%
Other Infrastructure Costs [2]	$593,503		$593,503	100%
Total Capital	**$11,649,364**	**$16,036,265**	**($4,386,901)**	**-38%**
Operations and Maintenance				
Rebates	$5,850,000	$1,188,308	$4,661,693	80%
Labor	$284,090	$464,421	($180,331)	-63%
TE Advisory Services	$316,800	$350,051	($33,251)	-10%
ME&O	$665,000	$789,532	($124,532)	-19%
EV Awareness	$2,830,600	$2,418,427	$412,173	15%
Cancelled Projects	$0	$941,549	($941,549)	0%
Uncollectible	$0	$101,153	($101,153)	0%
Total Operations and Maintenance	**$9,946,490**	**$6,253,441**	**$3,693,049**	**37%**
Total Program	**$21,595,854**	**$22,289,706**	**($693,852)**	**-3%**

Table 1.2 Bridge Summary for Quarter 1, 2020

	Planning Assumptions (Constant 2014$)	Inception-to- 3/31/20 (Nominal)
Capital		
Utility-side Infrastructure	$22,000,000	$629,181
Customer-side Infrastructure		$3,922,743
Other Infrastructure Costs[3]		$0
Total Capital		**$4,551,924**
Operations and Maintenance		
Rebates		$53,210
Labor		$395,246
TE Advisory Services		$104,528
ME&O		$75,766
EV Awareness		$74,634
Cancelled Projects		$16,622
Total Operations and Maintenance		**$720,007**
Total	**$22,000,000**	**$5,271,930**

[2] Other Infrastructure Costs include capitalized labor for program management/delivery and charging station testing.

[3] Other Infrastructure Costs include capitalized labor for program management/delivery and charging station testing.

2. PILOT OPERATIONS

2.1. Process Overview

The Pilot's end-to-end process can be described in six stages: Engagement, Evaluation, Confirmation, Planning and Design, Construction, and Verification.

- **Engagement** begins with customers submitting an application indicating their interest in participating in the Pilot. The application the customer submits is called the **Step 1 – Notice of Intent**.
- **Evaluation** follows the application submission. SCE conducts on-site assessments to evaluate the feasibility of deploying charging stations through the Pilot.
- **Confirmation** of the customer's participation includes approval by the customer of the number of charging stations and deployment location at each site (as proposed by SCE). SCE reserves funding (if available) upon receipt of **Step 2 – Agreement** signed by the customer and property owner.
- SCE then conducts **Planning and Design** for the approved site while the Customer Participant procures qualified charging stations. At the end of the procurement period, Customer Participants must provide the required proof of purchase using **Step 3 – Certification.**
- SCE then conducts **Construction** for the approved site. A pre-construction meeting is held with the Customer Participant before construction begins. Once the infrastructure is completed and passes inspection, the Customer Participant's selected charging station vendor installs the charging stations.
- Finally, **Verification** takes place to ensure that electric infrastructure and charging systems were deployed in accordance with approved plans (using **Step 4 – Walk-Through Report** and **Step 5 – Rebate Confirmation**); SCE then issues the rebate.

Waitlist Process

SCE established a waitlist for customers that did not meet Pilot timelines, or whose applications exceeded funding availability. Waitlisted projects can move forward in the process if other projects with reserved funding drop out or if previously reserved funding becomes available (for example, if a project with reserved funding has cost underruns).

2.2. Status Overview

By the end of the first quarter in 2020, SCE reserved funding for a total of 2,755 charge port commitments. Of the 2,755 committed charge ports, 1,292 charge ports (47%) are in Disadvantaged Communities, which is considerably higher than the Pilot's requirement to deploy 10% of charge ports in Disadvantaged Communities. The following six charts (three for Pilot and three for Bridge) provide the charge port distribution per the category noted for the charge ports that have reserved funding.

Figure 2.1 Charge Port Distribution by Market Segment for Pilot

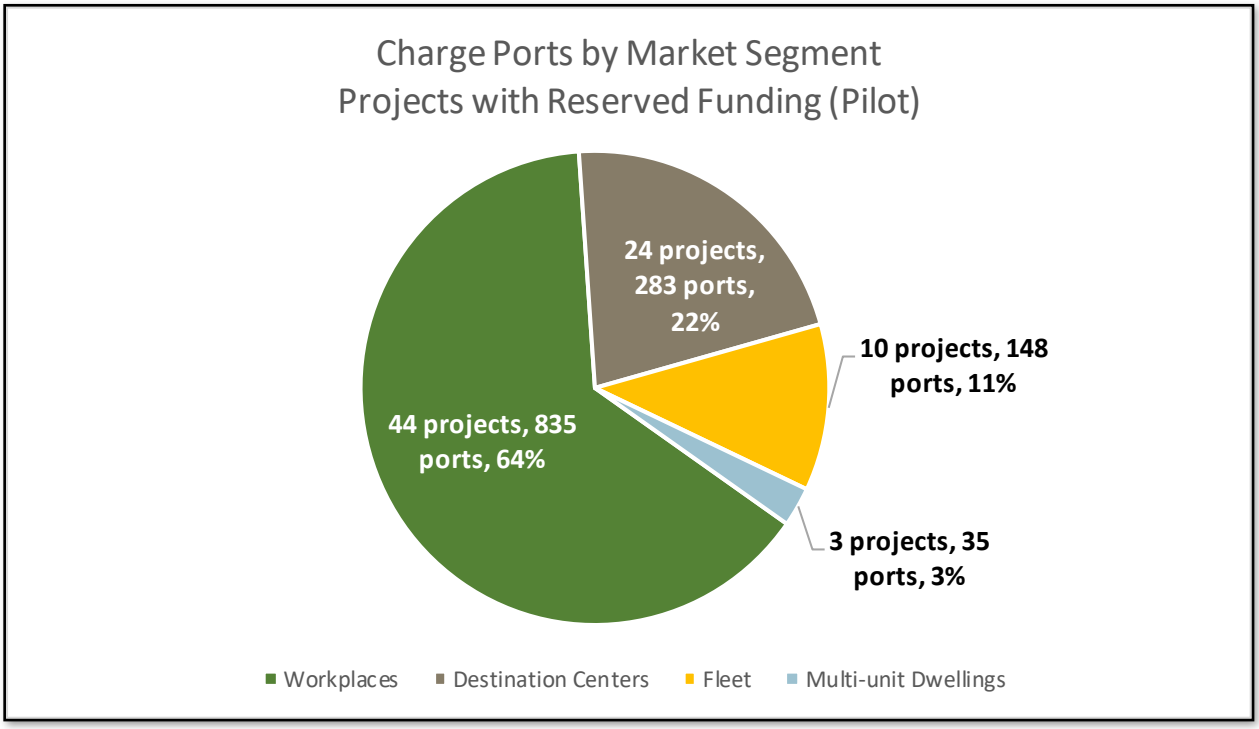


Figure 2.2 Charge Port Distribution by Market Segment for Bridge

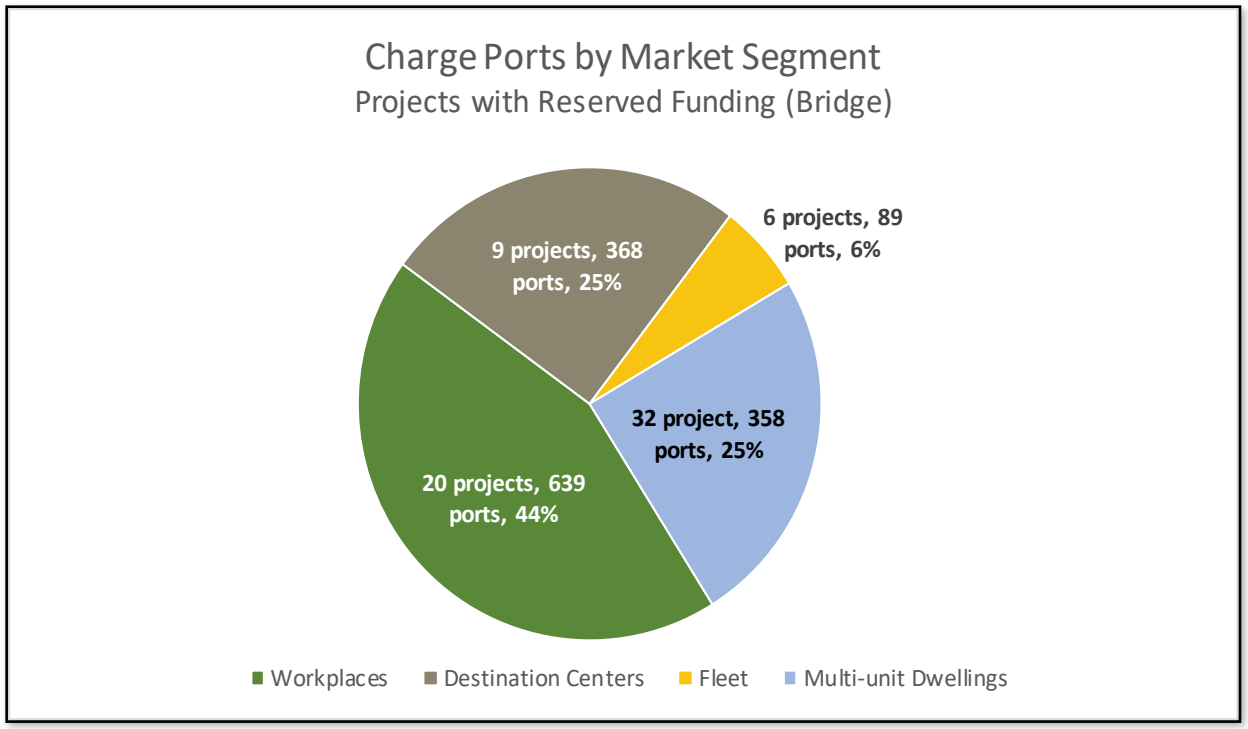


Figure 2.3 Charge Port Distribution by Customer Type for Pilot

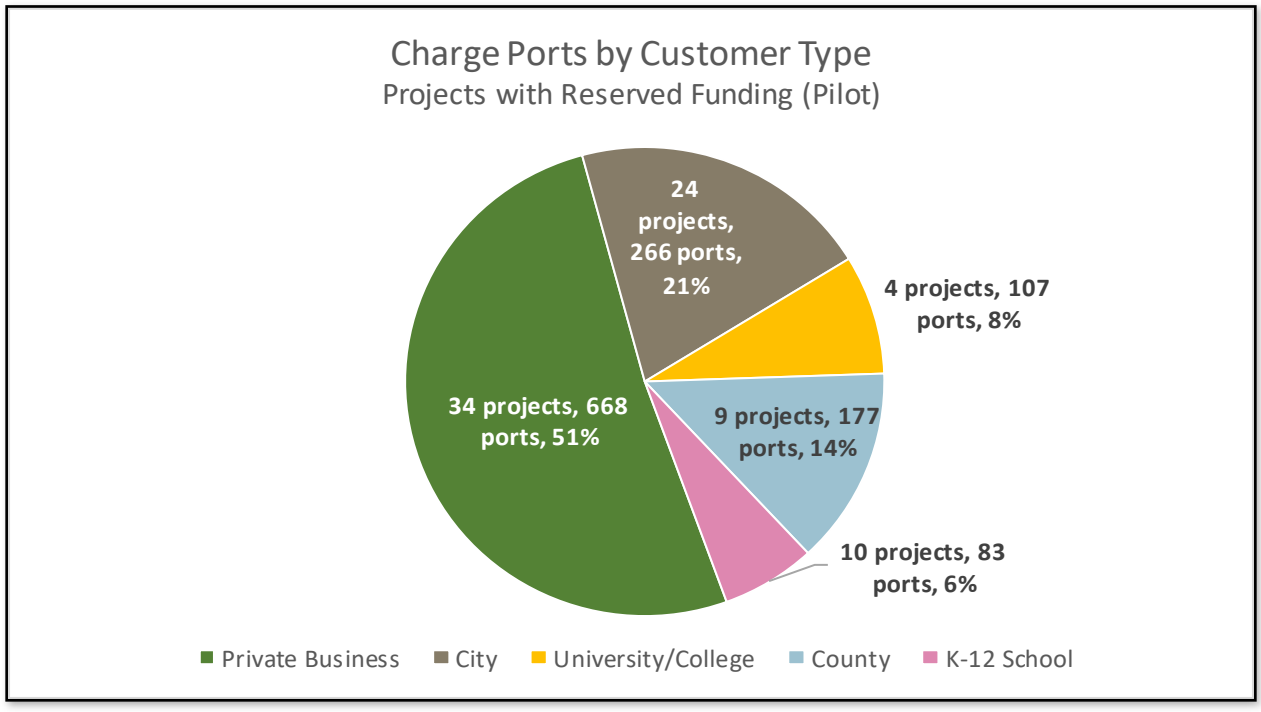


Figure 2.4 Charge Port Distribution by Customer Type for Bridge

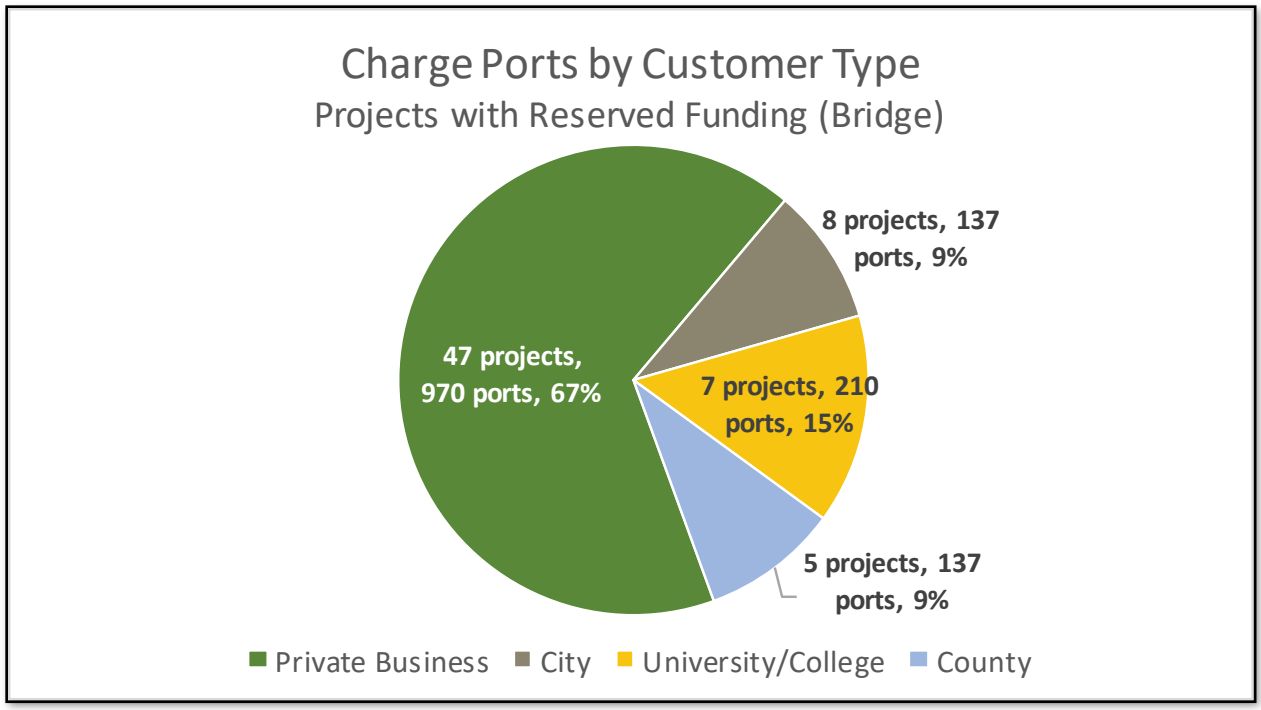


Figure 2.5 Charge Port Distribution DAC and Non-DAC (Pilot)

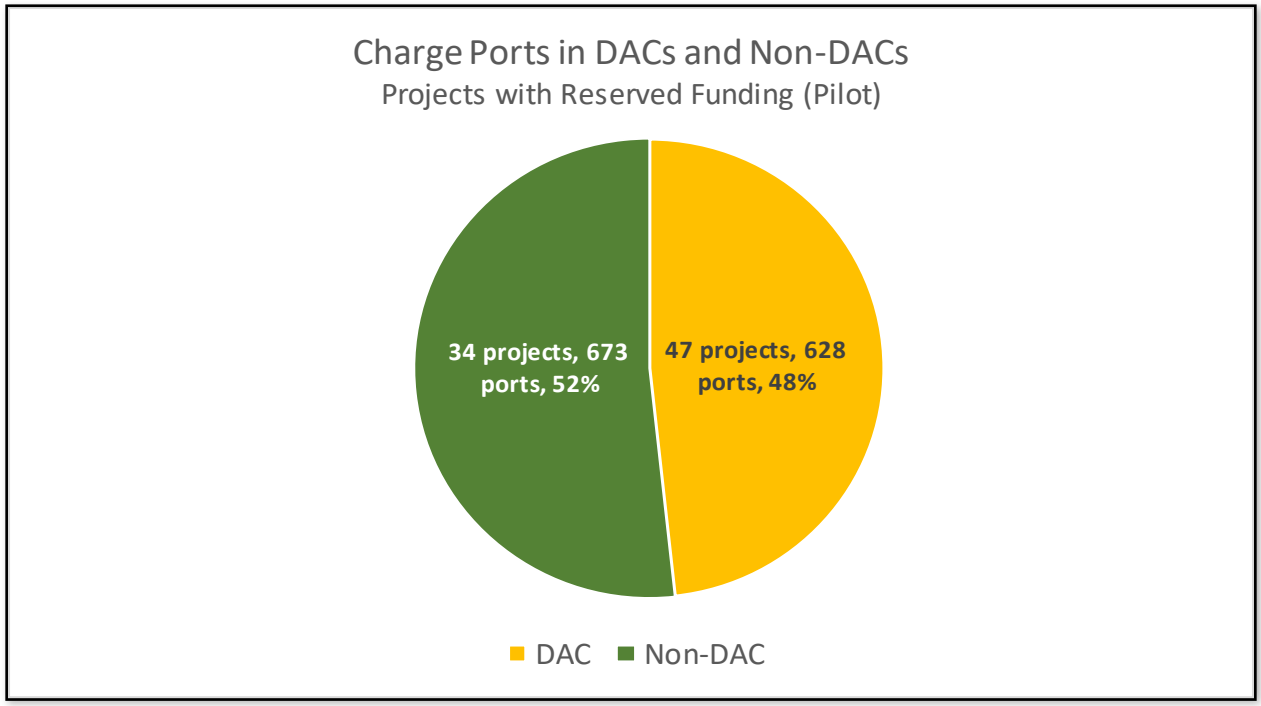
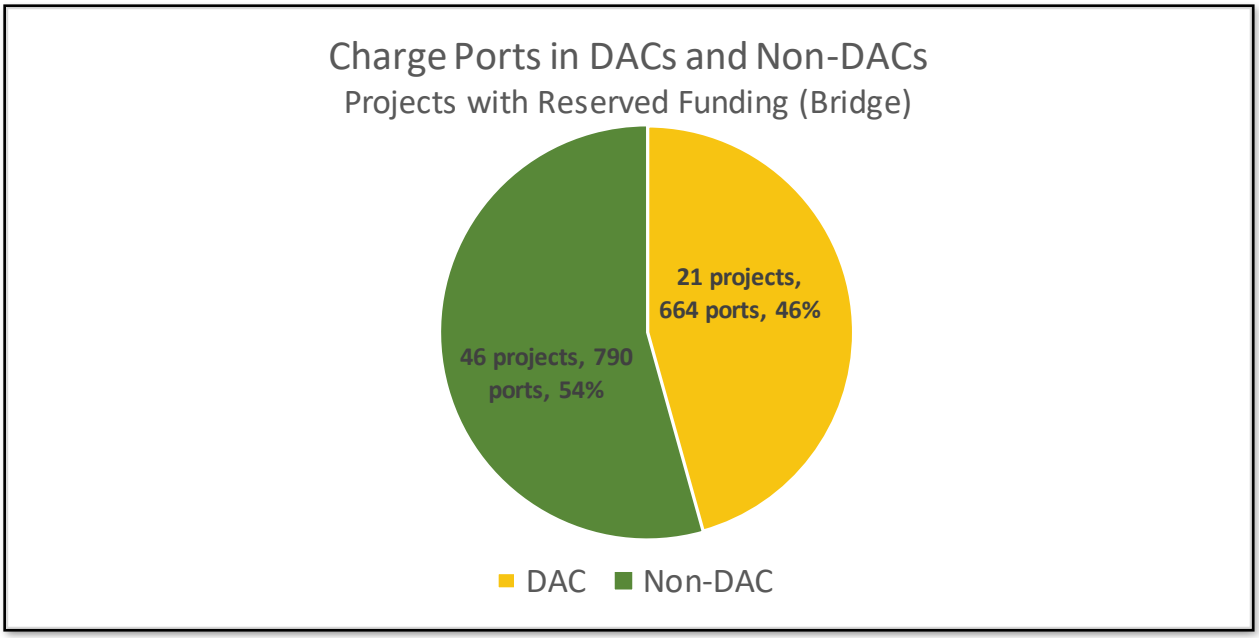
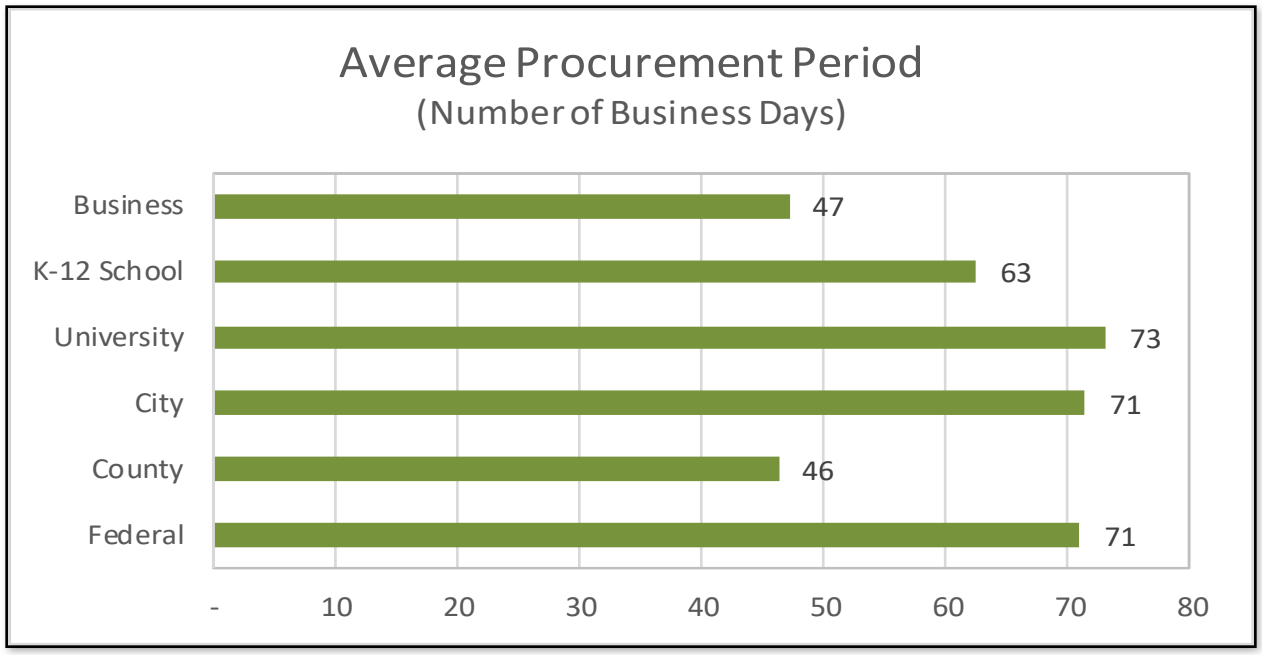


Figure 2.6 Charge Port Distribution DAC and Non-DAC (Bridge)



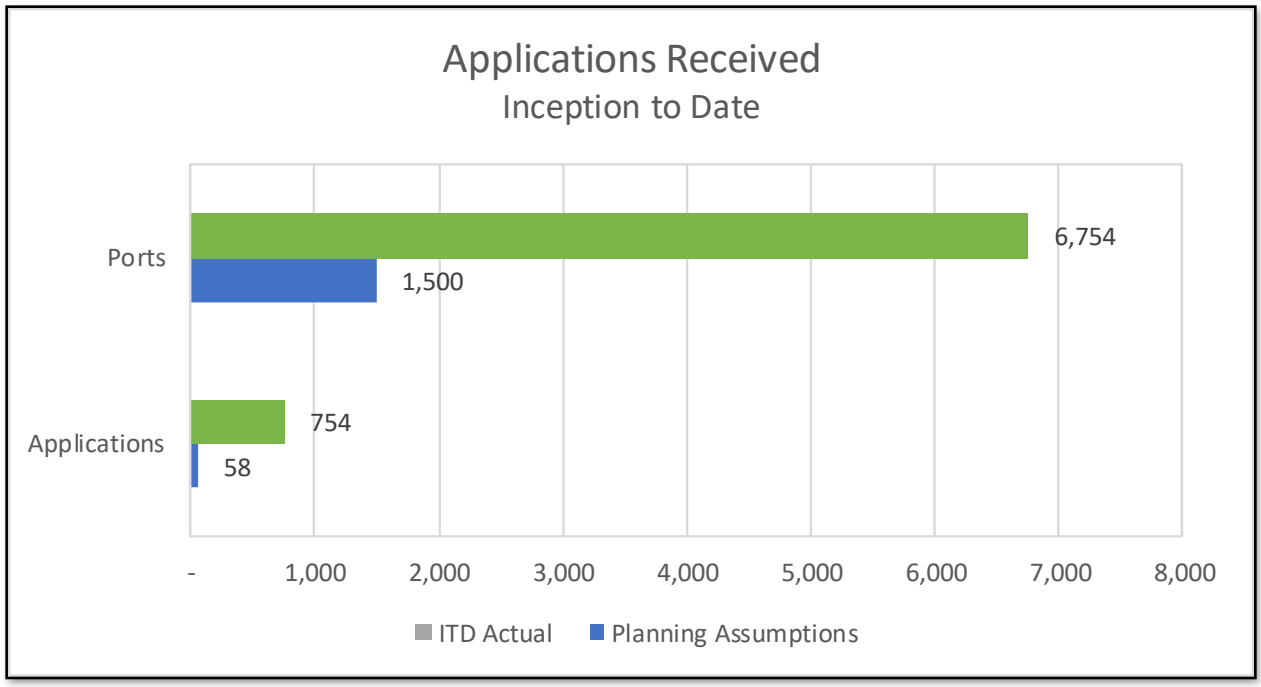
By the end of Q1 2020, 145 customers with 2,740 charge ports had submitted their procurement documents for the charging stations. The average procurement period was 55 business days with the majority of customers submitting the allowed two extension requests. The average procurement period by organization type are shown in Figure 2.7.

Figure 2.7 Average Procurement Period (Pilot and Bridge)



The following chart provides a snapshot of the Pilot's operational metrics relating to customer applications in Charge Ready Pilot and Bridge. The data reflected in the following charts capture project activity from the launch of the Pilot in May of 2016, through the end of Q1, 2020. The distribution across market segments is provided.

Figure 2.8 Applications Received for Pilot and Bridge



The following tables summarize the Pilot operational metrics for Q1 2020.

Table 2.1 Pilot Operational Metrics for Quarter

Total Number of Applications Received

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	58 projects 1500 charge ports	0 projects 0 charge ports	754 projects 6754 charge ports	1300% 450%
Disadvantaged Communities	n/a	0%	37%	n/a
Destination Centers	n/a	0%	20%	n/a
Workplaces	n/a	0%	55%	n/a
Fleet	n/a	0%	5%	n/a
Multi-Unit Dwellings	n/a	0%	20%	n/a

Number of Charging Stations Requested

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	58 projects 1500 charge ports	0 projects 0 charge ports	754 projects 6754 charge ports	1300% 450%
Disadvantaged Communities	10%	0%	32%	317%
Destination Centers	n/a	0%	22%	n/a
Workplaces	n/a	0%	49%	n/a
Fleet	n/a	0%	6%	n/a
Multi-Unit Dwellings	n/a	0%	23%	n/a

Number of Applicants Rejected

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	n/a	0 projects 0 charge ports	204 projects 1541 charge ports	n/a
Disadvantaged Communities	n/a	0%	37%	n/a
Destination Centers	n/a	0%	23%	n/a
Workplaces	n/a	100%	68%	n/a
Fleet	n/a	0%	1%	n/a
Multi-Unit Dwellings	n/a	0%	8%	n/a

Number of Applicants Withdrawn

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	n/a	1 project 4 charge ports	282 projects 2322 charge ports	n/a
Disadvantaged Communities	n/a	100%	34%	n/a
Destination Centers	n/a	0%	19%	n/a
Workplaces	n/a	100%	58%	n/a
Fleet	n/a	0%	6%	n/a
Multi-Unit Dwellings	n/a	0%	17%	n/a

Number of Applicants Withdrawn After Signing Step 2 Agreement

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	n/a	1	16	n/a
Disadvantaged Communities	n/a	1	9	n/a
Destination Centers	n/a	0	4	n/a
Workplaces	n/a	1	10	n/a
Fleet	n/a	0	1	n/a
Multi-Unit Dwellings	n/a	0	1	n/a

Average Number of Charge Ports per Site with Completed Infrastructure

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
Average number of charge ports per site	n/a	32	17	n/a
Disadvantaged Communities	n/a	28	14	n/a
Destination Centers	n/a	14	12	n/a
Workplaces	n/a	52	20	n/a
Fleet	n/a	11	14	n/a
Multi-Unit Dwellings	n/a	-	11	n/a

Total Number of Projects with Completed Infrastructure

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	58 projects 1500 charge ports	6 projects 191 charge ports	90 projects 1496 charge ports	131% 79%
Disadvantaged Communities	n/a	67%	57%	n/a
Destination Centers	n/a	17%	28%	n/a
Workplaces	n/a	50%	54%	n/a
Fleet	n/a	33%	11%	n/a
Multi-Unit Dwellings	n/a	0%	7%	n/a

Average Number of Charge Ports per Site with Customer Installation Completed

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
Average number of charge ports per site	n/a	32	17	n/a
Disadvantaged Communities	n/a	28	14	n/a
Destination Centers	n/a	14	12	n/a
Workplaces	n/a	52	20	n/a
Fleet	n/a	11	14	n/a
Multi-Unit Dwellings	n/a	-	11	n/a

Total Number of Projects with Customer Installation Completed

	Filing Assumptions	Quarter 1, 2020	Inception-to-Date Actual	Percentage to Filing Assumptions
	58 projects 1500 charge ports	11 projects 239 charge ports	86 projects 1386 charge ports	129% 76%
Disadvantaged Communities	n/a	55%	58%	n/a
Destination Centers	n/a	9%	28%	n/a
Workplaces	n/a	46%	55%	n/a
Fleet	n/a	18%	10%	n/a
Multi-Unit Dwellings	n/a	27%	7%	n/a

Table 2.2 Customer Participant Request

Customer Participant Request		
	Filing Assumptions	**Year-to-Date Actual**
Average number of total parking spaces per site	N/A	569 parking spaces/site
Percentage of total number of parking spaces located in parking structures	N/A	16%
Average fleet size[4]	N/A	6 (Fleet Segment Only) 4 (All Segments)
Percentage of applications received with charging systems already installed at the site	N/A	22%
Average number of charging systems already installed at the site	N/A	9
Average number of charge ports requested per site	26	13
• Disadvantaged Communities	N/A	12
• Destination Centers	N/A	14
• Workplaces	N/A	13
• Fleet	N/A	14
• Multi-unit Dwellings	N/A	14

[4] Applicants from all segment categories may indicate the number of fleet vehicles at their site (All Segments). Applicants in the fleet category intend to use the new charging station for their EV fleet (Fleet Segment Only).

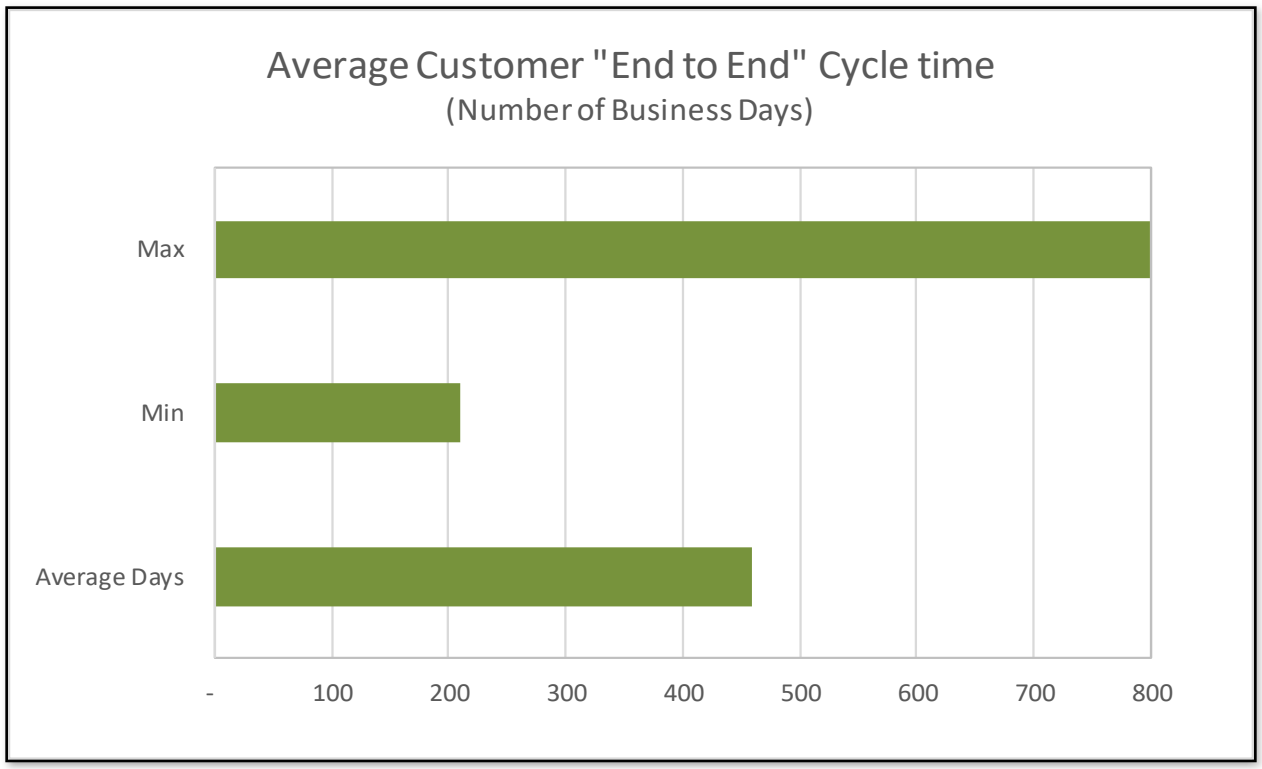
Table 2.3 Pilot Costs

Pilot Costs			
	Filing Assumptions[5] (Constant 2014$)	**Inception-to-Date (Nominal)**	**Percentage to Filing Assumptions**
Total Pilot costs (Infrastructure plus rebates paid)	$16,792,136	$17,224,572	103%
Average cost per site (Utility + Customer infrastructure + rebate) [6]	$291,070 ($11,195 * 26 charge ports)	Average Cost per Site: $226,639 Average No. Charge Ports per Site: 15	78% 59%
Average cost per port (Utility + Customer infrastructure + rebate) [7]	$11,195	$14,138 ($12,399 2014$)	111%
Total rebates paid[8]	$5,850,000	$1,188,308	20%
Average rebates paid per site[9]	$101,400 ($3,900 * 26 charge ports)	$15,636	15%
Total infrastructure costs	$10,942,136	$16,036,265	147%
Average infrastructure per site	N/A	$211,003	N/A
• Average actual infrastructure costs for projects with all Level 1 charging systems	N/A	$170,897	N/A
• Average actual infrastructure costs for projects with all Level 2 charging systems	N/A	$221,476	N/A
• Average actual infrastructure costs for projects with hybrid charging systems (both Level 1 and Level 2)	N/A	N/A	N/A
Total SCE site assessment costs for rejected and withdrawn applicants (prior to signing Step 2)	N/A	$422,733	N/A
Average SCE site assessments cost for rejected and withdrawn applicants (prior to signing Step 2)	N/A	$879	N/A

[5] Some items did not have filing assumptions but actual costs are being tracked and reported.
[6] Based on projects completed with recorded infrastructure costs and rebates.
[7] Based on completed projects with recorded infrastructure and rebate costs.
[8] Recorded and accrued rebates.
[9] Based on 75 sites.

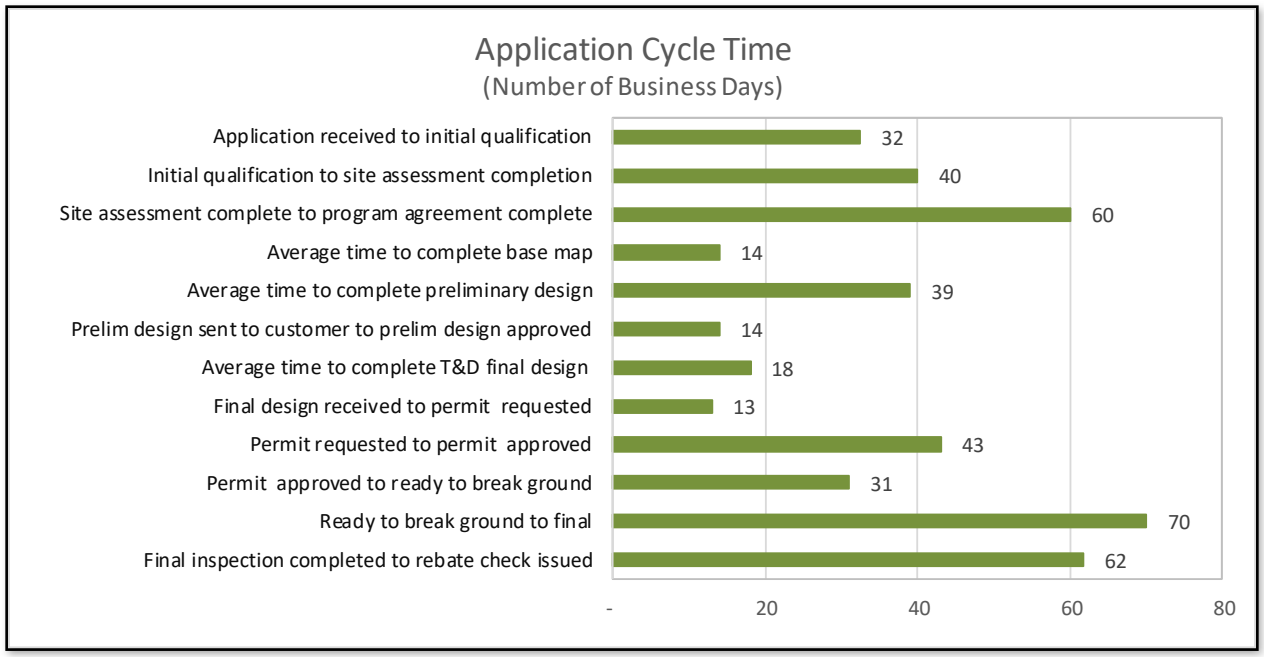
Total SCE site assessment, design, permit, and easement cost for rejected and withdrawn applicants (after signing Step 2)	N/A	$196,345	N/A
Average SCE site assessment, design, permit, and easement cost for rejected and withdrawn applicants (after signing Step 2)	N/A	$15,103	N/A
Total construction costs for withdrawn applicants	N/A	$84,617	N/A
Average construction costs for rejected and withdrawn applicants	N/A	$14,103	N/A

Figure 2.9 Pilot Cycle Times[10]



[10] Based on 79 projects with rebate checks issued.

Figure 2.10 Average Application Cycle Time



2.3. Supplier Diversity

In the Charge Ready Pilot, to date 72% of spend has been contracted with Diverse Business Enterprises (DBE).

The Charge Ready Pilot was previously at 100% DBE spend prior to conducting a second-round RFP to source additional general contractors to support the construction of EV infrastructure.

2.4. Training and Safety

SCE values safety and ensured the utility- and the customer-side infrastructures were installed and maintained in safe working order. The Pilot requires SCE employees and subcontractors installing the make-readies to follow these safety requirements:

- All general contractors must prepare and adhere to a job specific Job Hazard Analysis (JHA).
- All general contractors must have a dedicated safety officer or manager who regularly visits the job site.
- Safety tailboards must be held daily, to discuss the work to be performed and any potential risks.
- All general contractors must submit a monthly safety report to SCE.
- SCE personnel must follow all site safety regulations including wearing

appropriate personal protective equipment (PPE).

- Subcontractor electricians must hold valid California C-10 licenses.
- Electricians preparing the make-readies must be EV Infrastructure Training Program (EVITP) certified.

For infrastructure safety, all site plans were submitted to their authorities having jurisdiction (AHJs) for approval and permitting. Some AHJs required multi-agency (for example, Building & Safety, Electrical, and Fire Department Planning) approval. For charging station safety, all installations were completed per AHJ-approved plans, and inspected by AHJ inspectors.

3. CHARGING STATIONS

3.1. Overview

The Charge Ready Pilot qualifies three different types of charging system profiles:

1. Level 1 charging system, without network capability,
2. Level 2 "A" charging system, with network capability integrated into the EVSE, and
3. Level 2 "B" charging system, with network capability provided by an external device (such as a kiosk or gateway) shared among multiple stations.

Through a Request for Information (RFI) process, SCE conducts technical tests on proposed charging systems. In accordance with the terms and conditions of the RFI, qualified vendors (manufacturers, distributors) for the Pilot are required to offer Customer Participants:

- Qualified charging systems that meet SCE's technical requirements
- Networking services, including transactional data reporting and demand response (DR) services

The Pilot's Approved Package List[11] summarizes the vendors and EVSE models available to Customer Participants as of Q1 2020. The Pilot offers 73 options for charging stations from 35 EVSE vendors and 17 network providers, maintaining customer choice and market-neutral customer engagement.

[11] The Pilot's Approved Package List can be found on the landing page at https://on.sce.com/chargeready.

Table 3.1 Number of Approved Charging Station Models

Charging System Type	Total Number of Approved Models
Level 1	5
Level 2 "A"	22
Level 2 "B"	46
Total	73

The base cost of qualified EVSE for the Charge Ready Pilot is defined as "the best value offered for a charging station and its installation within each defined profile [of EVSE]."[12] SCE determines a price per port for each of the qualified models and configurations. SCE then selects the lowest price per port within each charging system type (using only those EVSE models that passed SCE's technical evaluation) to determine the base costs. The base cost values as of Q1 2020 are shown in Table **3.2**.

Table 3.2 Base Cost of Charging Systems

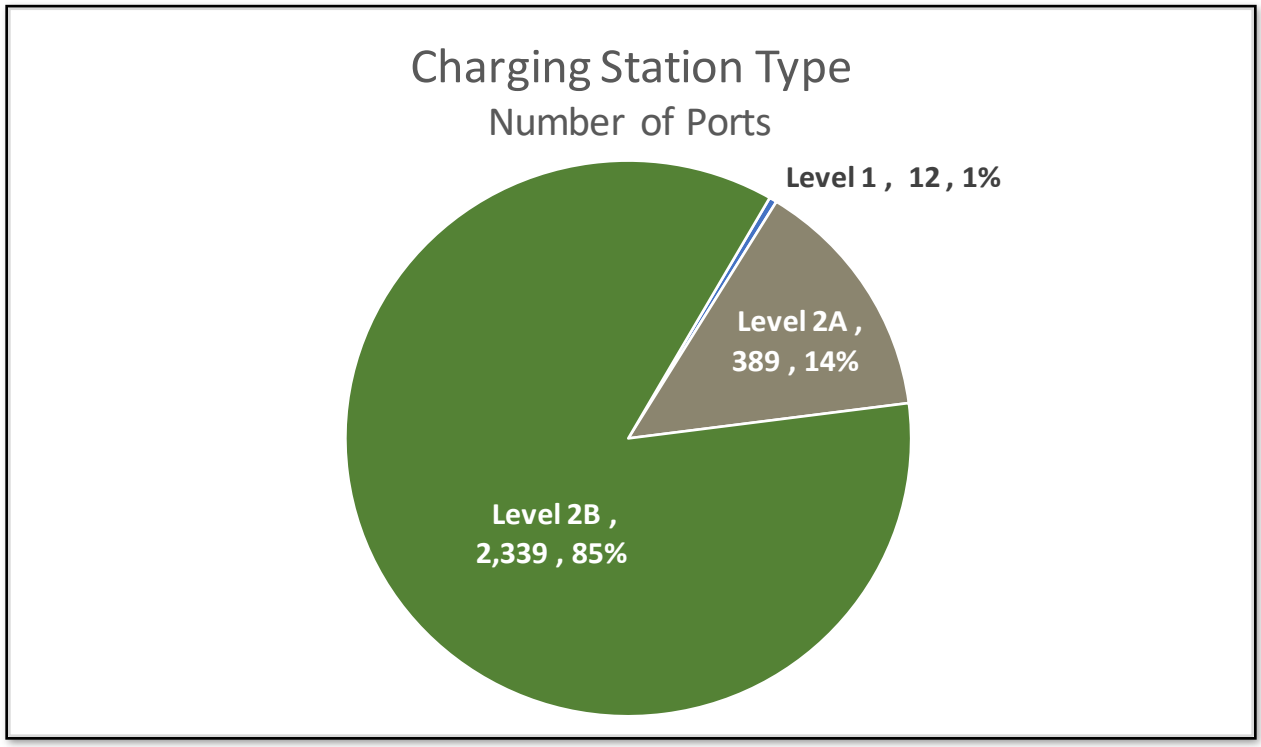
Charging System Type	Base Cost Per Port
Level 1	$1,396
Level 2 "A"	$2,390
Level 2 "B"	$2,095

3.2. Customer Charging Stations

By the end of Q1 2020, 145 customers with reserved funding for 2,740 charge ports had submitted their proof-of-procurement documents for the charging stations. The majority of participants selected L2 "B" charging station systems that have network capability provided by an external device (such as a kiosk or gateway), which is shared among multiple stations. The second most popular L2 configuration included stations that have integrated networking capability. The following chart displays customer preferences for types of charging stations.

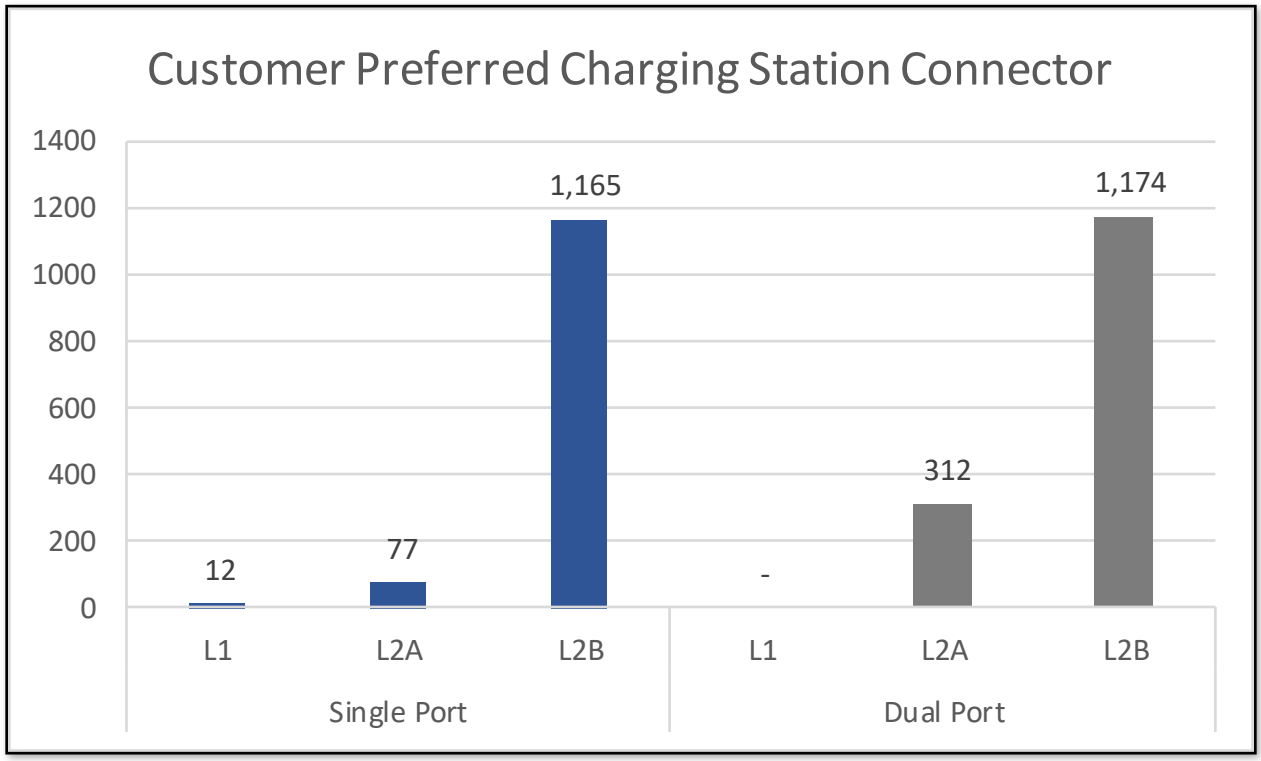
[12] In the Step 2 Agreement, the applicant indicates the requested number of Level 1 EVSE to be approved and installed under the Pilot. The number of installed Level 1 EVSE must match the number of Level 1 EVSE requested in Step 2 Agreement.

Figure 3.1 Charge Ports per Type



Slightly more customer participants selected and procured dual-port charging station configurations than those that acquired single-port systems. Figure 3.2 depicts the distribution of purchases across various charging station configurations.

Figure 3.2 Customer Preferred Charging Station Connector



3.3. Rebates

As of March 31, 2020, a total of 79 rebate payments were made, representing 1,200 charge ports. Table 3.3 provides a summary of charging station requests and rebates, as of March 31, 2020.

Table 3.3 Charging Station Requests and Rebates

Charging Station Requests[13] and Rebates[14]		
	Pilot	**Bridge**
Number of Level 1 charge ports requested	12	0
Number of Level 2 charge ports requested	1,289	1454
Number of total charge ports approved	1,301	1454
• Average number of Level 1 charge ports approved per Level 1 site	12	0
• Average number of Level 2 charge ports approved per Level 2 site	16.1	21.7

[13] In the Step 2 Agreement, the applicant indicates the requested number of Level 1 EVSE to be approved and installed under the Pilot. The number of installed Level 1 EVSE must match the number of Level 1 EVSE requested in Step 2 Agreement.

[14] Rebate reserved based on Step 3 Procurement

Rebates reserved for Level 1 ports	$19,356	$0
Rebates reserved for Level 2A ports	$375,358	$67,610
Rebates reserved for Level 2B ports	$1,024,362	$1,846,234
Rebates paid for Level 1 ports	$19,356	$0
Rebates paid for Level 2A ports	$375,138	$0
Rebates paid for Level 2B ports	$809,314	$37,710

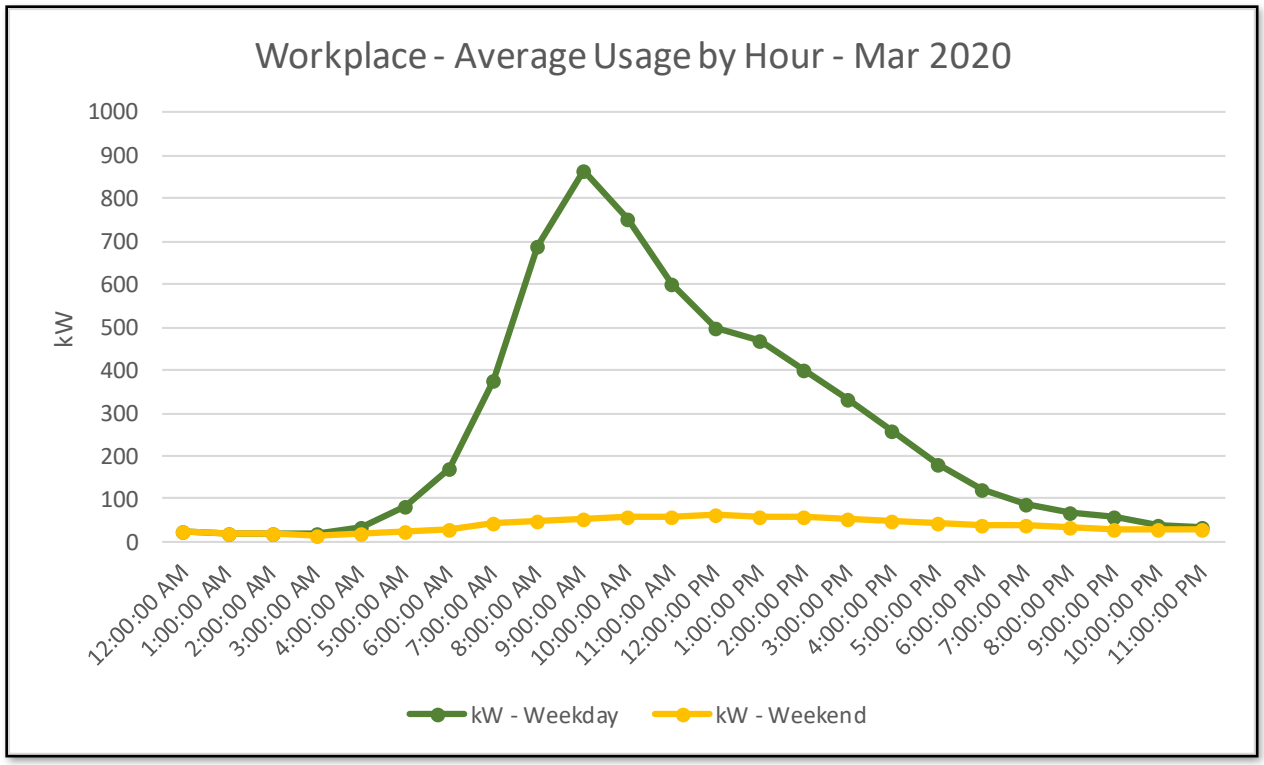
4. CHARGING STATION OPERATION

4.1. Charging Station Energy Usage

Average load shapes for each segment (based on SCE meter data) are analyzed each month in order to determine when electric vehicles are being charged and when EV load may be available for curtailment or shifting. These load shapes have remained fairly consistent over time as more charging ports have been added to each segment. Although the overall load shapes in March 2020 are consistent with previous months, the average peak kW was substantially lower at workplaces, destination centers and fleet sites. This is most likely attributed to COVID-19 resulting in lower utilization of charging ports at these segments.

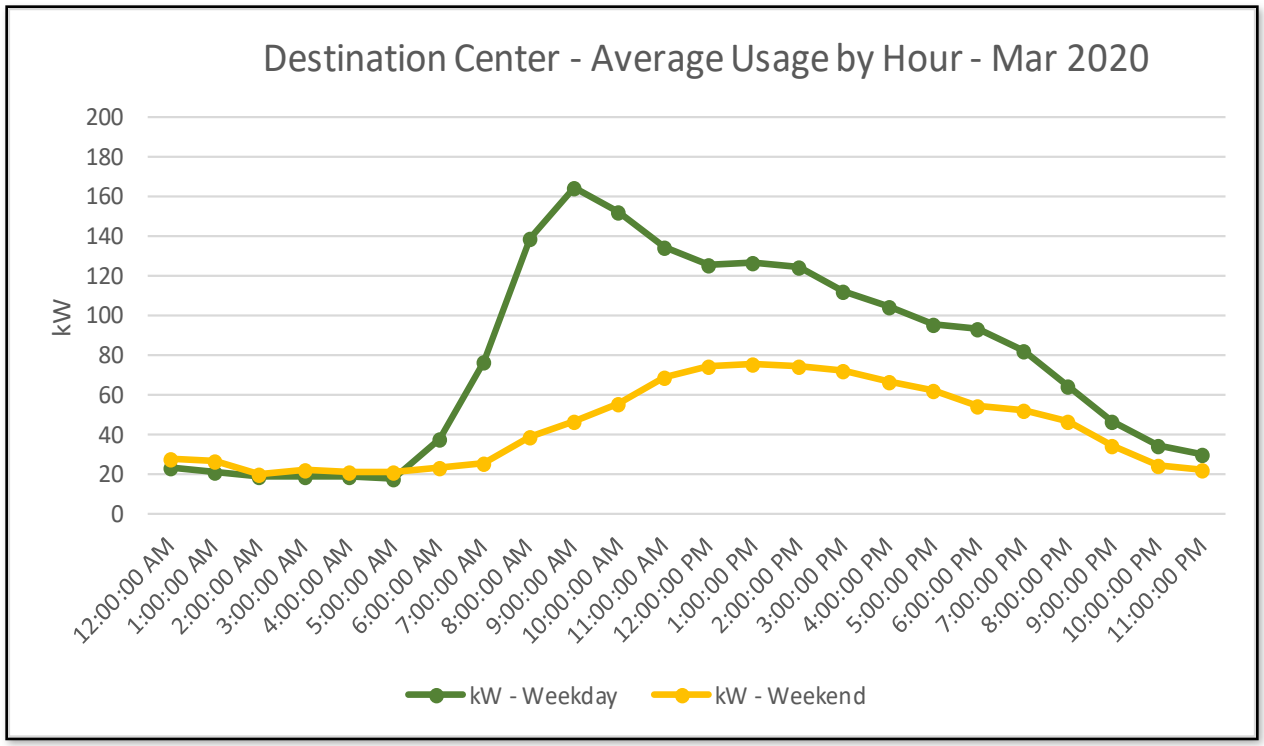
During the month of March 2020, charging ports at workplaces were used primarily during morning hours with average peak usage occurring at 9am on weekdays. As expected, very little load occurred on weekends since workplaces typically operate Monday through Friday.

Figure 4.1 Workplace Average Usage per Hour in March 2020: 42 sites/767 ports



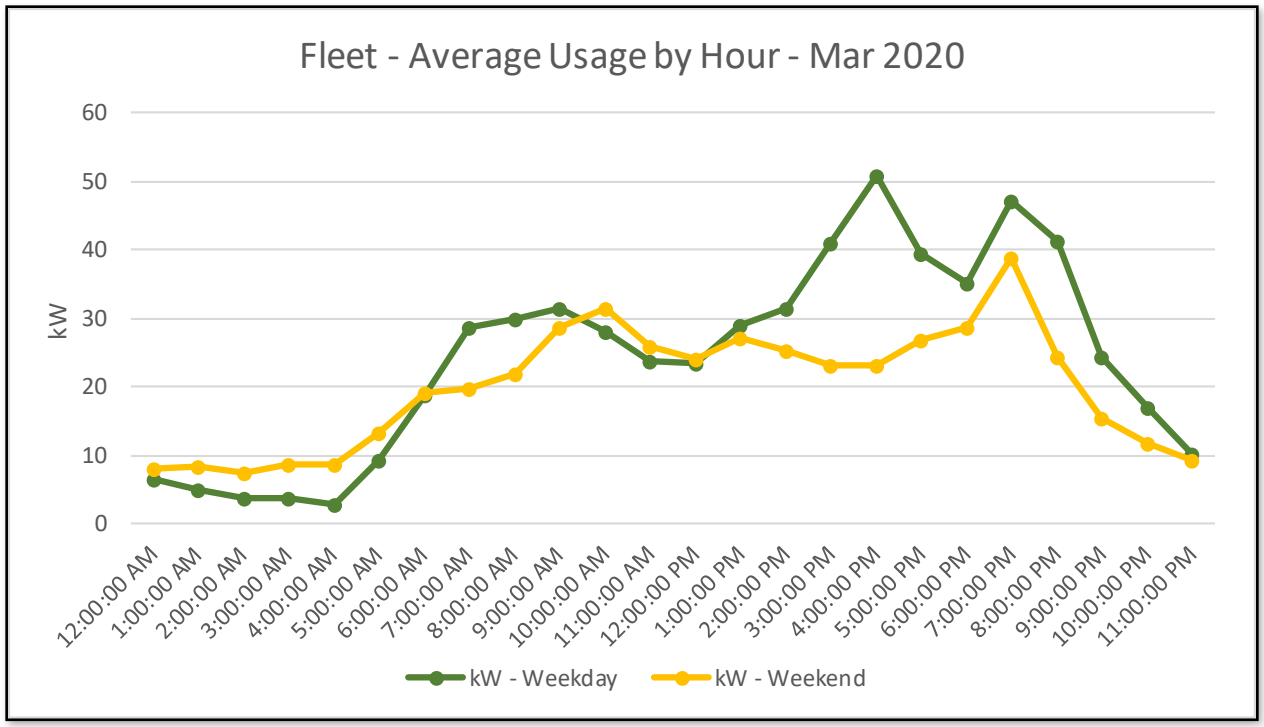
During the month of March 2020, charging ports located at Destination Centers were used throughout the day on both weekdays and weekends with average peak usage occurring at 9am on weekdays.

Figure 4.2 Destination Center Usage per Hour in March 2020: 25 sites/283 ports



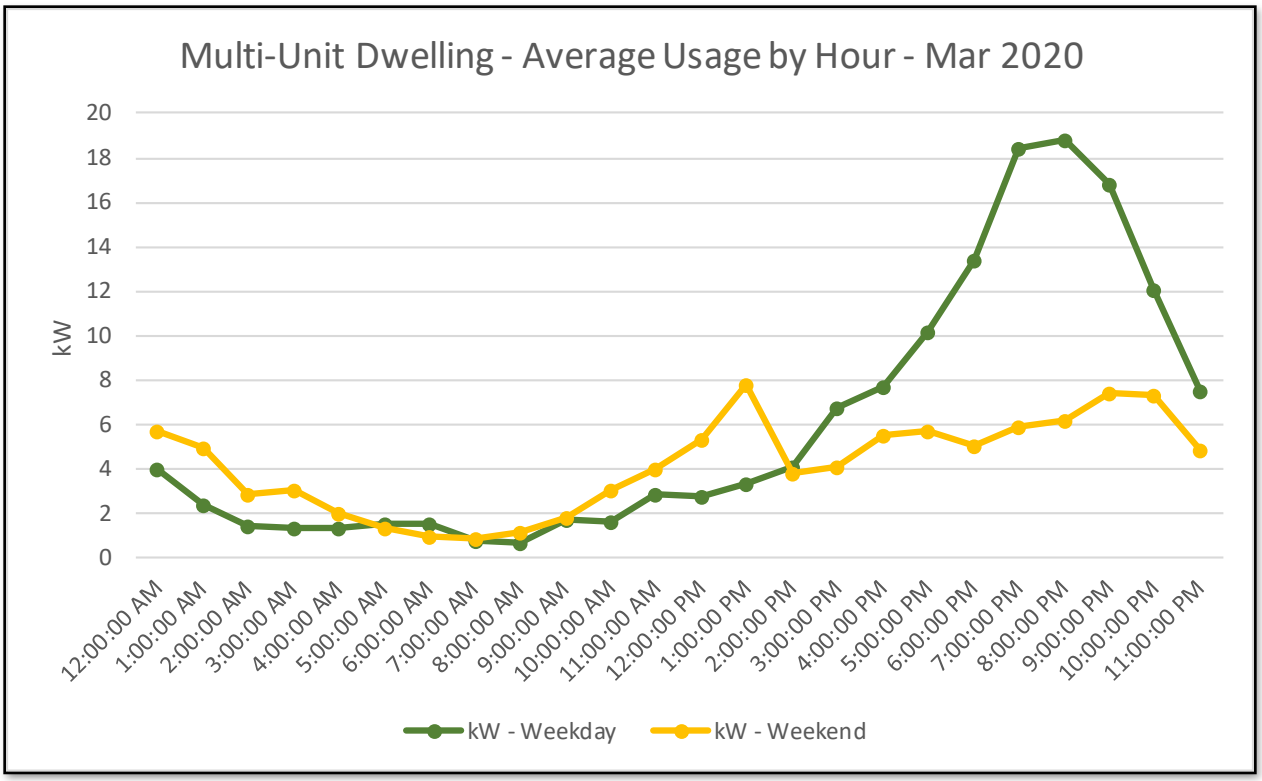
During the month of March 2020, charging ports at fleet sites were used primarily during late afternoon and evening hours with average peak usage occurring at 4pm on weekdays.

Figure 4.3 Fleet Usage per Hour in March 2020: 8 sites/118 ports



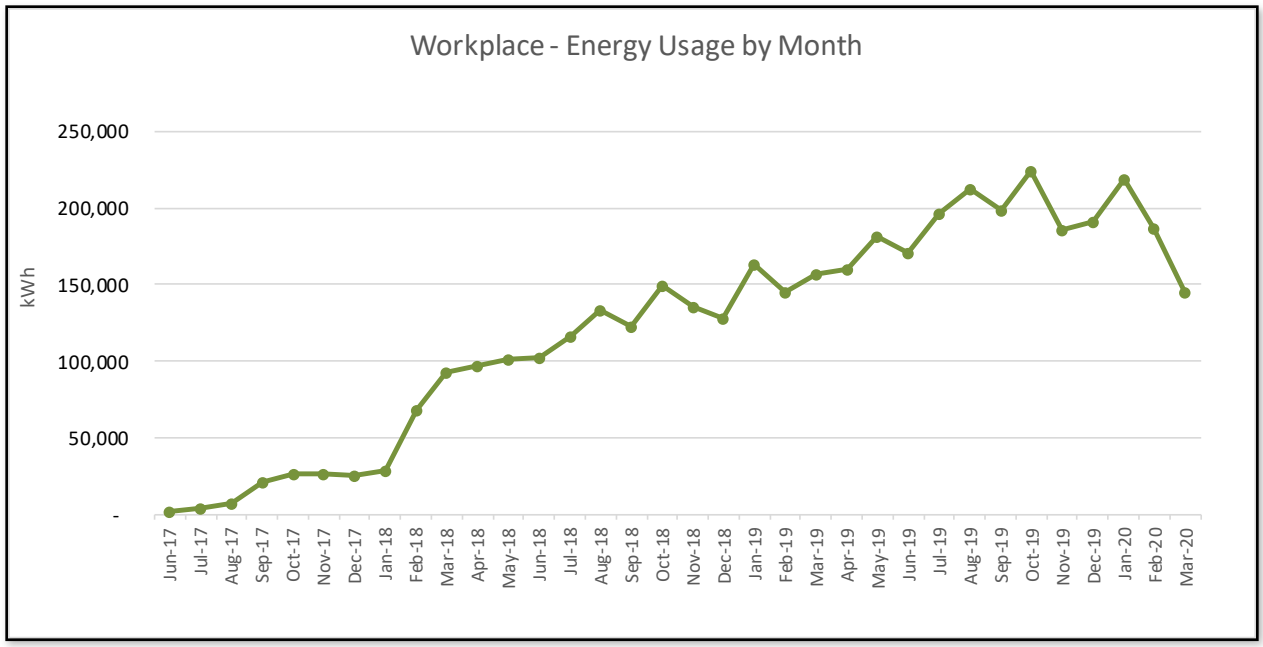
During the month of March 2020, charging ports at Multi-Unit Dwellings were used primarily during nights on weekdays with average peak usage occurring at 8pm on weekdays.

Figure 4.4 Multi-Unit Dwelling Usage per Hour in March 2020: 3 sites/35 ports



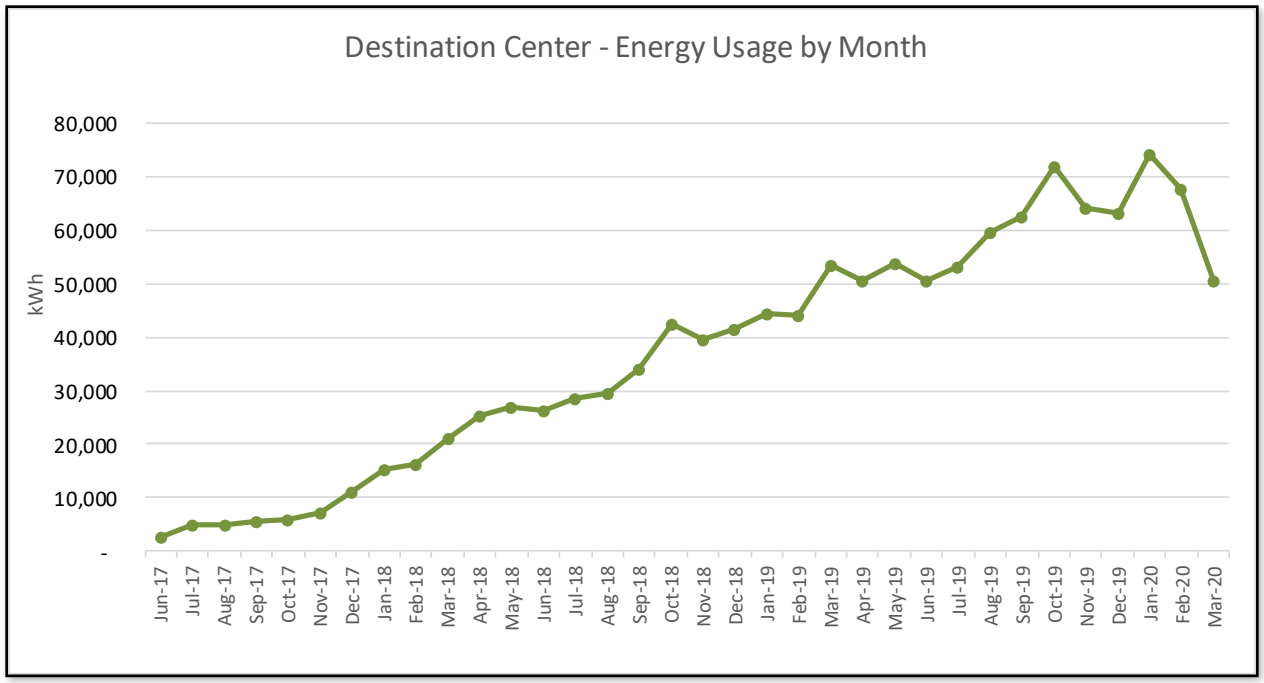
Growth in the number of participating sites and charging ports in Charge Ready and corresponding electricity consumption has been fairly consistent in all segments. This growth represents significant environmental benefits and progress toward meeting the state of California's GHG reduction goals. The drop in kWh usage in March is most likely attributed to COVID-19 resulting in lower overall utilization in all segments.

Figure 4.5 Workplace Energy Usage by Month



2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	0	0	0	0	0	3	5	7	9	11	14	16
Port Count	0	0	0	0	0	40	46	179	197	224	265	307
2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	20	21	25	27	27	28	29	29	29	29	29	32
Port Count	354	434	528	552	552	576	596	596	596	596	596	625
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	34	34	35	35	35	40	42	42	42	42	42	42
Port Count	642	642	660	660	660	739	767	767	767	767	767	767
2020	Jan	Feb	Mar									
Site Count	42	42	42									
Port Count	767	767	767									

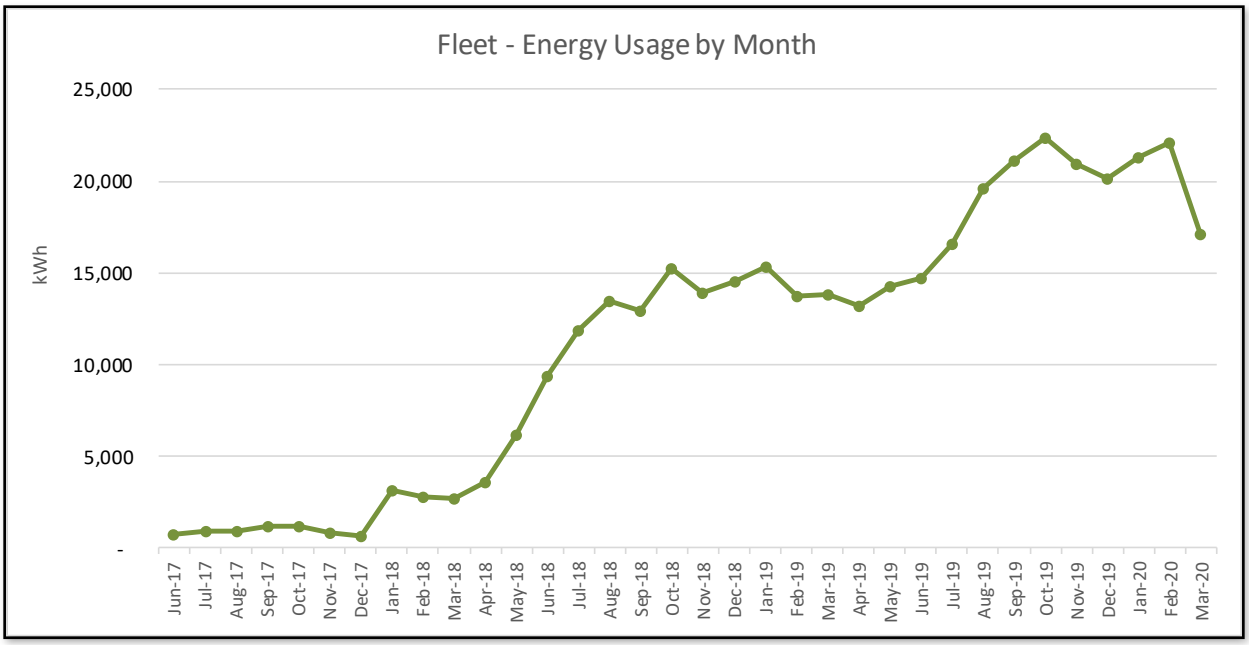
Figure 4.6 Destination Center Usage by Month[15]



2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	0	0	0	0	0	6	12	12	14	14	16	16
Port Count	0	0	0	0	0	42	99	97	117	117	141	141
2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	20	21	21	21	21	21	22	22	22	22	22	22
Port Count	199	222	222	222	222	222	234	234	234	234	234	234
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	22	22	22	22	22	23	24	24	24	24	24	24
Port Count	234	234	234	234	234	250	262	262	262	262	262	262
2020	Jan	Feb	Mar									
Site Count	25	25	25									
Port Count	283	283	283									

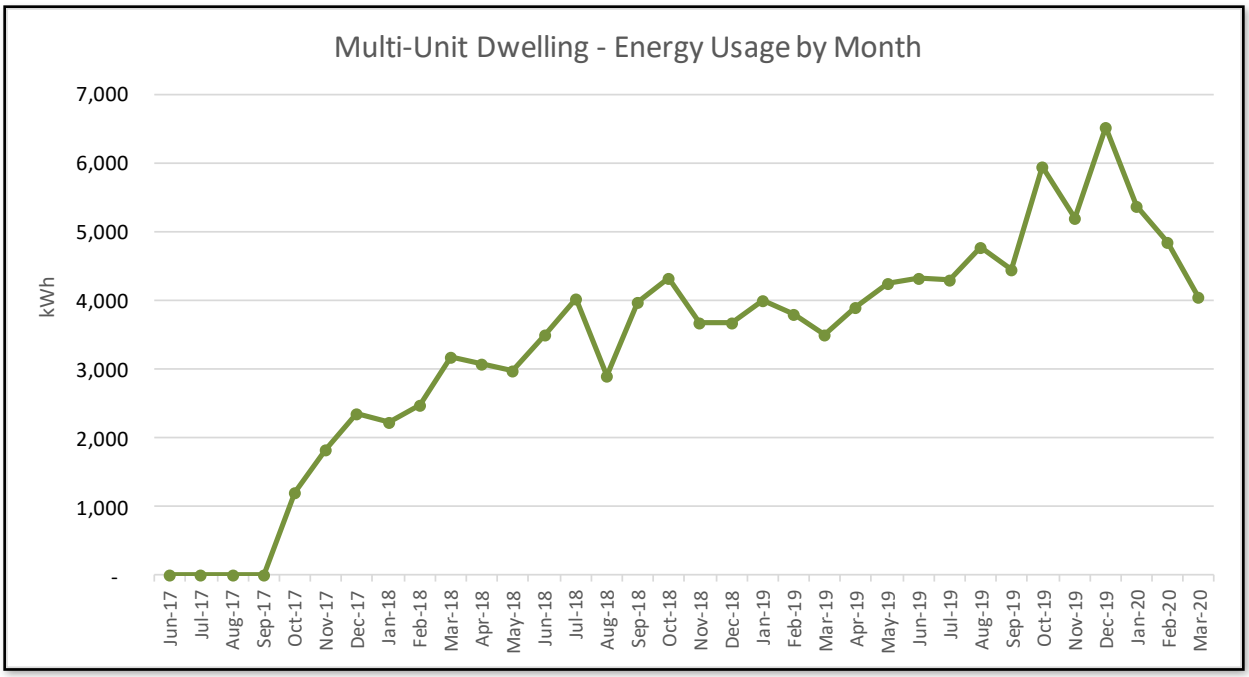
[15] One site excluded in August 2017 due to data issues.

Figure 4.7 Fleet Usage by Month



2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	0	0	0	0	0	2	2	3	3	3	3	5
Port Count	0	0	0	0	0	15	15	22	22	22	22	46
2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	5	5	6	7	7	7	7	7	7	7	7	7
Port Count	46	46	77	83	83	83	83	83	83	83	83	83
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	7	7	7	7	7	7	7	8	8	8	8	8
Port Count	83	83	83	83	83	83	83	118	118	118	118	118
2020	Jan	Feb	Mar									
Site Count	8	8	8									
Port Count	118	118	118									

Figure 4.8 Multi-Unit Dwellings Usage by Month



2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	0	0	0	0	0	0	0	0	0	1	1	2
Port Count	0	0	0	0	0	0	0	0	0	10	10	22
2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	3	3	3	3	3	3	3	3	3	3	3	3
Port Count	35	35	35	35	35	35	35	35	35	35	35	35
2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site Count	3	3	3	3	3	3	3	3	3	3	3	3
Port Count	35	35	35	35	35	35	35	35	35	35	35	35
2020	Jan	Feb	Mar									
Site Count	3	3	3									
Port Count	35	35	35									

5. CUSTOMER OUTREACH AND ENROLLMENT

5.1. Charge Ready Education & Outreach

Charge Ready education and outreach efforts are designed to increase Pilot awareness, consideration, and adoption among SCE customers. SCE continues to track and monitor Pilot activities to inform subsequent phases of Charge Ready.

Table 5.1 presents the data collected for the Charge Ready Pilot Landing Page to measure website traffic from Q1 2017 to Q1 2020.

In Q2, program enrollment was limited to only Multi-Unit Dwelling applicants, and when the program was fully subscribed in Q3, the program was closed to all new applications. This is reflected in the decrease in visitor counts and page views in Q3. The visitor counts and page views continued to decrease in Q4 and Q1 2020.

Table 5.1 Charge Ready Pilot Landing Page Metrics

Metric	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Unique Visitor Count	1,300	1,878	2,573	1,382	2,357	3,487	1,734	1,333	1,400
Repeat Visitor Count	545	793	602	564	963	1,060	846	701	403
Page Views	2,045	3,408	3106	2,251	4,201	4,669	3,341	2,139	2,244
Bounce Rate	57.81%	63.92%	64.32%	56.10%	70.15%[16]	66.56%	66.43%	65.95%	56.8%

5.2. Market Education

The EV webpages on SCE.com are grouped under the EV overview page which provides links to three pages; (1) Rebates and Incentives (2) Rates and Savings and (3) Charging Your EV. The Rebates and Incentives page may have received a significant traffic increase in Q2, Q3 and Q4 because of a separate marketing campaign for the Clean Fuel Reward program, which continued through the end of 2019. The Rates and Savings page may have received a significant traffic increase in Q2 and Q3 of 2019 because of a separate marketing campaign for the TOU-D PRIME rate which ran in August and October. The campaign did not run through the remainder of Q4, which is reflected in the Q4 and Q1 2020 traffic decrease. The webpage content was not refreshed in Q1 2020.

[16] SCE discovered a miscalculation in Q1 Bounce Rate reporting. Table 5.1 is now corrected.

Table 5.2 Charge Ready EV Awareness Website Metrics

Electric Vehicles (EV Overview)	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Unique Visitor Count	8,152	8,508	8,419	10,498	11,136	13,451	12,773
Repeat Visitor Count	3,971	3,176	3,488	4,510	3,717	5,315	2,085
Page Views	11,760	11,995	11,830	15,008	14,853	15,899	14,858
Bounce Rate[17]	24.41%	24.25%	25.05%	24.49%	30.89%	30.10%	23.96%
Multi-page Visits	8,481	8,732	8,783	14,154	13,851	15,730	10,273
Q1 2019-Q1 2020 Simplified / Refreshed content on sce.com: Page View Measurement[18]							
EV Rebates and Incentives Page	N/A	N/A	3,934	22,462	22,951	28,685[19]	35,746
Rates and Savings Page	N/A	N/A	704	17,039	18,918	18,672	17,532
Charging Your EV Page	N/A	N/A	3,685	10,205	8,608	10,643	10,065

In May 2019 SCE launched SCE Cars, an online car comparison tool that shows car buyers the total cost of car ownership over the lifetime of the car. It lets car shoppers compare all makes and models of 2018 and 2019 electric-, hybrid- and gasoline-fueled cars. The tool shows customers side-by-side comparisons of the manufacturer's suggested retail price, estimated annual fuel costs and available rebates and incentives. Each car receives a rating based on its overall fuel costs and emission pollutants.

The tool also gives customers personalized fuel costs for each vehicle they select when they enter the number of miles they commute and drive annually and select the SCE rate plan they are on.

In addition to fuel costs, users can also see how many miles can be driven per EV battery charge and view a map of public charging stations that customers can use when they can't charge their car at home. The following table presents the data collected from the SCE Cars site.

[17] Bounce rate is the percentage of single page visits.

[18] SCE discovered a miscalculation in the Q2 2019 Simplified / Refreshed content on sce.com: Page View Measurement due to page tagging issues. Table has now been corrected.

[19] SCE discovered a miscalculation in the Q4 2019 Simplified / Refreshed content on sce.com: Page View Measurement due to page tagging issues. Table has now been corrected.

Table 5.3 SCE Cars Site Metrics

Metric	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Visits	3,427	8,363	8,363	6,038
Visitors	2,877	7,473	6,906	5,177
Page Views	9,886	22,886	23,528	15,464

For SCE's Market Education efforts, customer awareness of electric vehicle benefits and messaging are tracked using SCE's Customer Attitude Tracking (CAT) survey. The CAT survey is a quarterly tool designed to assess and track attitudes, brand favorability, and awareness of relevant marketing messages among SCE customers. This telephone survey is conducted with 450 randomly selected SCE households and 250 small businesses by an independent marketing research firm. Customers are asked to recall and rate messaging around the benefits of electric vehicles and preparing to buy or lease an electric vehicle, as well as SCE's role in supporting and advancing electric transportation. Since the campaign fully launched in late August 2016, the data collected from the 2016 Q1, Q2, and Q3 CAT surveys was used to establish a baseline around message recall.

The following table summarizes the CAT survey baseline data. Respondents were asked, "In the past three months, do you recall seeing, hearing, or reading about any ads about SCE and the benefits of electric vehicles?"

Table 5.4 CAT Survey Results

Response	Baseline (Q1-Q3 2016)	Q2 2017	Q3 2017[20]	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Total Respondents	1,354	450	600	600	600	600	450	450
Yes	189 14%	54 12%	92 15%	92 15%	132 22%	99 17%	82 18%	84 19%
No	1,147 85%	378 84%	489 82%	476 79%	441 74%	480 80%	353 78%	344 76%
No Response	18 1%	18 4%	19 3%	32 5%	27 5%	21 4%	15 3%	22 5%

In Q1 2019, the CAT survey was updated, and respondents were asked, "Do you recall reading, seeing, or hearing advertising with the following message: SCE is committed to electric vehicles and cleaner transportation?" Table 5.5

[20] Bounce rate is the percentage of single page visits.

below represents the responses. The increase in affirmative responses can be attributed to a separate Clean Fuel Reward marketing campaign, which continued to run through 2019.

Having run for four quarters, the survey data showed consistent response rates indicating that the message continued to resonate with customers. These data will be used as a benchmark for future reporting. The Q1 2020 CAT survey results show a decrease in Yes responses (26% vs. 28%). Additionally, more people did not respond to the survey in Q1 (28% vs. 26%).

Table 5.5 CAT Survey Results

Response	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Total Respondents	757	750	775	762	753
Yes	227 30%	219 29%	189 (26%)	211 (28%)	196 (26%)
No	364 48%	344 46%	357 (49%)	354 (46%)	347 (46%)
No Response	166 22%	187 25%	184 (25%)	197 (26%)	210 (28%)

5.3. Transportation Electrification Advisory Services

SCE created TE Advisory Services (TEAS) to provide business customers with a dedicated "one-stop shop" for specialized education, awareness, and support on such issues as federal, state, and local incentives, vehicle and charging equipment financing opportunities, vehicle types, and charging installation programs.

TE Advisory Services includes:

Updated web content on SCE.com business section, which includes information on:

- Vehicle types
- Charging Infrastructure
- SCE's EV Rates
- Information specific to MUDs, Fleets, Workplaces, and Public sites
- Links to additional tools, resources and fact sheets
- Calls to action to reach out to SCE for more information and support (Account Manager or 800#)

Self-service online tools to assist customers:

- The Charge Port Estimator, which estimates the number of charge ports customers may need at their sites
- A Rate Analysis Tool, based on customers' numbers of estimated charge ports and segment types
- A customer self-administered EV survey for workplaces and MUDs

Fact Sheets: Customer-facing PDFs covering the following TE topics, including links to additional resources**:**

- Transportation Electrification Overview
- Fleet Conversion
- MUDs
- Vehicle to Grid Integration
- Planning for Charging Infrastructure
- Understanding GHG Emissions from Transportation
- Overview of Fleet Segments and available EV alternatives

With all sites being in design/construction, TEAS did not complete in-person services for business customers during 1st Quarter 2020. These services include the following:

- An initial fleet assessment (including GHG savings calculations) to help customers evaluate business cases for converting fleets of vehicles to TE technology
- A Low Carbon Fuel Source Calculator was added to the Fleet Assessment Report to help customers identify the estimated credit value per kW used.
- Infrastructure Assessments to assist customers in evaluating a potential deployment of charging equipment

Customers selected were those who had shown a commitment to sustainability, potential for a larger scale conversion/deployment, and had participated in multiple discussions with their Account Managers to confirm their interest in TE. A combination of government entities and commercial businesses were selected to include a representative mix of customers. SCE is tracking web traffic and has established the following baselines presented in the table below to compare against as more outreach is conducted.

Table 5.6 TEAS web traffic

		Unique Visitor Count	Page Views	Multi-Page
Q4 2017: Baseline	Workplace	292	507	346
	Public	121	188	143
	Fleet	138	281	165
	MUD	69	162	111
Q1 2018	Workplace	3Wo60	587	388
	Public	174	236	167
	Fleet	139	220	141
	MUD	105	143	112
Q2 2018	Workplace	434	683	443
	Public	188	263	167
	Fleet	193	310	194
	MUD	146	206	129
Q3 2018	Workplace	403	675	425
	Public	190	270	149
	Fleet	206	360	219
	MUD	129	203	136
Q1 2019	Workplace	416	611	195
	Public	195	257	62
	Fleet	198	278	80
	MUD	122	185	63
Q2 2019	Workplace	494	738	244
	Public	278	379	101
	Fleet	282	408	126
	MUD	163	275	112
Q3 2019	Workplace	412	631	219
	Public	191	279	88
	Fleet	241	353	112

	MUD	168	239	71
Q4 2019	Workplace	448	650	202[21]
	Public	159	211	52
	Fleet	227	323	96
	MUD	122	198	76

		Unique Visitor Count	Page Views	Multi-Page
Q1 2020	Workplace	477	663	186
	Public	244	305	61
	Fleet	311	477	166
	MUD	165	273	108

5.4. Outreach Events

Participation in outreach events in Q1 2020 was impacted by COVID-19 related cancellations. SCE participated in two Ride-and-Drive events and one auto show in Q4 2019, with an estimated 254,975 consumer impressions and 6,325 total consumer interactions year-to-date. The objective of SCE's Ride-and-Drive efforts and auto show presence is to bridge the gap between broad EV marketing efforts and EV adoption. The table below shows a summary of the events in Q4 2019.

Table 5.7 Ride and Drives and Events

Event Date	Event Name	Location	Estimated Consumer Impressions	Estimated Consumer Interactions
October 3 through October 6, 2019	OC Auto Show	Anaheim, CA	250,000	3,000
October 16, 2019	Alt Car Expo, Riverside	Riverside, CA	275	50
November 2, 2019	Alt Car Expo, Santa Monica	Santa Monica, CA	400	150

[21] SCE discovered a miscalculation in the Q4 2019 TEAS Multi-Page View Measurement. Table has now been corrected.

OC Auto Show

The OC Auto Show was held at the Anaheim Convention Center where SCE had a 5,000 square foot presence branded as Electric Avenue. Three EV-related programs were presented to the visitors who were interested in EVs: SCE's $1,000 Clean Fuel Reward for consumers who purchase an EV, the SCE Cars website where consumers can compare internal-combustion engine vehicles to EVs, and SCE's TOU-D Prime Rate. Many consumers expressed interest in EVs and were considering switching from hybrid to all electric or purchasing their second EV. Additionally, SCE answered many questions regarding optional rates, how they relate to solar and what is on the horizon for energy storage.

Our non-profit partner, Plug In America, shared the Electric Avenue space and talked to visitors about the range of EVs in the marketplace, HOV lane access and Ride and Drive events.

Consumers who visited us at Electric Avenue viewed us as a trusted advisor, able to answer basic to complex questions about buying an EV. We also provided readiness information on what consumers need to consider when taking ownership of an EV, including vehicle availability, range, charging, utility rates, maintenance, and rebate and incentive applications

AltCar Expo, Riverside

The Riverside AltCar Conference and Expo was held at the Riverside Convention Center. It was attended by 257 fleet managers, sustainability managers, lawmakers, legislative staff, media and industry experts.

Consumers who visited our booth were given information about SCE's Medium- and Heavy-Duty EV Infrastructure program, and SCE's TOU D-PRIME rate, which benefits consumers who charge their EVs at home during off-peak hours. The consumers' primary interest was in rebates or other incentives that might be available for purchasing plug-in EVs and plug-in hybrids.

During the Expo, a separate panel discussion included representatives from Electrify America, SCE and South Coast AQMD. The topic of the panel was Alternative Technology Infrastructure and Product Investment Opportunities. The panelists presented on light-, medium-, and heavy-duty EV charging infrastructure programs, including SCE's Charge Ready Pilot and Program, SCE's Port of Long Beach Pilot, and the Charge Ready Transport Program. Additionally, panelists presented on SCE's Clean Fuel Reward Program, new commercial EV rates and alternative fuels More than 150 people attended the panel.

AltCar Expo, Santa Monica

This year's annual Santa Monica AltCar Conference & Expo was attended by over 400 people and was a very popular Ride & Drive event. Since AltCar Expo is an event focused on EVs, consumers in attendance were very receptive to programs like Clean Fuel Reward and TOU-D-PRIME.

The Expo was held at the Santa Monica Airport, adjacent to a college, which drove high volumes of traffic and prospective EV buyers. Conversations with booth visitors focused on EVs, TOU rates and solar and energy storage. Some consumers were interested in discussing Public Safety Power Shutoffs and were referred to SCE.com.

6. CONCLUSION

In this quarterly report, SCE provided data and updates on progress in implementing and executing the Pilot. Customers continue to submit procurement documents for those projects with approved Bridge funding. Projects with executed agreements continued forward through the construction and installation process. By the end of the first quarter of 2020, SCE had completed infrastructure at 90 sites that support 1,496 charge ports. SCE will also continue to learn from the energy usage of the charging stations deployed under the Charge Ready Pilot.

7. APPENDIX

Pilot Participants with Reserved Funding

Table 7.1 Summary by Market Segment in Disadvantaged Communities

Disadvantaged Communities				
Segment	Number of Ports (Pilot)	Number of Sites (Pilot)	Number of Ports (Bridge)	Number of Sites (Bridge)
Destination Center	80	12	289	5
Workplace	488	29	345	11
Fleet	48	5	8	1
Multi-Unit Dwelling	12	1	22	4
Grand Total	**628**	**47**	**664**	**21**

Table 7.2 Summary by Market Segment in Non-Disadvantaged Communities

Non-Disadvantaged Communities				
Segment	Number of Ports (Pilots)	Number of Sites (Pilots)	Number of Ports (Bridge)	Number of Sites (Bridge)
Destination Center	203	12	79	4
Workplace	347	15	294	9
Fleet	100	5	81	5
Multi-Unit Dwelling	23	2	336	28
Grand Total	**673**	**34**	**790**	**46**

Table 7.3 Pilot Operational Metrics for Quarter

Customer Participant Request		
	Filing Assumptions	Inception-to-Date Actual
Average number of total parking spaces per site	N/A	569 parking spaces/site
▪ Average number of total parking spaces per site for Disadvantaged Communities	N/A	427 parking spaces/site
▪ Average number of total parking spaces per site for Destination Centers	N/A	896 parking spaces/site
▪ Average number of total parking spaces per site for Workplaces	N/A	565 parking spaces/site

▪ Average number of total parking spaces per site for Fleets	N/A	296 parking spaces/site
▪ Average number of total parking spaces per site for Multi-unit Dwellings	N/A	3417 parking spaces/site
Percentage of total number of parking spaces located in parking structures	N/A	16%
▪ Total number of parking spaces located in parking structures for Disadvantaged Communities	N/A	15,036
▪ Total number of parking spaces located in parking structures for Destination Centers	N/A	13,273
▪ Total number of parking spaces located in parking structures for Workplaces	N/A	46,175
▪ Total number of parking spaces located in parking structures for Fleets	N/A	2,382
▪ Total number of parking spaces located in parking structures for Multi-unit Dwellings	N/A	8041
Average fleet size[22]	N/A	6 (Fleet Segment Only) 4 (All Segments)
Percentage of applications received with charging systems already installed at the site	N/A	22%
Average number of charging systems already installed at the site	N/A	9
Average number of charge ports requested per site	26	13.5

[21]Applicants in the fleet category intend to use the new charging station for their EV fleet (Fleet Segment Only).

▪ Average number of charge ports requested per site for Disadvantaged Communities	N/A	12.0
▪ Average number of charge ports requested per site for Destination Centers	N/A	13.7
▪ Average number of charge ports requested per site for Workplaces	N/A	13.0
▪ Average number of charge ports requested per site for Fleet	N/A	14.4
▪ Average number of charge ports requested per site for Multi-unit Dwellings	N/A	13.9

Table 7.4 Charging Station Request & Rebate

Charging Station Request & Rebate	
▪ Average Number of Level 1 charge ports approved per site	16
▪ Average Number of Level 2 charge ports approved per site	18.9
Average Number of total charge ports approved per site	18.9
Number of Level 1 EVSE stations bought	12
▪ Average number of ports per Level 1 EVSE station	1.0
Number of Level 2A EVSE stations bought	228
▪ Average number of ports per Level 2A EVSE station	1.7
Number of Level 2B EVSE stations bought	1536
▪ Average number of ports per Level 2B EVSE station	1.4
Number of Level 1 EVSE stations installed with infrastructure complete	12

Number of Level 2A EVSE stations installed with completed infrastructure	198
Number of Level 2B EVSE stations installed with completed infrastructure	613
Number of Level 1 EVSE stations installed with completed customer-installation	12
Number of Level 2A EVSE stations installed with completed customer-installation	198
Number of Level 2B EVSE stations with completed customer-installation	537