





# Table Of Contents

List of Tables

Ва	ackground Background	5
1	Executive Summary  1.1 Pilot Summary for Quarter	6
2	Customer Outreach and Enrollment 2.1 Charge Ready Education & Outreach	9
	2.2 Market Education & TE Advisory Services	9
	2.3 Outreach Events	12
3	Electric Vehicle Supply Equipment Qualification 3.1 Requirements	13
4	Electric Vehicle Charging Load  4.1 EV Charging Load	15
5	Operations 5.1 Charge Ready Pilot Operations	18
	5.2 Supplier Diversity	26
	5.3 Collaboration Efforts with Complementary EV Programs	26
	5.4 Disadvantaged Communities Outreach Events	26
6	Conclusion 6.1 Conclusion	27
ΑĮ	opendix Appendix	28

# List Of Tables

Table 1.1 – Pilot Summary for Quarter 2, 2017	6
Table 1.2 – Pilot Challenges and Resolutions Discussed with the Charge Ready Advisory Board in Q2 2017	7
Table 1.3 – Additional Pilot Challenges Identified in Q2 2017.	8
Table 2.1 – Summary of Account Manager Interactions with MUD Customers and all other segments	9
Exhibit 2.1 – Sample Animation Banner Ads in English	10
Table 2.2 – Charge Ready EV Awareness Website Metrics	10
Table 2.3 – CAT Survey Results	11
Graph 3.1 – Number of Approved Charging System Models	13
Table 3.2 – EVSE Model Summary	13
Table 3.3 – Base Cost of Charging Systems	13
Table 3.4 – Comparison: Pilot Base Cost versus Purchase Agreements Received	14
Table 3.5 – Customer Cost per Charge Port after Rebate by Community Type or Segment	14
Table 4.1 – Market Segments for Data Collection	15
Table 4.2 – Session kWh Summary	15
Table 4.3 – Session Connection Time and Charge Time Summary:	16
Exhibit 4.1 – Total Usage and Maximum Hourly Usage per Day	16
Exhibit 4.2 – Average Hourly Usage per Day (excluding days with no sessions)	17
Table 5.1 – Average Procurement Period for Quarter	19
Table 5.2 – Procurement Requirements Submission Issues	19
Table 5.3 – Pilot Operational Metrics for Quarter	20
Percentage of total applications received	20
Number of approved and confirmed projects (Step 2 Agreement signed)	20
Percentage of applicants rejected	20
Percentage of applicants withdrawn	20
Number of applicants withdrawn after signing Step 2 - Agreement	21
Total number of charge ports installed	21
Average number of charge ports installed per site	21
Percentage of completed projects	21
Table 5.4 – Customer Participant Request	22
Table 5.5 – Pilot Costs	23
Table 5.6 – Pilot Cycle Times	24
Table 5.8 – Disadvantaged Community Outreach Events	26
Percentage of total applications received	28
Percentage of charging stations requested	28

Number of approved and confirmed projects (Step 2 Agreement signed)	29
Percentage of applicants rejected	29
Percentage of applicants withdrawn	29
Number of applicants withdrawn after signing Step 2 - Agreement	30
Total number of charge ports installed	30
Average number of charge ports installed per site	30
Percentage of completed projects	31
Average number of total parking spaces per site	31
Percentage of total number of parking spaces located in parking structures	31
Average number of charge ports requested per site	32
Pilot Costs	33
Pilot Costs Continued	34
Pilot Cycle Times	35
Charging Station Request & Rebate	36

# **Background**

**Executive** 

**Summary** 

SCE's Charge Ready Program Pilot (Pilot) seeks to increase the availability of long dwell-time electric vehicle (EV) charging infrastructure. As part of the Pilot, SCE deploys, owns, and maintains the electric infrastructure needed to serve EV charging stations, or Electric Vehicle Supply Equipment (EVSE), at participating customer locations. The Pilot also offers participating customers (Customer Participants) a rebate applicable against the cost of acquiring and installing qualified EVSEs. Customer Participants must procure, operate, and maintain the charging stations in accordance with the terms and conditions of Schedule Charge Ready Program Pilot (Schedule CRPP). Customer Participants may determine their own policy about the use of the charging stations (e.g., access, financial contribution from EV drivers).

In conjunction with the Pilot, SCE launched a complementary EV Market Education including e-mails, group presentations, webpages, surveys, etc. in 2016 to increase customer awareness about EVs and the benefits of fueling from the grid, including supporting California's carbon-reduction goals and improving air quality. The EV Market Education effort includes a Transportation

Electrification (TE) Advisory Services program to provide a "onestop shop" for customers to receive specialized education and support on a broad array of TE issues.

The Pilot targets four key market segments for deployment, which are workplaces, multi-unit dwellings (MUDs), fleet parking, and destination centers where vehicles are usually parked for at least four hours. In particular, SCE focuses some of its efforts on disadvantaged communities<sup>1</sup>, which are disproportionately affected by low EV adoption and negative environmental impacts of gasoline- and diesel-powered vehicles.

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. The quarterly reports may also include recommendations from the Advisory Board that SCE will consider incorporating in its Phase 2 proposal.



<sup>1</sup> As defined by CalEPA's CalEnviroScreen 2.0.

# **Executive Summary**

**Executive** 

**Summary** 

# 1.1 Pilot Summary for Quarter

SCE achieved several milestones in Q2 2017. SCE received a total of 1,087 charge port commitments by the end of Q2. 47% of the 1,087 committed charge ports are located in disadvantaged communities, which is considerably higher than the Pilot's requirement to deploy 10% of charge ports in disadvantaged communities.

During the quarter, a total of five projects representing 44 ports with executed agreements continued forward through the construction and installation process. SCE efforts included infrastructure construction and post-installation verification to confirm equipment installation. In parallel, customers continued procuring qualified charging stations and granting easements in the property where the charging infrastructure will be deployed.

The table below summarizes the Pilot's costs recorded at the end of Q2 2017.

Table 1.1 - Pilot Summary for Quarter 2, 2017

Variables	Authorized/Planning Assumptions	Inception-to-Date	Remaining	Percentage Remaining
Capital				
Utility Side Infrastructure Costs	\$3,353,532	\$537,217	\$2,816,315	84%
Customer Side Infrastructure Costs	\$7,586,387	\$2,282,654	\$5,303,733	70%
Easement	\$115,942	\$46,569	\$69,373	60%
Station Testing	\$30,000	\$36,643	(\$6,643)	-22%
Business Customer Division Labor	\$103,500	\$18,879	\$84,621	82%
Program Management Office Labor	\$460,003	\$423,755	\$36,248	8%
Operations & Maintenance				
Rebate	\$5,850,000	\$11,748	\$5,838,252	~100%
Business Customer Division Labor	\$51,750	\$25,952	\$25,798	50%
Transportation Electrification Advisory Services	\$316,800	\$134,395	\$182,405	58%
PMO Labor & Non-Labor	\$232,340	\$155,868	\$76,472	33%
Charge Ready ME&O, Market Reporting, SAP	\$665,000	\$439,220	\$225,780	34%
EV Awareness	\$2,830,600	\$1,628,335	\$1,202,265	42%
	\$21,595,854	\$5,741,234	\$15,854,620	73%

In the five projects completed, SCE experienced delays in preparing and releasing the rebate to the customer. Subsequently, a rebate payment was released to one customer in Q2 with the rest being paid in Q3. As part of the pilot process, SCE has discovered that the current verification process to confirm the rebate amount caused delays in preparing the rebate payment. SCE also experienced delays in receiving final invoices from the customer. Based on these issues, SCE has made process improvements in the Pilot and will continue to do so as additional projects are completed.

Also at the end of Q2 2017, SCE continued learning from the applications in the charging station procurement stages of the application process. SCE received feedback from the attendees at the Charge Ready Advisory Board meeting on May 19, 2017. Table 1.2 summarizes the challenges and resolutions discussed with the Charge Ready Advisory Board.

Table 1.2 - Pilot Challenges and Resolutions Discussed with the Charge Ready Advisory Board in Q2 2017

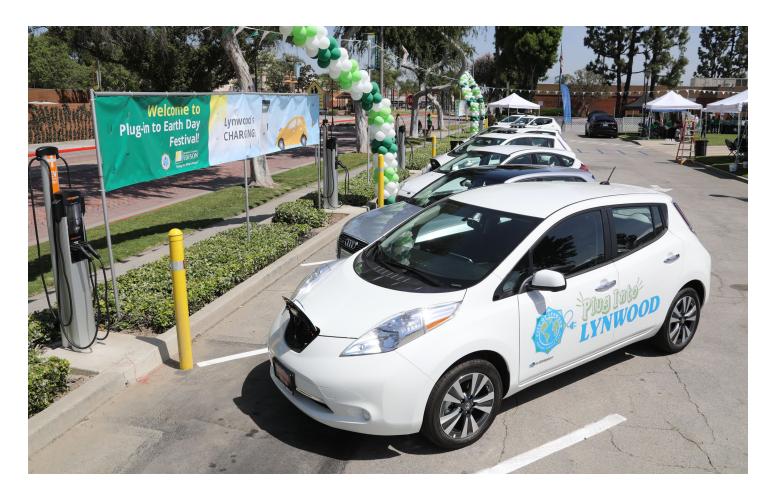
Issue	Resolution
"Base Cost" concept is challenging for customers to understand. Although Pilot education materials communicate rebate calculation, many customers incorrectly assume the full charging station cost will be covered by rebate.	In a future phase, a matrix of the final rebate levels by segment would be easier to understand with actual dollar figures and Rebate levels should be revisited based upon actual costs in the Pilot.
A majority of customers require extensions beyond the Pilot's 30 calendar day deadline to procure charging stations. During $\Omega 2$ , some applications were placed on a waitlist after not meeting their procurement deadline.	Procurement process is not a "one-size-fits-all". Specifically, for government and institutions, the procurement process may be longer due to required competitive bids. A future phase of program could account for segmentation for required procurement timelines.
Pilot timelines are not aligning with Customer process of obtaining and accepting vendor quotes.	In a future phase, vendors could potentially offer 30-day or 60-day quotes to allow customer more time during the Pilot's site assessment process.  The Advisory Board supported a standard Statement of Work that included the minimum required equipment and services to participate in the program. Additionally, it could be helpful to add an Addendum that includes important questions/topics for customers to ask vendors during the procurement process. The Addendum could also include an expected range of prices for the different charging station types.

Summary

Additional items that SCE has identified in Q2 2017 are shown in Table 1.3 below. SCE will work through determining potential resolutions for these issues and will be reported in future Pilot reports.

Table 1.3 – Additional Pilot Challenges Identified in Q2 2017

Issue	Details
The 10-charge port minimum requirement is a challenge for some customers in non-disadvantaged communities.	Decreasing the number of charge ports will increase the cost per port.
Vendors leaving the marketplace post-purchase.	Service and maintenance may not be available for the products. Charge port data and cloud services may be impacted.



# 2 Customer Outreach and Enrollment

# 2.1 Charge Ready Education & Outreach

Charge Ready education and outreach efforts are designed to promote the Pilot to SCE customers. SCE is also testing and refining its tactics and marketing channels in preparation for a subsequent phase of Charge Ready, including email, website, social media, collateral, and account manager interaction.

SCE continues to outreach to all market segments. Table 2.1 summarizes all account manager interactions for all segments during Q2 2017.

Table 2.1 - Summary of Account Manager Interactions with MUD Customers and all other segments

Activity	Number of Interactions with MUD customers Q2 2017	Number of Interactions with all other segments Q2 2017
Emails <sup>2</sup>	18	349
Group Presentations	0	1
In-Person Visits	1	89
Letter	0	0
Positioning Event <sup>3</sup>	0	0
Telephone Calls	2	83
Total	21	522

# 2.2 Market Education & TE Advisory **Services**

- Separately from its education and outreach efforts to support enrollment in Charge Ready, SCE also communicates about EVs and the benefits of fueling from the grid to a broad audience through its "What's Your Electric Vehicle (EV) IQ?" campaign. Through the EV IQ messaging, SCE aims to intrigue and engage customers by challenging them with fun mini-quizzes to overcome barriers and misconceptions about EVS, and provides an opportunity to inform them of EV benefits that could prompt them to consider driving one. The campaign utilizes a number of channels, including: Paid Media: Digital banners, search engine marketing (SEM), sponsored social media ads, radio.
- Local Sponsorship: Booth sponsorship and ride and drives at EV-related events.
- Direct Messaging: Email to targeted customer populations.
- Other channels: bill inserts, messaging on SCE.com, and organic social media.



These are incremental, follow-up emails to the email invitations originally sent to customers at the launch of the Program.

Presentations provided by BCD Account Managers to industry or civic events.

Exhibit 2.1 - Sample Animation Banner Ads in English



**Summary** 













To track engagement, customers exposed to the above channels are driven to relevant content on the updated sce.com EV website. During Q2 2017, SCE continued digital banner ads, radio ads, and paid social media to support market education efforts. These marketing activities, as well as content on SCE. com included translations in English, Spanish, Korean, Chinese, and Vietnamese languages. The following table includes metrics capturing traffic for key campaign pages within the site. SCE is continuing to observe increases in web traffic as the "EV IQ" campaign continued through Q2 2017.

Table 2.2 - Charge Ready EV Awareness Website Metrics

EV Awareness	Q1 2017	Q2 2017				
Electric Vehicle Overview Page on SCE.com						
Unique Visitor Count	7,010	8,086				
Repeat Visitor Count	2,325	2,883				
Page Views	10,414	11,549				
Bounce Rate	38.30%	37.85%				
Multi-page Visits	5,679	6,939				
Electric Vehicle Campaign Landing Page on SCE.com						
Unique Visitor Count	7,417	6,883				
Repeat Visitor Count	598	747				
Page Views	8,983	8,863				
Bounce Rate	90.83%	90.72%				
Multi-page Visits	878	1193				

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 Q2 2017 survey results continued to show levels of EV awareness consistent with the baseline.

Table 2.3 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 2.3 - CAT Survey Results

**Executive** 

Summary

Response	Baseline (Q1-Q3 2016)	Q1 2017	Q2 2017
Total	1,354	450	450
Respondents			
Yes	189	57	54
	14%	13%	12%
No	1,147	384	378
	85%	85%	84%
No Response	18	8	18
	1%	2%	4%

# Transportation Electrification (TE) Advisory Services - In **Development**

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

TE Advisory Services will include education & outreach on TE technologies and benefits, assessment of fleet conversion returnon-investment, charging infrastructure planning, rate analysis, and financial incentive opportunities.

Progress to date includes completion of copy for all web content and self-service web tools. Current efforts include development of segment-specific and instructional fact sheets, creation of internal and external training and EV survey questionnaires. Full services will launch in Q3 2017. Table 2.4 below outlines launch and timeline.

**Table 2.4 TE Advisory Services Launch Timeline** 

Activity	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25
Soft Launch								
Announce launch of TE Advisory								
Services web content								
Train Business Customer Division								
on web content								
Interim Activities								
TE Advisory Services Overview								
Training (Internal)								
Training on In-Person								
Services (Internal)								
Full Launch								
Gather AM input to identify								
target customers								
Determine target customers for								
in-person services								
Prepare AMs for								
customer outreach								
Full launch of in-person services								

# 2.3 Outreach Events

**Executive** 

**Summary** 

SCE conducted an outreach event in Q2 2017 to increase customers' EV awareness and gauge interest in future enrollment in the Charge Ready Program. On April 22, 2017, SCE and the City of Lynwood co-hosted the "Plug-In to Earth Day Festival" to celebrate Earth Day and to dedicate the EV charging stations installed through in the City of Lynwood through the Charge Ready Pilot. Additionally, the event also was designed to raise EV awareness in the community. Several of the activities and booths specifically promoted EV awareness in disadvantaged communities to educate residents about electric vehicles and the EV-related programs and incentives available to them. The Plug In to Earth Day itself was attended by approximately 600 people and included booths and activities from the following organizations:

- Plug In America
- Green Commuter
- **Grid Alternatives**
- Center for Sustainable Energy (CSE)
- South Coast Air Quality Management District (SCAQMD)
- Amigos de los Rios
- Lvnwood Union
- City of Lynwood Library

In addition, the following SCE organizations and employee affinity groups also participated:

- Income-Based Programs
- **Business Customer Division**
- **Environmental Services**
- Advanced Technologies
- Mobile Energy Unit (energy safety education)
- EcolQ (environmental interest affinity organization)
- LEAD (Latino affinity organization)
- Networks (African-American affinity organization)



# 3 Electric Vehicle Supply Equipment Qualification

# 3.1 Requirements

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

- · Level 1 charging system, without network capability,
- Level 2 "A" charging system, with network capability integrated into the EVSE, and
- 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

Following four rounds of the RFI process held through 2017, SCE is currently evaluating 132 submitted charging systems.

The Pilot's Approved Package List<sup>4</sup> summarizes the vendors and EVSE models available to Customer Participants as of Q2 2017. The Pilot currently offers 42 models from 10 vendors. Tables 3.1 and 3.2 provide a summary of the different charging system types and features of EVSE models that have been approved to date.

**Graph 3.1 – Number of Approved Charging System Models** 

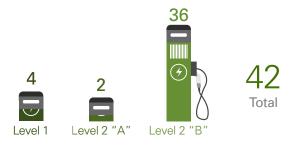


Table 3.2 - EVSE Model Summary

Average number of ports per EVSE	1.6
Average number of circuits per EVSE	1.4
Average number of ports per circuit	1.1
Number of wall EVSE units	15
Number of pedestal units	17
Number of both wall and pedestal units	10

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]."5 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 Q2 2017 are shown in Table 3.3. The base cost values have not changed from the prior reporting period.

Table 3.3 – Base Cost of Charging Systems

Charging System Type	Base Cost
Level 1	\$1,396
Level 2 "A"	\$2,188
Level 2 "B"	\$1,611

In addition to equipment and installation, customers are also purchasing management/maintenance packages, communication/ data services, freight, and other misc. items; and pay taxes. This is referred to as the "Average Total Purchase Agreement Cost" shown in Table 3.4. SCE performed an analysis to determine customer cost per charge port after rebate. On average, the rebate offsets 62% of the equipment and installation cost and 49% of the total purchase agreement cost<sup>6</sup>. Table 3.4 provides a breakdown purchase agreement costs by charging station type, and provides reference to the Pilot's base cost.

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

Charge Ready Program Testimony, Vol. 2, p. 9

Calculation based on average estimated rebates of committed projects and not the Base Cost per Port

Table 3.4 - Comparison: Pilot Base Cost versus Purchase Agreements Received

Charging System Type	Pilot Base Cost per Port	Average Equipment and Installation Cost Only	Average Total Purchase Agreement Cost
Level 1	\$1,396	None	None
Level 2 "A"	\$2,188	\$2,160	\$2,938
Level 2 "B"	\$1,611	\$2,781	\$3,331

The table below summarizes the average customer cost per charge port after rebate.

Table 3.5 - Customer Cost per Charge Port after Rebate by Community Type or Segment

Charging System Type	Disadvantaged Communities	Multi-Unit Dwellings	All Other Segments
Level 1 <sup>7</sup>	N/A	N/A	N/A
Level 2 "A"8	\$778 <sup>9</sup>	\$1,844	\$2,391
Level 2 "B" <sup>10</sup>	\$1,720	\$2,526	\$2,928

L1 - Level 1 charging station, without network capability

<sup>8</sup> L2 "A" - Level 2 charging station, with network capability integrated into the station

<sup>9</sup> Rebate capped at average equipment & installation cost of \$2,160

<sup>10</sup> L2 "B" - Level 2 charging station, with network capability provided by an external device (such as a kiosk or gateway) share among multiple stations

# **4 Electric Vehicle Charging Load**

# 4.1 EV Charging Load

After completing deployment at participating sites, SCE will collect transactional and utility-meter data to inform EV load-related metrics, greenhouse gas (GHG) metrics, and air quality metrics. Prices paid by EV drivers and pricing strategies implemented by Customer Participants will also be collected and reported in this quarterly report, if available.

At the time of this report, SCE has started to collect data from all active customers. The data below reflects the six Charge Ready projects completed during Q1 and Q2 and includes data collected from February 22 to June 30. The completed projects break down as follows:

Table 4.1 - Market Segments for Data Collection

Project Type	Sites	# of Ports
Workplace	2	24
Destination Center	2	13
Fleet	2	15

Per the data collected from the electric vehicle service providers (EVSPs), SCE has identified the number of sessions, usage, connection time and charging time at each of the sites. A "session" is defined as the period from when a vehicle plugs into a charge port to when it disconnects from that charge port. During the session a vehicle can go in and out of a state of charge. Table 4.2 indicates that the majority of the sessions thus far have taken place at destination centers with fleets and workplaces lagging behind. In terms of overall usage, the total consumption at these sites reflects the greater number of sessions. However, when looking at average energy consumed per session, workplaces tend to have the greatest energy consumption while fleets have the least.

Table 4.2 - Session kWh Summary

Project Type	Sessions	Total kWh	Avg. kWh per session	KWH per Port
Destination Center	591	4,327	7.32	332.82
Fleet	240	1,115	4.65	74.34
Workplace	100	1,100	11.00	45.84
Total	931	6,542	7.03	125.81

The average connection time and average charging times also provide insight into driver behavior at the charging stations. Workplace charging sites have the longest average connection time (the time from when the car is plugged in to when it is unplugged) while destination centers have the shortest average connection time. This short average connection time does not correspond with a shortest average charging time, however. The shortest average charging time belongs to the fleet vehicle segment. This could indicate that the fleet vehicles are being plugged in with some amount of charge remaining and therefore do not take as much time to fill up. The large difference between average connection time and average charge time in the workplace segment indicates that vehicles are more frequently sitting idle at EVSEs while fully charged.



Summary

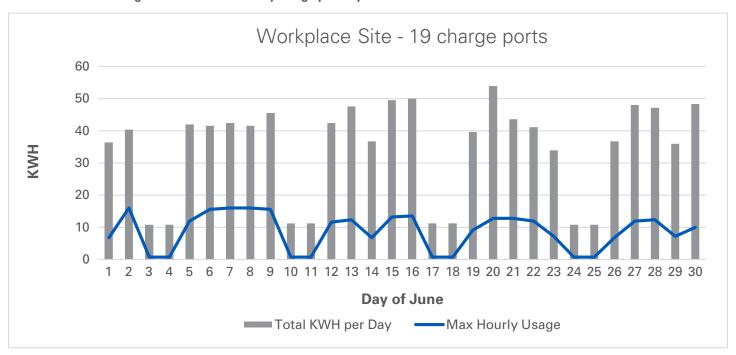
Table 4.3 – Session Connection Time and Charge Time Summary:

Project Type	Total Connection Time (hrs)	Total Charge Time (hrs)	Avg. Connection Time	Avg. Charge Time
Destination Center	1,501	1,088	2.54	1.84
Fleet	1,193	354	4.97	1.48
Workplace	678	310	6.78	3.10
Total	3,372	1,752	3.62	1.88

In addition to session data collected from the EVSPs, SCE is also collecting and analyzing meter data at each Charge Ready site. At each site, the bank of charging stations roll up to a single meter allowing SCE to measure the aggregated load at each site and determine the impact that load could have on the grid.

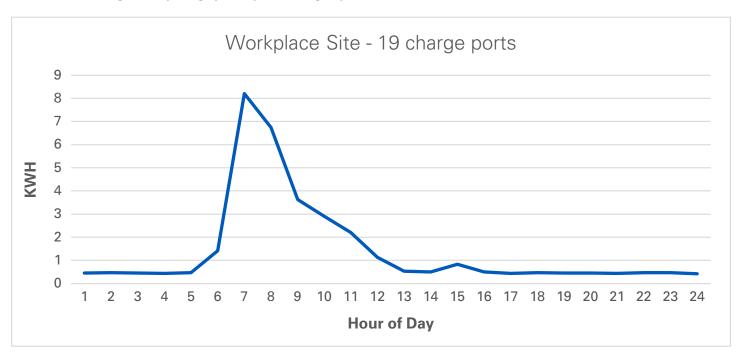
The charts below show data from a workplace charging site for the month of June. Exhibit 4.1 below shows high usage of charging stations during the week and low usage on the weekends as would be expected at a workplace charging site. The maximum hourly usage indicates that this site's usage does not exceed 20 kWh in any hour of the day.

Exhibit 4.1 - Total Usage and Maximum Hourly Usage per Day



SCE can also determine the average load profile for a site. The chart below indicates that on average this site experiences a higher level of charge in the mornings that drops off dramatically by noon.

Exhibit 4.2 - Average Hourly Usage per Day (excluding days with no sessions)



As it is still early in the Charge Ready Program and there are a small number of charging stations online, the insights from the data are limited. SCE will continue to learn from future charging data submitted and expects to gain significant learnings as more Charge Ready projects come on line and as the users mature and develop more consistent charging patterns and behavior.

This analysis shall be used to inform the execution of a separate Charge Ready Demand Response (DR) Pilot that has been submitted as part of the 2018-2022 DR filling in order to research use cases, customer behavior and to inform the development of a mandated DR program for all Charge Ready customers.

# 5 Operations

# 5.1 Charge Ready Pilot Operations

#### **Process Overview**

**Executive** 

**Summary** 

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 a customer 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.

#### **Status Overview**

During Q2 2017, SCE continued to reserve funds for 7 customers signing the **Step 2 - Agreement** totaling 86 charge ports. By the end of Q2 2017, 1,087 cumulative charge ports were committed. Once infrastructure and rebate funds were fully reserved, SCE began placing applicants submitting executed agreements on a waitlist. At the end of Q2, 7 customers with a total of 82 charge ports are on

the waitlist. If any customer with reserved funding drops out of the program, depending on funding availability, waitlisted customers may be able to replace them and move forward in the process.

Another focus of Q2 2017 was supporting customers in their procurement of charging stations. To ensure charging stations are available at the time of infrastructure completion, the Pilot requires customers to procure charging stations before construction can begin. Customers must submit a copy of a proof of purchase using the Certification form available in the Charge Ready Enrollment Portal. A copy of the Certification form can be found in the Appendix. In addition, customers who have applied for charging stations for fleet EVs are also required to provide DMV registration or evidence of purchase/lease of the vehicles. At this stage, the customers also confirm assignment of the rebate check which can be issued to either the Customer Participant or a single Charging Station Vendor. The procurement period begins once a customer executes the program agreement and funds are reserved for the customer's application. The initial procurement period is 30 calendar days from funds reservation, and customers are allowed an additional 15 days if they submit an extension request to SCE. SCE also allows, at its discretion, extensions beyond 45 days, provided the customer is actively procuring its charging stations. Early in the application process, SCE Account Managers encourage customers to begin their procurement process due to the Pilot's procurement period deadlines. SCE is learning that most customers require longer than 30 calendar days. Customers that submitted proof of purchase by the end of Q2 2017 are averaging 39 business days. Majority of customers submit the maximum allowed two extension requests. At the end of the guarter, several applications have not yet submitted proof of purchase for their projects; these applications are averaging 55 business days. As a result of longer procurement timelines, SCE is currently experiencing delays in starting construction for these customers' sites. The average procurement period in Q2 2017 are shown in Table 5.1.

Table 5.1 – Average Procurement Period for Quarter

Organization	Average Business Days
Business	38
Non-Profit Organization	N/A
K-12 School	25
University	72
City	37
County	25
State	N/A
Federal	N/A

SCE is also learning that a number of customers who submitted procurement documents had incomplete submissions which delay the deployment design completion and construction start. SCE has made process improvements in the Pilot and recommend changes to materials, and adding in depth requirements overview at the initial customer meeting for future phase. Table 5.2 summarizes the procurement submission issues based on 60 projects that have submitted documentation on charging station procurement.

Table 5.2 - Procurement Requirements Submission Issues

Issue	No. of Projects
Missing Delivery Date	25 projects, 432 charge ports
Incorrect Vendor Name	4 projects, 118 charge ports
Missing Equipment and Installation	4 projects, 100
Cost Breakdown	charge ports
Missing Model #	5 projects, 138 charge ports
Missing fleet documentation	2 projects, 16 charge ports
Quote signed after expiration date /	13 projects, 148
Missing signature / Missing quote	charge ports
Missing installer information / missing	7 projects, 105
installer cost	charge ports

As customers procured their charging stations, SCE's parallel efforts included preparing and requesting customer approval of preliminary designs, preparing and requesting customer execution of easements, coordination of permit issuance with the Authority Having Jurisdiction (AHJ), and moving forward with infrastructure construction.

By the end of Q2 2017, SCE executed easements for 31 projects. The average cycle time is 41 business days, with 39% of projects taking longer than 41 business days and some as long as 83 business days, causing delays in construction. SCE will continue to learn from additional executed easements.

Based on initial projects with issued permits, permit cycle times are not presenting a significant delay in the infrastructure deployment timeline. Average cycle time for permit issuance is 30 business days. SCE will continue to learn about actual AHJ cycle times from other, future project permits.

Customer requested re-designs for alternate charging station locations have caused delays in a small number of sites, which include some of the Pilot's highest port sites.

In the early stages of construction coordination, SCE's Charge Ready general contractors experienced delays in procuring electrical panels and construction schedules were delayed as a result. The SCE team implemented a change to award projects earlier in the scheduling and construction coordination process to mitigate this delay. The SCE team and Charge Ready general contractors also identified alternate sources for panel procurement, resulting in reduced lead time for materials.

General Contractor resource issues also contributed to a delay in SCE's ability to award projects for construction. In Q2, the SCE team brought on an additional general contractor, and currently has three contractors to support construction throughout the remainder of the Pilot.

During Q2, SCE experienced construction delays due to a handful of customer requests for specific outage dates and/or delayed construction start at their site.

As of end of Q2, Utility-side and customer-side infrastructure construction was completed for 19 projects. Based on these initial projects, the average cycle time for infrastructure construction is 48 business days which does not include installation of charging stations. Several others were scheduled for construction and SCE will continue to learn about construction cycle times from other, future project construction.

Summary

Another challenge was customers withdrawing from the Pilot after signing the Step 2 Program Agreement. Five applicants notified SCE of their withdrawal from the program due to loss of funding or management support or challenges with easements. The Pilot incurred design costs for these withdrawn projects which reduced the funding available to other customers requesting to participate in the program. SCE will evaluate current Pilot processes and future program design improvements that minimize the design costs until customers confirm procurement of charging stations. Table 5.3 summarizes the Pilot's operational metrics about customer applications in Charge Ready. The metrics in the table capture the project activity from the launch of the Pilot on May 27, 2016, to June 30, 2017. Where applicable, the distribution across market segments, as well as the total number in disadvantaged communities, is provided.

#### Table 5.3 - Pilot Operational Metrics for Quarter

#### Percentage of total applications received

Planning	Quarter 2, 2017	Inception-to-Date	Toward
Assumptions	(Apr-Jun)	Actual	Goal
58 projects,	0 projects,	334 projects,	576%,
1,500 charge ports	0 charge ports	2,043 charge ports	136%

#### Number of approved and confirmed projects (Step 2 Agreement signed)

	Planning Assumptions	Quarter 2, 2017 (Apr-Jun)	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	7 projects, 86 charge ports	65 projects, 1,005 charge ports	112%, 67%
Disadvantaged Communities	N/A	4 projects, 25 charge ports	39 projects, 483 charge ports	N/A
Destination Centers	N/A	0 projects, 1 charge port	23 projects, 262 charge ports	N/A
Workplaces	N/A	5 projects, 55 charge ports	31 projects, 601 charge ports	N/A
Fleet	N/A	2 projects, 30 charge ports	8 projects, 107 charge ports	N/A
Multi-Unit Dwellings	N/A	0 project, 0 charge ports	3 projects, 35 charge ports	N/A

#### Percentage of applicants rejected

Planning	Quarter 2, 2017	Inception-to-Date	Toward
Assumptions	(Apr-Jun)	Actual	Goal
N/A	-17 projects, -106 requested charge ports*	91 projects, 377 requested charge ports	

#### Percentage of applicants withdrawn

Planning	Quarter 2, 2017	Inception-to-Date	Toward
Assumptions	(Apr-Jun)	Actual	Goal
N/A	10 projects, 45 charge ports	145 projects, 659 charge ports	

<sup>\*</sup>Negative numbers are due to previously rejected requests that have been re-evaluated and approved

**Summary** 

### Number of applicants withdrawn after signing Step 2 - Agreement

Plannii	•	Inception-to-Date	Toward
Assumptio		Actual	Goal
N	/A 3	5	N/A

#### Total number of charge ports installed

Planning	Quarter 2, 2017	Inception-to-Date	Toward
Assumptions	(Apr-Jun)	Actual	Goal
N/A	46	52	N/A

### Average number of charge ports installed per site

Planning	Quarter 2, 2017	Inception-to-Date	Toward
Assumptions	(Apr-Jun)	Actual	Goal
N/A	9	9	N/A

#### Percentage of completed projects

	Planning Assumptions	Quarter 2, 2017 (Apr-Jun)	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	5 projects, 46 charge ports	6 projects, 52 charge ports	N/A
Disadvantaged Communities	N/A	80%	83%	N/A
Destination Centers	N/A	40%	33%	N/A
Workplaces	N/A	40%	33%	N/A
Fleet	N/A	20%	33%	N/A
Multi-Unit Dwellings	N/A	0%	0%	N/A

**Table 5.4 - Customer Participant Request** 

Customer Participant Request	Planning Assumptions	Year-to-Date Actual
Average number of total parking spaces per site	N/A	621 parking spaces/site
Percentage of total number of parking spaces located in parking structures	N/A	12%
Average fleet size <sup>11</sup>	N/A	6 (Fleet Segment Only) 4 (All Segments)
Percentage of applications received with charging systems already installed at the site	N/A	15%
Average number of charging systems already installed at the site	N/A	10
Average number of charge ports requested per site	26	7.6



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 5.5 - Pilot Costs** 

	Planning Assumptions <sup>12</sup>	Inception-to-Date	Percentage to Planning Assumptions
Total estimated Pilot costs (SCE infrastructure plus rebate paid) <sup>13</sup>	\$16,792,136	\$14,132,639 1,005 charge ports	84%
Average estimated cost per site (T&D + Customer infrastructure + rebate) <sup>14</sup>	\$291,070 (\$11,195 * 26 chargers)	Average Cost per Site: \$217,425 Average No. Charge Ports per Site: 15	75%
Average estimated cost per port (T&D + Customer infrastructure + rebate) <sup>15</sup>	\$11,195	\$14,062	126%
Total amount of rebate reserved	\$5,850,000	\$1,216,869	19%
Average amount of rebate reserved per site	\$101,400 (\$3,900 * 26 chargers)	\$18,721	18%
Total amount of rebate paid	\$5,850,000	\$11,748	0.2%
Average amount of rebate paid per site	\$101,400 (\$3,900 * 26 chargers)	\$11,748	12%
Total actual construction costs for SCE infrastructure	\$10,942,136	\$534,933	9%
Average actual construction cost for SCE infrastructure per site	N/A	\$28,776	N/A
Level 1 charging systems	N/A	N/A	N/A
Level 2 charging systems	N/A	\$23,803	N/A
Hybrid charging systems (both Level 1 and Level 2)	N/A	N/A	N/A
Total actual SCE <b>site assessment</b> cost incurred by withdrawn applicants (prior to signing Step 2)	N/A	\$177,597	N/A
Average actual SCE <b>site assessment cost</b> incurred by withdrawn applicants (prior to signing Step 2)	N/A	\$3,010	N/A
Total actual SCE <b>site assessment, design, permit, and easement</b> cost incurred by withdrawn applicants (after signing Step 2)	N/A	\$64,978	N/A

Some items did not have planning assumptions but actual costs are being tracked and reported.

<sup>13</sup> Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement.

<sup>14</sup> Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement.

<sup>15</sup> Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement.

	Planning Assumptions	Inception-to-Date	Percentage to Planning Assumptions
Average actual SCE site assessment, design, permit, and easement cost incurred by withdrawn applicants (after signing Step 2)	N/A	\$12,996	N/A
Total actual SCE construction cost incurred by withdrawn applicants	\$0	\$0	N/A
Average actual SCE construction cost incurred by withdrawn applicants	\$0	\$0	N/A

#### Table 5.6 - Pilot Cycle Times

**Executive** 

Pilot Cycle Times	
Average Customer "End to End" Cycle time by segment	21316
Minimum Customer "End to End" Cycle time by segment	213 <sup>17</sup>
Maximum Customer "End to End" Cycle time by segment	21318
Average time for Application Received to Initial Qualification	35
Average time for Initial Qualification to Site Assessment Completion	43
Average time for Site Assessment Completion to Program Agreement Complete	49
Average time to complete base map	9
Average time to complete preliminary design	30
Average time from preliminary design sent to customer to preliminary design approved	13
Average time to complete T&D final design	13
Average time for final design received to permit requested	11
Average time for permit requested to permit approved	30
Average time for permit approved to ready to break ground	23
Average time from ready to break ground to final inspection completed	63
Average time from final inspection completed to Rebate Check Issued	11

<sup>16</sup> SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.

<sup>17</sup> SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.

18 SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.

Table 5.7 - Charging Station Request & Rebate

Number of Level 1 charge ports requested <sup>19</sup>	13
Trumber of Level 1 charge ports requested	10
Number of Level 2 charge ports requested <sup>20</sup>	992
Number of total charge ports approved	1,005
Average Number of Level 1 charge ports approved per site	6.5
Average Number of Level 2 charge ports approved per site	15.5
Number of Level 1 EVSE bought	12
Average number of ports per Level 1 EVSE	1.0
Number of Level 2A EVSE bought	154
Average number of ports per Level 2A EVSE	1.7
Number of Level 2B EVSE bought	363
Average number of ports per Level 2B EVSE	1.3
Number of Level 1 EVSE installed	0
Number of Level 2A EVSE installed	18
Number of Level 2B EVSE installed	16
Rebate amount reserved for Level 1 ports	\$19,356
Rebate amount reserved for Level 2A ports	\$247,505
Rebate amount reserved for Level 2B ports	\$481,227
Rebate amount paid for Level 1 ports	\$0
Rebate amount paid for Level 2A ports	\$0
Rebate amount paid for Level 2B ports	\$11,748

<sup>19</sup> In the Step 2 Agreement, the applicant indicates the requested number of Level 1 EVSE to be approved and installed under the Program. The number of installed Level 1 EVSE must match the number of Level 1 EVSE requested in Step 2 Agreement.

IIn the Step 2 Agreement, the applicant indicates the requested number of Level 2 EVSE to be approved and installed under the Program. The number of installed Level 2 EVSE must match the number of Level 2 EVSE requested in Step 2 Agreement.

# 5.2 Supplier Diversity

The architecture and engineering firm and general contractors selected for Charge Ready are 100% diverse business enterprises (DBEs).

# 5.3 Collaboration Efforts with **Complementary EV Programs**

SCE is engaging with federal, state, and local government agencies to identify collaboration opportunities in connection with Charge Ready. In Q2 2017, SCE supported a ride and drive with Plug-in America in the City of Lynwood at the Plug In to Earth Day Festival on April 22, 2017. The purpose was to provide hands-on experiential education and raise awareness about plug-in electric vehicles and charging in low-to-moderate income or disadvantaged communities. The event resulted in over 175 test drives of electric vehicles. For many of the attendees that participated, the test drive was their first experience riding in or driving an electric vehicle.

# 5.4 Disadvantaged Communities Outreach **Events**

SCE's outreach events for Disadvantaged Communities in Q2 2017 are summarized in the table 5.8. SCE employees who attend the events provide an estimate of the number of communications with a customer in a disadvantaged community during the event.

On April 22, 2017, SCE and the City of Lynwood co-hosted the Plug-In to Earth Day Festival to celebrate Earth Day, highlight the initial success of the Charge Ready Program and raise EV awareness in the community. The City of Lynwood is considered a disadvantaged community and was the first Edison customer to complete a Charge Ready project. The City Hall site will provide EV charge port access to anyone with an electric vehicle. The event included speeches by Lynwood Mayor Maria Santillan-Beas, SCE President Ron Nichols, Sen. Ricardo Lara, Asm. Autumn Burke and President and CEO of the Coalition for Clean Air, Joe Lyou who congratulated the City for its efforts to promote electric vehicles and talked about the importance of equal access to clean energy technologies, such as electric vehicle charging infrastructure, across the region and its particular importance in Disadvantaged Communities.

#### Table 5.8 - Disadvantaged Community Outreach Events

April 22, 2017 | City of Lynwood

Plug-In to Earth Day Festival: 600 estimated customer interactions.

Customer **Executive Outreach and** Summary **Enrollment** 

**Electric Vehicle Supply Equipment** Qualification

**Electric Vehicle Charging Load** 

# 6 Conclusion

#### 6.1 Conclusion

In this quarterly report, SCE provided data and updates on progress in implementing and executing the Pilot, including the challenges we encountered and the solutions we are developing to mitigate them.

During Q2, projects with executed agreements continued forward through the construction and installation process. A total of five projects were completed in Q2 2017. SCE learned about the charging station procurement process, construction timelines, customer understanding of base cost, and EV charging load from the first completed projects. In the next quarter, SCE will be able to learn from more constructed projects and identify additional program improvements. SCE will also continue to learn from the energy usage of the charging stations deployed under the Pilot.

# **Appendix**

**Executive** 

**Summary** 



# **Pilot Operational Metrics for Quarter**

### Percentage of total applications received

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	0 projects, 0 charge ports	334 projects, 2,043 charge ports	576%, 136%
Disadvantaged Communities	N/A	0%	47%	N/A
Destination Centers	N/A	0%	24%	N/A
Workplaces	N/A	0%	65%	N/A
Fleet	N/A	0%	5%	N/A
Multi-Unit Dwellings	N/A	0%	6%	N/A

### Percentage of charging stations requested

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	0 projects, 0 charge ports	334 projects, 2,043 charge ports	576%, 136%
Disadvantaged Communities	10%	0%	37%	368%
Destination Centers	N/A	0%	27%	N/A
Workplaces	N/A	0%	59%	N/A
Fleet	N/A	0%	8%	N/A
Multi-Unit Dwellings	N/A	0%	6%	N/A

### Number of approved and confirmed projects (Step 2 Agreement signed)

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	7 projects, 86 charge ports	65 projects, 1,005 charge ports	112%, 67%
Disadvantaged Communities	N/A	4 projects, 25 charge ports	39 projects, 483 charge ports	N/A
Destination Centers	N/A	0 projects, 1 charge port	23 projects, 262 charge ports	N/A
Workplaces	N/A	5 projects, 55 charge ports	31 projects, 601 charge ports	N/A
Fleet	N/A	2 projects, 30 charge ports	8 projects, 107 charge ports	N/A
Multi-Unit Dwellings	N/A	0 projects, 0 charge ports	3 projects, 35 chargers	N/A

# Percentage of applicants rejected

**Executive** 

**Summary** 

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	N/A	-17 projects, -106 requested charge ports*	91 projects, 377 requested charge ports	N/A
Disadvantaged Communities	N/A	1%	41%	N/A
Destination Centers	N/A	1%	22%	N/A
Workplaces	N/A	2%	70%	N/A
Fleet	N/A	0%	0%	N/A
Multi-Unit Dwellings	N/A	0%	8%	N/A

### Percentage of applicants withdrawn

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	N/A	10 projects, 45 charge ports	145 projects, 659 charge ports	N/A
Disadvantaged Communities	N/A	5%	47%	N/A
Destination Centers	N/A	2%	18%	N/A
Workplaces	N/A	4%	70%	N/A
Fleet	N/A	1%	6%	N/A
Multi-Unit Dwellings	N/A	1%	7%	N/A

<sup>\*</sup>Negative numbers are due to previously rejected requests that have been re-evaluated and approved

**Operations** 

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	N/A	3	5	N/A
Disadvantaged Communities	N/A	3	3	N/A
Destination Centers	N/A	1	1	N/A
Workplaces	N/A	2	4	N/A
Fleet	N/A	0	0	N/A
Multi-Unit Dwellings	N/A	0	0	N/A

### Total number of charge ports installed

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	N/A	46	52	N/A
Disadvantaged Communities	N/A	27	33	N/A
Destination Centers	N/A	13	13	N/A
Workplaces	N/A	24	24	N/A
Fleet	N/A	9	15	N/A
Multi-Unit Dwellings	N/A	0	0	N/A

# Average number of charge ports installed per site

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	N/A	9	9	N/A
Disadvantaged Communities	N/A	7	7	N/A
Destination Centers	N/A	7	7	N/A
Workplaces	N/A	12	12	N/A
Fleet	N/A	9	8	N/A
Multi-Unit Dwellings	N/A	0	0	N/A

**Operations** 

**Executive** 

**Summary** 

	Planning Assumptions	Quarter 2, 2017	Inception-to-Date Actual	Toward Goal
	58 projects, 1,500 charge ports	5 projects, 46 charge ports	6 projects, 52 charge ports	N/A
Disadvantaged Communities	N/A	80%	83%	N/A
Destination Centers	N/A	40%	33%	N/A
Workplaces	N/A	40%	34%	N/A
Fleet	N/A	20%	33%	N/A
Multi-Unit Dwellings	N/A	0%	0%	N/A

# Average number of total parking spaces per site

Customer Participant Request	Planning Assumptions	Inception-to-Date Actual
	N/A	621 parking spaces/site
Disadvantaged Communities	N/A	375 parking spaces/site
Destination Centers	N/A	931 parking spaces/site
Workplaces	N/A	523 parking spaces/site
Fleet	N/A	404 parking spaces/site
Multi-Unit Dwellings	N/A	636 parking spaces/site

# Percentage of total number of parking spaces located in parking structures

Customer Participant Request	Planning Assumptions	Inception-to-Date Actual
	N/A	12%
Disadvantaged Communities	N/A	1,040
Destination Centers	N/A	12,100
Workplaces	N/A	43,982
Fleet	N/A	3,764
Multi-Unit Dwellings	N/A	3,134

**Summary** 

Customer Participant Request	Planning Assumptions	Inception-to-Date Actual
Average fleet size <sup>21</sup>	N/A	6 (Fleet Segment Only) 4 (All Segments)
Percentage of applications received with charging systems already installed at the site	N/A	15%
Average number of charging systems already installed at the site	N/A	10

### Average number of charge ports requested per site

Customer Participant Request	Planning Assumptions	Inception-to-Date Actual
	26	7.6
Disadvantaged Communities	N/A	8.3
Destination Centers	N/A	9.2
Workplaces	N/A	9.8
Fleet	N/A	13.1
Multi-Unit Dwellings	N/A	8.0



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).

#### **Pilot Costs**

**Executive** 

Pilot Costs	Planning Assumptions <sup>22</sup>	Inception-to-Date	Percentage to Planning Assumptions
Total estimated Pilot costs (SCE infrastructure plus rebate paid) <sup>23</sup>	\$16,792,136	\$14,132,639 1,005 charge ports	84%
Average estimated cost per site (T&D + Customer infrastructure + rebate) <sup>24</sup>	\$291,070 (\$11,195 * 26 charge ports)	Average Cost per Site: \$217,425 Average No. Charge Ports per Site:15	75%
Average estimated cost per port (T&D + Customer infrastructure + rebate) <sup>25</sup>	\$11,195	\$14,062	126%
Total amount of rebate reserved	\$5,850,000	\$1,216,869	19%
Average amount of rebate reserved per site	\$101,400 (\$3,900 * 26 charge ports)	\$18,721	18%
Total amount of rebate paid	\$5,850,000	\$11,748	0.2%
Average amount of rebate paid per site	\$101,400 (\$3,900 * 26 charge ports)	\$11,748	12%
Total actual construction costs for SCE infrastructure	\$10,942,136	\$534,933	9%

<sup>22</sup> Some items did not have planning assumptions but actual costs are being tracked and reported.

<sup>23</sup> Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement. 24 Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement.

<sup>25</sup> Estimated program costs are based on initial site assessment. Costs are subject to customer's Step 2 Agreement.

#### **Pilot Costs Continued**

Executive

Pilot Costs	Planning Assumptions	Inception-to-Date	Percentage to Planning Assumptions
Average actual construction cost for SCE infrastructure per site	N/A	\$28,776	N/A
Average actual construction cost for SCE infrastructure for sites with all Level 1 charging systems	N/A	N/A	N/A
Average actual construction cost for SCE infrastructure for sites with all Level 2 charging systems	N/A	\$23,803	N/A
Average actual construction cost for SCE infrastructure for sites with hybrid charging systems (both Level 1 and Level 2)	N/A	N/A	N/A
Total actual SCE <b>site assessment</b> cost incurred by withdrawn applicants (prior to signing Step 2)	N/A	\$177,597	N/A
Average actual SCE <b>site assessment</b> cost incurred by withdrawn applicants (prior to signing Step 2)	N/A	\$3,010	N/A
Total actual SCE <b>site assessment, design, permit, and easement</b> cost incurred by withdrawn applicants (after signing Step 2)	N/A	\$64,978	N/A
Average actual SCE <b>site assessment, design, permit, and easement</b> cost incurred by withdrawn applicants (after signing Step 2)	N/A	\$12,996	N/A
Total actual SCE construction cost incurred by withdrawn applicants	N/A	\$0	N/A
Average actual SCE construction cost incurred by withdrawn applicants	N/A	\$0	N/A

#### **Pilot Cycle Times**

**Executive** 

Pilot Cycle Times	
Average Customer "End to End" Cycle time by segment	213 <sup>26</sup>
Minimum Customer "End to End" Cycle time by segment	213 <sup>27</sup>
Maximum Customer "End to End" Cycle time by segment	213 <sup>28</sup>
Average time for Application Received to Initial Qualification	35
Average time for Initial Qualification to Site Assessment Completion	43
Average time for Site Assessment Completion to Program Agreement Complete	49
Average time to complete base map	9
Average time to complete preliminary design	30
Average time from preliminary design sent to customer to preliminary design approved	13
Average time to complete T&D final design	13
Average time for final design received to permit requested	11
Average time for permit requested to permit approved	30
Average time for permit approved to ready to break ground	23
Average time from ready to break ground to final inspection completed	63
Average time from final inspection completed to Rebate Check Issued	11

SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.
 SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.
 SCE released only one rebate payment in Q2. See "Section 1.1 Pilot Summary for Quarter" for additional information.

#### **Charging Station Request & Rebate**

**Executive** 

Number of Level 1 charge ports requested <sup>29</sup>	13
Number of Level 2 charge ports requested <sup>30</sup>	992
Number of Level 2 charge ports requested.	992
Number of total charge ports approved	1,005
Average Number of Level 1 charge ports approved per site	6.5
Average Number of Level 2 charge ports approved per site	15.5
Number of Level 1 EVSE bought	12
Average number of ports per Level 1 EVSE	1.0
Number of Level 2A EVSE bought	154
Average number of ports per Level 2A EVSE	1.7
Number of Level 2B EVSE bought	363
Average number of ports per Level 2B EVSE	1.3
Number of Level 1 EVSE installed	0
Number of Level 2A EVSE installed	18
Number of Level 2B EVSE installed	16
Rebate amount reserved for Level 1 ports	\$19,356
Rebate amount reserved for Level 2A ports	\$247,505
Rebate amount reserved for Level 2B ports	\$481,227
Rebate amount paid for Level 1 ports	\$0
Rebate amount paid for Level 2A ports	\$0
Rebate amount paid for Level 2B ports	\$11,748

<sup>29</sup> In the Step 2 Agreement, the applicant indicates the requested number of Level 1 EVSE to be approved and installed under the Program. The number of installed Level 1 EVSE must match the number of Level 1 EVSE requested in Step 2 Agreement.

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