

Southern California Edison's Transportation Electrification Pathways



Transit Agencies...If You're Considering Transitioning Your Fleet To Electric

You May Be Wondering...



How long do EV infrastructure installation projects typically take, and when's the right time to engage my utility provider?



What are the most common reasons EV infrastructure projects get delayed, and how can transit agencies best prepare to stay on track?



How can agencies leverage SCE's EV infrastructure installation programs while incorporating resiliency strategies such as DER's?



What funding programs, incentives, and resources are available to help offset the cost of transitioning your fleet to electric?

Or You May Be Asking Yourself...
WHERE DO I EVEN BEGIN !?

This Fleet Electrification Session... Is All About YOU and YOUR Goals



Where Are You At Today?

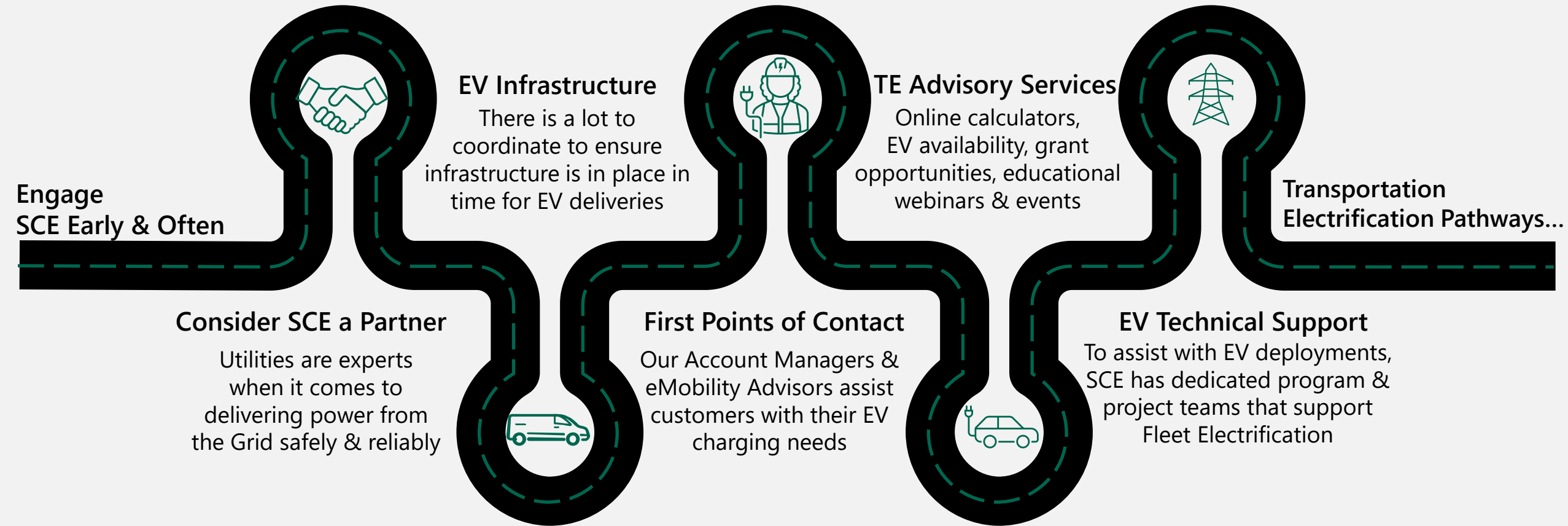


What Are Your Goals?

Let's Keep This Interactive...Ask Questions In The Chat!

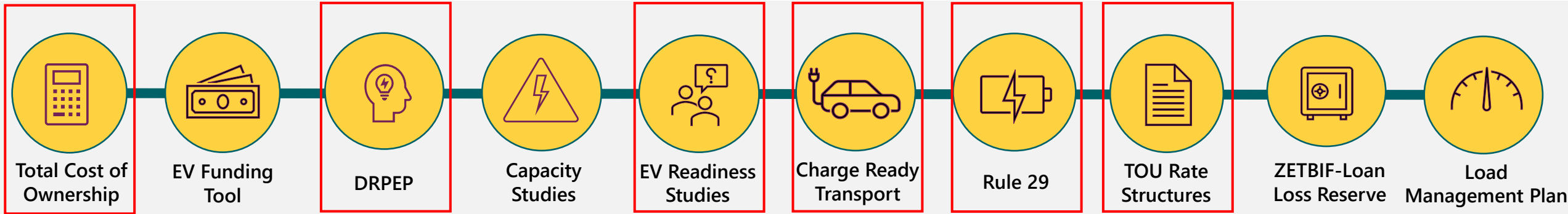
Working With SCE For Your Power Needs

Requesting or upgrading power can seem like a long and complicated process, but by planning ahead, you don't have to do it alone



SCE Supports Every Stage of Your Electrification Journey

Programs and self-serve resources are available to help you understand the impact of electrification, define requirements, and access funding for your fleet transition



START HERE:

- Your SCE Account Manager
- [Power Service Request](#)

SHARE YOUR PLANS:

- [EV Acquisition Plan Survey](#)
- SCE Forecasting Process
- SCE System Planning Process

EARLY STAGES-PLANNING:

- [SCE Distribution Resources Plan External Portal \(DRPEP\)](#)
- [Engineering Analysis Reports](#)
- [Total Cost of Ownership](#)
- [Drayage Truck Rebate](#)
- [ZETBIF-Loan Loss Reserve](#)
- [EV Funding Tool](#)

TE ADVISORY SERVICES:

- [EV Readiness Studies](#)
- [Load Management Plans](#)
- [In Person Events & Webinars](#)

EV INFRASTRUCTURE:

- [Charge Ready Transport](#)
- [EV Infrastructure \(Rule 29\)](#)
- [SCE Approved Product List](#)



Total Cost of Ownership Calculator

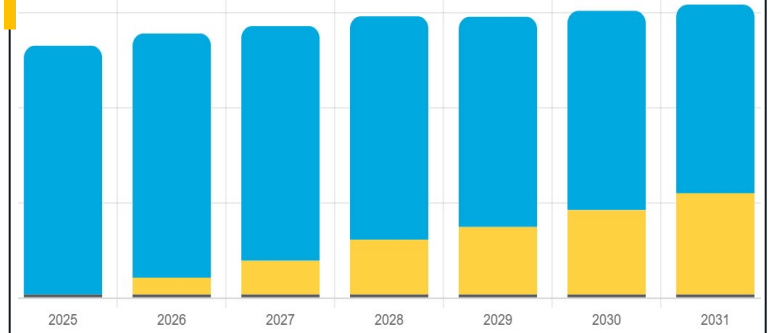


SWITCH YOUR FLEET TO
ELECTRIC & SAVE BIG ON
FUELING

SCE is here to support your fleet transition.

Total Cost of Ownership

Estimate Your Electricity Cost



TCOCALCULATOR.SCE.COM

Fuel Savings



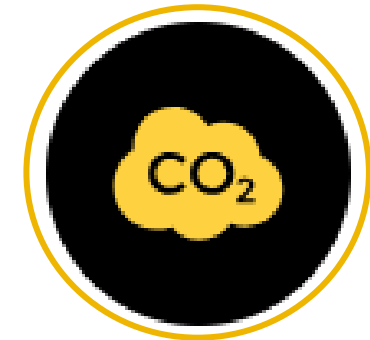
Input your fleet specifications to see monthly and annual fuel savings

See Incentives



Browse all available incentives in your region.

Low Carbon Fuel Standard



LCFS credits are available for low carbon vehicles. Estimate your credit value now.

Distribution Resource Plan External Portal (DRPEP)

Southern California Edison DRPEP

| | |
|----------------------|--------------------|
| Circuit Name | Euphrates |
| Circuit Voltage (KV) | 12 |
| System Name | Rio Hondo 220/66 |
| Substation Name | Rio Hondo 66/12 Kv |
| Date of Last Update | 06/30/2025 |
| Plan Year | 2024 |

| Available Load Capacity - Circuit (MW) | | | | | |
|---|-------|--------|--------|--------|--------|
| | 2024 | 2025 | 2026 | 2027 | 2028 |
| Initial Estimated Circuit Available Load Capacity | 2.274 | 2.2437 | 2.2657 | 2.2587 | 2.2317 |
| New Load Capacity Requests | N/A | N/A | N/A | N/A | N/A |
| Estimated Circuit Available Load Capacity | 2.274 | 2.2437 | 2.2657 | 2.2587 | 2.2317 |

| Available Load Capacity - Substation (MW) | | | | | |
|--|---------|--------|--------|--------|--------|
| | 2024 | 2025 | 2026 | 2027 | 2028 |
| Initial Estimated Substation Available Load Capacity | 10.0036 | 9.6111 | 9.8184 | 9.8281 | 9.6517 |
| New Load Capacity Requests | 0 | 0 | 0.285 | 0.285 | 0.285 |
| Estimated Substation Available Load Capacity | 10.0036 | 9.6111 | 9.5334 | 9.5431 | 9.3667 |

- SCE's [Distribution Resource Plan External Portal](#) provides information to support streamlining the interconnection process, enabling customer use of clean energy technologies, and achieving California's clean energy goals
- DRPEP is home to SCE's Grid Needs Assessment (GNA) and other interconnection projects.
- **Reserve Load Circuit Capacity and Reserve Load Substation Capacity**

Charge Ready Transport. Electric Infrastructure for EV Truck, Bus & Off-Road Fleets

Charge Ready Transport is SCE's program to help meet California GHG goals while providing clean air to local communities.

We build EV charging infrastructure for SCE customers deploying EV trucks, buses, and off-road equipment.

We collaborate with fleets to design infrastructure to meet your needs while managing potential grid impacts.

Four Elements of Charge Ready Transport

Provides low- to no-cost distribution electrical infrastructure for fleet customers on both the utility- and customer-side of the meter. Customer purchases and installs charging equipment. Customer Built Infrastructure option is available as well.

Charger hardware rebates up to 50% for eligible customers

Commercial Time-Of-Use rates designed for EV fleets

EV Advisory Services for fleet evaluation



CR Transport Fast Facts

- Seven-year program, launched in 2019
- \$342 million budget
- Minimum 500 sites and 8,490 MDHD EVs deployed
- **At least 15% of the Infrastructure budget must go to transit agencies**
- At least 40% of the Infrastructure budget must go to Disadvantaged Communities (DACs)



CRT Supports A Variety Of Medium & Heavy-Duty Electric Vehicles

On-road vehicles

Eligible Classes:

- Medium-Duty vehicles
- Heavy-Duty vehicles
- School Buses
- Transit Buses
- Truck Stop Infrastructure

Vehicles must have GVWR (max loaded weight) 6,000 lbs. and above (class 2-8)

Off-road vehicles

Eligible Classes:

- Yard trucks
- Forklifts
- Transportation Refrigeration Unit (TRU) infrastructure
- Airport ground support equipment (GSE)

No specific weight minimum

New-Technology Vehicles:

Contact us for eligibility about new vehicle types coming to market, such as cargo handling equipment, agricultural vehicles, or construction vehicles.



Eligible Chargers Are Listed on SCE's Approved Product List

AC Level 2

- Up to 19.2 kW.
- Standard J-1772 connector.



DC Standalone

- Up to 1,200 kW.
- CCS-1, CCS-2, CHAdeMO connectors.



DC Power Cabinet

- Modular cabinet with one or more dispensers.
- Up to 1,440kW.
- CCS-1, CCS-2, CHAdeMO connectors.



Off-road TRU & Forklift

- TRU: 4-pin and 6-pin, up to 32 amp, UL listed.
- Forklift: variety of chargers for different forklift models, UL listed.



Approved product list available at <http://www.sce.com/apl>.

New models are added regularly. Check for the newest availability list.

Many Fleets Qualify for Charging Hardware Rebate Up to 50%

Do You Qualify For A Charger Equipment Rebate?

Three customer classes qualify for the charger equipment rebate:

1. **Transit Agencies**
2. **School District**
3. **Project sites in Disadvantaged Communities, except for businesses on the Fortune 1000 list.**

[Map of Disadvantaged Communities](#)

Charger Info

Rebates cover 50% of equipment cost, up to a cap by power band.

Chargers must meet AC or DC charging standards for on-road vehicles

Equipment must be listed on SCE's [Approved Product List \(APL\)](#).

For AC chargers and DC standalone chargers, there is one rebate per charger, regardless of the number of ports / connectors.

No rebates available for forklift, TRU, and other off-road chargers.

Rebate covers 50% of the EVSE cost, up to the rebate cap

| Power Band | Rebate Cap |
|--------------------------|-----------------|
| 0 kW - 19.2 kW | \$1,800 |
| 19.3 kW – 49.9 kW | \$7,800 |
| 50 kW – 149.9 kW | \$23,300 |
| 150+ kW | \$39,200 |

Rebate table is current as of January 2025. Rebate structure may be updated in the future. View the current rebate structure at the [Approved Product List \(APL\)](#) website.

DC Modular Power Cabinet Chargers

The rebate calculation for Power Cabinets and Dispensers requires taking *the max output of the Power Cabinet* and *dividing the number of Dispensers connected to the Power Cabinet*

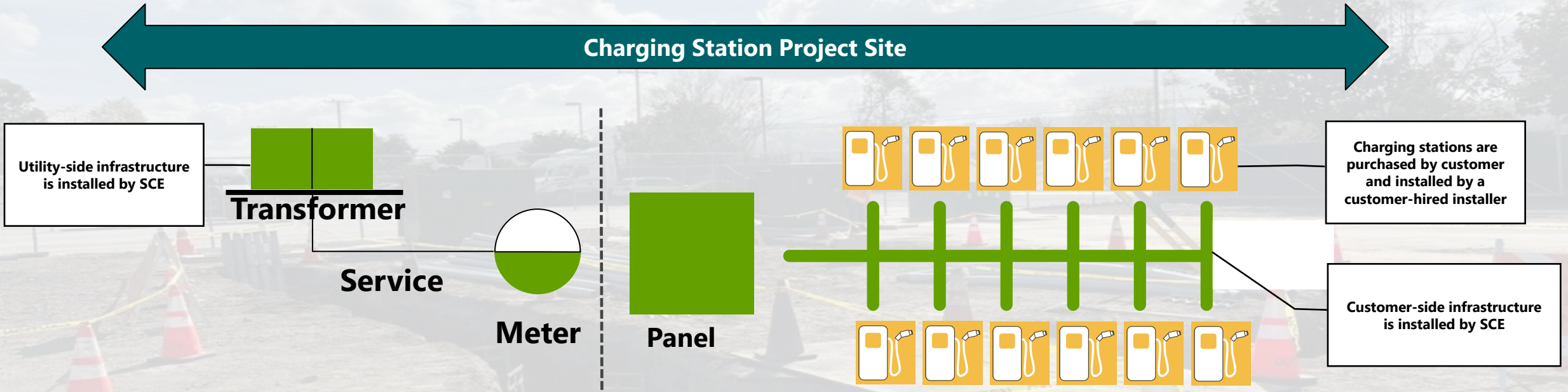
DC Modular Power Rebate Example

Example:

1,200kW Power Cabinet with 4 Dispensers

Rebate is allocated as (4) 300kW charging units according to the rebate table

CR Transport Project: SCE-Built Infrastructure



Utility-side infrastructure is installed by SCE

Transformer

Service

Meter

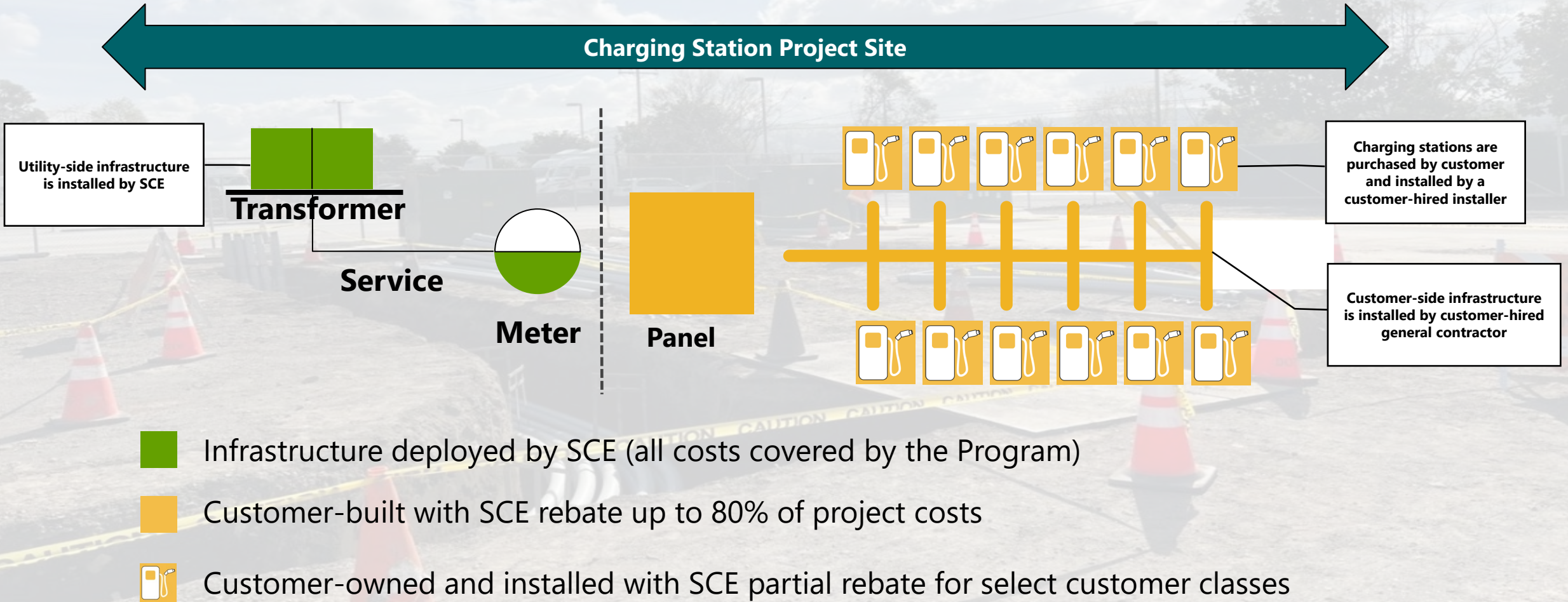
Panel

Charging stations are purchased by customer and installed by a customer-hired installer

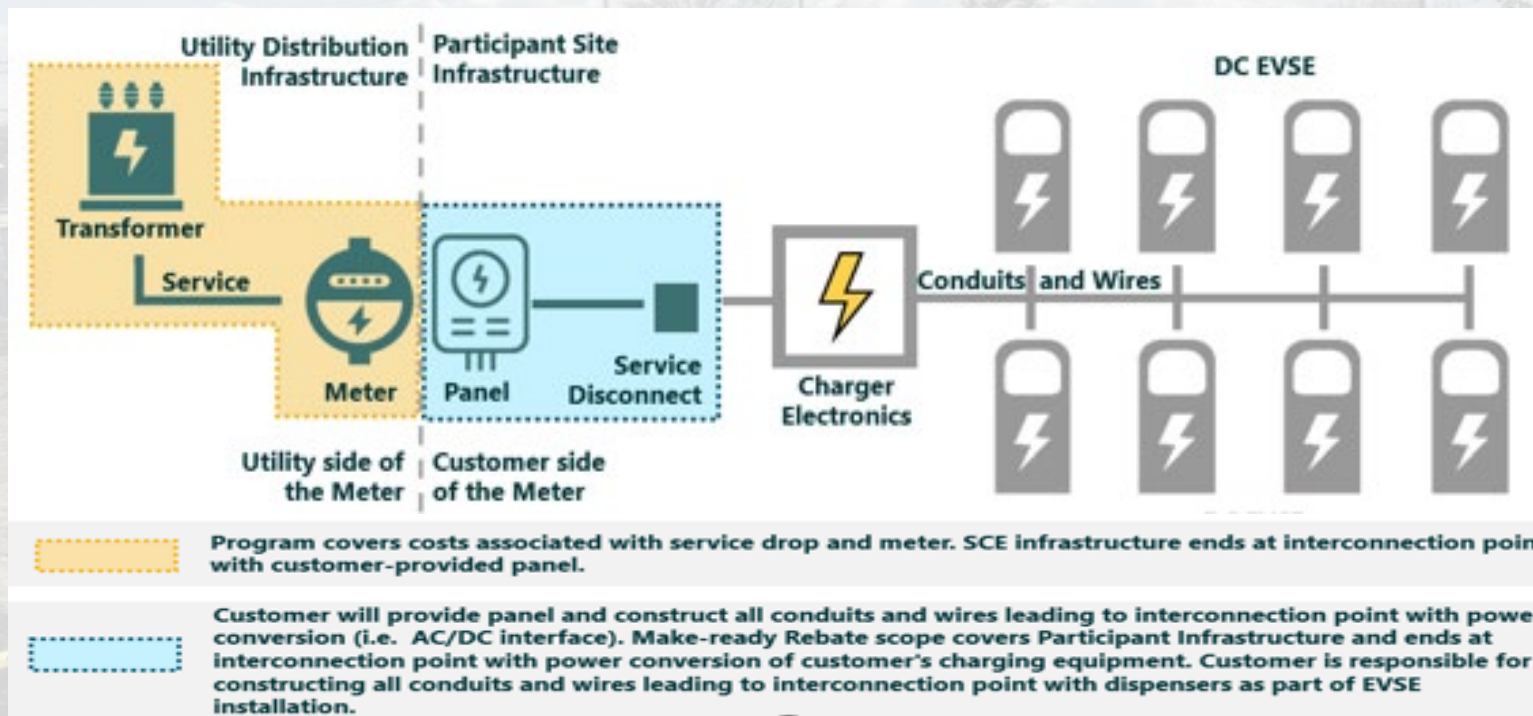
Customer-side infrastructure is installed by SCE

- Infrastructure deployed by SCE (all costs covered by the Program)
- Customer-owned and installed with SCE partial rebate for select customer classes

CRT Project: Customer-Built Infrastructure



CRT Project: With Centralized Charging & Remote Dispensers

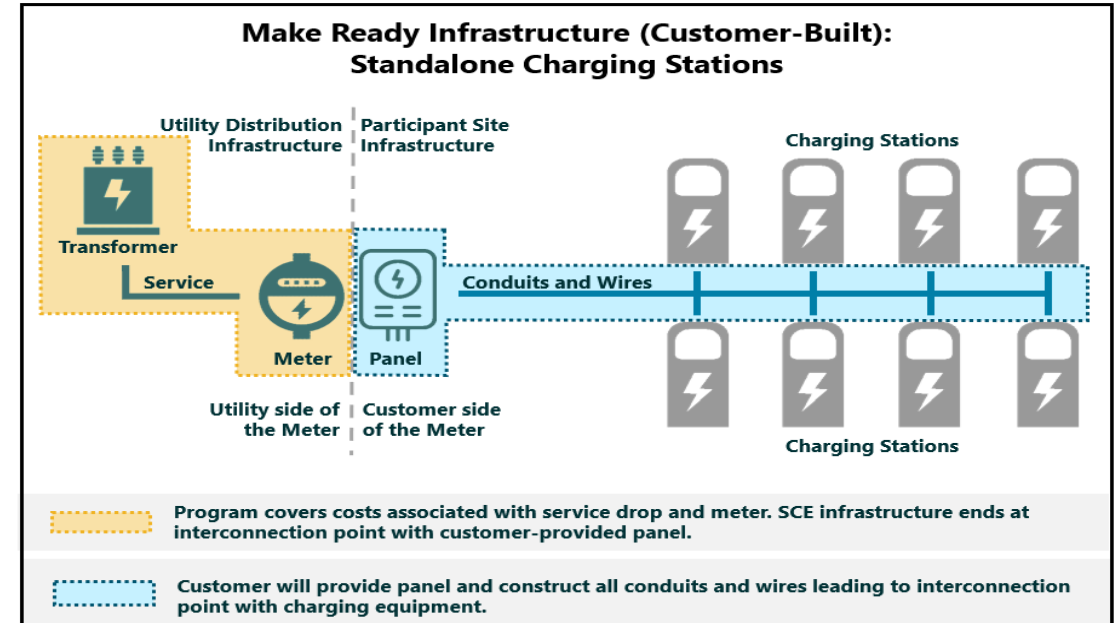
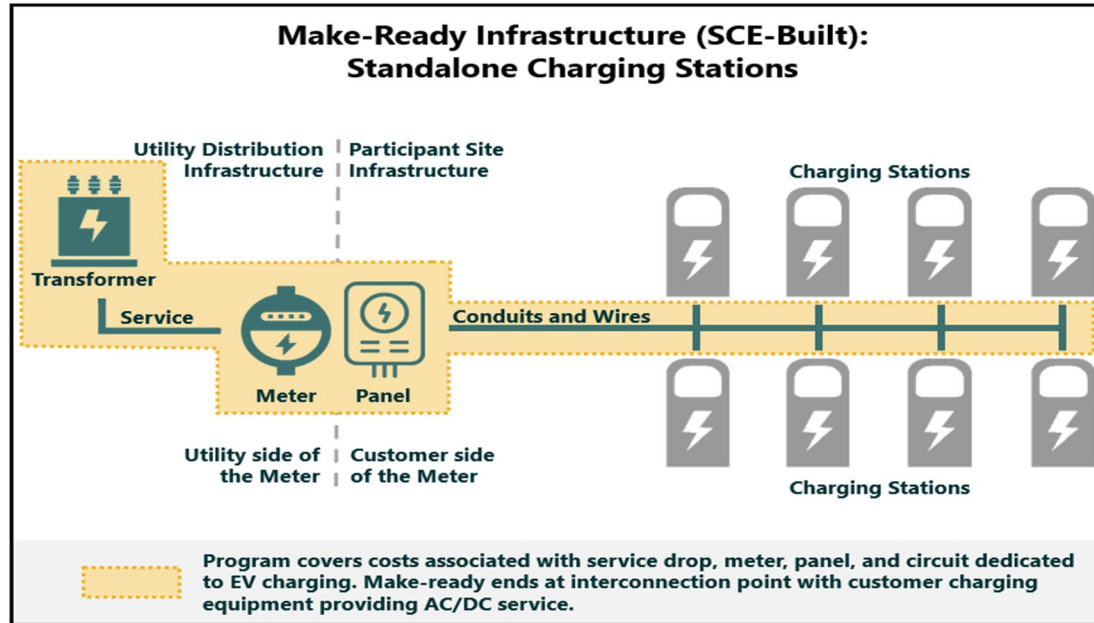


Utility-side infrastructure is installed by SCE

Charging stations are purchased by customer and installed by a customer-hired installer

Customer-side infrastructure is installed by customer-hired general contractor

CRT Project: SCE vs Customer-Built Infrastructure



SCE Built

- Turn-Key Solution
- Distribution to First Point of Interconnection
- No DER Interconnection in Perpetuity
- No Site Alterations or Increase of Charger kW
- More Intrusive Easement

Commonalities

- No Red-Lines on Easement and Program Participation Agreement
- Chargers Must be On SCEs Approved Product List
- Separate Meter With Commercial TOU Rate Structures
- 1:1 EV to Port Ratio

Customer Built Option

- Allows for DER Integration with R21
- Less Intrusive Easement
- More Flexibility on Customer side Infrastructure
- Build Must Be Completed by IBEW Labor
- **Up to 80%** Project Cost Rebate

Charge Ready Transport - Application Requirements



EV Acquisition Plan

- Type and Quantity of EVs
- Estimated Arrival Dates
- Establishing Routes / Charging Windows

Charger Selection

- Make / Model / kW / Quantity / APL

Proposed Site Map

- Spacing, Throughput, Overhead Obstructions, Existing Easements

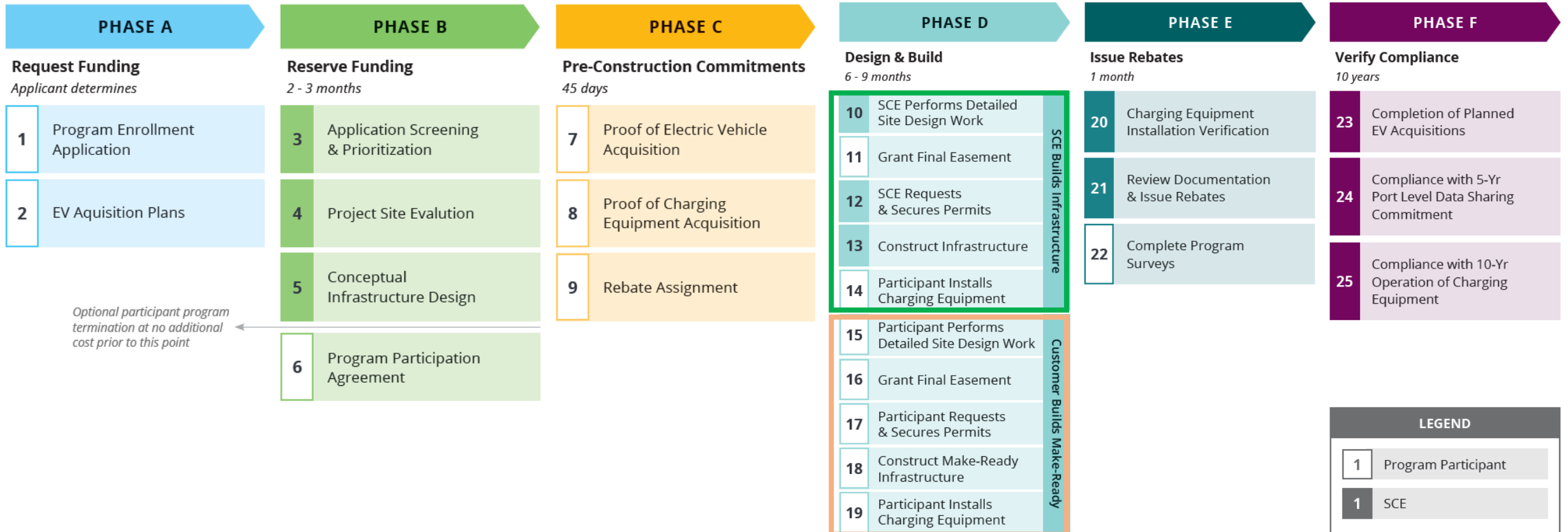
Review of Utility Easements & Agreements

- No Red Lines

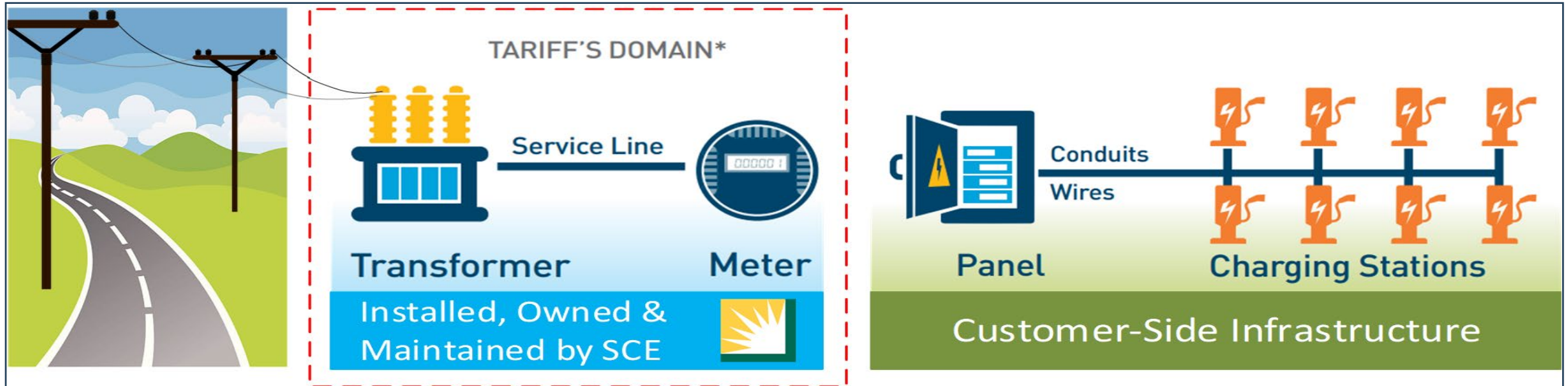
Environmental Considerations

- Complete Environmental Questionnaire Form

Charge Ready Transport Program Activity Flow



Tariff Rule 29 – Utility Side EV Infrastructure

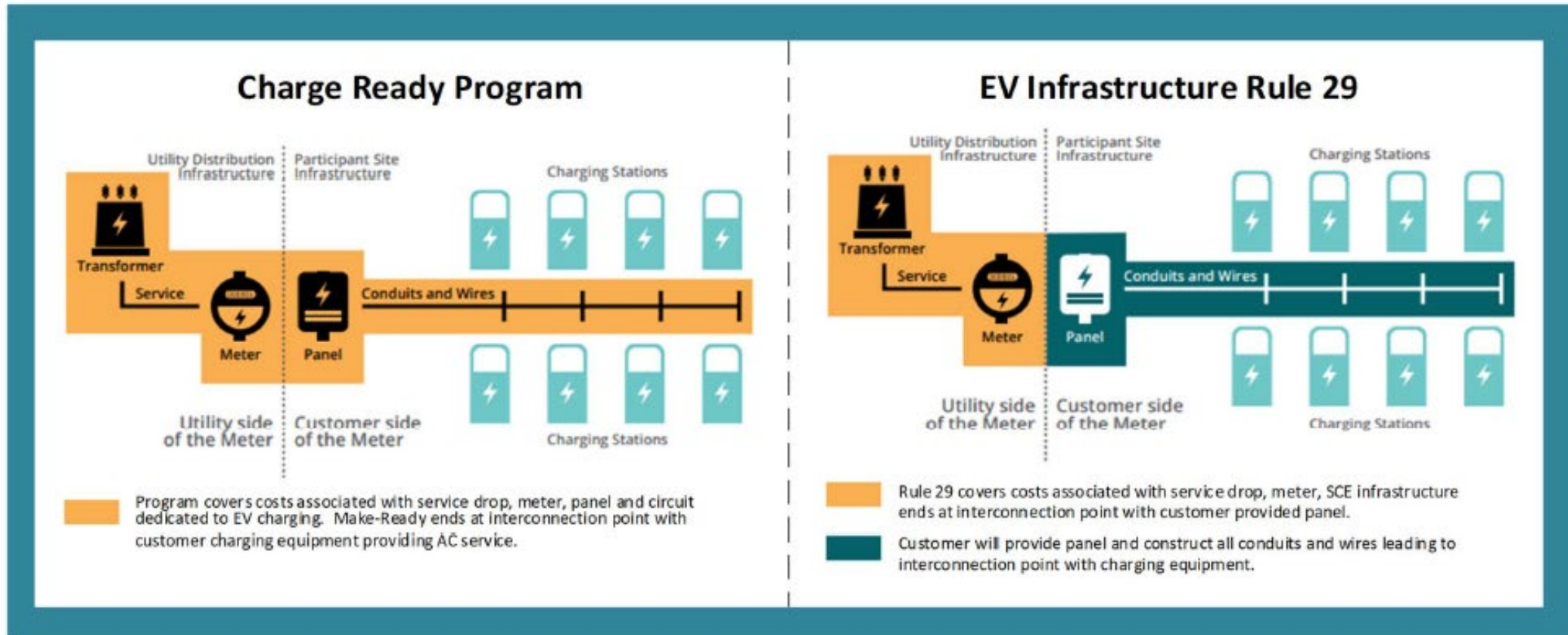


Under Rule 29, SCE would cover the following costs:

- Planning, design, and engineering
- Electrical distribution infrastructure costs, including:
 - Conduit and substructures
 - Protective structures
 - Underground service (when required)
 - Riser materials
 - Civil work
- Overhead service
- Metering
- Transformer
- Materials
- Trenching and excavation
- Utility-side permitting, rights checks, & easements

Key Differences

Charge Ready vs. EV Infrastructure Rule 29



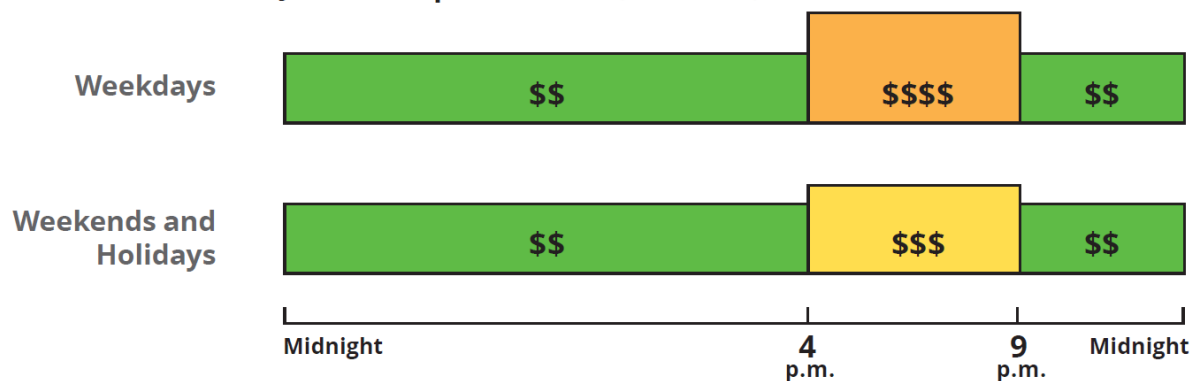
SCE's New EV Rates & Demand Charge Holidays

Highlights of new EV rates

- **TOU-EV-7:** No demand charges from 2019-February 2024. Demand phases back in from 2024-2029.
- **TOU-EV-8 & 9:** No demand charges 2019 through 2025. Demand phases back in from 2026-2031.
- Save money by avoiding the peak hours of 4pm-9pm.
- New Super Off-Peak period with lowest pricing during 8am-4pm from October – May.
- You can estimate your electricity costs using SCE's Total Cost of Ownership Calculator, [SCE TCO Calculator](#).

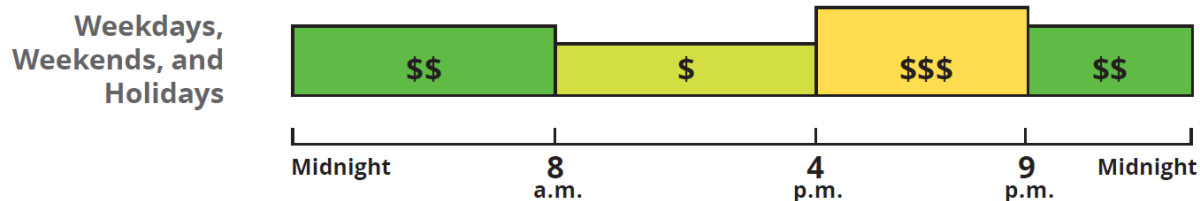
SUMMER

June 1 - September 30 (4 Months)



WINTER

October 1 - May 31 (8 Months)



■ Super Off-Peak
 ■ Off-Peak
 ■ Mid-Peak
 ■ On-Peak



TOU-EV-7
20kW or less



TOU-EV-8
above 20 kW
& up to 500kW



TOU-EV-9
above 500 kW

TOU-EV8: This Schedule is applicable to Customers whose monthly Maximum Demand, in the opinion of SCE is expected to register above 20 kW but not exceed 500 kW

TOU 7, 8 & 9 Demand Charge Holidays

Demand Charge Holiday Overview

- **TOU-EV-7:** Currently in year 2 of Demand Charge phase-in period (began March of 2024).
- No deviation from demand charge phase-in period is expected.
- **TOU-EV-8 & 9:** No demand charges 2019 through 2025. Demand phases in from 2026-2031.
- SCE is advocating to extend the demand charge holiday through 2030.
- SCE is awaiting GRC decision, which is expected in 2025.

Facilities Related Demand Charge 5-Year Phase in Schedule

| | |
|---------------|----------------|
| Year 1 | 16.66% |
| Year 2 | 33.33% |
| Year 3 | 50.00% |
| Year 4 | 66.67% |
| Year 5 | 83.33% |
| Year 6 | 100.00% |



TOU-EV-7
20kW or less



TOU-EV-8
above 20 kW



TOU-EV-9
above 500 kW

Every EV Charging Infrastructure Project is a **MAJOR** Construction Endeavor

Each project is unique; there are 6 high level factors that influence how long completing an EV Infrastructure project will take:

Type of Project. Make Ready or Utility Infrastructure Only? Make-Ready projects take longer, Utility is completing designs, obtaining permits, securing material, & completing construction on both sides of the meter

Site Characteristics. Does electric service already exist, or will site require distribution or service line extension? Environmental Remediation, Existing UG Utilities (natural gas, gasoline, etc.)

Capacity. Does it currently exist, or will added capacity be needed to serve a project? Projects may require a lot of capacity. See us as a partner! We may need to upgrade substation or reallocate circuit load

Permits & Clearances. Utilities have to be given permission to complete the construction work required for EV charging from the AHJ (Cities, Counties, State or Federal Entity). *Permit approval times are taking longer*

Materials & Equipment. Industry has seen a shortage of key materials and equipment needed to complete EV Charging Infrastructure projects to include *Switchgear, some Transformers & smaller materials*

Customer Engagement. Lead times in receiving customer applications, submitting designs, providing clearances, signing agreements, approving preliminary and final designs, etc. *Customer requested changes*

Engage With SCE **Early & Often** For Your Load Energization Project

In Addition to Sharing the Long-Term Electrification Plan, **Customers Should Contact SCE as Early as Possible for Your Load Energization Project!**

While ***Each Location Has Different Levels of Capacity and Complexity***, In General, SCE Strongly Suggest That **The Applicant Should Inform SCE As Follows:**

- **Any Size Project:** No less than 2 years
- **3-10 MW Project:** No less than 3 years
- **10-15 MW Project:** No less than 5 years

*Timing **depends on the capacity & complexity of the localized distribution grid**. The times suggested above are for guidance only and may be substantially longer if project with licensing requirements are triggered

- System Upgrades Take Time!**
- Approximately....**
- **18 months+ for simple upgrades** (e.g. upgrade to existing circuits)
 - **3+ years for moderate upgrades** (e.g., new circuits)
 - **6+ years for major upgrades** (e.g., new substations)

SCE Supports Every Stage of Your Electrification Journey

For More Information:

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