CITY OF ADELANTO

Electrical Service Townhall

Welcome: Mayor Gabriel Reyes &
City Manager Jessie Flores



MARCH 24TH 2022

City of ADELANTO



Our Commitment to California

SOUTHERN CALIFORNIA EDISON®

Adelanto – New Electric Service Townhall

- John Shaules, High Desert - Victorville Local Planning Manager
- John Martinez, Cultivation Project Manager
- Deshawn Spencer, Engineering Manager Rurals
- Antoine Williams, NDP Project Manager
- Brent Farr, Victorville District Senior Planner
- Sandy Gabriel, Cultivation Account Manager
- Michael Curley, Economic Development Consultant
- Thomas Lor, Energy Efficiency Engineer
- Juan Lopez, Public Affairs Manager
- Ruby Rose Yepez, Key Accounts Senior Advisor

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Agenda

- SCE System Planning (Deshawn S.)
- Local Planning Customer Submittal Process (John M. & Brent)
- New Development Planning Service Request (Antoine)
- Economic Development Services (Mike)
- Energy Efficiency Benefits (Thomas)
- Rates (Load Management) (Sandy)
- Transportation Electrification (Ruby)
- Q&A

SAFETY MOMENT

Outdoor and Recreational Safety

- Travel with a companion.
- Be in good physical condition
- Think about your footing while traveling
- Wear appropriate clothing
- Check your equipment
- Be weather wise
- Learn basic first aid
- Make camp before dark
- Be alert for slippery areas
- Alcohol and cliffs DO NOT MIX
- Think before you drink



https://www.fs.fed.us/recreation/safety/safety.shtml#top

Southern California Edison's Mission:

To Provide Safe, Reliable, Affordable and Clean Energy to Our Customers

Background

- SCE is seeing a rapid increase in proposed Indoor Horticulture projects throughout our service territory
- SCE is a public utility, regulated by the California Public Utilities Commission.
  - We are responsible for the prudent expenditure of customer funds
  - Infrastructure upgrades where load does not materialize as expected will harm customers.
  - **As a regulated utility, SCE cannot begin planning or construction of new distribution facilities based solely upon a City's forecast or a developer's initial contact with the company.**
- Depending on the magnitude of the load requested, SCE may need to evaluate the distribution and transmission system as a whole to safely and reliably energize new customer load.

SCE System Planning (Deshawn)

- Southern California Edison (SCE) routinely studies the changing power needs throughout its service territory
- System growth plans are developed annually on a 10-year forecast to build the facilities required to serve our customers
  - Why is this?
    - Regulatory processes
    - Project Licensing
    - Permitting and Obtaining Right-of-Ways & Easements
    - Engineering
    - Long lead-time equipment
    - Construction time
    - General Rate Case
  - The analysis is iterative and complex. Accurate customer provided load information is crucial to have confidence in the system plan.

Engineering Studies (Deshawn)

- Applications may be assessed an Advance Engineering Fee* which is required to evaluate available system capacity.
- When SCE receives Requests for Service in an Application, the cost of these Engineering Studies will be determined based on the complexity of the project.
- Costs on evaluations for large electrical load projects varies depending on scope, while many studies for smaller or less complex projects could have lower cost.
- We strive to complete these studies in 35 business days.

❖ **Note:** Engineering Advance Fees are ultimately credited to a customer's work order. If the customer's project proceeds to construction within one year, these funds will be credited to offset other customer charges.

How to Get Electrical Service – Local Planning (Brent)

- Contact your SCE Local Planner early in the process.
  - Required documents to begin Grid impact Study with SCE Field Engineering:
    1. Completed Customer Project Information Sheet (CPIS)
    2. Design Option Letter (DOL
    3. Site Plan
    4. Project Phasing and Type of Commercial use.
    5. Detailed Load Schedule & Single Line Diagram

  Note: Engineering Advance fee must be paid in full before Engineering can begin Grid Impact Study.

  - Required documents to kick off a project after Engineering approves load capacity:
    1. Completed Customer Project Information Sheet (CPIS)
    2. Design Option Letter (DOL)
    3. Relevant Plans (Site, street Improvement, Electrical, Grading etc..) (PDF and CAD)
    4. Detailed Load Schedule & Single Line Diagram
    5. Project Phasing Plan
    6. Copy of Grant Deed to property

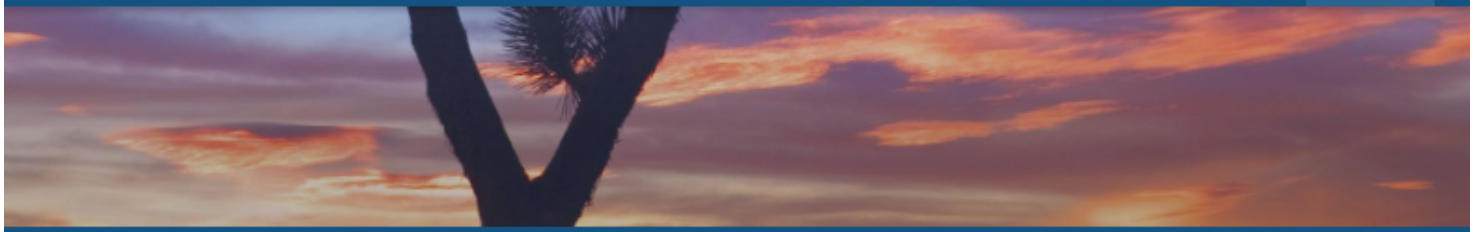
  - Local Planning will determine whether the project stays in Local Planning or moves to New Development Planning. This decision is based on SCE infrastructure status, customer load schedules, and the complexity of the project.
- Provide detailed & vetted load calculations for your project
  - Leverage utility consultants or other experienced industry experts versed in calculating electrical demand
- SCE will make every effort to help developers phase their projects

How to Get Electrical Service –Cultivation Projects (John M.)

- Two Step Process:
  - *1. Conduct Engineering Review:*
    1. Completed Customer Project Information Sheet (CPIS)
    2. Site Plans (PDF)
    3. Detailed Load Schedule & Single Line Diagram (PDF)
    4. Project Phasing Plan
  - Advance Engineering Fee - $2,226.00
  - 35 Business days to complete.
  - Conduct call to discuss results

  - *2. Planning/Design Process*
    - Need Additional Documents: CAD File, Grant Deed, Assessors Map, Design Option Letter, Switchgear Drawings…
    - Conduct Project Kick Off Call
    - Prelim Map, Final Map….

Create an Account Sign In



Home › Services › Southern California Edison

Southern California Edison

Commercial cannabis operations are encouraged to adopt energy efficiency best practices. See below for more information:

• Southern California Edison commercial business customers may be eligible to receive rebates or incentives for adopting certain energy efficiency measures. For more information and a list of available energy efficiency programs, please visit: Efficiency Programs

• Resource Innovation Institute (RII) is a non-profit organization that offers resources to promote efficiency in the field of controlled environment agriculture (CEA), including best practice guides, case studies, industry reports and energy use benchmarking tools. For more information, please visit: Resource Innovation Website

For local planning information please go to:

•Southern California Edison's Local Planning Page

Tract Project Management (TPM) (Antoine)

The TPM group is responsible for residential tracts, associated commercial developments, and all applicant design.

- To initiate a new project, please contact your District Project Manager and request for New Service Package that will outline all required documents needed for new service.
- For example it will include the following:
- Customer Project Information Sheet
- TPM Supplemental Information Sheet
- SCE Submittal Requirements
- Job Aid for further details

After receiving your submittal, a TPM representative will contact you within 3 business days to confirm receipt of your project and request any additional information.

- Other projects managed by TPM include:
- Rule 16 (Meter & Service)
- Rule 15 (Line Extension)
- Rule 20 (B & C)
- Backbones
- Applicant Design
- And other projects, including:
    - Relocations
    - Idle Facilities
    - Associated Street Lights

Partnership Opportunities

Michael Curley & Juan Lopez

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Economic Development Services (Curley)

Services and support to help attract, retain, and expand businesses:

- Confidential client support and access to SCE for assisting in site selection and provide access to preliminary power availability
- Secure incentives and lower operating costs for clients including tax credits, workforce training, access to grants and financial programs
- Assistance from Local, County, and State Agencies
- Economic Development Rate incentive program

Economic Development Rate



The Economic Development Rate (EDR) is an incentive available to commercial and industrial customers, allowing them to remain, expand, and/or locate to California.

- Program Description:
  - 12% Energy Discount per year for 5-Years (Attraction, Retention, Expansion)
- Program Cap:
  - Combined load cap of 200 MW (currently used 50MW)
- Program Eligibility:
  - Non-residential, Non-governmental customer with combined load over 150 kW
    - Accounts may be aggregated for a combined 150 kW if they are located within the same industrial/business center
  - 20 Small Business EDR applications for businesses using less than 150 kW

Partnership Opportunities (Juan)

How Local Governments Can Help:

- Continue engaging SCE so we can educate staff on issues we face providing service to the industry
- SCE may be able to provide input on which areas of the jurisdiction we can provide electrical service without major upgrades to the grid
- Encourage developers to contact SCE before they start detailed planning on their project
- As part of the permitting process, encourage developers to have SCE perform an energy efficiency audit and implement as much energy efficiency as feasible into their projects

Energy Efficiency

Thomas Lor

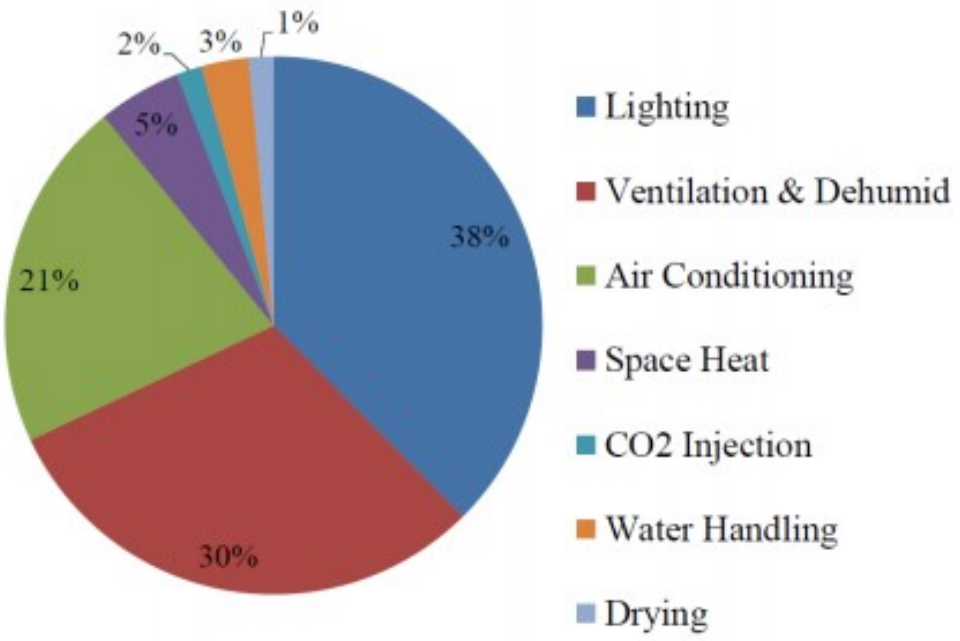
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Energy Efficiency

What is Energy Efficiency?

Using ***less*** energy to get the ***same*** job done!

- Areas of Focus:
  - ***Lighting***
  - ***HVAC***
  - ***Building Envelope***
  - Controls
  - Refrigeration



Energy Use – Indoor Cannabis Cultivation

Energy Efficiency

Why Is It Important?

- Reduces energy costs
- Reduces strain on the electricity grid
- Contributes to a clean energy future





Energy Efficiency

Opportunities:

- **Overall lighting efficiency**
- **High performance HVAC**
- **Building envelope (e.g., insulation, glazing)**
- **Eliminate facility air leakage**
- **Controls**
- Water-cooled units
- Thermal storage for heating/cooling
- Waste heat reuse
- Ventilated light fixtures
- Desiccant dehumidifiers

Example: Indoor (Cannabis) Cultivation



Enclosed Warehouses

- Lighting
- Temperature and Humidity Control
- Water pumping
- 30 – 60 Watts/sf
- 20,000 sf cultivation area = 600 – 1,200 kW



As of 09/18/2019

Benefits of LED Lighting

- Lower energy consumption
- Lower maintenance
- Improve crop quality/yield
- Improve profitability



HVAC Systems

- Large Package Units
- Split Systems
- Heat Pumps
- Water-cooled Heat Pumps
- Water-cooled Variable Refrigerant Flow









Energy Efficiency

How SCE can help…

- Technical assistance
- Online training courses
- Energy Education Centers (Tulare & Irwindale)
- Rebates & Incentives**

Additional Resources:

- Energy Star
- Energy Code Ace
- Design Lights Consortium (DLC)
- Resource Innovation Institute (RII)*

sce.com/business/savings-incentives/third-party-energy-efficiency-programs

- Energy Management Center
- Integrated Distributed Energy Resources Partnership Pilot
- Savings By Business Type
- Tools & Resources
- Electric Vehicles for Business
- Generating Your Own Power
- Consulting Services
- Rates
- Energy Education Centers
- Welcome to SCE
- Energy Efficiency Financing
- Customer Support
- Partners & Vendors
- Outage Center
- Safety
- Wildfire Safety

The IOUs received CPUC approval of contracts for the following energy-efficiency third-party programs.

CEDA
California Energy Design Assistance

The California Energy Design Assistance program (CEDA) is a statewide program that provides a complimentary and comprehensive analysis of different energy efficiency options and lays out their potential energy savings and incentives tailored to your specific new construction or major alteration project. The program serves Commercial, Multifamily (4 stories and higher), Public, Industrial, and Agricultural customers. Willdan is the implementer of the CEDA program.

Learn more at: California Energy Design Assistance

CALIFORNIA FOODSERVICE instant rebates.

The Instant Rebates Program is a statewide energy efficiency program that allows Commercial Foodservice (CFS) equipment dealers to offer rebates as a discount at the point-of-sale to commercial customers of the applicable IOU on qualifying high-efficiency natural gas and/or electric kitchen equipment.

Learn more at: California Foodservice Instant Rebates

Comfortably CA

Comfortably CA is a statewide energy efficiency program serving HVAC distributors with incentives for specified high-efficiency residential and commercial heating and cooling equipment. The program offers incentives to distributors and retailers for selling high efficiency HVAC equipment, and provides no-cost training to contractors and technicians. Together, we're helping California feel good, while participating businesses "outcomfort" the competition.

Learn more at: Comfortably CA

ILLUMINATE California

Illuminate California is a statewide program that provides incentives to promote energy efficient lighting, installed at qualified commercial and industrial businesses, within the State of California. Approved distributors will have access to lighting product incentives through a streamlined incentive payment process. See our website to learn how to become a program-approved distributor.

Learn more at: Illuminate CA

Rates & Demand Response

Sandy Gabriel

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General Overview of Rates

Demand Threshold Requirements

In most cases, non-residential customers are eligible for rates based on kW thresholds.

Demands of 20 kilowatts (kW) or less	Demands equal to or greater than 20 kW but below 200 kW	Demands from 200 kW through 500 kW	Demands exceeding 500 kW
▪ TOU-GS-1 ▪ TOU-EV-7 ▪ TOU-PA-2	▪ TOU-GS-2 ▪ TOU-EV-8 ▪ TOU-PA-2	▪ TOU-GS-3 ▪ TOU-EV-8 ▪ TOU-PA-3	▪ TOU-8 ▪ TOU-EV-9 ▪ TOU-PA-3*

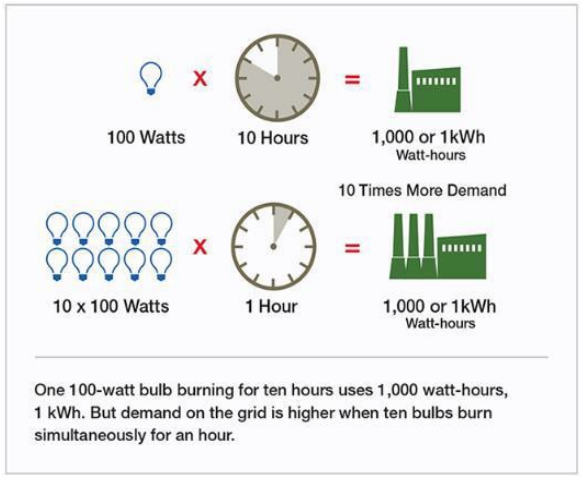
**Large Water Agencies and Large Pumps with demands that register above 500 kW are eligible for the Ag & Pumping rate if, 70 percent or more of the power is for Ag purposes AND 70 percent or more of the water pumped is for Ag purposes. Water Agencies and Water Pumping customers meeting the requirements must sign Form 14-317, Affidavit Agricultural Power Service.*

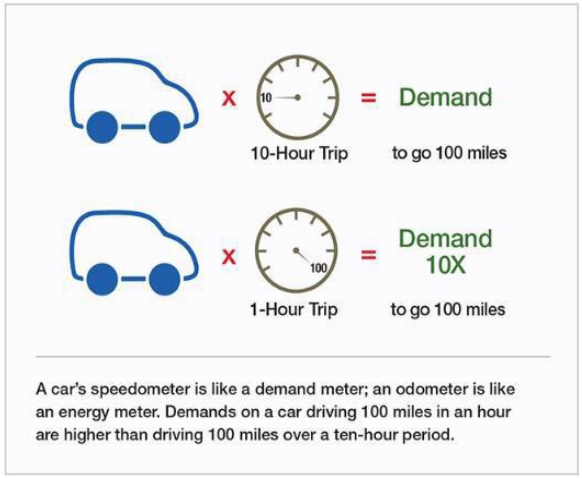
Energy, Demand vs Fixed Charges: What is the difference?

- Energy consumption is measured in kilowatt-hours (kWh) and is the amount of energy used over a period of time
- Demand is measured in kilowatts (kW) and is the rate at which energy is generated or used:
  - Maximum Demand would be the total of all electrical equipment to be used at any point in time. It is determined at the monthly and TOU period level
  - Time related demand charges are higher for demand during certain times of the day – on peak.
- Fixed or Basic Charges generally include costs that do not vary with usage e.g., customer service ops, final line transformer, meter etc.

Energy, Demand vs Fixed Charges: What is the difference?

The difference between demand (kW) and energy consumption (kWh) is vital to the customer's choices in reducing their costs. A simple way to see the difference between demand and consumption is by considering these simple analogies:





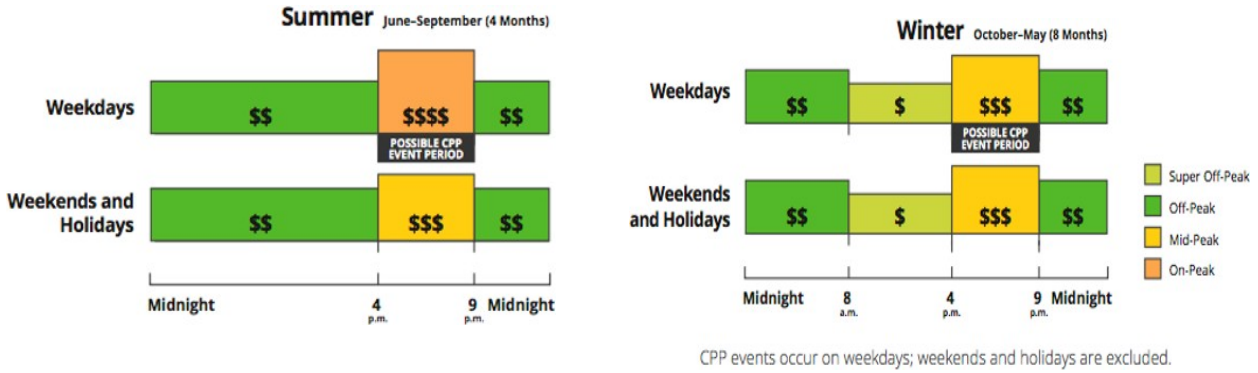
How Time-of-Use (TOU) Rates Work

- With TOU, the cost of electricity changes depending on the time of day it is used
- Instead of a single flat rate for electricity use, the cost of electricity on a TOU rate varies based on the time of day, day of week, and season in which it is used
- With TOU rates, ***when*** you use electricity is just as important as ***how much*** you use
- Electricity is billed by kW demand charges and kWh energy charges



How Time-of-Use (TOU) Rates Work

Standard TOU periods are defined as follows:



- Daily "peak" period 4-9pm
- "Super Off-Peak" period from 8am-4pm on all winter days
- Weekends now have TOU periods, they are no longer all "Off-Peak"
- Summer Season: June-Sept; Winter: Oct-May

* TOU periods apply to "standard" TOU rates defined as follows: TOU-8, TOU-GS-3, TOU-GS-2, TOU-GS-1, TOU-PA-3, & TOU-PA-2. CPP events occur on weekdays and will take place 12 times per year.

How Time-of-Use (TOU) Rates Work

Seasons

SCE's costs to serve are higher in the summer months due to the demand on the system

- Summer Season
  - Summer is the only time "On-Peak" pricing is in effect
  - The summer season for TOU service plans starts at 12 a.m. on June 1 and runs to 12 a.m. on October 1
- Winter Season
  - Winter is the only time "Super Off-Peak" pricing is in effect
  - Winter season for TOU service plans starts at 12 a.m. on October 1 and continues to 12 a.m. on June 1 of the following year

Demand Response

Using Demand Response Programs (DR) Helps Everyone

Taking advantage of one or more of our DR programs will help lower energy costs when you actively reduce energy use.

The benefits to your business include:

- Receiving discounted rates, incentives, or bill credits for participation
- Advance notification of DR events to mitigate the impact on your operations
- Technology to make participation easier

https://www.sce.com/business/demand-response



Charge Ready 2

Charge Ready 2 Program Offerings

	1 MAKE-READY EXPANSION	2 OWN & OPERATE	3 NEW CONSTRUCTION REBATE
Objective	Provide **make-ready infrastructure** for EV charging to commercial and multifamily sites	Provide **full turnkey solution** to multifamily properties in DACs	Incentivize multifamily developers to install charging stations at **new construction projects**
Target Customers	Existing **commercial and multifamily** properties	**Multifamily properties located in DACs**	**New construction multifamily properties**
Offering	Covers **make-ready infrastructure** up to EVSE stub-out - AND - **EVSE rebate** to help offset equipment and installation costs	Covers **make-ready infrastructure and EVSE** – owned and operated by SCE - OR - Customers can choose to own EVSE and receive a **rebate on EVSE, maintenance, and networking**	**$3,500 per port** to help offset charging station and infrastructure costs
Program Targets	▪ ~19,500 Level 1 or 2 ports and ~200 DCFC ports ▪ 50% ports in DAC ▪ 30% ports at multifamily	Up to 2,500 Level 1 or 2 ports	▪ Up to ~15,000 Level 1 or 2 ports ▪ 50% ports in DAC

Make-Ready Charge Ready 2 Key Program Requirements

APPLICANT ROLE

- **Non-residential** SCE customer
- **Own**, **lease**, **manage**, or be the customer of record of charging site
- Obtain **consent from property owner** (if applicable)
- Grant **easement rights** to SCE
- Project site must be **located in SCE service area**

DEPLOYMENT

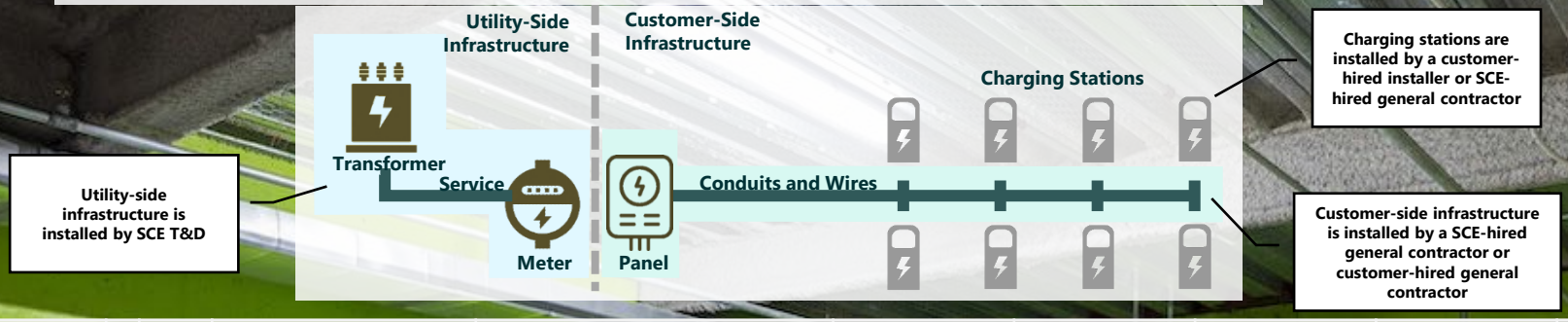
- **Minimum of four** Level 1 or Level 2 charging ports
- **Minimum of two DCFC** charging ports, if installing DCFC
  - DCFC must be **publicly accessible**
- All charging equipment must be **separately metered**
- Enroll in a **demand response program**

EQUIPMENT

- Select from **SCE's Approved Product List (APL)** to qualify for the rebate
- Keep equipment **operational for 10 years**
- Provide **monthly charging data**
- Report **prices charged** to EV drivers

Program Overview

CR2 Rebate and Infrastructure Ownership Options



Charge Ready 2 Rebate and Infrastructure Ownership Options

OFFERINGS	OPTIONS		AVAILABLE TO	UTILITY-SIDE INFRASTRUCTURE	CUSTOMER-SIDE INFRASTRUCTURE	EVSE REBATE	INFRASTRUCTURE REBATE	MAINT/NETWORK REBATE
MAKE-READY EXPANSION	1	**Standard Deployment**	Commercial and multi-family	SCE-installed	SCE-installed	✓	NA	NA
	2	**Customer-Owned Infrastructure**	Commercial and multi-family choosing to own infrastructure	SCE-installed	Customer-installed	✓	Up to 80% of SCE's cost	NA
	3	**Low Port Deployment**	Commercial and multi-family applying for three ports or less	SCE-installed (outside of program)	Customer-installed	Single rebate covering EVSE and infrastructure		NA
	4	**Maintenance/ Networking Rebate**	Multi-family located in DAC / Choosing to own charging stations	SCE-installed	SCE-installed	✓	NA	✓
OWN & OPERATE	5	**Full Turnkey**	Multi-family located in DAC	SCE-installed	SCE-installed	NA	NA	NA
NCR	6	**New Construction Rebate**	New multi-family construction	SCE-installed (outside of program)	Customer-installed	Single rebate covering EVSE and infrastructure		NA

Key Contacts, where to start

- John Shaules – (john.shaules@sce.com) – High Desert/ Victorville Local Planning Manger
- John Martinez (john.martinez@sce.com) – Cultivation Project Manager, Adelanto
- Antwoine Williams – (antoine.williams@sce.com) – NDP Project Manager Central Division
- Michael Curley (michael.curley@sce.com) – Economic Development Services
- Sandy Gabriel (sandy.gabriel@sce.com) – Cultivation Account Manager
- Ruby Rose Yepez (ruby.r.yepez@sce.com) – New Construction Senior Advisor
- Juan Low (juan.m.lopez@sce.com) – Local Public Affairs, Eastern Region
- Thomas Lor (thomas.lor@sce.com) – Engineering and Design Solutions

Questions?




SOUTHERN CALIFORNIA
EDISON®
Energy for What's Ahead®
Imagine a world where the energy that powers our lives and propels us forward is provided by the Earth's clean resources.
THIS IS OUR CLEAN ENERGY FUTURE.