

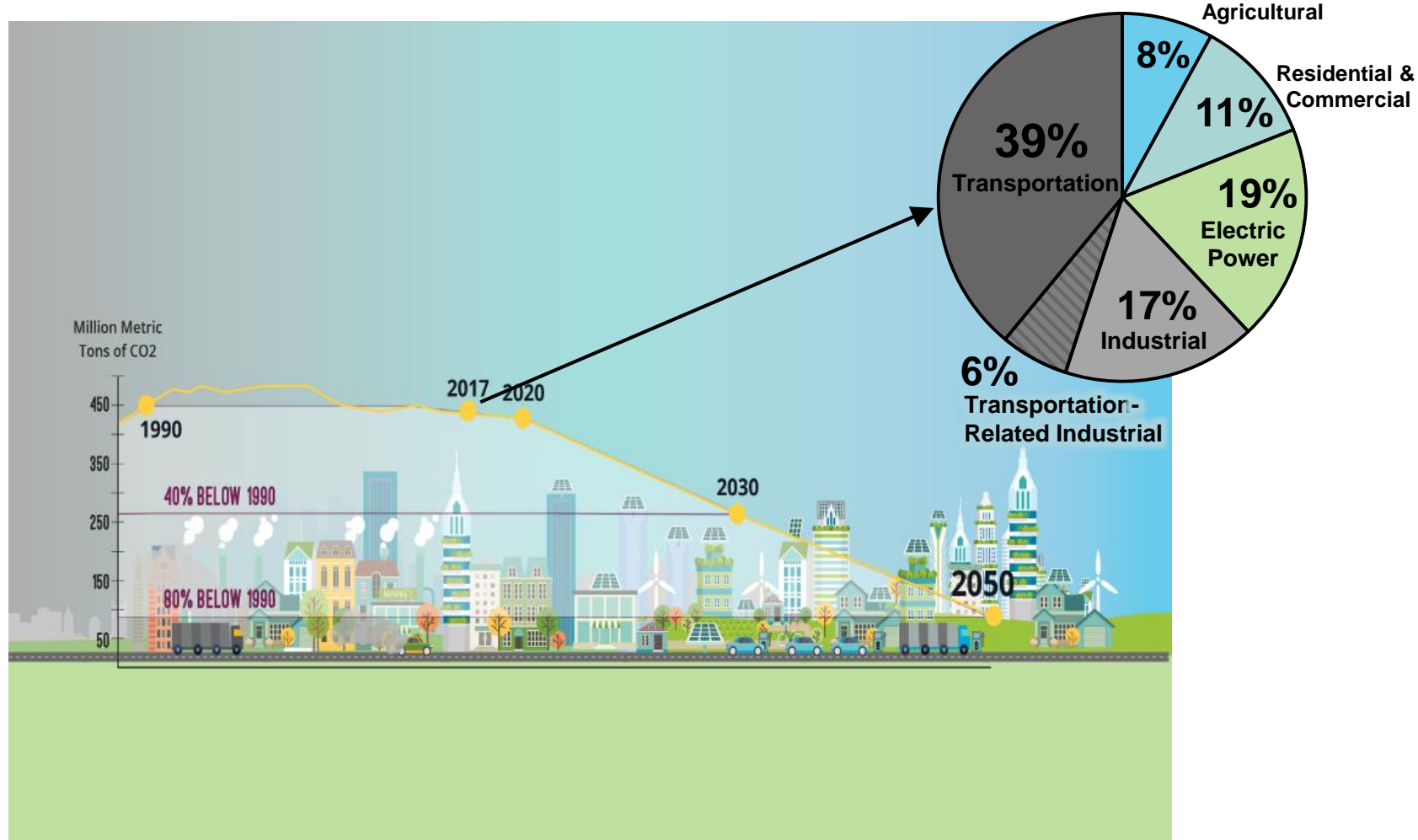
EUCI 2019 EV-Utility Industry Nexus

Southern California Edison's Charge Ready Programs

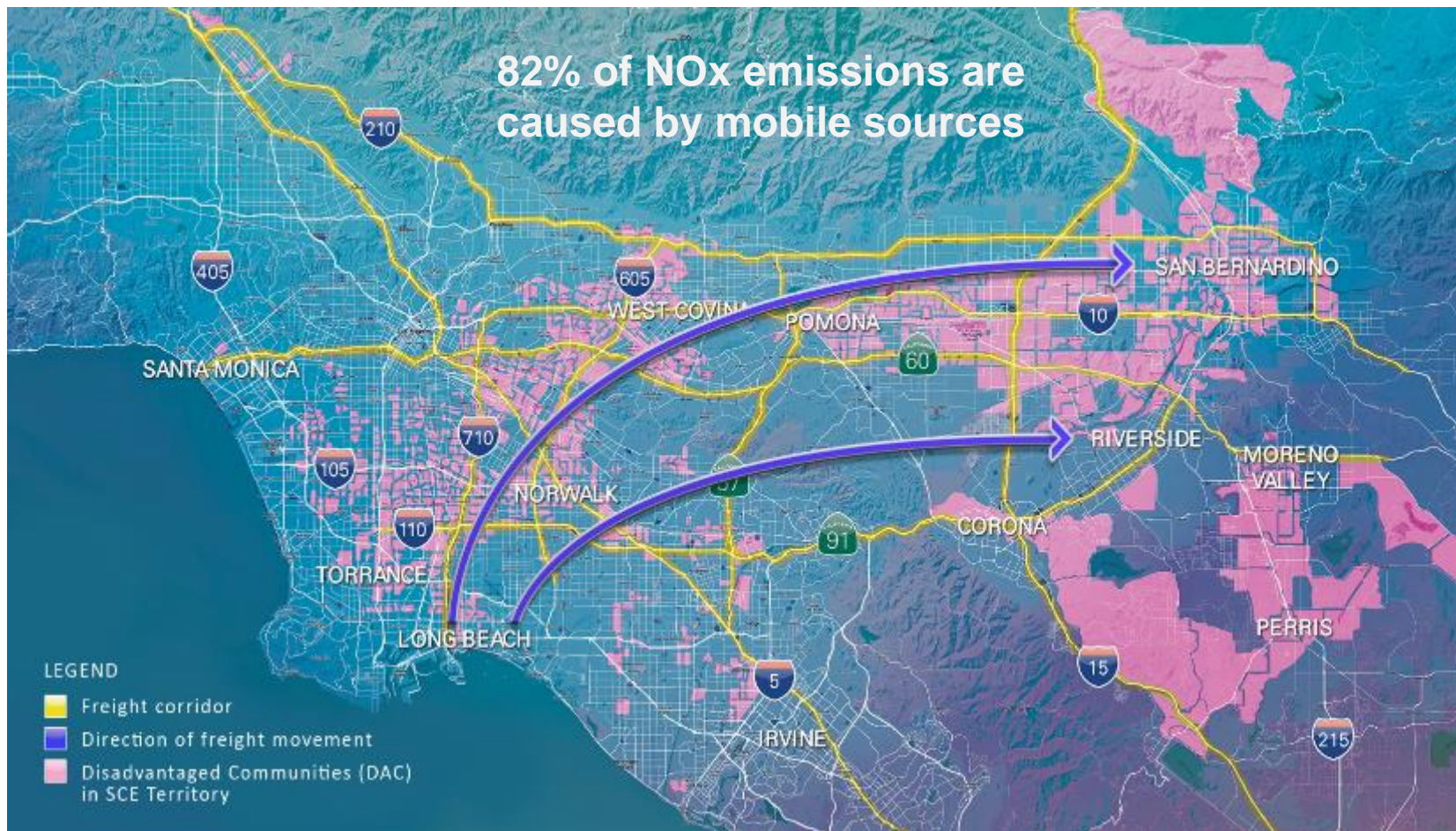
June 27-28, 2019
Washington, DC

Presentation by
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Senior Advisor – Regulatory Affairs

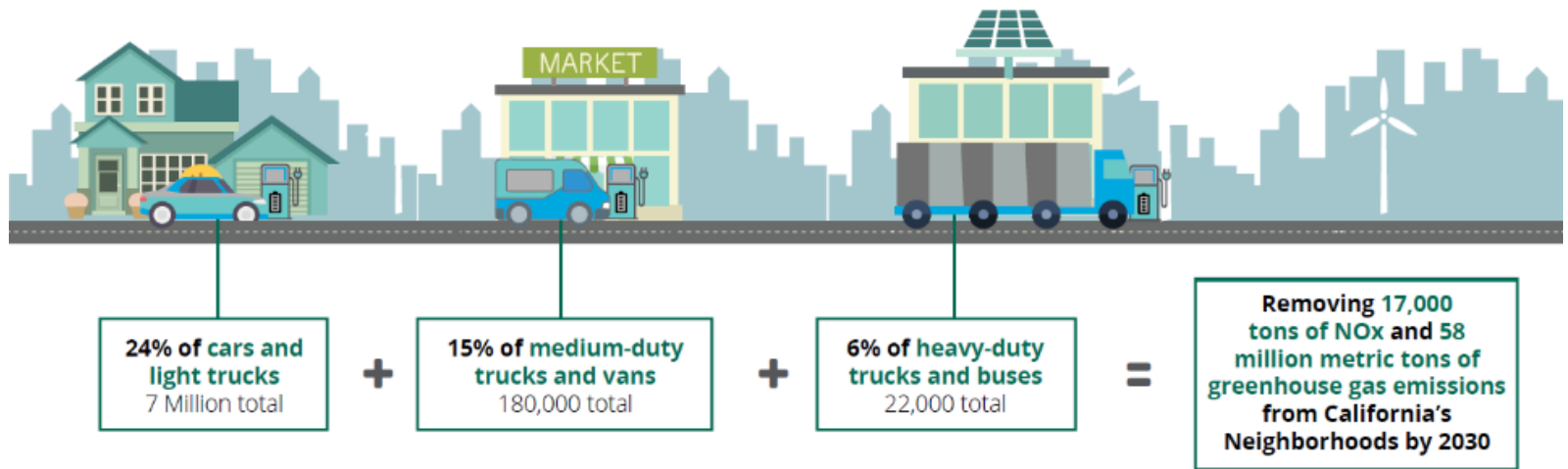
California's Climate Change Goals



Air Quality Impacts



Transportation Electrification Pathway to 2030



*Clean Power and Electrification Pathway
white paper available at:
sce.com/pathwayto2030*



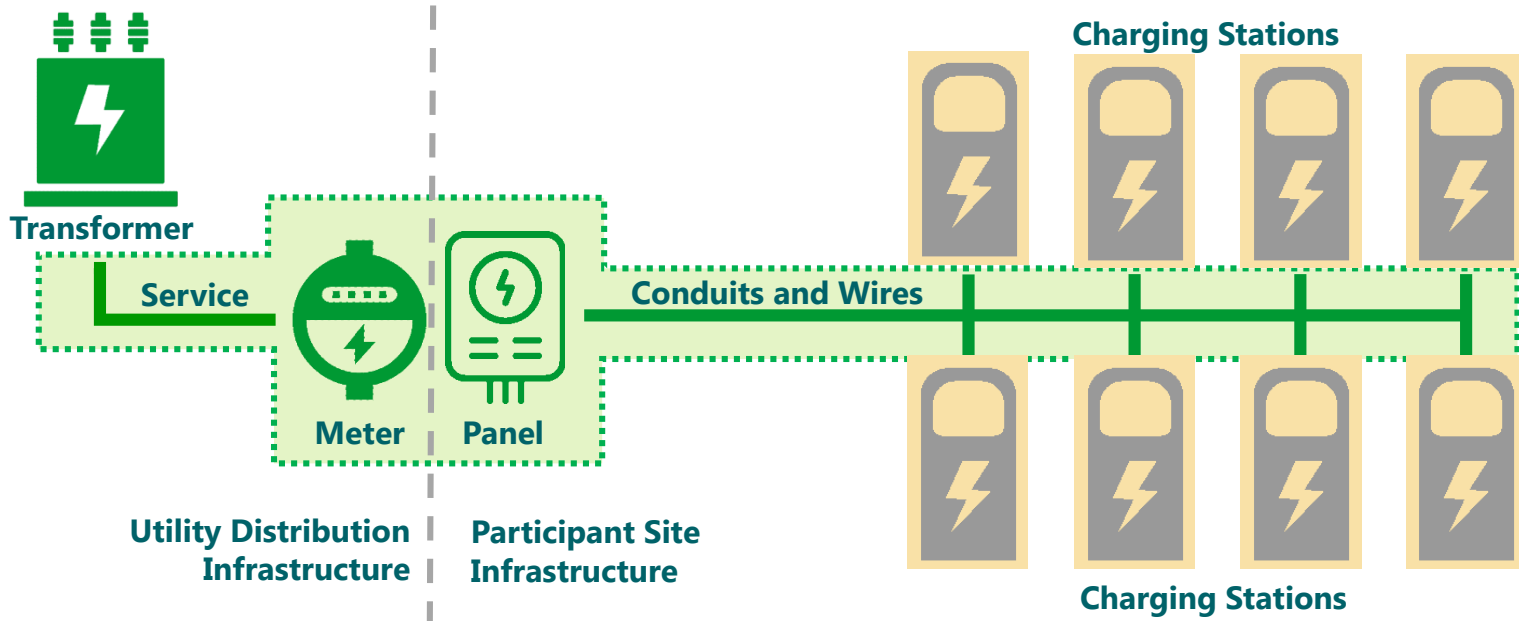
SCE's role: availability, affordability, & awareness

Availability Infrastructure necessary to fuel EVs	Affordability Low cost in comparison to traditional vehicles	Awareness Customer understanding of benefits of EVs
<ul style="list-style-type: none"><input type="checkbox"/> Build out capitalized charging infrastructure for:<ul style="list-style-type: none">• Passenger vehicles at workplaces, apartments, and public locations• Commercial freight vehicles• Transit buses	<ul style="list-style-type: none"><input type="checkbox"/> Provide charging station rebates for commercial & residential<input type="checkbox"/> Provide new and used vehicle rebates (Low Carbon Fuel Standard)<input type="checkbox"/> Invest in customer-side infrastructure<input type="checkbox"/> Offer special rates for EV charging	<ul style="list-style-type: none"><input type="checkbox"/> Provide market education and outreach programs<input type="checkbox"/> Run broad and targeted advertising<input type="checkbox"/> Provide fleet customer support and advisory services

Make-Ready Deployment Overview

SCE covers the cost of make-ready infrastructure

Customer is responsible for procuring charging stations



■ Make-Ready Infrastructure deployed by SCE (all costs covered by the Program)

▭ Program covers costs associated with service drop, meter, panel, and circuit dedicated to EV charging.

■ Owned and operated by participating customers (SCE provides rebate towards hardware and installation costs)

Business Programs



AVAILABLE NOW

Charge Ready Pilot

- **No-cost infrastructure** to serve level 1 or level 2 EV charging
- Available to **business customers** and **multi-unit dwelling** site owners
- **One-time rebate** to offset the costs of charging stations
- **Funding is fully subscribed**, waitlist available



AVAILABLE NOW

Charge Ready DC Fast Charge

- **No-cost infrastructure** to serve DCFC or level 3 EV charging
- Available to **business customers**
- **One-time rebate** to offset the costs of DCFC stations
- Launched on **June 29, 2018**



Residential Programs



Clean Fuel Rewards Program

- Available to **SCE residential customers** who drive electric vehicles (EV)
- Offers a **one-time \$450 rebate**
- Up to **three different owners** of the same EV can qualify
- Launched since **May 2017**



Charge Ready Home Installation Rebate

- Available to SCE residential customers with **dedicated parking spaces** and own/lease EVs
- Rebate aims to **offset electrician and permitting costs**
- Launched on **May 30, 2018**

Business Programs



Charge Ready | Transit Bus

- **No-cost infrastructure** to serve electric bus charging
- Available to government **transit agency** customers
- **One-time rebate** to offset the costs of charging equipment
- Launched on **June 4, 2018**



Port of Long Beach Projects

- Convert **nine out of 24** rubber tire gantry cranes from diesel to electric power
- Deploy infrastructure to serve up to **20 yard tractor charging stations**
- Complete by **end of 2019**



Decision Summary

- Approved total program budget of **\$356.4M**
- Achieve minimum **870 sites** with **8,490 electric vehicles** procured or converted
- Charging station rebates available for **transit/school buses** and **sites in DACs**
- Launched **May 20, 2019**.

Budget Allocation

- Minimum **15%** infrastructure budget should serve **transit agencies**
- Maximum **10%** infrastructure budget should serve **forklifts**
- Minimum **25%** of infrastructure budget should serve **ports and warehouses**
- Minimum **40%** infrastructure budget should serve **sites in DACs**

Business Programs



AB1082 Schools

- **No-cost** or **utility owned infrastructure** to serve level 1 or level 2 EV charging
- Available to **K 1-12 Schools**
- **One-time rebate** (with the no-cost option) to offset the costs of charging stations



AB1083 Parks

- **Utility owned** infrastructure (for existing or new construction) to serve level 2 or DCFC EV charging
- Available to **California State parks and beaches**

Business Programs



Charge Ready Pilot

- **No-cost infrastructure** to serve level 1 or level 2 EV charging
- Available to **business customers** and **multi-unit dwelling** site owners
- **One-time rebate** to offset the costs of charging stations



Charge Ready Program

- **No-cost infrastructure** or **rebated infrastructure** (for existing or new construction) or **utility owned** (for government or multi-unit dwellings) to serve level 1, level 2 or DCFC EV charging
- Available to **business customers** and **multi-unit dwelling** site owners
- **One-time rebate** to offset the costs of charging stations for no cost infrastructure

New Rates to Accelerate EV Adoption

- Available starting March 2019
- **No demand charges – years 1-5**
- Demand charges phased in – years 6-10
- Will maintain lower demand charges than current EV rates
 - ongoing
- EV rates available for separately-metered charging installation
- Higher energy rates on-peak (4-9 PM)
- Encouraging **off-peak charging**

Beyond 2019: Charge Ready 2



Proposal to deploy **32,000 level 2 ports at 3,200 workplaces, apartments, destination centers and fleets; Install an additional 200 DC Fast Chargers.**



Provide **rebate for above-code installations at new apartments;**

Up to \$3,500 rebate per port to exceed CalGREEN building code and install a minimum of 16,000 ports at new construction multi-unit dwellings.



Offer apartments and government customers a **turnkey solution**: SCE can install, own, and maintain up to 4,230 new charging ports.



Multi-prong marketing strategy:

- Mass media advertising of EVs and benefits;
- Targeted marketing on EV experience;
- Support businesses to convert fleets to electric;
- Program-specific marketing.

Lessons Learned

- **Most customers require more than 30 calendar days to procure the EVSE**
- **The 10-charge-port minimum requirement was a challenge** for some customers
- A few **customers opted not to participate in Charge Ready due to the Demand Response requirement** for Level 2 charging stations
- Charging times for participating EV drivers averaged approximately two hours
- **MUDs have unique challenges** for Charge Ready adoption