

Preliminary Response to Referral 2021.14 EVCS

Board of Supervisors Meeting 10.26.21

Recommendations:

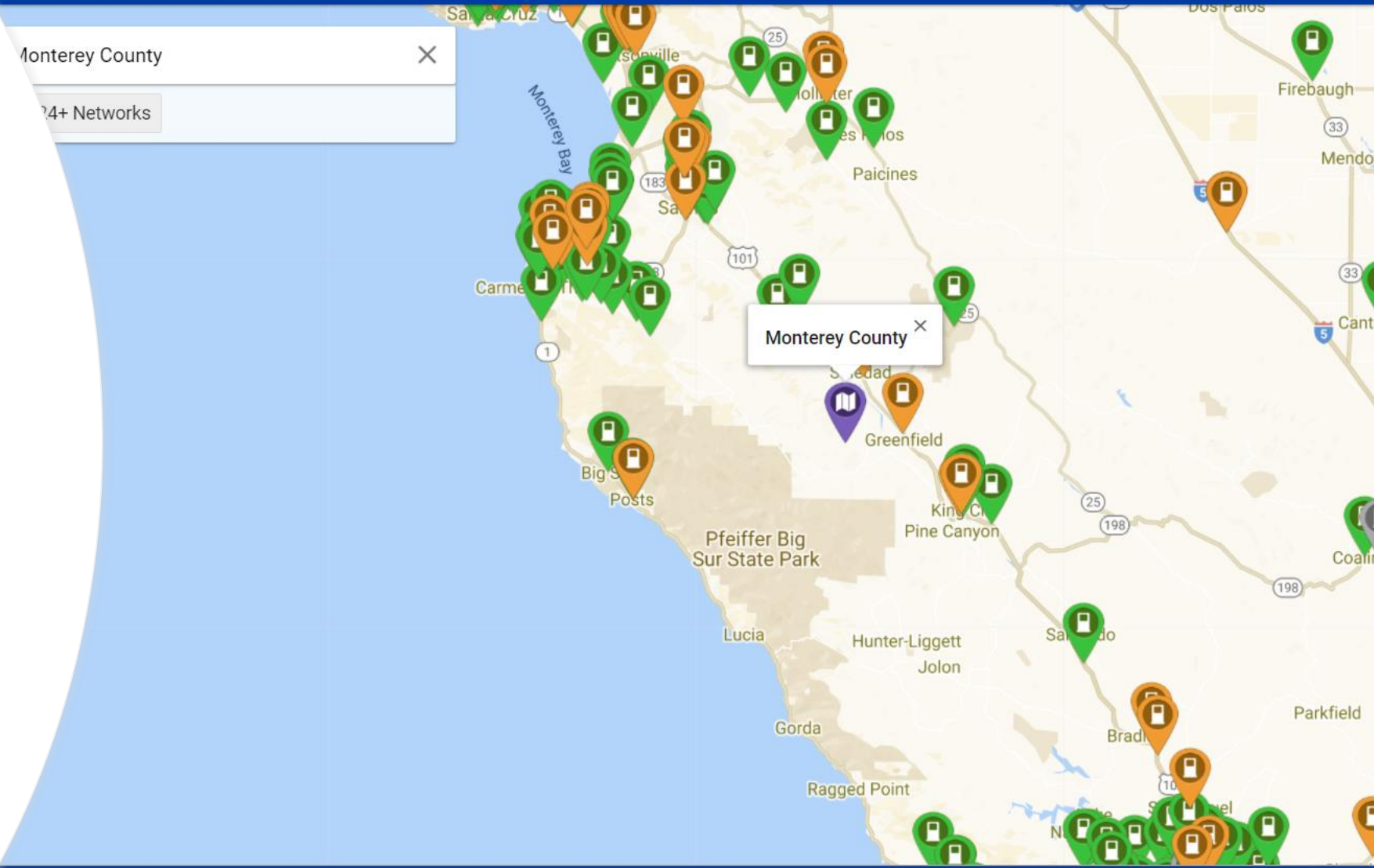
- Receive a report and presentation in response to Board Referral No. 2021.14 ; and
- Direct that staff pursue funding and resources to complete some or all of the best practices for EV Readiness listed in the report; and
- Provide further direction, as appropriate.

Referral Summary

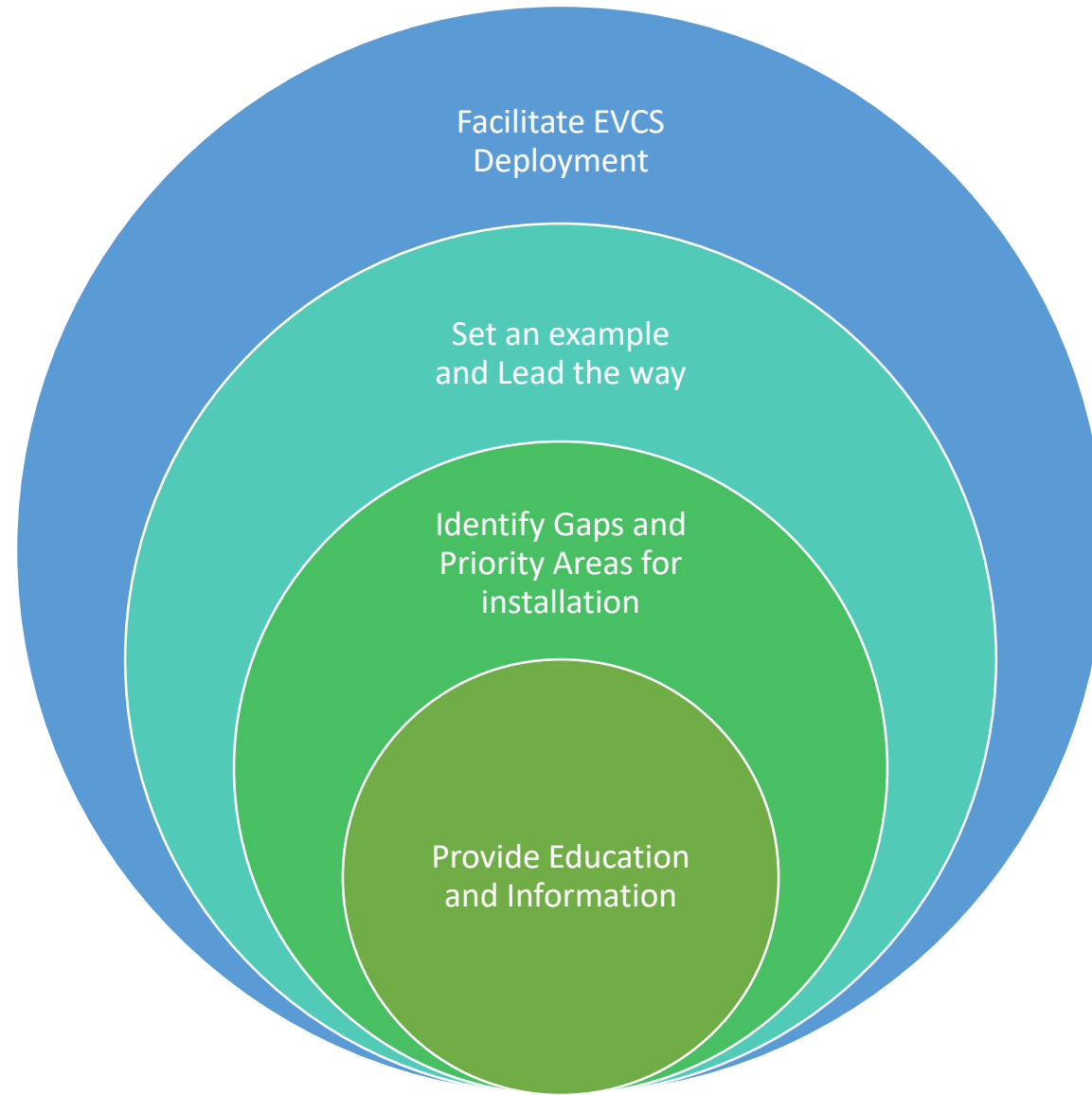
- **Objective: Assess the existing EV Charging stations (EVCS) in the County and identify gaps in order to facilitate the equitable transition to EVs in Monterey County.**
- Provide information to residents on those resources via a map
- Focus on serving DACs
- Identify grants and incentives to facilitate EV readiness locally
- Partner with 3CE, MBARD, AMBAG, and others

EV Charging in Monterey County

- Monterey County EVCS 2030 goal: 11,902 ports
- 2020 estimate: 1,555 ports



What is the County's Role in Deploying EVCS?



County Role in Deploying EVCS- Education and Outreach

- Provide information on Regional Incentives and Grant Programs and Initiatives via localized webpage and 1 pager
- Cost: No cost beyond allocated FY21/22 budget
- Staff Time: 5-10 hours of ITD; 10-20 hours of MCAP Fellow; 2-5 hours for Sustainability Program Manager

Staff time included in Sustainability Program Plan for FY21/22

County Role in Deploying EVCS- Identify Gaps and Set Priority Areas

- Identify gaps in charging infrastructure and advocate for siting infrastructure in Disadvantaged and Underserved Communities via participation in the Zero Emissions Vehicles Study
- Cost: No cost beyond allocated FY21/22 budget
- Staff Time: Sustainability Program Manager 20-40 hours over 18 months

Staff time included in Sustainability Program Plan for FY21/22


Residential Charging Index

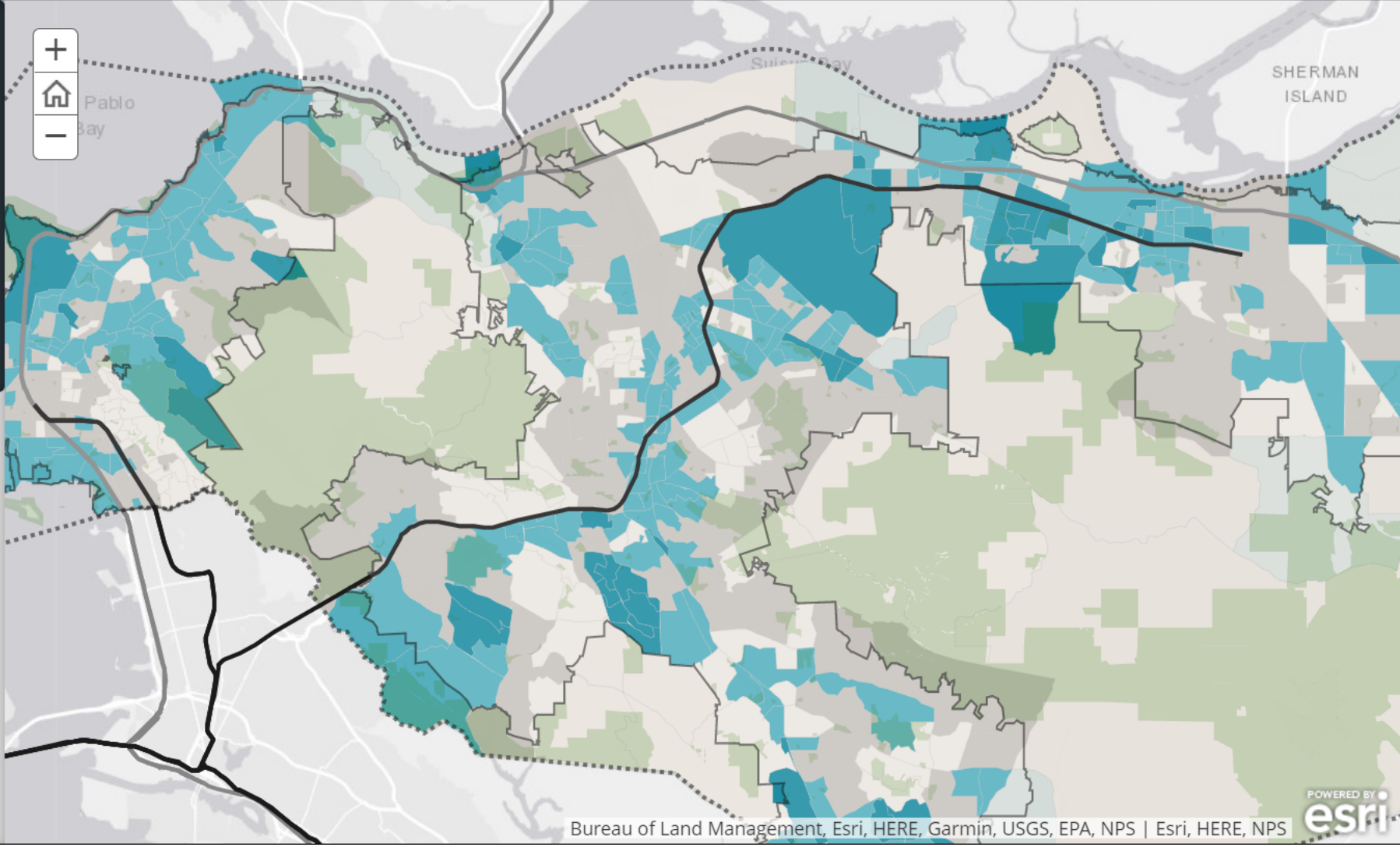
This map identifies areas where residents may lack access to charging at home due to living in multi-family housing or renting their homes, and may require support for charging at or near home to enable EV ownership. Investment in residential EV charging options in these areas could include charging at multi-family dwellings or curbside Level 2 or DCFC EVSE near residents' homes. The index combines and weights different indicators that are designed to highlight Census block groups that have:

- 1) Lower access to EV charging options currently
- 2) Higher numbers of multi-family dwellings
- 3) A higher share of residents who drive to work and drive longer distances

This page is displaying the Residential EV Charging Index for block groups within the Urban Limit Line (ULL). To explore additional layers in this map, click to:

[View a walk-through of each available layer](#)
[View map and toggle layers on and off](#)

County Boundary

Urban Limit Line



County Role in Deploying EVCS- Set An Example and Lead the Way

Adopt a purchasing policy for EVs

Cost: Projected savings of \$1.5-2M near-term, upfront investment and added costs for charging stations required.

Sustainability fellow staff time included in FY21/22

Staff time from Procurement, Fleet Management and County drivers needed

Prioritizing installation of EVCS through the CIP

- Cost: \$150,000 annually for installation of EVCS

MA1 staff time included in FY21/22

Funding to cover incremental costs and PM staff time not included in FY21/22 CIP

Total Cost of Ownership

	TCO ICE	TCO EV (incentive included)	TCO EV, No Incentive
Sedan <i>-2021 Dodge Charger</i> <i>-2021 Nissan Leaf</i>	\$62,161	\$32,489	\$39,989
SUV <i>-2021 Ford Escape AWD</i> <i>-2021 Hyundai Kona EV</i>	\$50,756	\$38,959	\$46,459

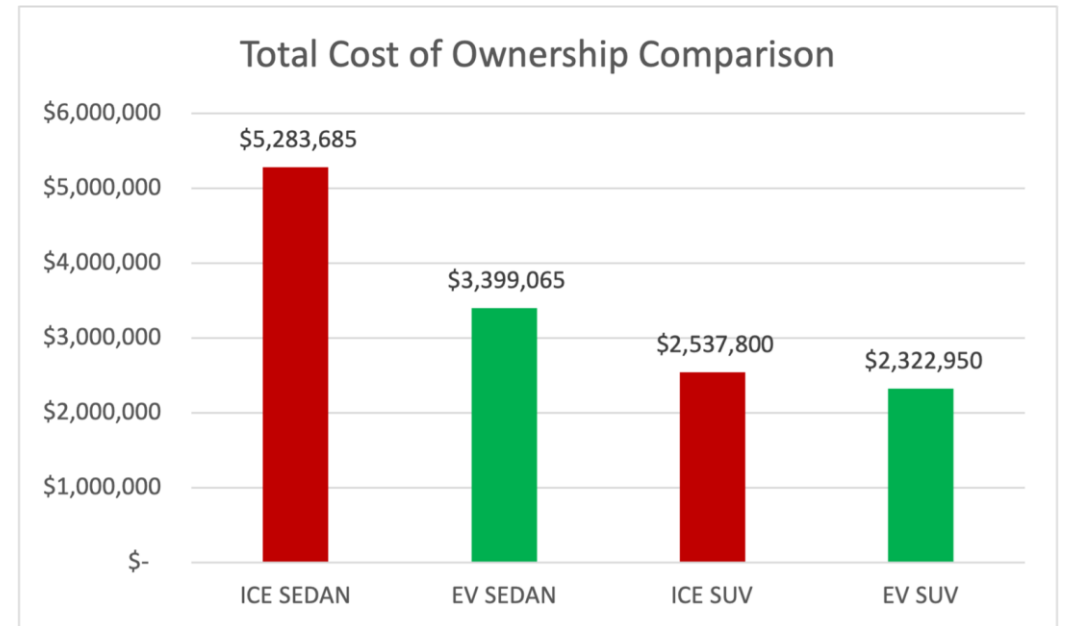
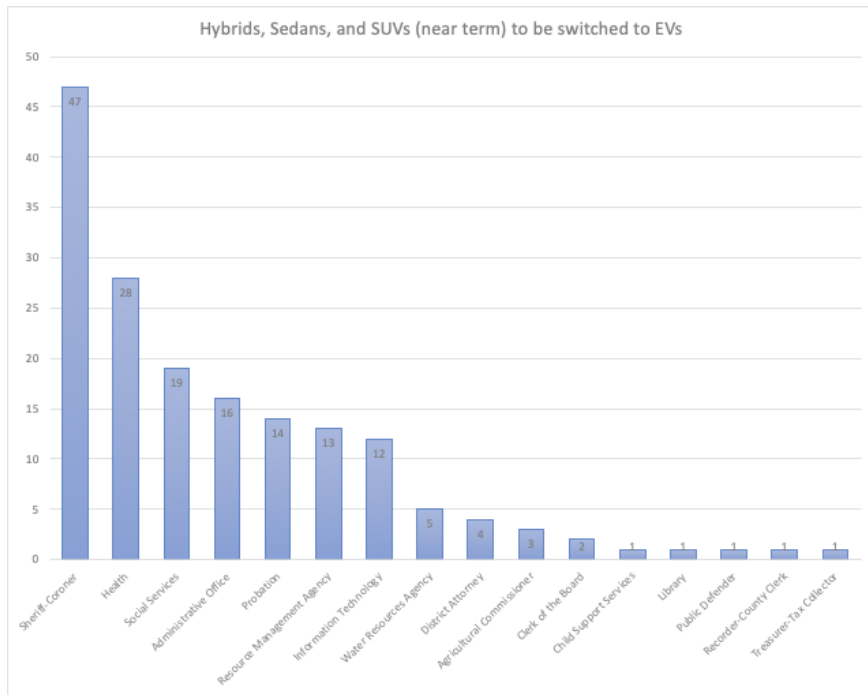
Total Cost of Ownership (TCO) = Manufacturer's Suggested Retail Price (MSRP) + Lifetime Cost of Gas/Power + Maintenance Cost - Depreciation/Salvage Value

(-EV incentive)

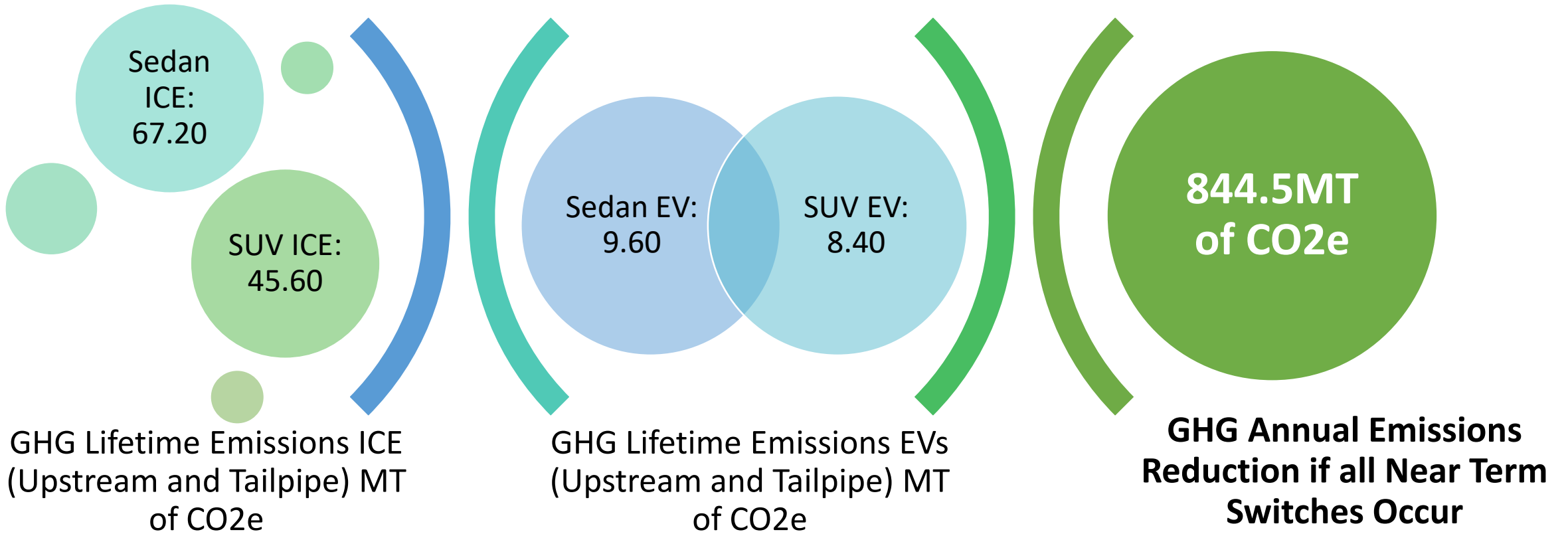
Near-Term Switches

•168 Vehicles (85 Sedan, 50 SUV, 33 Hybrid)

- Sheriff-Coroner
- Health
- Social Services
- Administrative Office
- Probation



Emissions Reductions





Limitations of Study

- No behavioral evaluation-
 - Driving patterns, docking station, special vehicle needs
- Cost of charging not included
- Did not examine “special” vehicles or mid-term switches.

County Role in Deploying EVCS- Facilitate EVCS Deployment

Facilitate EVCS deployment in priority areas and DACs via multi-pronged approach

- Issue an RFP for charging stations on County lands with possible stipulations for servicing DACs

Staff time not budgeted in FY21/22; could be completed by new MA1 with coordination from PWWP

- Complete a streamlined permitting checklist for County EVCS as required by AB1236; attempt to coordinate with local jurisdictions in the County

HCD staff time not budgeted in FY21/22

- Consider adopting an EV readiness ordinance to increase the pre-wiring requirements for multifamily apartments and commercial parking lots in new construction or retrofits

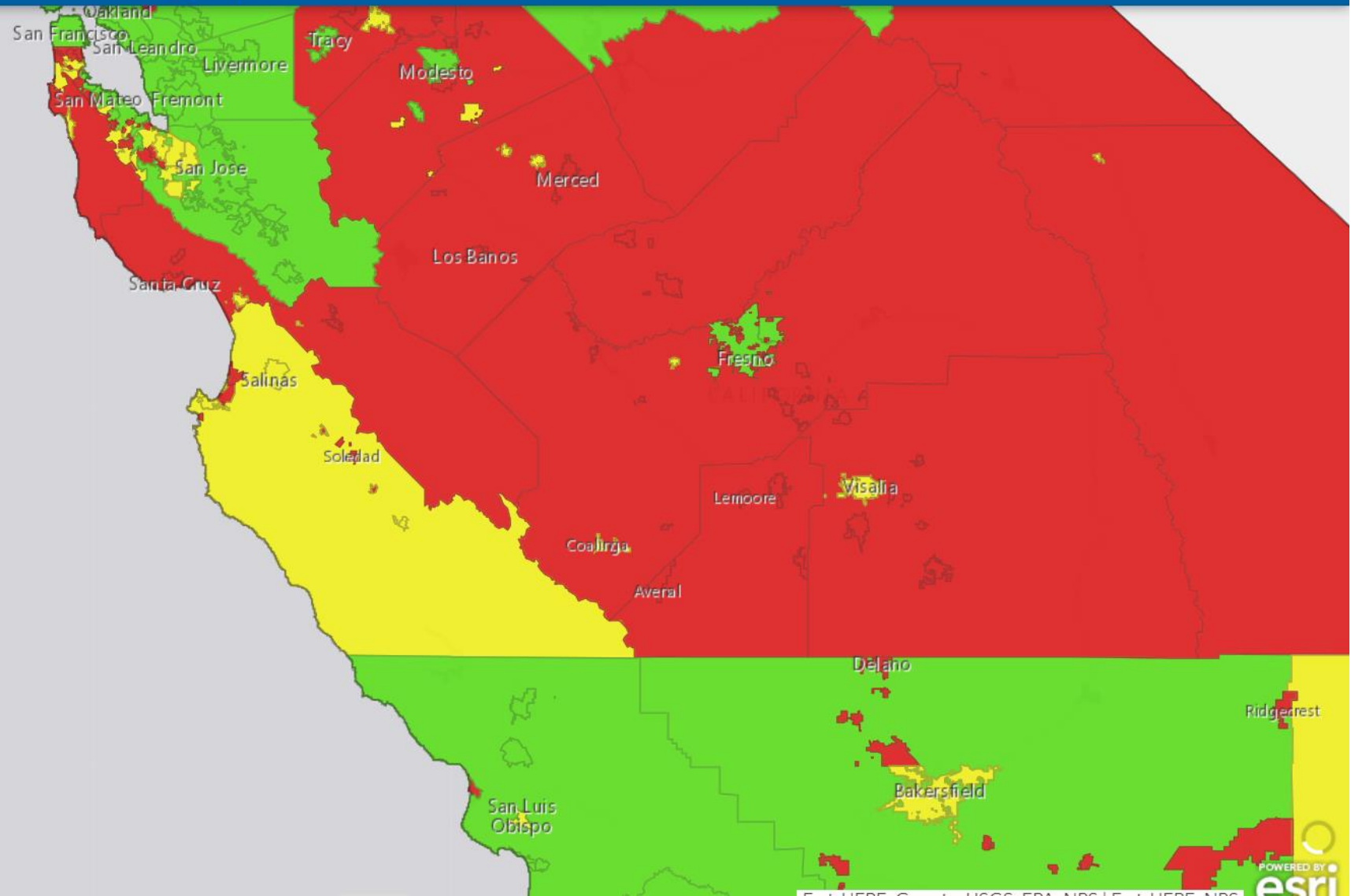
- Cost: 3CE is convening a working group on reach codes that will cover this topic

HCD staff time and/or facilitation consultant not budgeted in FY21/22

CA Electric Vehicle Charging Station Permit Streamlining Map

GO-Biz ZEV Program AB 1236

Map navigation controls including a search bar, zoom in (+) and zoom out (-) buttons, a home button, a refresh button, and a layer management icon.



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Details

EV-Ready (Full Circuit)

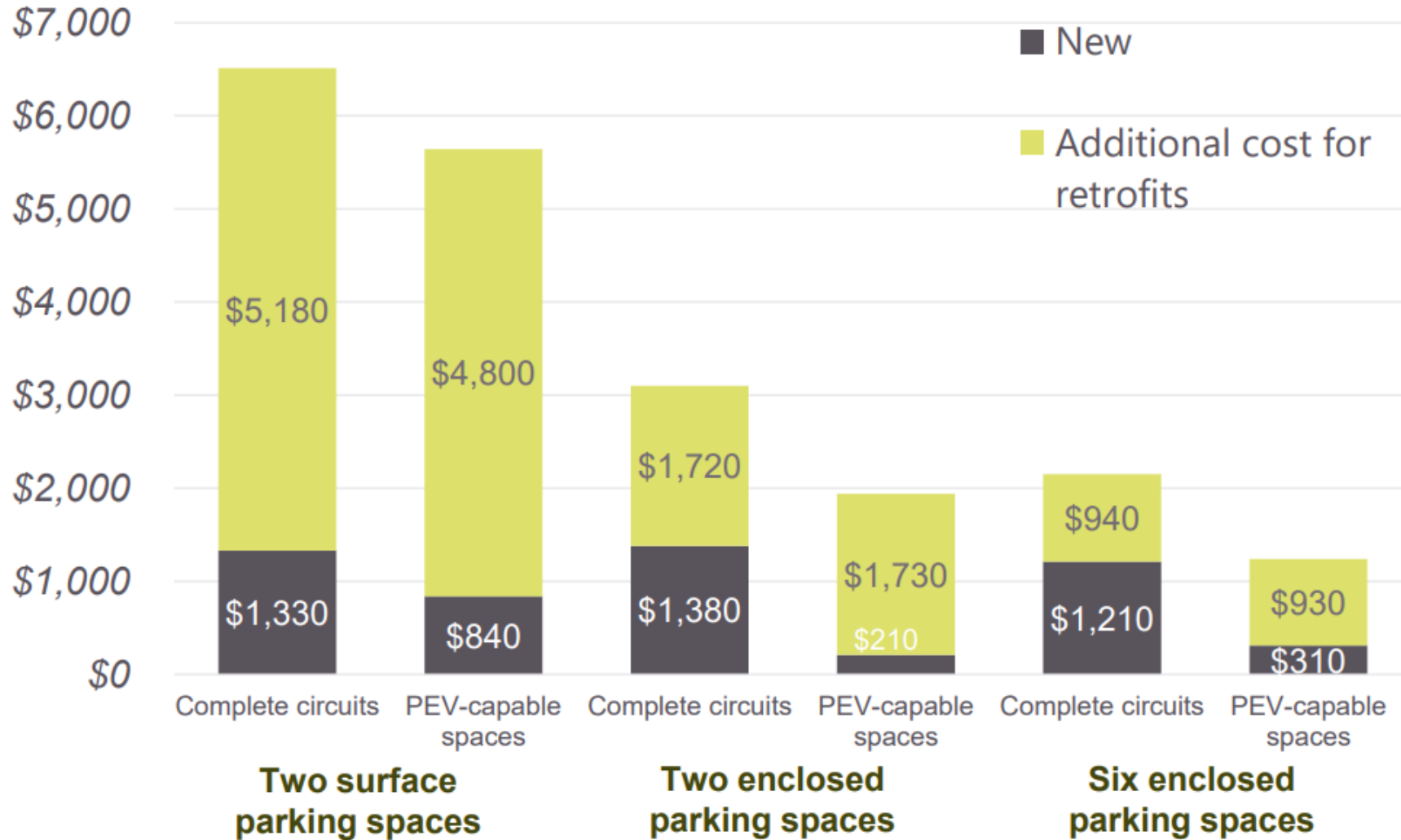
Rationale: Minimize total costs and additional barriers to installing EVSE. Several local building codes require full circuits.

Full Circuit: Full circuits are ready for the addition of electric vehicle charging station. Full circuit installations include 208/240V, 40-amp panel capacity, raceway, wiring, receptacle, and overprotection devices similar to a dryer circuit.



Cost Savings

Modeled for the City of Oakland



Thank you

Extra Slides

CAL Green 2019 EVCS prewiring

New single-family residences:

- Mandatory: Must include pre-wiring for EVSE.

New Multifamily Dwellings:

- Mandatory: 10% of total parking spaces must be capable of supporting future EVSE.
- Voluntary Tier 1. Fifteen (15) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one.
- Voluntary Tier 2. Twenty (20) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one.

New Hotels- Mandatory

TABLE 4.106.4.3.1

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

New Hotels- Voluntary Tier 1

TABLE A5.106.5.3.1

TOTAL NUMBER OF ACTUAL PARKING SPACES	TIER 1 NUMBER OF REQUIRED EV CHARGING SPACES
0-9	1
10-25	3
26-50	6
51-75	10
76-100	14
101-150	23
151-200	27
201 and over	15 percent of total ¹

1. Calculation for spaces shall be rounded up to the nearest whole number.



New Hotels- Voluntary Tier 2

TABLE A5.106.5.3.2

TOTAL NUMBER OF ACTUAL PARKING SPACES	TIER 2 NUMBER OF REQUIRED EV CHARGING SPACES
0-9	2
10-25	4
26-50	8
51-75	13
76-100	18
101-150	26
151-200	36
201 and over	20 percent of total ¹

1. Calculation for spaces shall be rounded up to the nearest whole number.