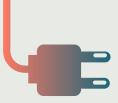
Transition to Zero Emission Vehicles in Santa Barbara County





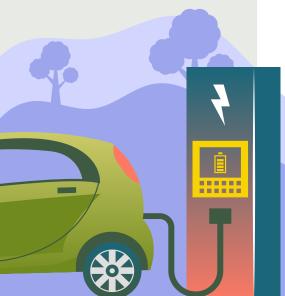
Today's Speakers:



Sarkes Khachek, Director of Programming Santa Barbara County Association of Governments

Kristian Hoffland, Buildings and Vehicle Decarbonization Analyst City of Santa Barbara

Jerel Francisco, Zero Emission Vehicle Specialist County of Santa Barbara







OPENING & CLOSING PRESENTER

Cameron Gray

Director of Climate Mitigation
COMMUNITY ENVIRONMENTAL COUNCIL





CEC's Work



REVERSE the trajectory of climate change by propelling a rapid, equitable transition to zero emissions and zero waste in the Central Coast's energy, transportation, food, agriculture, construction, and waste sectors.



REPAIR the disrupted carbon cycle by accelerating and bringing to scale climate-smart agriculture practices that draw down excess carbon from the atmosphere.



PROTECT vulnerable populations from extreme weather and other climate impacts by deploying bold, community-led solutions rooted in climate justice.



Panel Themes

TRANSPORTATION DECARBONIZATION WITH UNDERSERVED COMMUNITIES

ACCESS TO ELECTRIC VEHICLE CHARGING & INFRASTRUCTURE INVESTMENTS

3 BUILDING CAPACITY & COLLABORATION



Zero Emission Vehicle (ZEV) Policy Context

- 1.5 million ZEVs on the road by 2025 and 5 million ZEVs by 2030
- **250,000 ZEV fueling stations** by 2025
- 100% of new passenger vehicle sales to be zero-emission by 2035
- 100% of medium- and heavy-duty vehicle sales to be zero-emission by 2045, and by 2035 for drayage trucks
- 100% of off-road vehicles and equipment sales to be zero-emission by 2035



Why Drive an Electric Vehicle (EV)?

For Climate Action & Future Generations

For Community Health and Quality of Life

For Financial Benefits



Why People Don't Choose EVs Today

Social, Economic, and Environmental Inequity*

Limited or No Access to Charging

Financial Barriers & Limited Access to Upfront Capital

Lack of Information Available in Multiple Languages

Concerns about Driving Range, Emergency Planning and Grid Reliability

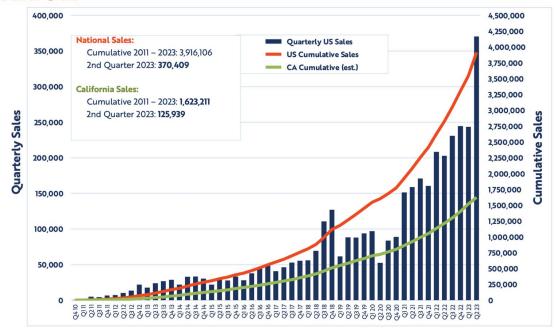
Personal Automobiles Don't Meet All Transportation Needs or Preferences



EV sales are increasing, but underserved communities are being left behind.

VELOZ®

Electric Vehicle Sales in California and the U.S.

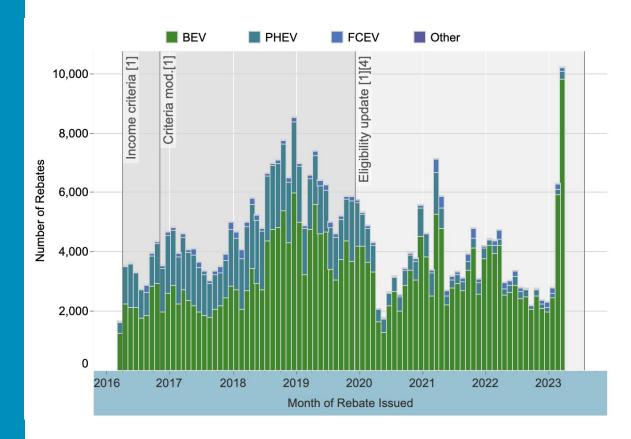


Note: According to California Air Resources Board data, California sales are 34% of national sales. Data source: California Energy Commission (2023). Retrieved July 2023 from energy.ca.gov/zevstats



Clean Vehicle Rebate Project (CVRP) Data

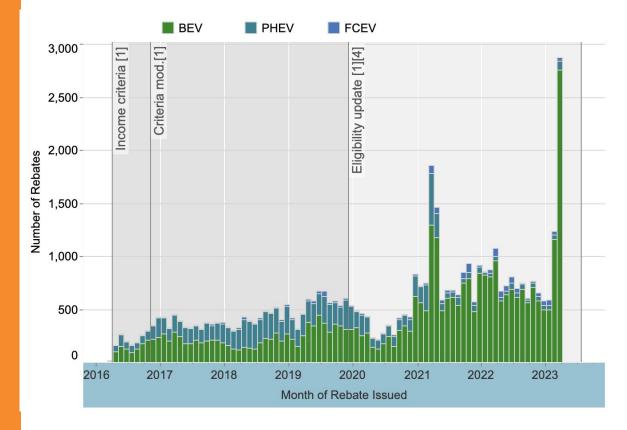
All Rebates Issued





CVRP Data

<u>Low-to-Moderate Income</u> Rebates Issued





CVRP Data

Low-to-Moderate Income Definition

Household size	Combined Household income must be less than*;
1	\$58,320
2	\$78,880
3	\$99,440
4	\$120,000
5	\$140,560
6	\$161,120
7	\$181,680
8	\$202,240

For households with more than 8 persons, add \$20,560 for each additional person. *These values are equal to 400% of the 2023 Federal Poverty Level Guidelines



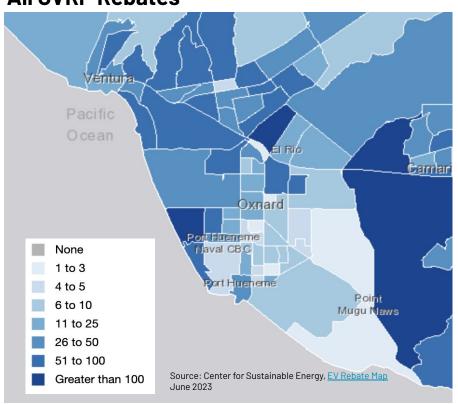
CVRP Data Summarized

Only 12% of rebates were issued to low-to-moderate income (LMI) households since LMI criteria came into effect on 3/29/16.

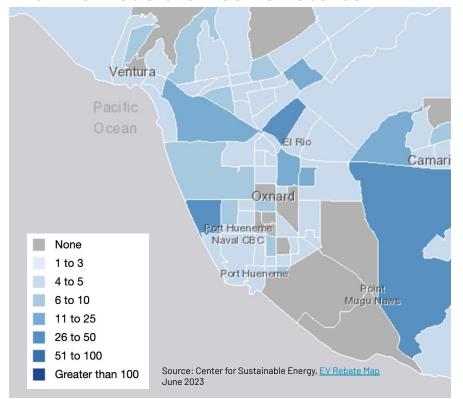
2023 sales spike data: 4,761 out of 19,583 (25 percent) issued to low-to-moderate income households.

CVRP Data - Oxnard

All CVRP Rebates

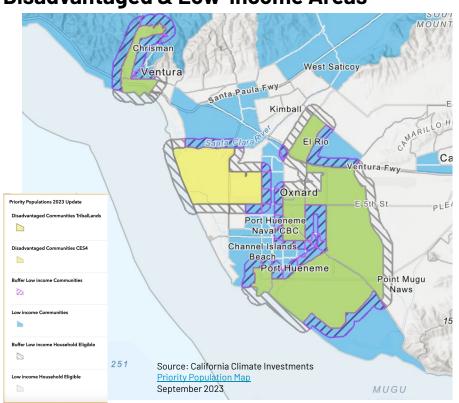


Low-to-Moderate Income Rebates

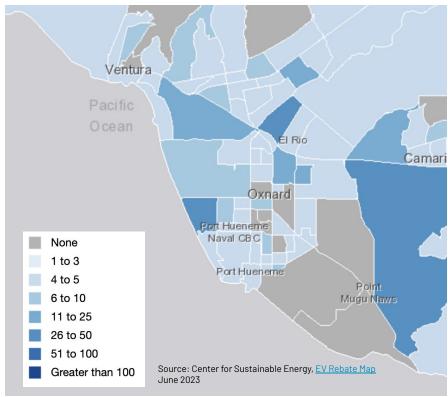


CVRP Data - Oxnard

Disadvantaged & Low-Income Areas



Low-to-Moderate Income Rebates





Financial Incentives for **New Electric Vehicles**



Grant (Money for Down Payment)	Base Incentives	Increased Incentives For Income Qualified
Clean Vehicle Assistance Program (CVAP) OR Driving Clean Assistance Program (DCAP)	N/A	\$7,500
Rebates (Money After Purchase)	Base Incentives	Increased Incentives For Income Qualified
State - California Clean Vehicle Rebate Project (CVRP)	\$2,000	\$7,500
State - California Vehicle Retirement Program	\$1,000	\$1,500
Regional - Central Coast Community Energy Rebate [August 1, 2022 – August 31, 2023]	\$2,000	Tier 1: \$3,000 Tier 2: \$4,000
TOTAL INCENTIVES Federal tax credit not included	\$5,000	\$11,500 - \$20,500

(a): Outreach@EVsForEveryone.org | [77]: EVsForEveryone.org



Financial Incentives for Used Electric Vehicles



Grant (Money for Down Payment)	Base Incentives	Increased Incentives For Income Qualified
Clean Vehicle Assistance Program (CVAP) OR Driving Clean Assistance Program (DCAP)	N/A	\$7,500
Rebates (Money After Purchase)	Base Incentives	Increased Incentives For Income Qualified
State - California Vehicle Retirement Program	\$1,000	\$1,500
Regional - PG&E Pre-Owned EV Rebate OR Regional - SCE Pre-Owned EV Rebate	\$1,000	\$4,000
Regional - Central Coast Community Energy Rebate [August 1, 2022 – August 31, 2023]	\$1,000	Tier 1: \$2,000 Tier 2: \$3,000
TOTAL INCENTIVES	\$3,000	\$7,000 - \$16,000

! Outreach@EVsForEveryone.org |: EVsForEveryone.org





PROGRAM GOALS

To help low-income and underserved communities overcome barriers to buy or lease an Electric Vehicle (EV) by offering assistance:

- In Spanish and English
- To help navigate incentives
- With the income verification process



OBJETIVOS DEL PROGRAMA

Ayudar a las comunidades de bajos recursos a superar las barreras de compra o alquiler de un vehículo eléctrico (VE) al ofrecer asistencia:

- En inglés con traducción al español
- Para ayudarte a comprender los incentivos
- Con el proceso de verificación de ingresos

*Provided until May 31, 2024, or until funding is exhausted. Hasta el 31 de mayo de 2024 o hasta que se agoten los fondos.







EVs for Everyone Support Process

Awareness

Decision-making

Incentives & Purchase

Language Access

Education about EV options and charging access

Overview of incentives and financial

New, used, or leased?

Battery electric or plug-in hybrid?

Make and model?

Loans and financing?

Availability?

Applicable incentives?

Income Verification via Access
Clean Ca

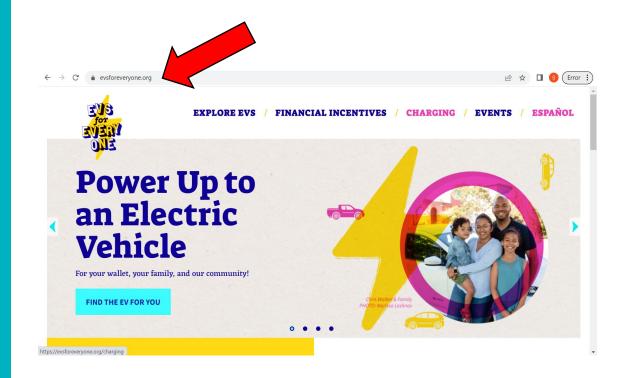
Pre-purchase incentive applications (Reduce upfront cost barriers)

Vehicle purchase completed with eligible dealership

Post-purchase incentive applications (Support lease payments and/or pay down loans faster)



How To Sign
Up for
Purchase
Guidance



evsforeveryone.org









2023
Program
Impact
(as of 9/30/23)

175 income-qualified participants in 2023

76 participants requesting support in Spanish in 2023

19 participants completed EV incentive applications in 2023

9 EVs purchased or leased in 2023



Charging Access

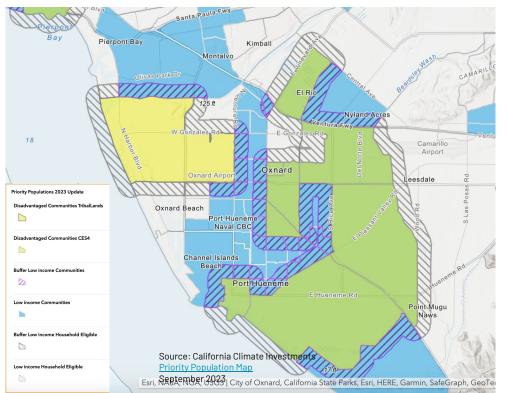
39.8% of residents are renters across Ventura, Santa Barbara, and San Luis Obispo Counties according to U.S. Census Data.*

A lack of EV charging access at rental properties, especially older multifamily residential units, is a major barrier to EV adoption for renters.

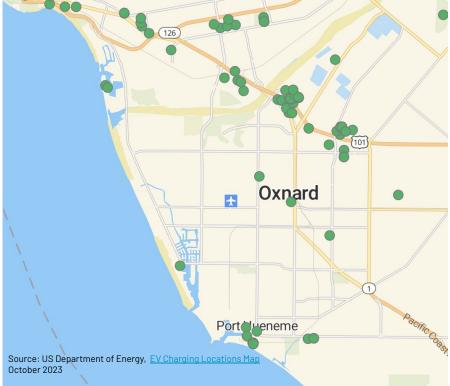
EV infrastructure development is lagging behind in historically underserved communities

Charging Access - Oxnard

Disadvantaged & Low-Income Areas

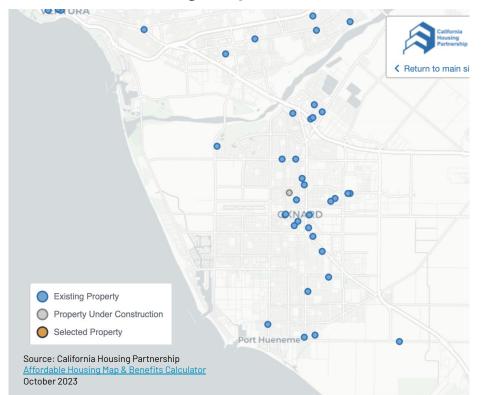


U.S. DOE EV Charging Map

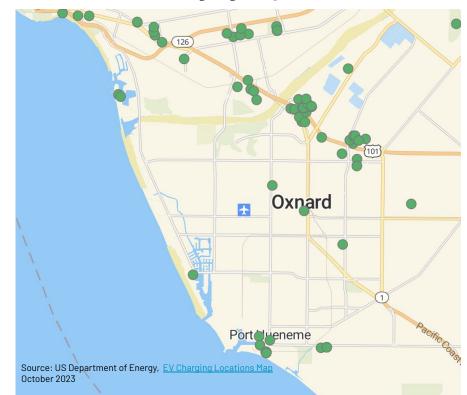


Charging Access - Oxnard

Affordable Housing Properties



U.S. DOE EV Charging Map









Communities in Charge Incentives

Level 2 Charger Rebate All public sites qualify

Up to \$10,500 per charger

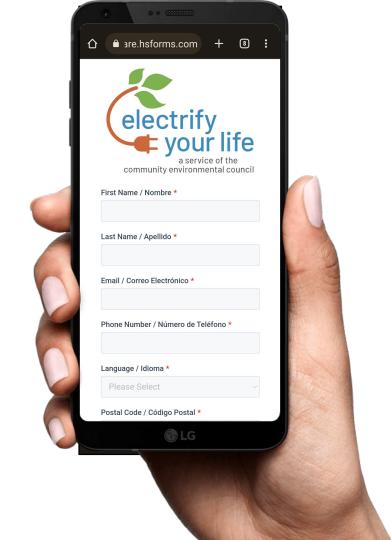
- Multi-Family Housing in Charge
- Tribes in Charge
- Congregations in Charge
- Schools in Charge
- Healthcare in Charge
- Nonprofits in Charge
- **Local Government in Charge**
- Workplaces in Charge

Fill out our quick and simple intake form

Llena nuestro formulario de admisión rápido y sencillo



https://cec.pub/electrify







Who is SBCAG?

- Metropolitan Planning Organization
- Comprised of County of Santa Barbara and all 8 jurisdictions
- Forum for addressing regional and multi-jurisdictional priorities, challenges, and opportunities
- Member of five county coalition advocating for the Central Coast, known as Central Coast Coalition





Central Coast Zero Emission Vehicle Strategy

- Governor's Executive Orders on Climate Change
- Build on prior plans from San Benito to Ventura Counties
- <u>Assess</u> existing ZEV infrastructure environment with a focus on unincorporated rural areas between cities that experience significant interregional travel
- Identify key challenges, gaps and barriers to interregional travel
- <u>Identify</u> where equity issues currently exist with access to EV charging
- <u>Ensure</u> infrastructure improvements and investments that are equitable and accessible to all users including underserved populations
- <u>Recommend</u> infrastructure improvements and related investments, policies, and implementation strategies to promote ZEV infrastructure adoption

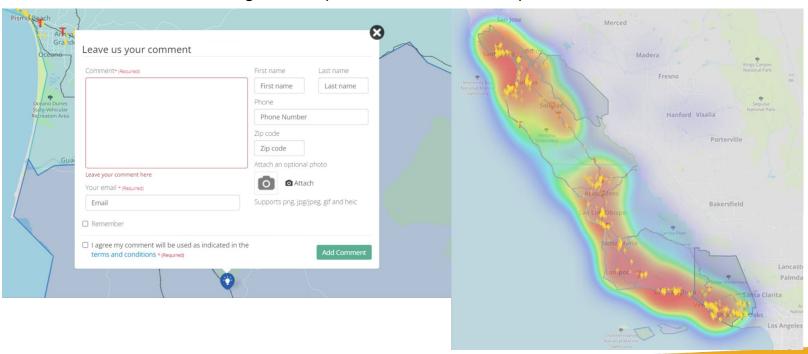


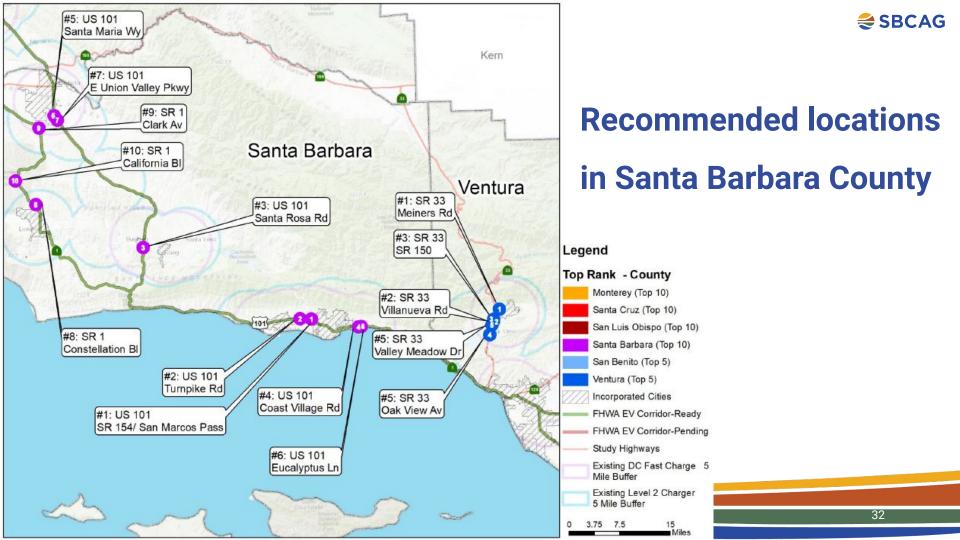




Central Coast Zero Emission Vehicle Strategy

Outreach conducted through online portal called 'Social Pinpoint'







Central Coast Zero Emission Vehicle Strategy

Form a Mega Region EV Committee with the following objectives:

- Track Legislative Changes affecting EV Infrastructure
- Track EV and Alternative Fuel Planning Outcomes by Others
- Support for EV Infrastructure Planning Endeavors
- Address constraints and climate change impacts on resiliency and EV charging
- Facilitate effective education and outreach
- Engage and collaborate in ongoing ZEV initiatives
- Leverage local jurisdiction planning processes
- Grant Funding Pursuits

Seek Alternative Fuel Corridor Status for Central Coast Highways



Charging and Fueling Infrastructure (CFI) Corridor Grant

- Federal Program to expand electric vehicle charging infrastructure
- \$2.5 billion total and \$1.25 billion for Corridor Grants
- Fill gaps in charging infrastructure along federally designated Alternative Fuel Corridors
 - Strong focus on underserved areas
 - 1 mile from designated Alternative Fuel Corridor exit
 - Publicly accessible 24/7



Charging and Fueling Infrastructure (CFI) Corridor Grant

- SBCAG Central Coast Application
- \$20 million ask for 20 locations
- Santa Barbara County Locations:
 - Santa Clause Streetscape, Carpinteria
 - Wallace Ave Public Parking, Summerland
 - Calle Real Campus, Santa Barbara
 - Jonny D Wallis Neighborhood Park, Goleta
 - Buellton Park and Ride, Buellton
 - Fletcher Park, Santa Maria
 - Rotary Centennial Park, Santa Maria





Senate Bill 1 (SB1)

- SB1 Funding successfully secured by SBCAG for EVSE chargers
 - Partnership with the City of Santa Barbara and the County of Santa Barbara
- City of Santa Barbara Locations:
 - 4 DCFC at Harbor West parking lot
 - 4 DCFC at Santa Barbara Eastside Library
- County of Santa Barbara Locations:
 - Summerland Lookout Park
 - Rincon Park
 - Santa Claus Lane





SBCAG Bus Fleet Electrification

- State mandate that all public transit agencies purchase electric vehicles.
- SBCAG and transit partners in Santa Barbara County have already started meeting this mandate.
- Currently have 1 Zero emission battery electric bus
- Partnering with VCTC to deploy 5
 ZEB for interregional transit







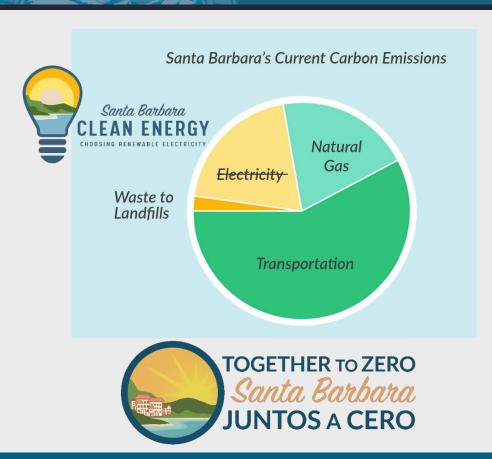


SUSTAINABILTY & RESILIENCE DEPARTMENT

EV CHARGING ACCESS

Kristian Hoffland Sustainability Summit – October 18, 2023





Climate Goals

California:

- Carbon neutrality by 2045
- Fossil fuel light duty vehicle sales banned 2035
- Draft Advanced Clean Fleets legislation

City:

- Carbon neutrality by 2035
- SBCE eliminated emissions from electricity sector 2022
- Transportation remains largest impact to decarbonize (>80%)



Q: How to foster equitable & swift EV adoption?

the automobile.



Source: US National Archives

Easter morning 1900: 5th Ave, New York City. Spot Easter morning 1913: 5th Ave, New York City. Spot the horse.



Source: George Grantham Bain Collection.



Barriers to EV Adoption

COST

- Vehicle
- Charger
- Infrastructure
- Access to capital

ACCESS

- Multi-family (30%)
- Renters (40%)
- Electrical capacity
- Workforce
- Rideshare

EDUCATION

- Range anxiety
- Familiarity w/ tech
- Legacy vehicle
- Behavioral change

TECHNOLOGY

- Battery degradation
- Battery composition
- Fuel fill time
- Image



A: Step 1: Increase EV charging access.

- Assess market trends & technology
- Identify barriers to adoption
- Identify the role of the City
- Identify key sectors
- Identify possible siting locations
- Identify funding opportunities & mechanisms





Key Sectors

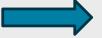
- Single family homes
- Multi-Family & Rentals
- Mobile homes
- Commuters
- Visitors & tourists
- Ride-share / TNC
- Commercial vehicles
- Recreational vehicles
- Fleets





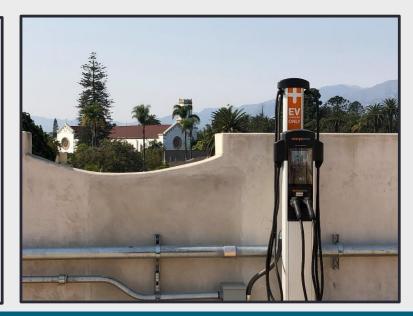
City EV Charger installs to Date

2014 - 8 stations





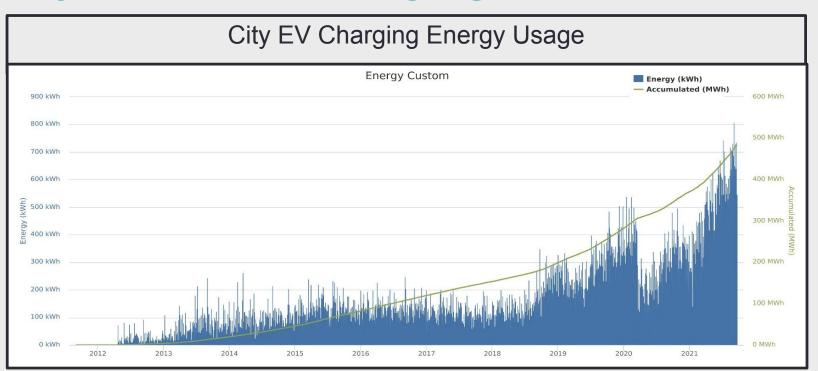
- 68 EV chargers (Level-2)
 - 48 public chargers, 20 fleet chargers
- 1-2 family EV charger ODP (On-Demand Permit)
- 50+ electric vehicles in City fleet now







City Public EV Charging to Date







Current Projects: Pilot EV Parking Permits at the Granada Garage

- EV Commuter Permit
 - 8 am 6 pm
 - Supports workforce
 - Waive active charging requirement
- EV 24/7 permit
 - Supports businesses & residents





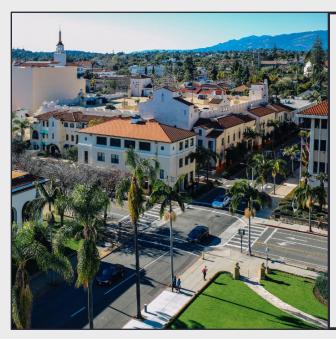


SANTA BARBARA EV CHARGING STATIONS



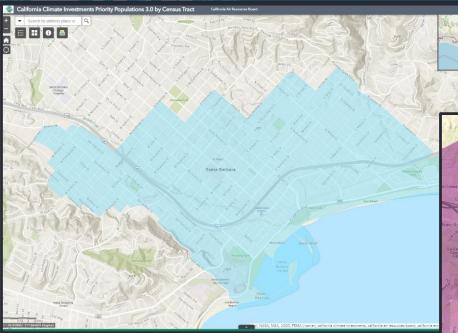


Support...



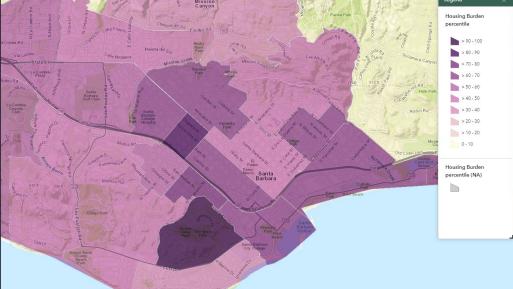
- City residents
 - LMI & DAC communities
 - Rental & Multi-family Units
- Commuters
- Local businesses
- Tourists
- Regional Transportation hubs
- Fleets





Equity Considerations

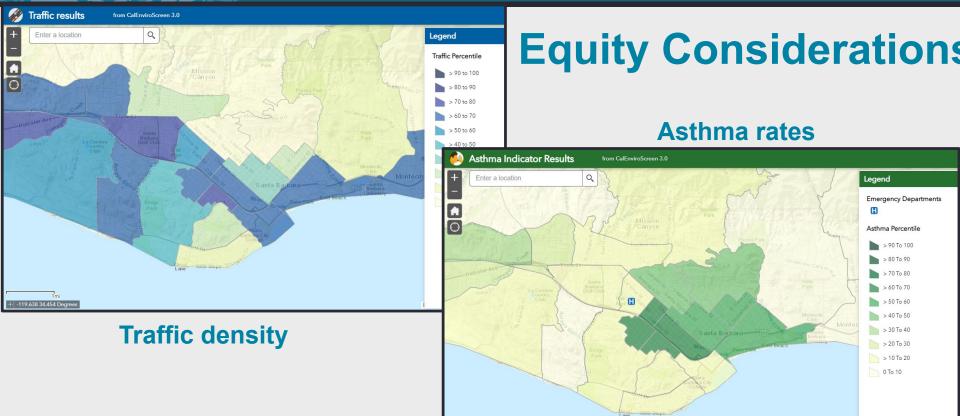
Housing Burden



AB 1550: Low Income











Equity Considerations

- Fence line communities
- LMI / DAC / Justice 40 / DVC
- Access to capital
- Used vehicle market
- Split incentive
- Resilience





2021-2023 Charger Incentives

Applied for \$5.7m

Awarded \$1.6m

Pending \$2.6m





Mitigation Trust







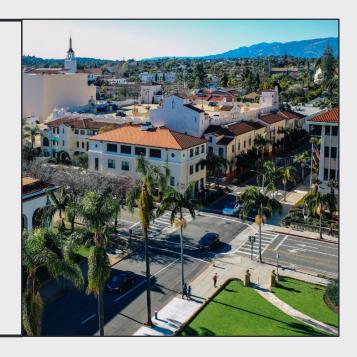






EV charger site development best practices/pitfalls/experiences

- ADA Access & physical space
- Access to available Power
- Space for equipment
- Wayfinding and Navigation
- Safety & lighting
- Compatibility of surroundings
- Underground Obstacles





Proposed Chargers

138 new chargersat 13 sites

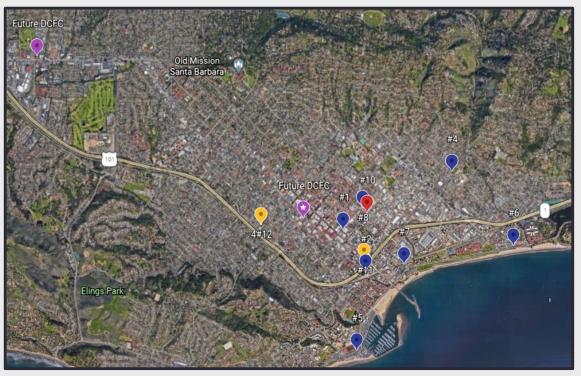


Proposed new EV charger matrix by type of user						
Туре	Funding currentl y applied for	To be installed	Public	Employee	Fleet	
DCFC	30	30	26	0	4	
L2	78	108	74	28	6	
total	104	138	100	28	10	



Potential Charger sites

- Ortega Garage
- Westside Community
 Center
- Eastside Library
- Amtrak Lot
- Harbor
- Cabrillo Pavilion
- Corporate Yard-Fleet
- Garden St. Lot
- -Lot 12
- Airport





Project Challenges

- Stormwater regs
- Historic review
- Easement revision
- Sewer main break
- Mounting details & clearances



Ongoing Projects: Ortega Garage



- 12 Tesla
 Superchargers
- 4 City DC Fast Chargers





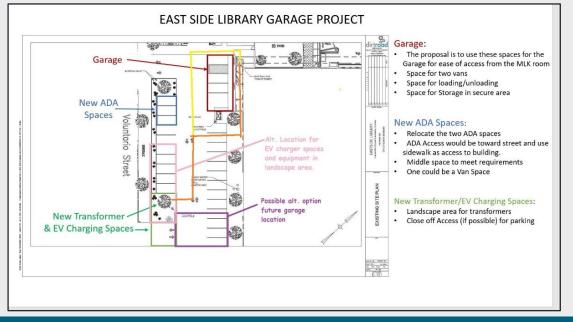
Project Challenges

- Power Supply
- Transformer Siting
- ADA access
- Conflicting projects on site

Ongoing Projects: Eastside Library

 4 Public DC Fast Chargers

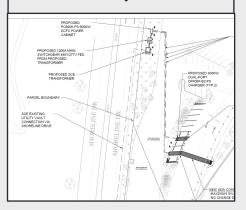




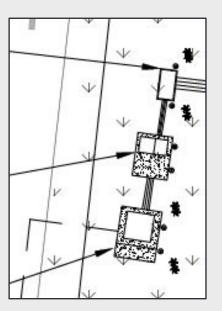


Project Challenges

- Siting: 9-sites
- Stall size
- Power supply
- ADA access
- Navigation
- Bike lane interaction
- Equipment area
- Behind Pay booth



Ongoing Projects: Harbor



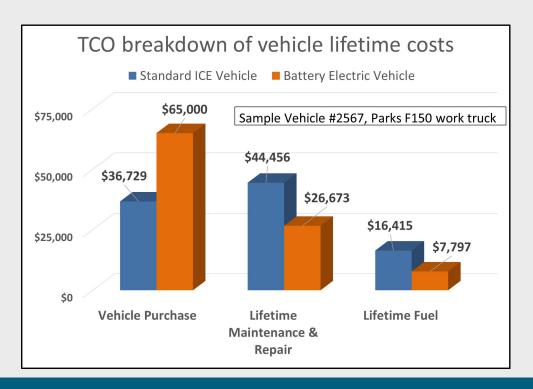
 4 Public DC Fast Chargers

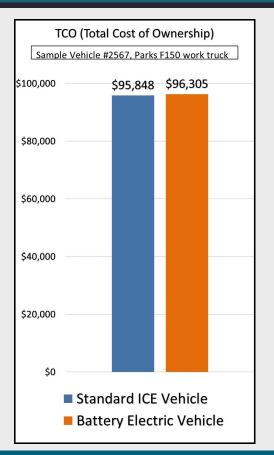






TCO Cost Breakdown







County of Santa Barbara

Jerel Francisco – ZEV Specialist

2023 UC Santa Barbara Sustainability Summit

<u>Agenda</u>

- 1. Introduction
- 2. County 2030 Climate Action Plan County Policy Goals
- Zero-Emission Vehicle and Mobility Plan Action Oriented
- 4. EV Fleet
- 5. Federal Grant
- 6. Lessons Learned
- 7. Next Steps



County Transportation Decarbonization Steps

Year	Action	Details
2019	Board adopts EV Fleet Policy	Sedans only
2023	Draft Climate Action Plan Released	Transport / Housing Goals
2023	Board adopts expanded EV Fleet Policy	Light duty pick-up, trucks, vans SUVs
2023-2024	ZEV Mobility Action Plan	Future Clean Mobility Planning

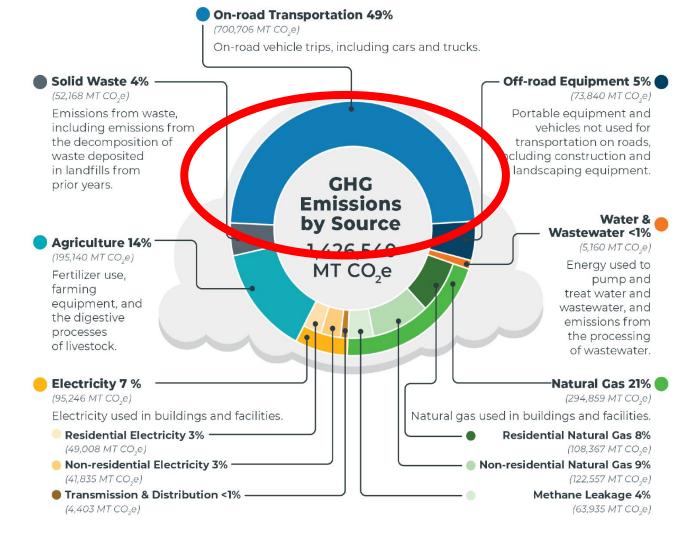
2030 Climate Action Plan ZEV Goals

- Increase EV car ownership 25% by 2030 and 90% by 2045
- Increase commercial EV use to 15% by 2030 and 75% by 2045
- Install at least 375 publicly available EV chargers by 2030





Where do our emissions come from?



Zero-Emission Vehicle and Mobility Plan

• **Goal**: Road map for the County to increase adoption of \bar{z} alternative transportation options



Key Focus Areas:

- Planning and Policy Recommendations
- Infrastructure Deployment
- Programs (internal and external)
- Outreach and Education
- Planning to release in early 2024/ late 2023



County Electric Vehicle Fleet

EV Charging Infrastructure

County Electric Vehicle Fleet – Quick Numbers

• Existing: 127 chargers (fleet/public) located across 13 different sites

• Planned: 180 new chargers in new and existing locations

Locations	Number of New Stations
Santa Maria	111
Calle Real Campus	50
Santa Barbara	6
New Cuyama	5
Lompoc	10
Total	182

Regional Collaboration

Grants and Capacity Building

Charging and Fueling Infrastructure (CFI) Grant

Funding Goal: Deploy publicly accessible EV chargers and alternative fuel infrastructure in areas where people live and work – urban and rural areas alike.

- Two funding streams Corridor Program and Community Program
- \$700 million total pot (\$350 million for each program)

Corridor Program Goal

Install Direct Current Fast Chargers (DCFCs) within 1-mile of Federal highways corridors (US 101/US 1)

Community Program

Reduce greenhouse gas emissions and fill gaps in access to charging or alternative fueling infrastructure.

Charging and Fueling Infrastructure (CFI) Grant

- Charging and Fueling Infrastructure Competitive Funding Opportunity
 - Announced March 14th
 - Deadline: June 13th
- Santa Barbara County Collaboration
 - Central Coast Resilient DC Fast Charging Infrastructure Project
 - CCZEV Stakeholders: AMBAG, SLOCOG, SBCAG, SLOAPCD, SBAPCD etc.
 - Corridor Program









EV Planning Process County of Santa Barbara (Corridor Program)

Step 1 – Determine Corridor Eligibility Location Requirements

- Within 1 mile of federal highway exits (US 1 and US 101)
- Publicly accessible 24/7
- Each location must charge 4 vehicles at once
- Each station must output **150 kW** minimum (60 Location

Role of SBCAG's Central Coast Zero-Emission Strategy Americans with Disabilities Act requirements • Pre-planning work supported the site identification

- Pre-planning work supported the site identification process immensely
- CCZEVs Priority Locations

US 101 at SR 154 (San Marcos Pass Road)

US 101 at Turnpike Road

US 101 at Santa Rosa Road

US 101 at Coast Village Road

US 101 at Santa Maria Way



County of Santa Barbara (Corridor Program)



- •Step 2 Determine eligible properties/locations under requirements
 - Compiled a list of 60 properties within 1 mile of CCZEVS Priority Corridors
 - Properties includes County owned properties and non-county owned properties, some are public-right of way locations

Findings

- Unsuccessful in finding county owned properties which meet project criteria and eligibility for most CCZEV Priority locations.
- Prioritized County Parks properties unsuccessful for hosting DCFCs
- Several incorporated city properties were identified and provided to SBCAG

County of Santa Barbara (Corridor Program)

Outcome

- Ultimately 3 County owned properties were submitted to SBCAG
 - * Wallace Ave Parking Facilities (Summerland US 101), Santa Claus Lane Streetscape (Summerland/Carpinteria) and Calle Real Campus (Goleta US 101/154)
- Incorporated city locations were provided to SBCAG who coordinated project involvement
- Internal collaboration between General Services, Public Works, and Sustainability Division
- Site identification, evaluation, and planning for grants is complex and challenging



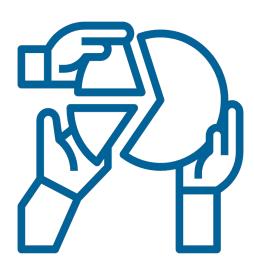
Challenges/Successes

SB County CFI Corridor Challenges

- Identifying sites
 - Parks Parking limitation
 - Public right of way
- Buy-in (external and internal)
- Building relationships with site hosts

Successes

- County owned facilities Public Works Capital Projects
- Identifying sites that were not eligible (Parks)
- SBCAG Leadership



EV Station Lessons Learned

- EV Station siting and identification process is challenging and complex
 - ADA
 - Spatial availability
 - Future Infrastructure
 - Utility
 - Parking regulation
 - Relationship building with property owners
- How can the region streamline and accelerate the deployment of public EV charging to meet our Climate Action Goals?





OPENING & CLOSING PRESENTER

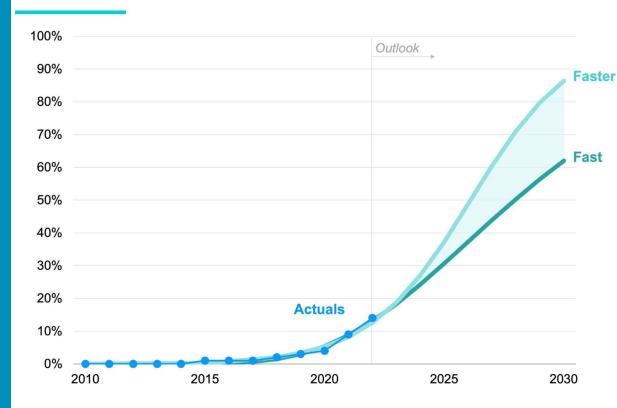
Cameron Gray

Director of Climate Mitigation
COMMUNITY ENVIRONMENTAL COUNCIL



End of the Internal Combustion Engine (ICE) age but who will benefit and when?

Electric vehicles' share of global car sales



Source: IEA (past), RMI forecasts





VEHICLE TECHNOLOGIES OFFICE

Award Details

- \$2 million over 3.25 years
- Award agreement signed October 2023
- Focus: Capacity building to accelerate transportation decarbonization in partnership with disadvantaged, low-income, and/or rural communities.
- Region served: San Mateo, Santa Cruz, San Benito, Monterey, San Luis Obispo, Santa Barbara, and Ventura Counties

Funded Partners



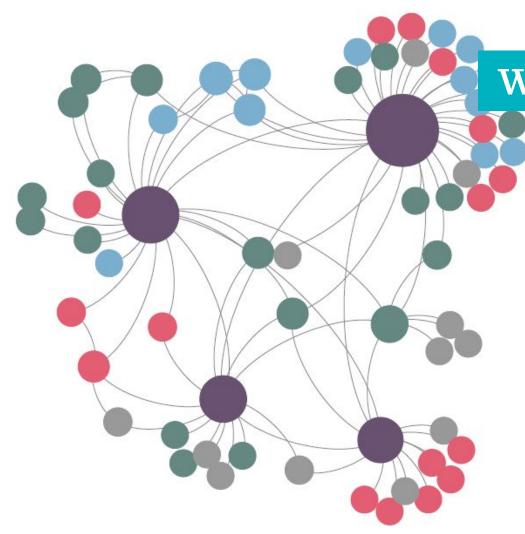




+ Up to 12 Community-Based Organizations







What We'll Do Together

Expand and connect our networks to coordinate and accelerate our transportation decarbonization activities.



Steering Committee



Ventura REGIONAL



Air Pollution Control District
San Luis Obispo County



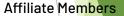








air pollution control district



















VCREA Local
Government Partners





Increase multilingual outreach and education for electric vehicles **and** e-bikes and other shared-use mobility options that will decarbonize our transportation systems.



Help households in low-income, disadvantaged, and/or rural communities transition into an EV with needs-based EV purchase guidance.

What We'll Do Together





Deliver EV workforce training and technical assistance to public/private fleets in underserved areas with our Clean Cities partners.

Photo: Los Angeles Cleantech Incubator





Thank You



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