12th Annual CCEC Forum: Webinar 4

August 10, 2021 | 10:00 - 11:00 am

Increasing EV Adoption: From Paper to Production

Community Environmental Council

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Better Buildings Challenge U.S. Department of Energy Los Angeles

LARC

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ProspectSV

San Diego Energy District

San Diego Green Building Council

SGVCOG San Gabriel Valley Council of Governments

SJVCEO Clean Energy Organization

SOMAH

Zoom Features

Microphone

Keep yourself **muted** so that we can hear our speakers clearly

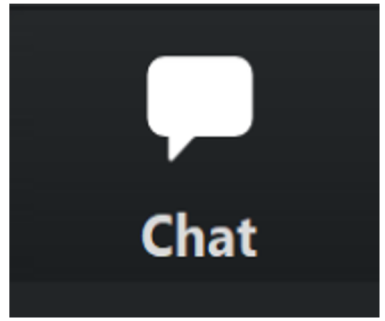
Q&A

Submit questions for panelists through the Q&A module at any point during the webinar.

Upvote questions that you are interested in.

Chat

Communicate with other participants or reach out to LGC staff if you encounter technical issues.



Meet our Speakers!

Moderator

Michael Chiacos

Director of Energy and Climate Programs,
Community Environmental Council

Sigalle Michael

Sustainability Coordinator,
City of Burlingame

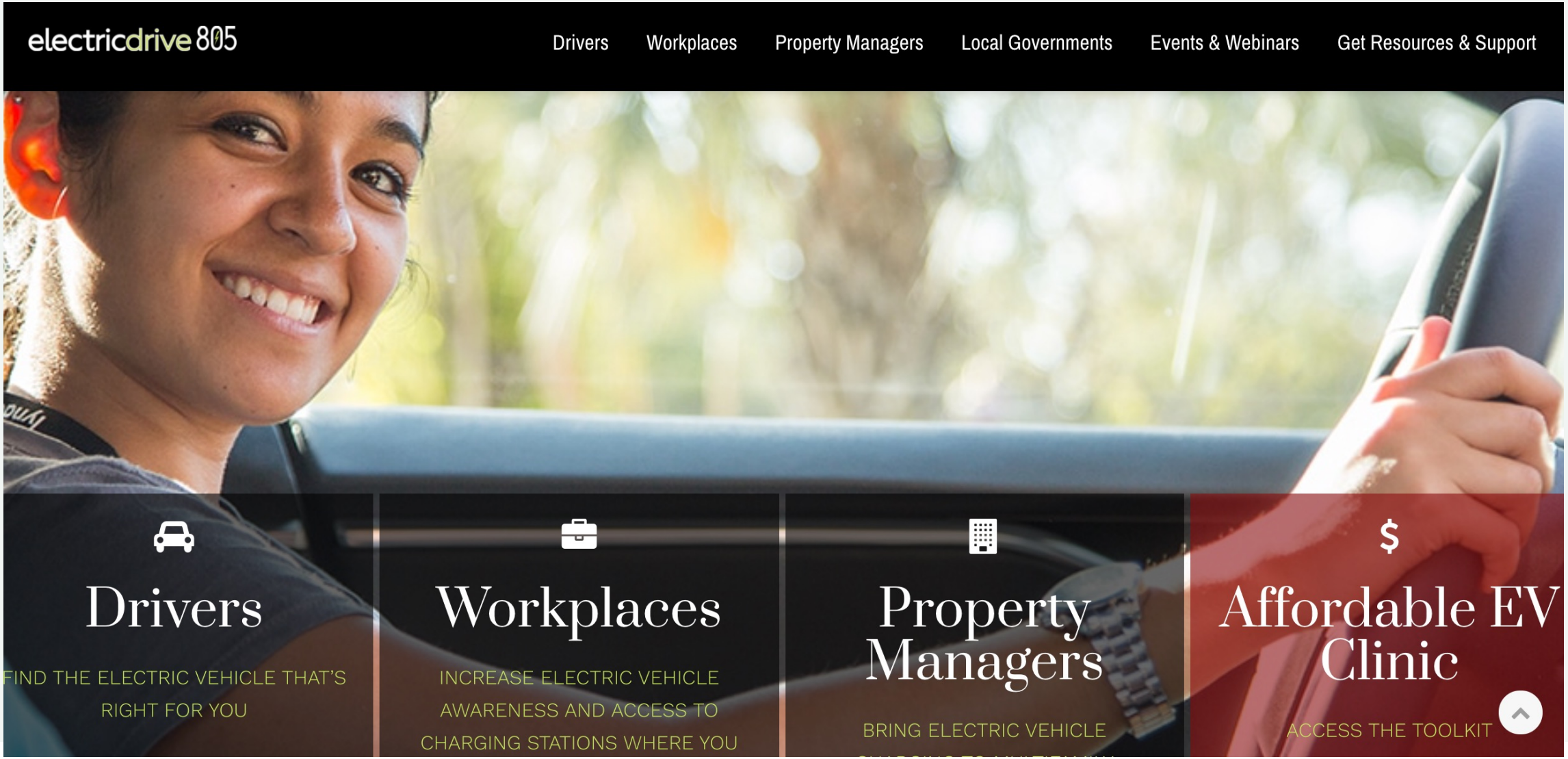
Janelle London

Co-Executive Director,
Coltura

Carlos Huizar

Planning Associate,
City of Torrance

CEC and ElectricDrive805.org

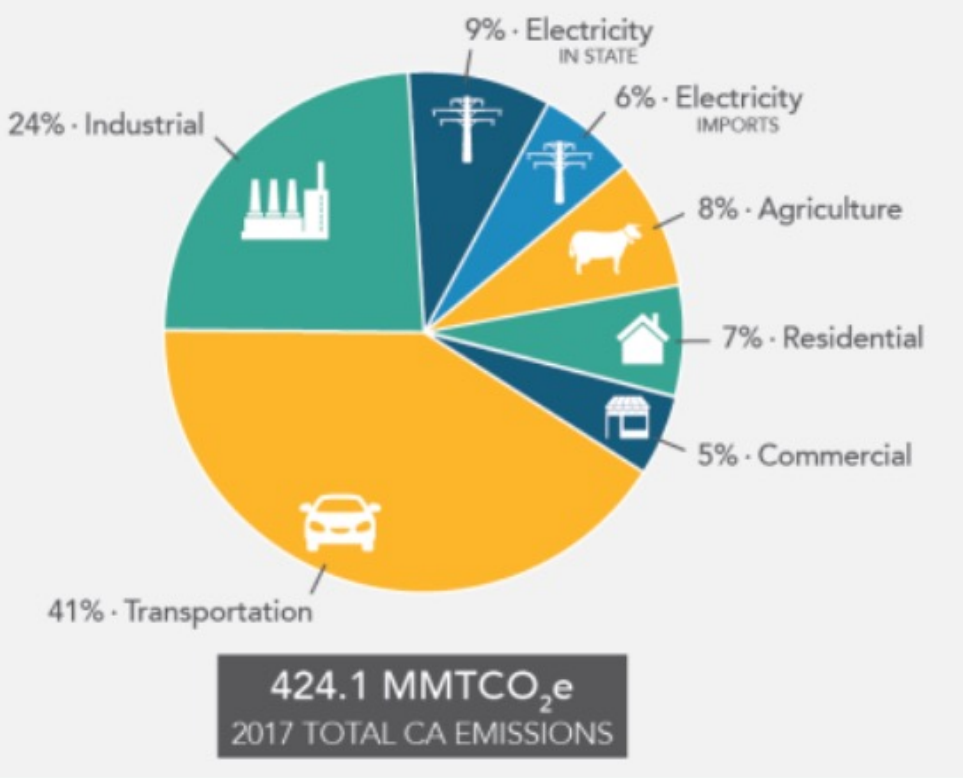


Community Environmental Council
BOLD CLIMATE ACTION
50 YEARS

Transportation Emissions – The Lion's Share

Driving = Largest Carbon Impact

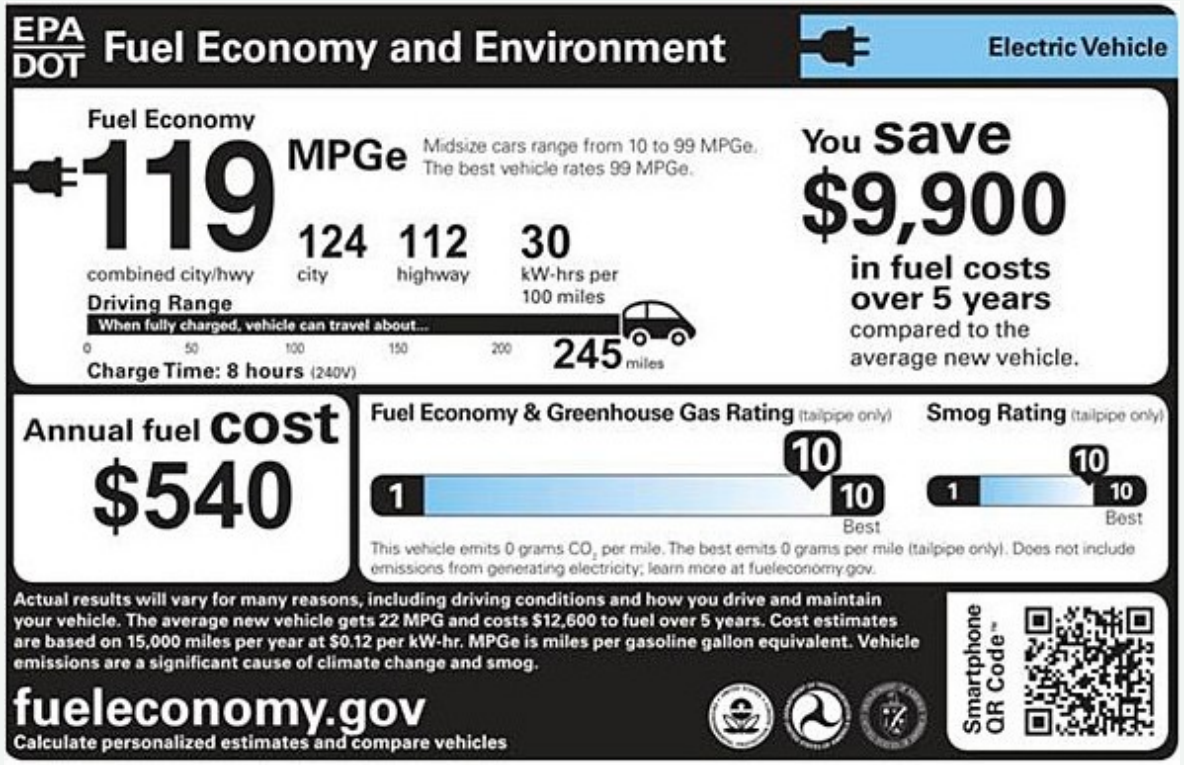
- Transp. 50% emissions
- 5 MTc02/car to 0-1 MT
- Cheeseburger = 10 mile
- iPhone = 200 miles
- Long flight = 3,851 miles
  - LA-Japan = 1.6 MT



Why EVs?

EVs Can Make a Huge Impact

- EPA rated 100+ mpg equivalent
- Zero tailpipe emissions
- Reduce GHGs
  75-100% in CA
- Use clean,
  increasingly
  renewable electricity
- Driving on Sunshine

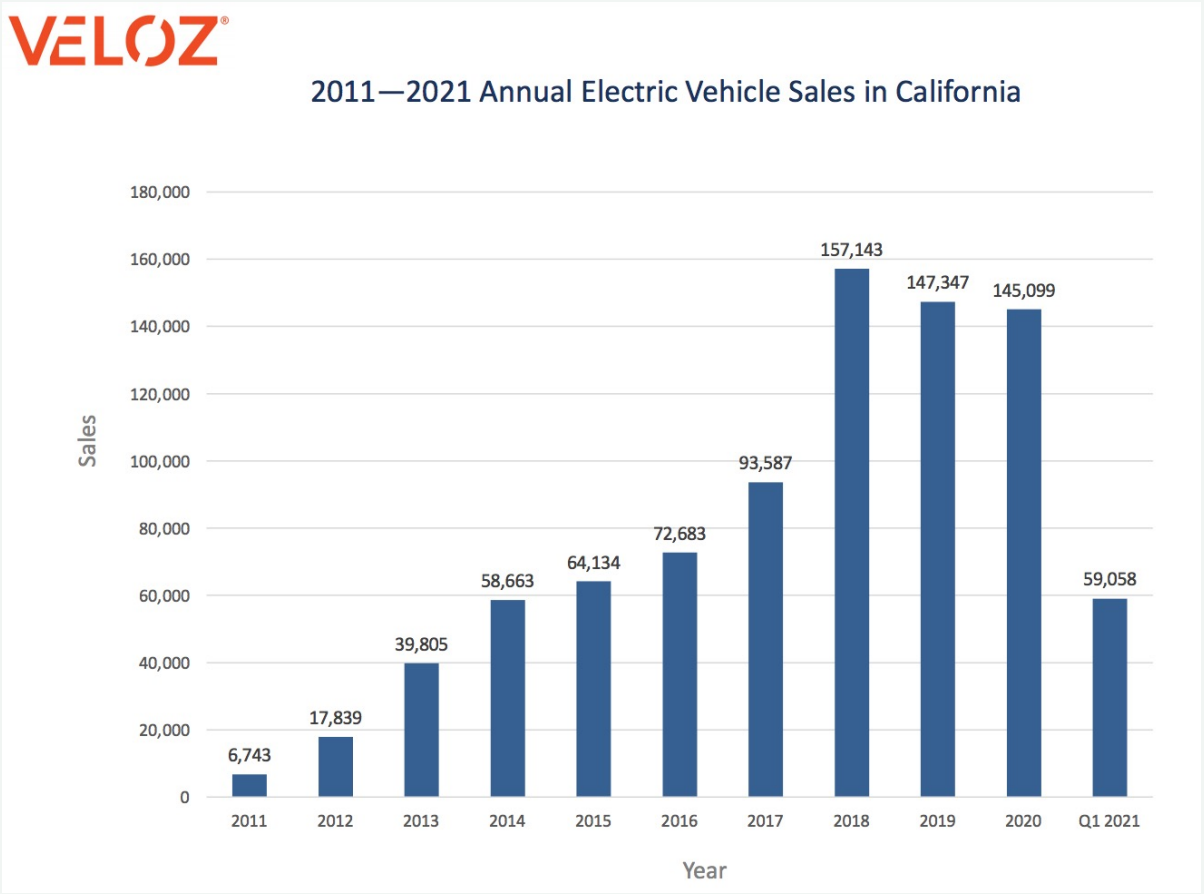


EV Sales Are Increasing, But More Effort Needed

EV Sales Stalled?

- US - 1.92 million
- CA – 862,874
- CA – Gas car ban 2035
- 8-9% new vehicle sales
- Globally Europe/China

- **Data as of May 2021*



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BOLD CLIMATE ACTION
50 YEARS

Lessons Learned

- EV events – Green Car Shows, Owner's corners
- Policy Matters – Santa Barbara County – 84 EV chargers, 3 DCFC, 56 EVs
- EV Marketing, Education, and Outreach grants
- EV 101 webinars – emails from large employers, city newsletters, etc.
- Using a County to drive EV adoption
- First EVs on the block and the network effect

City of Burlingame

EV Action Plan

August 10, 2021

Sigalle Michael, Sustainability Coordinator

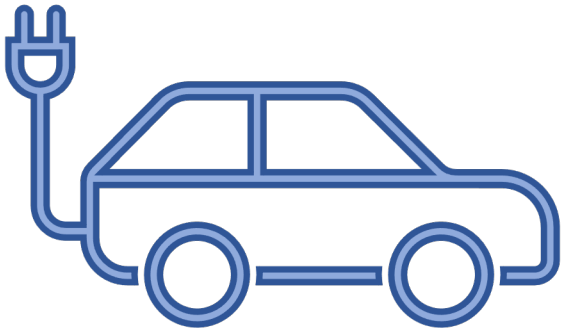
Purpose

All new vehicles to be zero emission by 2035!

EV drivers tend to charge at home

Burlingame EV Action Plan

- Align with state targets
- Electrify municipal fleet
- Prioritize areas for public EV chargers
- Provide charging access to all residents

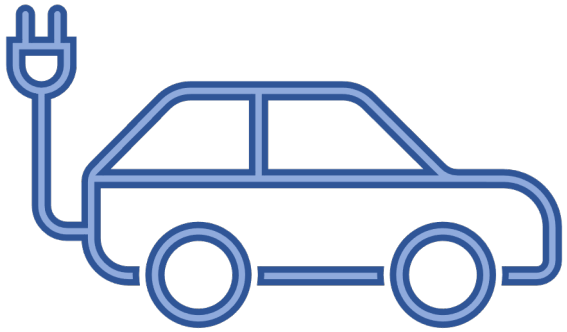


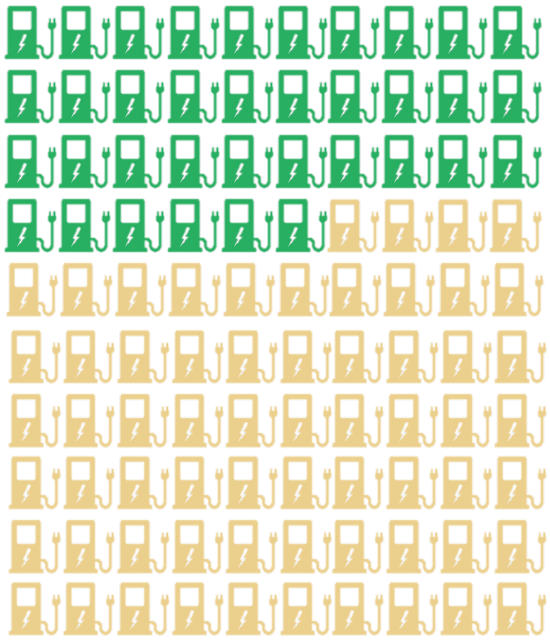
52% of housing stock is multifamily & 59% was built in 1950s or earlier

Goals

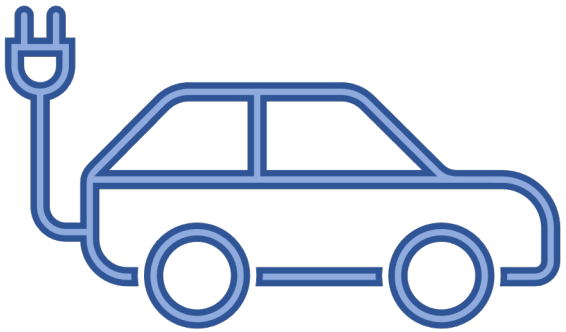
By 2030:

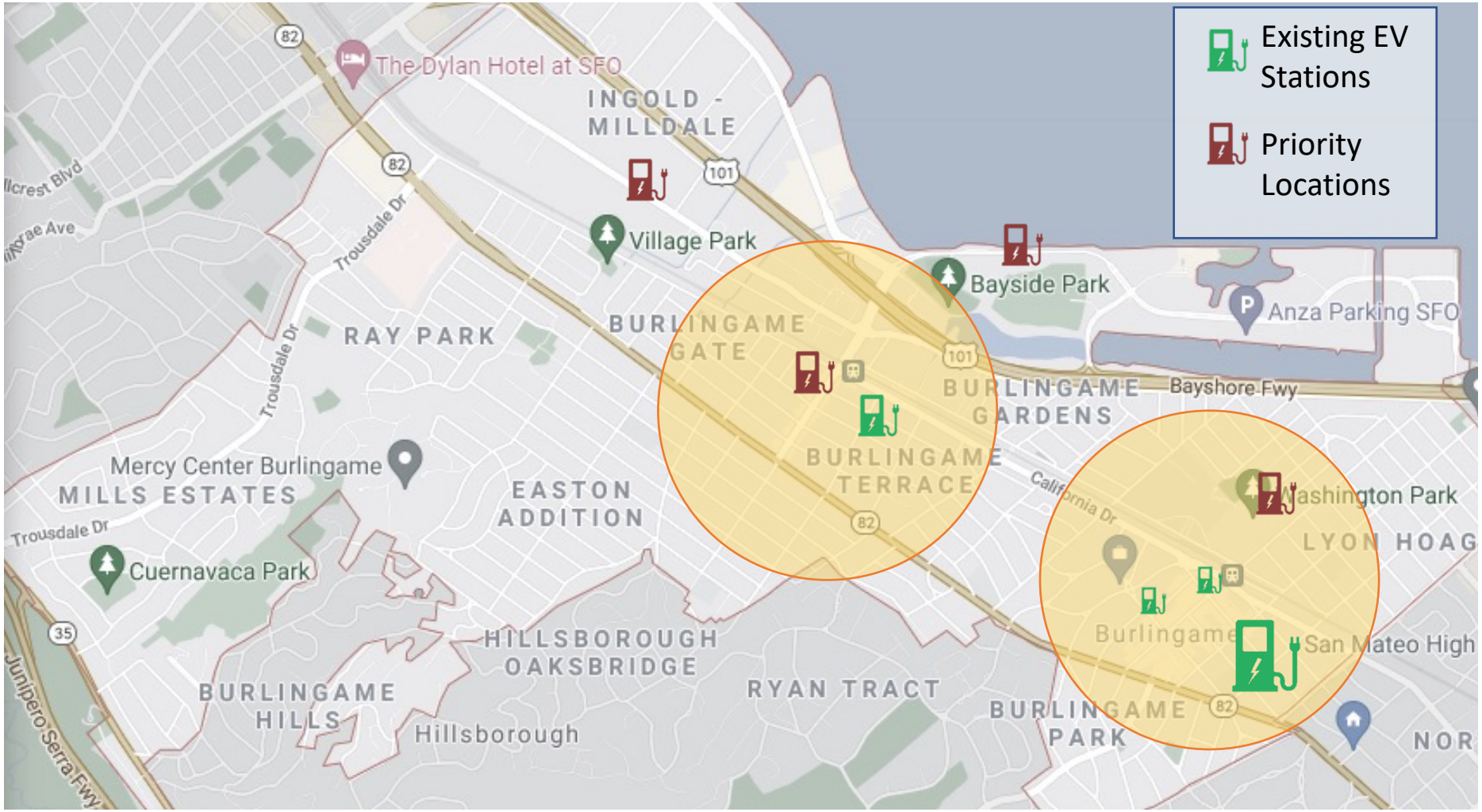
- 100 charging ports
- 5,000 registered EVs
- 10% of Burlingame's municipal fleet to be EVs



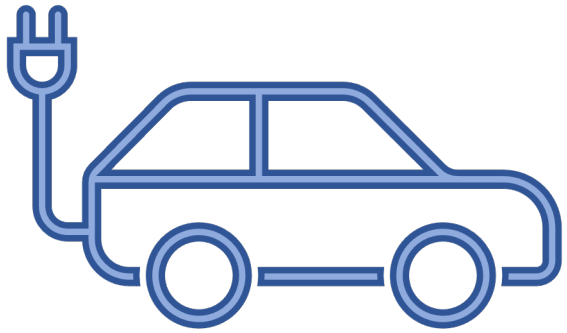


GHG Impact: Reaching **5,000** registered EVs will save **13,000 tons** of GHG emissions, equivalent to **1.4 million gallons of gasoline**.

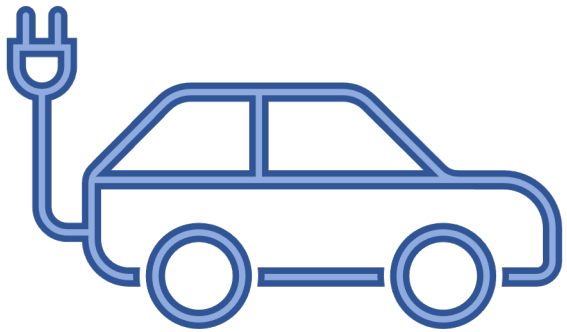



Existing EV Stations
Priority Locations
The Dylan Hotel at SFO
INGOLD - MILLDALE
Village Park
Bayside Park
Anza Parking SFO
RAY PARK
BURLINGAME GATE
BURLINGAME GARDENS
Bayshore Fwy
BURLINGAME TERRACE
Mercy Center Burlingame
MILLS ESTATES
EASTON ADDITION
Cuernavaca Park
Washington Park
LYON HOAG
Burlingame
San Mateo High
HILLSBOROUGH OAKSBRIDGE
BURLINGAME HILLS
Hillsborough
RYAN TRACT
BURLINGAME PARK
Trousdale Dr
California Dr
Junipero Serra Fwy
82
101
35

- ✓ **Policy:** Reach Code requires EV charging in ALL new development
- ✓ **Process:** Streamlined permitting
- ✓ **Funding:** CALeVIP and other grants
- ✓ **Innovation:** Curbside charging pilot



Multifamily Buildings



Let residents know EV charging is available in the neighborhood

All NEW multifamily buildings must offer charging access for ALL units

Offer incentives for multifamily EV charging

Consider other e-mobility like scooters and bikes

Explore grant opportunities, partnerships, and pilot efforts

Engage with property owners

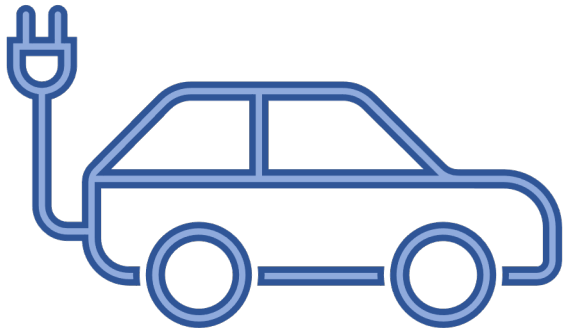
Thank You

Website:

https://www.burlingame.org/departments/sustainability/ev_charging_stations.php

Contact:

Sigalle Michael, smichael@burlingame.org



BEYOND GASOLINE

Janelle London

CCEC Forum

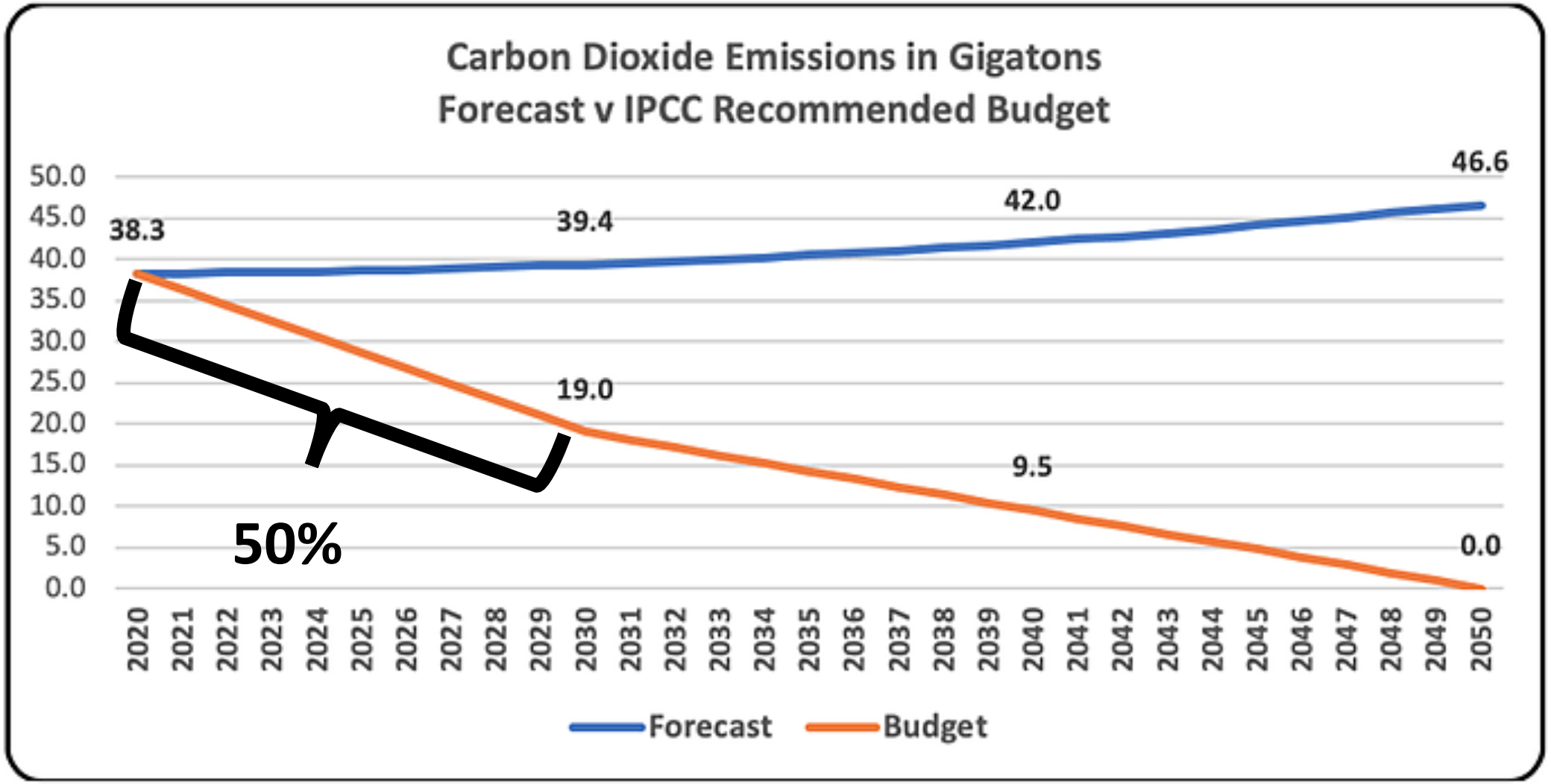
8/10/21

Joint Venture SILICON VALLEY

COLTURA

For a Gasoline-Free America

SCIENTISTS & BIDEN: CUT EMISSIONS 50% BY 2030



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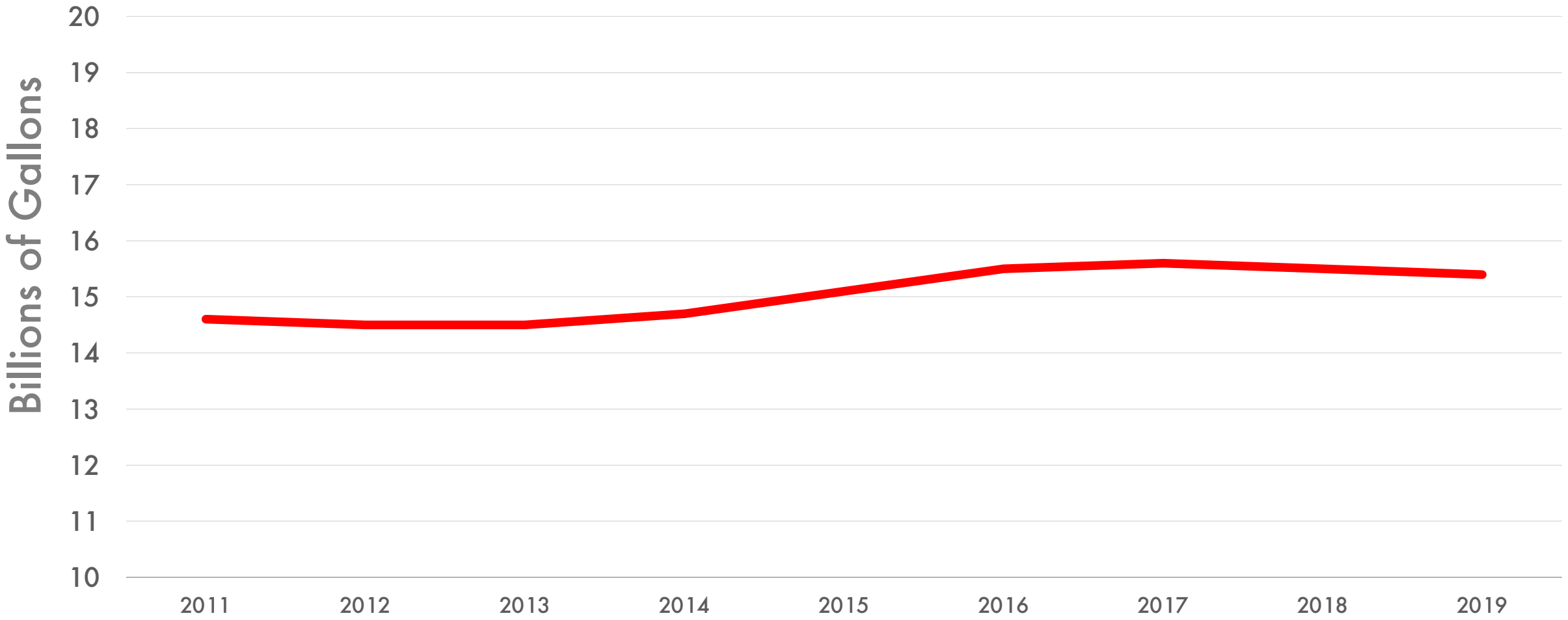
Source: Intergovernmental Panel on Climate Change, 2018

CALIFORNIA GASOLINE SALES



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Source: Cal Dept of Tax and Fee Administration

BIDEN EV TARGET: 50% CAR SALES EVs BY 2030

288M cars in the US

~1m are EV

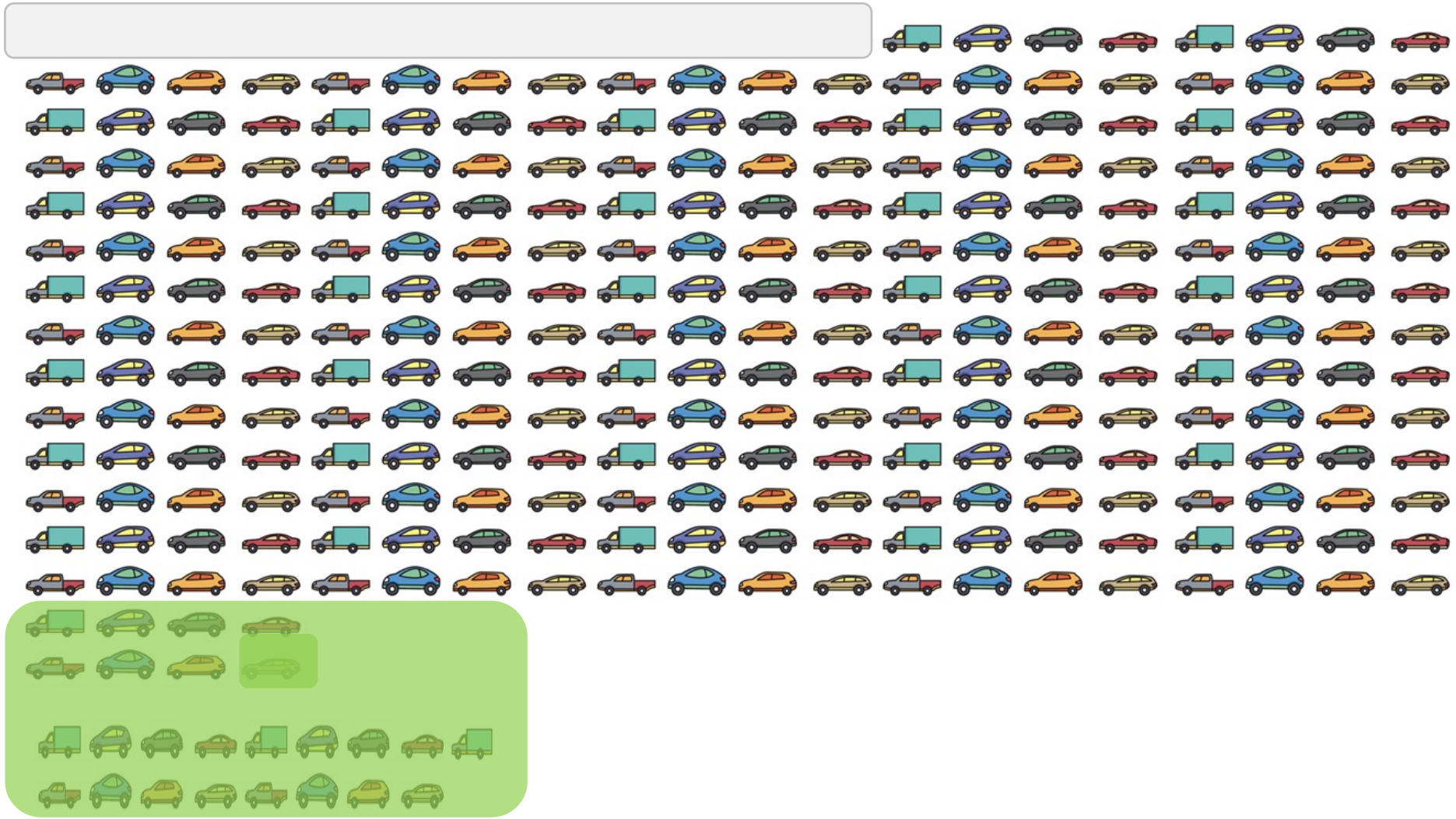
-12M retired cars/yr

+17M new cars/yr

9M would be EV (50%)

Total: 10M EVs

90% of cars will still burn gas!



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CALIFORNIA: 5M EVs ON THE ROAD BY 2030

ZEV POPULATION

Total Light-Duty Vehicles end of 2020

635,602

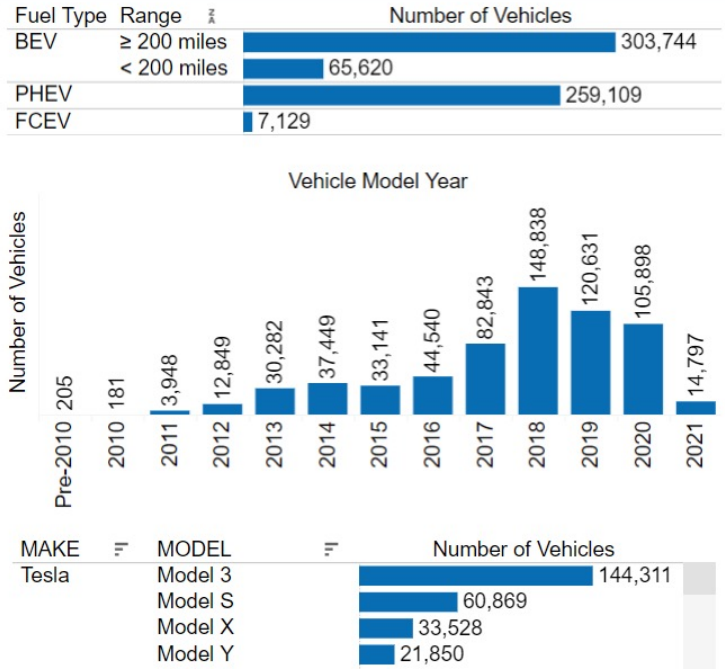
Battery Electric (BEV)	Plug-in Hybrid (PHEV)	Fuel Cell (FCEV)
1.289%	0.904%	0.025%
369,364	259,109	7,129

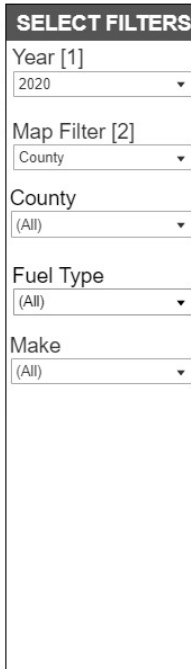
NON-ZEV POPULATION

Total Light-Duty Vehicles end of 2020

28,030,332

Bio Diesel	Diesel	Flex Fuel	Gasoline	Gasoline Hybrid	Natural Gas	Propane
0.470%	1.973%	3.993%	87.286%	4.031%	0.027%	0.003%
134,834	565,532	1,144,536	25,021,380	1,155,477	7,676	897

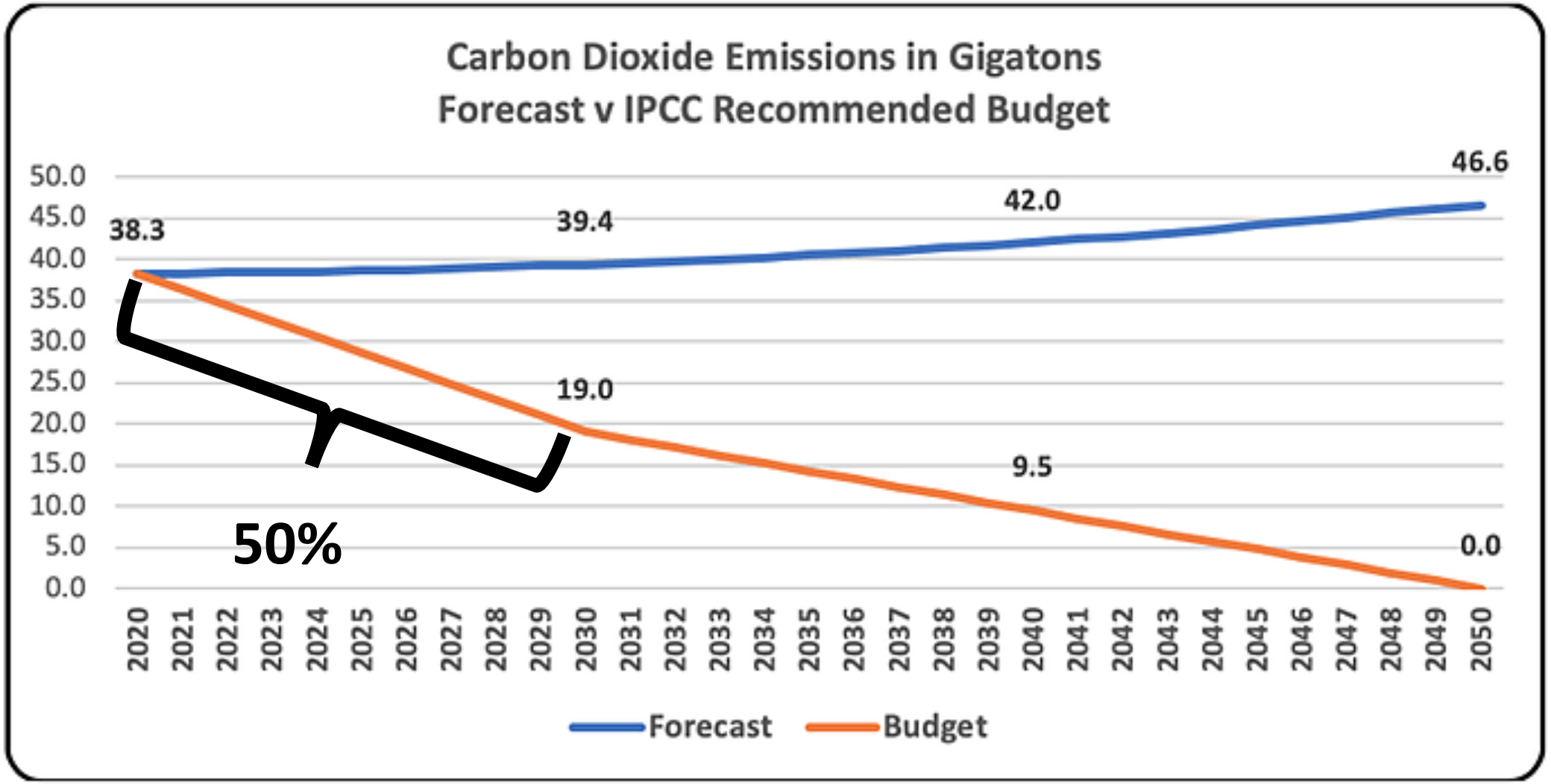




>75% of cars will still burn gas

Source: California Energy Commission

WHAT DO EVs HAVE TO DO WITH EMISSIONS CUTS?



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Source: Intergovernmental Panel on Climate Change, 2018

HOW MUCH GASOLINE IS SAVED WITH AN EV?

Drives 2,500 miles/year

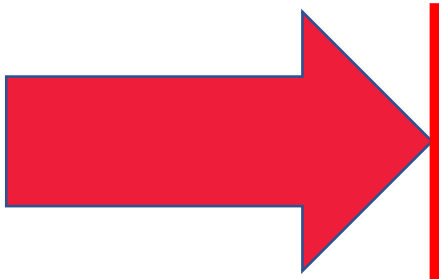
Burns 75 gallons of gasoline

Drives 30,000 miles/year

Burns 1,500 gallons of gasoline

Has 1 bike, no car

Burns 0 gallons of gasoline



75 gallons

1,500 gallons

0 gallons

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Current EV incentives:
THE SAME regardless of gasoline use

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EV Adoption (EVA)

Gasoline Displacement (GDP)

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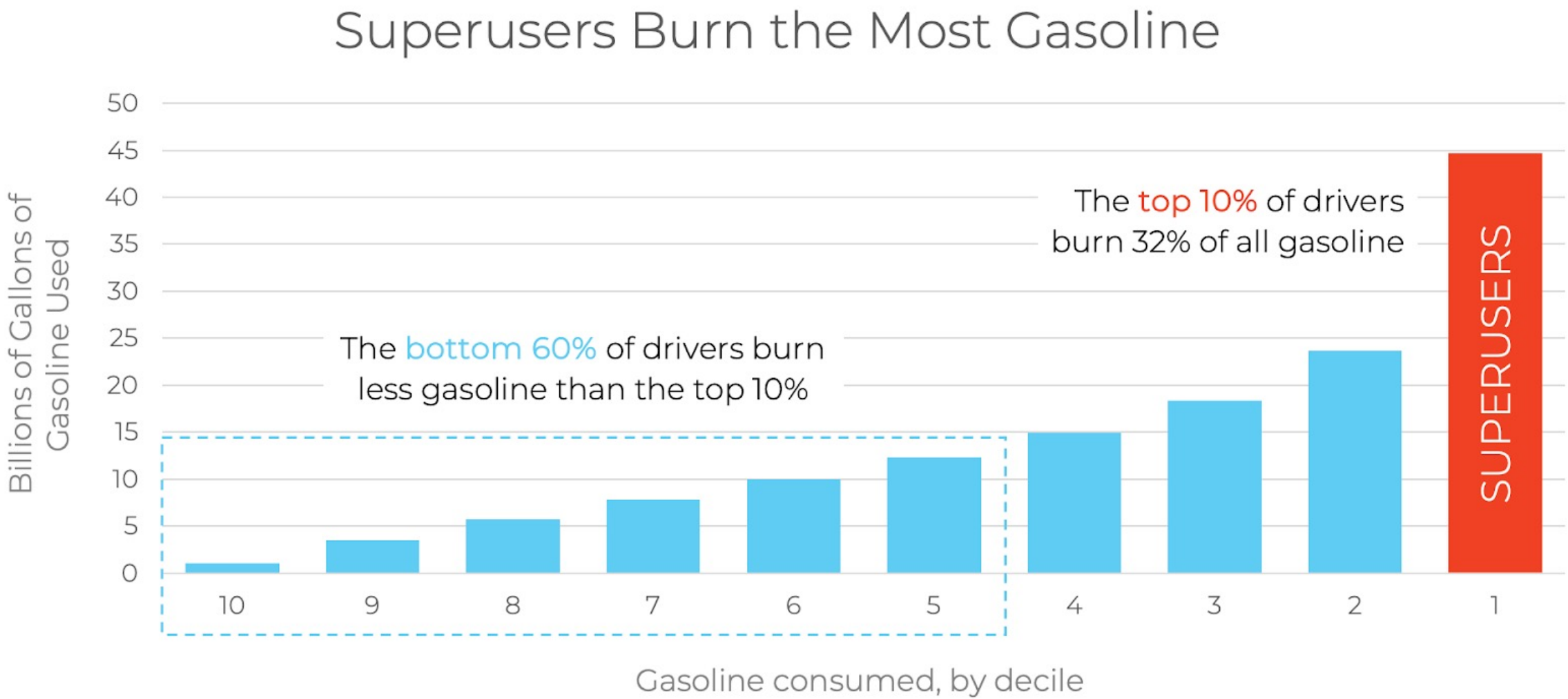

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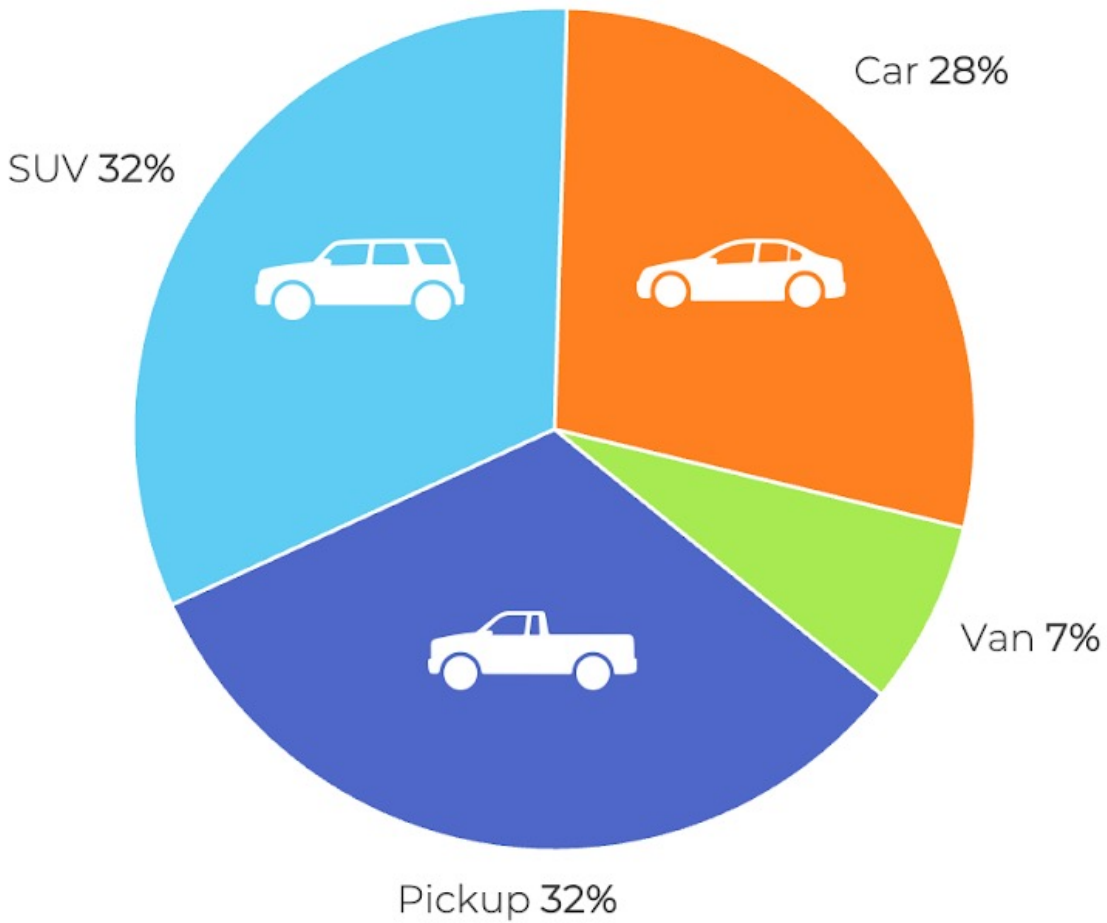
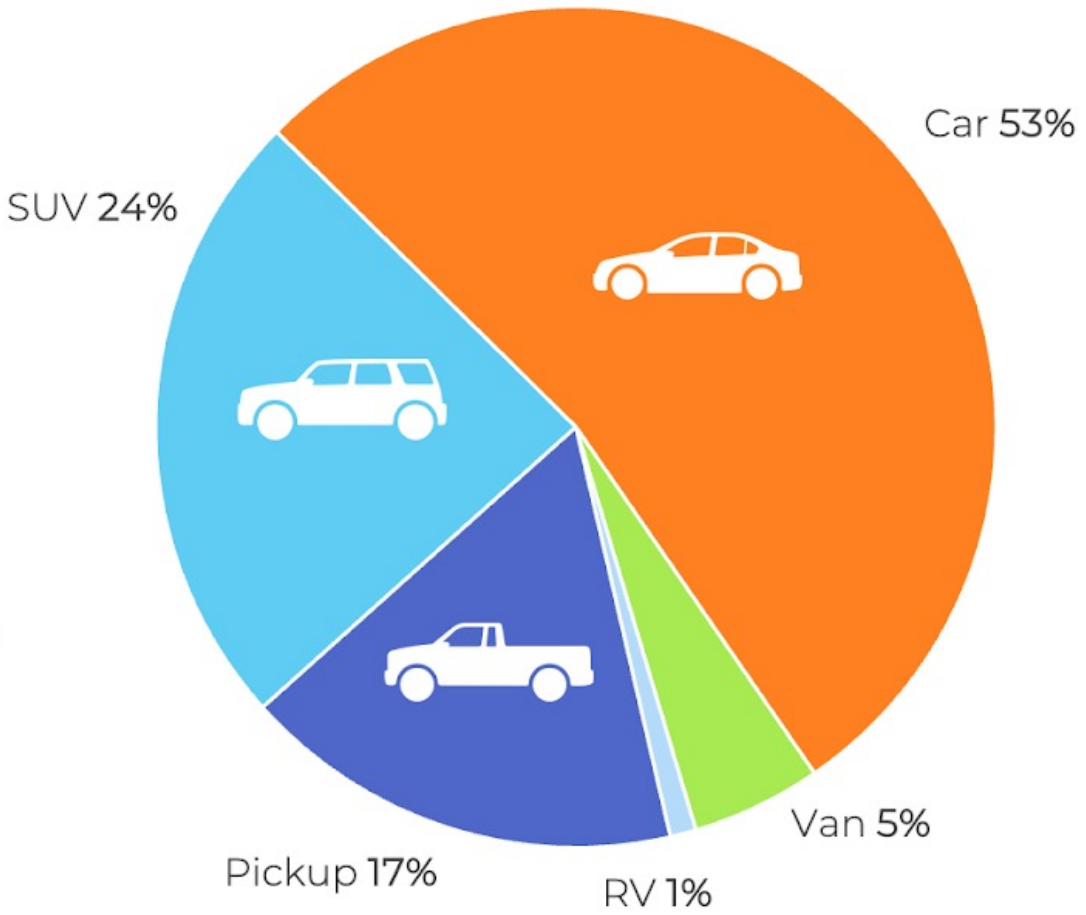
Source: Coltura.org/gasoline-superusers

Types of Vehicles

Superusers



Other Drivers



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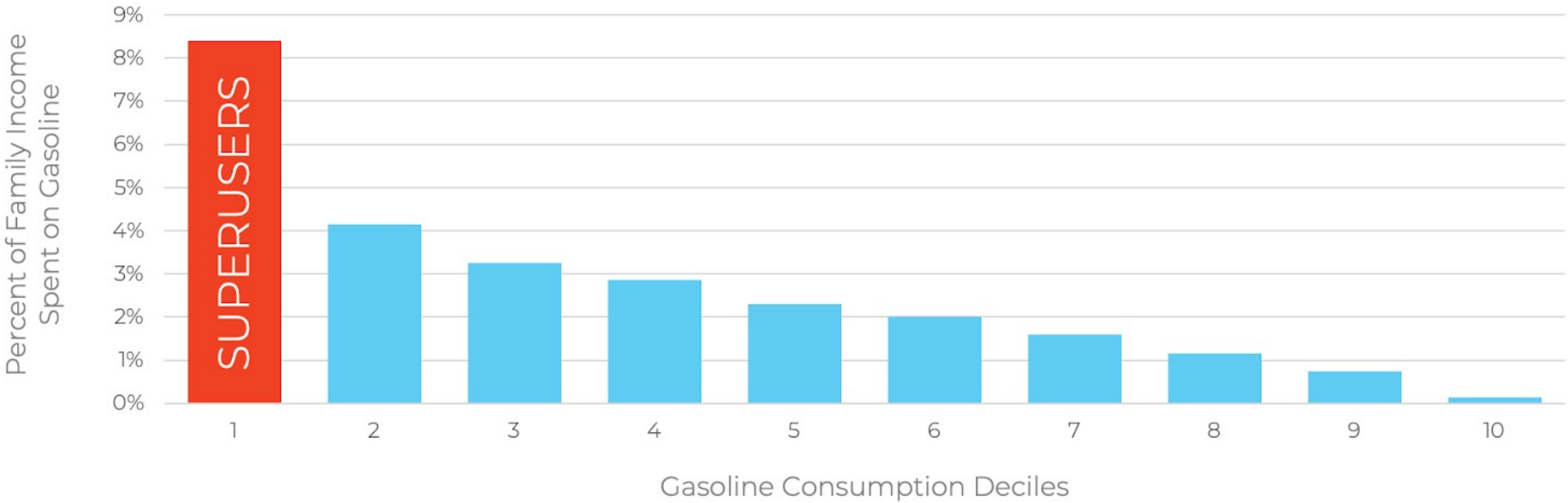
Gasoline Expenditures as Share of Family Income



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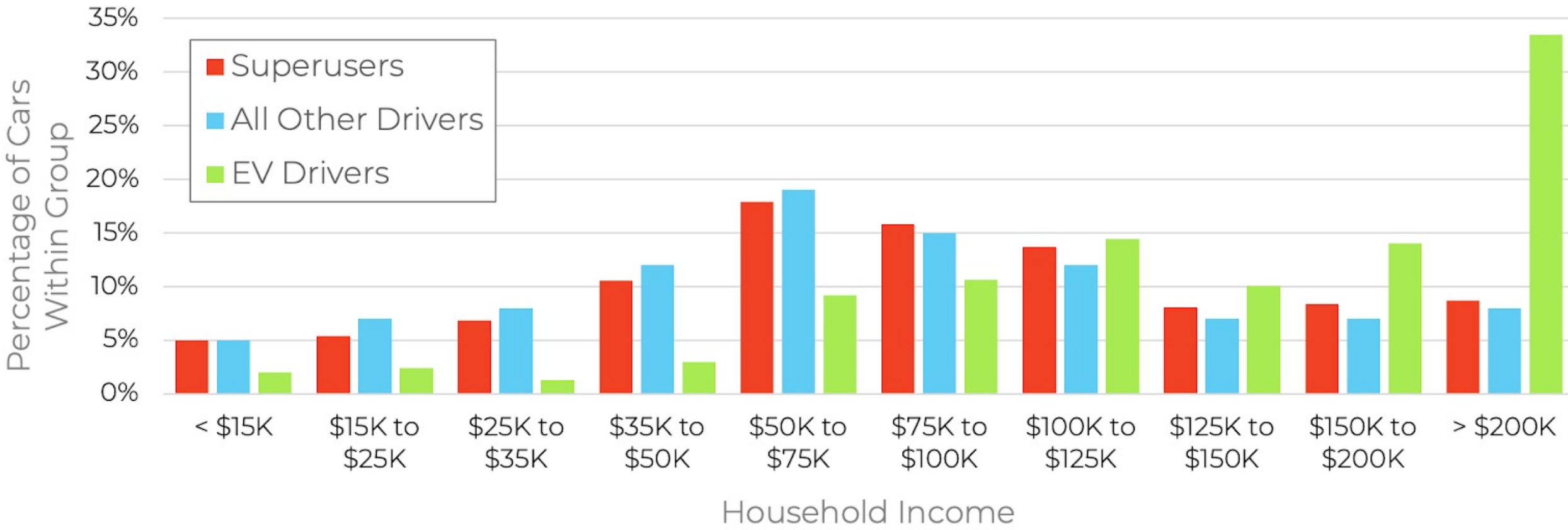
Household Income Distribution



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How can cities switch their gasoline superusers to EVs?

- Understand superusers
- Get them EV charging
- Educate them

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What else can cities do to cut gasoline use?

Track gasoline sales volumes

Set gasoline reduction goals

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Is your city cutting gasoline sales?

	2016		2017		2018		2019	
City	Gallons	Gas Stations	Gallons	Gas Stations	Gallons	Gas Stations	Gallons	Gas Stations
LOS ANGELES	577399808	323	598723387	317	552728499	311	551182317	309
SAN DIEGO	460473885	243	471739162	240	462838865	242	454951806	238
SAN JOSE	323379007	170	317903239	166	311135629	164	311325761	164
SACRAMENTO	277941599	171	269076413	165	277406117	172	278151293	163
BAKERSFIELD	221473122	156	216486077	159	204277803	154	204009437	160
FRESNO	183958970	147	191866754	145	174979875	145	159348042	142
LONG BEACH	129264044	77	127304607	74	126213308	75	125408525	78
STOCKTON	109326511	86	109222674	81	101692190	89	107304306	78
SAN FRANCISCO	119580842	76	119557622	77	106136968	67	107020168	78
RIVERSIDE	146744532	76	146608205	74	154828906	80	143093281	76
MODESTO	102616886	75	106709457	79	102749645	82	88626355	73
ANAHEIM	136154474	69	135086586	67	128098804	66	120733983	68
OAKLAND	82676704	70	88802945	71	85806631	69	79634573	64
REDDING	50672321	60	56269037	62	53352174	62	49408443	60
SAN BERNARDINO	85926215	50	99756821	58	91548773	56	86831500	51
ONTARIO	109139492	53	97137129	52	90868925	52	84368149	49
SANTA ROSA	83142772	50	82932019	50	74909297	45	76001455	49
CORONA	111794187	44	112025848	45	109147758	45	113455981	47
FONTANA	96634294	46	93223180	44	92318742	44	97503390	47
SANTA ANA	84243278	45	83094026	46	81437635	44	85517548	47
VISALIA	50677483	47	53474336	47	54208037	48	53991149	47

Gasoilne Sales by Zip Code | Gasoilne Sales by City | Diesel Sales by City | Diesel S ...

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Source: California Energy Commission; Coltura

THANK YOU!

Janelle London
janelle@coltura.org

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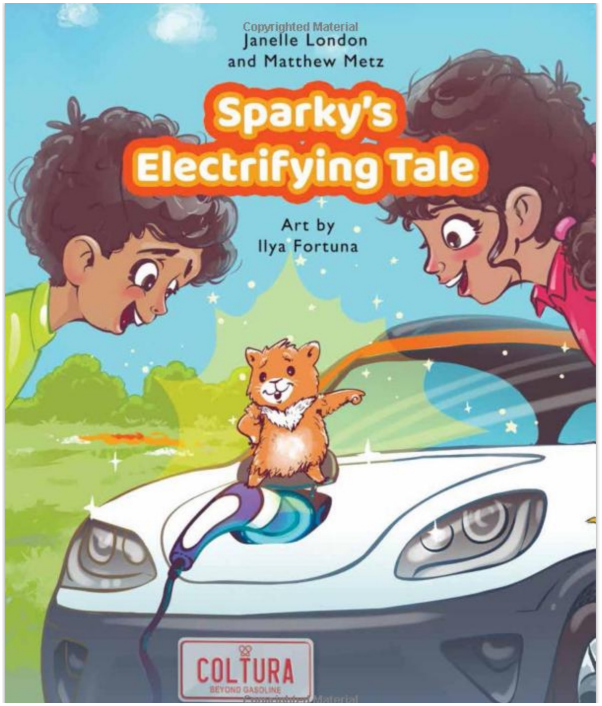
FOR A GASOLINE-FREE AMERICA

Appendix

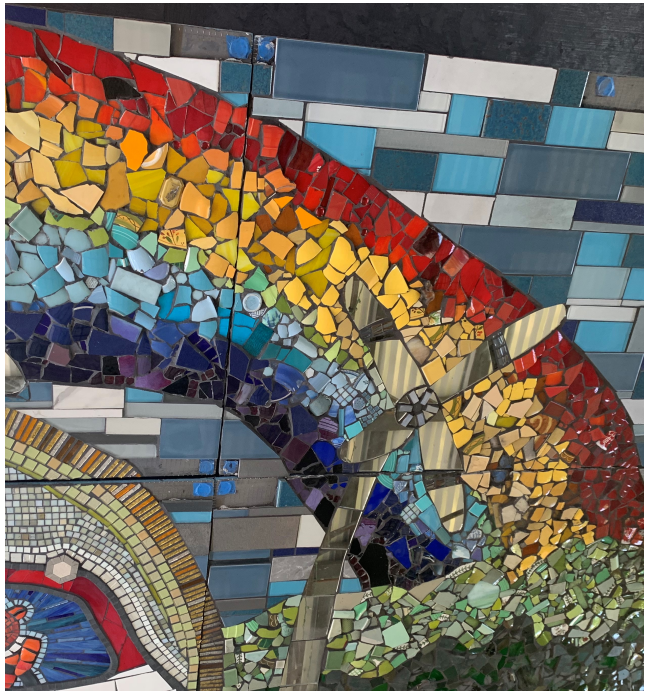
CULTURE

Music Video

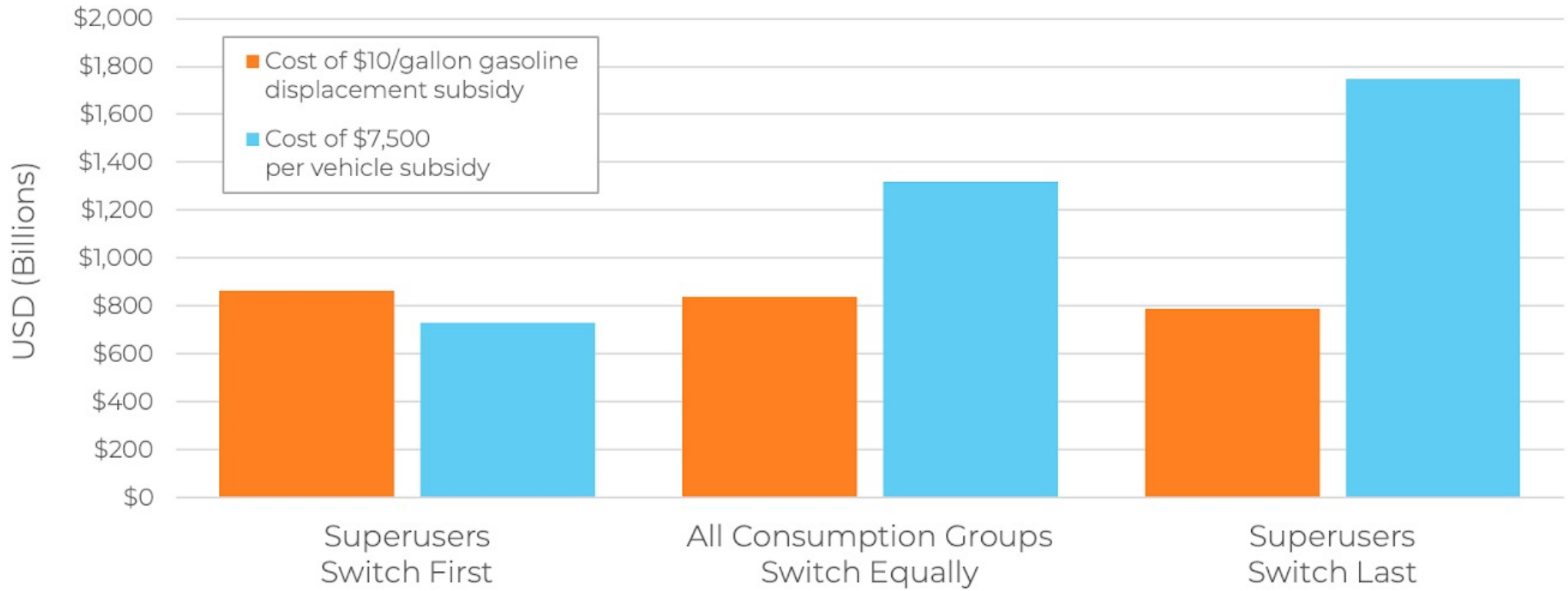
Children's book



Mural



Cost Comparison of Gasoline-Displacement Incentive and Flat Incentive



How the Gasoline Displacement Incentive Could Work

1 Driver **takes gas-powered vehicle to dealer** #1 to trade in.

2 Dealer obtains **registration history** (from Carfax or similar).

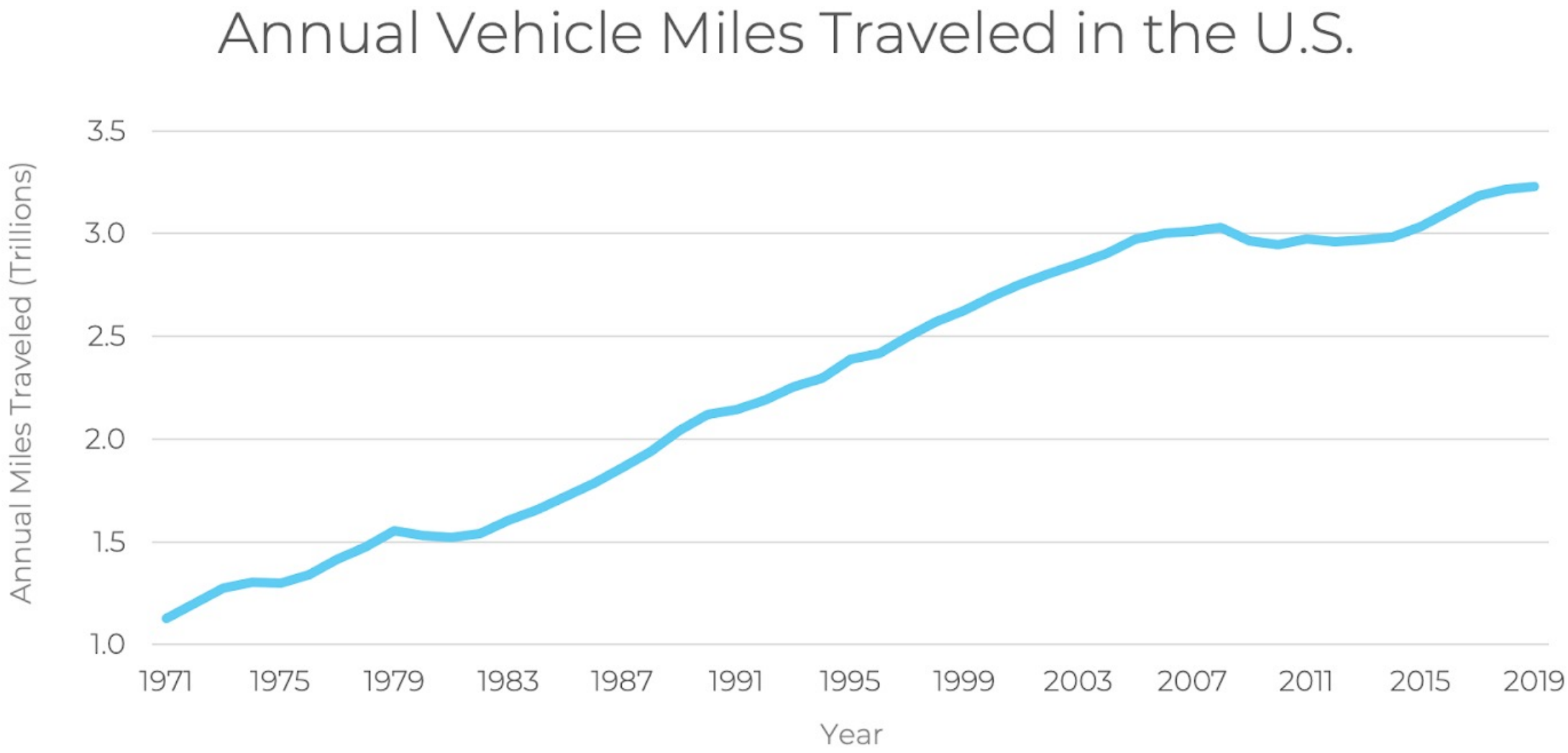
3 **Dealer calculates average annual gallons used:**

Current odometer reading - odometer reading at time of purchase = total miles driven. Mileage ÷ EPA MPG rating = total gallons. Total gallons ÷ years owned = average annual gallons.

4 **Dealer calculates incentive amount:** Average annual gallons x $10/gallon incentive.

5 Dealer **takes possession of trade-in** and **notifies driver of incentive amount.**

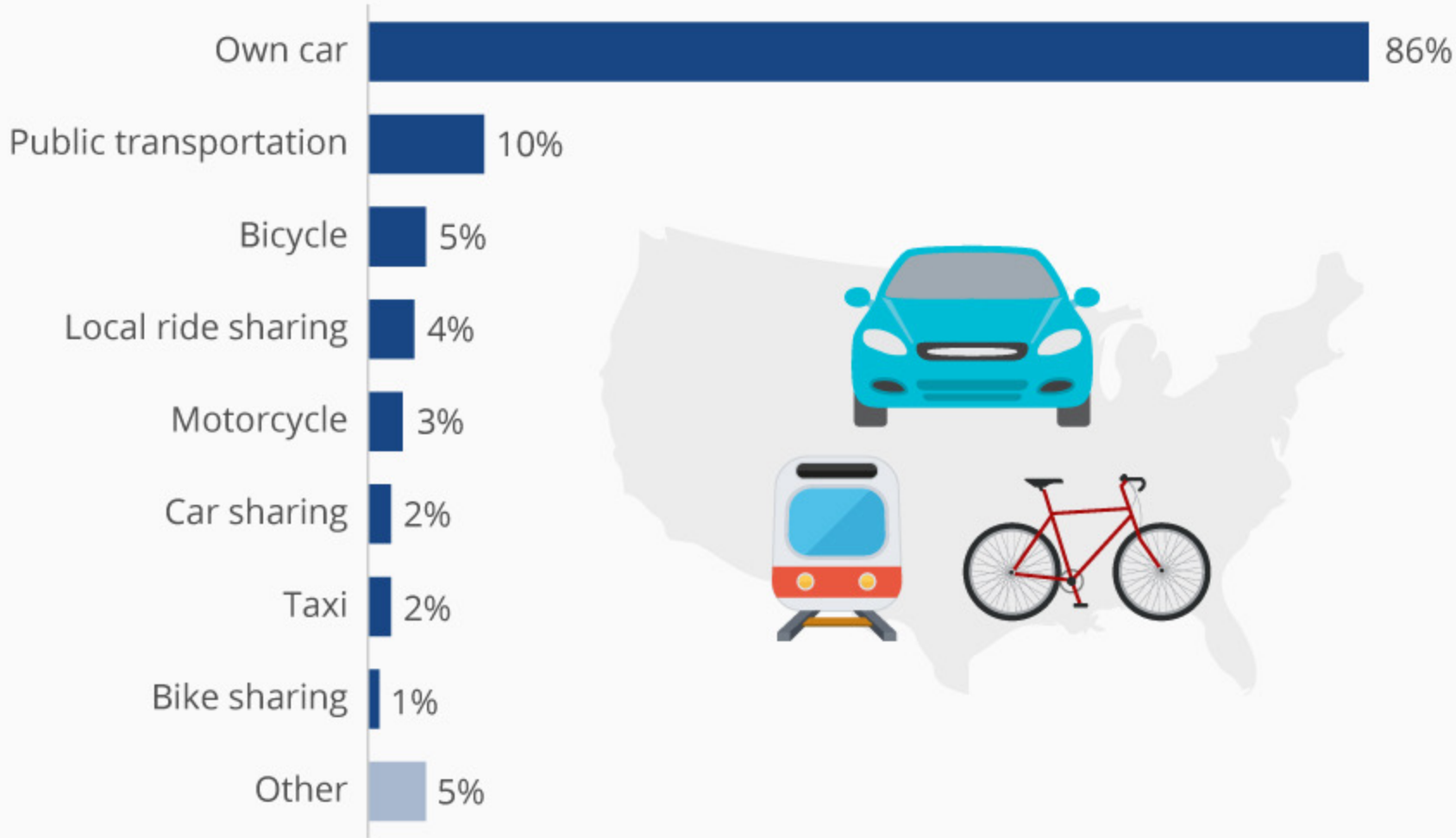
6 Driver **purchases a replacement EV** within 30 days of trade-in to receive **incentive payment** on new EV.



Source: Federal Highway Administration Monthly Traffic Volume Trends Reports

Cars Still Dominate the American Commute

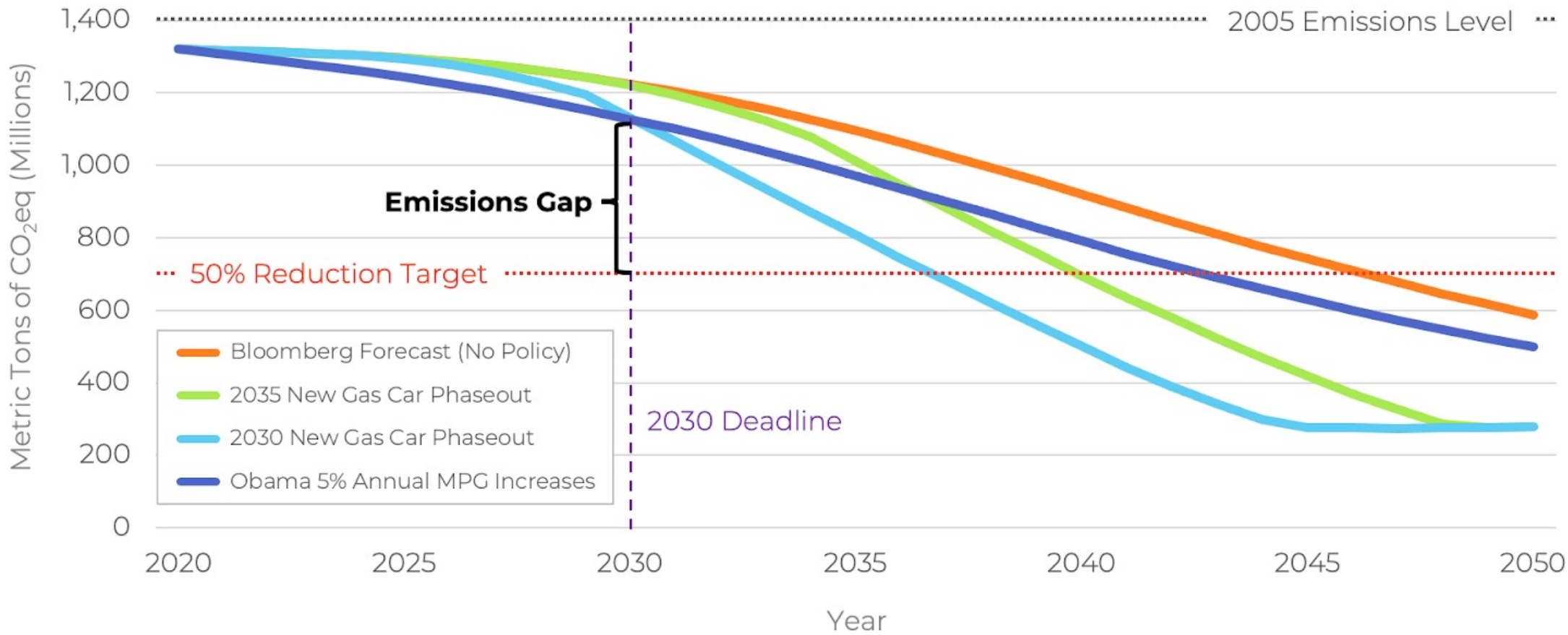
% of commuters in the U.S. who use the following means of transportation*



* based on a multipick survey of 1,681 people aged 18-64 in the U.S. who commute to work, school or university; survey conducted in Q1 2019

Source: Statista Global Consumer Survey

Failure of EV/Fuel Economy Policies to Hit Emissions Target by 2030



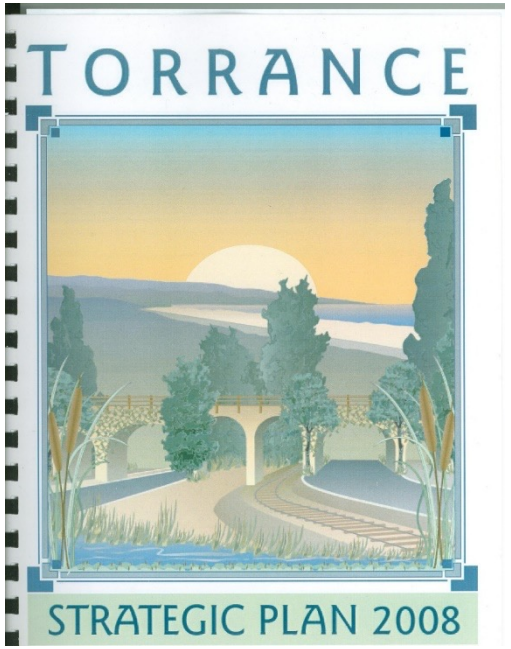
City of TORRANCE California

One Mile, One Charger Project

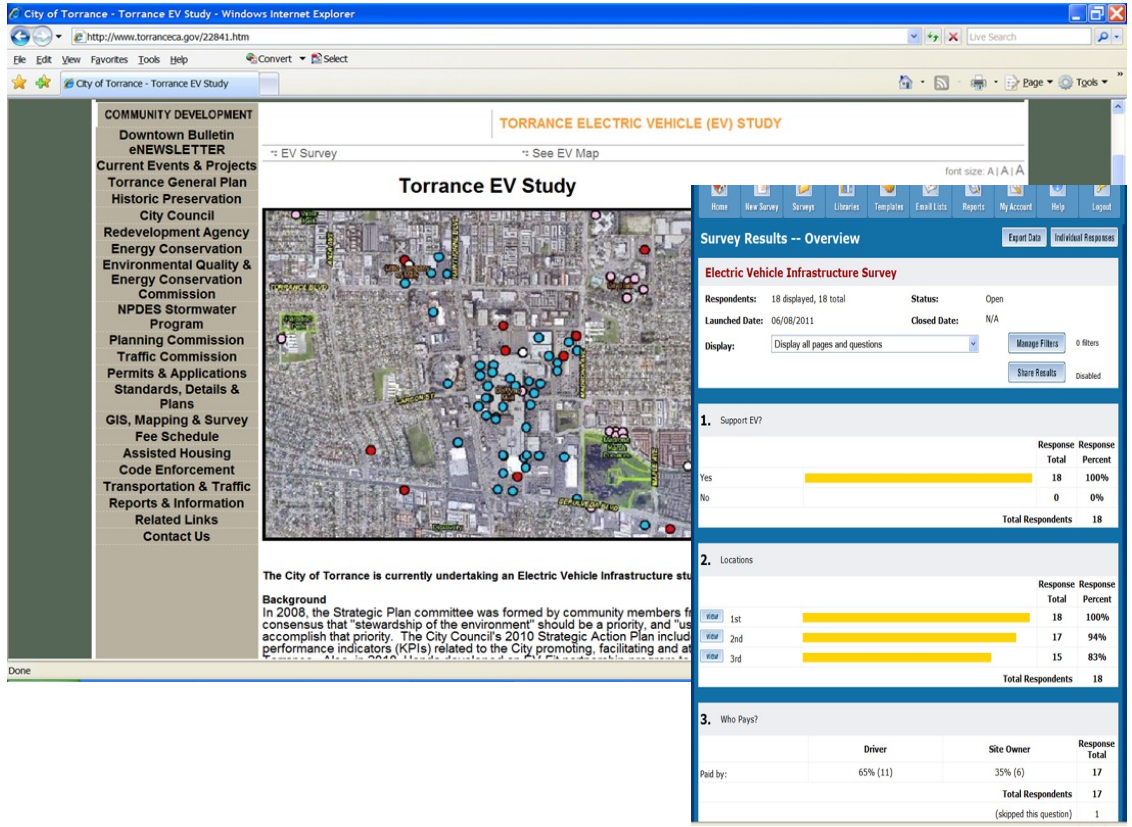
August 10, 2021

Background

- **2008 Strategic Plan Committee**
  - "Stewardship of the Environment"
    - KPI #153, establish 3 public alternative fueling sites.
    - KPI #154, facilitate infrastructure of alternative fuel
- **One Mile, One Charger Program Goal**
  - To improve air quality and facilitate public infrastructure to support that a Resident, Employee, Visitor is never being more than one (1) mile away from a publicly accessible EV Charger.



EV Study – Plug-(p)In Maps



Suggested Charging Placements

- Mall & Regional Shopping Centers
- Large Employment Centers & Business Parks
- Hospitals
- Civic Center Complex
- Torrance Beach
- 405 Corridor (Fast Charging)
- Wilson and Columbia Parks
- Downtown Torrance

Results from Public Outreach

- Majority Support
  - EVs
  - Submitted Suggested Locations
  - OK with user paying for the Power
- Common Concerns
  - Range Anxiety
  - Cost of EV Cars
  - Additional Equipment needed or Home upgrades

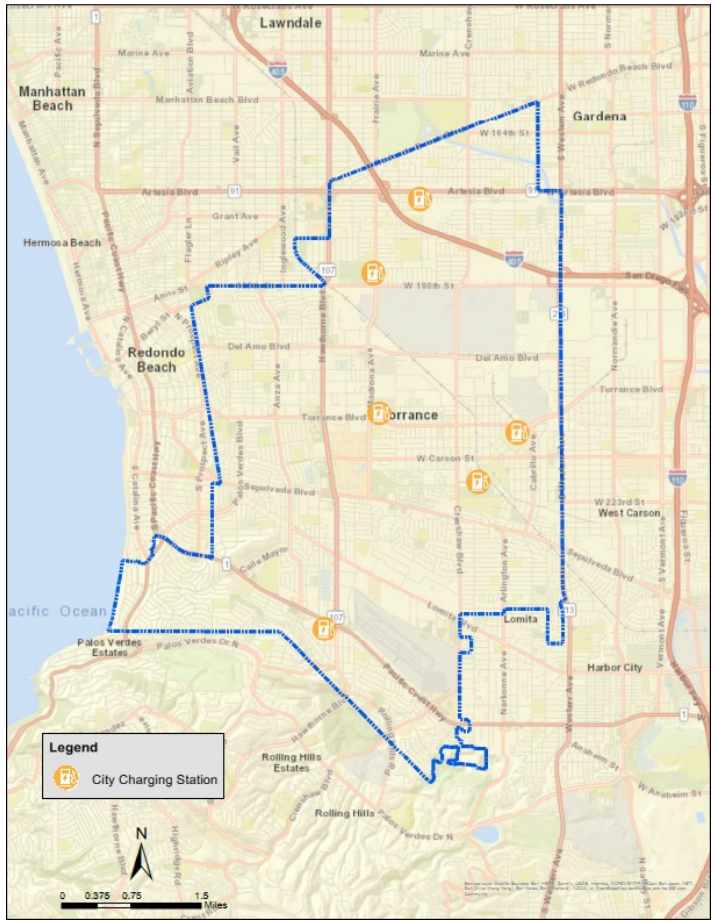
Phase I

- City successfully pursued grant funding from Mobile Source Reduction Committee (MSRC) and the California Energy Commission (CEC) to install a total of 14 Level II and 6 DC Fast Stations. With support of the City Council, the following project was approved:

- Phase I locations:
  - Civic Center
  - Wilson Park
  - Columbia Park
  - Downtown Torrance
  - McMaster Park
  - Walteria Park

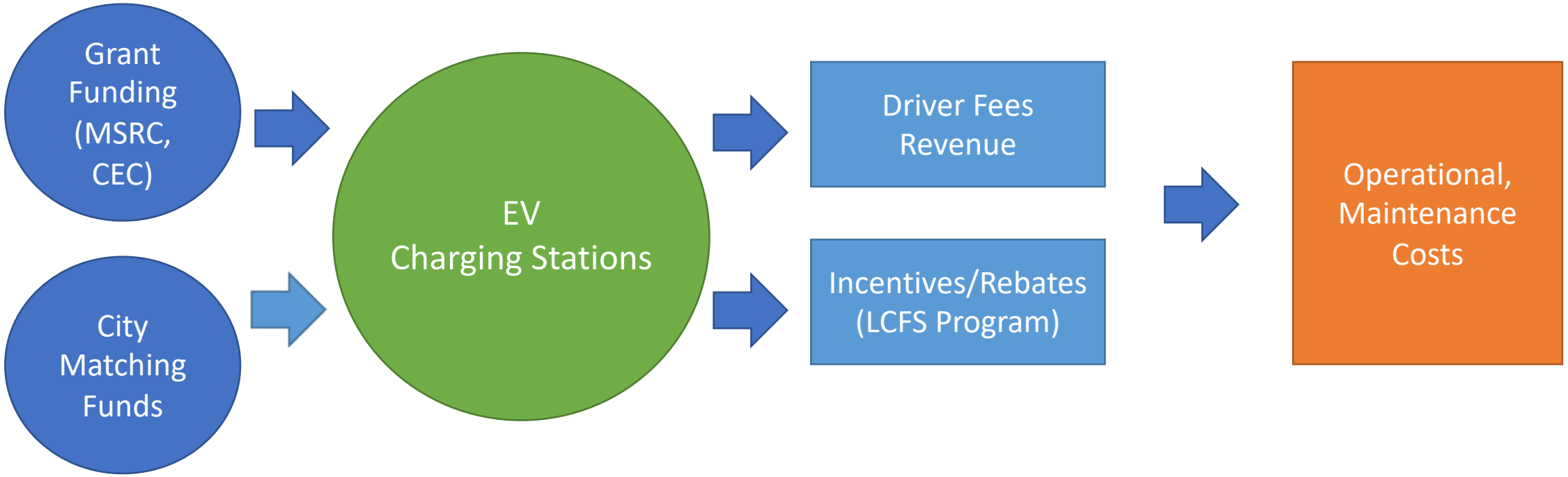
- Exact Placement determined by:
  - Proximity to power
  - Highest accessibility for max usage
  - Least disruption to existing usage
  - Coordinate with General Services and Community Service Depts.

RFP and Installation

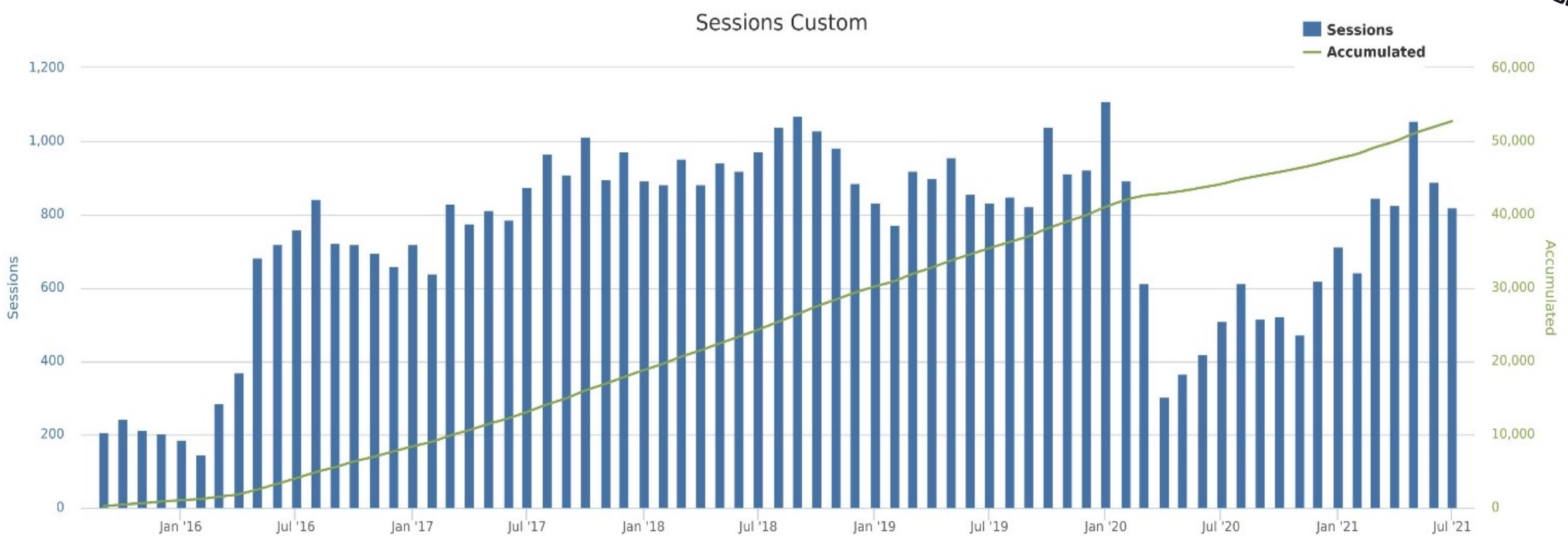


- RFP for public electric vehicle infrastructure
- ChargePoint was the selected vendor to install and operate city-owned stations
- Contract for 3-years with 1-year extensions

Funding Model

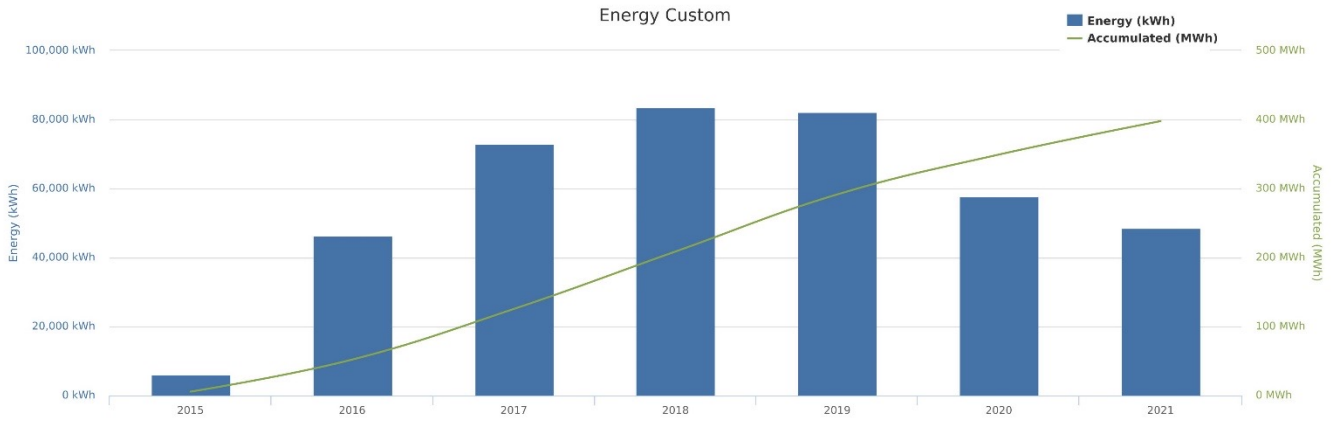


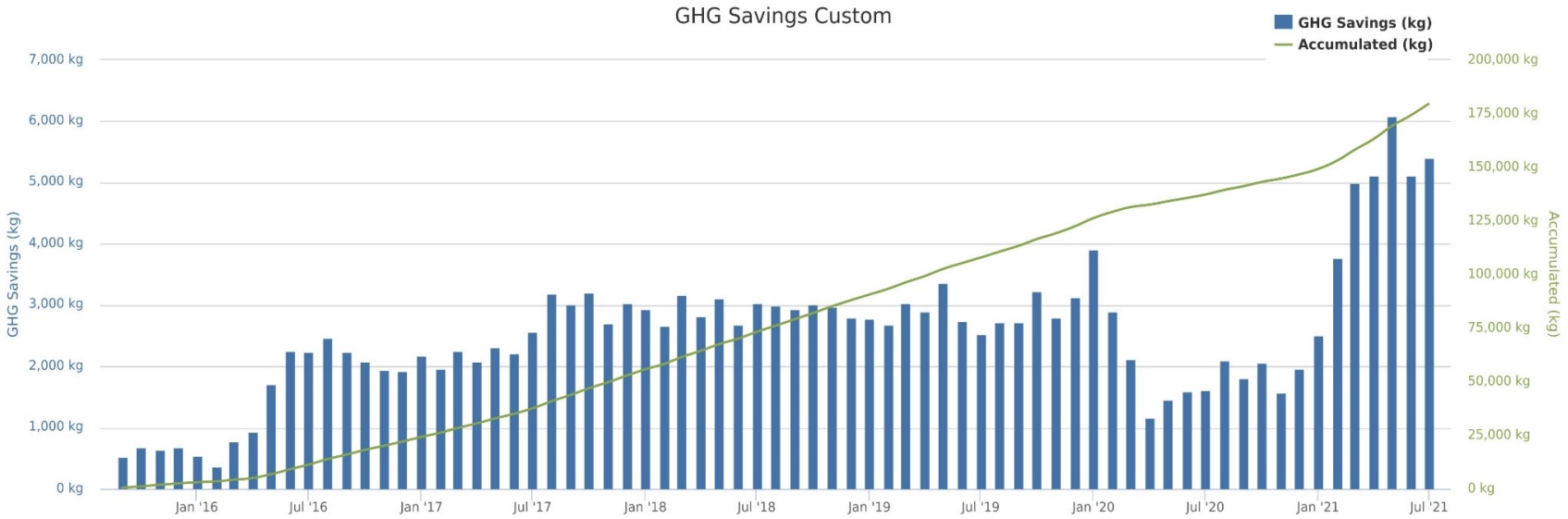
Findings



- Total Sessions: 52,734
  (since September 2015)

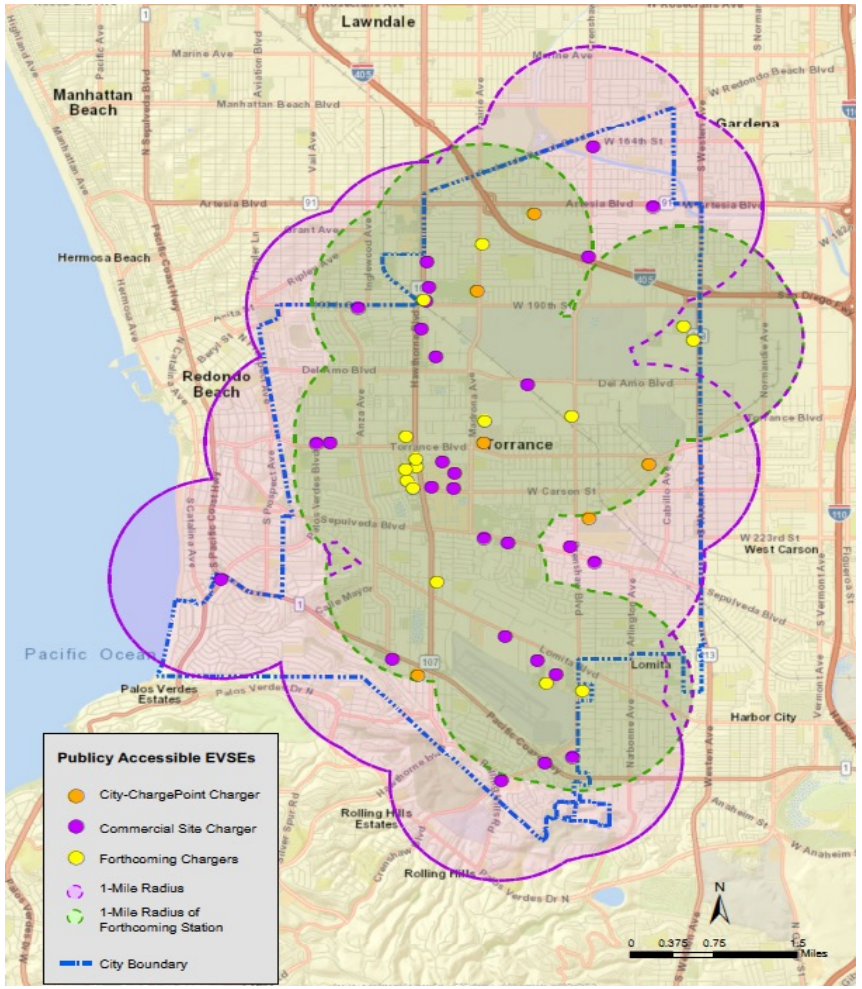
Findings





- Energy dispensed: 397.949 MWh
- Reduced greenhouse gas emissions: 179,721kg
  Equivalent of 4,589 trees

Findings



- City owned EV stations provided additional access to public electric vehicle infrastructure.
- City has encourage private development to install EV infrastructure and expand available stations
- As of July 2021, 98.6% of the City is now within one-mile from a publicly accessible electric vehicle station within the City's boundaries.
- More are being planned and/or under construction, which will increase the coverage to 99.6%

Phase II and Beyond

- The City recently secured grant funding from Mobile Source Reduction Committee (MSRC) to expand electric vehicle infrastructure to fleet applications.
  - Install up to 16 Level II EV Chargers at two City locations (City Yard and Civic Center for fleet use only).
  - City using Sourcewell contract for ChargePoint stations. Saves time by avoiding a new RFP.
  - Currently in Planning and Design Phase. Construction to be completed by December 2022.

City of TORRANCE California

One Mile, One Charger Project

August 10, 2021

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12th Annual California Climate & Energy Forum

Transforming Tomorrow Together

August 3 - 19, 2021

WEEK 2

- ***8/10 Webinar 5:***
  Planning for Equitable Existing Building Electrification
- ***8/11 Lunch 3:***
  Building Equity Into Policy & Programs with SOMAH
- ***8/11 Webinar 6:***
  Incorporating Environmental Justice Priorities into Regulatory and Enforcement Policy
- ***8/12 Webinar 7:***
  The Future is Local: Just and Equitable Clean Energy Transformation

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