

Up to Code: Permit Streamlining and Funding for ZEV Infrastructure



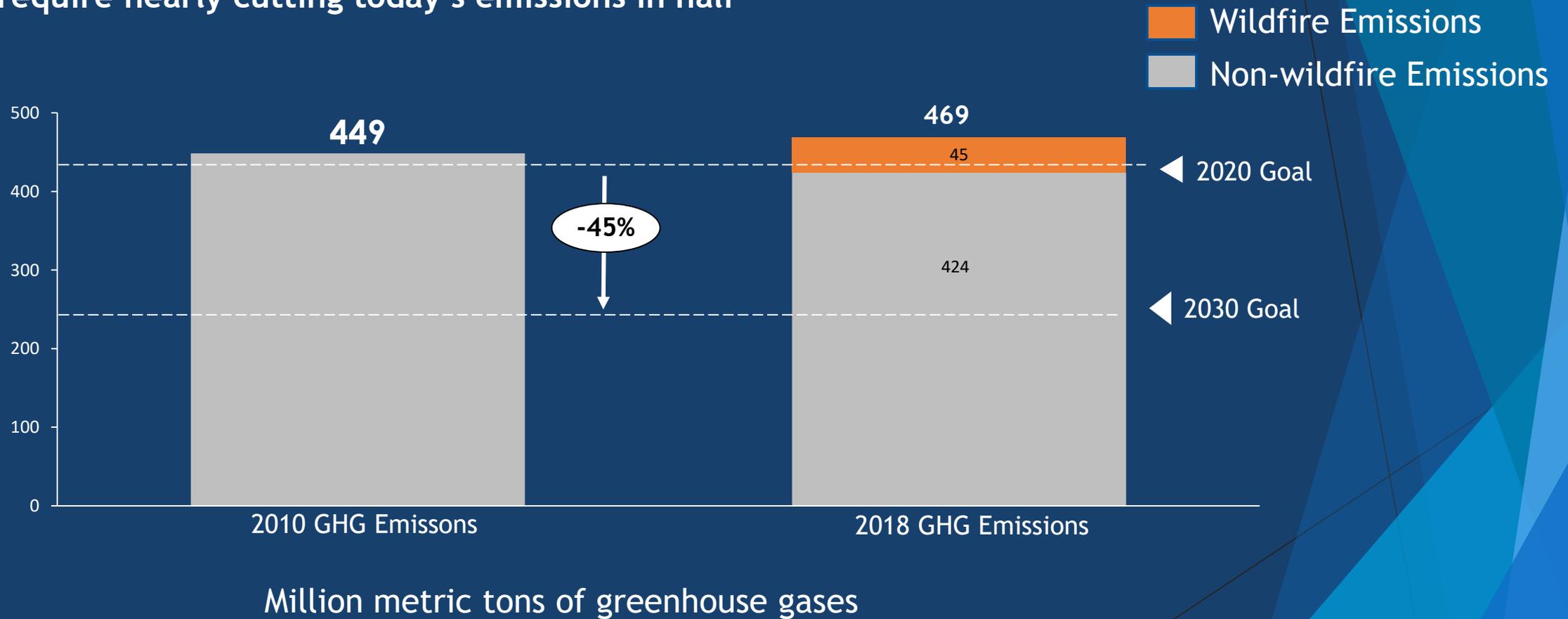
- March 10, 2020 -

What Today Will Cover

- ▶ Why this is important
- ▶ Electric Vehicle Charging Stations (EVCS)
- ▶ Hydrogen Vehicle Fueling Stations
- ▶ Assembly Bill 1236 (AB1236) and streamlining EVCS permitting
- ▶ Hydrogen Station permitting
- ▶ EVCS accessibility regulations and requirements
- ▶ Incentive funding for Zero Emission Vehicle Infrastructure

Why?

California met its 2020 GHG goal early, though 2030 will require nearly cutting today's emissions in half



That's Just the Start of CA's goals

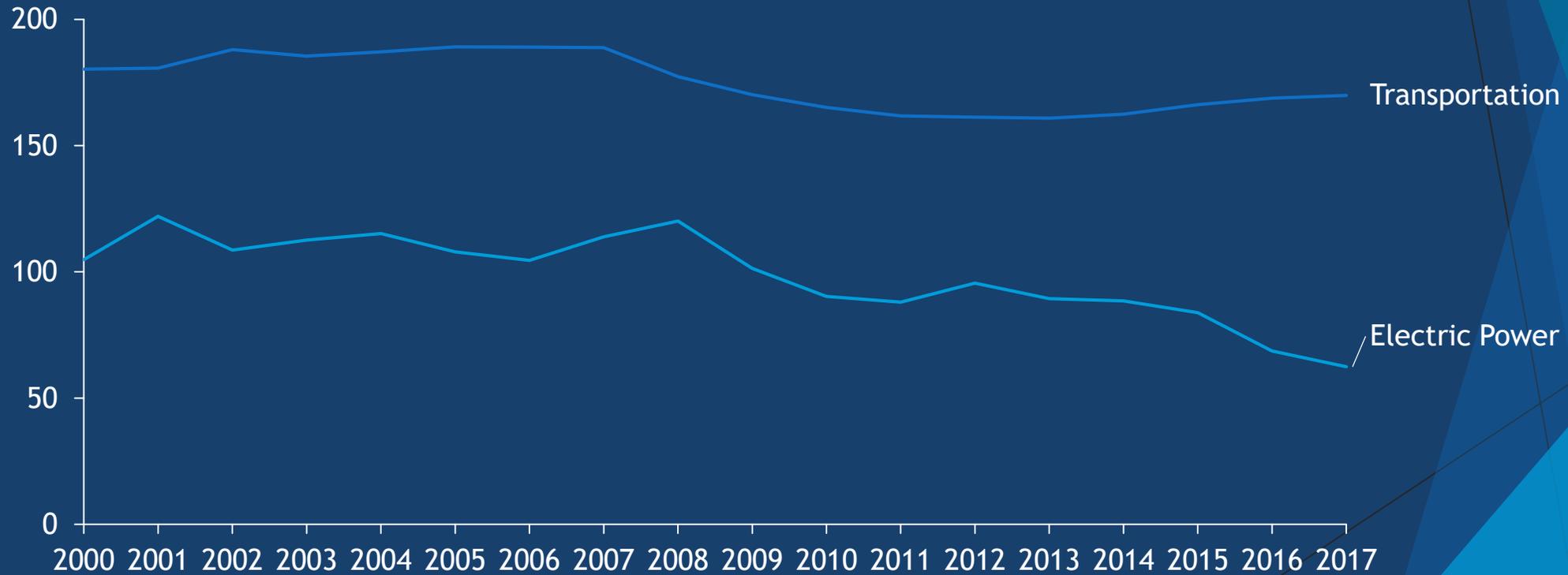
California also aims for:

- ▶ Carbon neutral as a state by 2045 (Executive Order B-55-18)
- ▶ Carbon free electricity production by 2045 (SB 100)
- ▶ 1.5 Million ZEVs by 2025
- ▶ 5 Million ZEVs by 2030
- ▶ 250,000 EVCS by 2025
- ▶ 200 Hydrogen fueling stations by 2025

Gavin Newsom's Executive Order N-19-19 affirmed this climate vision

Electricity has been the biggest driver of emissions reductions to date, and transportation has been the hardest nut to crack

Million metric tons of greenhouse gases emitted in CA



ZEVs are *part* of this solution, but we need them to be part of the solution *faster*

- ▶ #2 Concern about EVs: low charging station availability
 - ▶ California has the highest EVCS cost in the country
 - ▶ Permitting and related costs are higher in CA than most places in USA
 - ▶ AB 1236 was passed in 2015 to streamline permitting; implementation has been spotty
- ▶ Biggest Concern about Hydrogen Vehicles: “Where can I fill up?”
 - ▶ 44 stations open today with goal of 200 by 2025

What are Electric Vehicle Charging Stations (EVCS)

Level 1
(Up to 1.9 kW)
- 4-5 miles per hour -



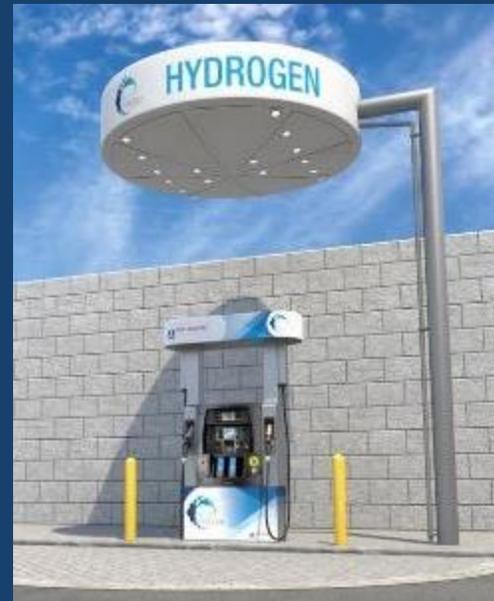
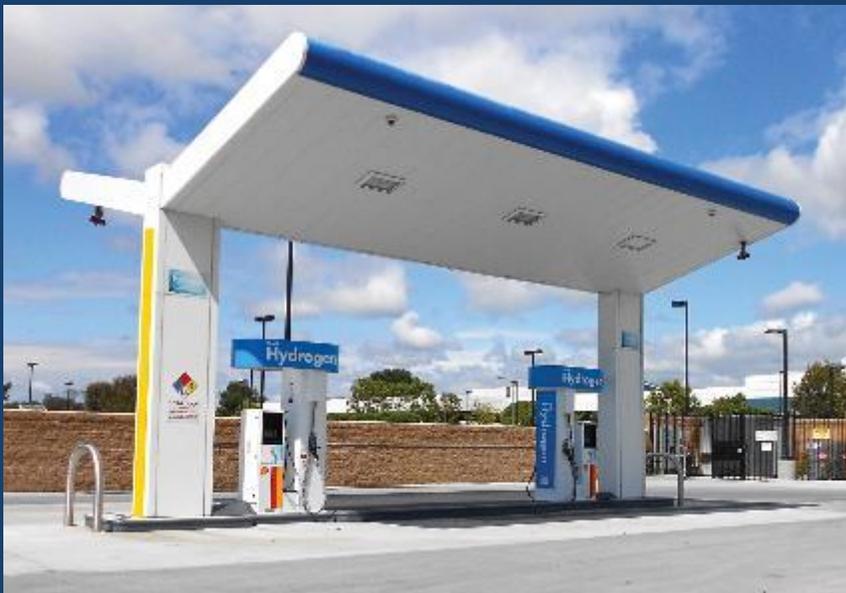
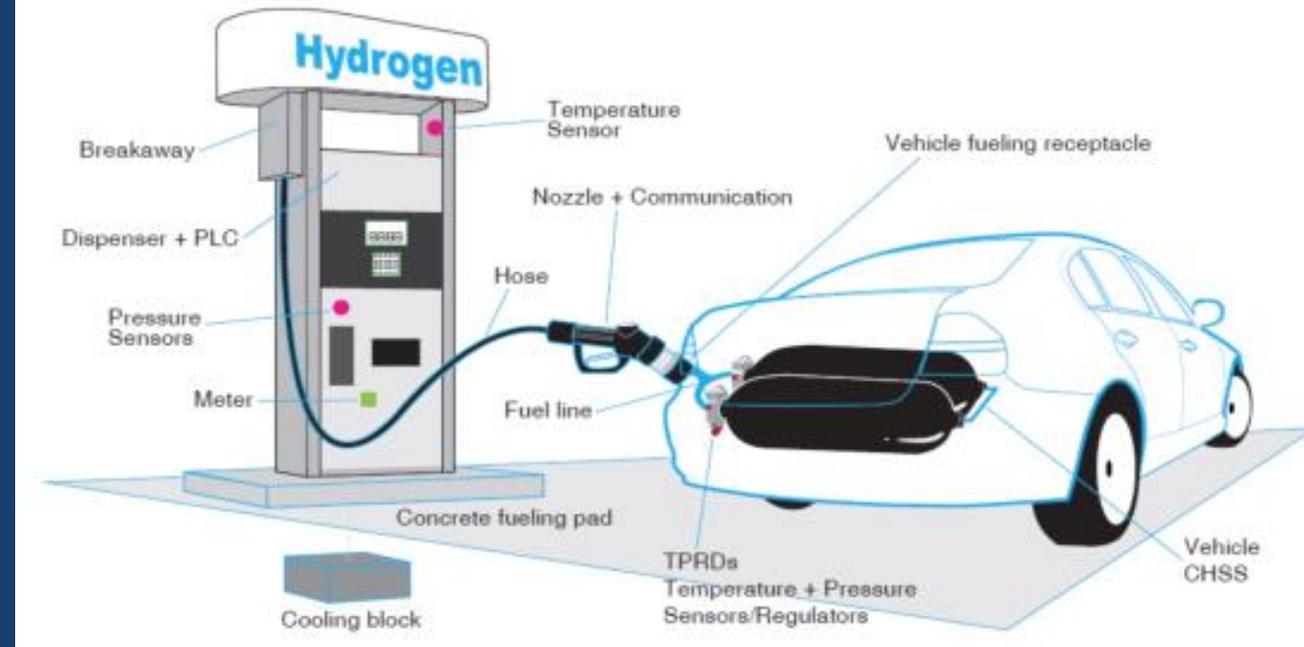
Level 2
(Up to 19.2 kW)
- 12-70 miles per hour -



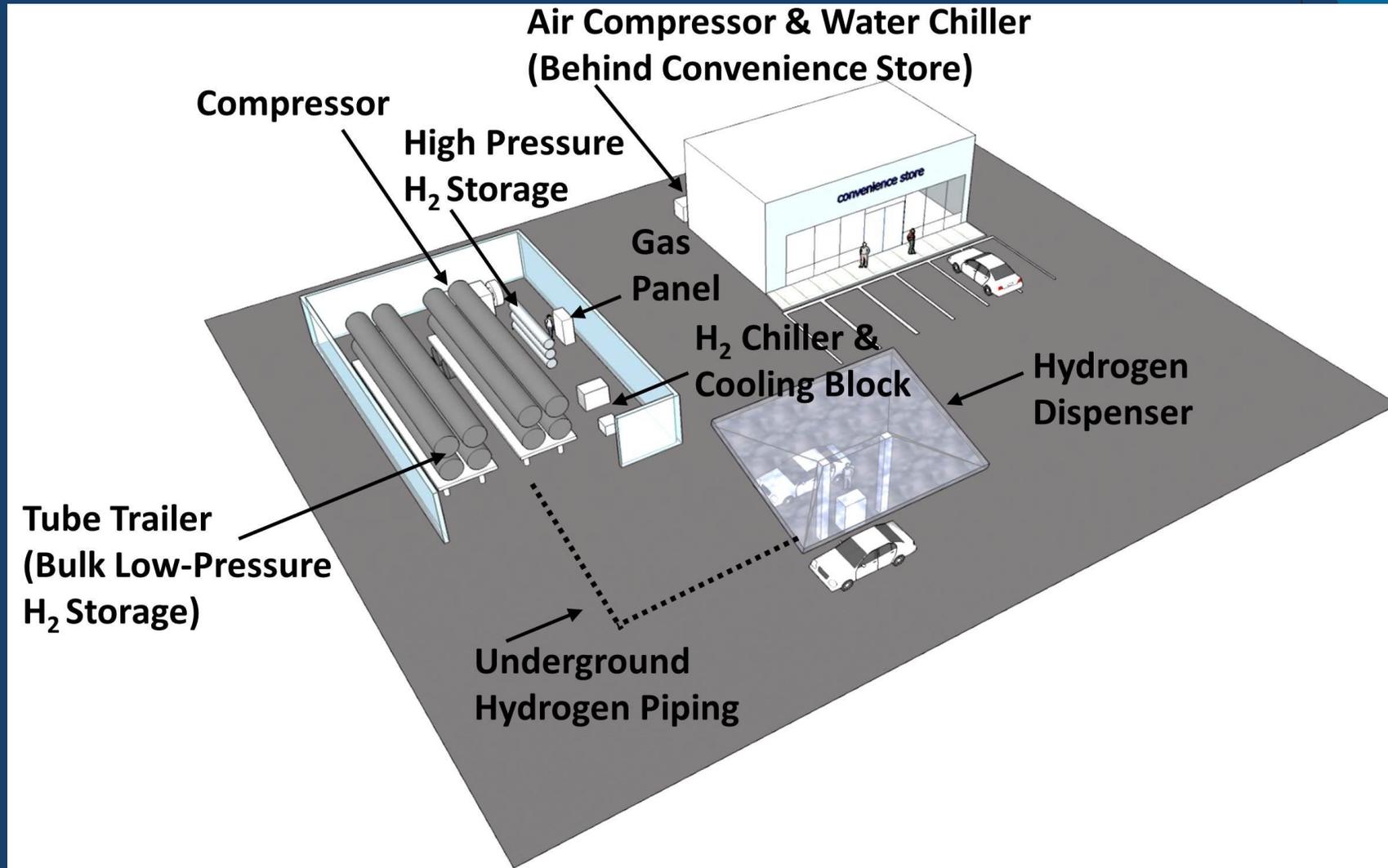
Level 3 / Direct Current
Fast Chargers / DCFC
(50-350 kW)
- 3-20 miles per minute -



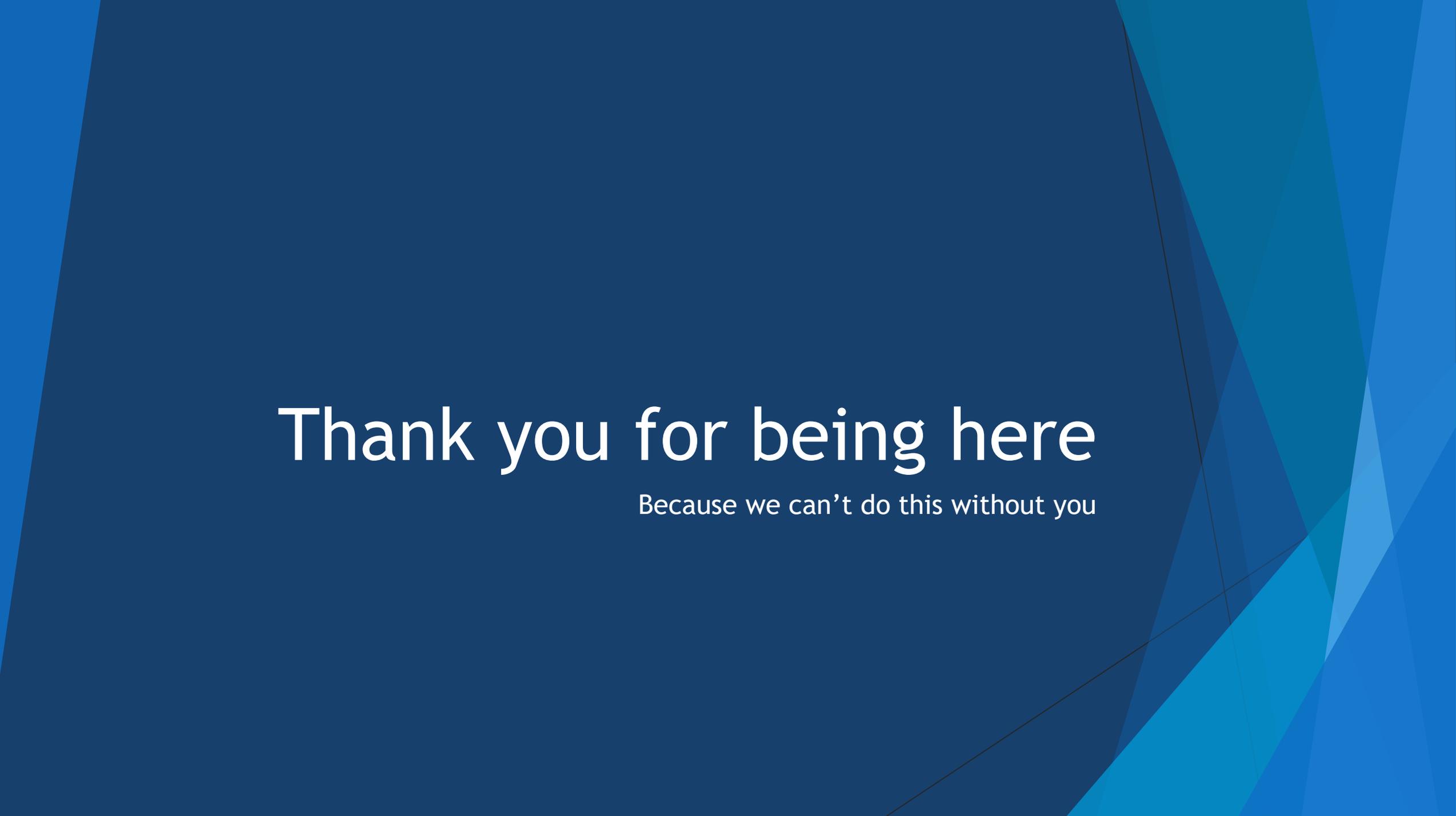
What is a Hydrogen Fueling Station



What is a Hydrogen Fueling Station



*Gaseous hydrogen station. Liquid hydrogen stations vary slightly.



Thank you for being here

Because we can't do this without you

GOVERNOR'S OFFICE OF BUSINESS AND ECONOMIC DEVELOPMENT

Electric Vehicle Charging Station Permitting Guidebook



Governor's Office of
Business and Economic
Development [GO-B&ED]
JULY 2019

Electric Vehicle Charging Station Permit Streamlining



- March 10th, 2019 -

Why is Permit Streamlining Important?

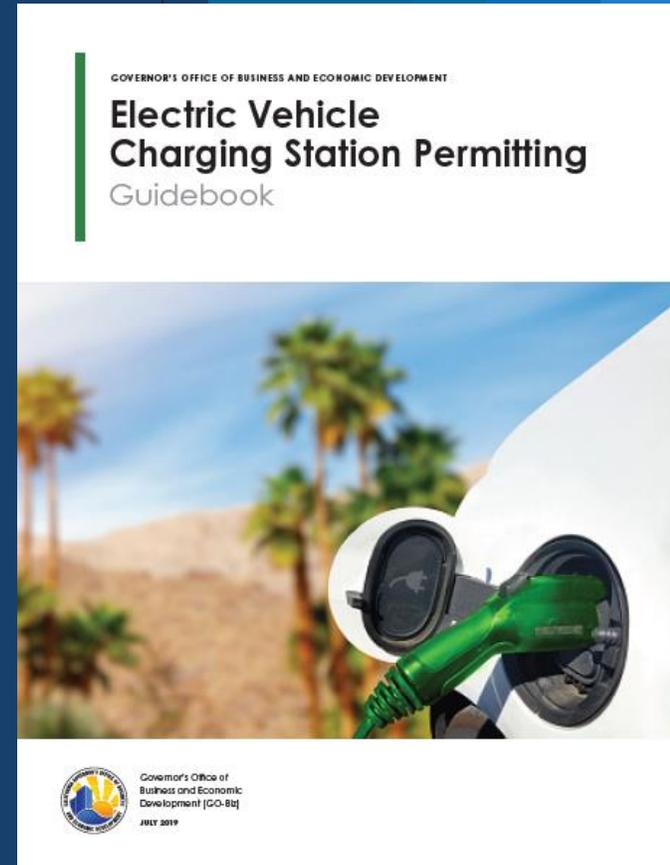
- ▶ New jobs, cleaner air and less work for city/county staff
- ▶ Installing a charging station is 3 to 5 the cost of charger itself,
 - ▶ Soft Costs (i.e. permitting) have the greatest possibility for cost reduction with installing charging stations
- ▶ Electrify America data across states:
 - ▶ Average permitting time in California exceeds the national average by more than 70%
 - ▶ Stations must be redesigned in California 30% more frequently
 - ▶ Cost 22% more to build in California
- ▶ In order to achieve California's goals, we must build charging stations at 15 to 45 sites every working day over the 2020-2030 timeframe₂

1. From [Reducing EV Charging Infrastructure Costs](#), Rocky Mountain Institute.

2. From [EV Infrastructure: Need and Cost](#), California Electrification Coalition.

Guidebook Key Sections

- ▶ 1. Planning and Site Selection
- ▶ 2. Permitting
 - ▶ AB 1236 Streamlining Map
- ▶ 3. Accessibility
- ▶ 4. Connecting to the Grid
- ▶ 5. Construction, Commissioning, and Operation



Accessible



Planning and Site Selection

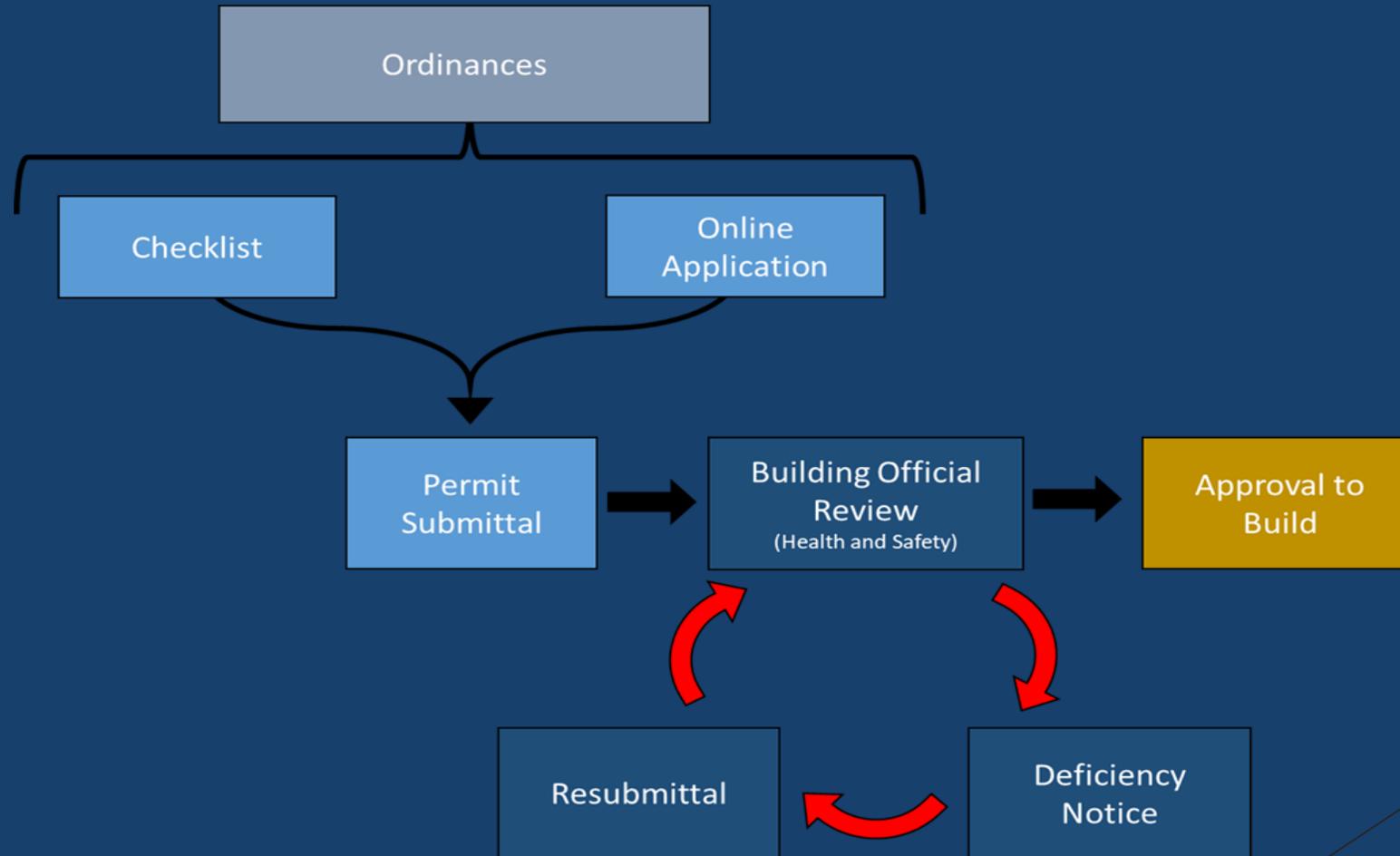
- ▶ Voluntary Building Codes
- ▶ Parking/Charging Clarification
 - ▶ AB 1100 (Kamlager-Dove, 2019)
- ▶ Climate Action Plans

Authority Having Jurisdiction (AHJ)	Policy
Sacramento County	EVCS spaces count as two spaces
Los Angeles County	EVCS spaces count as one space
City of Pleasanton	EVCS spaces count as one space
City of Santa Barbara	EVCS spaces count as one space
City of West Hollywood	EVCS spaces count as one space
City of Stockton	EVCS spaces count as two spaces, for up to 10% reduction of parking requirements



Permitting

▶ Assembly Bill 1236 Permit Streamlining Law



Application Submittal » Complete Response

Type of Charger	Within Best Practice	Optimal
L2 – Single Family	1 day	Same Day
Multi L2 – Shared (Multi Family/Workplace/Public)	5 days	
DCFC	5 days	

**Best Practice
Permitting
Timelines**

Complete package » Approval to Build

Type of Charger	Within Best Practice	Optimal
L2 – Single Family	1 day	Same Day
Multi L2 – Shared (Multi Family/Workplace/Public)	15 days*	
DCFC	15 days*	

Construction Complete Notice » Inspection

Type of Charger	Within Best Practice	Optimal
L2 – Single Family	5 days	Same Day
Multi L2 – Shared (Multi Family/Workplace/Public)	5 days	
DCFC	5 days	

Accessibility

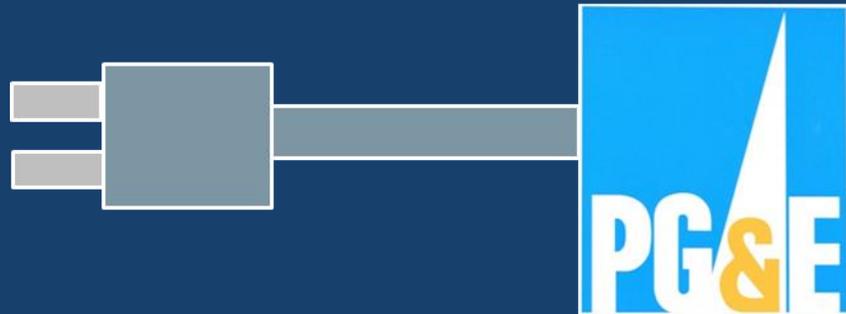
- ▶ California is first in the nation to provide ADA compliance specificity



Total Number of EVCS at a Facility ¹	Minimum Number (by type of EVCS Required to Comply with Section 11B-812: ¹ Van Accessible	Minimum Number (by type of EVCS Required to Comply with Section 11B-812: ¹ Standard Accessible	Minimum Number (by type of EVCS Required to Comply with Section 11B-812: ¹ Ambulatory
1 to 4	1	0	0
5 to 25	1	1	0
26 to 50	1	1	1
51 to 75	1	2	2
76 to 100	1	3	3
101 and over	1, plus 1 for each 200, or fraction thereof, over 100	3, plus 1 for each 60, or fraction thereof, over 100	3, plus 1 for each 50, or fraction thereof, over 100

Connecting to the Grid

- ▶ Working with Utilities
 - ▶ Communicate early with utilities
 - ▶ Working with designated interconnection teams



Construction, Commissioning, and Operation

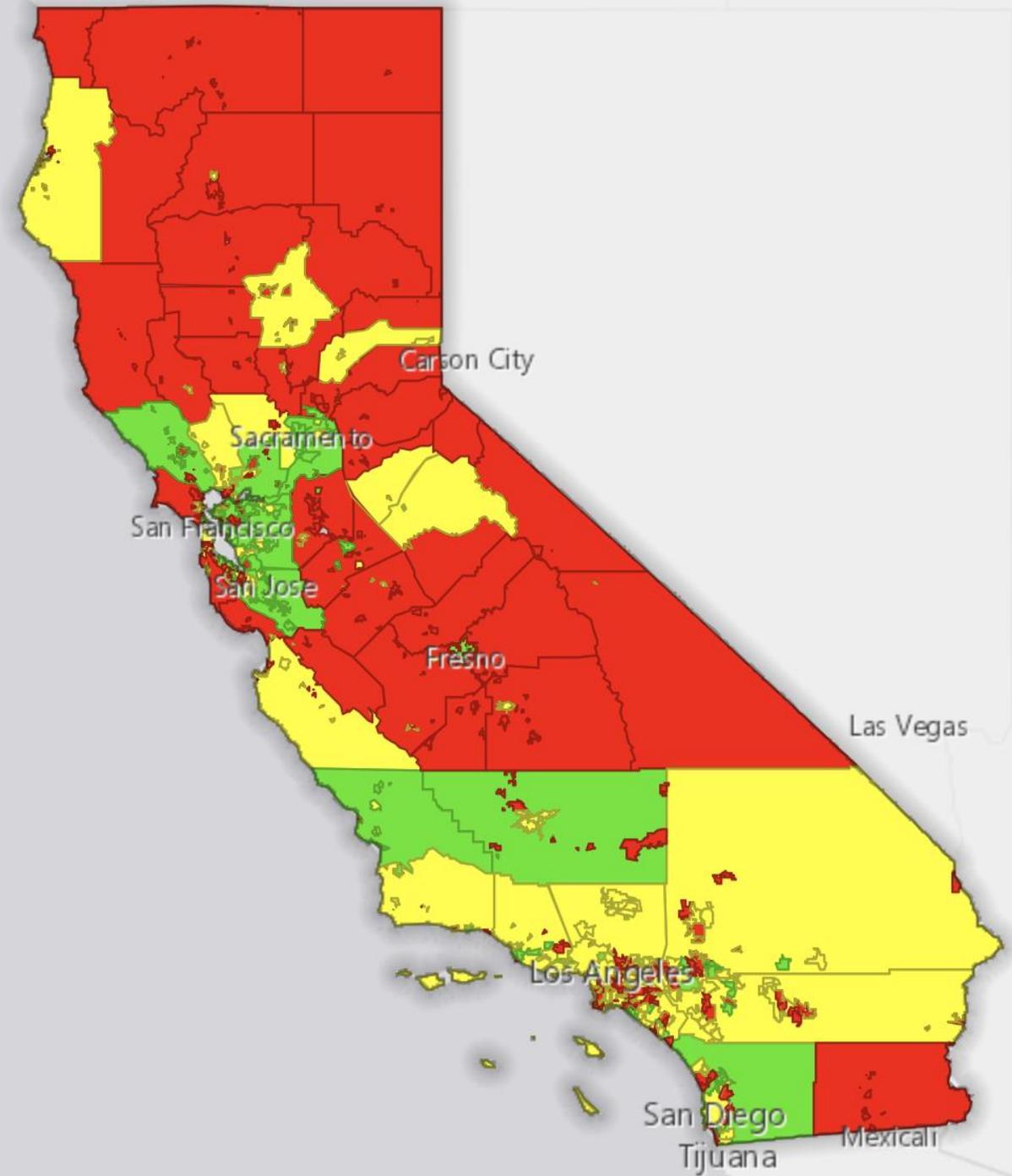
- ▶ Weight and Measures Certification
- ▶ Signage

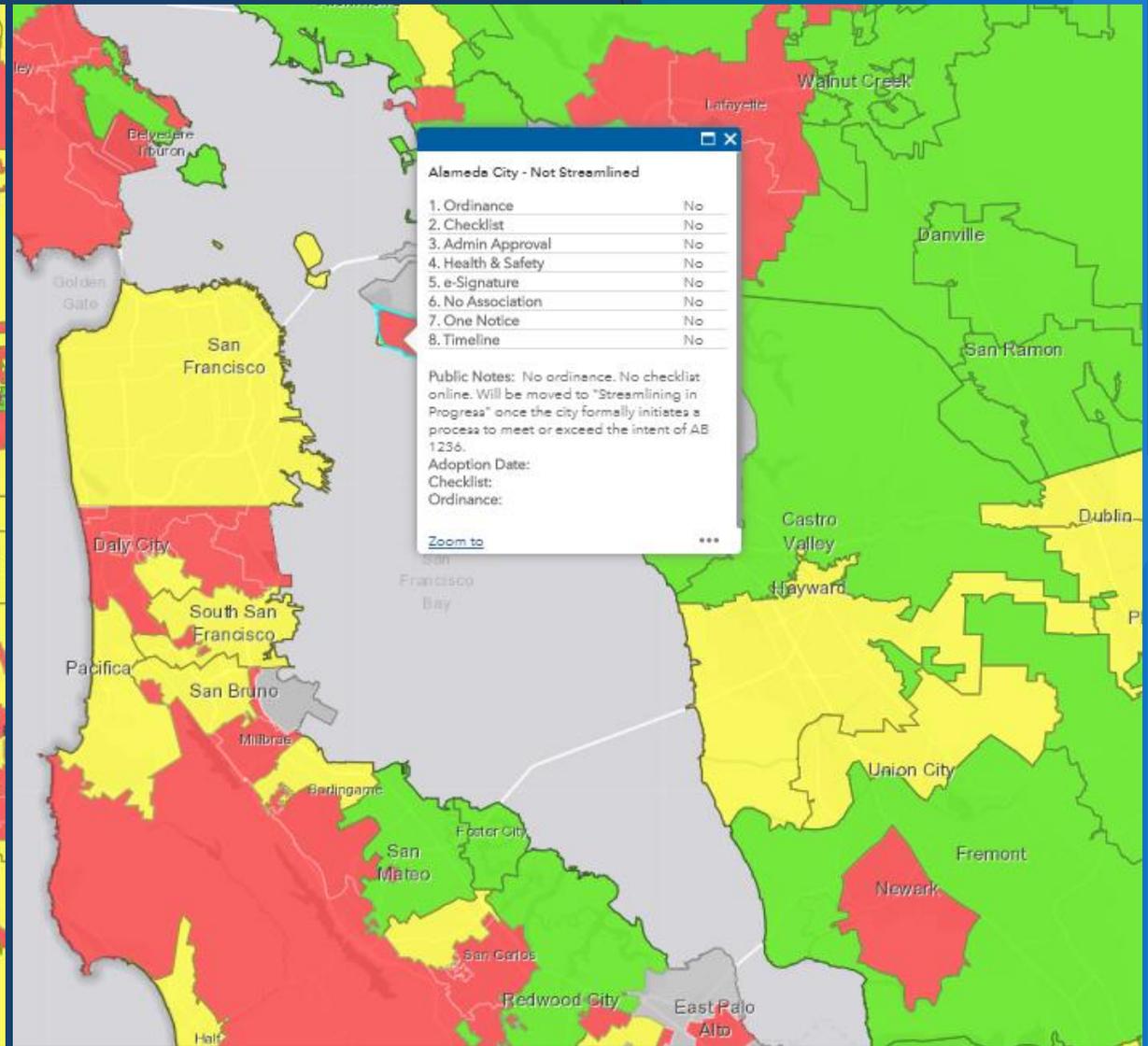
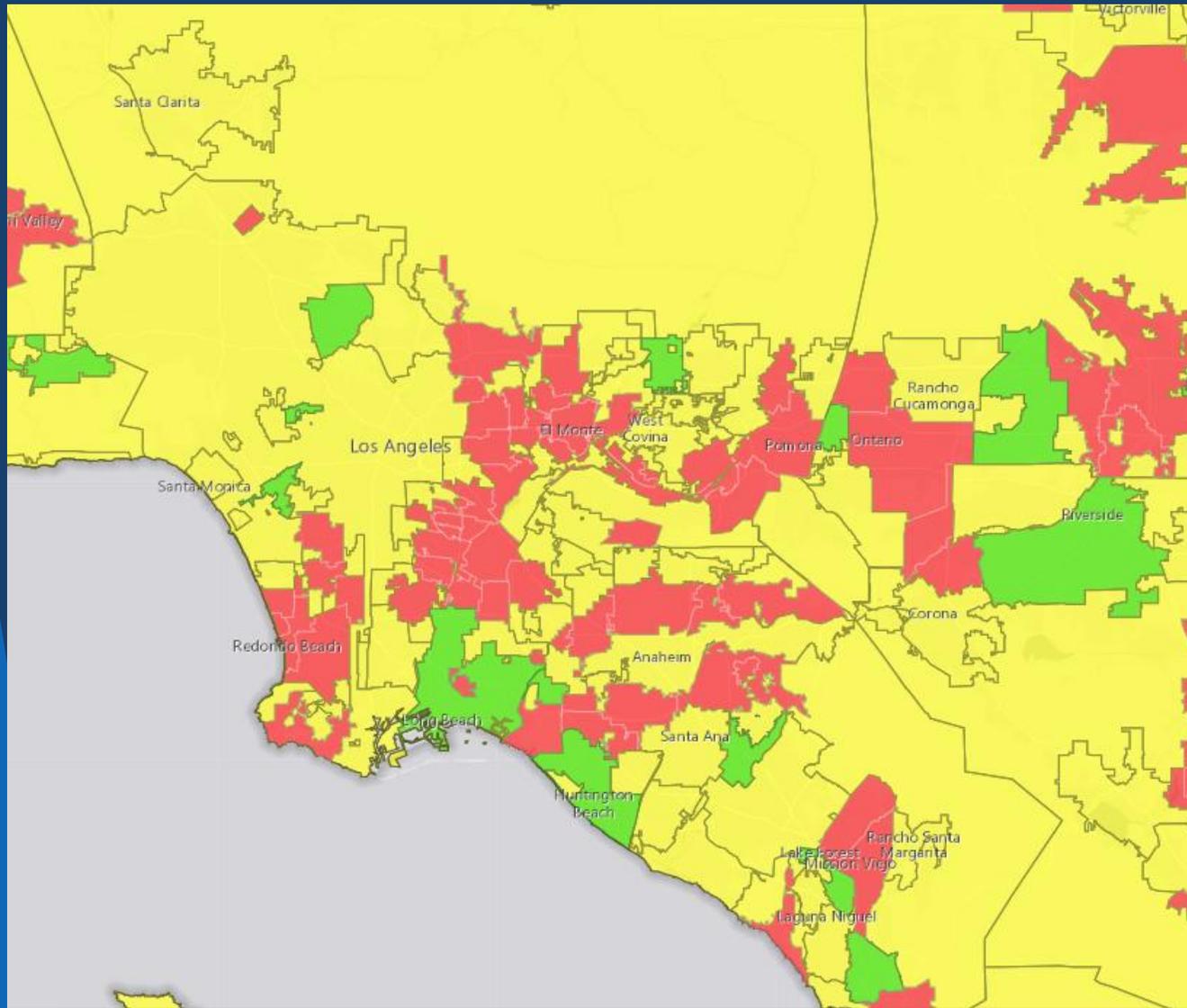


CA Electric Vehicle Charging Station Permit Streamlining Map

*Interactive map available [here](#)

EVCS Permit Ready Score:
Green – City or County is EVCS Permit Ready, charging infrastructure permitting is streamlined
Yellow – City or County EVCS permit streamlining is in progress, or partially complete
Red – City or County is not streamlined for EVCS permitting
Grey – Not yet evaluated (or in process)





*See <http://business.ca.gov/zevreadiness> for updated map

	<p style="text-align: center;">Scoring Criteria:</p>	<p style="text-align: center;">Complete if:</p>
<input type="checkbox"/>	<p>1. Streamlining Ordinance Ordinance creating an expedited, streamlined permitting process for electric vehicle charging stations (EVCS) including level 2 and direct current fast chargers (DCFC) has been adopted.</p>	<ul style="list-style-type: none"> - Streamlining ordinance has been adopted
<input type="checkbox"/>	<p>2. Permitting checklists covering Level 2 and DCFC Checklist of all requirements needed for expedited review posted on city or county website.</p>	<ul style="list-style-type: none"> - Permitting checklist is available and easily found on city or county website
<input type="checkbox"/>	<p>3. Administrative approval of EVCS EVCS projects that meet expedited checklist are administratively approved through building or similar non-discretionary permit.</p>	<ul style="list-style-type: none"> - The streamlining ordinance states that permit applications that meet checklist requirements will be approved through non-discretionary permit (or similar)
<input type="checkbox"/>	<p>4. Approval limited to health and safety review EVCS project review limited to health and safety requirements found under local, state, and federal law.</p>	<ul style="list-style-type: none"> - The streamlining ordinance states that no discretionary use permit is required and permit approval will be limited to health and safety review

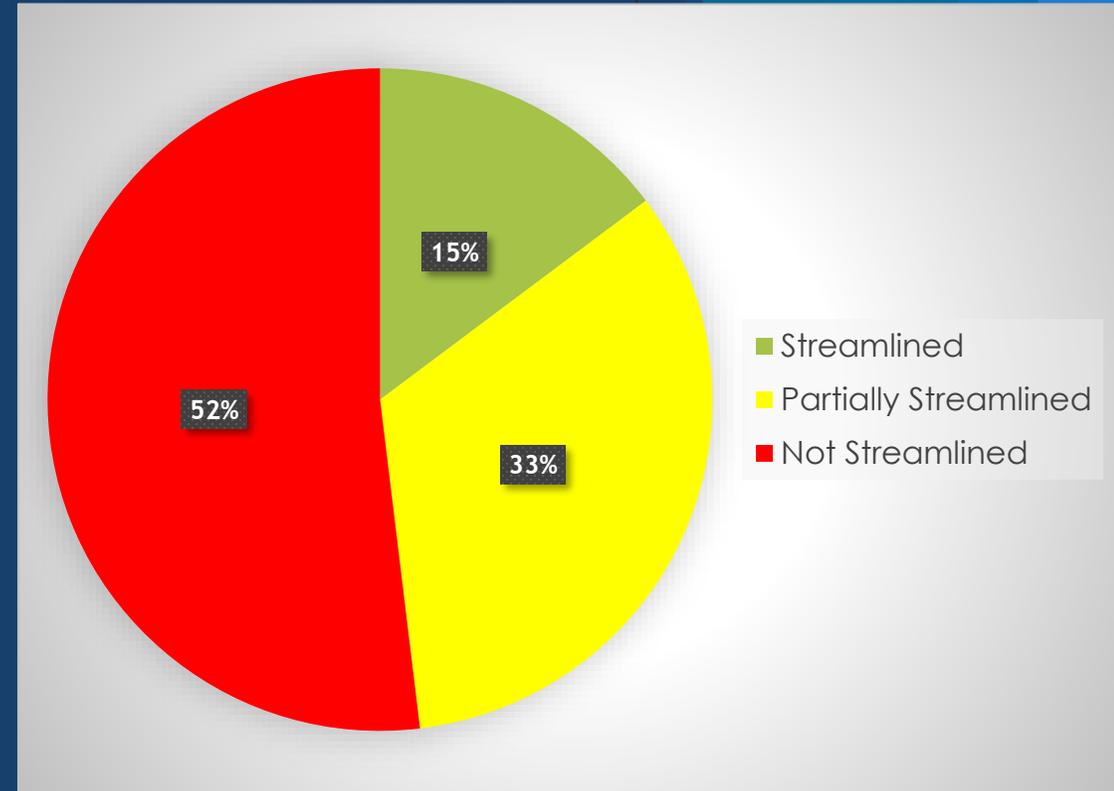
<input type="checkbox"/>	<p>5. Electric signatures accepted AHJ accepts electronic signatures on permit applications.*</p>	<ul style="list-style-type: none"> – Electronic signatures accepted on City or County website (usually specified in the ordinance)
<input type="checkbox"/>	<p>6. EVCS not subject to association approval EVCS permit approval not subject to approval of an association (as defined in Section 4080 of the Civil Code).</p>	<ul style="list-style-type: none"> – The streamlining ordinance states that EVCS permits do not require association approval
<input type="checkbox"/>	<p>7. One complete deficiency notice AHJ commits to issuing one complete written correction notice detailing all deficiencies in an incomplete application and any additional information needed to be eligible for expedited permit issuance.</p>	<ul style="list-style-type: none"> – The streamlining ordinance dictates that a written correction notice must detail all deficiencies
<input type="checkbox"/>	<p>8. Bonus: Expedited timeline for approval Consistent with the intent of AB 1236, AHJ establishes expedited timelines for EVCS permit approval compared to standard project approval procedures.</p>	<ul style="list-style-type: none"> – The streamlining ordinance (or other policy mechanism) outlines expedited approval timelines for EVCS permits

Status of the State as of 3/9/20

- Cities and counties

- ▶ **Streamlined - 83**
- ▶ **Streaming in Progress - 180**
- ▶ **Not Streamlined - 272**

Only 15.5% of California has streamlined its EVCS permitting

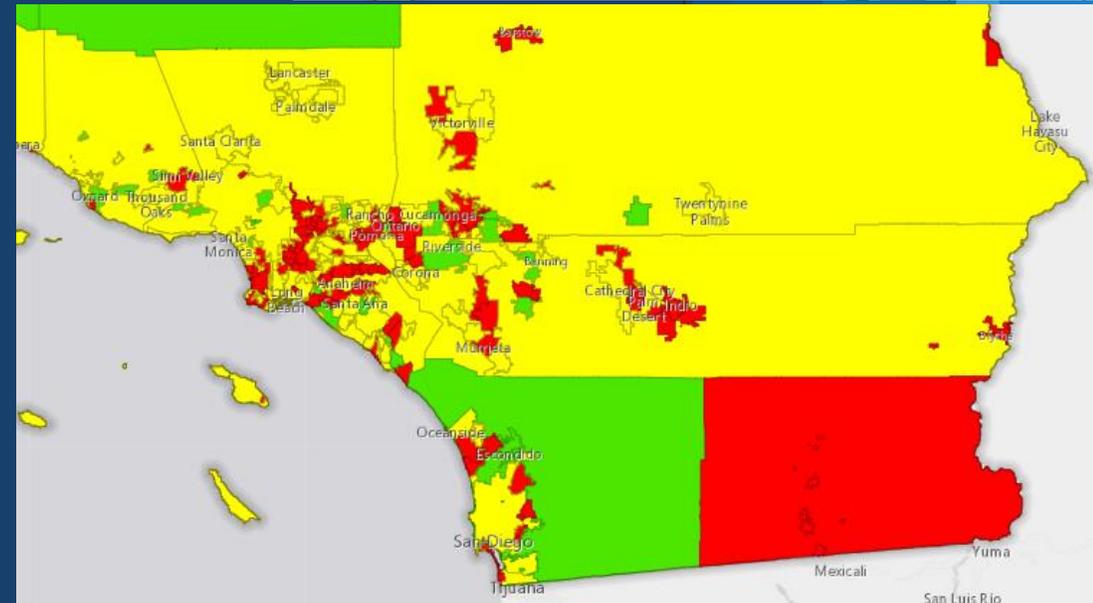
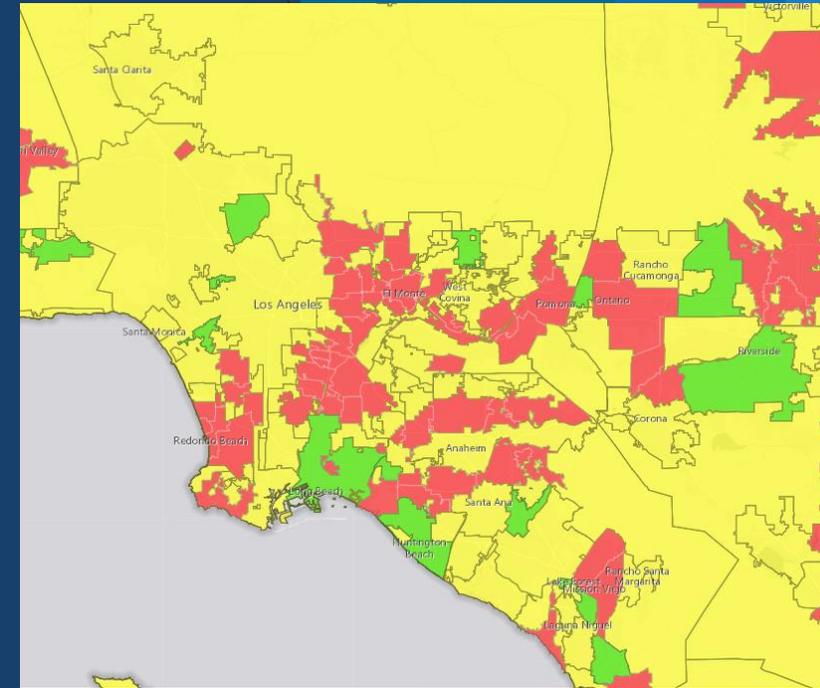


SCAG Territory Comparison

-191 cities and 6 counties

- ▶ Streamlined - 24
- ▶ Streaming in Progress - 78
- ▶ Not Streamlined - 95

Only 12.2% of SCAG has streamlined its EVCS permitting



Common Problems

- ▶ Aesthetics – Requiring additional landscaping, colored bollards, public art etc.
- ▶ Zoning Concerns
- ▶ Parking Counts
- ▶ No Electronic Signature
- ▶ Different ADA Interpretations
- ▶ Lack of Awareness of AB 1236



Common Problem: Multiple Rounds of Deficiency Comments

ADA Compliance

Second, Third, Forth Round of Comments

Building Review Comments

Planning Review Comments



Parking Count Issues

How to become “Green” on the AB 1236 Map

- ▶ Pass an Ordinance
- ▶ Create EVCS permitting checklist
 - ▶ Based on the ordinance and checklist, develop permitting process that (in practice) streamlines the permitting process
 - ▶ Removing Planning Department decisions from the process as much as possible

CHAPTER V. - STREAMLINED PERMITTING FOR ELECTRIC VEHICLE CHARGING STATIONS

Sec. C3-49. - Purpose and authority.

The purpose of this Chapter is to promote and encourage the use of electric vehicles by creating an expedited, streamlined permitting process for Electric Vehicle Charging Stations and removing obstacles to permitting for Electric Vehicle Charging Stations so long as the action does not supersede the Building Official's authority to identify and



(Replace with City or County logo)

CITY OR COUNTY OF _____ RESIDENTIAL AND NON-RESIDENTIAL CHECKLIST FOR PERMITTING ELECTRIC VEHICLES AND ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE)

Please complete the following information related to permitting and installation of Electric Vehicle Service Equipment (EVSE) as a supplement to the application for a building permit. This checklist contains the technical aspects of EVSE installations and is intended to help expedite permitting and use for electric vehicle charging.

Upon this checklist being deemed complete, a permit shall be issued to the applicant. However, if it is determined that the installation might have a specific adverse impact on public health or safety, additional verification will be required before a permit can be issued.

This checklist substantially follows the "Plug-In Electric Vehicle Infrastructure Permitting Checklist" contained in the Governor's Office of Planning and Research "Zero Emission Vehicles in California: Community Readiness Guidebook" and is purposed to augment

Job Address:	Permit No.
<input type="checkbox"/> Single-Family <input type="checkbox"/> Multi-Family (Apartment) <input type="checkbox"/> Multi-Family (Condominium)	
<input type="checkbox"/> Commercial (Single Business) <input type="checkbox"/> Commercial (Multi-Businesses)	
<input type="checkbox"/> Mixed-Use <input type="checkbox"/> Public Right-of-Way	
Location and Number of EVSE to be Installed:	
Garage _____	Parking Level(s) _____
Parking Lot _____	Street Curb _____
Description of Work:	

Contact us with your questions:



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Clean Transportation Program



Brian Fauble
Energy Commission Specialist II



- Background
- 2020 Incentive projects
- Importance of permitting
- Additional funding opportunities



CALeVIP Background

- Implement targeted incentive projects throughout California that address a specific region's EV charging needs.
- Provide a mechanism that speeds up the installation, reporting, and funding processes.



CALeVIP Background

- CALeVIP vs Incentive Projects within CALeVIP
 - CALeVIP is the platform for all Incentive Projects
 - Incentive Projects within CALeVIP are geographically targeted projects
- Total Active Projects: \$73.5 million



CALeVIP Background - Projects

Incentive Project	Launch Date	Counties	Funding	Technologies
Fresno County	December 2017	Fresno	\$2.7 million	Level 2
Southern California	August 2018	Los Angeles Orange Riverside San Bernardino	\$29 million	DC Fast Chargers
Sacramento County	April 2019	Sacramento	\$15.5 million*	Level 2 & DC fast chargers
Northern California	May 2019	Shasta Humboldt Tehama	\$4 million	Level 2 & DC fast chargers
Central Coast	October 2019	Monterey Santa Cruz San Benito	\$7 million**	Level 2 & DC fast chargers
San Joaquin Valley	December 2019	San Joaquin Kern Fresno	\$15.3 million	Level 2 & DC fast chargers
Total: \$73.5 million				

*Includes SMUD's \$1.5 million investment that is in the process of being added.

** Includes MBCP's \$1 million investment. MBCP is investing \$1M/year for 3 years.



2020 Incentive Projects

Sonoma Coast Incentive Project

- \$6.75M in rebate funding over 3 years
 - \$5.1M Energy Commission
 - \$1.65M Local Partners

Peninsula-Silicon Valley Incentive Project

- \$56 million in rebate funding over 4 years
 - \$33M Energy Commission
 - \$23M Local Partners

San Diego County Incentive Project

- \$21.38 million in rebate funding over 3 years
 - \$15.8M Energy Commission
 - \$5.58 M Local Partners



2020 Incentive Project Pending Partnerships



NORTHERN
SONOMA COUNTY
AIR POLLUTION CONTROL DISTRICT



Sonoma Coast Incentive Project

Proposed Funding

County	DCFC Funding	Level 2 Funding	3 Year Total	At least 25% in DAC / Low Income
Sonoma	\$3.3M	\$2.7M*	\$6M*	No
Mendocino	\$300K*	\$450K*	\$750K*	Yes
Total:	\$3.6M	\$3.45M*	\$6.75M*	

\$500K/year for 3 years* (Sonoma Clean Power)

\$50k/year for 3 years* (Northern Sonoma County APCD)

*Funding includes pending partnership funding, subject to Board or Council consideration and approval, which would be added on a fiscal year basis.



Peninsula-Silicon Valley Incentive Project

Proposed Funding

County	Region	DCFC Funding	Level 2 Funding	Total Funding (2-4 years)*	At least 25% in DAC / Low Income
San Mateo	Entire County	\$12M	\$8M*	\$20M*	No
Santa Clara	SVCE**	\$6M	\$6M*	\$12M*	No
Santa Clara	City of San Jose	\$7M	\$7M*	\$14M*	Yes
Santa Clara	City of Santa Clara	\$4M	\$4M*	\$8M*	Yes
Santa Clara	City of Palo Alto	\$1M	\$1M*	\$2M*	No
Total:		\$30M	\$26M*	\$56M*	

*Funding includes pending partnership pledges, subject to Board or Council consideration and approval, which would be added on a fiscal year basis. Funding from pending CCA partnerships (PCE, SVCE, SJCE) will only be available to their customers (Opt-ins)

**Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale, Unincorporated Santa Clara County



San Diego County Incentive Project

Proposed Funding

DCFC Funding	Level 2 Funding	3 Year Total	At least 25% in DAC / Low Income
\$15.8M	\$5.58M*	\$21.38M*	Yes

\$1.395M/year* (San Diego Association of Governments**)
\$465K/year* (San Diego APCD)

*Funding includes pending partnership funding, subject to Board or Council consideration and approval, which would be added on a fiscal year basis.

**SANDAG committed \$30M over 30 years to public EV charging infrastructure as part of its adopted 2015 Regional Transportation Plan and Sustainable Communities Strategy.



Eligibility - Applicants

- **Private companies**
 - Business owner, EVCS manufacturer, EVSP, contractors, not-for-profits, community/faith-based organizations, etc.
 - Not required to be the site owner or host
- **Public agencies**
- **Tribal communities**
- **Must have a valid California Business License**



Eligibility – Site Locations

- Installation site must be inside the project's defined region
- Be well-lit, secure and in compliance with all federal, state and municipal laws, ordinances, rules, codes, standards and regulations



Eligibility – DCFC Site Locations

Charger(s) must be available to the public
24 hours a day, 365 days a year

- Urban/suburban retail cores
- Retail shopping centers
- Grocery Stores
- Restaurants
- Retail Gas stations
- Hospitals
- Sheriff/police stations
- Colleges/Universities*
- Airports
- Hotels
- Casinos
- Libraries
- Public Transit Hub
- Curbside**
- Publicly available parking garages and surface lots (not workplace parking)

*Must be a CSU, UC or 2-year Community College

**Must coordinate with the city or county ahead of time



Eligibility – Level 2 Site Locations

- Must be shared use
- Any site type is eligible
 - Schools
 - Hospitals
 - Public Agency sites
 - Workplaces
 - Tribal Lands
 - Etc.



Eligible Costs

- Equipment: EVSE, transformers, panels, advanced energy storage
- Planning/design
- Installation costs (labor & materials)
- Utility service orders
- Demand management equipment
- Networking agreements
- Extended warranties
- Stub-outs
- Signage



Ineligible Costs

- Permit Fees
- Solar panels
- Costs paid by other funding programs/projects



Application Completion Deadline

- **DCFC or Combo** installations must be completed within **15 months**
- **Level 2** installations must be completed within **9 months**



Application Completion Deadline (cont.)

- Each application must be completed before the deadline, which starts when the application funds are reserved.
 - Applicants should not apply until they have an executed site host agreement and completed Site Verification Form
 - Station must be 100% operational and open for use by the application deadline
 - All application documents must be submitted and approved by the application deadline
 - Reach out to CSE staff if delays arise



EV Charger Installation Barriers

Barriers to fast EV charger installations

- Site host negotiations
- Permitting
- Utility interconnection/energization
- Request for proposals/contractor selection



Importance of Permit Streamlining

- California's goal of 250,000 EV chargers by 2025
 - $\geq 10,000$ DC fast chargers
- Assembly Bill 1236, 2017
- CALeVIP Timelines
 - Level 2 installations: 9 months
 - DCFC installations: 15 months



Factors in selecting 2021 CALeVIP Incentive Project Regions

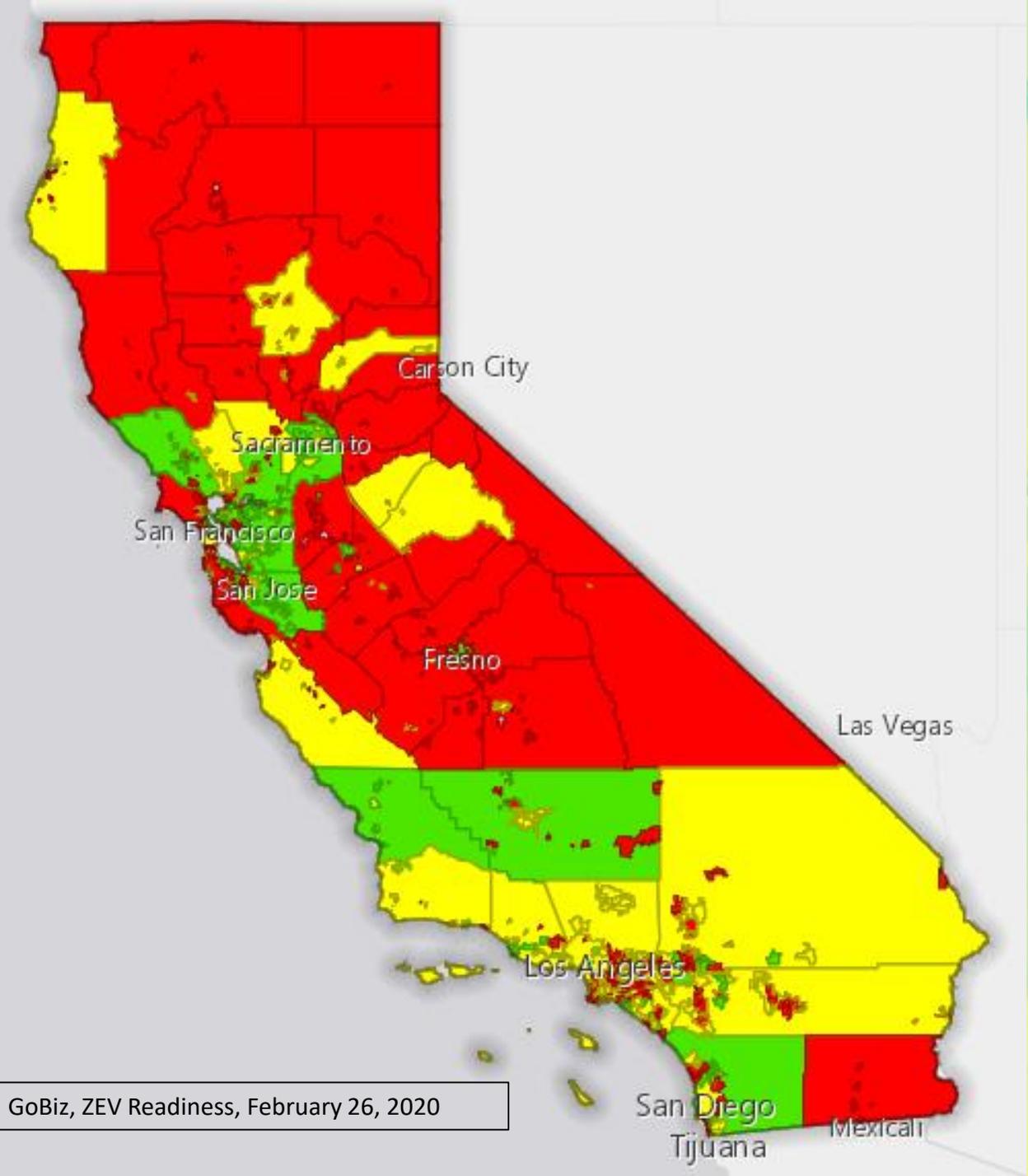
1. EVI-Pro Analysis
2. Direct Funding Partnerships
3. AB 1236 Streamlined Jurisdictions



EV Charging Station Permit Streamlining Map February 2020



GoBiz, ZEV Readiness, February 26, 2020



Future CALeVIP Information

CALeVIP website: www.calevip.org

- Subscribe to always receive the latest CALeVIP information

Energy Commission Block Grant/CALeVIP docket webpage:
<http://www.energy.ca.gov/altfuels/zev/2017-EVI-01/>

- Sign up for the new Energy Commission CALeVIP listserv

Center for Sustainable Energy email:
calevip@energycenter.org



Additional Funding Programs

- **CALeVIP allows stacking of rebates***
 - “Find a Project” – Additional Incentives
- **Other Funding Programs**
 - Publically Owned Utilities
 - LADWP, SMUD, City of Burbank
 - Air Districts
 - San Joaquin Valley APCD, BAAQMD
 - Independently Owned Utilities
 - Pending phase 2 programs



*CALeVIP allows stacking of rebates from other programs that do not have a defined number of chargers that will be funded.

Thank You!



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