

DOCKETED

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Infrastructure Investment and Jobs Act (IIJA) National Electric Vehicle Infrastructure (NEVI) Program California State Electric Vehicle Infrastructure Deployment Plan

Caltrans & California Energy Commission

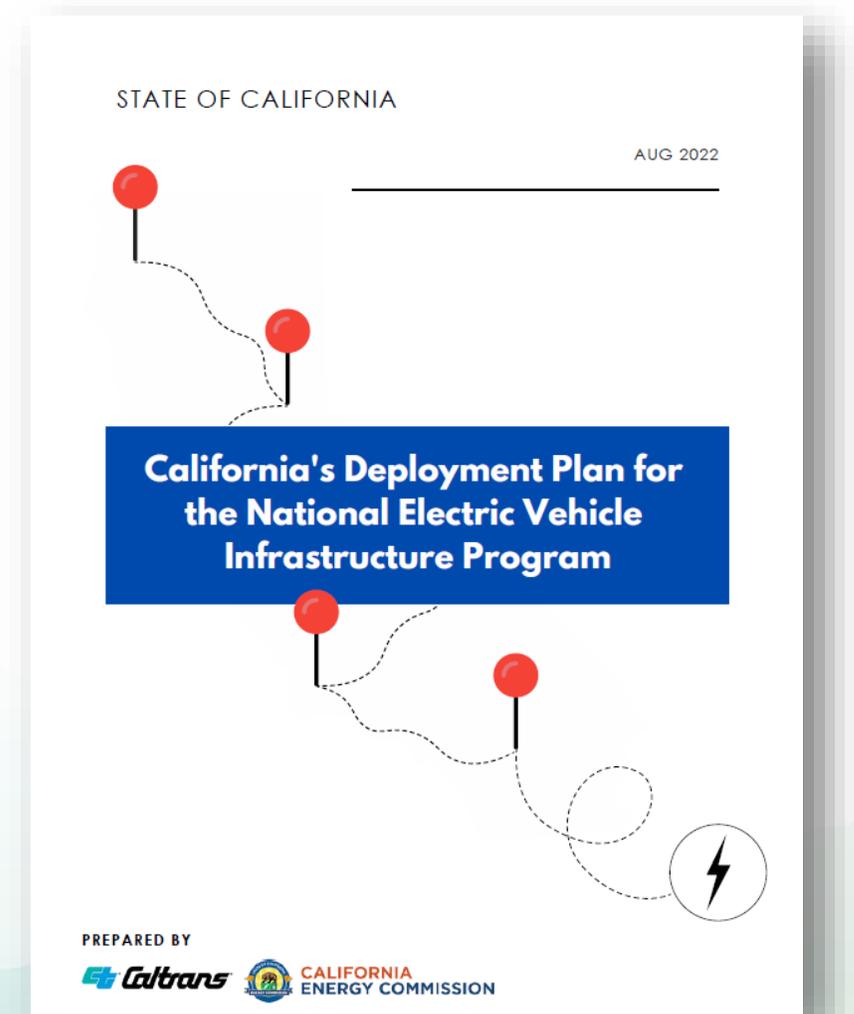
June 14, 2022



Workshop Agenda



- NEVI Program Overview
- Approach to Develop and Implement the *California State Electric Vehicle Infrastructure Deployment Plan*
- Public Discussion and Comment





Housekeeping



- Workshop is being recorded.
- Workshop Event Webpage:
<https://www.energy.ca.gov/event/workshop/2022-06/joint-workshop-california-department-transportation-california-state>
- Docket Webpage:
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-EVI-03>
- *Draft California State Electric Vehicle Infrastructure Deployment Plan:*
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-EVI-03>



National Electric Vehicle Infrastructure (NEVI) Program



- Established through Infrastructure Investment and Jobs Act (IIJA)
- Establish an interconnected network of publicly available electric vehicle chargers along Alternative Fuel Corridors
- California's distribution of the formula funding is estimated at \$384 million over 5 years



NEVI Is Part of State Strategy

Fiscal Year	Light-Duty	Medium- and Heavy- Duty
2021-22 ¹	\$317 million	\$391 million
Proposed 2022-23 through 2025-26 ²	\$1.358 billion	\$1.339 billion

1. Clean Transportation Program (CTP) and ZEV Package 1.0
2. CTP and ZEV Package 2.0, including NEVI

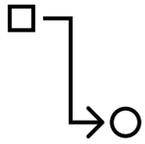


NEVI Formula Program



- May be used to contract with a private entity for acquisition and installation of EV charging infrastructure
- Requires a minimum 20% non-Federal match, that may be paid by private entity
- Caltrans maintains oversight as all projects will be considered federal-aid projects

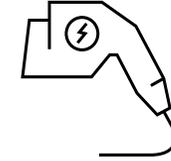
Funds Can Be Used For:



Development
phase activities



Mapping, Analysis,
Modeling



EV charger purchase
and installation



Signage



Operating costs /
maintenance for the
first 5 years



Alternative Fuel Corridors



Building charging infrastructure along California's Highways – to get people where they want to go.

- Public stations
- 4 DC Fast Charging (CCS Connectors)
- Max 50 mi between stations
- Max 1 mi from highway
- Site power ≥ 600 kW supporting ≥ 150 kW per port



NEVI Deployment Plan Concept



- Identify "segments" along AFC designated corridors
- Issue competitive solicitation(s) for agreements to install chargers on identified segments
- Entities other than state agencies will acquire, install, own, develop, operate, and maintain chargers
- Incorporate all NEVI and State requirements into agreements
- Consider travel/charging demand (EVI-RoadTrip) in defining segment requirements
- Rank segments to fund highest priorities first



NEVI Timeline



Milestone	Time
Draft plan released	June 8, 2022
Comments due on draft plan	June 28, 2022
State submits final plan	By August 1, 2022
Federal approval of eligible plans	By September 30, 2022
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State Plan



State Plan for Electric Vehicle Infrastructure Deployment – TEMPLATE –

Note that the following abbreviations are used in this document: EV- Electric Vehicle; EVSE – Electric Vehicle Supply Equipment; AFC –Alternative Fuel Corridors; NEVI Formula Program – National Electric Vehicle Infrastructure Formula Program.

Note that in order to receive NEVI Formula Program funds each State is required to develop an FHWA-Approved EV Infrastructure Deployment plan that describes how the State intends to use the funds in accordance with the NEVI Formula Program Guidance. Refer to Section III.B of the Program Guidance for additional details on each section below.

Introduction

<Insert an overview of the Plan and Plan development process.>

Dates of State Plan for Electric Vehicle Infrastructure Deployment Development and Adoption

<Insert anticipated dates of Plan milestones and EV Infrastructure deployment as well as a discussion of Plan adoption authority and process.>

State Agency Coordination

<Insert discussion of how the State has coordinated with other State agencies in developing and approving the Plan consistent with the NEVI Formula Program Guidance, and steps taken to maximize opportunities to utilize U.S.-made EV supply equipment.>

Public Engagement

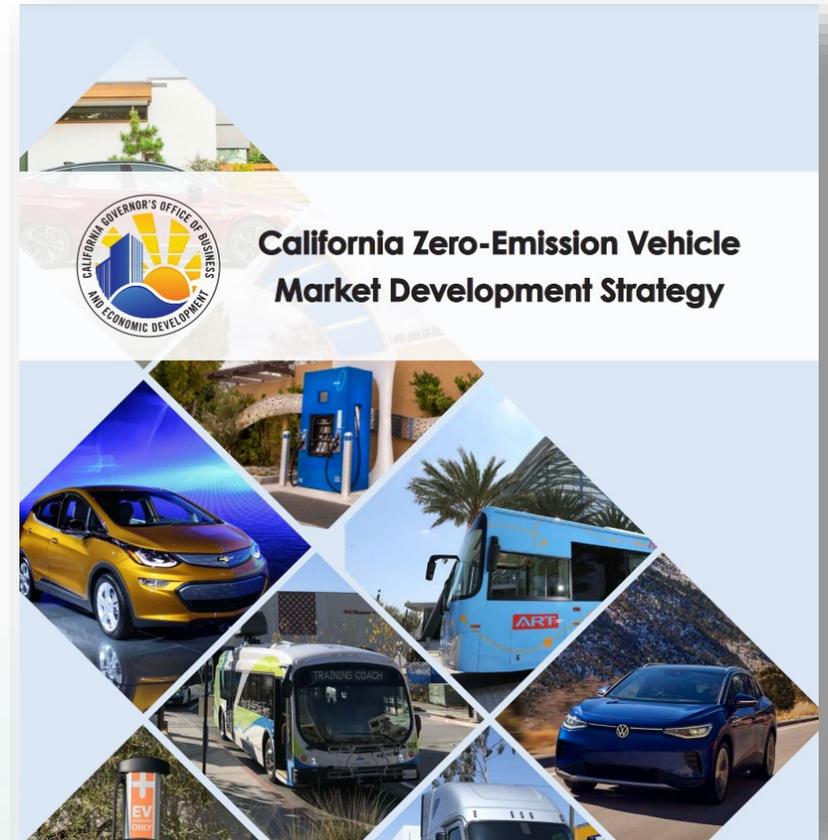
<Insert overview of public involvement in the Plan's development to include general public, governmental entities, federally recognized Tribes, labor organizations, private sector/industry representatives of the transportation and freight logistics industries, state public transportation agencies



State Agency Coordination



- Zero-Emission Vehicle (ZEV) Market Development Strategy
 - Overall strategy to meet state ZEV goals
- Coordination between Caltrans and California Energy Commission (CEC) to develop draft plan
- Input and guidance from other state agencies





Public Engagement



- **IIJA Transition to Zero Emissions Sub Working Group**
 - Hosted three joint workshops
 - CEC Docket for receipt and public sharing of comments
- **Disadvantaged Community and Tribal Outreach**
 - Disadvantaged Communities Advisory Group (DACAG)
 - Electric Vehicle Infrastructure Strike Force's Equity Workgroup
 - Native American Advisory Council (NAAC)



Plan Vision and Goals



Plan Vision: Build out electric vehicle (EV) charging stations to at least minimum standards in NEVI Program Guidance along AFC in an equitable and efficient manner.

Plan Goals: Providing seamless access around and through California. Provide access to rural, tribal, and disadvantaged communities.

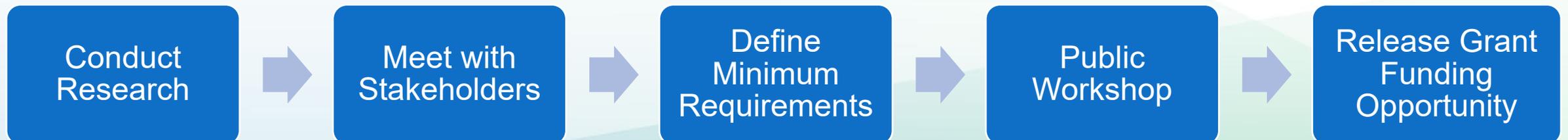
State Goals:

- By 2025: 250,000 chargers including 10,000 direct current fast chargers (DCFC)
- By 2030: Projected need for 1.2 million chargers (37,500 DCFC)
- Accelerating deployment and ensuring equitable outcomes



Contracting (Process)

- Utilize CEC's Grant Solicitation Process
- Joint development by CEC and Caltrans
- AFCs divided into segments. Specific sites not selected.
- Performance standards that meet NEVI Program Requirements
 - DCFC Power Levels
 - Number of chargers
 - Maximum distance between stations
- Evaluation team comprised of CEC and Caltrans staff





Contracting (Awards/Timeline)



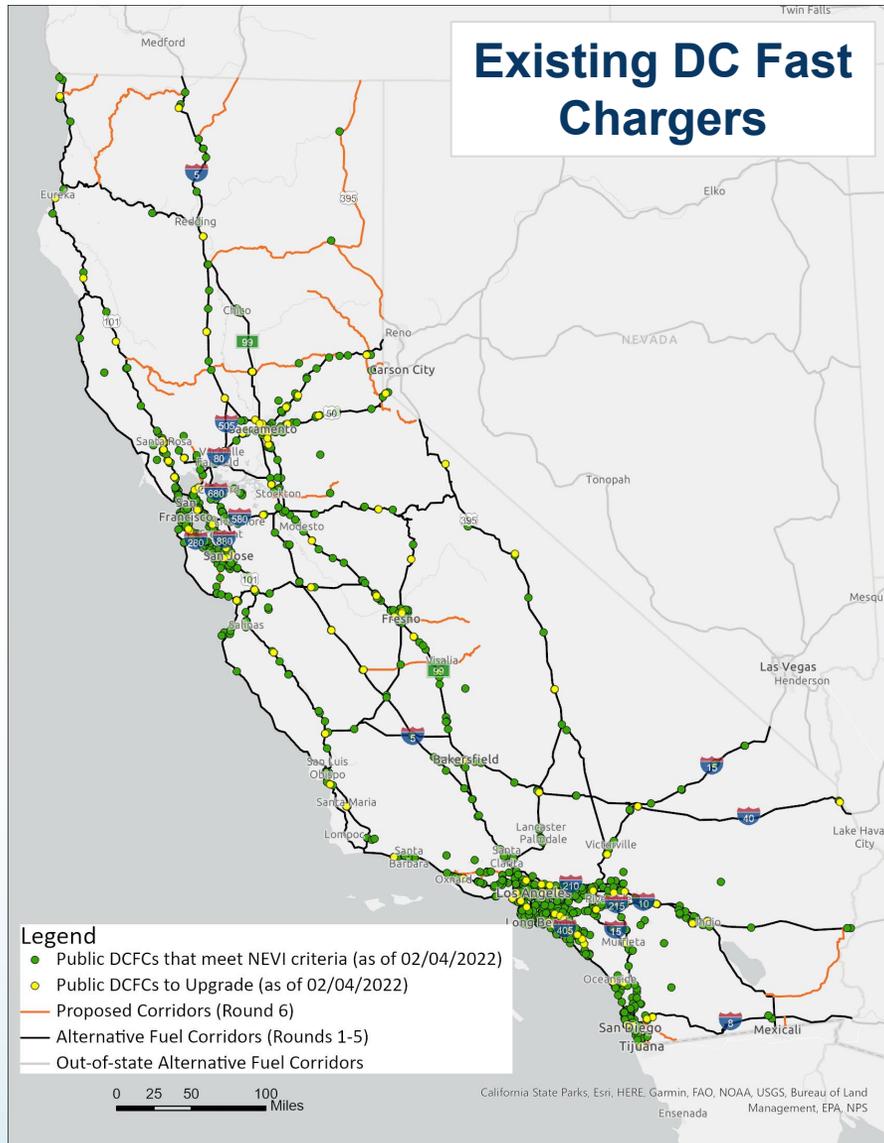
Awards:

- Provide funding for projects that address highest-ranking segments first, in rank order, until funding is exhausted
- Annual update of the plan will reevaluate priorities

Anticipated Timeline:

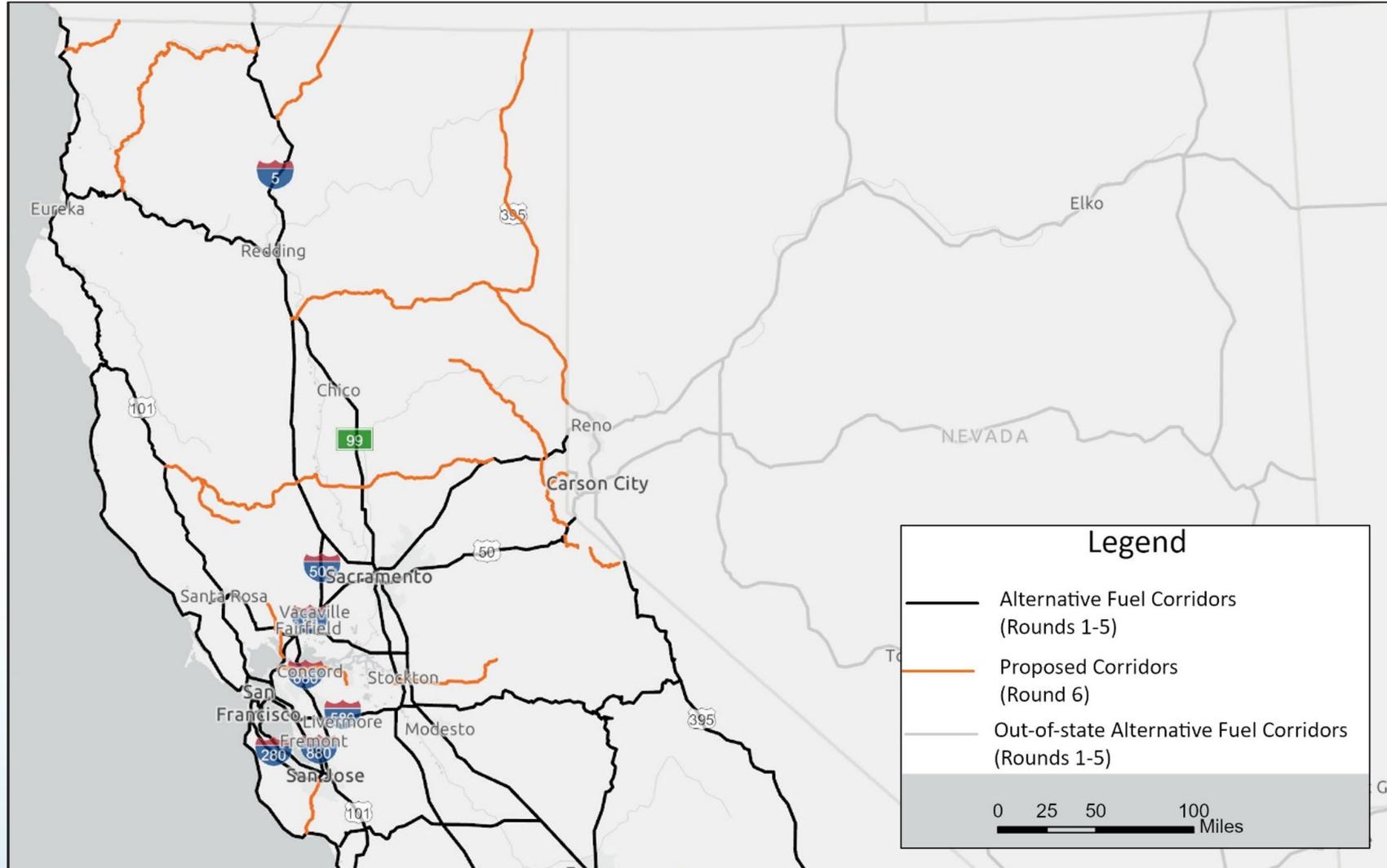
- NEVI solicitation released Winter 2022
- First chargers operational Q2 2024
- Buildout of final segments completed by 2030

Existing and Future Condition Analysis (1/4)



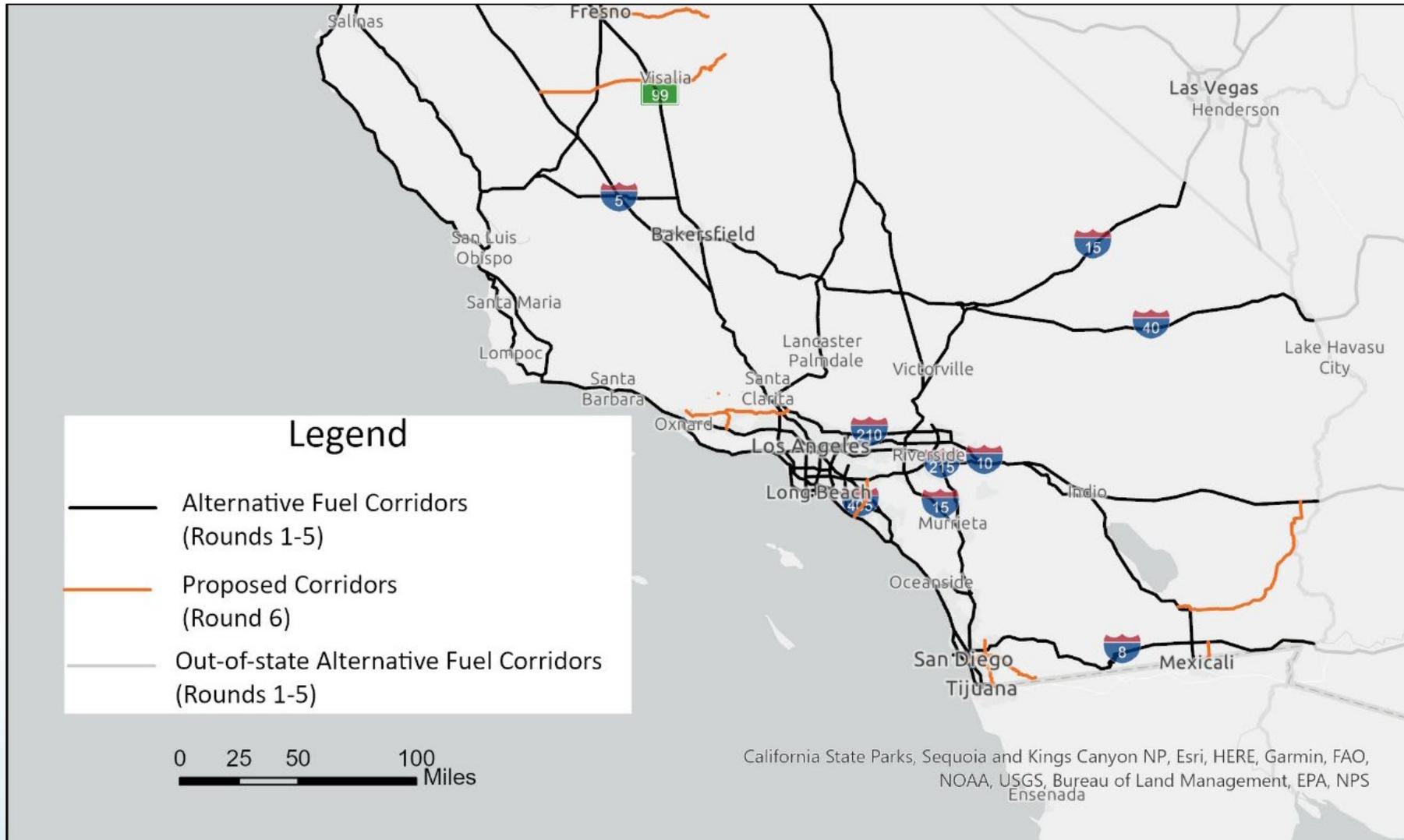


Existing and Future Conditions Analysis (2/4): Designated and Proposed Corridors in Northern California

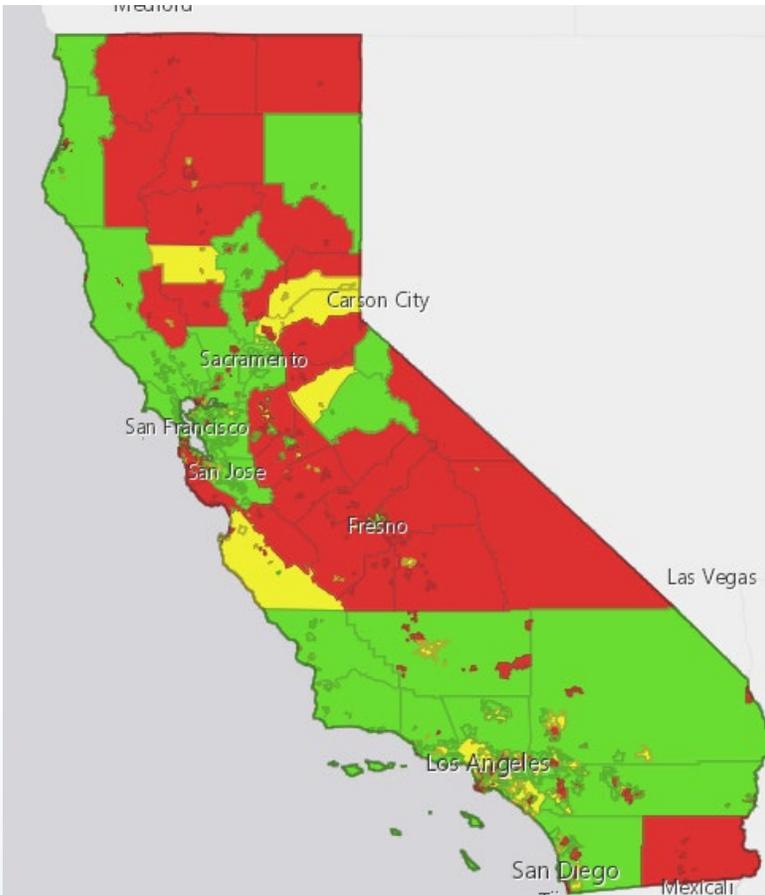




Existing and Future Conditions Analysis (3/4): Designated and Proposed Corridors in Southern California



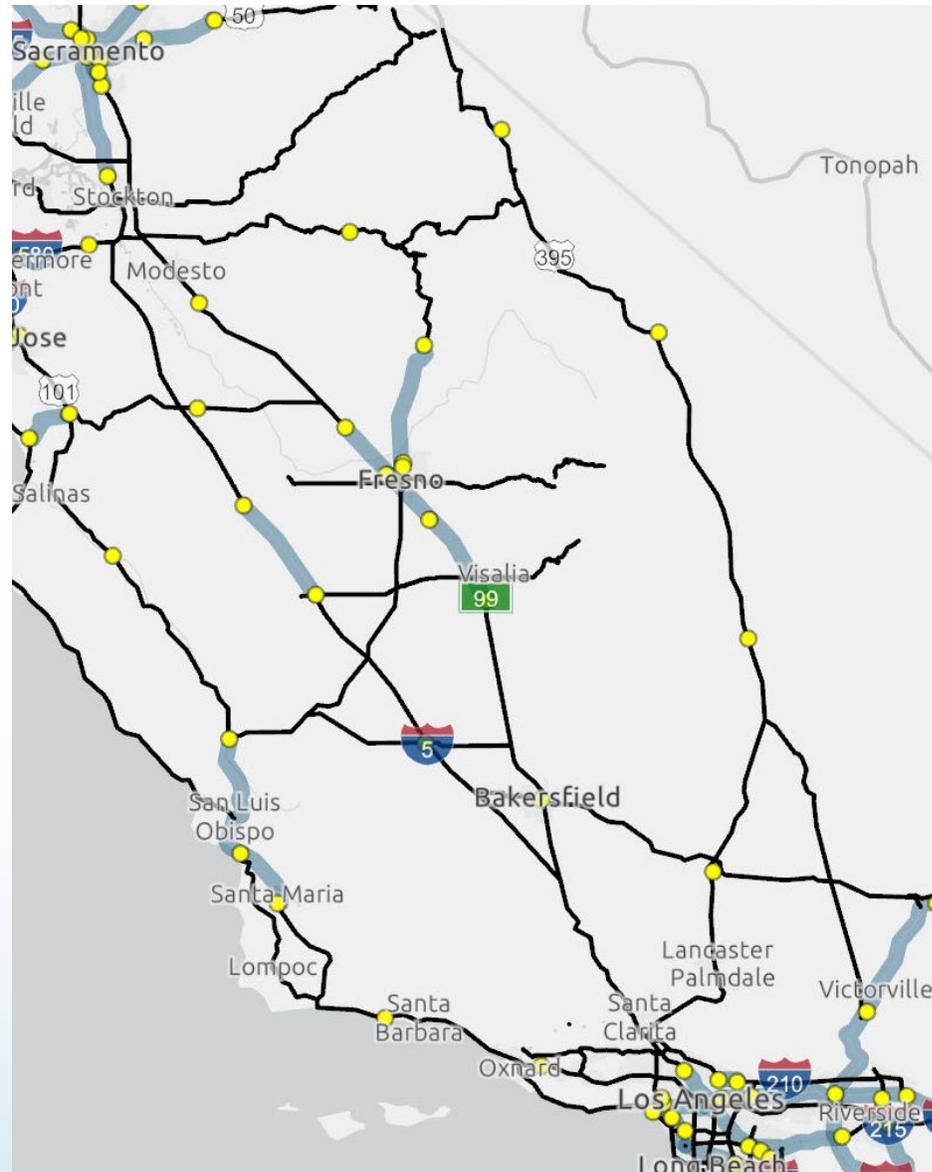
Existing and Future Conditions Analysis (4/4): Known Risks and Challenges



- Low utilization/business case
- Chargers not operated beyond required term of agreement
- Lack of public/site host awareness of chargers
- Supply chain disruptions and shortages delaying installs
- Permitting delays
- Long utility interconnection and energization timelines
- Rapid scaling of workforce for charger installations needed
- EVSE network and station reliability

Map Source:

<https://california.maps.arcgis.com/apps/webappviewer/index.html?id=5b34002aaffa4ac08b84d24016bf04ce>



- Competitive grant solicitations
- Divide AFCs into segments; rank segments by priority
- First year of funding will prioritize segments with infrastructure gaps
- Segments will be re-evaluated in future years and potentially re-ranked for subsequent grant solicitations
- Develop an interconnected network that meet or exceed NEVI standards



EV Charging Infrastructure Deployment (2/2): AFC Segment Prioritization



Corridor Type	CA DAC/LIC and Justice40 Communities	Potential Energy Demand	Existing and/or Planned Chargers
<ul style="list-style-type: none">• Interstate Highway• State Route• US Route	<ul style="list-style-type: none">• Potential locations of chargers in California DAC/LIC and Justice40 Communities• Connectivity and other benefits provided to DAC/LIC	<ul style="list-style-type: none">• EVI-RoadTrip model projected demand, based on Caltrans data	<ul style="list-style-type: none">• Existing chargers that meet NEVI• Planned charger deployments on AFC



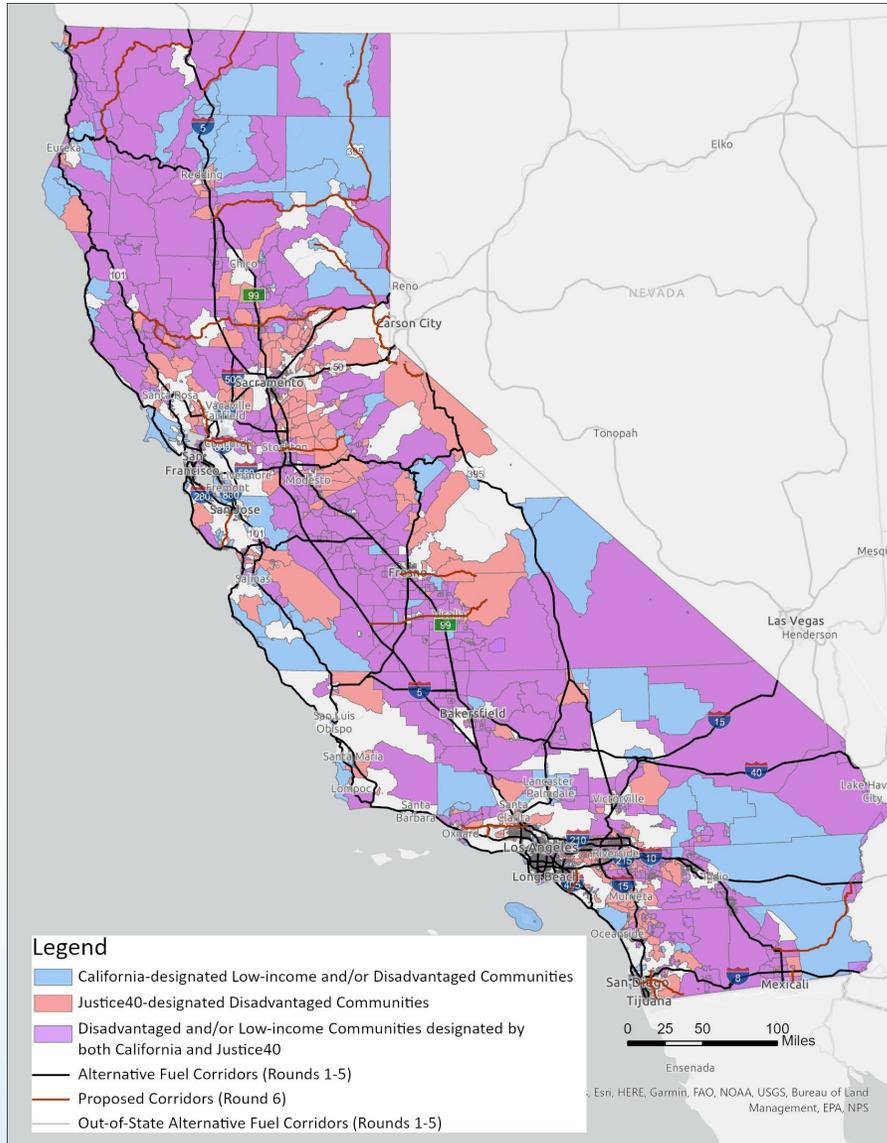
Implementation



- Ensure reliability of publicly funded chargers
 - EVSE Operations and Maintenance Plans
 - Required minimum uptime requirement of 97%
 - Robust maintenance, recordkeeping, and reporting requirements
- Conduct research, workshops, and outreach to identify EV charger service providers and station owners
- Unifying utilization and reliability data requirements into a single uniform data requirement for all publicly funded chargers
- Workforce partners to promote strong labor, safety, training, and installation standards



Civil Rights & Equity Considerations



Civil Rights

- Title VI (Civil Rights Act of 1964)
- California's American Disabilities Act Compliance Standards for Electric Vehicle Charging Stations

NEVI funding will be expected to meet a minimum of:

- 50% of funding for projects within California designated disadvantaged communities and/or low-income communities
- 40% of funding in disadvantaged communities under Justice40

Quantify and measure:

- Percent of overall funding to DACs/LICs/Justice40
- Emissions reductions
- Petroleum displacement
- Access to charging infrastructure (Senate Bill 1000 Electric Vehicle Charging Infrastructure Deployment Assessment)



Labor and Workforce Considerations



- Workforce Needs for Charger Installations 2021 – 2030:
~ 47,300 to 71,500 job-years
- Strong Workforce Support and Training
- On-the-Job Training for EVSE installations and service
 - Includes basic safety and health information
 - Provided to DAC/LIC and in rural areas of the state
- Tribal ZEV Training Project
 - EVITP Training and Certification to 23 California Native American tribes in rural areas of the state



Cybersecurity



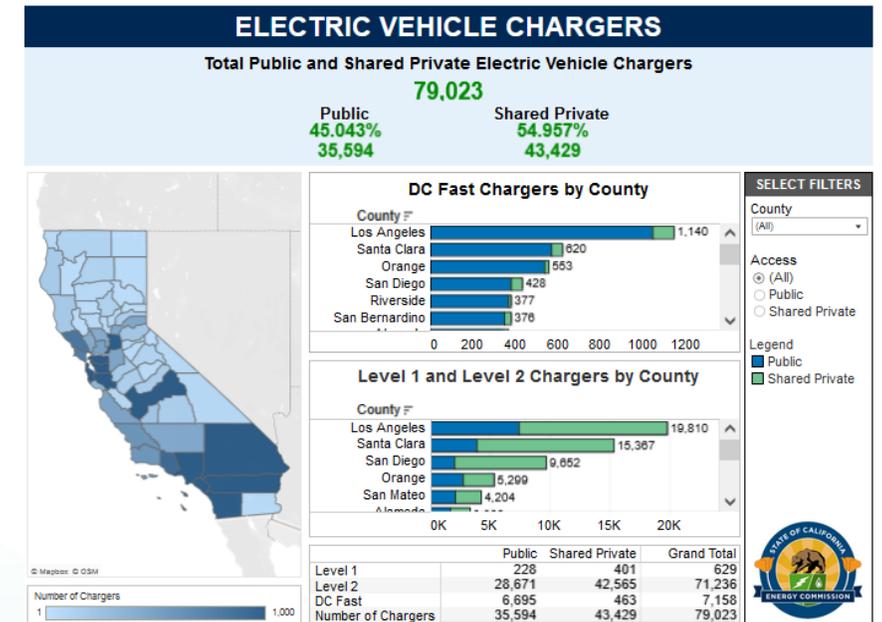
- Senate Bill 327 (2018), Security of Connected Devices
 - Effective January 1, 2020
 - Extends existing privacy laws to connected devices including the information they collect, store, and transmit
- Industry testing to evaluate enhanced cybersecurity for connection between electric vehicles and chargers
 - Test event in April 2022 by National Renewable Energy Laboratory and members of the EV industry
 - Evaluated use of public key infrastructure (PKI) for encrypting information exchange and certifying authenticity of devices

Monitoring and reporting progress

- Annual NEVI plans
- ZEV Infrastructure Plan (ZIP)
- Assembly Bill 2127 biennial assessments
- Clean Transportation Annual Investment Plan
- ZEV Dashboard

NEVI Projects funded under CEC agreements will be tracked through:

- Monthly Calls and Quarterly Progress Reports
- Invoice Reviews
- Critical Project Reviews
- Other tools as needed





Next Steps



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Written Comments



Electronic Commenting System:

Visit the comment page for this docket at:

<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=22-EVI-03>

Comment by E-mail:

E-mail: docket@energy.ca.gov

Subject Line: "22-EVI-03" and "NEVI Deployment Plan Development"

All comments due by Tuesday, June 28, 2022