



Infrastructure Investment and Jobs Act (IIJA) Transition to Zero-Emissions Sub-Working Group

Caltrans & California Energy Commission

May 16, 2022



Workshop Agenda



- Introduction to National Electric Vehicle Infrastructure (NEVI) Plan Development
- Staff Presentation
- Future Workshops
- Public Comment and Discussion

This presentation is available at
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=22-EVI-03>



Number of Chargers Needed to Support ZEV Adoption Policy Goals in California through 2030



| Year | Source of ZEV Number | Number of ZEVs | Number of Needed DCFC | Total Number of Chargers Needed |
|------|-----------------------|----------------|-----------------------|---------------------------------|
| 2025 | EO B-16-12 | 1.5 million | 10,000 | 250,000 ¹ |
| 2030 | EO B-48-18 | 5 million | 15,000 ³ | 700,000 ³ |
| 2030 | CARB MSS ² | 8 million | 37,500 ³ | 1.2 million ³ |

1. EO B-48-18 2. Mobile Source Strategy 3. CEC AB 2127 Report modeling results



NEVI is Part of a Broader Funding 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 million | \$1,339 million |

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

Draft ZEV Infrastructure Plan (ZIP):

<https://www.energy.ca.gov/publications/2022/draft-zero-emission-vehicle-infrastructure-plan-zip>



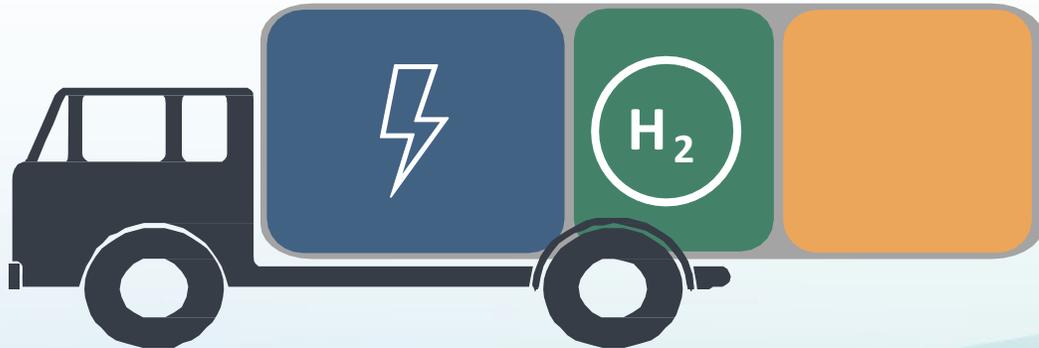
CTP Funding for MD-HD Charging Infrastructure

Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles



EnergIZE Commercial Vehicles provides financial incentives for MD-HD charging infrastructure

\$50 million available now
Can be increased to **\$276 million**



CTP also providing **\$36 million** for Transit Fleet Charging and **\$108 million** for ZEV Drayage Fleet charging in collaboration with CARB





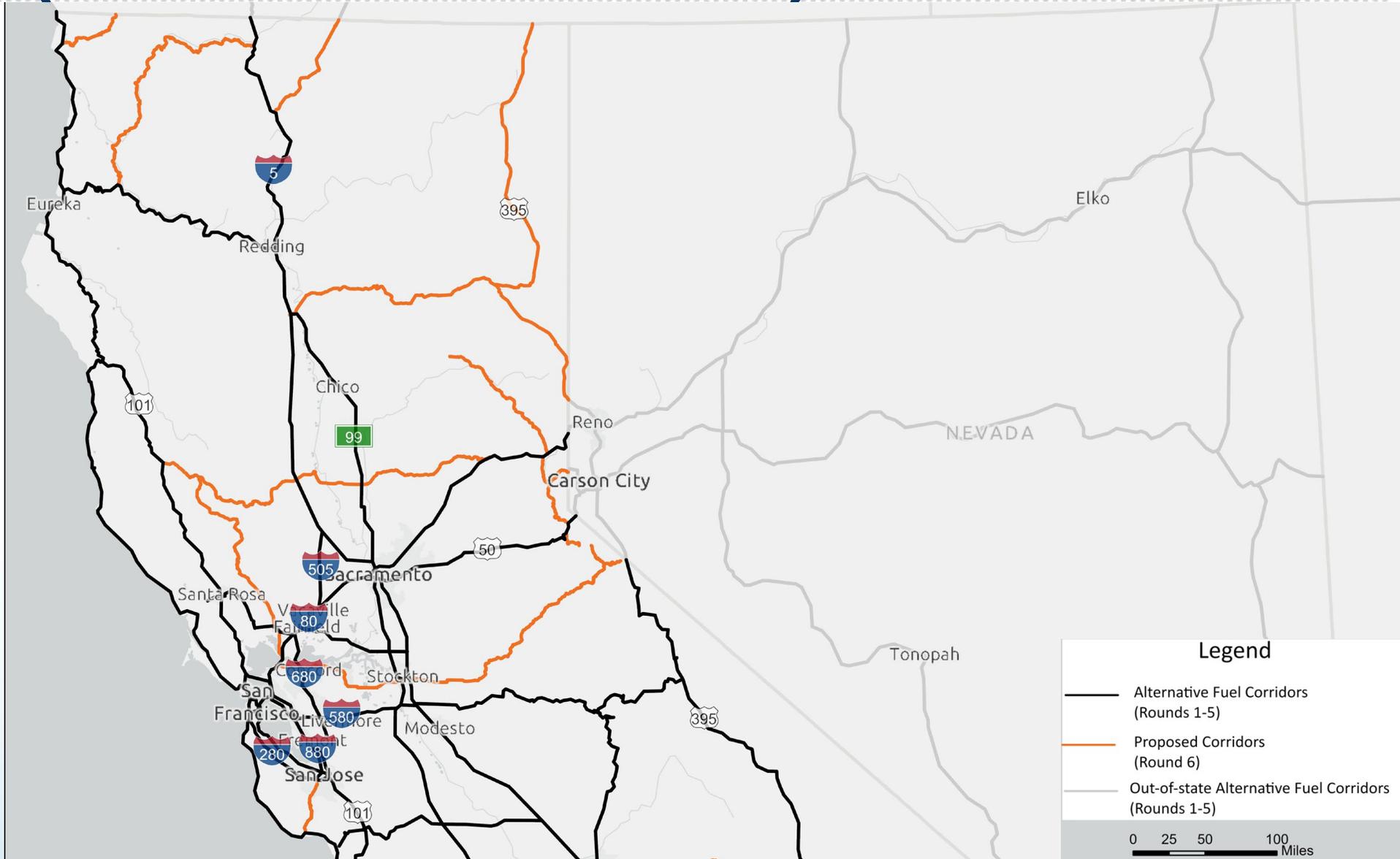
National Electric Vehicle Infrastructure (NEVI) Program



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



Alternative Fuel Corridors (Northern California)





Alternative Fuel Corridors (Southern California)





NEVI Minimum Requirements

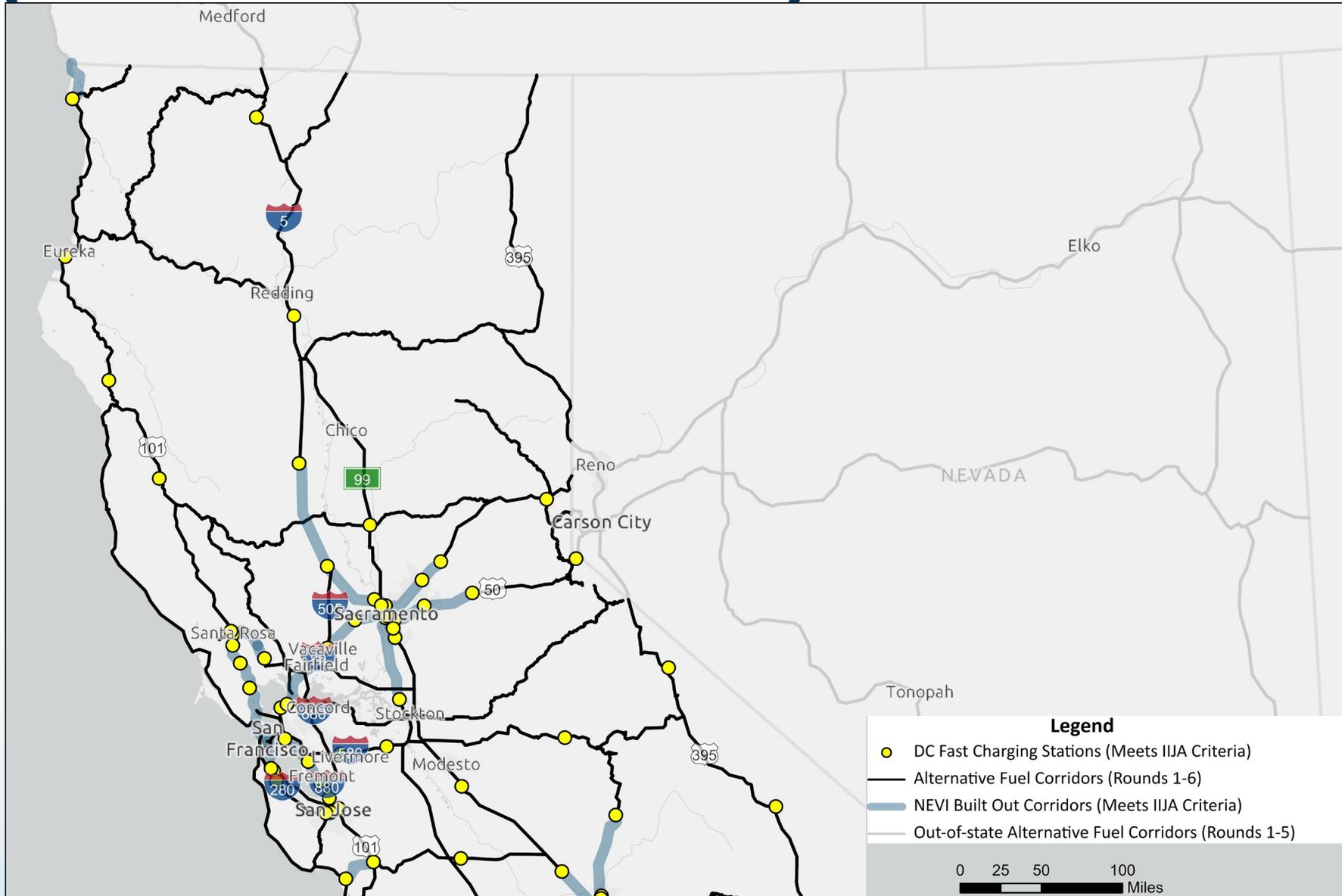


- Public stations
- 4 DC Fast Charging (CCS Connectors)
- Max 50 mi between stations
- Max 1 mi from highway
- Site power ≥ 600 kW supporting ≥ 150 kW per port

Infrastructure must be open to general public OR to authorized commercial motor vehicle operators from more than one company



NEVI Built Out Corridors (Northern California)

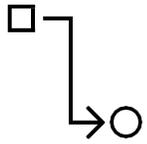




NEVI Built Out Corridors (Southern California)



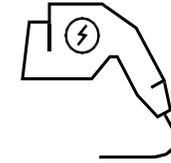
Funds Can Be Used For:



Development
phase activities



Mapping,
Analysis,
Modeling



EV charger
purchase and
installation



Signage



Operating
costs/maintenance
for the first 5 years



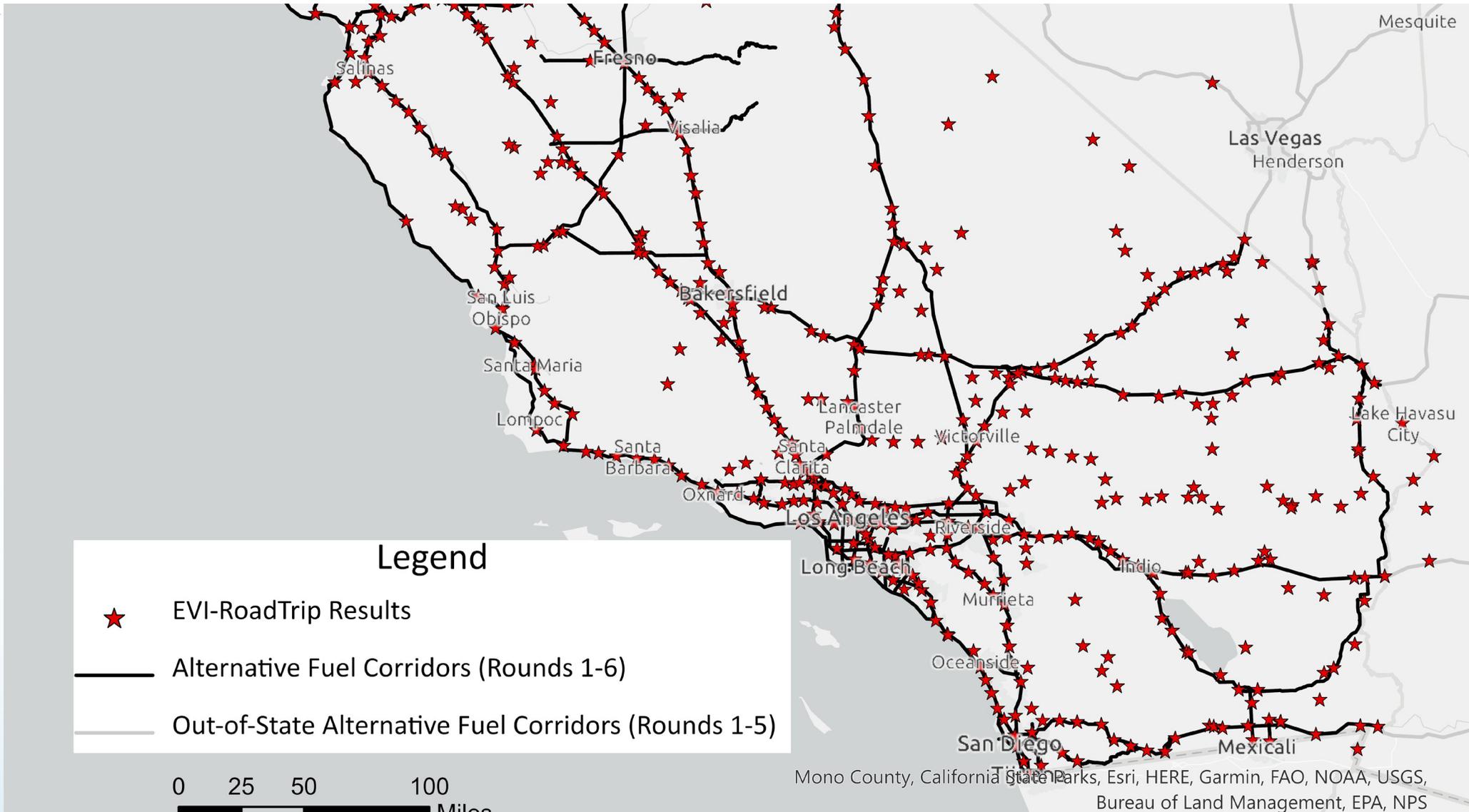
NEVI Deployment Plan Concept



- 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

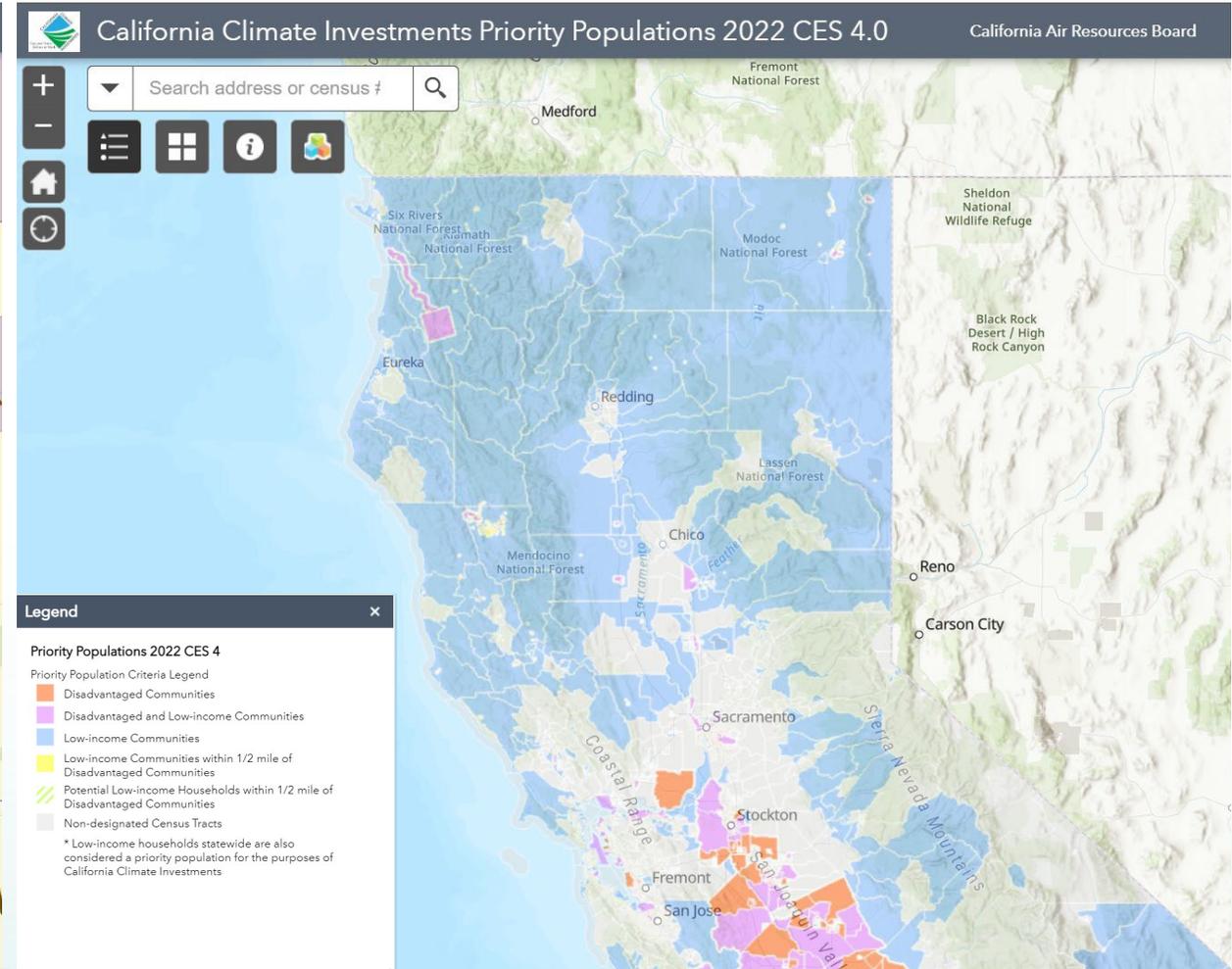
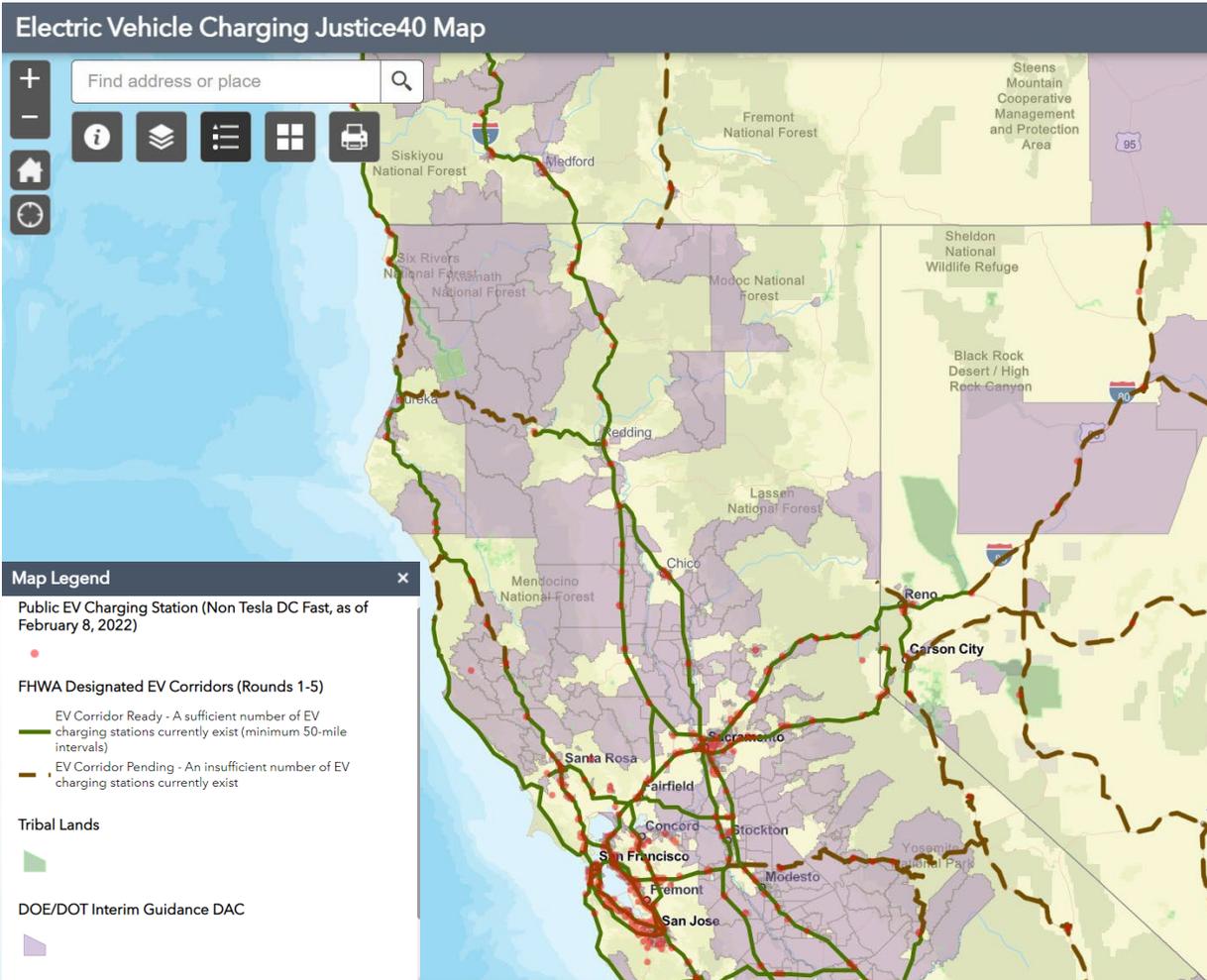


Calculated Charging Demand - 2030



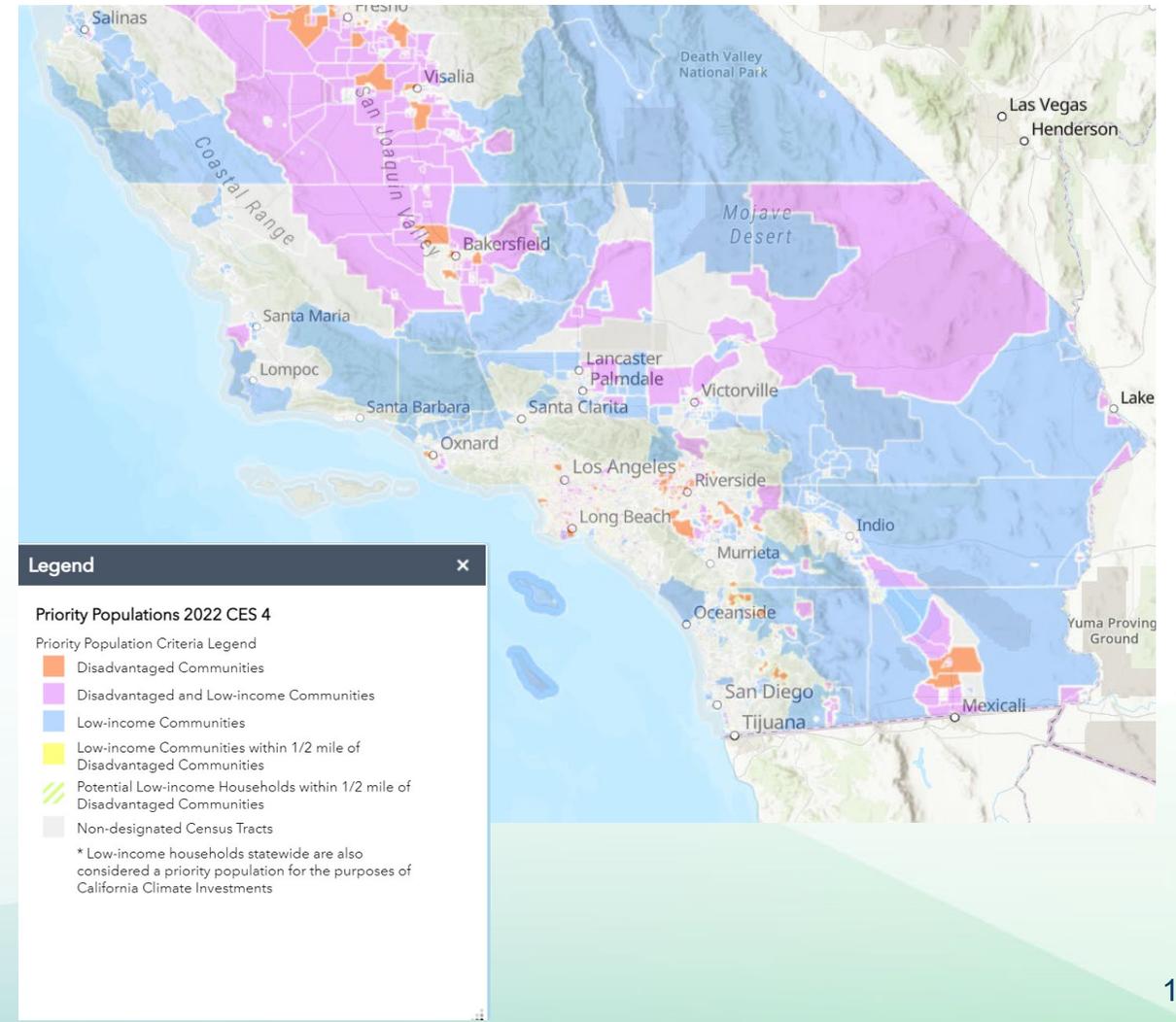
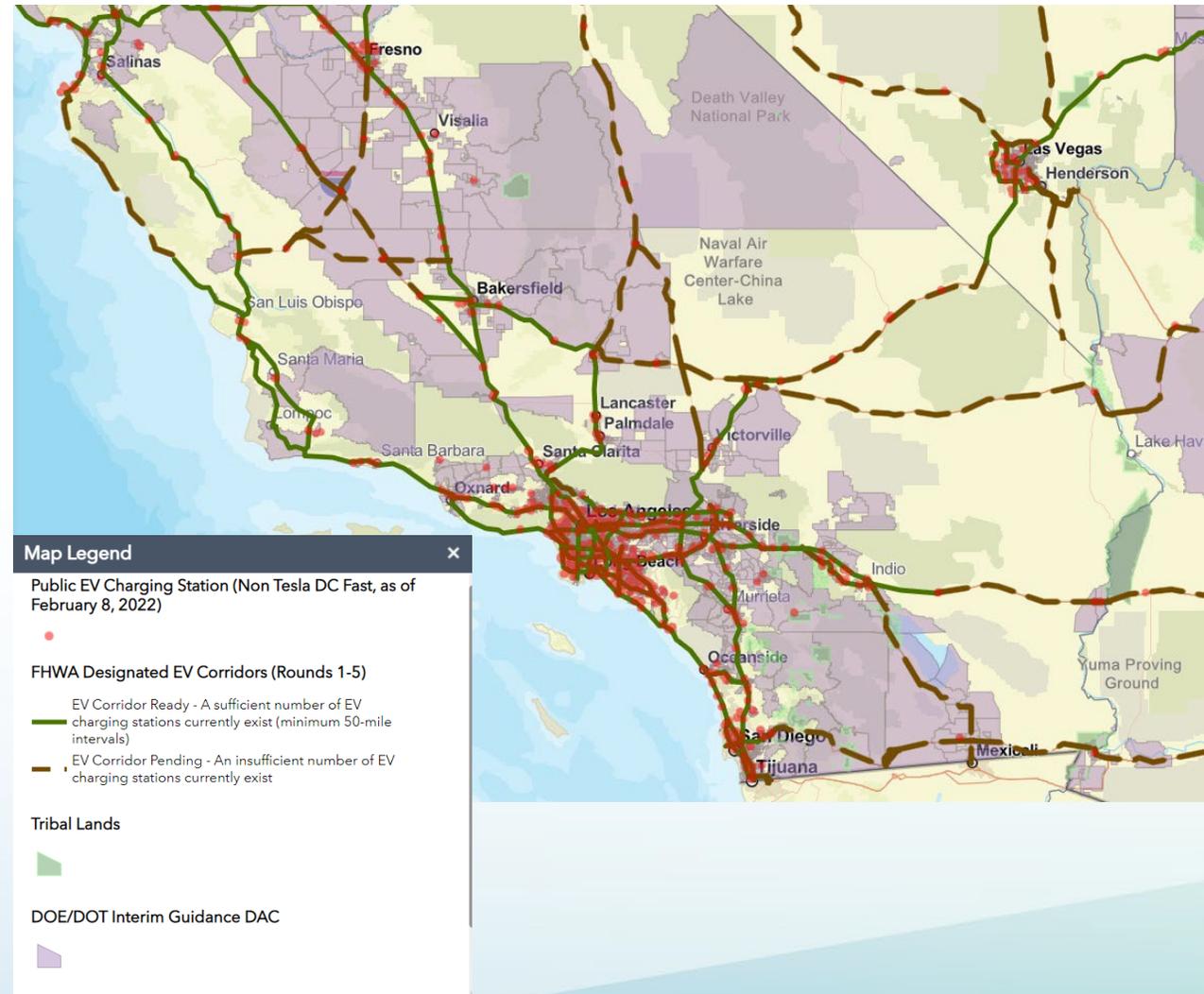


Justice 40, Disadvantaged, Low-Income, and Tribal Communities (North CA)





Justice 40, Disadvantaged, Low-Income, and Tribal Communities (South CA)





Workshops and Outreach



May 16 IJA Sub-Working Group

- Introduce concepts; survey and comment period for input

June 14 Workshop

- Recap public input
- Additional details
- Segment prioritization discussion

Pre-Solicitation Workshop(s)

- Beginning Q3 or Q4 '22

E-mail updates

- CEC "Clean Transportation Program" list:
<https://public.govdelivery.com/accounts/CNRA/signup/31898>



Public Comment



General Questions for Stakeholders



- For what demand should we be planning?
 - Forecast 2025, 2030, 2035?
 - Local demand as well as long-distance?
- What charging rates should we require as minimums? (E.g., some number of 350 kW chargers at each station?) Consider expandability/future-proofing?
- Should we consider favoring upgrades for existing stations?
- What amenities should be considered the minimums? Lighting, restrooms, sheltered seating, food, etc.
 - Should a minimum level of amenities be required? If so, should flexibility be allowed?
- What prioritization criteria should we consider?



Potential Segment Requirements

- Start and end points; number of stations; spacing less than NEVI maximum of 50 miles?
- Exceed NEVI minimums (e.g., number of chargers, power requirements) where modeled demand would support?
- Required amenities for drivers? – restrooms, food/beverages, shopping, etc.
- Reliability: NEVI guidance to "achieve a high-level of reliability (>97 percent at the individual station level)"; CEC developing requirements.
- "Grid-friendliness": battery storage, distributed generation, minimizing upgrades, other?
- Pull-through sites for larger vehicles (medium-duty?) or vehicles with trailers?



Options for Prioritizing Corridors



- **Equity and Justice⁴⁰**

- Disadvantaged and Low-Income Communities
- Tribal Lands and Facilities
- Rural Regions of California

- **Connectivity**

- Federal Focus on Interstate Freeways and Highways as Part of NEVI Goal for a Coast-to-Coast Network of 500,000 High-Powered DC Fast Chargers
- Federal Lands, National Parks, and State Parks

- **Existing infrastructure and gaps**

- **Travel demand**

- **Others?**



Thank You!

Please submit comments to CEC Docket: **22-EVI-03**

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

Please take the **NEVI Deployment Plan Survey**

https://teams.microsoft.com/registration/CBqxBgl6kEyotzb76WggKA,WzTildTjDUahC2xPrEGXxA,FpGc97rxEe7M05IG_YV3Q,hDnw6xM2TEi5oznFPMmZRw,27X4MTIvAEmia-K5wMeNw,QMt8ePmzU-W7deQ6NsJuA?mode=read&tenantId=06b11a08-3a02-4c90-a8b7-36fbe9682028



Appendix A: Rounds 1-5 Alternative Fuel Corridors



| Interstate | Miles |
|------------|-------|
| I-5 | 797 |
| I-8 | 172 |
| I-10 | 243 |
| I-15 | 287 |
| I-40 | 155 |
| I-80 | 206 |
| I-105 | 19 |
| I-110 | 24 |
| I-205 | 13 |
| I-210 | 45 |
| I-215 | 51 |
| I-280 | 56 |
| I-405 | 73 |
| I-505 | 33 |
| I-580 | 76 |
| I-605 | 28 |
| I-680 | 71 |
| I-710 | 25 |
| I-805 | 28 |
| I-880 | 46 |

| State Routes | Miles |
|--------------|-------|
| SR-1 | 656 |
| SR-12 | 101 |
| SR-14 | 117 |
| SR-39 | 50 |
| SR-41* | 186 |
| SR-46* | 119 |
| SR-58 | 241 |
| SR-60 | 70 |
| SR-78* | 216 |
| SR-86 | 91 |
| SR-91 | 60 |
| SR-99 | 425 |
| SR-111 | 131 |
| SR-120 | 153 |
| SR-152 | 105 |
| SR-210 | 41 |
| SR-299* | 306 |
| SR-905 | 9 |

| US Routes | Miles |
|-----------|-------|
| US-50 | 109 |
| US-101 | 809 |
| US-395* | 557 |

*Portions of the corridors are undesignated



Appendix B: Round 6 Proposed Corridors

