

# Washington State Plan for Electric Vehicle Infrastructure Deployment

## **NEVI Plan Team:**

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07/21/2022, Interagency Electric Vehicle Coordinating Council (IEVCC) Inaugural Meeting

# Today's Agenda

1. Overview of National Electric Vehicle Infrastructure (NEVI) Program
2. Presentation of Washington State Plan for EV Infrastructure Deployment
3. Review of stakeholder engagement for the NEVI Plan
4. IEVCC approval to adopt State Plan

# Overview of NEVI Program

National Electric Vehicle Infrastructure (NEVI) Program authorized through IIJA

\$5B FHWA formula funds to state DOTs to build out national network of EV chargers

\$2.5B competitive funds for charging and fueling infrastructure (grant guidelines anticipated in fall/winter)

WSDOT's portion of NEVI formula funds totals \$71M over 5 years, including approx. \$10M for first year.  
Must provide 20% non-federal match (\$17.75M or toll credits)

## Goals:

- Put the U.S. on the path to a network of 500,000 EV chargers.
- Support the [Justice40](#) Initiative, at least 40% of the benefits of federal investments in climate and clean energy infrastructure are distributed to disadvantaged communities.
- Accelerate the adoption of EVs.
- Reduce greenhouse gas emissions.
- Help the U.S. lead global transportation electrification efforts.
- Build out alternative fuel corridors.

# NEVI Program Requirements

## Minimum Requirements:

- Four 150kW CCS DCFC per site, Site power capability no less than 600 kW
- Installed no more than 50 miles apart along designated Alternative Fuel Corridors,
- Located within 1 mile of highway

Must first fully build out FHWA National [Alternative Fuel Corridors](#).

WA: I-5, I-82, I-90, US 101, US 195, US 395

## Eligible Expenses:

- Acquisition or installation of EV charging infrastructure.
- Operating assistance (not to exceed 5 years)
- Installation of traffic control devices & signs
- Development phase activities
- Mapping and analysis activities

**WSDOT is contracting for the acquisition, installation, operation and maintenance of EV charging stations** through a competitive bidding process. Private partners are eligible applicants.

# U.S. Joint Office of Energy and Transportation (JOET)

**A modernized and interagency approach to support the deployment of zero-emission, convenient, accessible, equitable transportation infrastructure**

JOET Website: <https://driveelectric.gov>

FHWA Guidelines for NEVI:

[https://www.fhwa.dot.gov/environment/alternative\\_fuel\\_corridors/nominations/90d\\_nevi\\_formula\\_program\\_guidance.pdf](https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/90d_nevi_formula_program_guidance.pdf)

State Plan Template Plan: <https://driveelectric.gov/files/state-plan-template.docx>

Resources and technical assistance to inform the smart, equitable, and grid-aware planning of EV infrastructure: <https://driveelectric.gov/resources/>

# 10-Agency Involvement in State Plan Development

## Participating Agencies:

1. Commerce (co-lead)
2. Transportation (co-lead)
3. Financial Management
4. Ecology
5. Enterprise Services
6. SEEP
7. Agriculture
8. Health
9. UTC
10. OSPI student transportation

## State Agency Meetings:

- AFV-TAG Meeting May 20
- Public Listening Session #1 June 2
- Public Listening Session #2 June 8
- 10-Agency Meeting #1 May 18
- 10-Agency Meeting #2 June 23
- 10-Agency Meeting #3 July 14

# 28 Electrify America stations currently meet NEVI requirements

## Legend

Meets minimum FHWA NEVI requirements



Tesla Supercharger Stations



Alternative Fuel Corridors



WSDOT - State Routes

State Routes Increase

- U.S. Interstate
- U.S. Highway
- State Route



# State ZEVIP Program complements NEVI Program

## 2022-23 Proposed Awards

- 24 applications, \$39 million in requests
- \$9.8 million in proposed awards for the installation of 12 new DC fast charging stations and modernizing 12 original west coast electric highway sites.
- Serving 24 communities as well as highway travelers
- Invests in infrastructure along 2 interstates, 2 US routes, and 9 state routes
- 12 sites are located within/adjacent to disadvantaged communities
- 21 of the stations include a charger for ebikes, scooters, and ewheelchairs
- Includes 6 new stations at the western end of 5 state ferry routes

[wsdot.wa.gov/business-wsdot/grants/zero-emission-vehicle-grants/zero-emission-vehicle-infrastructure-partnerships-grant](https://wsdot.wa.gov/business-wsdot/grants/zero-emission-vehicle-grants/zero-emission-vehicle-infrastructure-partnerships-grant)

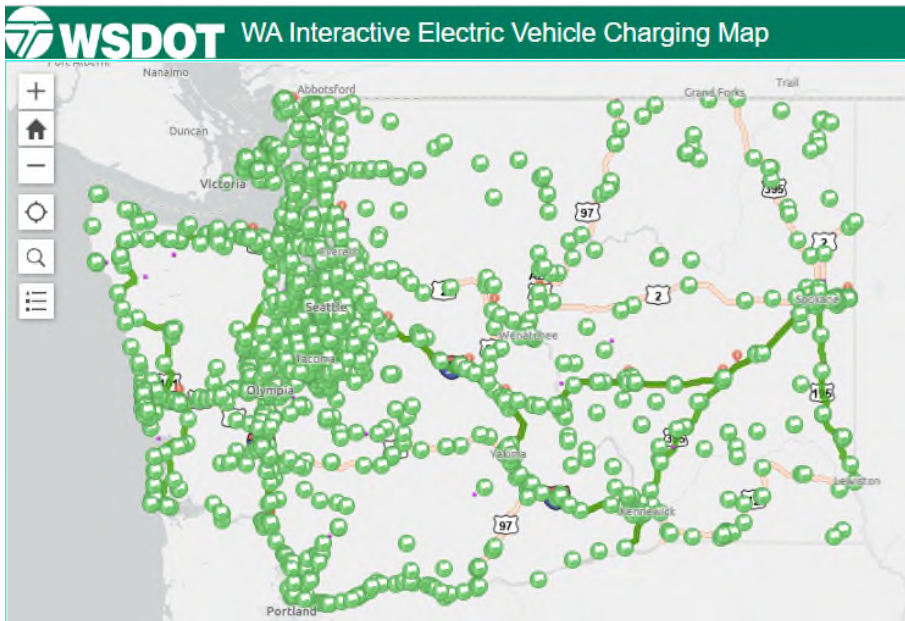


# NEVI Plan Key Elements

- Vision and Goals
- Equity Considerations
- Existing and Future Conditions Analysis
- Public Engagement
- Known Risks and Challenges
- EV Infrastructure Deployment
- Contracting and Implementation
- Program Evaluation

# NEVI Plan Vision

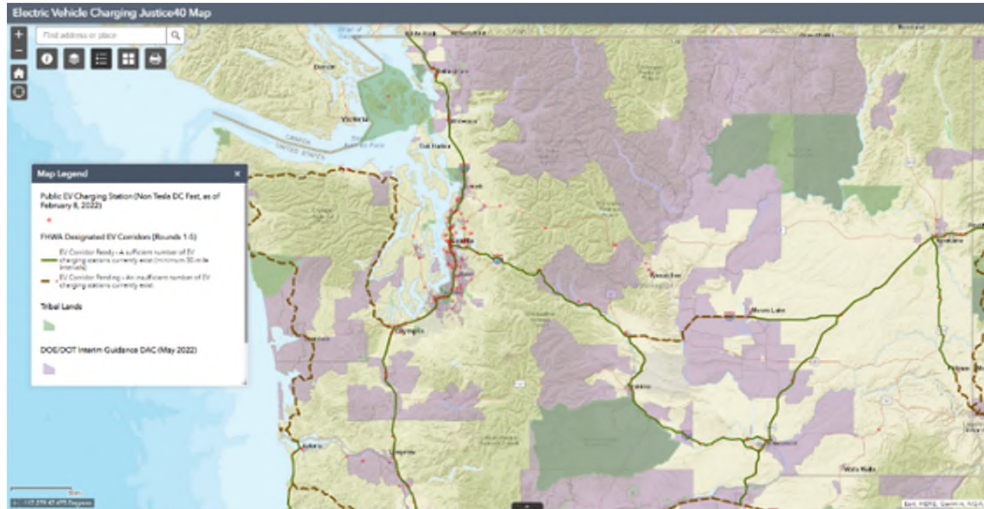
All Washingtonians and visitors to have the ability to use an EV and find convenient, affordable and accessible fast-charging stations.



# Washington's NEVI Plan Goals

- **Continuity:** Fill gaps in the EV infrastructure network.
- **Alternative Fuel Corridors:** Certify existing and identify future roadways
- **Equitable Charging Infrastructure:** Prioritize economically disadvantaged and rural communities.
- **Equity and Innovation in Contracting:** Contracting will be conducted in away to ensure resources are expended equitably and to award innovative approaches to implementation.
- **Plan support:** Prioritize and build in collaboration with public organizations, in support of local/regional plans.
- **Resiliency & Reliability:** Where possible, provide multiple charging options, with capacity to meet future demand for EV infrastructure. Establish plans for operations, maintenance, and emergency response.
- **Accessibility:** Easy to locate and use EV infrastructure at any point along the corridor. ADA and Universal Design considerations.
- **EV Adoption:** Reach 500,000 electric vehicle registrations by 2027.

# Equity Considerations – Justice40



- Identify Disadvantaged Communities (DACs)
  - Transportation access disadvantage
  - Health disadvantage
  - Environmental disadvantage
  - Economic disadvantage
  - Resilience disadvantage
  - Equity disadvantage
- Measure benefits DACs
- Determine goals to address equity
- Plan will abide by HEAL Act

# Equity Objectives

- Accelerate equitable adoption of EVs, including for those who cannot charge at home.
- Implement the Justice40 goal that 40% of overall benefits flow to DACs (Federal)
- Identify priority census tracts that benefit nearby EEJ underserved communities;
- Decarbonize the transportation sector that operate in EEJ underserved communities;
- Increase diversity in science, technology, engineering, and mathematics (STEM) jobs through EV charger placement; and
- Increase workforce development opportunities for EEJ underserved communities through EV charger placement
- NEVI plan will abide by HEAL Act

# Community Engagement Links

- State NEVI Plan webpage: <https://wsdot.wa.gov/construction-planning/statewide-plans/national-electrical-vehicle-infrastructure-plan>
- Survey: <https://www.surveymonkey.com/r/ZJ337N7>
- Interactive map where visitors can add suggested charging stations: <https://wsdot.maps.arcgis.com/apps/CrowdsourceReporter/index.html?appid=6d1e12ec58f842cbaf1b83e3d60e0f09>
- Commerce site for Interagency Electric Vehicle Coordinating Committee [EV Coordinating Council - Washington State Department of Commerce](#)
- [Draft plan](#) – comments accepted until July 15 to [Partnerships@wsdot.wa.gov](mailto:Partnerships@wsdot.wa.gov)

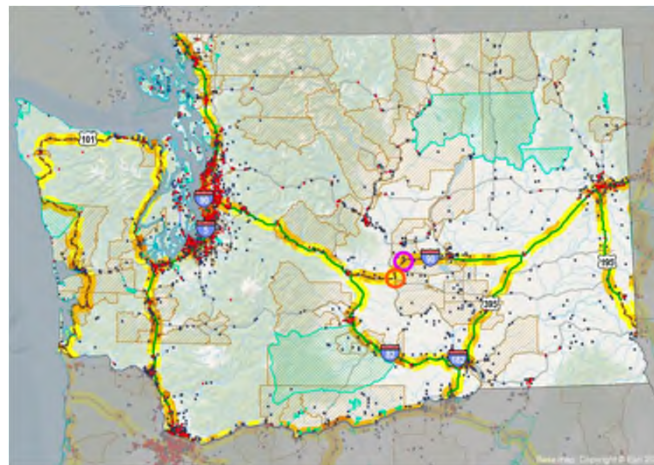
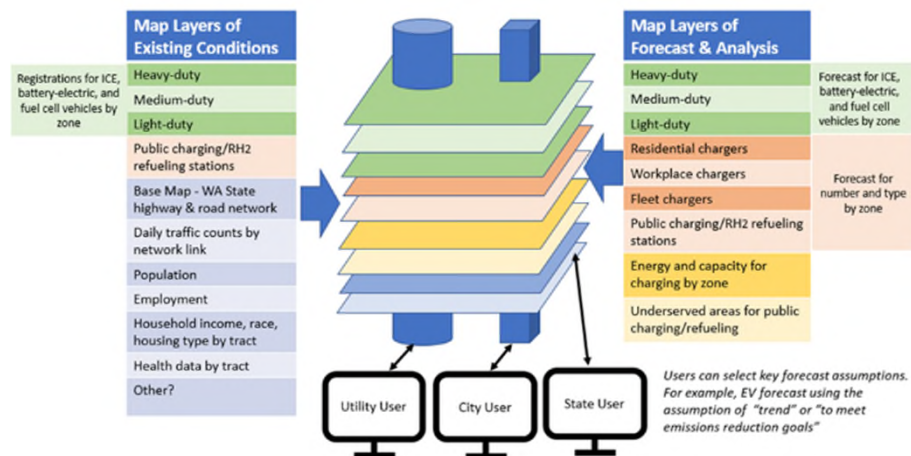
# Timeline

- WSDOT/Commerce - NEVI team commenced work in April
- Draft State Plan Released June
- IEVCC to vote on approval for WSDOT to submit plan to FHWA on July 21
- State Plan submitted to FHWA by August 1
- Comments on federal NEVI requirements due to FHWA August 22
- FHWA approval/revisions to State Plan by September 30
- RFP/Competitive bidding materials developed
- Funds do not expire

# ZEV Mapping & Forecasting Tool

## HB 1287 Zero-Emission Vehicles - Preparedness for a Zero Emissions Transportation Future

WSDOT, in consultation with Ecology, Commerce, and the office of Equity, must develop and maintain a publicly-available mapping and forecasting tool that provides locations and essential information of charging and refueling infrastructure to support forecasted levels of EV adoption, travel, and usage across Washington.



ENERGY ZONES MAPPING TOOL (EZMT) SAMPLE

2022 Update: Funded at \$8.5 million through the Commerce Operating Budget. WSDOT's IT/GIS team is securing an IT business analyst to develop the detailed vendor specifications and data management plan.



# Public Involvement History

- Stakeholder engagement for a decade
- Initial EV Task Force and EV Roadmap (2011)
- EV Action Plan (2015-20)
- ZEVIP corridor infrastructure investments (since 2017)
- ZEV Mapping & Forecasting Tool stakeholder engagement (2021)
- NEVI Plan engagement (2022)



# Public Engagement Objectives

- Identify and engage FHWA-mandated stakeholder groups in the plan's development
- Identify popular engagement methods
- Collect feedback on preferred charging stations and other charging priorities
- Engage stakeholders and the public to ensure that the State Plan will have equitable outcomes
- Create opportunities for stakeholders and the public to provide feedback on the Plan
- Ensure that the public is notified about public engagement activities in a timely manner
- Ensure public participation opportunities are held in ADA compliance
- Collect ongoing feedback on customer satisfaction after the Plan is finalized and approved
- Establish strategies for seeking input from and considering the needs of those traditionally underrepresented by existing transportation systems as defined in Title VI of the Civil Rights Act of 1964 (Title VI), such as low income, minority, and non-English speaking households who may face challenges accessing employment and other services
- Provide a contact to respond to public questions

# Stakeholder Connections

## Governments

- State agencies
- Local governments
- Planning organizations
- Asscs of cities, counties, transit agencies, ports
- Native governments
- Clean air agencies
- Economic development agencies

## Industry

- Business associations
- Labor organizations
- EVSE companies
- Vehicle manufacturers
- Freight movement
- Gas station, convenience store, and hospitality interests
- Women- and minority-owned business groups

## Communities

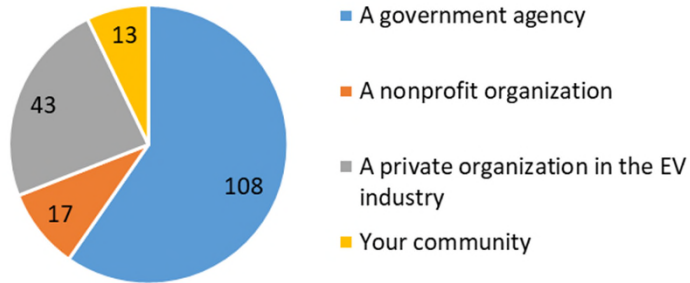
- EV drivers
- Non-governmental organizations
- EJ community representatives
- Active transportation groups
- Disability rights

# Stakeholder Outreach Activities

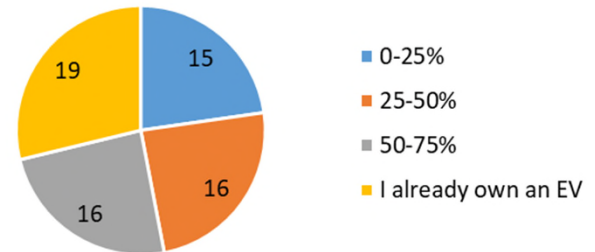
- Dedicated webpage, fact sheet
- Public listening sessions including polls (June 2 & 8)
- Public presentations to specific groups
- Online survey
- Social media and email promotion
- Interactive map

# Listening Session Polls

Listening Sessions 1 and 2:  
Q1 - Who are you representing?  
(181 responses)

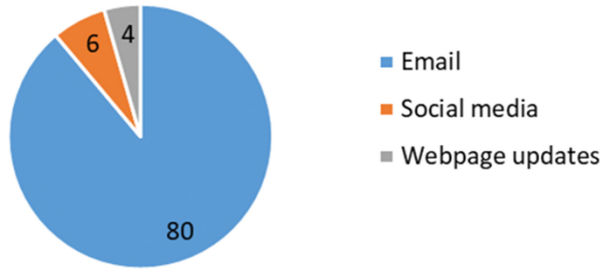


Session 2:  
Q2 - If you do not own/drive an EV now, what do you  
feel is the chance you will in the next 5 years?  
(66 responses)

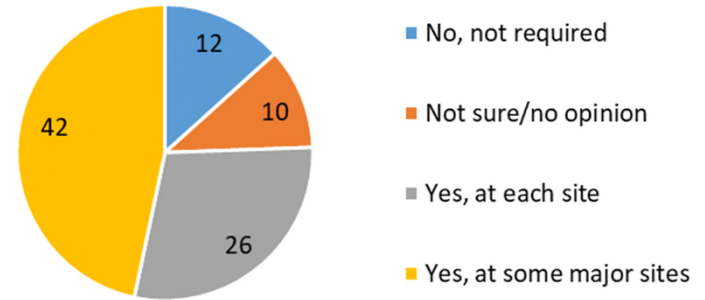


# Listening Session Polls

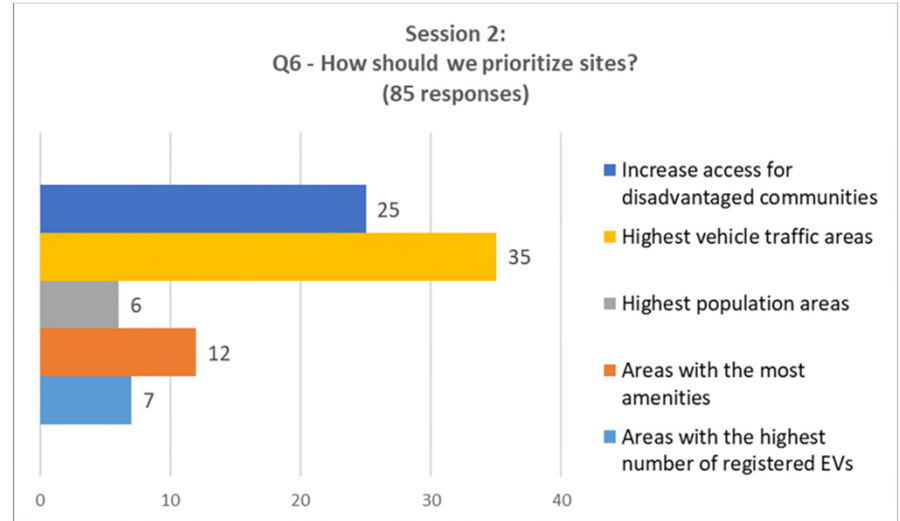
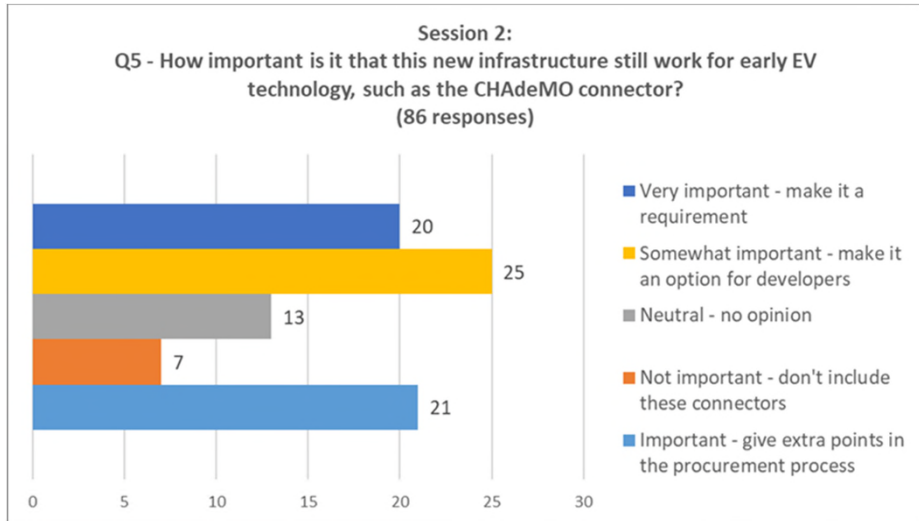
Session 2:  
Q3 - How do you prefer to hear about state EV planning  
and related efforts?  
(90 responses)



Session 2:  
Q4 - Should we install any 350 kW chargers?  
(90 responses)



# Listening Session Polls



# Common Stakeholder Issues

- Competitive bidding process
- Labor and workforce considerations
- Equity and access considerations
- Justice40 considerations
- Technology standards
- EVSE provider requirements
- NEVI funding and grants
- EVSE needed for medium- and heavy-duty vehicles
- EV/EVSE grant opportunities
- Standardize connectors and charging speed
- EVSE charging costs
- EVSE location considerations
- Concerns about electric utilities
- Interactive map
- Other



# Suggestions for Locations

- Rest stops
- State Parks
- Large public parks with restrooms
- Park and rides
- Highway 2 around Stevens Pass
- Long Beach Peninsula
- Mall parking lots (Plenty of space for people to charge and wait in line)
- Downtown Seattle
- Sports stadiums
- Large public attractions
- Ferry terminals
- Recreational sites
- Near colleges and on routes to colleges
- Near popular trailheads

# Initial Survey Results

On a typical day, what type of transportation do you use most to get around? Do you currently drive an electric vehicle (Plug-In Hybrid EV (PHEV) or all Battery EV (BEV))?	High percentage of respondents drive a BEV or PHEV (48%)
If you do not drive an electric vehicle, are you interested in driving one in the next 5 years?	Only 16% are not interested in owning an EV
If you drive a gas- or diesel-powered vehicle, <b>on average</b> , how many miles do you drive per day?	10% drive more than 50 miles per day (majority drive under 19 miles)
If you drive an electric vehicle, what type of charger do you use at home?	Most EV drivers use a level 2 charger at home
If you drive an electric vehicle, what type of charger do you use when you're on the road?	DCFC on the road
Which Alternative Fuel Corridor (AFC) in Washington State would you want to prioritize for installing EV charging infrastructure (see map above)?	I-5 and I-90 are the preferred AFCs

# Initial Survey Results

Washington may nominate additional EV corridors for national designation starting next year. Which corridors do you recommend adding?	US 2 (followed by US 12 and US 97) are the preferred AFC nominations
How should we prioritize charging sites?	<ul style="list-style-type: none"><li>• Highly trafficked areas (~35%)</li><li>• Access for DACs (~29%)</li></ul>
Which amenities/other services at charging stations are important to you?	<ul style="list-style-type: none"><li>• Restrooms (90%)</li><li>• Food (70%)</li></ul>
Should the charging sites be built out to handle additional capacity (e.g., more parking spaces for charging electric vehicles in the coming years)?  The state is required to install the NEVI-funded stations within a mile of the Alternative Fuel Corridors. Are there any scenarios where we should seek an exemption on the 1-mile requirement?	Yes – build out additional capacity (84%)

# Initial Survey Results

What are the benefits of EVs in your community?	<ul style="list-style-type: none"><li>• Less pollution</li><li>• Quieter</li><li>• Lower GhG</li><li>• Reduced transportation costs</li></ul>
What are the disadvantages of EVs to your community?	<ul style="list-style-type: none"><li>• Job losses</li><li>• Stress on electrical power grid</li><li>• Up-front costs</li></ul>
Do you have additional feedback about the draft NEVI plan?	
How do you like to be engaged?	

# Industry Comments Received

- Amply Power
- ChargerHelp
- ElectrifyAmerica
- Tesla
- EVgo
- Flo
- Freewire
- Partners for ZEV Future
- Seattle EV Association
- Rivian
- SpaceAge Fuel
- Charge Ahead Partnership
- EV Charging Assoc
- Blue-Green Alliance

# Common Industry Themes

- Contract with multiple providers
- Payment methods/requirements
- Warranties
- O&M plans
- Open Charge Point Protocol (OCPP) 1.6 compliant
- Data reporting requirements (communicate the need)
- Consider opportunities and challenges of rural charging needs
- Connector types
- Ownership and operation structures
- Labor requirements
- Workforce development & training
- Promote speed and scalability

# THANK YOU

For more information, visit:

[wsdot.wa.gov/construction-planning/statewide-plans/national-electrical-vehicle-infrastructure-plan](https://wsdot.wa.gov/construction-planning/statewide-plans/national-electrical-vehicle-infrastructure-plan)

# IEVCC Approval of State Plan

The legislature granted the Interagency Electric Vehicle Coordinating Council (IEVCC) the powers and responsibility to direct the implementation of the national electric vehicle program, established in the federal Infrastructure Investment and Jobs Act (P.L. 117-58).

The State Plan for the National EV Infrastructure (NEVI) formula program must be directed by the IEVCC created pursuant to SB 5974.

Proposed motion: *Adopt the “Washington State Plan for EV Infrastructure Deployment” and direct WSDOT to move forward with the Federal Highway’s submission process.*