



Joint Office of
**Energy and
Transportation**

Building a Future Where Everyone Can Ride and Drive Electric

2023 Clean Air Northeast Partners Meeting

Mike Scarpino

10/17/23

driveelectric.gov

Agenda

- **Federal** Approach Overview
- **Joint Office** Overview
- **Key BIL Funding Program** Updates
- **Technical Assistance** Offerings

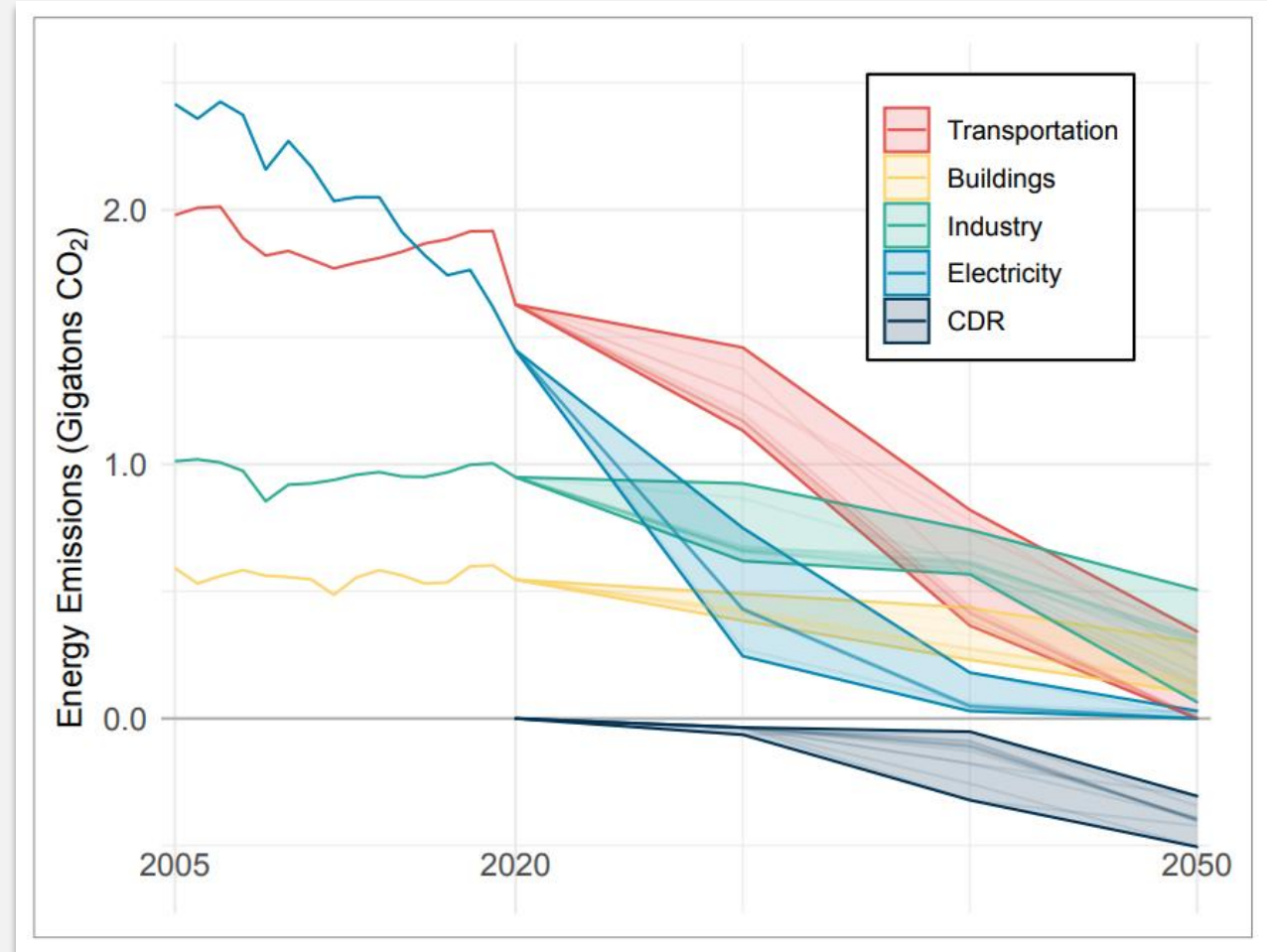




Federal Approach Overview

U.S. Energy CO2 Emissions to 2050 by Economic Sector

- Transportation is the highest emitting sector
- Requires dramatic emission reduction to reach 2050 net zero goal



Source: U.S. Department of State and Executive Office of the President
November 2021

2019 U.S. GHG EMISSIONS

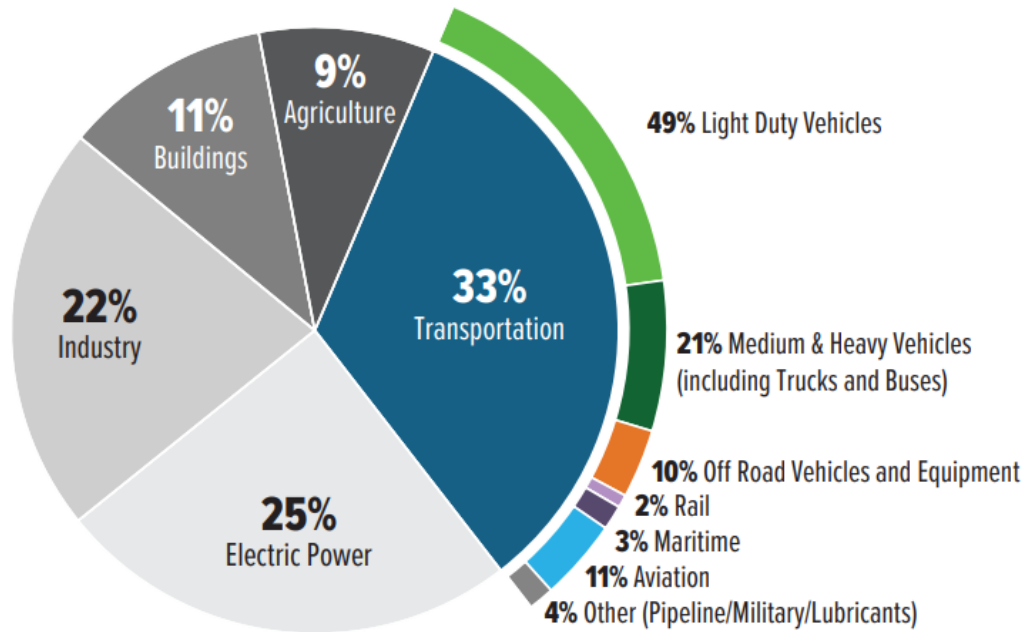


Figure 2. Total 2019 U.S. GHG emissions with transportation and mobile sources breakdown. Data derived from the EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks [REF.](#)⁸ This Blueprint uses 2019 as a baseline since impacts due to COVID-19 complicate the use of later data.

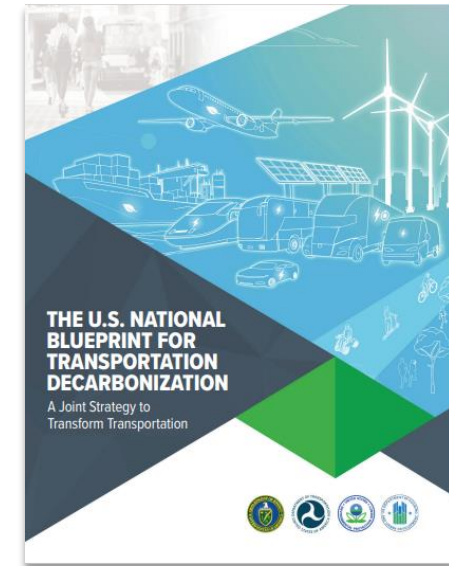
Transportation is the leading sector and **light-duty vehicles** are the largest contributor followed by **medium- and heavy-duty vehicles.**

U.S. National Blueprint for Transportation Decarbonization



























Goal:

- Reduce greenhouse gas emissions associated with the transportation sector by 2050 and ensure resilient and accessible mobility options for all Americans

Partners:



Numerous strategies and solutions are required to tackle transportation emissions

	 BATTERY/ELECTRIC	 HYDROGEN	 SUSTAINABLE LIQUID FUELS
	1 icon represents limited long-term opportunity  2 icons represents large long-term opportunity  3 icons represents greatest long-term opportunity 		
Light Duty Vehicles (49%)*		—	TBD
Medium, Short-Haul Heavy Trucks & Buses (~14%)			
Long-Haul Heavy Trucks (~7%)			
Off-road (10%)			
Rail (2%)			
Maritime (3%)			
Aviation (11%)			
Pipelines (4%)		TBD	TBD
Additional Opportunities	<ul style="list-style-type: none"> • Stationary battery use • Grid support (managed EV charging) 	<ul style="list-style-type: none"> • Heavy industries • Grid support • Feedstock for chemicals and fuels 	<ul style="list-style-type: none"> • Decarbonize plastics/chemicals • Bio-products
RD&D Priorities	<ul style="list-style-type: none"> • National battery strategy • Charging infrastructure • Grid integration • Battery recycling 	<ul style="list-style-type: none"> • Electrolyzer costs • Fuel cell durability and cost • Clean hydrogen infrastructure 	<ul style="list-style-type: none"> • Multiple cost-effective drop-in sustainable fuels • Reduce ethanol carbon intensity • Bioenergy scale-up

* All emissions shares are for 2019

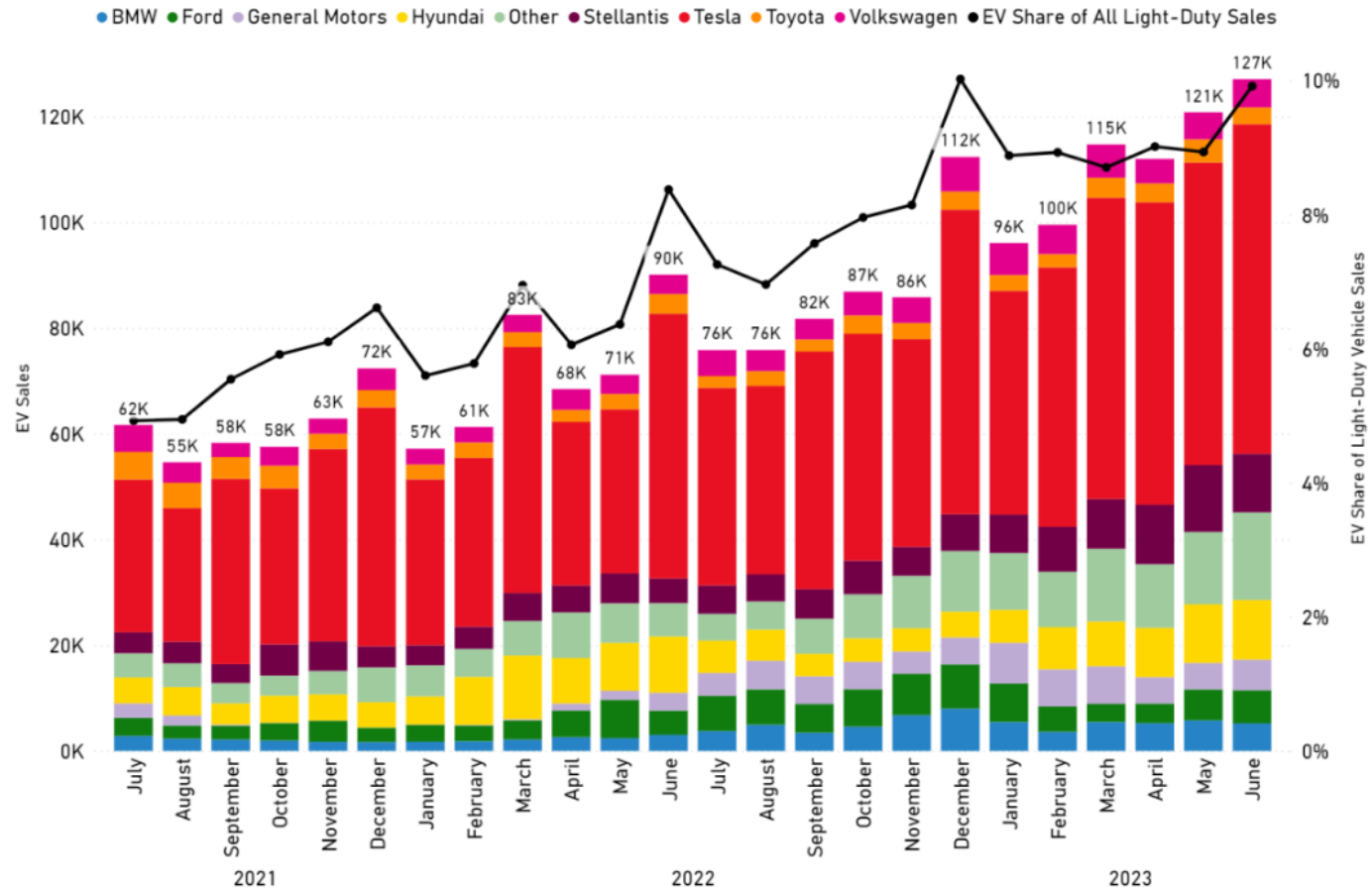
† Includes hydrogen for ammonia and methanol

Figure 7. Summary of vehicle improvement strategies and technology solutions for different travel modes that are needed to reach a net-zero economy in 2050 (more details provided in Section 5).

For every 10 light-duty vehicles sold in June, one was an electric vehicle

10% EV Sales Market Share in June 2023

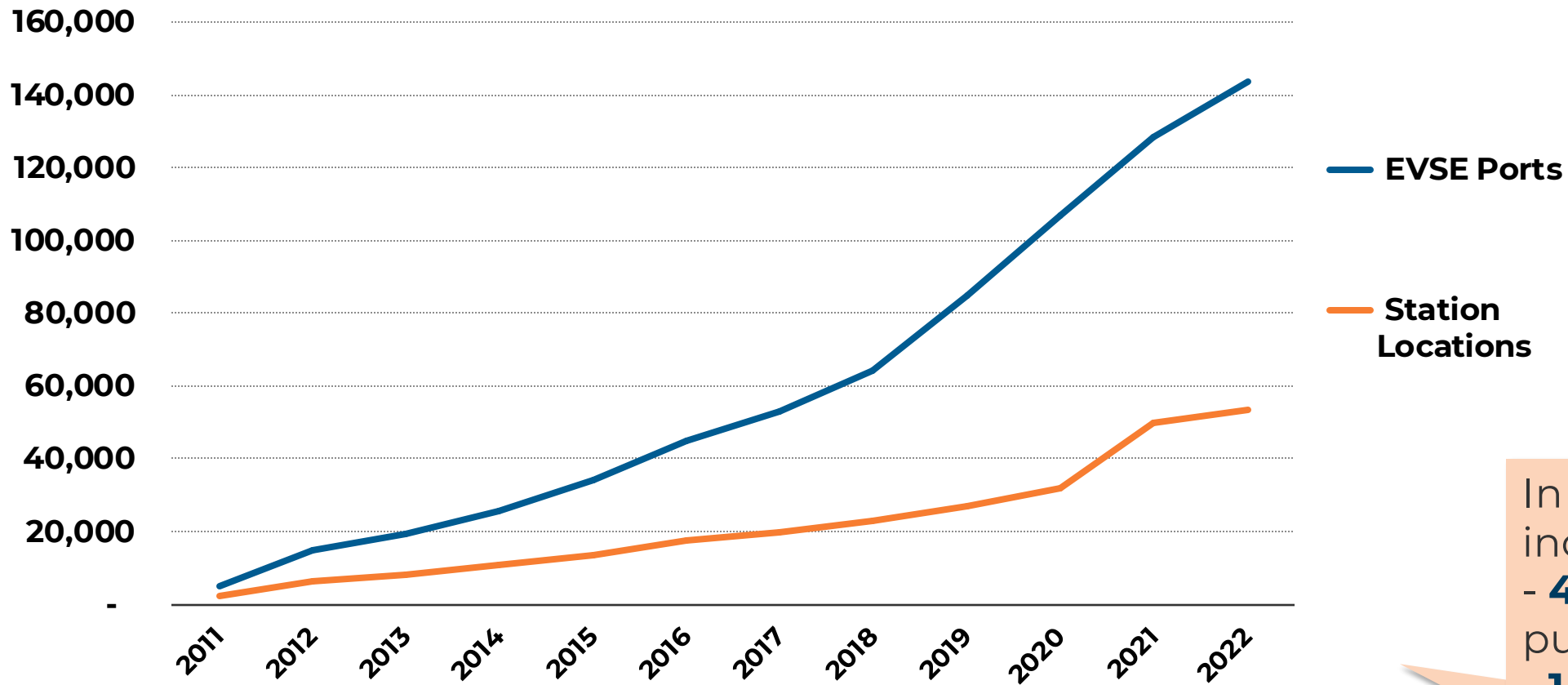
U.S. New EV Sales and EV Share of Light-Duty Sales from July 2021 to June 2023



Source: Atlas EV Hub

Steady and increasing growth in availability of EV charging infrastructure

U.S. Public and Private Electric Vehicle Charging Infrastructure



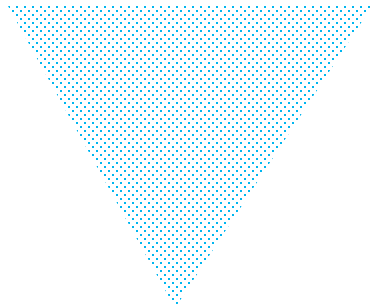
In Q1 of 2023, **3.2%** increase in ports
- **4.0%** increase in public and
- **1.7%** increase in private ports

Source: DOE AFDC, Electric Vehicle Charging Infrastructure Trends



Joint Office Overview and Priorities

Mission and Vision



JOINT OFFICE OF
**Energy and
Transportation**

Mission

To accelerate an electrified transportation system that is affordable, convenient, equitable, reliable, and safe.

Vision

A future where everyone can ride and drive electric.

Infrastructure Investment & Jobs Act (IIJA)

Programs Supported by the Joint Office

The Joint Office provides unifying **guidance**, **technical assistance**, and **analysis** to support the following programs:



National Electric Vehicle Infrastructure (NEVI) Formula Program (U.S. DOT)

\$5 billion for states to build a national electric vehicle (EV) charging network along corridors, including a **\$100 million** funding opportunity to repair and replace chargers



Charging & Fueling Infrastructure Discretionary Grant Program (U.S. DOT)

\$2.5 billion in community and corridor grants for EV charging, as well as hydrogen, natural gas, and propane fueling infrastructure



Low-No Emissions Grants Program for Transit (U.S. DOT)

\$5.6 billion in support of low- and no-emission transit bus deployments



Clean School Bus Program (U.S. EPA)

\$5 billion in support of electric school bus deployments



Key BIL Funding Programs

NEVI Formula Program- Overview

The purpose of the **\$5B** NEVI Formula Program:

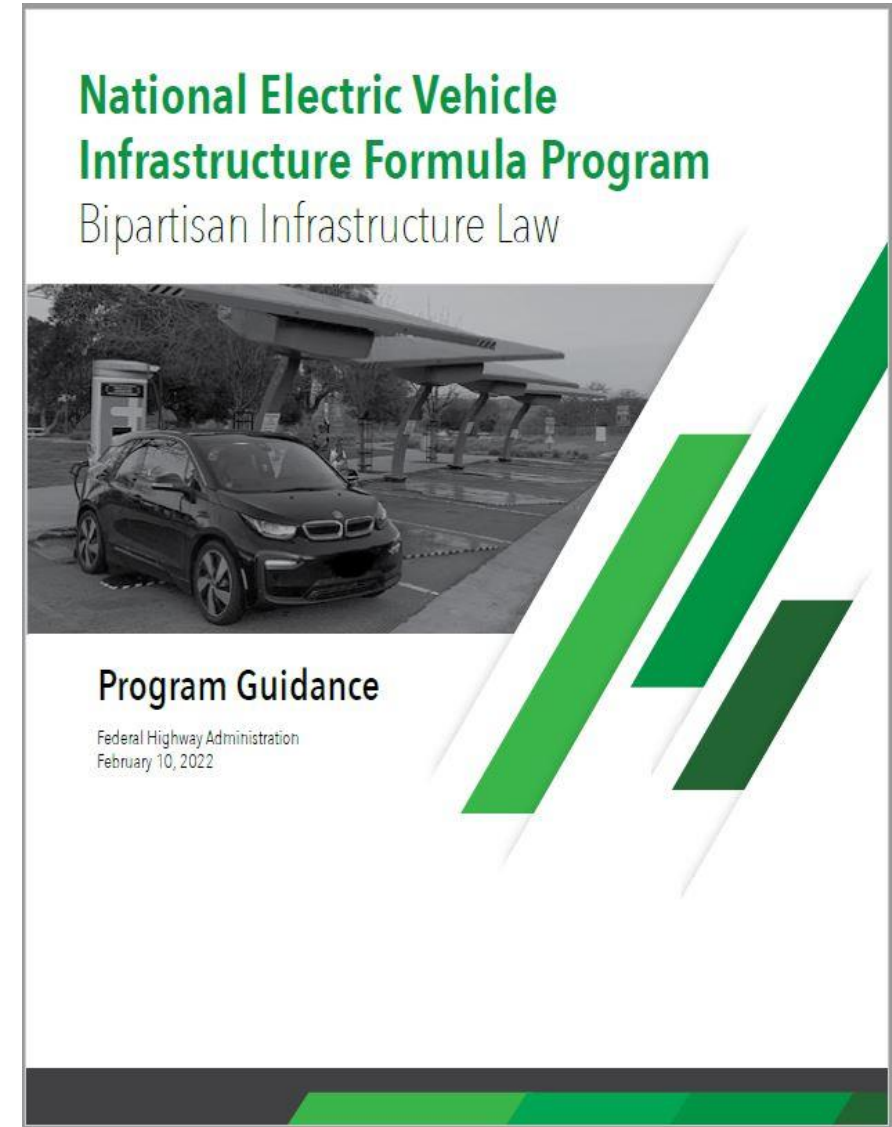
- **Strategically deploy EV charging infrastructure**
- **Establish an interconnected network to facilitate data collection, access, and reliability.**

Initially, funding under this program:

- Directed **to designated Alternative Fuel Corridors for EVs to build out this national network, particularly along the Interstate Highway System.**

When the national network is **fully built out:**

- Remaining funding **may be used on any public road or in other publicly accessible locations (or communities).**

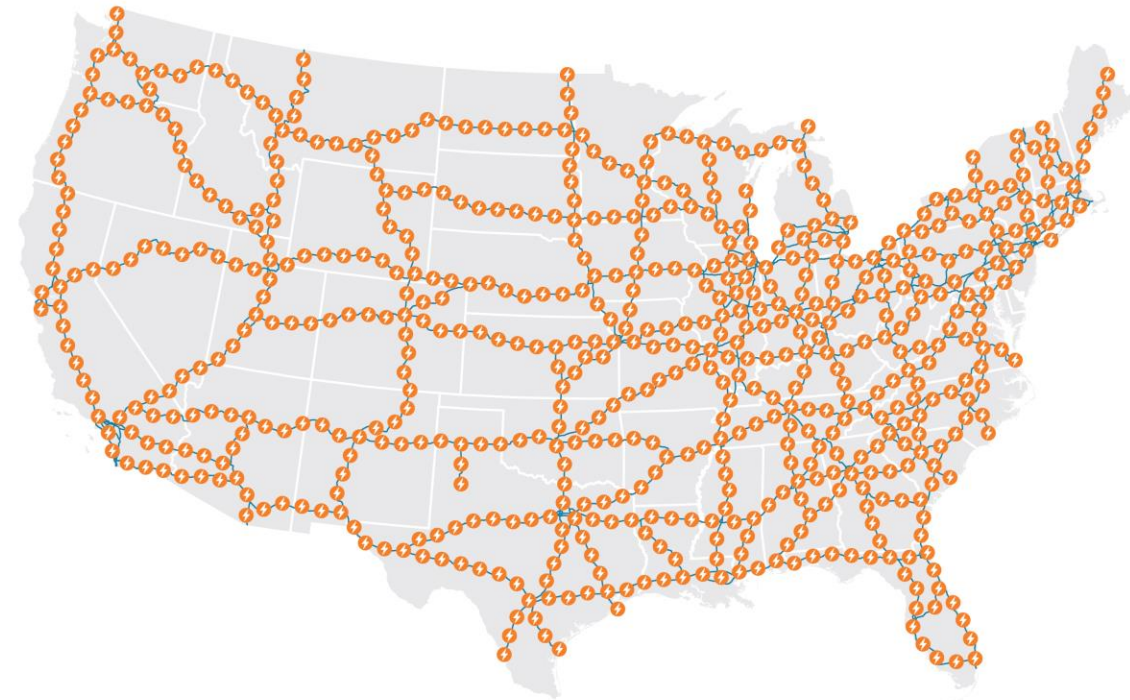


NEVI Formula Program

NEVI Corridor Framework:

- EV charging stations installed **every 50 miles within 1 travel mile of the highway or Interstate**
- EV charging stations must include **at least four 150kW DC Fast Chargers** with Combined Charging System (CCS) ports capable of simultaneously charging four EVs;
- **State EV Infrastructure Deployment Plans** to include information on state agency coordination, utility consultation, public engagement, labor and workforce considerations, cybersecurity, and equity and Justice40 considerations.

The goal: National EV charging network that is convenient, reliable, and equitable.



National Electric Vehicle Infrastructure (NEVI) Formula Program Updates

- **All 50 state plans plus DC and Puerto Rico are approved** by FHWA in Sept 2022
 - **Unlocking \$1.5 B** in FY22 and FY23 funding
- **Majority of Plan updates have been approved** for FY 24 funding (\$885M)
- **States have released or are getting ready to release RFPs**

The screenshot shows the website for the National Electric Vehicle Infrastructure (NEVI) Formula Program. The page title is "State Plans for Electric Vehicle Infrastructure". It features three key statistics: \$615 million in actual total FY 2022 funding, \$885 million in estimated total FY 2023 funding, and 75,820 miles of EV charging corridors designated as of July 2022. Below these statistics is a table with columns for State Plan, Actual FY 2022 Funding, Estimated FY 2023 Funding, EV Charging Corridors, and NEVI Planning. The table lists Alabama with \$11,738,801 in actual funding, \$16,892,267 in estimated funding, 1,002 miles of corridors, and a link to the Alabama NEVI Planning document.

State Plan	Actual FY 2022 Funding	Estimated FY 2023 Funding	EV Charging Corridors	NEVI Planning
Alabama State Plan Approval Letter	\$11,738,801	\$16,892,267	1,002 miles	Alabama NEVI Planning

NEVI Program progress in the last two months

Tritium Becomes First Manufacturer to Win NEVI Fast Charger Order; Company to Provide All Fast Chargers for First Phase of Hawai'i NEVI Program

Press Release

07/11/2023

HOME FEATURED

'Electric revolution' begins as Pennsylvania awards grants for 54 vehicle charging stations

by Ed Blazina August 14, 2023



News Release for August 1, 2023

For more information:
Paul Merrill, Public Information Officer - 207-624-3355 or 207-215-9297

Recharge Maine Announces Planned Awards of More Than \$6 Million in Bids to Further Extend Maine's Electric Vehicle Charging Infrastructure

ENVIRONMENT

Ohio to install 27 interstate electric vehicle charging stations: See where they will be located

The new charging stations are expected to be in operation next year.



COLORADO
Energy Office

FOR IMMEDIATE RELEASE
Office of Governor Jared Polis
Ari Rosenblum | ari.rosenblum@state.co.us | (720) 910-1190

Colorado Energy Office awards \$17 million in grant funding to expand the state's public electric vehicle fast-charging network

These awards will help accelerate electric vehicle adoption by adding nearly 200 direct-current fast-chargers in communities across Colorado

FHWA Discretionary Grant Program for EV Charging Infrastructure

Applications are now open!

The **Electric Vehicle Charger Reliability and Accessibility Accelerator** was established by the Bipartisan Infrastructure Law (BIL)

\$100M funding now available

- Focus on **improving the reliability of the current network by repairing or replacing** existing EV charging infrastructure
- Application period will close **November 13, 2023 at 11:59 pm EST** through grants.gov
- Questions can be directed to RAA-NEVI@dot.gov until **October 13th**

\$470M total in the 10% set-aside from the NEVI program

The screenshot shows the Grants.gov website interface. At the top, there is a search bar with the text "SEARCH: Grant Opportunities" and a "GO" button. Below the search bar is a navigation menu with links for HOME, LEARN GRANTS, SEARCH GRANTS, APPLICANTS, GRANTORS, SYSTEM-TO-SYSTEM, FORMS, CONNECT, and SUPPORT. The main content area is titled "VIEW GRANT OPPORTUNITY" and displays the following information:

- Document ID: 693JJ324NF00001
- Title: Electric Vehicle Charger Reliability and Accessibility Accelerator
- Department: Department of Transportation
- Agency: DOT Federal Highway Administration

There are "Apply" and "Subscribe" buttons. Below this, there are tabs for "SYNOPSIS", "VERSION HISTORY", "RELATED DOCUMENTS", and "PACKAGE". The "SYNOPSIS" tab is selected, showing a "General Information" section with the following details:

Document Type:	Grants Notice	Version:	Synopsis 1
Funding Opportunity Number:	693JJ324NF00001	Posted Date:	Sep 13, 2023
Funding Opportunity Title:	Electric Vehicle Charger Reliability and Accessibility Accelerator	Last Updated Date:	Sep 13, 2023
Opportunity Category:	Discretionary	Original Closing Date for Applications:	Nov 13, 2023
Opportunity Category Explanation:		Current Closing Date for Applications:	Nov 13, 2023
Funding Instrument Type:	Grant	Archive Date:	Dec 13, 2023
Category of Funding Activity:	Infrastructure Investment and Jobs Act (IIJA)	Estimated Total Program Funding:	\$100,000,000
Category Explanation:		Award Ceiling:	
Expected Number of Awards:		Award Floor:	
CFDA Number(s):	20.205 -- Highway Planning and Construction		
Cost Sharing or Matching Requirement:	Yes		

Discretionary Grant Program for Charging and Fueling Infrastructure –

Applications for
FY 22 and 23 are
now closed

The CFI Program was established by the Bipartisan Infrastructure Law (BIL)

Authorized to **strategically deploy publicly accessible electric vehicle charging** and **other alternative fueling infrastructure (hydrogen, natural gas, propane)** in communities and **along designated Alternative Fuel Corridors (AFCs)**

\$2.5B Program is divided into two distinct **\$1.25 billion grant programs:**

- **Corridor** Program Grants
- **Community** Program Grants

\$700M in FY22 and FY23 funding

- Application period closed **June 13th**
 - **Corridor** Program: **\$350M**
 - **Community** Program: **\$350M**

Future Funding: \$500M FY24, \$600M FY25, \$700M FY26

EV Charging Minimum Standards



Charging is a predictable and reliable experience, by ensuring that there are consistent plug types, power levels, and a minimum number of chargers capable of supporting drivers' fast charging needs;



Chargers are working when drivers need them to, by requiring a 97 percent uptime reliability requirement;



Drivers can easily find a charger when they need to, by providing publicly accessible data on locations, price, availability, and accessibility through mapping applications;



Drivers do not have to use multiple apps and accounts to charge, by requiring that a single method of identification works across all chargers; and,

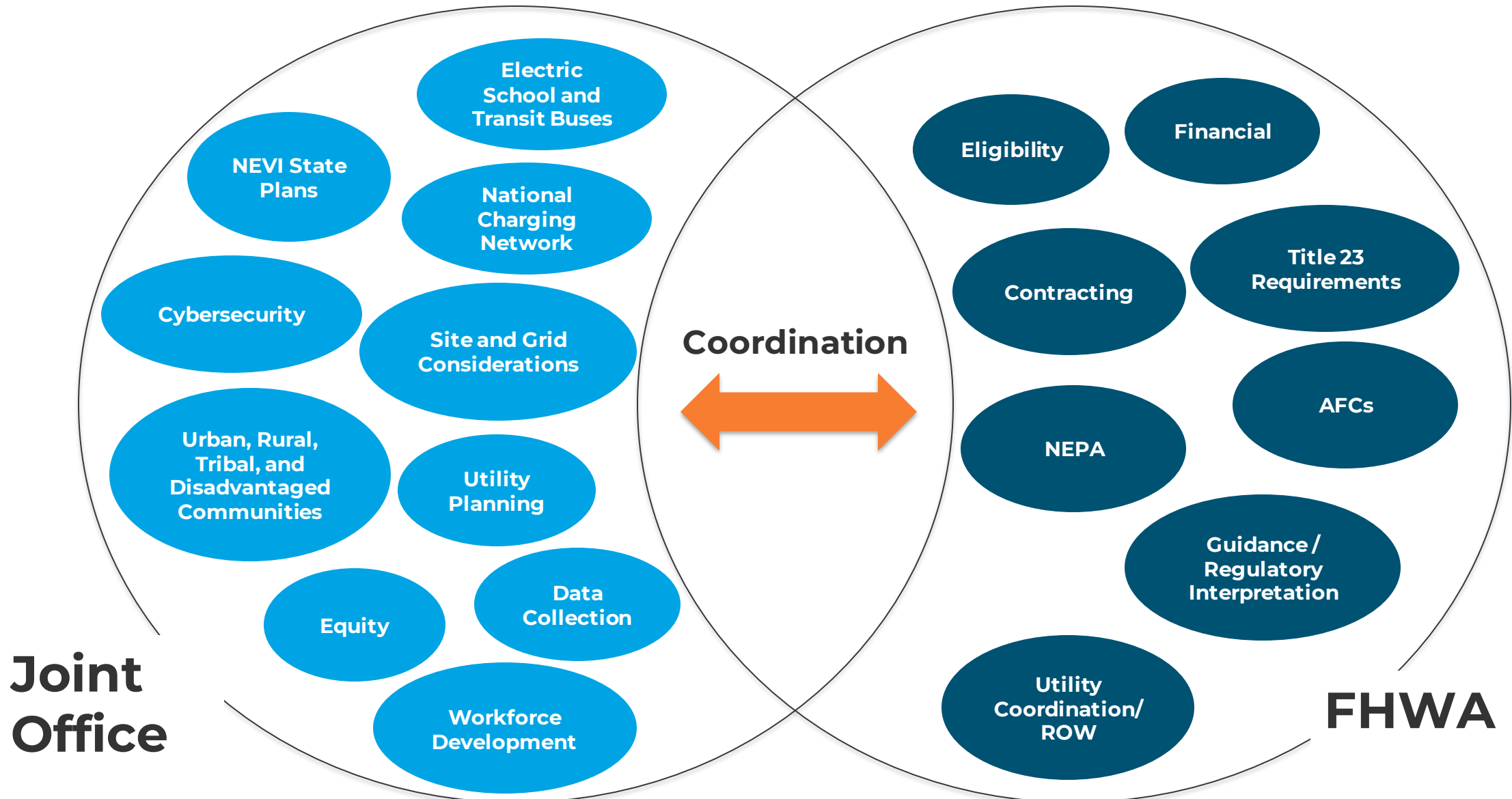


Chargers will support drivers' needs well into the future, by requiring compatibility with forward-looking capabilities like Plug and Charge.



Technical Assistance

Providing Technical Assistance (TA)



U.S. DOT's Rural and Urban EV Infrastructure Toolkits

Rural EV Toolkit

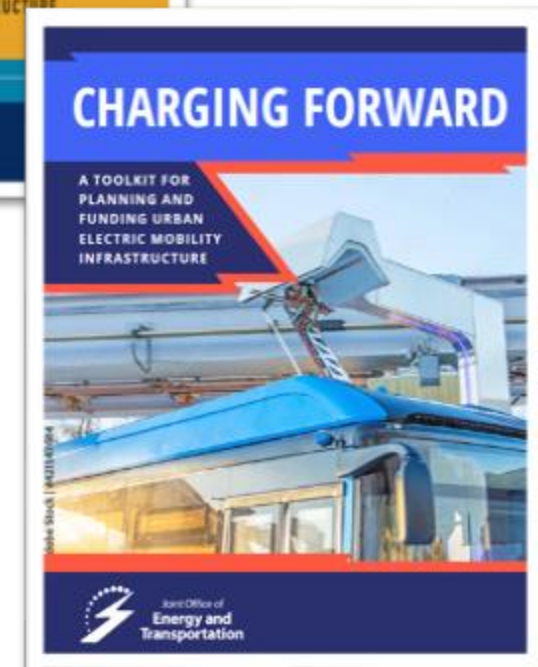
Version 2.0 Now Available!

- Expanded content on:
 - Transit vehicles
 - School buses
 - Micromobility
 - Accessible design
- New funding programs, including the Bipartisan Infrastructure Law (BIL)

Urban Toolkit

Final Version Now Available!

- Reframed for urban (e.g., benefits/challenges, success stories, resources, funding programs)
- Multifamily, building codes, curbside charging, fleet charging (micromobility, ride-hailing, taxi)
- Relevant funding opportunities

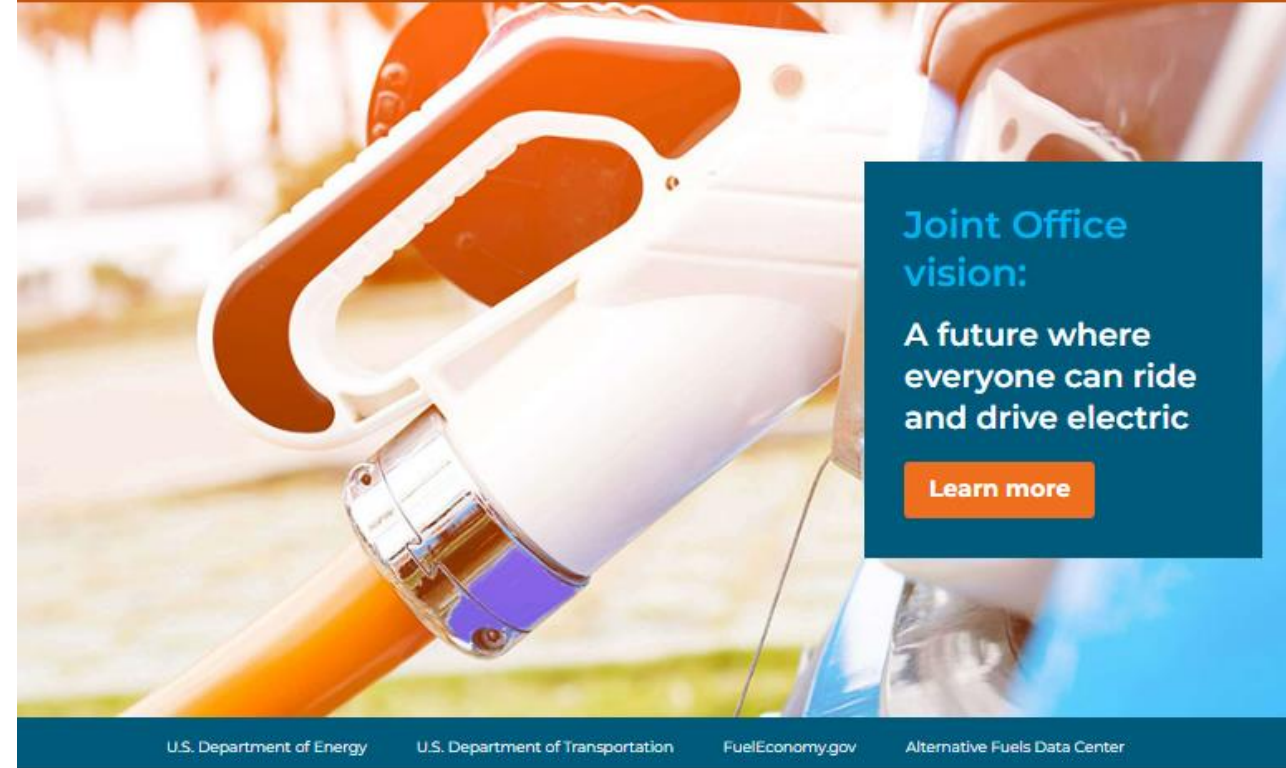


DriveElectric.gov

Website connects state DOTs and other stakeholders to resources, including:

- Infrastructure planning and implementation guidance
- Data and tools
- News and events
- Technical assistance request form

Interested in working to build a zero-emission transportation future? Learn more about [Joint Office careers](#).



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

The Joint Office of Energy and Transportation was created through the Bipartisan Infrastructure Law (BIL) to facilitate collaboration between the U.S. Department of Energy and the U.S. Department of Transportation. The Joint Office will align resources and expertise across the two departments toward leveraged outcomes. The office will be a critical component in the implementation of the BIL, providing support and expertise to a multitude of programs that seek to deploy a network of electric vehicle chargers, zero-emission fueling infrastructure, and zero-emission transit and school buses. The scope of the Joint Office will continue to evolve as directed by both departments.



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Thank You

driveelectric.gov