



Joint Office of
**Energy and
Transportation**

Joint Office Overview

11-15-2022

Smoky Mountain Conference

driveelectric.gov

Agenda

- Background
- Immediate-Term Priorities
- Technical Assistance
- Progress to Date
- ...and What's Next





Background

Joint Office Establishment

- 11/15/21 Bipartisan Infrastructure Law (BIL) signed into law
- 12/13/21 Biden-Harris Electric Vehicle Charging Action Plan released
- 12/14/21 Memorandum of Understanding (MOU) between the U.S. Departments of Energy and Transportation to establish a Joint Office of Energy and Transportation (Joint Office)

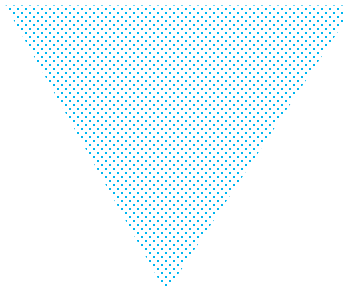


Secretary Jennifer Granholm
U.S. Department of Energy (DOE)



Secretary Pete Buttigieg
U.S. Department of Transportation (DOT)

Mission and Vision



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.

Joint Office Purpose

Established by the Bipartisan Infrastructure Law to address areas of joint interest to the U.S. Departments of Energy and Transportation

\$300M

in Fiscal Year 2022 funds to DOT with transfer authority to DOE

9

major areas of emphasis

Areas of emphasis:

- 1) Technical assistance for zero emission vehicle charging and refueling infrastructure
- 2) Data sharing
- 3) National and regionalized study vehicle of infrastructure needs
- 4) Training and certification programs
- 5) Program to promote renewable energy generation, storage, and grid integration
- 6) Transmission pilots in interstate rights-of-way
- 7) Research, strategies, and actions to mitigate effects of climate change
- 8) Develop streamlined utility accommodations policy for transmission in transportation right-of-way
- 9) Any other issues the Secretary of Transportation and Secretary of Energy identify as issues of joint interest

Success =
Achieving a
national charging
network in 5 years
that embodies
foundational
principles:

(and that creates jobs, EV
adoption, and other
great things)

Convenient

- Great customer experience

Affordable

- Open market that fosters competition and innovation

Reliable

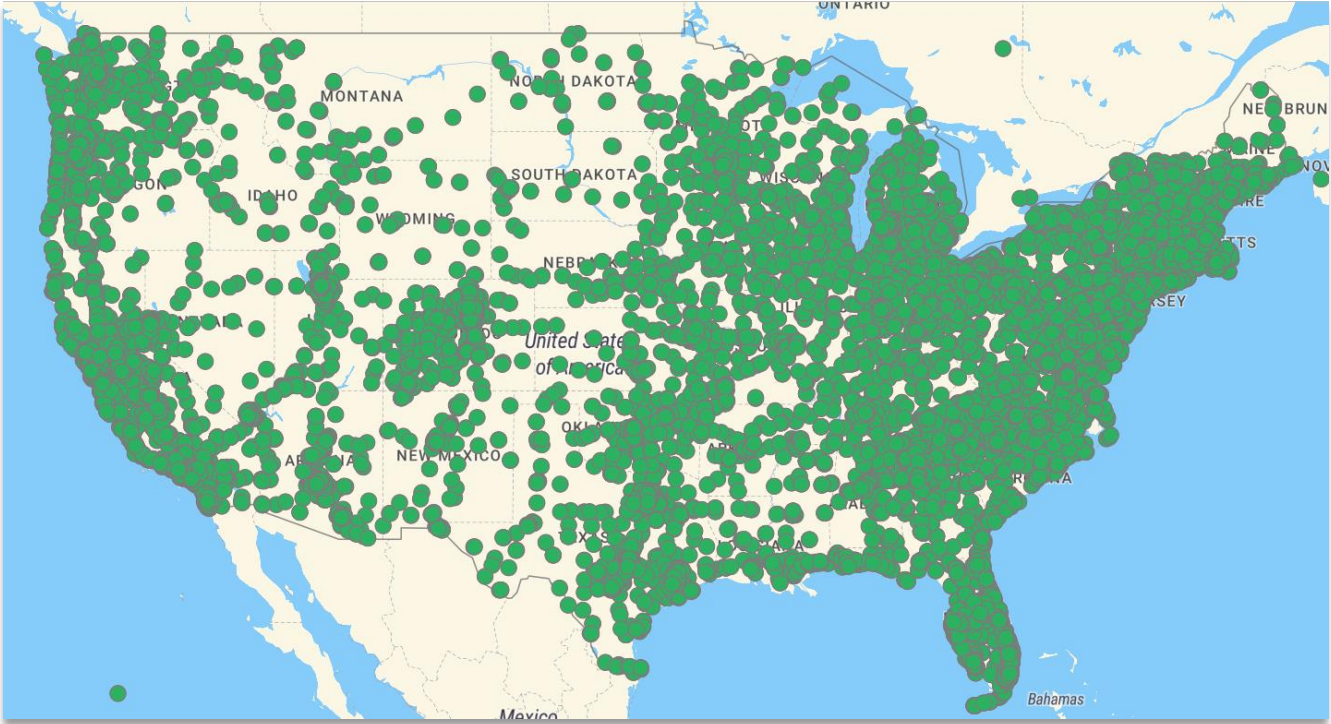
- Works every time
- Foundations for vehicle-grid integration

Equitable

- Any driver, any EV, anywhere

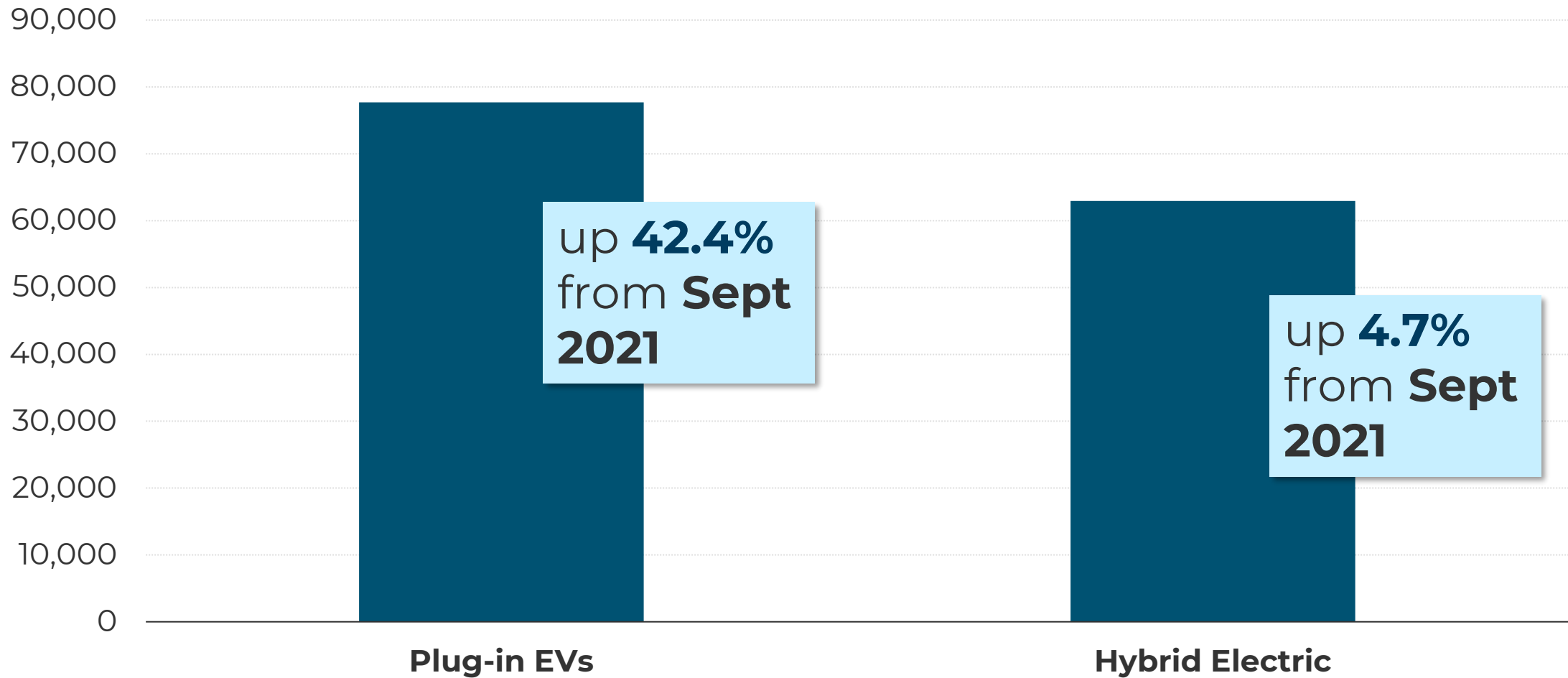
Current state of public EV charging infrastructure

- **48,123 station locations**
- **124,269 EVSE ports**
 - 865 Level 1
 - 97,068 Level 2
 - 26,296 DCFC



Source: DOE AFDC, Alternative Fueling Station Locator

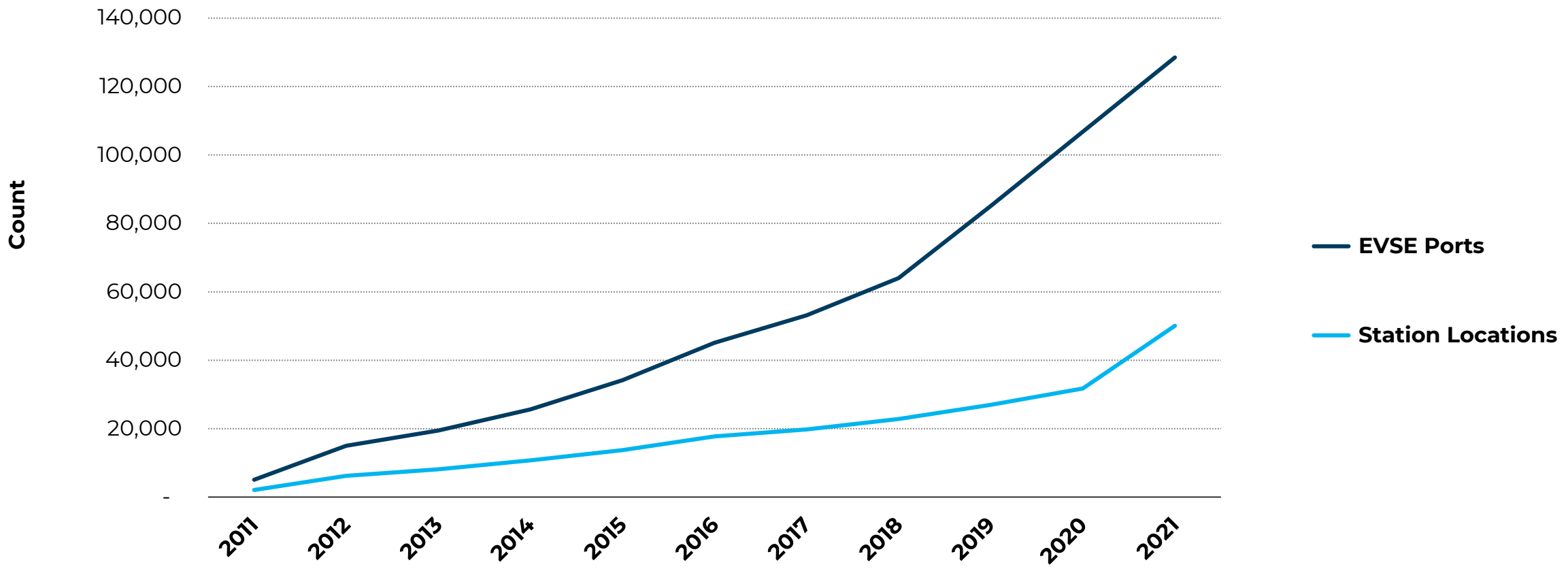
Monthly EV Sales in September 2022



Source: Argonne National Lab, September 2022

Trends for Public and Private EVSE in the U.S.

U.S. Public and Private Electric Vehicle Charging Infrastructure from 2011-2022



Source: DOE AFDC, Electric Vehicle Charging Infrastructure Trends

The Charging Pyramid...?



Cost (\$ billions)

Public	44.8		
		Level 2	8.8
			Curbside 2.3
			Office 2.8
			Retail 1.2
			Recreation 0.4
			Healthcare 0.8
			Education 0.4
			Religious 0.3
			Transport Hub 0.7
		DC Fast	36.0
			DC150 10.7
			DC250 14.6
			DC350 11.9
Private	41.3		
		Level 2	41.3
			Single Family 34.6
			Multi Family 2.1
			Workplace 4.6

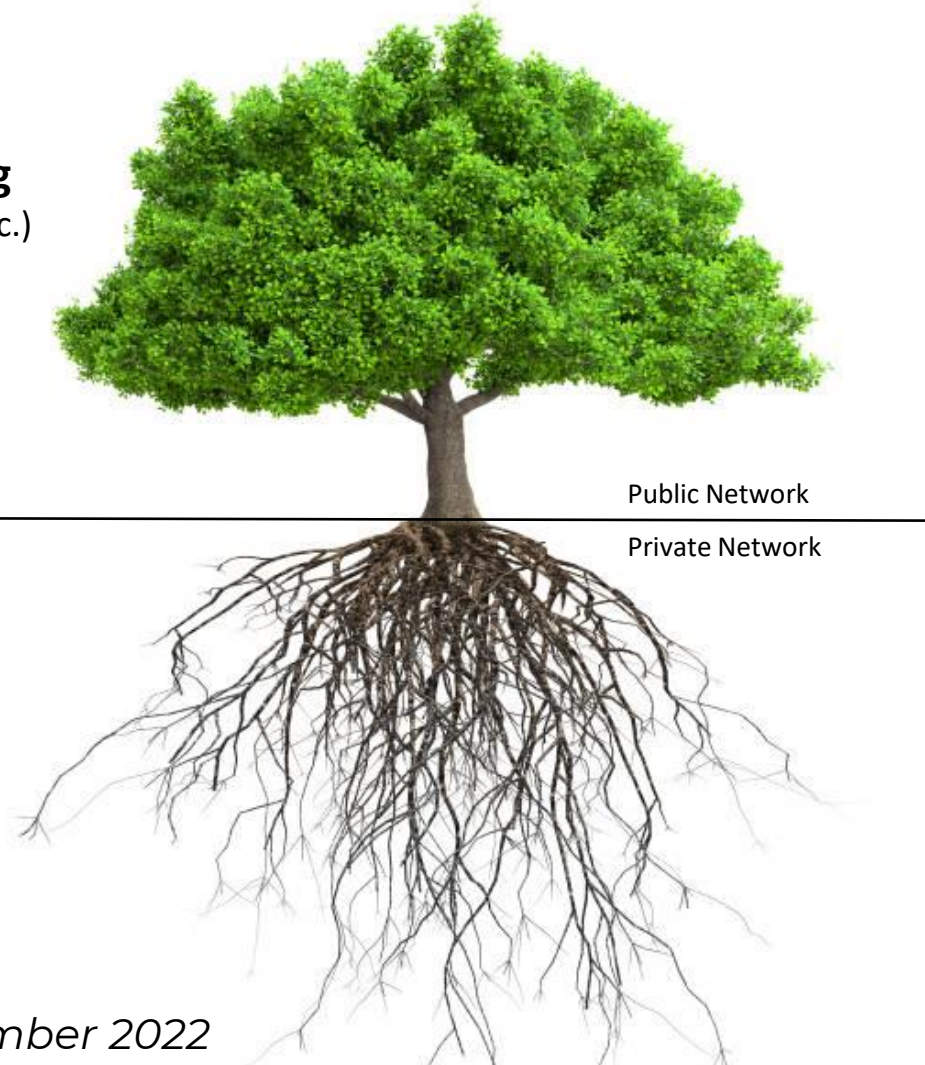
Source: DOE AFDC, Electric Vehicle Charging Infrastructure Trend.

National Charging Network of 2030

The Branches: Destination Charging
(right speeding at offices, recreation, dining, etc.)

The Trunk: Fast Charging
(corridors and retail)

The Roots: Home Charging
(single family, apartments, curbside)



Cost (\$ billions)

Public	44.8		
	Level 2	8.8	
			Curbside 2.3
			Office 2.8
			Retail 1.2
			Recreation 0.4
			Healthcare 0.8
			Education 0.4
			Religious 0.3
			Transport Hub 0.7
	DC Fast	36.0	
			DC150 10.7
			DC250 14.6
			DC350 11.9
Private	41.3		
	Level 2	41.3	
			Single Family 34.6
			Multi Family 2.1
			Workplace 4.6

Source: NREL, September 2022



Immediate-Term Priorities

BIL Programs Supported by the Joint Office

The Joint Office will provide 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



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



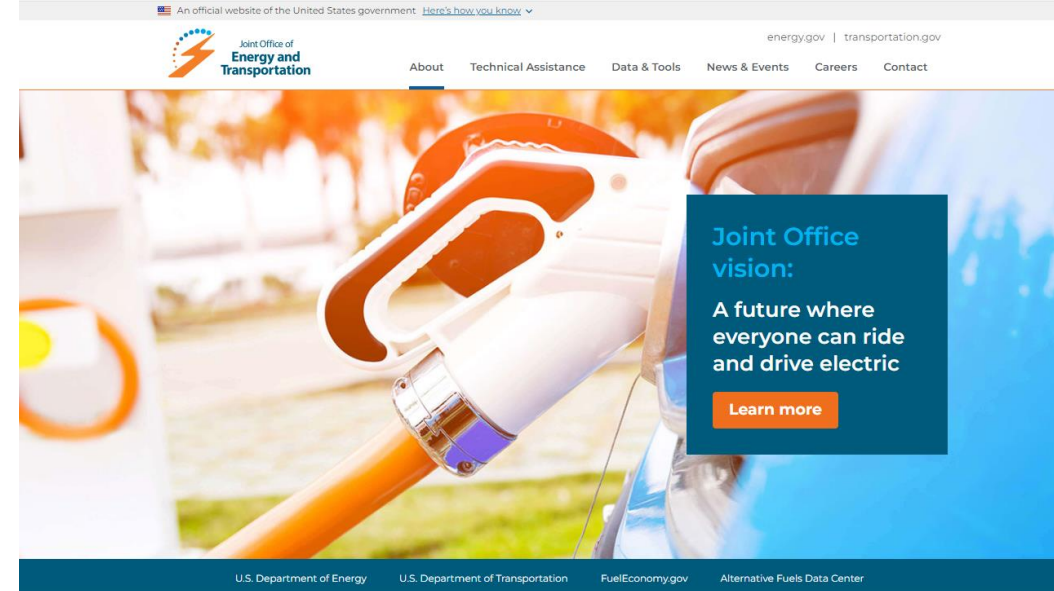
Clean School Bus Program (U.S. EPA)

\$5 billion in support of electric school bus deployments

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



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.

[Contact us](#)

[Technical assistance](#)

Benefits of investing in our electric vehicle charging infrastructure

Initial priorities of the Joint Office will be to support states with planning and to implement the National Electric Vehicle Charging Infrastructure program.



Support electric vehicles

Accelerates the adoption of electric vehicles, including for those who cannot reliably charge at home to enable up to 50% of new vehicle sales to be electric by 2030.



Fewer emissions

Reduces transportation-related emissions and helps put the United States on a path to net-zero emissions by no later than 2050.



Job creation

Positions U.S. industries to lead global transportation electrification efforts and create good jobs.



A network for everyone

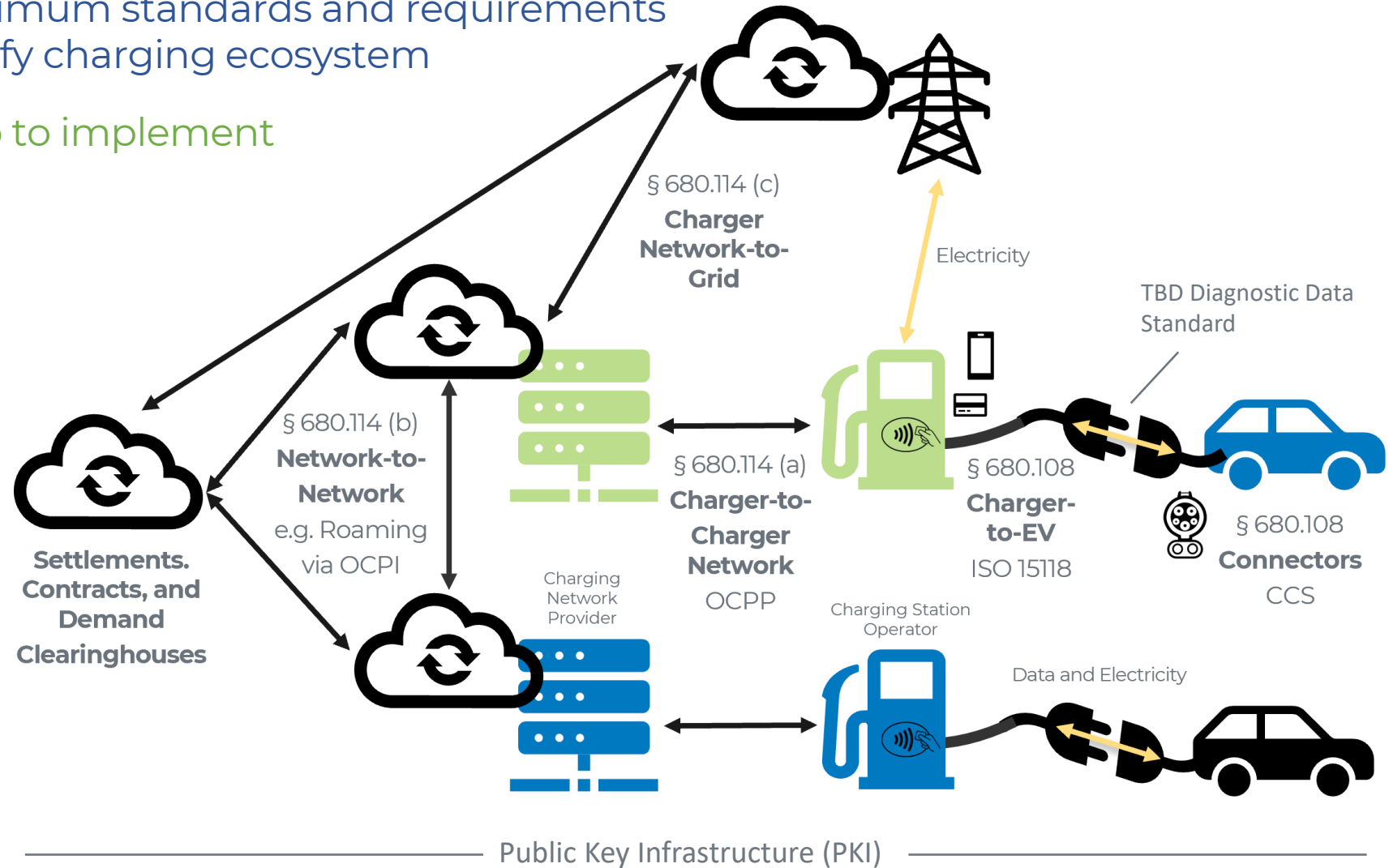
Targeted equity benefits for disadvantaged communities, reducing mobility and energy burdens while also creating jobs and supporting businesses.

Simplifying the Charging Ecosystem

Proposed NEVI minimum standards and requirements signal how to simplify charging ecosystem

Industry needs help to implement

- OCPP 2.0.1
- ISO 15118-20





Technical Assistance

Technical Assistance Principles

- Respectful collaboration with EV charging experts who preceded the Joint Office
- Accomplish the shared vision of **creating a future where everyone can ride and drive electric**

To build a reliable, convenient, equitable national network, Joint Office technical assistance will:

- Dive into the hard challenges alongside states and partners to create something revolutionary
- Help states build on successes and learn from challenges
- Leverage experiences of states with more mature charging networks
- Utilize the people, programs, and relationships that came before us and empower future charging experts



Technical Assistance Strategies

- **One-on-one meetings** with states and soon local governments to address questions and concerns related to NEVI Formula Program
- **Concierge service** (phone, email, web form) to efficiently route technical assistance requests for NEVI, electric school buses, and transit buses
- Technical assistance support team has **50 staff members across 10 organizations**. Expertise includes:
 - Corridor development
 - Data analysis and tools
 - Stakeholder engagement
 - Infrastructure development



Concierge Service Contact Methods: 833-600-2751 | doe-dot.jo.ta@nrel.gov | driveelectric.gov/contact/

Justice40 Initiative—Primary Elements and Questions

- Biden administration established the Justice40 Initiative in Jan. 2021
 - Established a goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities
 - NEVI Formula Program is a covered program under Justice40



ENVIRONMENTAL JUSTICE

JUSTICE40

A WHOLE-OF-GOVERNMENT INITIATIVE

- Three primary questions for incorporating Justice40 benefits framework in NEVI program
 - How are disadvantaged communities defined?
 - Which investments are relevant to Justice40?
 - How are the benefits of investments measured and tracked?



Meaningful community engagement can **improve outcomes** by helping to inform decisions with the **needs, interests, and concerns** of affected **stakeholders** and groups.

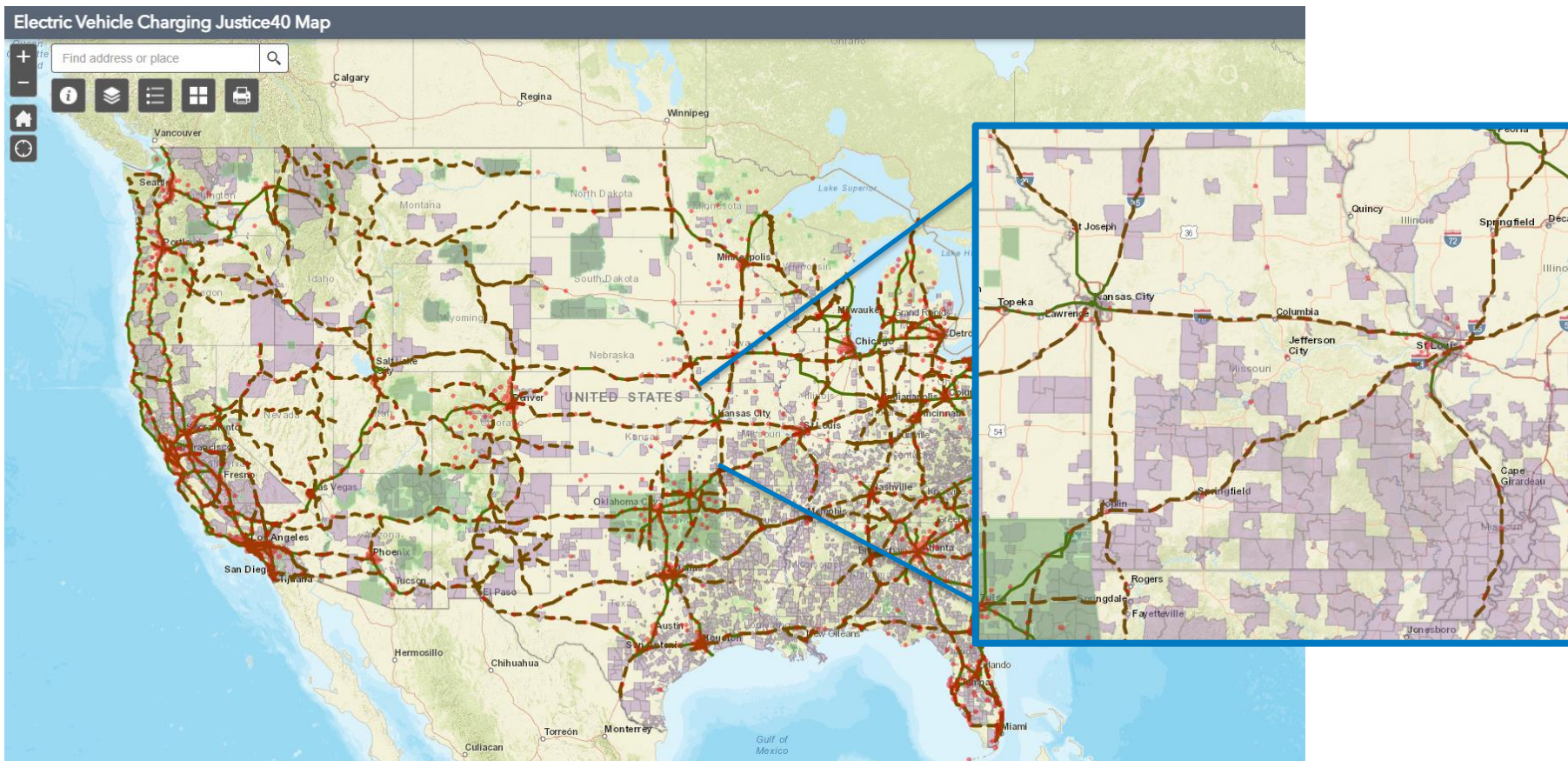


Meaningful
Community
Engagement



Justice40
Benefits
Framework

EV Charging Justice40 Map Can...



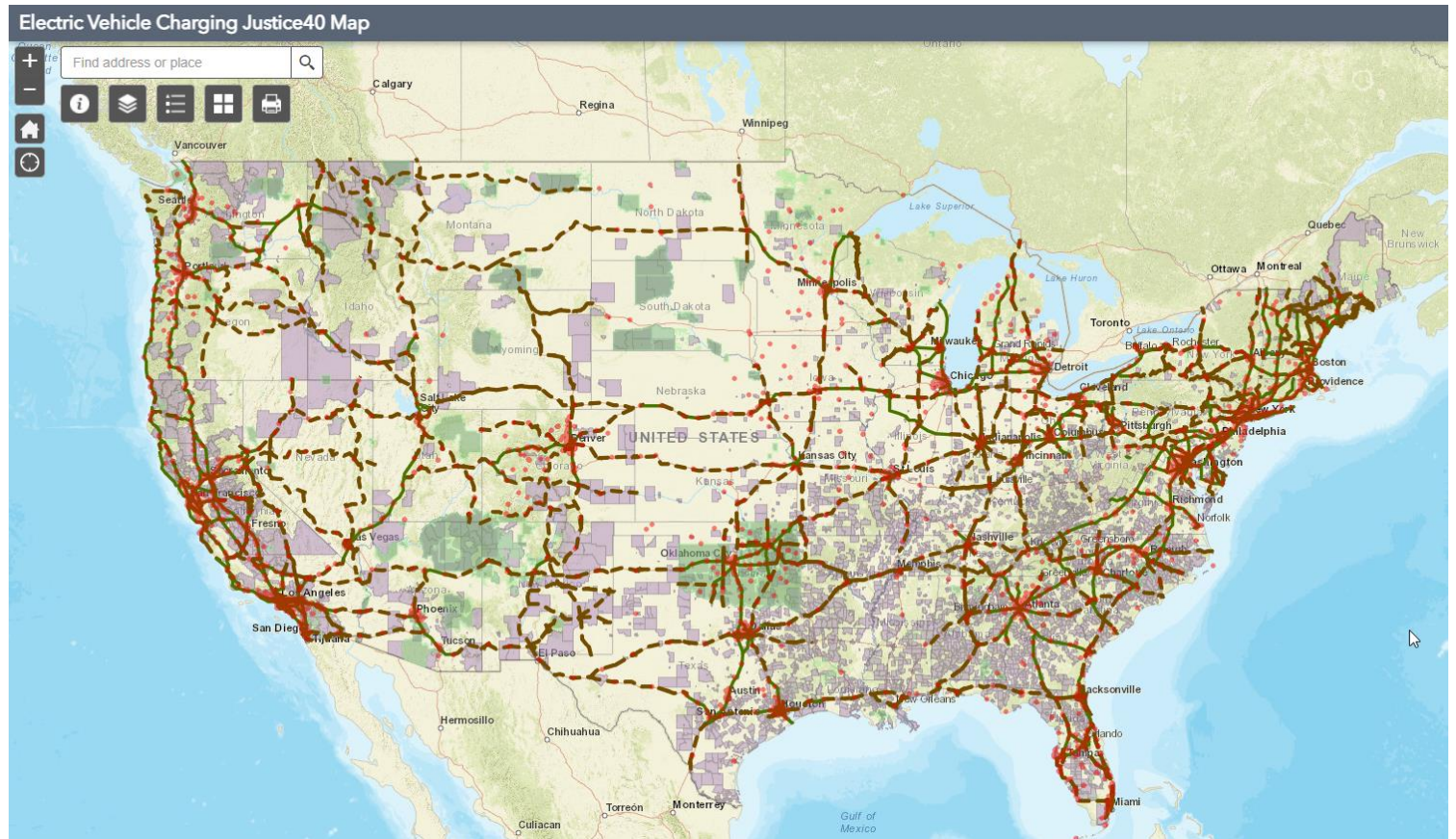
...help EV charging infrastructure build-out align with Justice40 goals.

EV Charging Justice40 Map

Uses publicly available data sets that capture the following disadvantages:

- Transportation access
- Health
- Environmental
- Economics
- Resilience
- Social

- DOT and DOE developed a joint interim definition of disadvantaged communities
 - Consistent with interim Justice40 guidance
 - Updated May 2022
- Find more at anl.gov/es/electric-vehicle-charging-equity-considerations





Progress to Date and What's Next for the Joint Office

Joint Office Progress

- **2/10/22** NEVI Formula Program Guidance released; Joint Office technical assistance rolls out via DriveElectric.gov
- **2/18/22** Joint Office MOU with American Association of State Highway and Transportation Officials and National Association of State Energy Officials
- **6/9/22** EV Working Group charter issued
- **6/22/22** NEVI Notice of Proposed Rulemaking issued
- **8/1/22** ALL 52 NEVI plans submitted to the Joint Office
- **9/14/22** 35 NEVI plans approved ahead of schedule
- **9/27/22** NEVI plans approved for all 50 states, Washington, D.C., and Puerto Rico



What's Next for the Joint Office



What's Next for the Joint Office

NEVI Notice of Proposed Rulemaking (NPRM)

NPRM Closed on August 22nd with 380+ comments

- Many states have indicated that they will follow NPRM and/or are waiting for it to be finalized;
- DOT/DOE/JO + Office of Management and Budget priority rulemaking

Buy America

Proposed Waiver Issued for Comment on August 31st

- Proposed, phased implementation begins on January 1, 2023.
- Point of enforcement is proposed as date of installation, not procurement
- Comments closed on September 30th; desire to finalize ASAP

Discretionary Charging and Fueling Infrastructure Grants

\$2.5B for corridor and community charging grants via BIL

- Development of community/corridor discretionary grant programs
- Urban focus on multimodal, shared and access + curbside and mobility hub

NEVI “gap-filling” grants

10% of NEVI funds are set-aside annually to fund strategic deployment of EV chargers.

- Grants to States and local governments that require additional assistance to strategically deploy EV charging infrastructure, as determined by the DOT Secretary

Designation of Freight Corridors

Designate Freight Corridors

- Federal Highway Administration (FHWA) initiates designation of freight EV corridors

What's Next for the Joint Office

Round 7 – Request for Nominations (RFN)

Develop RFN for Round 7 AFC Designations

- Solicit nominations from States

Technical Assistance

Expand Scope to Focus on Implementation, Urban, Multimodal

- Expand activities to address issues related to implementation of EV chargers (e.g. permitting, utility issues, siting, right-sizing of stations, future proofing, etc.).
- Urban Toolkit Release
- Ramp up Transit, School Bus, Municipal support

MOU Between NASEO/AASHTO

Support NEVI Implementation and Assist the JPO with TA

- AASHTO/NASEO partnership launched on Sept. 7; will convene states regionally and nationally in the coming year to help ensure that EVSE investments are strategic, coordinated, efficient, and equitable.

Electric Vehicle Working Group

Convene EV Working Group Federal Advisory Committee (FACA) per BIL

- Including members from EV and battery industries, EVSE providers, utilities, fleets, ITS industry, property development industry, state transportation & energy agencies, labor, local and tribal governments, etc.

Electric Vehicles Start to Enter the Car-Buying Mainstream

While sales are still skewed toward affluent buyers, more people are choosing electric vehicles to save money.



By Jack Ewing and Peter Eavis

Nov. 13, 2022

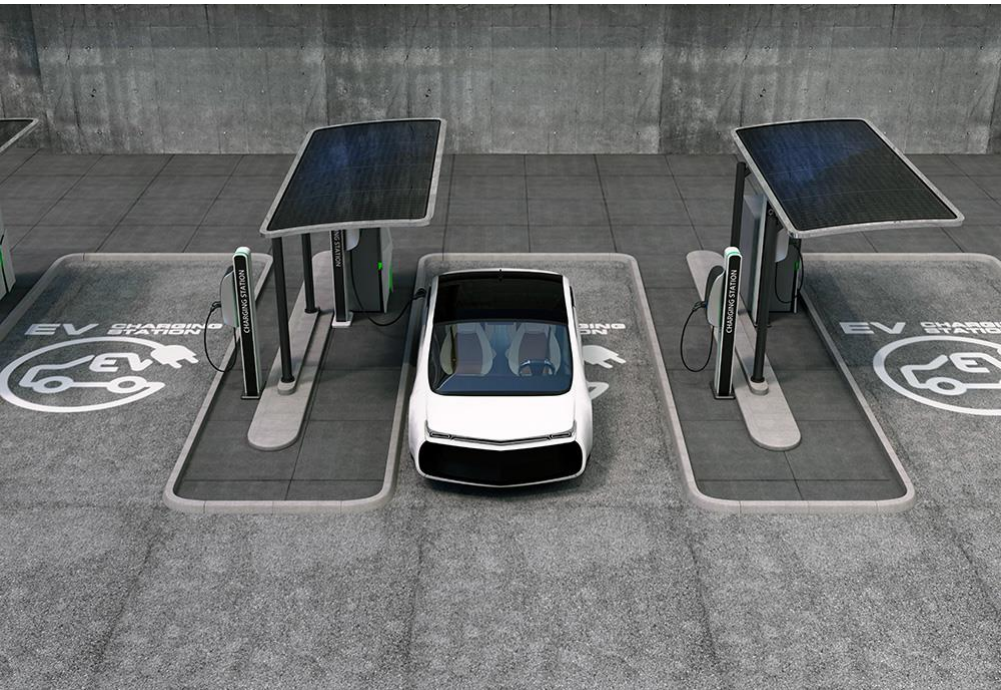
EV share of new car sales nearly doubled in last year (5.6% vs. 2.9%)

EV sales up 70% in first 9 months of 2022 compared to 2021

Main frustration is **lack of fast and convenient EV charging** on longer trips



Janne Iivonen



Joint Office of
**Energy and
Transportation**

Thank You

driveelectric.gov



© multi mobility; Sopria von Berg, 2014

© wpa unepsh' goburt nov 2013 2014

