



Department of  
**Environment &  
Conservation**



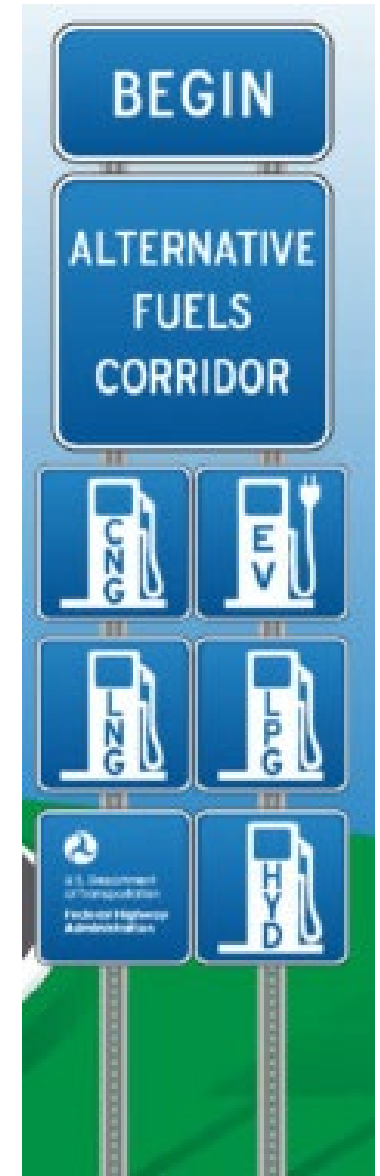
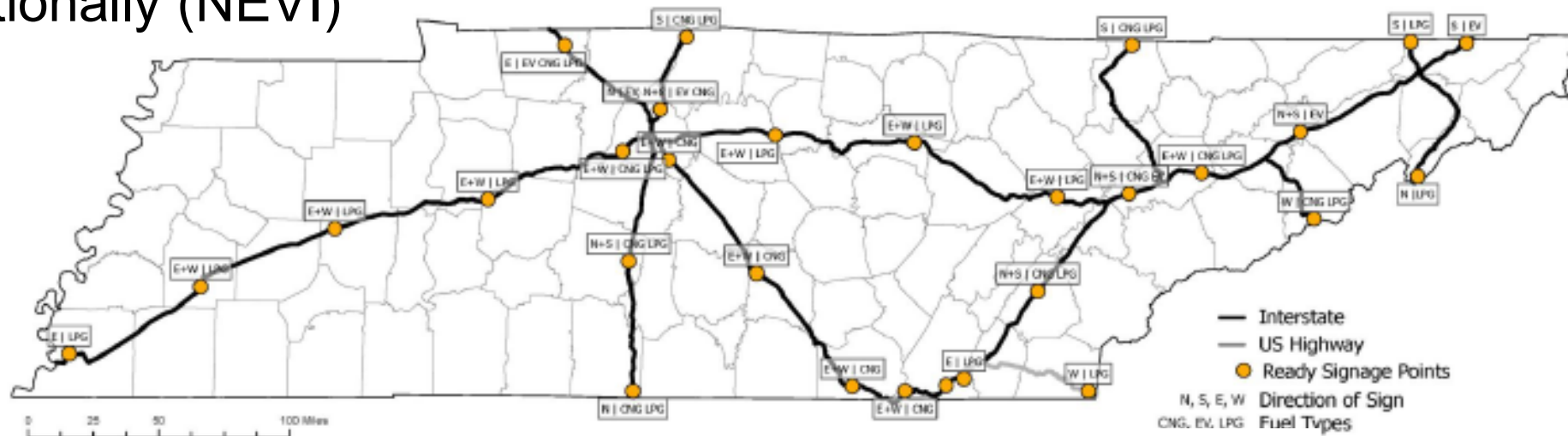
**TDOT**  
Department of  
Transportation

# Tennessee's Electric Vehicle Infrastructure (TEVI) Program

November 15, 2022 – TN Safety & Operations Conference

# Tennessee's Alternative Fuels Corridors

- In the last 5 years, Tennessee has made significant progress in the identification, planning, and designation of corridors meeting federal designation for alternative fuel corridors
- In November 2021, Infrastructure Investment and Jobs Act (IIJA) significantly increased funding and programs to advance EV charging nationally (NEVI)

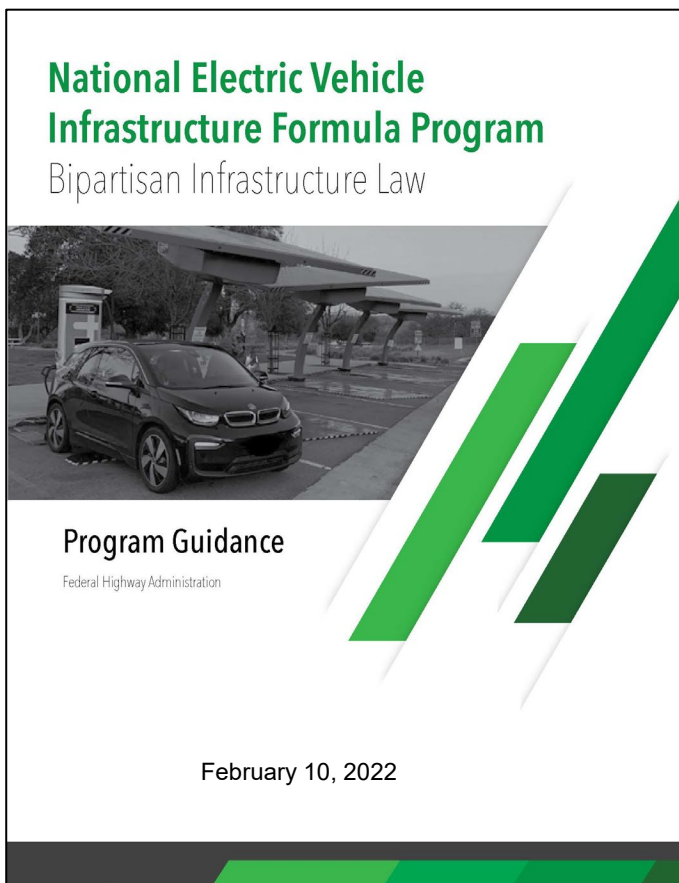


# NEVI Program Funding

- The Infrastructure Investment and Jobs Act (IIJA) or Bipartisan Infrastructure Law (BIL) includes a total of **\$7.5 billion** in dedicated funding to expand electric vehicle (EV) charger accessibility to all Americans.
  - \$5 billion formula program (NEVI Program)
    - **\$88 million** over 5 years to **Tennessee** (TEVI Deployment Plan)
  - \$2.5 billion competitive, discretionary grant program
    - 1.25 billion – Corridor Charging grant program
    - 1.25 billion – Community Charging grant program

# NEVI Program

To use NEVI funds...a state EV Infrastructure Plan in place



## TIMELINE

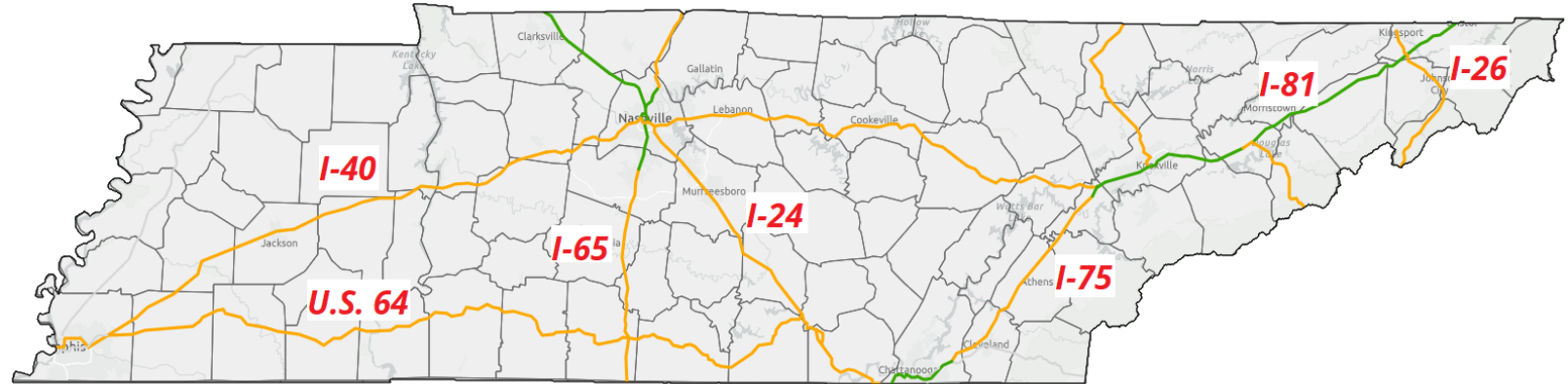


# Federal Criteria – Build out of AFC's

ELIGIBLE



Alternative Fuel Corridors  
~1,500 Miles



\*NEVI Formula Program funds shall be used along a designated Alternative Fuel Corridor *designated as "fully built out"* by the Secretary of Transportation

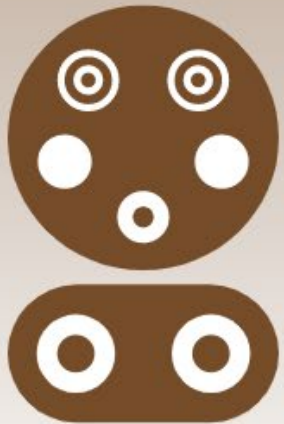
TN



# Federal Criteria

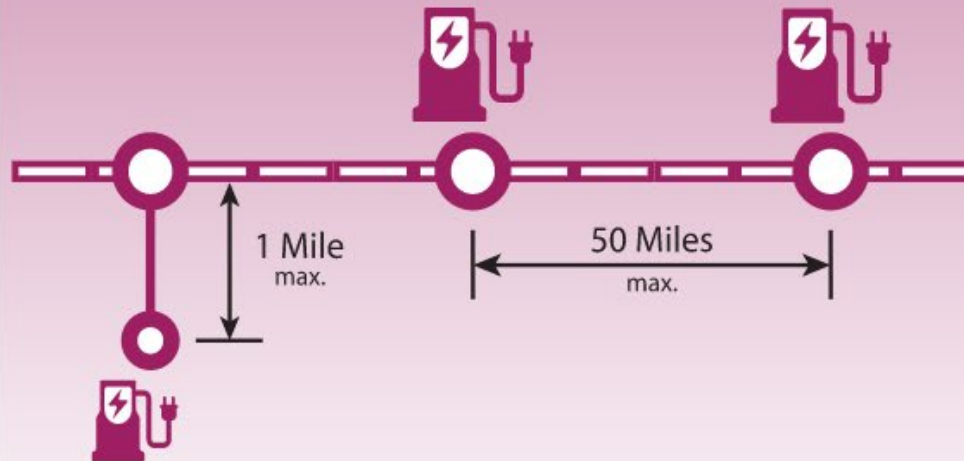
An Alternative Fuel Corridor will be considered **“fully built out”** only once the criteria are met:

## Plug / Port

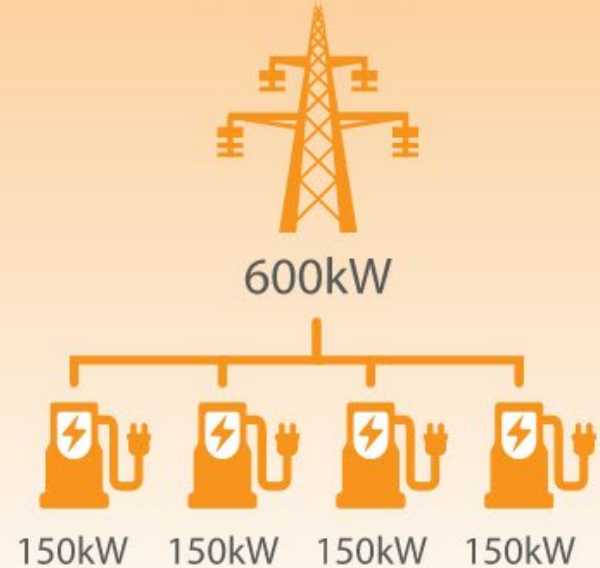


Combined Charging System (CCS) Type 1

## Spacing



## Power



# EV Basics

# Terminology

- BEV = battery-electric vehicles
- PHEV = plug-in hybrid electric vehicles



\* If you can't plug it in, it's not an EV



# Charging Station 101



## Level 1

***Overnight (12+ hours)***

~4 miles / hour

120V (12A – 16A)

Included w/ all new EVs

Mobile, store in your trunk



## Level 2

***Over lunch (2-3 hours)***

20 – 30 miles / hour

240V (32A – 80A)

Home, workplace, retail

Installed by electrician



## DC fast charger (Level 3)\*

***Pit stop (10 – 45 minutes)***

150 – 500+ miles / hour

480V (50 kW – 350 kW)

Along interstate corridors

\*NEVI funds must be spent to “fully build out” Alternative Fuel Corridors and include; at least **4 DC fast chargers** capable of simultaneously charging four EVs at 150kW per plug.

TN

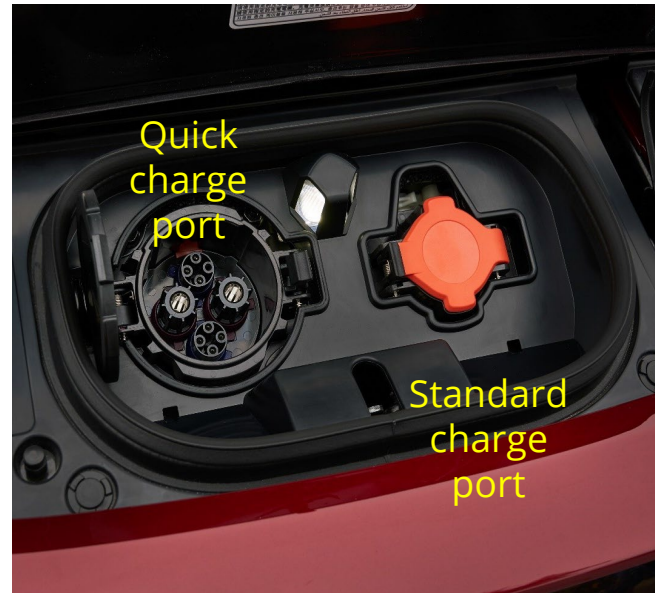
# Connector Types

Fast charging station plug standards currently available:

CCS



CHAdeMO



Tesla (proprietary)



- Charging stations funded by the NEVI program must have at least four **CCS ports**
- Most upcoming EV models in the US use the CCS standard



# **Current State of Transportation Electrification in Tennessee**

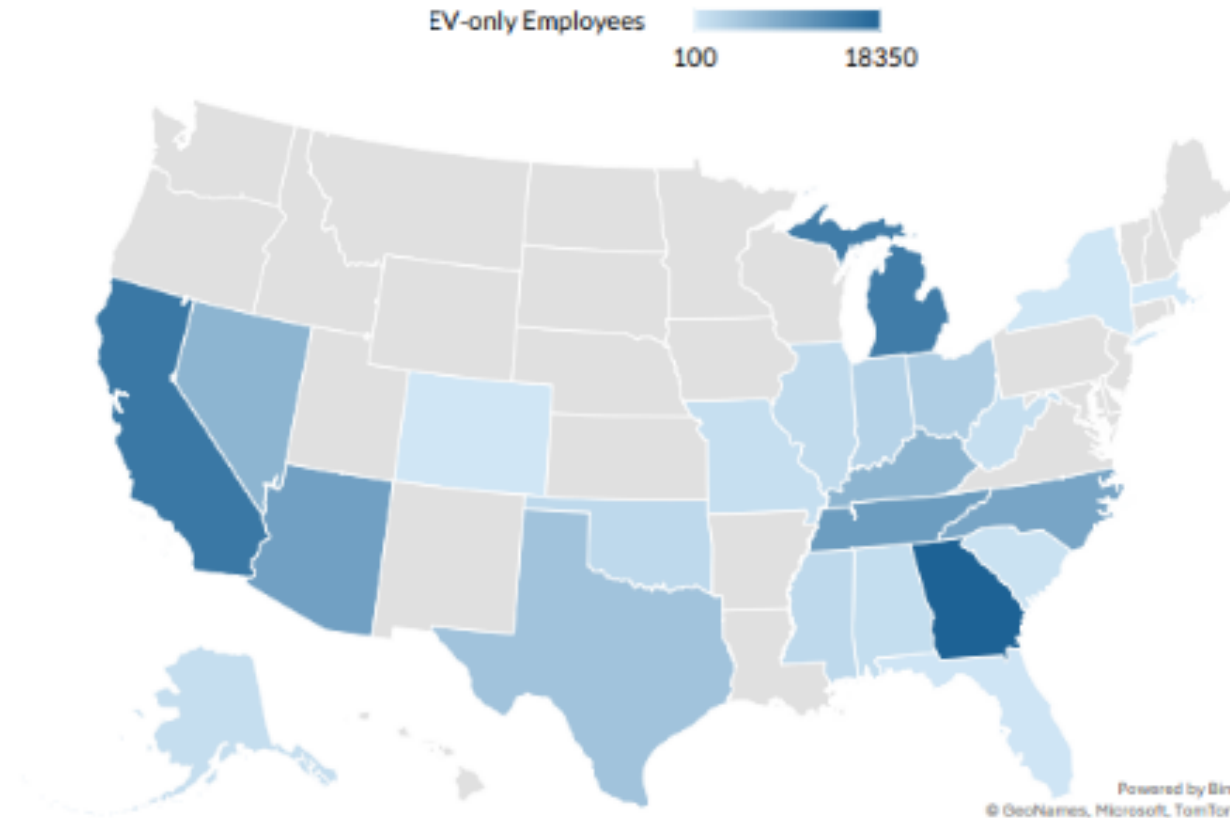
The logo for Tennessee, featuring the letters "TN" in white on a red square background, with a blue horizontal bar at the bottom.

**TN**

# EV Jobs & Investments

## MANUFACTURING

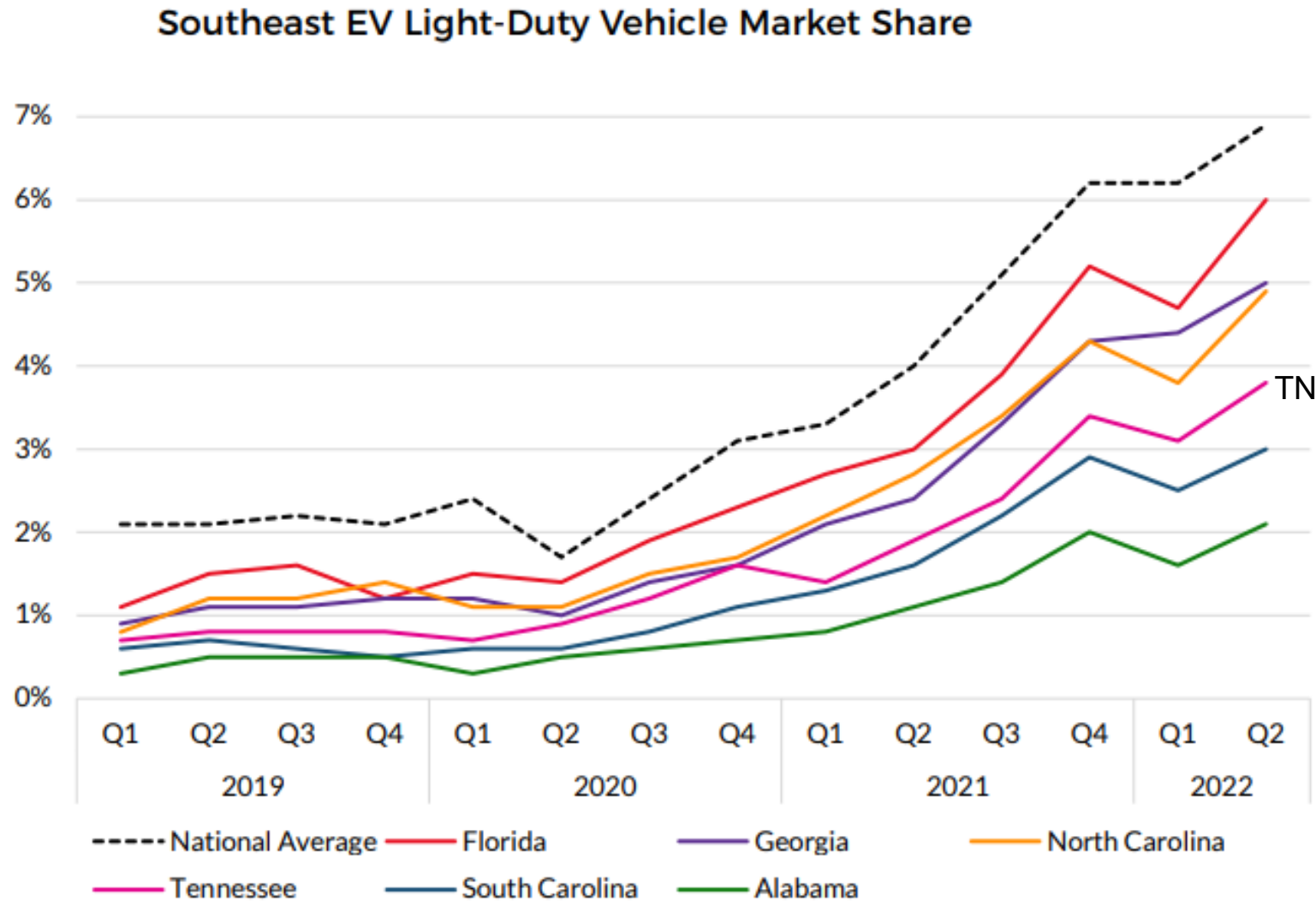
Anticipated EV Manufacturing Employment by State



34% of all announced EV manufacturing jobs (counting battery production and EV assembly jobs) through June 30, 2022, will be in the Southeast



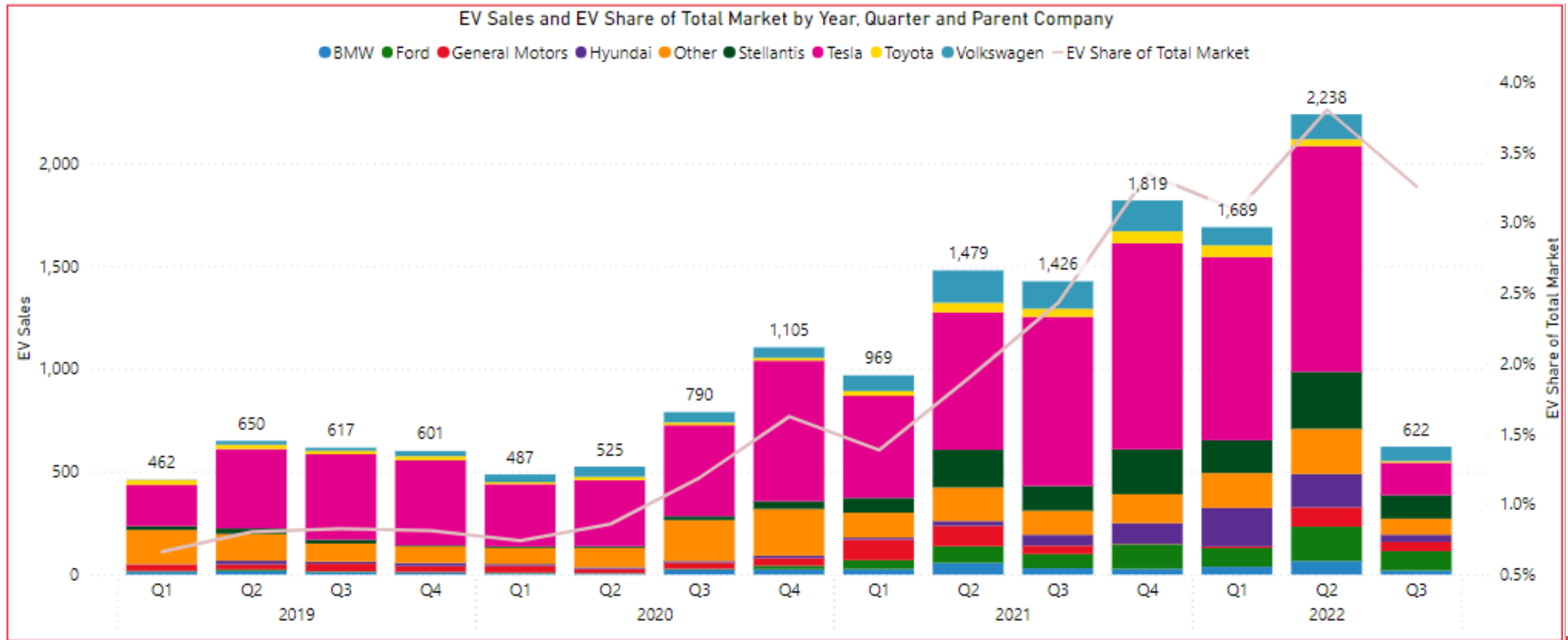
# EV Market Share in Southeast



This figure depicts EV sales as a percentage of light-duty vehicle sales from 2019 through June 30, 2022. EV includes both BEV and PHEV sales. Source: Atlas EV Hub.



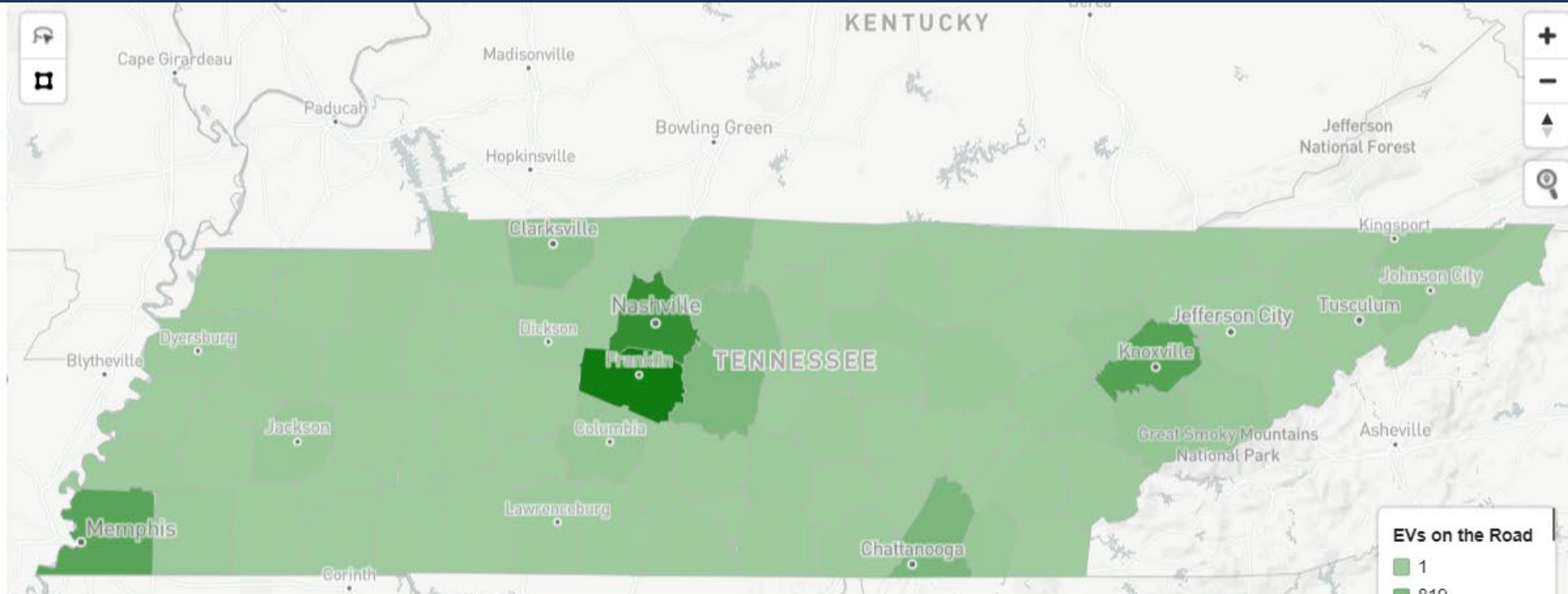
# Electric Vehicle Market Share in Tennessee



Data through July 2022. Source: [Automakers Dashboard - Atlas EV Hub](#)



# EV's in Tennessee (Data as of 3/31/2022)



18,451  
EVs on the Road

12,529  
BEVs on the Road

5,922  
PHEVs on the Road

1.87  
BEVs per 1k People

0.88  
PHEVs per 1k People

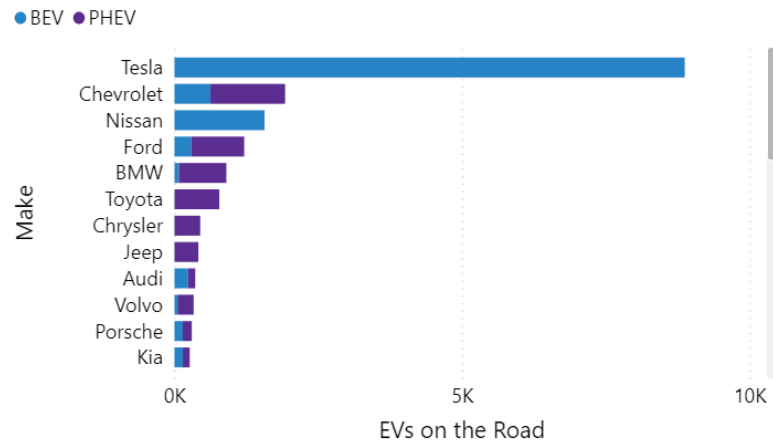
53.09  
BEVs per DCFC Ports

13.39  
EVs per Level 2 Port

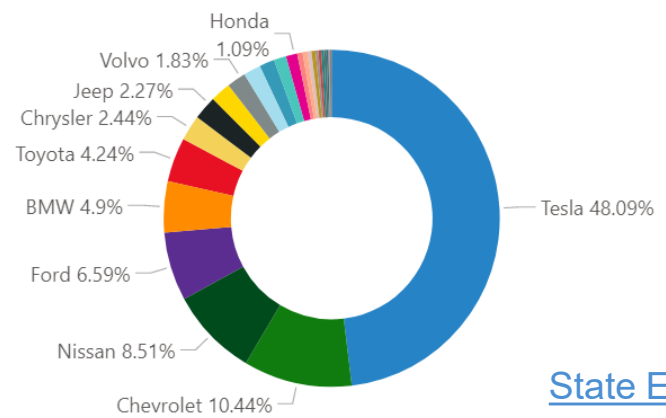
35  
Vehicle Makes

92  
Vehicle Models

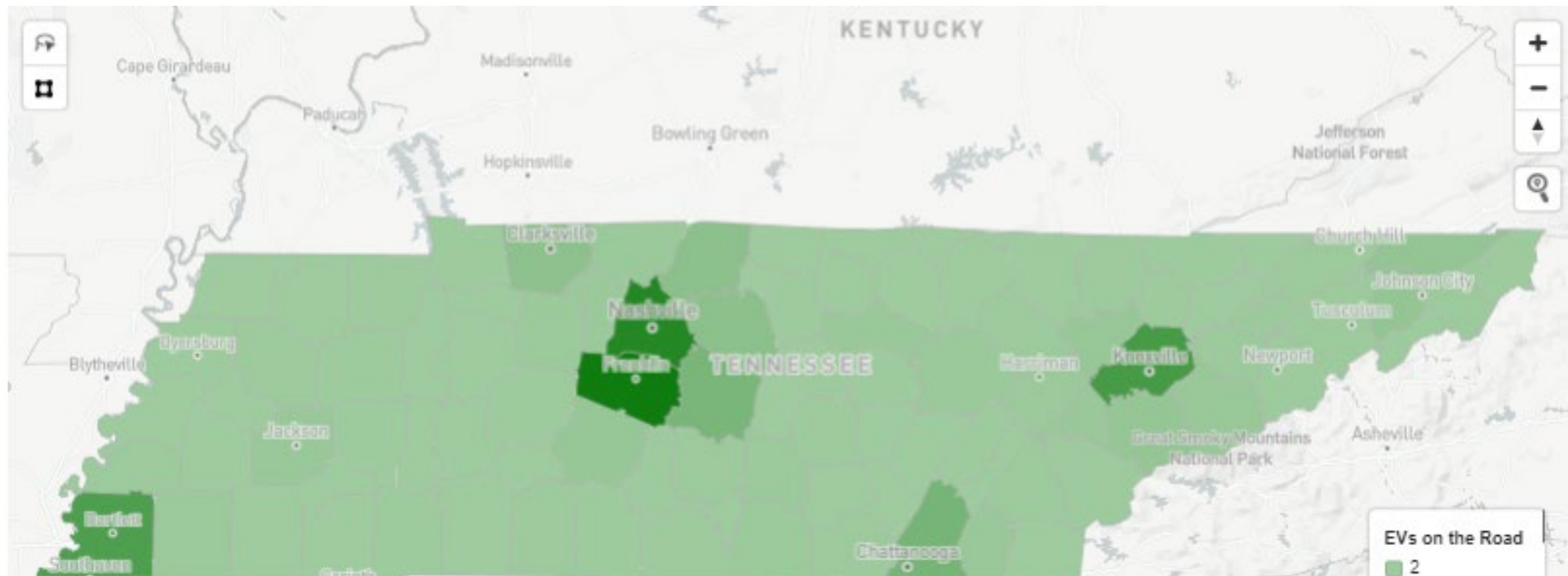
EVs on the Road by Vehicle Make and Model



Market Share by Vehicle Make



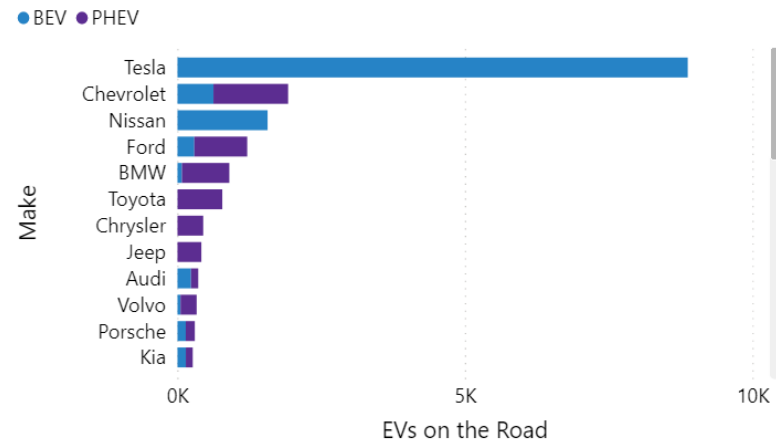
# EV's in Tennessee (Data as of 6/30/2022)



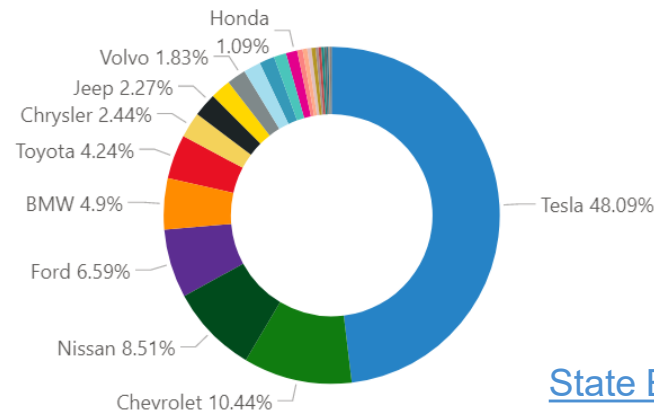
**Key Statistics**

- 20,309 EVs on the Road
- 14,002 BEVs on the Road
- 6,307 PHEVs on the Road
- 2.09 BEVs per 1k People
- 0.94 PHEVs per 1k People
- 58.34 BEVs per DCFC Ports
- 14.71 EVs per Level 2 Port
- 90 Vehicle Makes
- 298 Vehicle Models

EVs on the Road by Vehicle Make and Model



Market Share by Vehicle Make





# Existing EV Charging Stations

**Alternative Fuels Data Center**

Search the AFDC

FUELS & VEHICLES CONSERVE FUEL **LOCATE STATIONS** LAWS & INCENTIVES

Maps & Data Case Studies Publications Tools About Home

EERE » AFDC » Locate Stations [Printable Version](#)

### Alternative Fueling Station Locator

Find alternative fueling stations in the United States and Canada. For U.S. stations, see [data by state](#). For Canadian stations in French, see [Natural Resources Canada](#).

**Public Stations** Advanced Filters Fuel Corridors U.S. and Canada

tennessee Electric DC Fast CCS Map a Route

- Nissan of Murfreesboro** 3.0 mi  
814 Memorial Blvd  
Murfreesboro, TN 37129  
Level 2, DC Fast
- Brentwood Family YMCA** 26.9 mi  
8207 Concord Rd  
Brentwood, TN 37027  
DC Fast
- TERM GARAGE 2 MNAA DC FAST 2** 27.0 mi  
1 Terminal Dr  
Nashville, TN 37214  
DC Fast

**Mapco Mart** 5.2 mi  
2010 NW Broad St  
Murfreesboro, TN 37129  
**DC Fast**

Map a Route

**iPhone App** for U.S. stations **Android App** for U.S. stations

- ❑ Over 581 public charging stations in TN (1,400 ports)
- ❑ 74 DC (259 ports)

[Alternative Fuels Data Center: Alternative Fueling Station Locator \(energy.gov\)](https://www.afdc.energy.gov) [www.afdc.energy.gov](https://www.afdc.energy.gov)



# Next Steps

The logo consists of a red square with the letters 'TN' in white, serif font. Below the square is a thin blue horizontal line.

TN

# Tennessee Electric Vehicle Infrastructure (TEVI) Plan

## TIMELINE



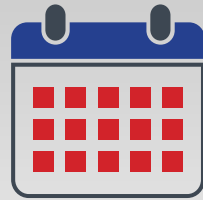
**August 1**

Submit  
Plan



**Submitted**

July 28



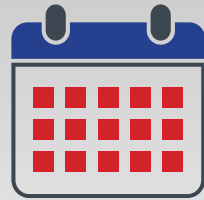
**September 30**

FHWA  
Approval



**Approved**

September 14



**December 31**

Finalize  
Procurement Method



**March 31**

Establish Requirements,  
Oversight, & Management



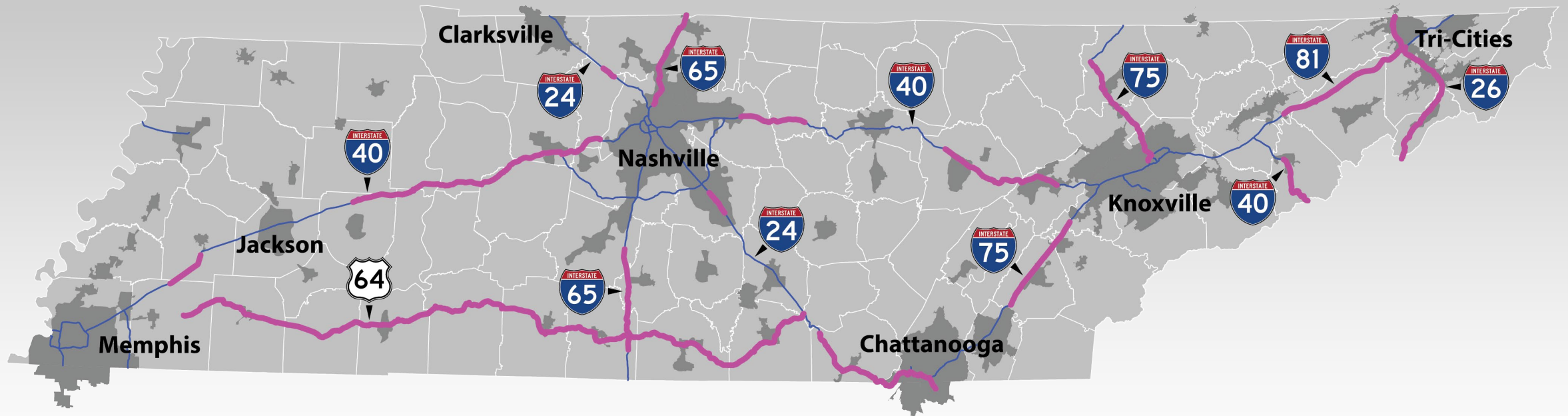
**June 30**

Award  
Procurement



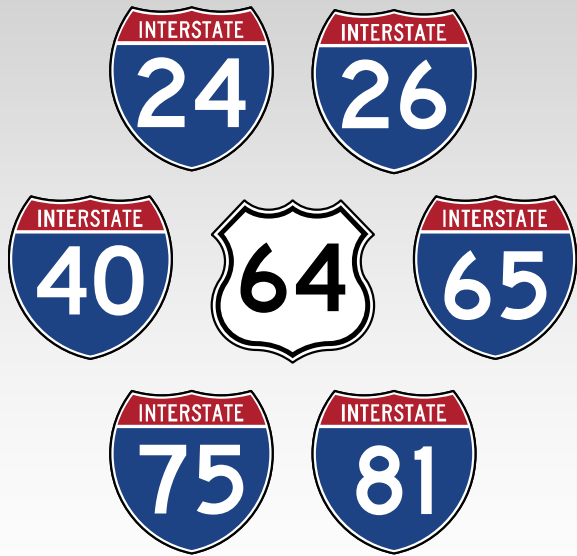
# Tennessee Electric Vehicle Infrastructure (TEVI) Plan

## AFC CORRIDOR GAPS

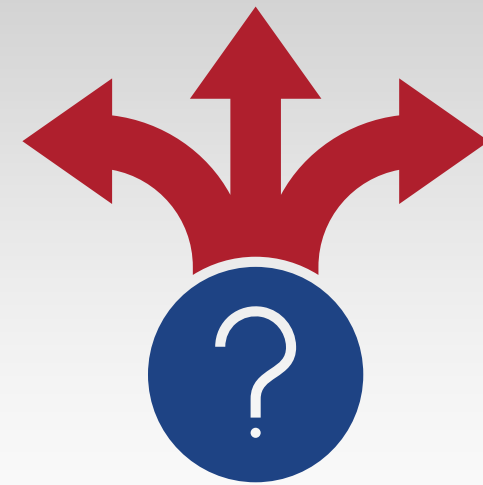


# Tennessee Electric Vehicle Infrastructure (TEVI) Plan

## PHASE 1 (BUILD-OUT)



## PHASE 2 (POST BUILD-OUT)



# Question for Safety & Operations to Ponder



**TDOT Help Truck with Gear**

When do you see this as part of the Help Truck gear?



**Portable Electric Charger**

# Want to Stay Informed?

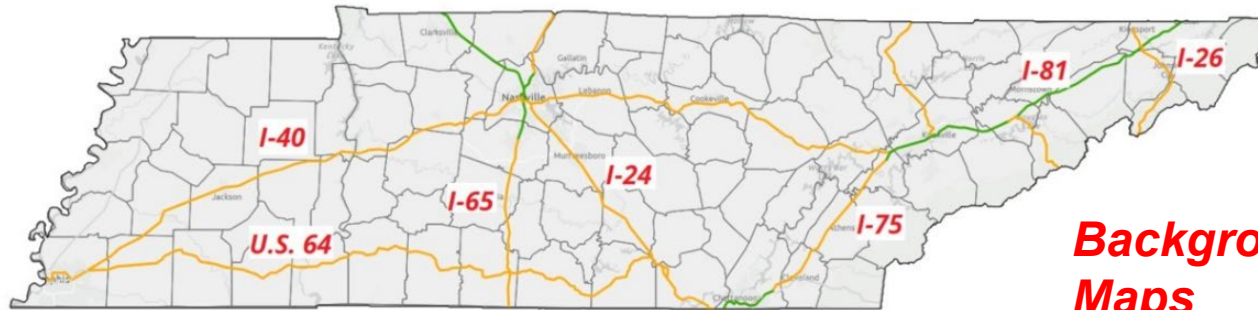
Visit our Website: [www.tn.gov/evplan](http://www.tn.gov/evplan)

To receive information on EVs, energy, and other transportation stories, including updates about NEVI Formula Program planning in Tennessee, sign up for the TDEC Office of Energy Programs [mailing list](#).

← **Join the mailing list**

## About the TEVI Deployment Plan

Background Eligible Projects TN Alternative Fuel Corridors **FAQs**



FHWA-designated Corridor-Ready (green) and Corridor-Pending (orange) Alternative Fuel Corridors in Tennessee.

**Background Info and Maps**

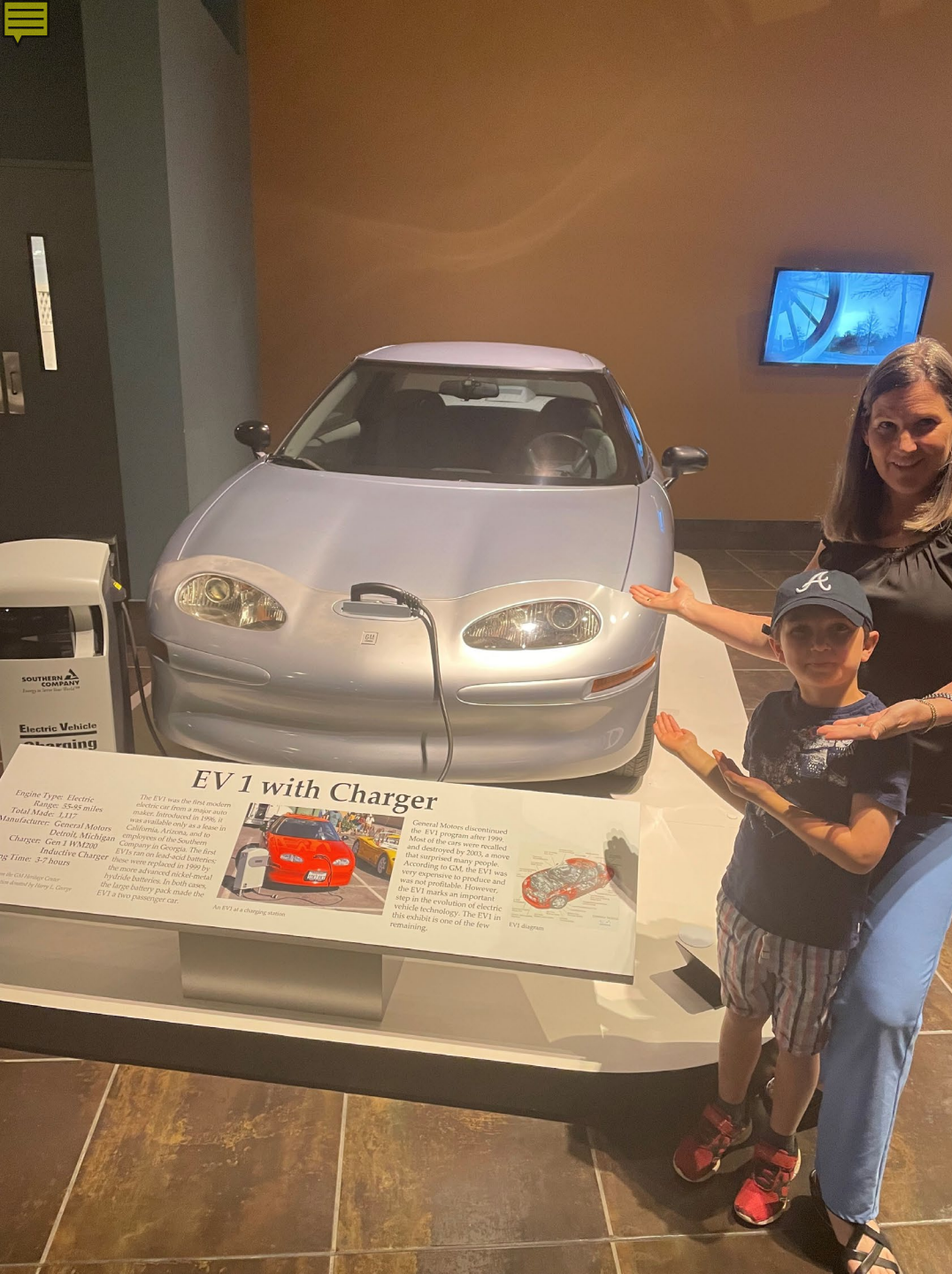
**FAQ's – Frequently asked questions - answered**

## Learn more about Electric Vehicle Stakeholders in Tennessee:

- > Drive Electric Tennessee
- > TDEC Office of Energy Programs
- > TDOT Air Quality Planning Office
- > Tennessee Clean Fuels
- > TVA Energy Right

← **Learn more Links**





# Thank you!

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