

Drive **Electric**
TENNESSEE

NEVI > \$13M x 5 = \$65M

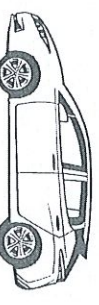
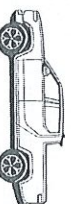
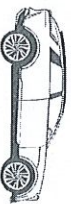
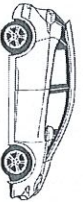
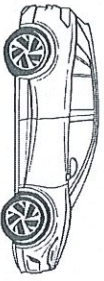
Future Funding & Important Variables for DCCFC Siting in TN



**SWING FOR THE
FUTURE**
TFCCA

Tennessee Fuel & Convenience Store Association

*TFCCA Swing for the Future
Topgolf in Nashville
Jonathan Overly – April 22, 2022*



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Our DET Members

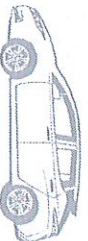
DriveElectricTN (DET) is a program that is managed by the East Tennessee Clean Fuels Coalition.

A 10-member Executive Committee oversees DET fiscal & operations.



www.DriveElectric.TN.org

“In a selective process, why would someone choose one of your convenience stores to locate a DCFC site?”



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HISTORY

DCFC Infrastructure – Short History

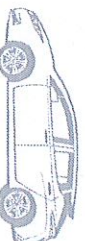
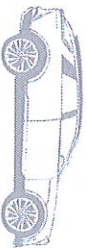


2010-2020 > Mostly single or 1-2 units/site
– 1 charger @ 50 kW
(charging rate)

2021-2021 > TDEC/TVA “Fast Charge TN Network” – min. of 2 @ 120 kW min.

2022 > New FHWA definition
– min. of 4 @ 150 kW +
charge 4 EVs at once
and <1 mile from Hwy

“Stations should be designed to allow for future upgrades”



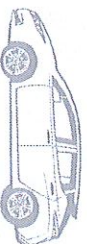
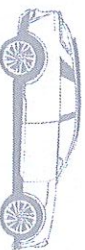
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FUNDING

NEVI = National EV Infrastructure Funding Program



1. Out of the Bipartisan Infrastructure Law (BIL) enacted as Infra. Investment & Jobs Act (IIJA)
2. Runs 5 years: 2022-2026
3. UP to \$7.5B dedicated to making EV charging accessible for local and long-distance trips
4. **Three Programs:**
 - 1) NEVI Formula Program - \$5B. Deploy DCFC to develop interconnected network in each state
 - 2) Discretionary grants - \$2.5B. Deploy publicly accessible EVSE, H2, LPG and CNG infrastructure
 - a. Corridor Charging grants – *along designated alt-fuel corridors*
 - b. Community Charging grants – *in communities*

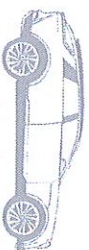


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NEVI = National EV Infrastructure Funding Program



5. State DOT must submit State Plan to Joint Office by August 1, 2022. Funds expected to come out very soon after that.
6. There are equity considerations.
7. Equipment must meet Buy America requirements (odds unlikely that BA definition gets changed)
8. *"States should consider locations at or immediately adjacent to land uses with publicly accessible restrooms, appropriate lighting, and sheltered seating areas such as travel centers, food retailers, convenience stores, visitor centers on Federal lands, small businesses with an Americans with Disabilities Act (ADA) accessible pathway between the EV charging infrastructure and the front door of the identified establishment, and other comparable facilities."*



Important Criteria for Sites

Parking Area Issues

Gap Filling

Proximity to Power

Site Partners

Network Connection

SAFETY

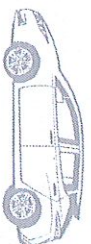
Upgradability

Amenities

Walkability

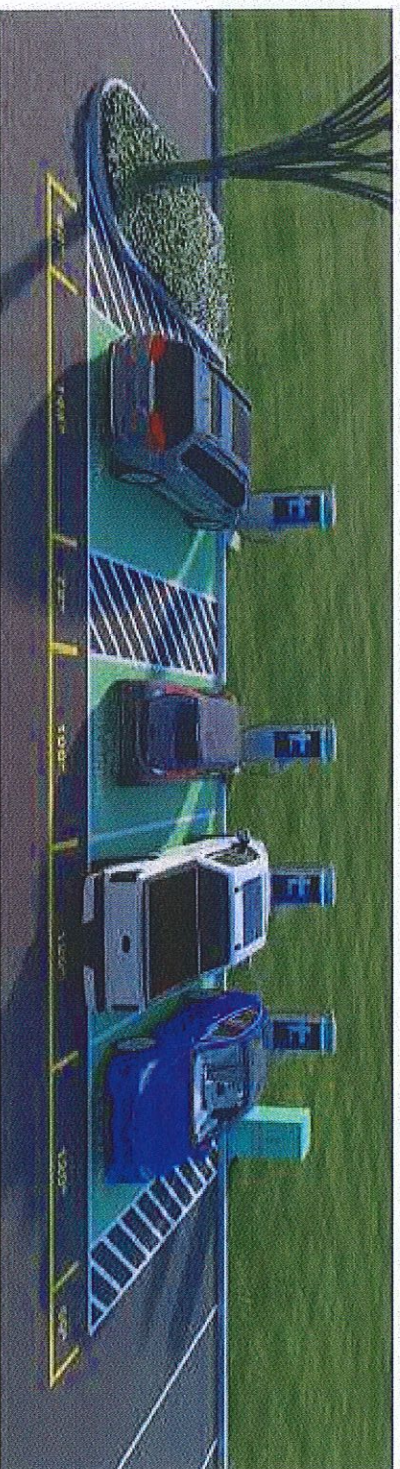
Flexible Space
Use

Signage &
Wayfinding



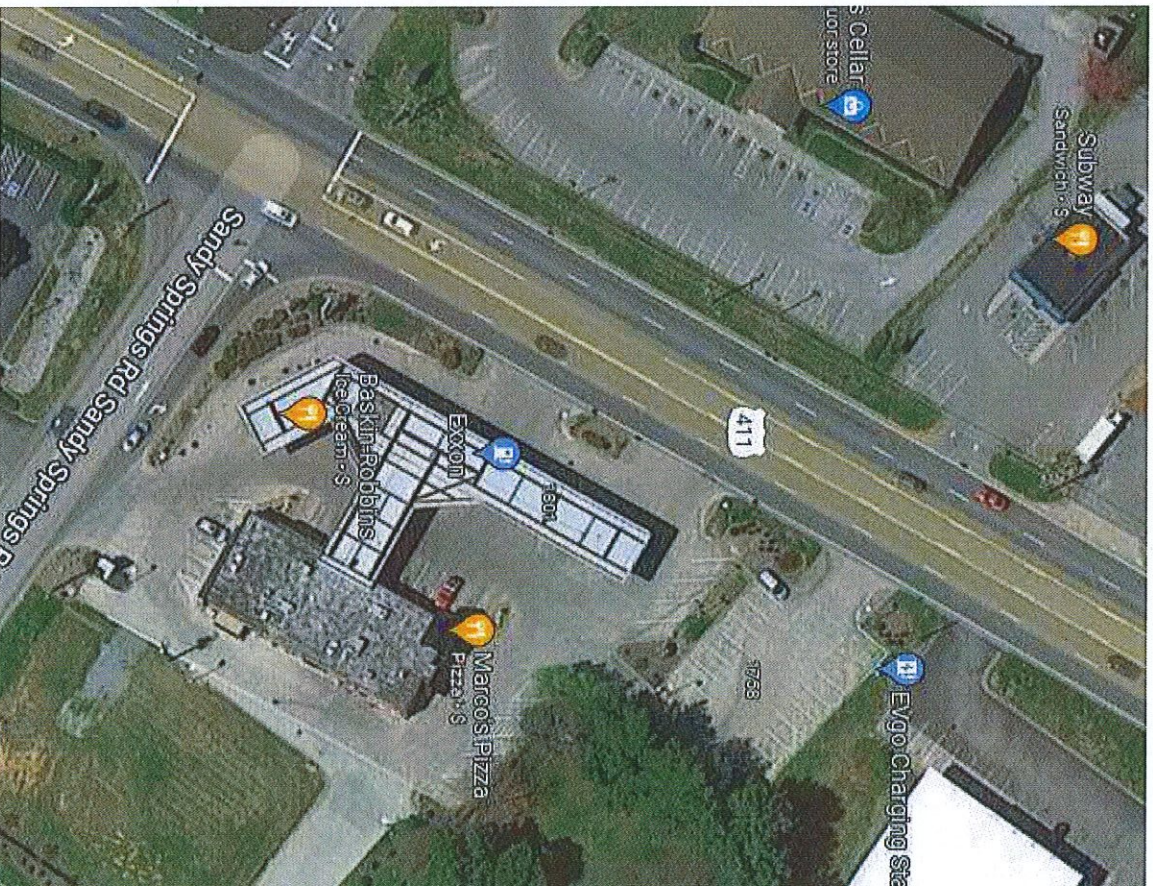
Example Site

- ✓ ADA compliance needed
- ✓ Possible option for in between the spaces too for location of some chargers, to ease charging for some vehicles



Example Site

- ✓ Open 24/7 (safety)
- ✓ Pretty busy corner (safety)
- ✓ Separate parking area – reduces EV charging interference with other customers
- ✓ With low use, room for possibly MD EVs (truck, shuttle) to charge there
- ✓ Needs great lighting in that area
- ✓ Can you alter spaces for more ADA compliance?
- ✓ Will owner work with city to install wayfinding signage?





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Let's talk...

Jonathan Overly, Executive Director

jonathan@etcleanfuels.org

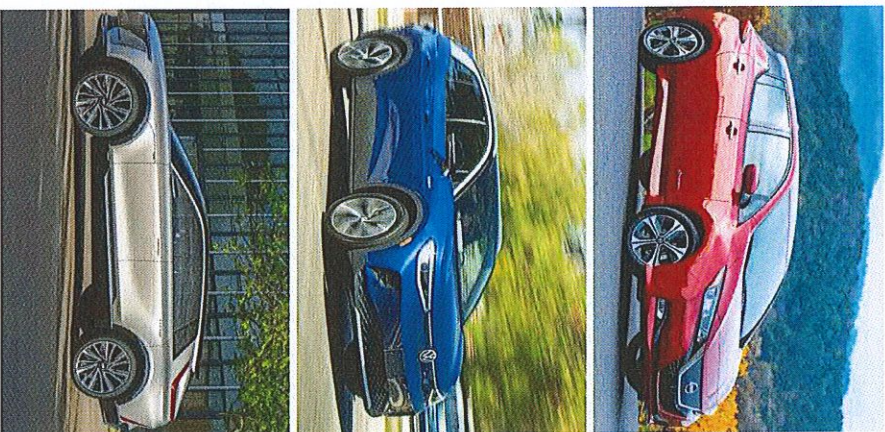
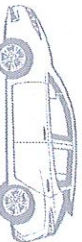
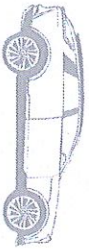
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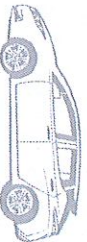
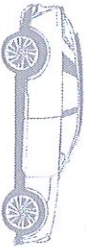
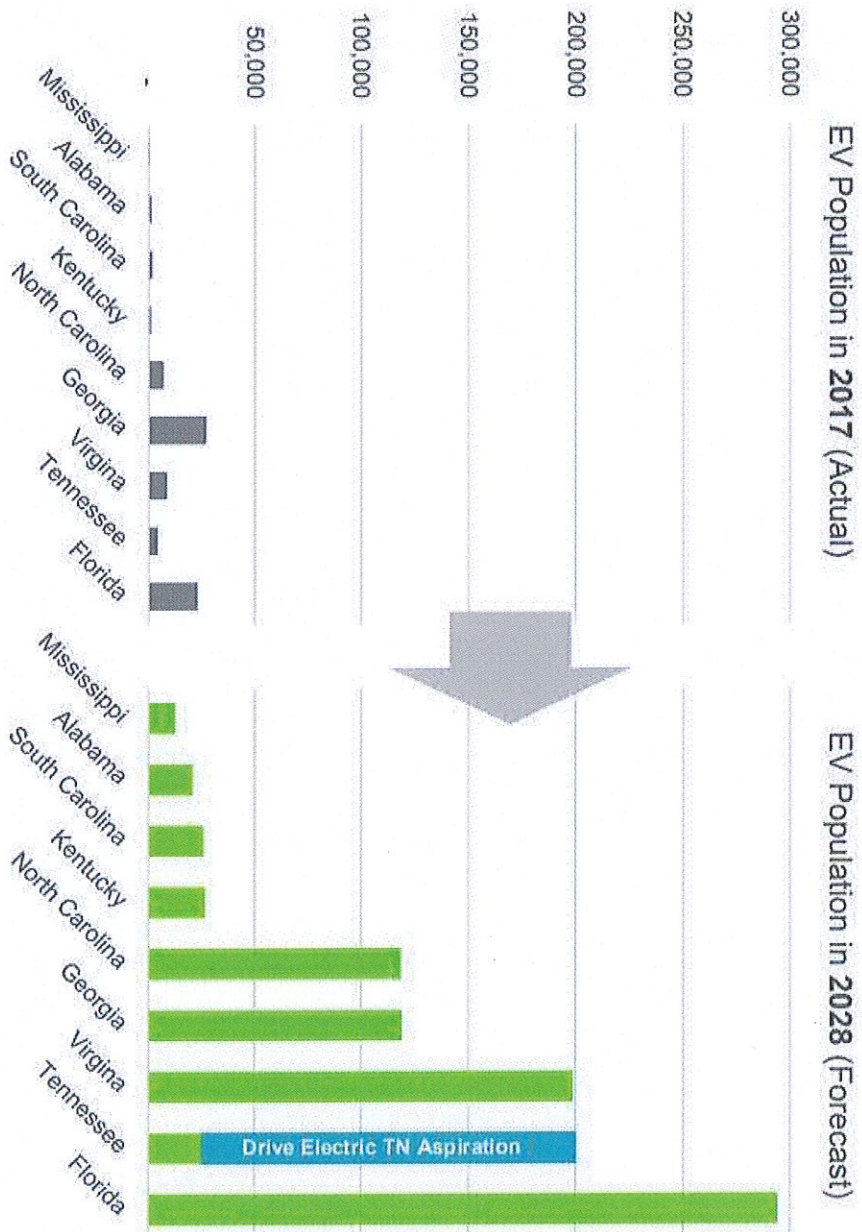
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Tennessee's EV Goals

- ✓ From DET Roadmap, 2018
- ✓ “Aspirational” goal set to give us a lofty yet reachable target (*with a LOT of hard work!*)
- ✓ Florida clearly in the lead right now (almost 60,000 BEVs as of end of 2020)

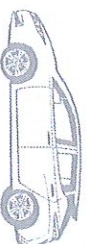


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Tennessee's EV Growth – Recent History

	12/31/19	12/31/20	12/31/21	% change – '19 - '20	% change – '20 - '21
BEVs (battery EVs)	5,911	6,953	11,277	18%	62.0%
PHEVs (plug-in hybrid EVs)	3,749	4,081	5,625	9%	29%
Totals = PEVs (plug-in EVs)	9,660	11,084	16,902	15%	52%

- ✓ For many PHEV drivers, their use of gasoline is quite minimal... near zero. For others, gasoline use may be over 50% of the total driving.
- ✓ *A significant increase – nearing a doubling – of BEVs in two years!*
- ✓ Actual needed growth rate to reach 200,000 goal by 2028 is higher; MUST continue nonlinear growth rate. If we doubled number of BEVs every year, would hit 192,000 in 2029.

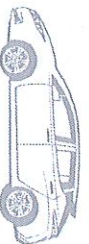
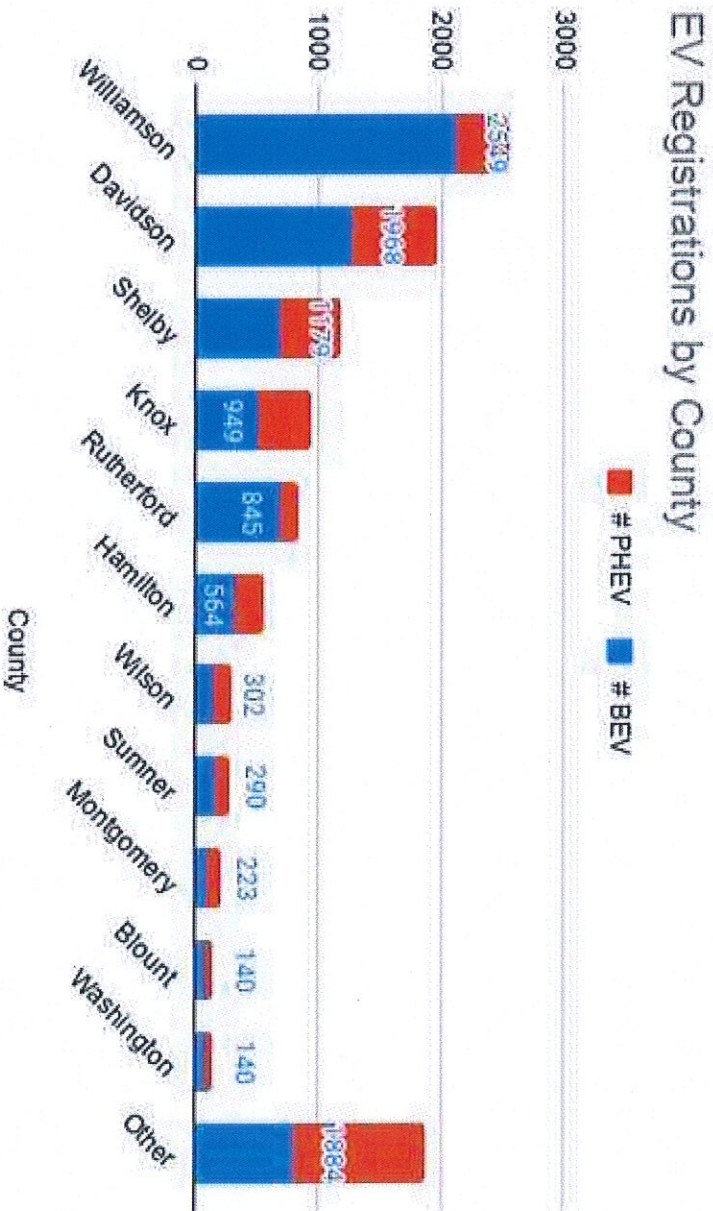


Tennessee's EV Numbers – by County

From end of 2020 data

✓ Williamson County is NOT the highest volume county

✓ Up until summer 2021, there was only one Tesla Service Center in TN – in Brentwood. The way Tesla sells cars, all Teslas get Williamson County plates until registered by the owner in their county.

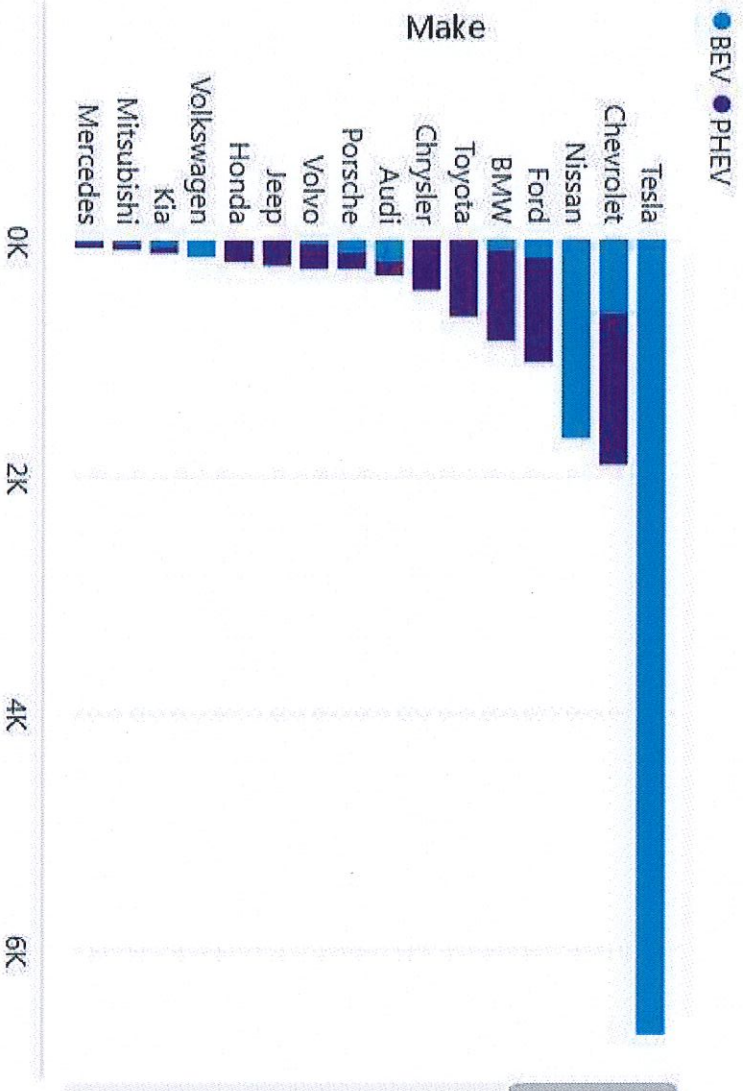


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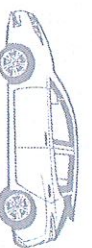
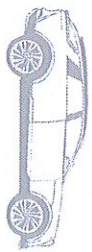
Tennessee's EV Numbers – by Make

www.AtlasEVHub.com

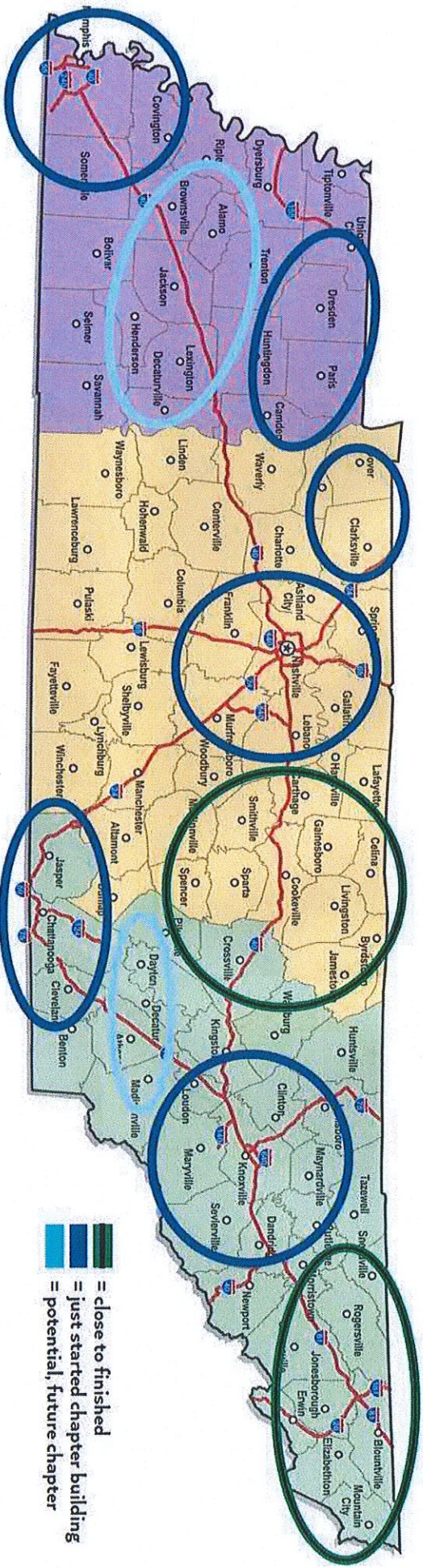
EVs on the Road by Vehicle Make and Model



Data from EV Hub website; from September 31, 2021



Where? Potential Chapter Map

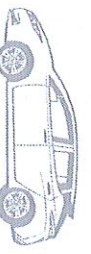


Upper Cumberland Chapter

Appalachian Highlands Chapter

- = close to finished
- = just started chapter building
- = potential, future chapter

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PROJECT

DRIVE Electric USA

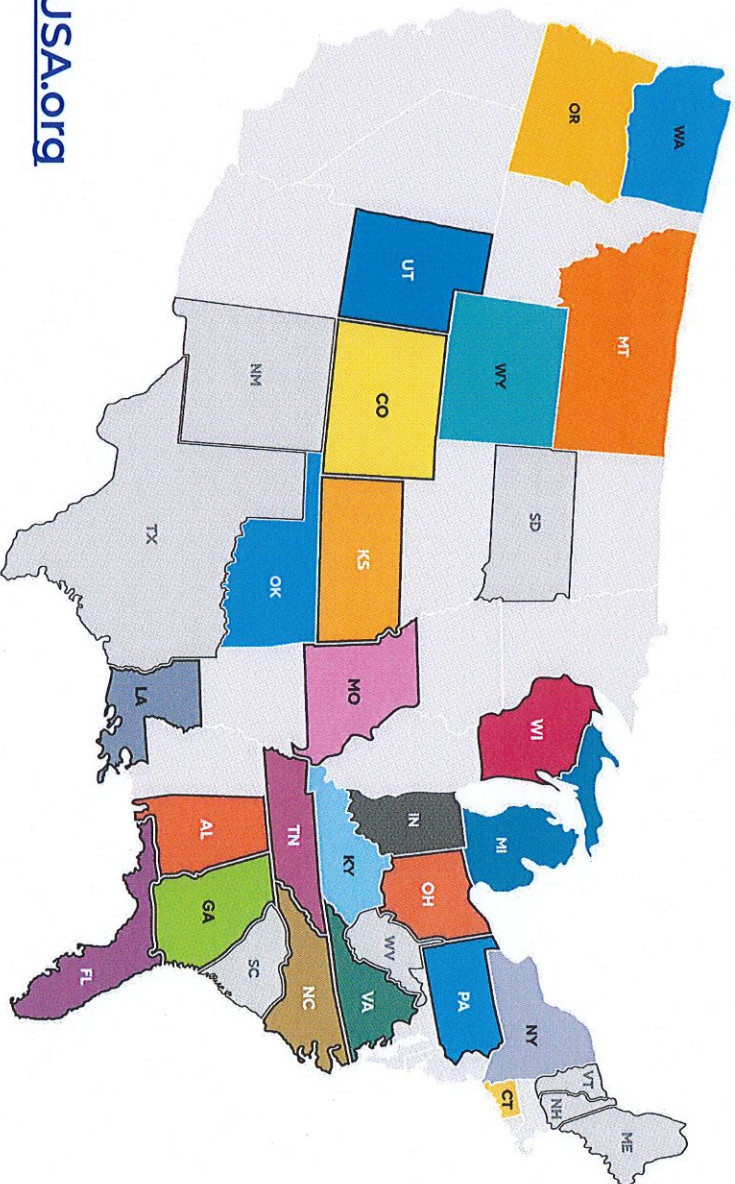


DRIVE ELECTRIC
USA

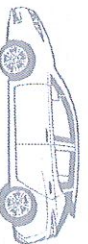
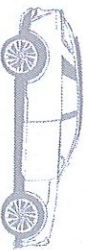
Partnership across 14 states to develop statewide, branded EV initiatives nationwide. *Project started with intent to grow the involvement by other states and seek additional funding.*

1. 14 original states – *black borders*
2. 10 states have signed MOU to join effort – *no borders*
3. 8 states interested – *light gray*

www.DRIVEElectricUSA.org



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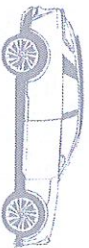
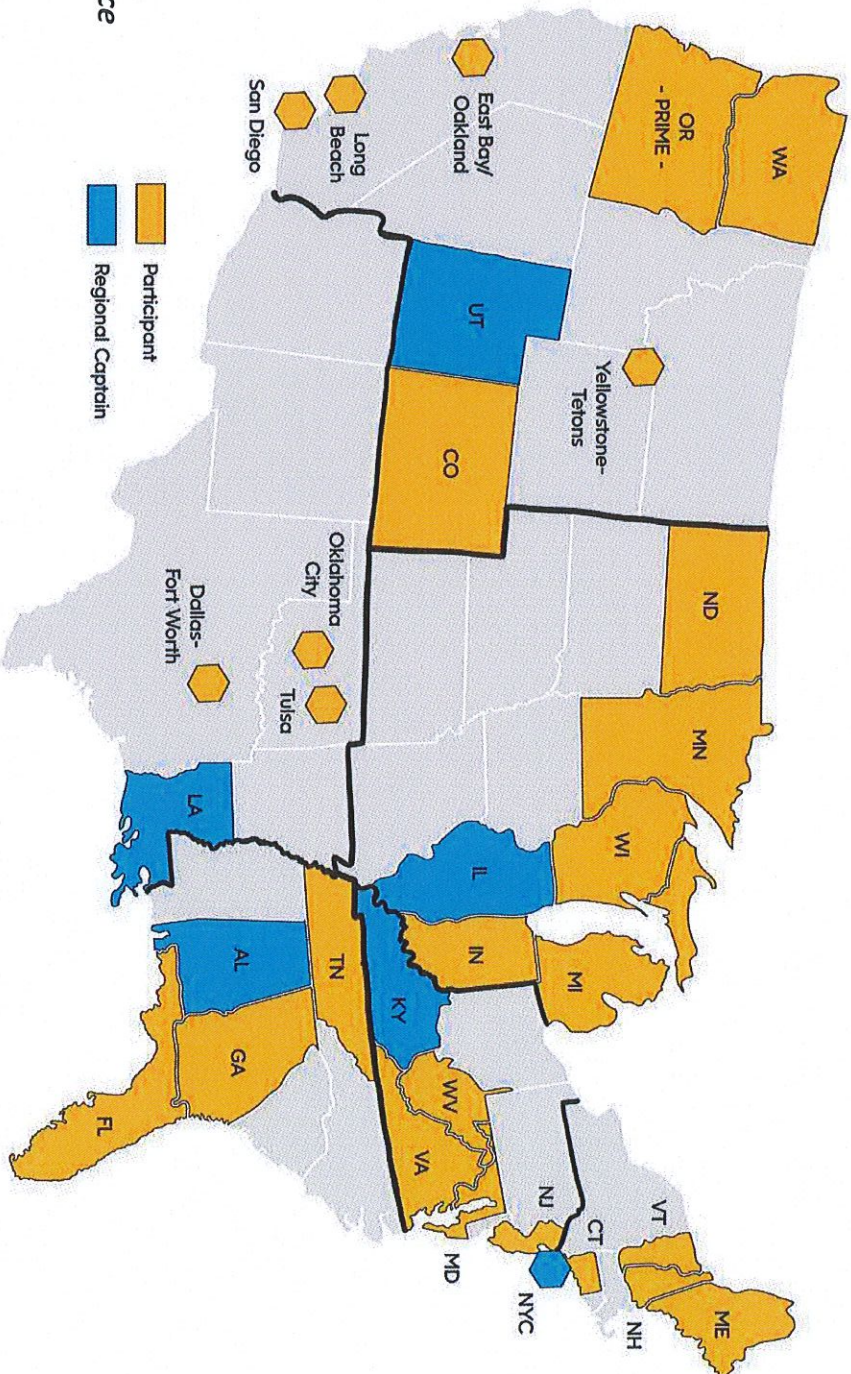
PROJECT

EMPOWER

Build a nationwide,
sustainable Workplace
Charging Program

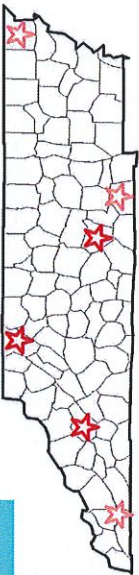
Map of partner states
and communities >>>

**EMPOWER = "Equitable Mobility
Powering Opportunities for Workplace
Electrification Readiness"**



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OTHER EFFORTS



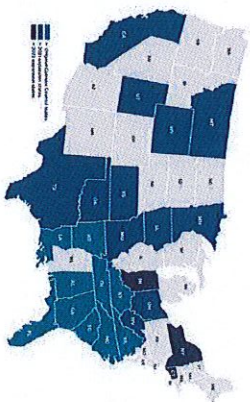
Green Fleet Planning

Partnership across the major cities in Tennessee to review fuel use and GHGs *together* & make plans for adding cleaner vehicles



FHWA – NEVI State Plan

TDOT and TDEC taking the lead on crafting Plan; ETCleanFuels providing input to TDOT

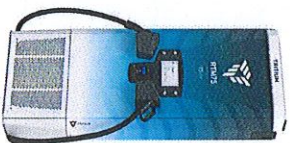
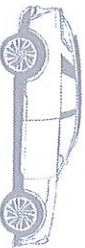


National “Corridor Council”

TN and AL Clean Cities manage nationwide CC + state DOT reps discussions about FHWA corridors – planning for corridor ID and wayfinding signage, and filling alt-fuel gaps

EV/EVSE – TN Manufacturing

Jobs galore coming to TN related to EV and EVSE manufacturing; Tritium newest player



[www.DriveElectric TN .org](http://www.DriveElectricTN.org)