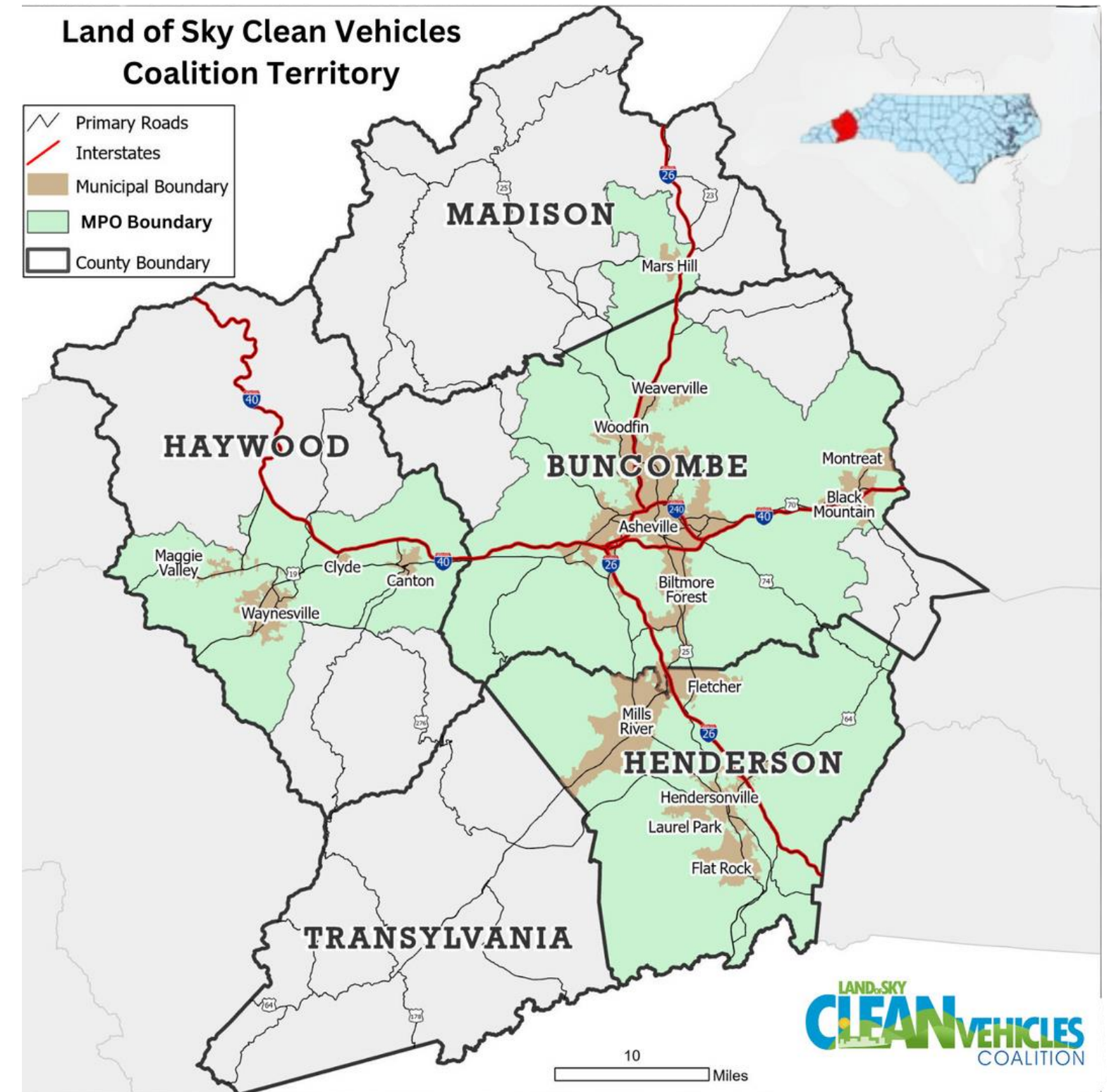
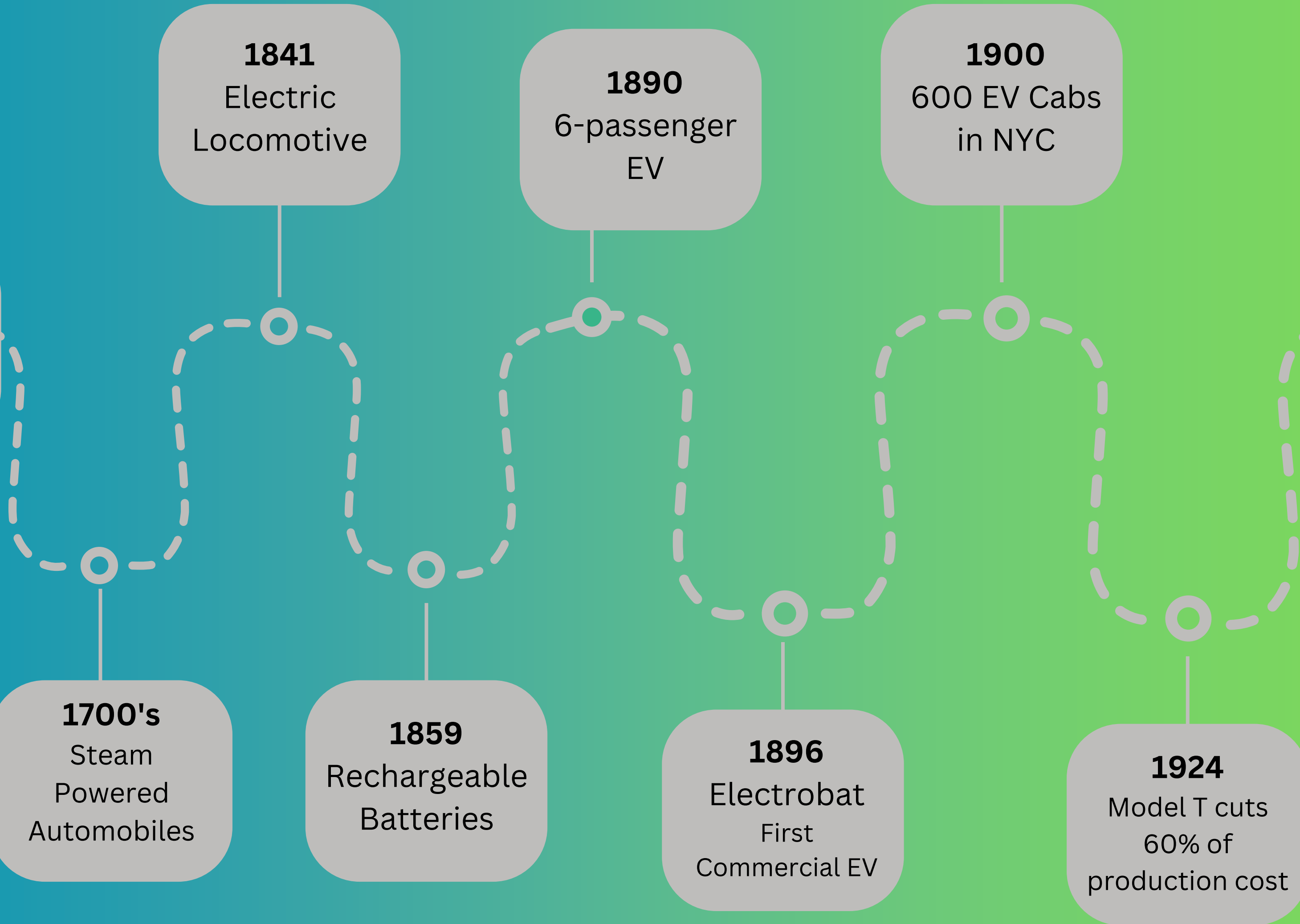


Land of Sky Clean Vehicles Coalition

# Transportation Electrification in WNC

[www.cleanvehiclescoalition.org](http://www.cleanvehiclescoalition.org)





**1700's**  
Steam  
Powered  
Automobiles

**1841**  
Electric  
Locomotive

**1859**  
Rechargeable  
Batteries

**1890**  
6-passenger  
EV

**1896**  
Electrobat  
First  
Commercial EV

**1900**  
600 EV Cabs  
in NYC

**1924**  
Model T cuts  
60% of  
production cost

**?**

# Adoption of Electric Vehicles

**1.2 Million EVs sold in 2023**

more than doubling the total number on the road

**7.6% of new vehicle sales were EVs in 2023**

**NC was in the top 20 states for EV's per capita in 2022**

**24% growth rate in EV registrations in WNC 2018-2023**  
**5x as many EVs in WNC**

# EV Charging 101

Modern electric cars can be refuelled from a variety of sources. The nature of the trip and the drivers needs help to dictate what the appropriate choice is.

An advantage to electricity as a fuel is that it is widely available, reasonably inexpensive, and can be dispensed at home without special equipment.

Unlike having to find a gas station, you can fill your EV where you live, work, and play while your car is parked.

## L1

**3-5 Miles of Range per Hour**

- Only requires 120v wall outlet
- Best for home charging overnight or all-day at work

## L2

**10-40 Miles of Range per Hour**

- Requires 240v circuit and L2 Charger
- Great for longer stops i.e.- shopping, work, sporting events, outdoor activities, leisure, and overnight home charging

## DC FAST

**Up to 80% of Range in 15 min**

- Perfect for long-distance travel
- Great for shorter stops like meals and bathroom/stretch breaks
- Speed varies by manufacturer and vehicle



# Where we are

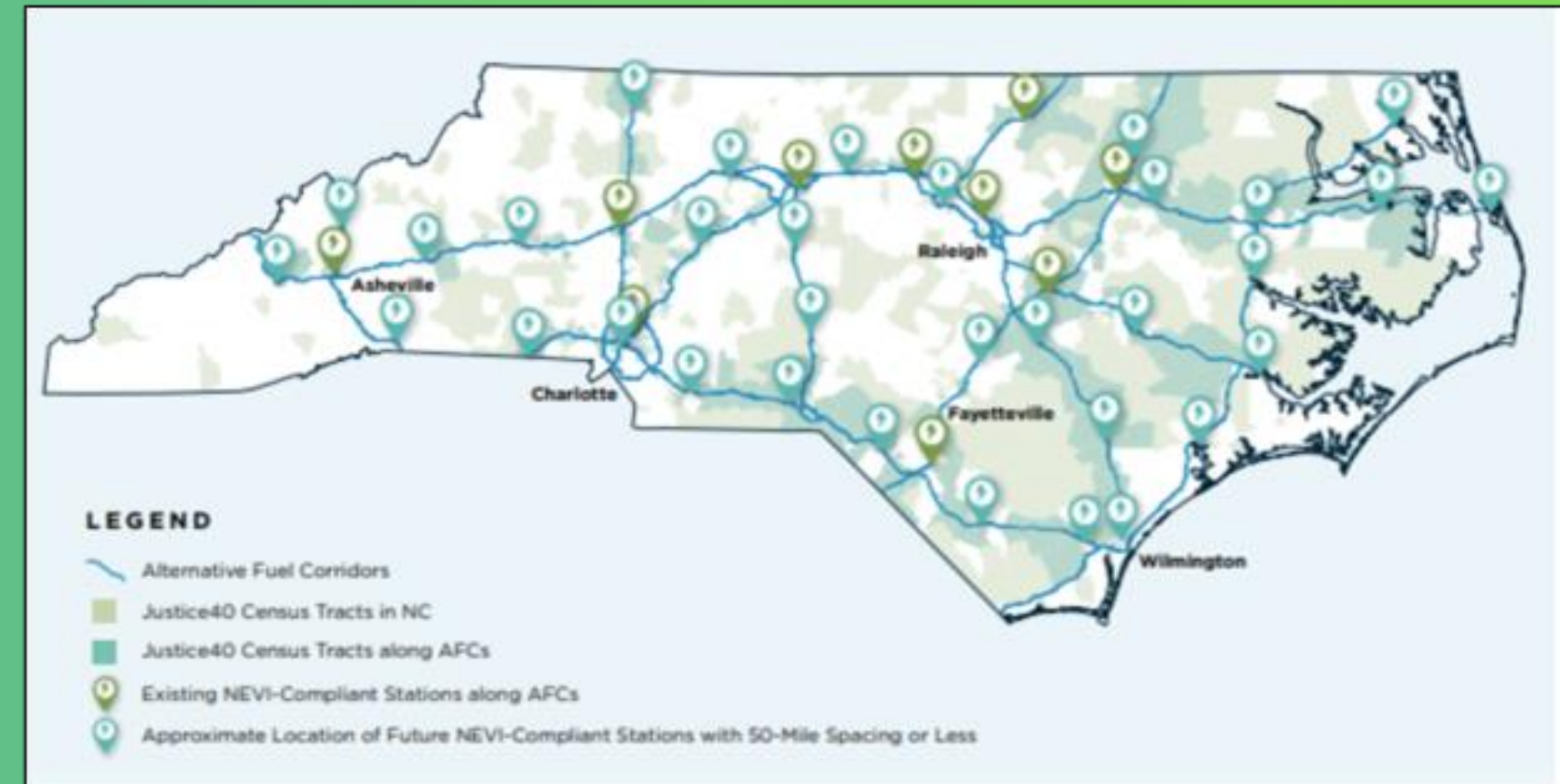
Western North Carolina is at an interesting point in the electrification of transportation. An area rich in natural beauty, clean air, and tourism; WNC finds itself considerably understocked with infrastructure to support EV drivers. Residents and tourists alike find themselves waiting to use the extremely limited number of DC fast chargers, and although growing in number, L2 opportunities are also still very limited.

**11 DC Fast Stations**, with a combined total of **22 plugs** that are open to all makes and models\*

**5 TESLA Superchargers** with a combined total of **40 plugs**

**1 Rivian Charger** with **1 plug**

**<100 Public L2 stations** with a combined total of **200 plugs** with many of those belonging to hotels and B&Bs





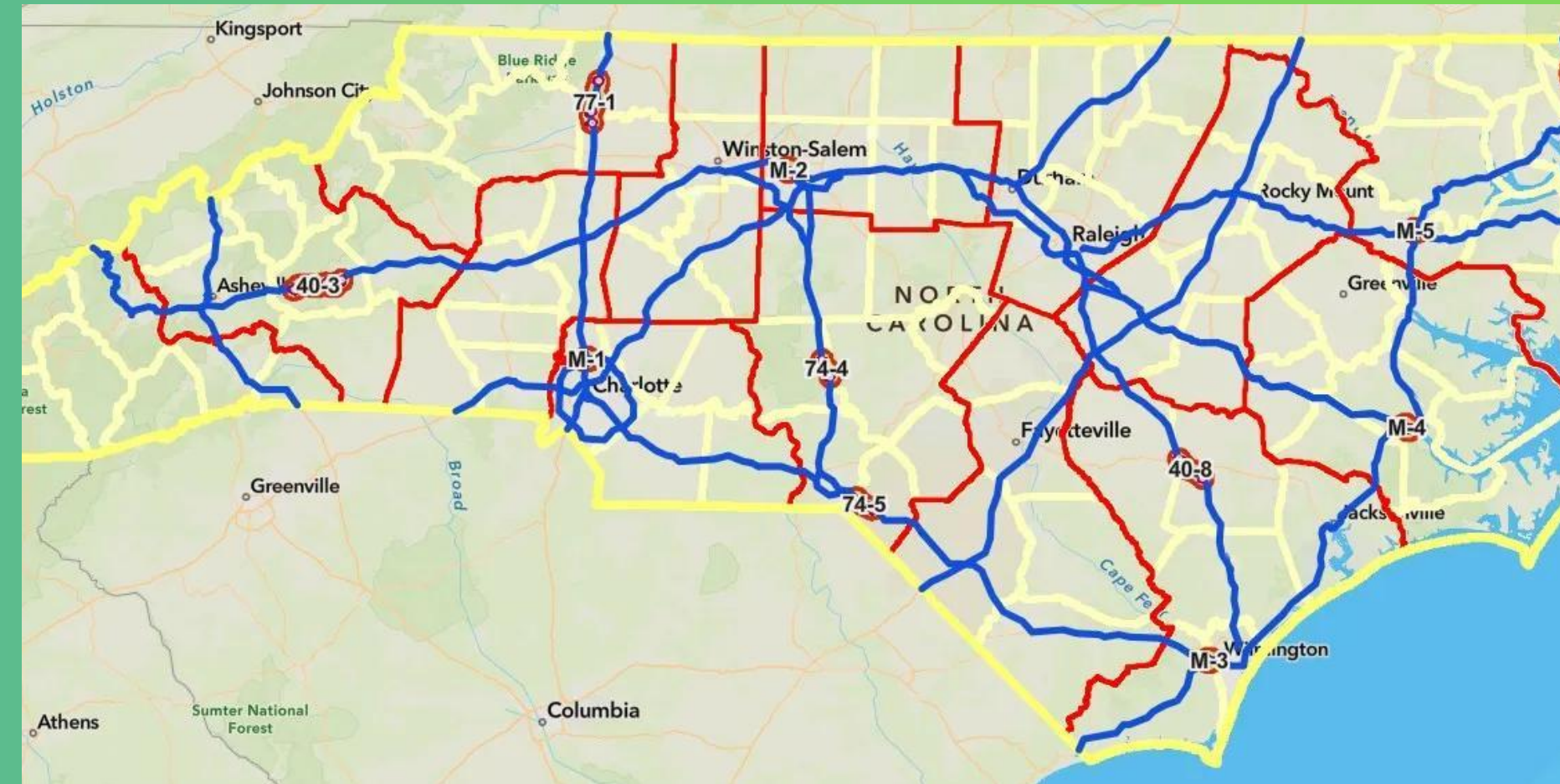
# Where we are Going

**NCDOT** recently issued their Round 1 National Electric Vehicle Infrastructure (**NEVI**) locations recently. Chargers are to be located within 50 miles of each other and contain 4 ports at a minimum of 150kW per port simultaneously.

- The farthest West identified location is exit 73 in Old Fort, leaving a gap in compliant chargers between there and the border of TN.
- No identified locations along I26, which has one NEVI compliant charger (SAMS Club, Asheville)

**Land of Sky** is working with partners across the region to develop charging projects along major corridors as well as in communities with the goal of applying for competitive funding opportunities that are coming in the future.

We are also working with municipalities and business owners to encourage infrastructure planning and installation in locations where new construction is happening in order to prepare these sites for the growing number of EV owners across our region.



# What Can we Do?

## Planning/Zoning

Ensure that local zoning ordinances encourage either EV charging infrastructure or the supporting infrastructure for future installation of chargers. Encourage planning staff to include infrastructure for EVs in development efforts.

## Garner Legislative Support

Let your representatives know that our communities are experiencing a rapid growth in EV ownership and operation and that we need support to ensure continued investment in infrastructure.

## Educate

We can educate ourselves and our communities about electric transportation and how it impacts us. Address issues and concerns as well as opportunities and benefits.

## Plan

Consider how your community is impacted by transportation and make a plan to help the transition to new technologies. Coordinate with businesses, residents, and tourism entities to be prepared for funding opportunities.

## Experience

Land of Sky Clean Vehicles Coalition hosts many events and car shows across the region throughout the year. Please come out and take a ride in an EV, ask questions, and get information to help yourself and your community be better informed about electrification.

## CONTACT

Contact the Land of Sky Clean Vehicles Coalition for resources and support to help plan for your communities future in transportation.



# Conclusions and Reflections

The transportation industry is constantly evolving. From steam-powered and electric cars, through gasoline and diesel, back to electric and on to hydrogen, we are along for the ride and it is up to us to understand and plan for how this evolution changes the way we move.

Our residents deserve an equal opportunity to choose the transportation that works for them, and our communities deserve investments that will help to propel us into the future.





**Thank  
you very  
much!**

[www.cleanvehiclescoalition.org](http://www.cleanvehiclescoalition.org)

**Land of Sky Clean Vehicles**

**Coalition**

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