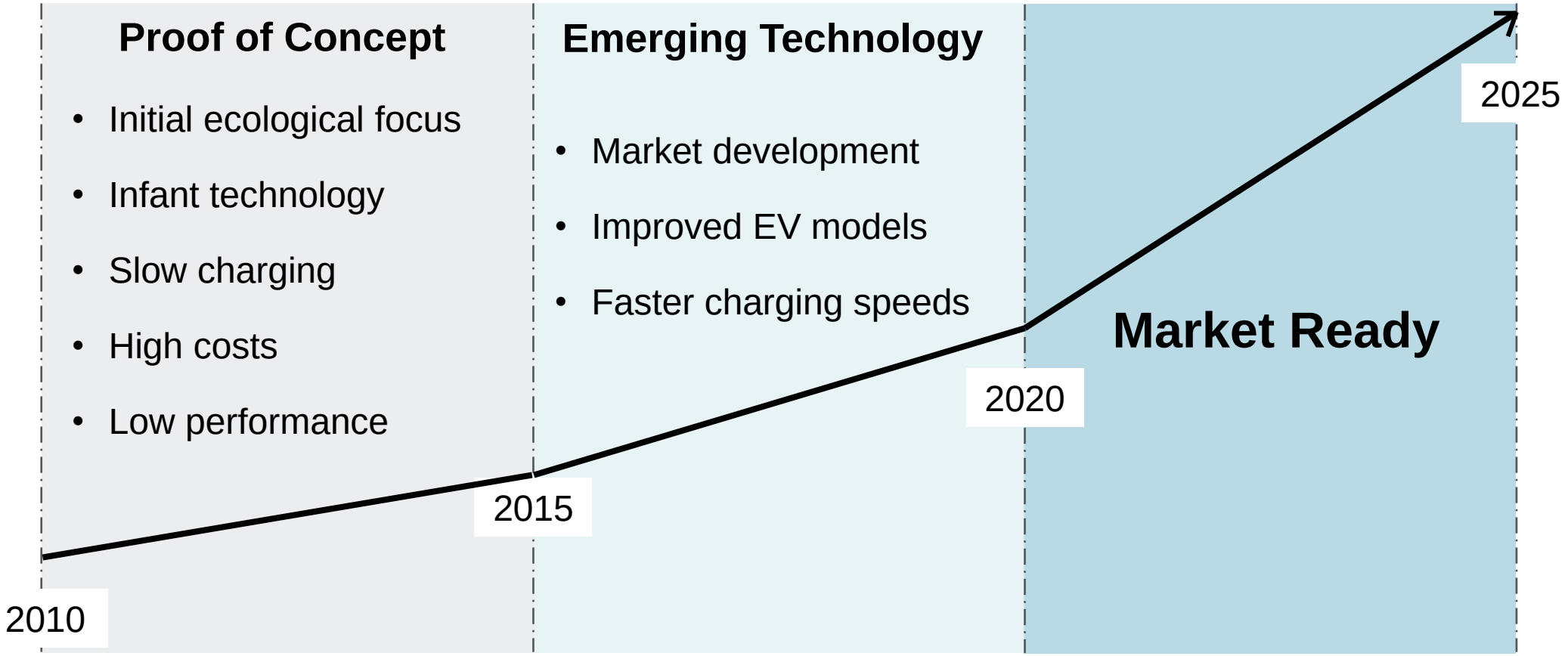
Electric Mobility

June 13, 2025

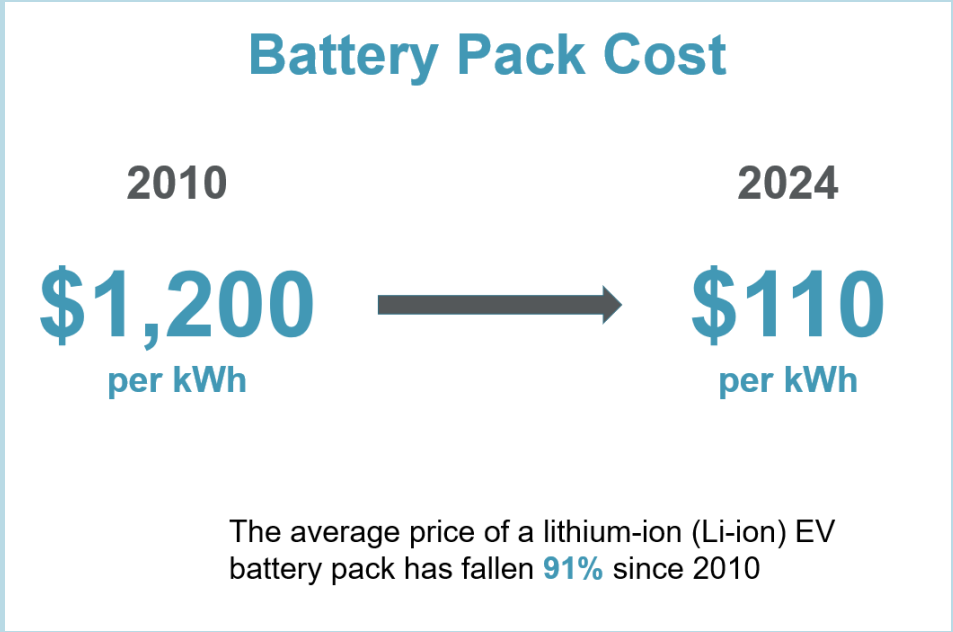
EV Evolution



Takeaway: EVs begin to fit more diversified use cases

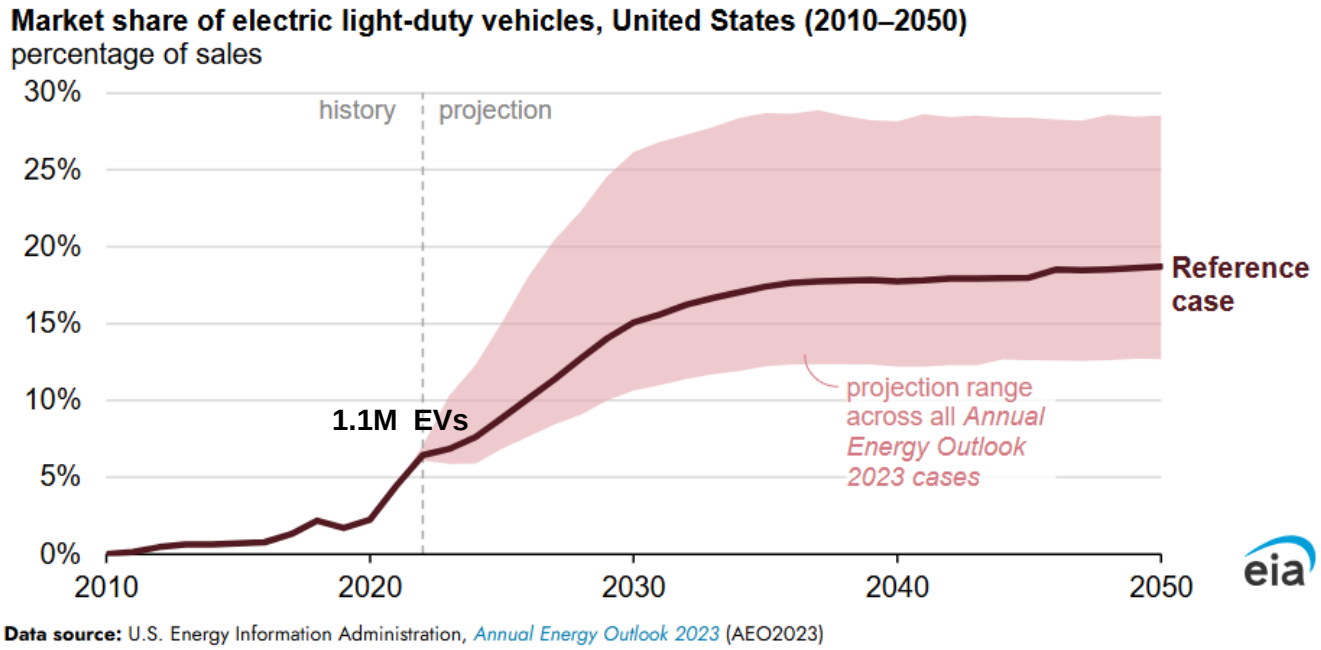
Market Ready Technology

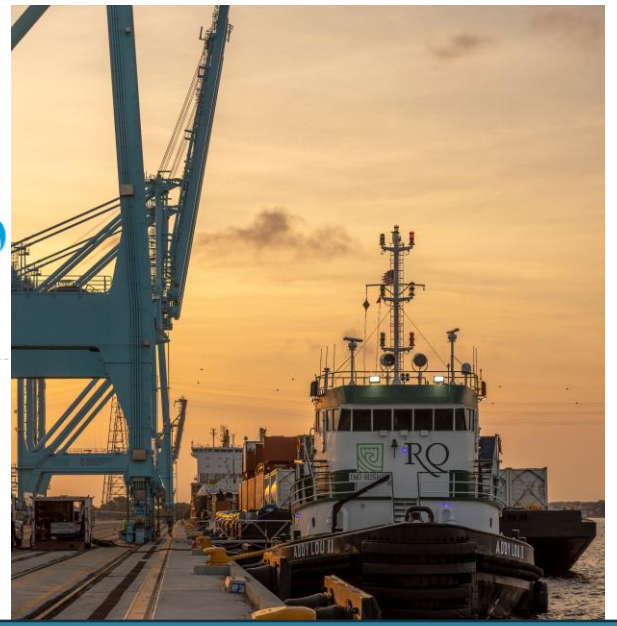
- Increase in vehicle make and models
- Improved reliability
- Lower battery costs
- Reduced energy costs
- Higher range
- Improved charging times



Takeaway: 2025 EVs meet many transportation needs across the US

US EV Adoption

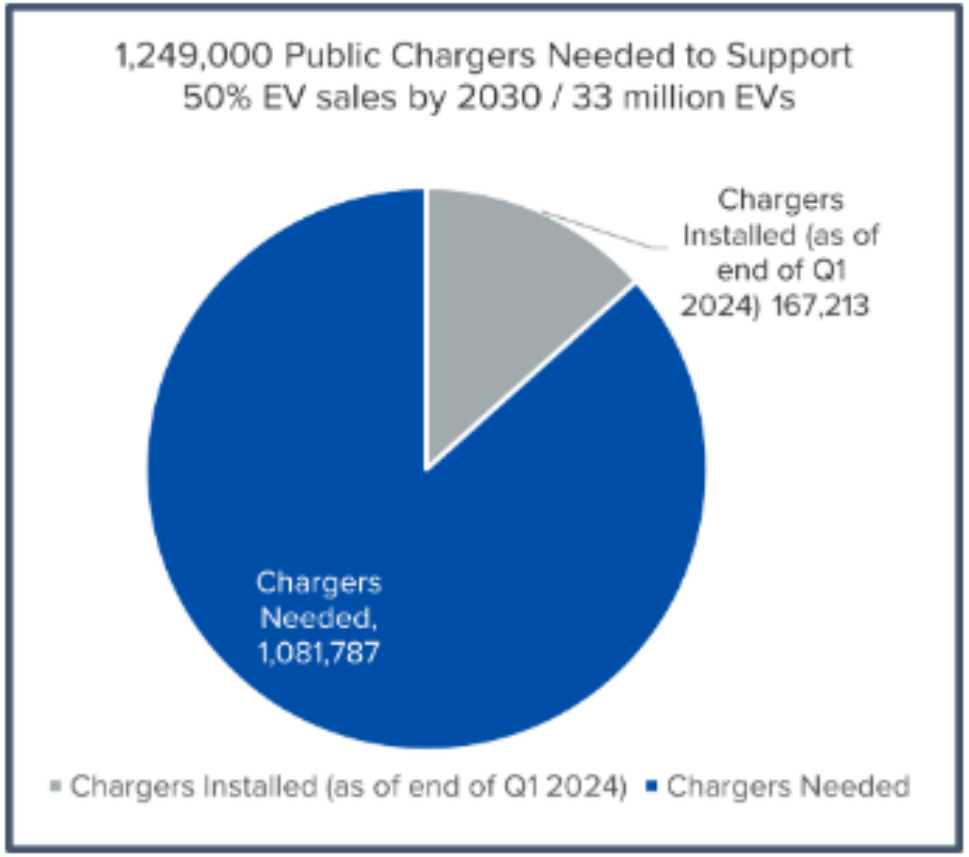




Takeaway: Personal and industrial EV adoption continues to move forward

Charging Infrastructure

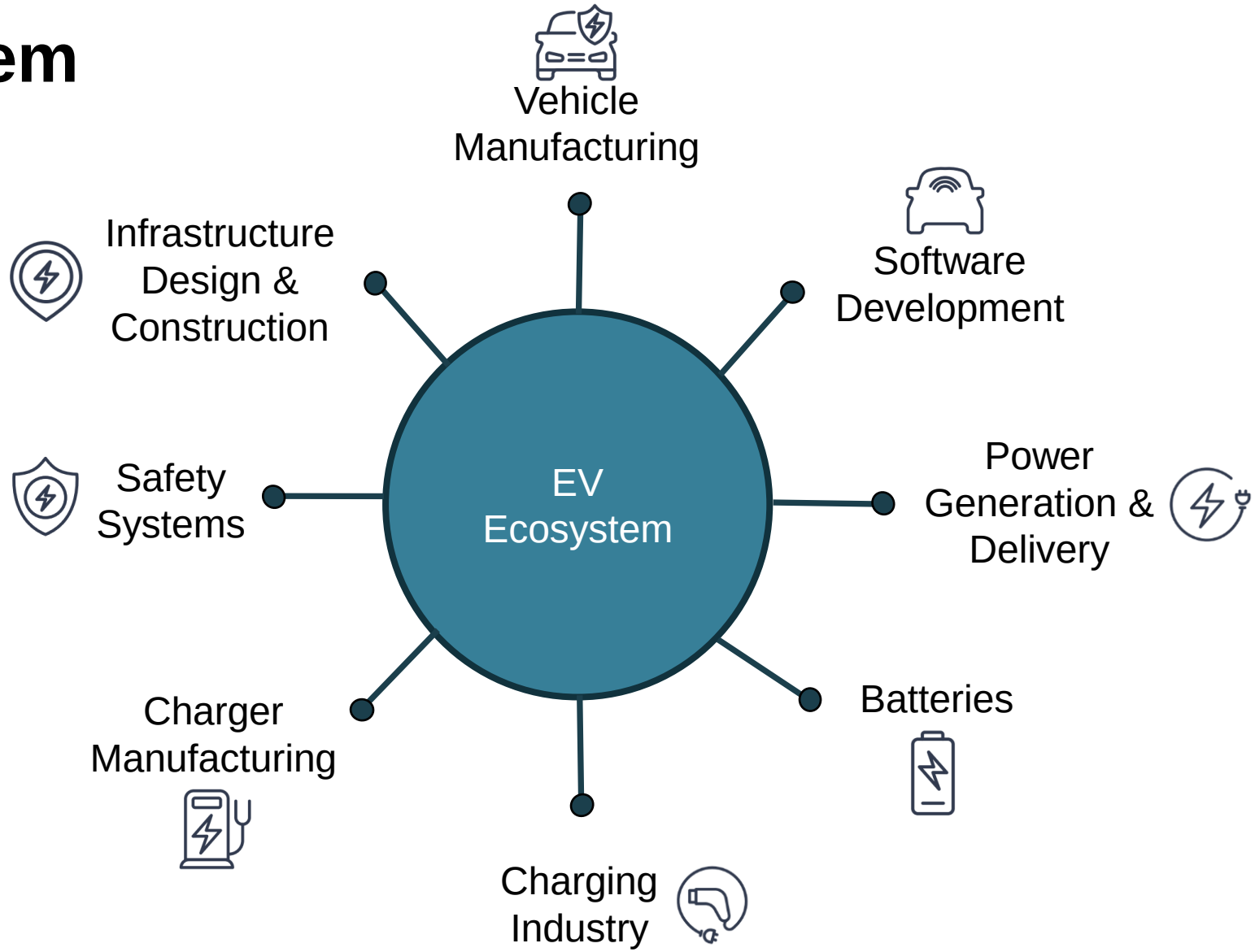
- Nationwide, 344,533 EVs were registered in Q1 2024 but only 7,247 new public chargers were added – a ratio of 48 new EVs for every new public port
- More than 1 million more public chargers required to meet the NREL's necessary infrastructure estimate for 2030
- 438 chargers will need to be installed every day – **or nearly 3 chargers every 10 minutes** – through the end of 2030



Source: Alliance for Automotive Innovation

Takeaway: Vehicle sales are outpacing public charging infrastructure

EV Ecosystem



Takeaway: The economic reach is far greater than the sale of a single vehicle or charger

Global Economy

Potential arenas of tomorrow, by 2040 revenue estimate, $ billion	Revenue 2022	CAGR, 2022-40	Profit 2040 estimate,$ billion (profit margin, %)
Electric Vehicles	450	2,500 3,200	100 320
Shared autonomous vehicles	n/a	610 2,300	20 460
Batteries	98	810 1,100	40 110
Future Air Mobility	n/a	75 340	10 70

Source: Company Annual Reports; McKinsey Value Intelligence; McKinsey Global Institute analysis

Takeaway: EV technology forecasted to be a major global growth market

History of Technology Investment

Investing to put America in a leading position

- Aviation
- Rail
- Interstates/Corridors
- Transit
- Safety Technology
- Access

Takeaway: Policy of leading technology development and production

US Investment

- Federal Investments
- State Investments
- Private investments
  - Vehicle manufacturing
  - Charging manufacturing
  - Charging networks
  - Battery manufacturing
  - Freight charging

Ford F-150 Lightning, Dearborn MI.

Blue Oval SK's EV Battery Manufacturing Facility. Stanton, TN

Charger Manufacturing Facility, Arlington TX

Takeaway: Public investment sparks larger private investment

Infrastructure Investment and Jobs Act (IIJA)

National Electric Vehicle Infrastructure (NEVI)

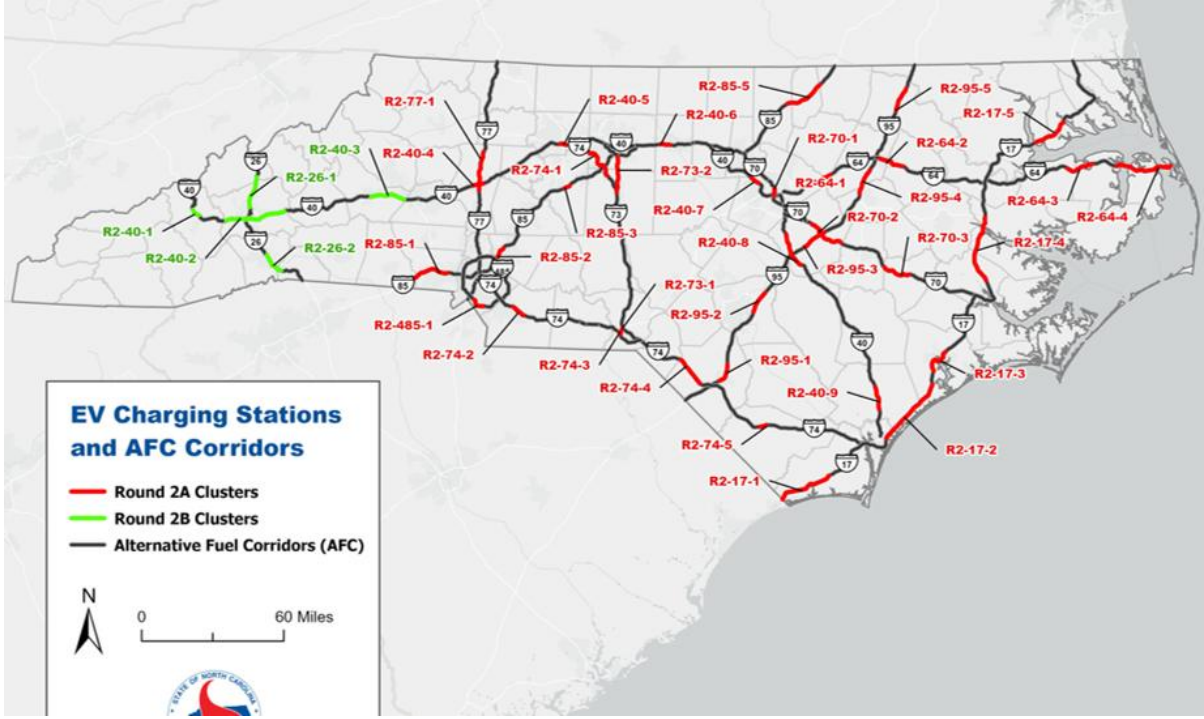
- Formula based program
- Build out a charging spine to support corridor/AFCs light duty travel

Charging and Fueling Infrastructure (CFI)

- Discretionary grant program
- Support community-based charging

Program Conditions

- Highly Regulated/Limited Flexibility
- Exposed technical & delivery challenges



Takeaway: Historic level EV infrastructure investment on the edge of implementation

Freight Challenge

- Public/Private/Energy coordination
- Higher charging power requirements
- More charging utilization
- Power impact on electrical grid
- Increased vehicle, charger and power delivery spatial demands

Takeaway: EV trucking infrastructure barriers are significant vs. light duty vehicles

Today’s MHD Electric Vehicle Technology Works

- The Rocky Mountain Institute analyzed a year's worth of trucking telematics data across 15 states
- **Finding:** 60% of medium duty and 43% of heavy duty trucks are electrifiable with today’s technology*

*RMI Analysis: With Smart Policy, Truck Electrification Is Within Reach - RMI

Takeaway: Advancements will continue to make EV adoptions operationally and financially viable

Infrastructure Provides Choice

- Personal – residence charging
- Community – shared destination charging
- Freight (local) – dedicated/shared public charging
- Corridors – shared public enterprise charging
  - Freight
  - Personal
- Transit – dedicated charging
- Maritime – dedicated charging
- Rail – dedicated charging





Takeaway: EV technology investment provides the US with personal and industrial choices

Value of Investment

- Producer vs. Consumer
- Foster US EV ecosystems
- Lead technology development globally
- Capture economic opportunities
- Access global markets
- Future proof infrastructure designs
- Provide US choices

One Energy's 30MW Station, Findlay, OH

Coalition to develop I-10 LA to Texas EV Corridor

Takeaway: EV ecosystem is moving - lead or follow?