Georgia General Assembly
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National Electric Vehicle Infrastructure (NEVI)

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Governor Kemp's Electric Mobility & Innovation Alliance

https://www.georgia.org/mobility

Launched in August 2021

Led by the Georgia Department of Economic Development

Collaboration of government, industry, electric utilities, nonprofits

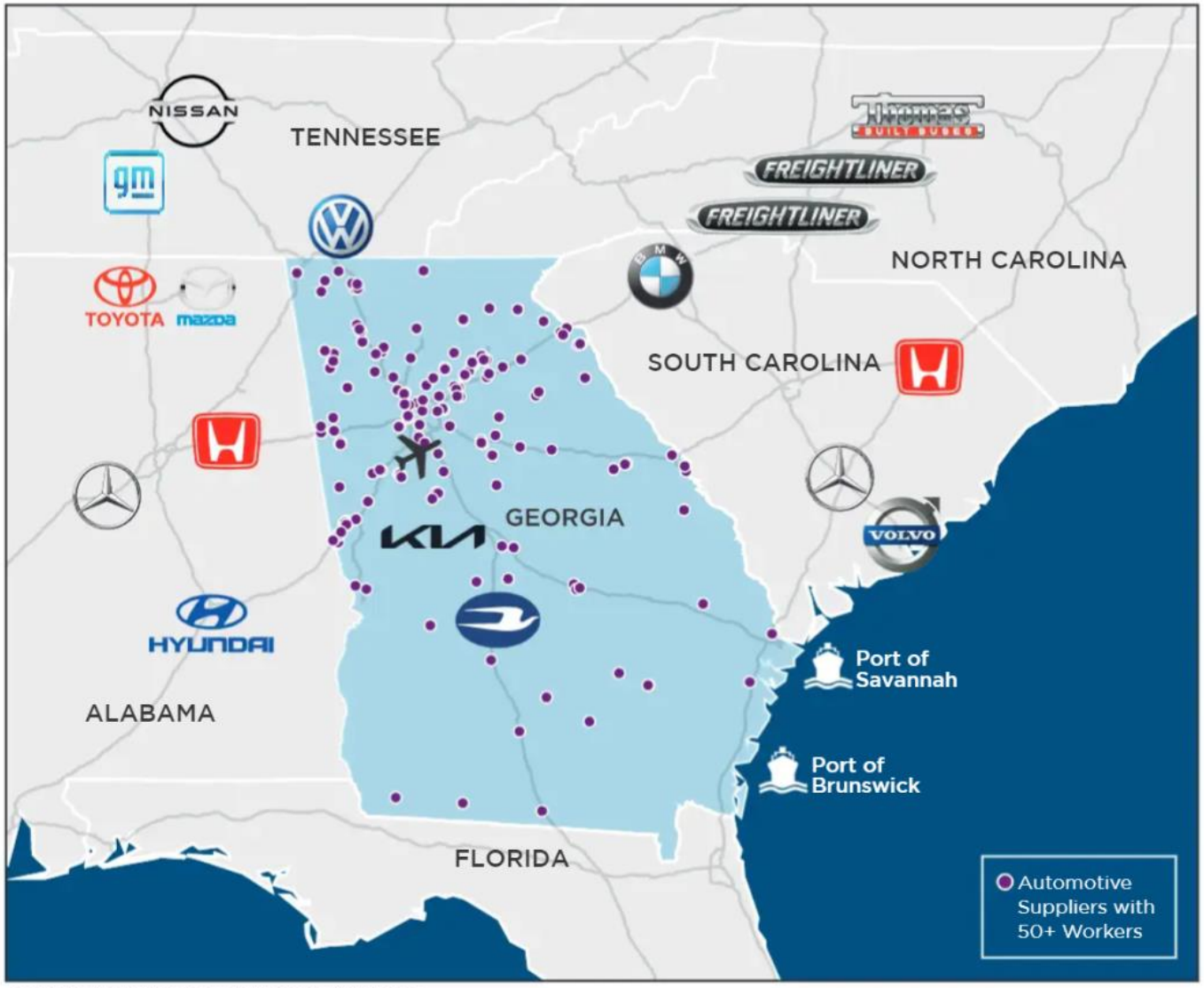
5 Committees, including Infrastructure:

- ✓ **Fleet:** OEMs, vehicle owners (personal and commercial), auto dealers, etc.
- ✓ **Charging:** equipment manufacturers, service providers, site owners
- ✓ **Electric Utilities:** GA Power, EMCs, ECG/MEAG, GA Transmission Corp.

#1 IN EV

Auto registrations in the Southeast US

Georgia's Automotive Industry: Epicenter of Commerce in the Southeast



Source: Georgia Power Community & Economic Development

Recent EV Developments in Georgia (2018-2021)

- ✓ SK Innovation invests in Lithium-ion battery facility
- ✓ Blue Bird debuts all-electric school buses
- ✓ TEKLAS creates first North American Headquarters
- ✓ EnChem Co. invests in battery electrolyte facility
- ✓ PowerPlug – green hydrogen fuel cell systems for e-mobility
- ✓ Duckyang – supplier of automotive battery modules and energy storage systems

FHWA's National Electric Vehicle Infrastructure (NEVI) Program: Nationwide Allocation of $7.5 billion through FY2026

$4.2 billion Federal Formula Funds to State DOTs

- Strategic deployment of EV charging infrastructure for an interconnected network to facilitate data collection, access, and reliability.
- Build out the national network of EV "Alternative Fuel Corridors", particularly on Interstate Highway System
- Public-private partnerships encouraged

$500 million of Federal Grants to fill gaps in AFCs

$300 million for the new "Joint Program Office" of U.S. Departments of Transportation and Energy

$2.5 billion of Federal Discretionary Grants

- Corridors
- Communities

for EV charging plus infrastructure for hydrogen, propane, and natural gas fueling

USDOT & USDOE National Electric Vehicle Infrastructure (NEVI) Program

Purpose

- Create a nationwide network of 500,000 EV chargers by 2030
- Ensure a convenient, reliable, affordable, and equitable charging experience for all users

USDOT / USDOE Goals

- Accelerate equitable adoption of EVs, including for those who cannot reliably charge at home
- Position U.S. industries to lead global transportation electrification efforts

NEVI Program Overview

Federal Funding

- Total NEVI funding is $5B over federal FY 2022 – 2026
- $135M* apportioned to Georgia with maximum 80% federal share

NEVI Plan

- NEVI required GDOT to prepare a plan compliant with federal requirements from FHWA/Joint Office of Energy and Transportation (JPO) guidance, FAQs, notice of proposed rulemaking (NPRM) and webinars
- Key elements of the plan include considerations for:
  - ✓ Station "uptime"
  - ✓ 24/7 accessibility by the general public
  - ✓ Cybersecurity
  - ✓ Stakeholder engagement
  - ✓ Equity benefits / Justice40
  - ✓ Workforce development

**Subject to appropriations*

National Electric Vehicle Infrastructure: GDOT's Vision

GDOT will invest to catalyze further investment in EV charging stations across the state where utilization is anticipated but the private sector may not otherwise be economically motivated to install and operate EV charging stations

https://www.dot.ga.gov/NEVI

Federal Rules and Regulations for NEVI Fund Deployment

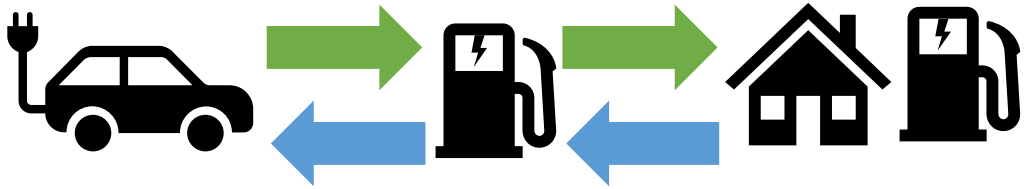
Requirements

- Fully build out Alternative Fuel Corridors first
  - Minimum of four 150kW (total 600kW) Direct Current (DC) fast chargers with Combined Charging System (CCS) ports at each station
  - Minimum 50 miles apart and 1 mile from the corridor
  - 11 NEVI-compliant stations currently fully built out along AFCs
  - 30-35 gaps to fill with new/upgraded sites
- Satisfy Justice40 requirements
- Buy America compliance
- Other

Evolving Guidance

- Original guidance provided in February
- Notice of Proposed Rule Making / Q&A released in June
- Additional ADA guidance provided in August
- Final rulemaking (e.g., cybersecurity, data) TBD

Customer Driven Deployment: EV Trip Types

Trip	Description	Typical charger type	Federal Eligibility for GDOT's EV Charging
Short, local trips • Charge at/near home • Atlanta to/from Marietta	Charges at home and can complete entire trip in one-charge	Level 2 Chargers	✗
Long trips (100 – 250 miles) • Charge overnight at location • Savannah to Augusta	Charges at home and utilizes level 2 or DCFC charging at destination	Level 2 Chargers	✗
Very long-trips (250+ miles) • Requires charging mid-route • Chattanooga to St. Simons Island	Charges at home, utilizes DCFC charging mid-trip and level 2 or DCFC at destination 	DC Fast Chargers (DCFC)	✓

NEVI Plan: GDOT's Stakeholder Engagement To-Date

Different stakeholder types provide insight on unique interests and considerations

Private Businesses

- Inform private sector of GDOT's customer-driven approach
- Laws and structure unique to GA
- Best procurement practices, vendor/site host business models and recommendations for O&M models

Equity Communities

- Conformance with Justice40
- Opportunities that may arise in relation to delivery of services in disadvantaged communities

Utilities

- Assess grid power availability/site upgrade costs needed for EVSE
- Strategies for approaches to ownership and make-ready
- Rates/tariffs and grid/load management for EVSE*

*Electric vehicle supply equipment

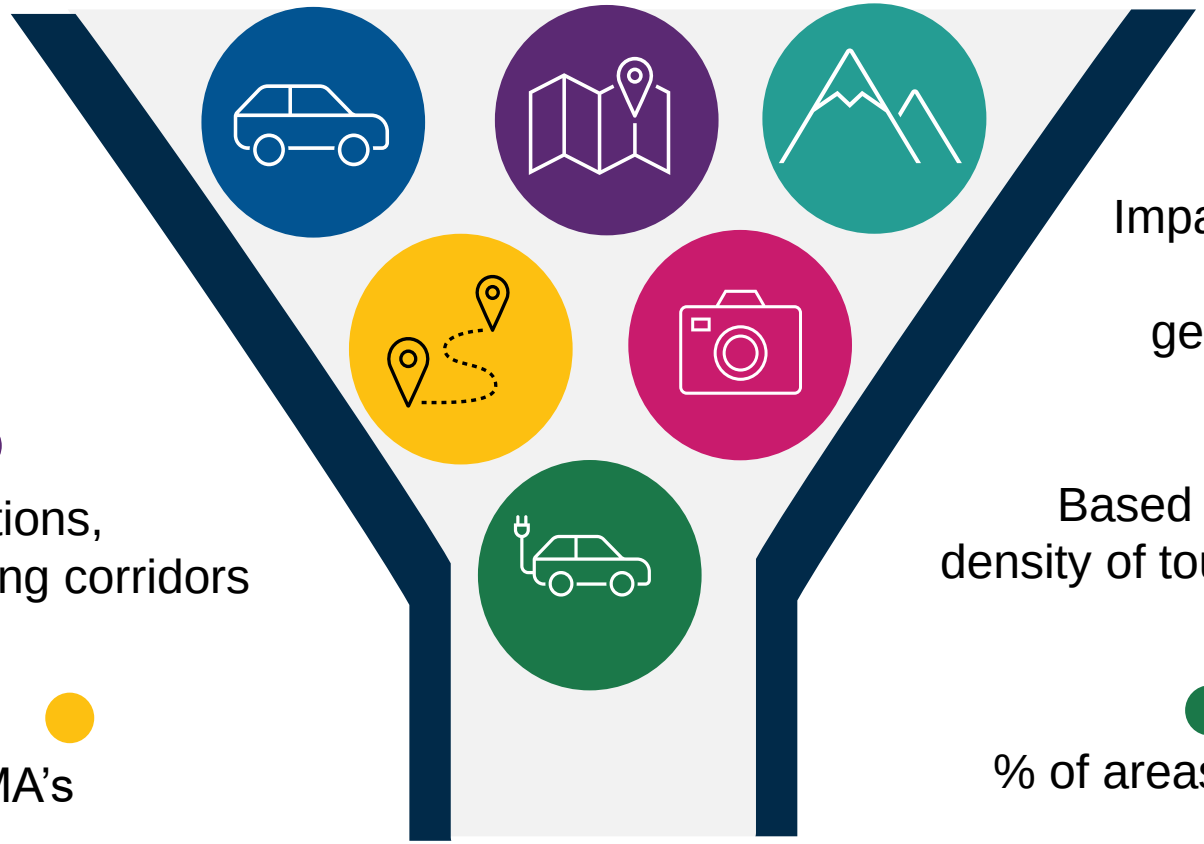
Phase 1 Deployment

Alternative Fuel Corridors Round 6 – customer-driven corridor evaluation criteria

Traffic Counts
Link length x avg annual daily traffic ÷ total length

Real Estate Feasibility
Clusters of hotels, gas stations, retail/shopping centers along corridors

Evacuation Route Impact
Overlaying AFCs with GEMA's evacuation route map



Geospatial Balance
Impact on balance of coverage across geographic regions

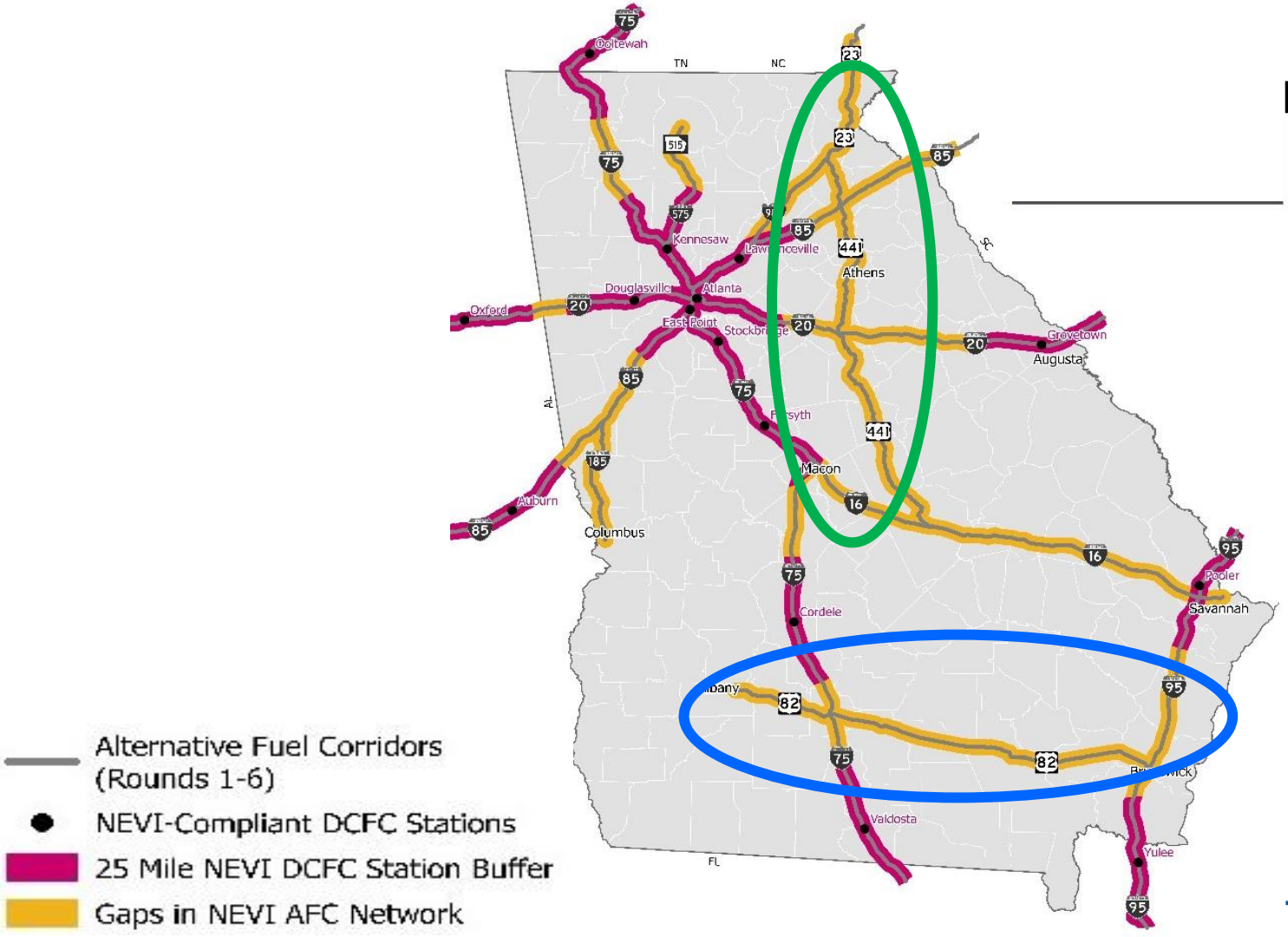
Tourism
Based on proximity and density of tourist destinations

EV Adoption
% of areas with EV market share

https://www.dot.ga.gov/NEVI

Developing Deployment Options on Alternative Fuel Corridors (AFC)

GDOT nominated new corridors to FHWA to enable EV charging station investment statewide



Electric AFCs (including Round 6)

- Corridors evaluated for location, feasibility and strategic alignment to GDOT priorities

2 additional AFCs nominated

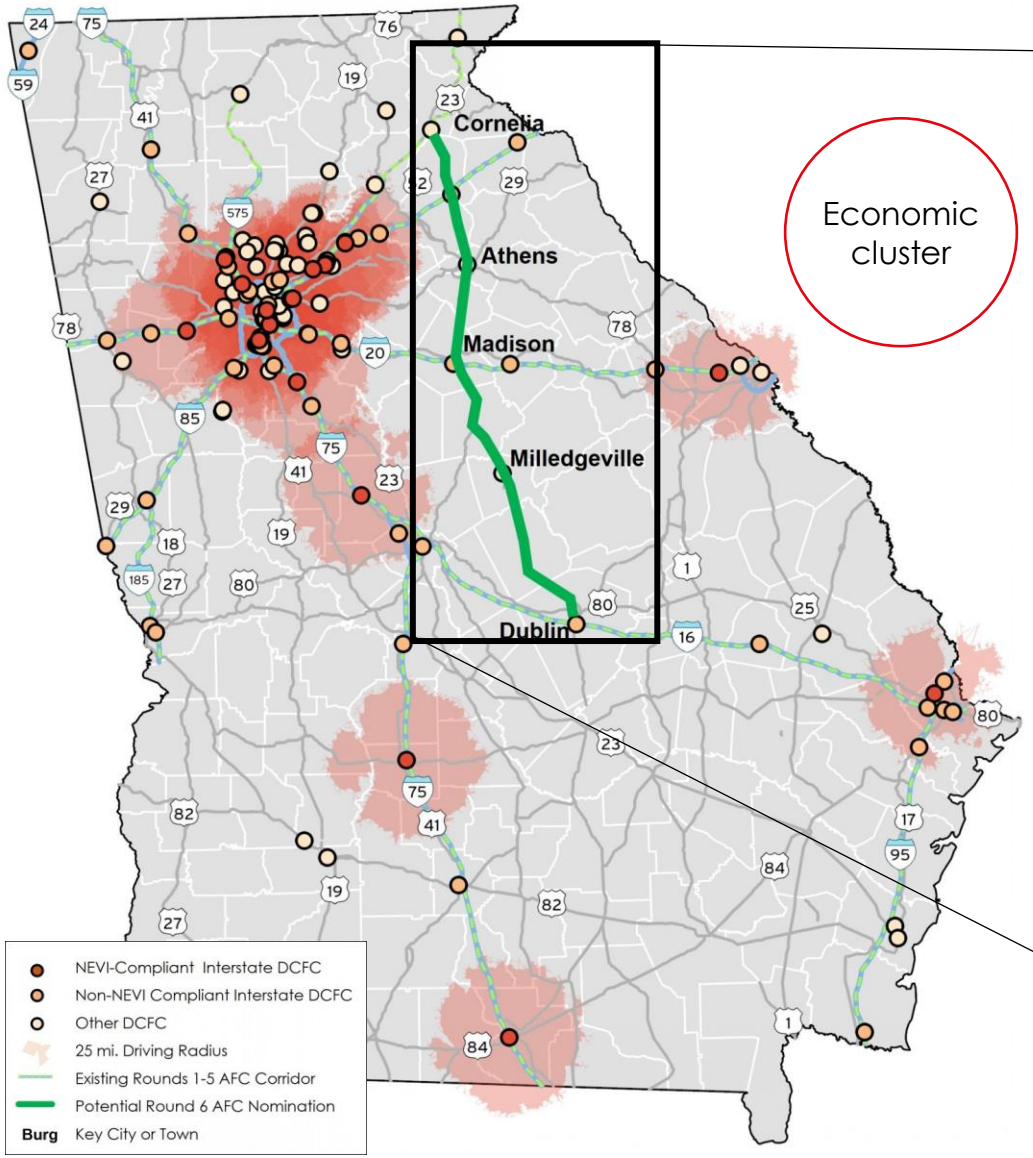
US 441 Dublin to Cornelia

US 82 Albany to Brunswick

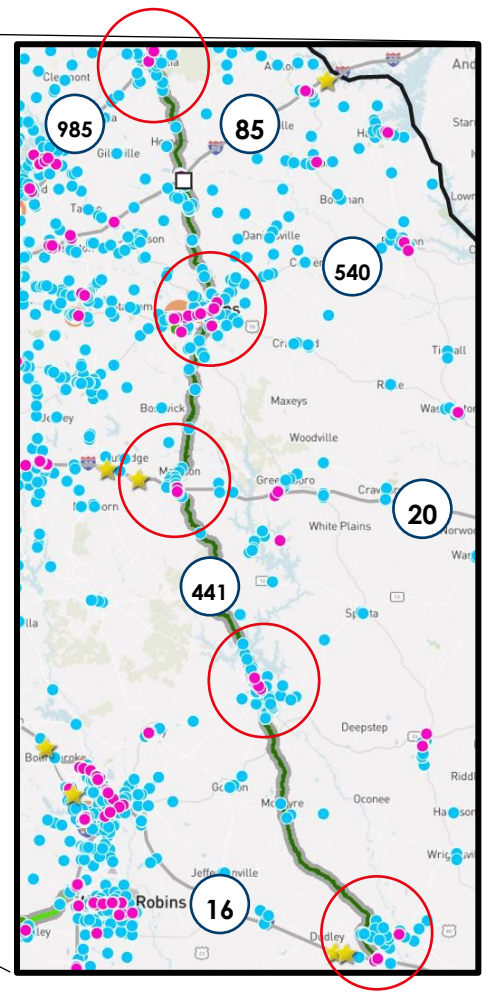
Added 328 miles **(+27%),** much of expansion in **rural areas**

https://www.dot.ga.gov/NEVI

Newly Designated AFC*: US-441 (Dublin to Cornelia)



Real Estate Cluster Analysis



Corridor Benefits

- Strong site host potential with 5 major economic clusters
- Close to Rivian and SK Innovation; major tourism sites along the route
- Relatively high EV share of new vehicle sales in many counties

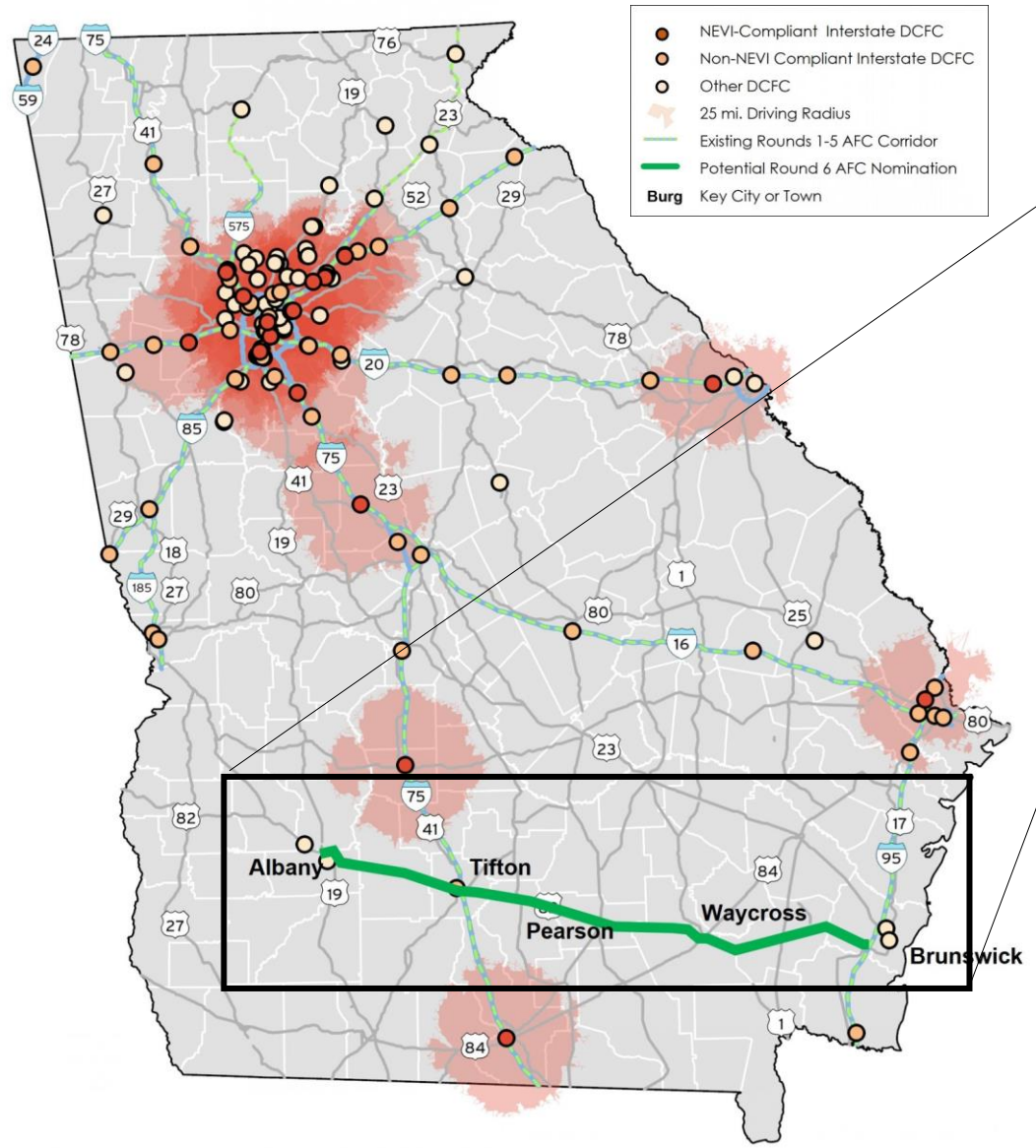
Corridor Characteristics

- Length = 165 miles
- Estimate 5 stations, 3 could overlap other AFCs (US-23, I-20, I-16)

https://www.dot.ga.gov/NEVI

*Approved by FHWA

Newly Designated AFC*: US-82 (Albany to Brunswick)



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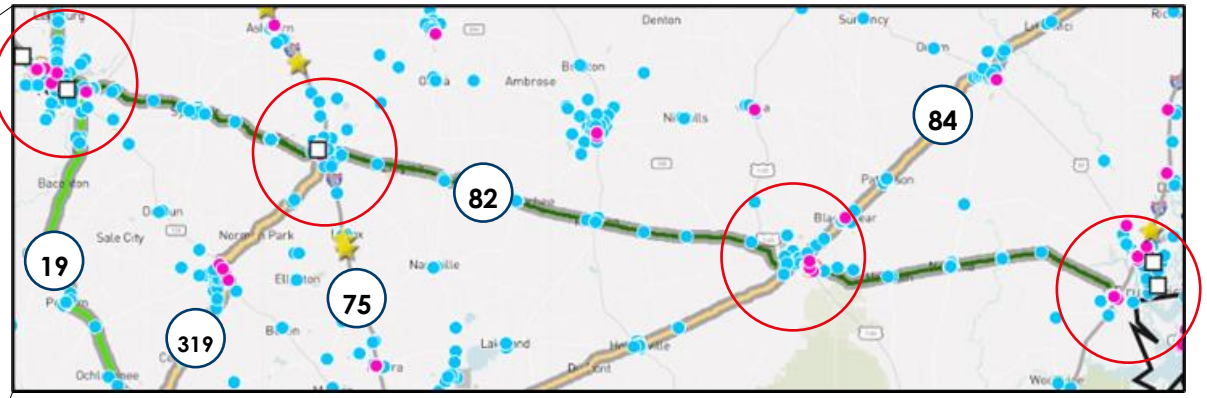

Corridor Benefits

- GEMA Evacuation Route
- Serves southeast Georgia

Gas Stations
Hotels
Grocery Stores
Shopping Centers
Rest Stops

Economic cluster

Corridor Characteristics

- Length = 163 miles
- Estimate 5 stations, 3 could overlap other AFCs (US-19, I-75, I-95)

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*Approved by FHWA

GDOT's Initial Evaluation of Potential Private-Sector Ownership and Operation for a Sustainable and Reliable Network

	Land Use Type							Others	
Considerations	**Big Box**	**Hotel**	**Gas**	**Restaurant**	**Grocery**	**Other Retail**	**Rest Areas**	**Utility**	**EV Charging Provider**
Availability of power infrastructure									
Real Estate factors, including site locations									
Preference for EVSE ownership									
Ability and willingness to manage O&M									
Preference for DC Fast Charging									
Ability to satisfy other Federal requirements									

GDOT's Next Steps

- ❑ Monitor outcomes of the work of this Joint Study Committee
- ❑ Further engagement with stakeholders and general public
- ❑ Continued analysis of location options based on customer-driven factors, Federal requirements, and State law
- ❑ Design implementation rules and procurement/grant process
- ❑ Review and comply with Federal guidance & rules, and engage with U.S. Departments of Transportation & Energy Joint Program Office

THANK YOU!

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GDOT's NEVI Plan → https://nevi-gdot.hub.arcgis.com/
(pending Federal approval)