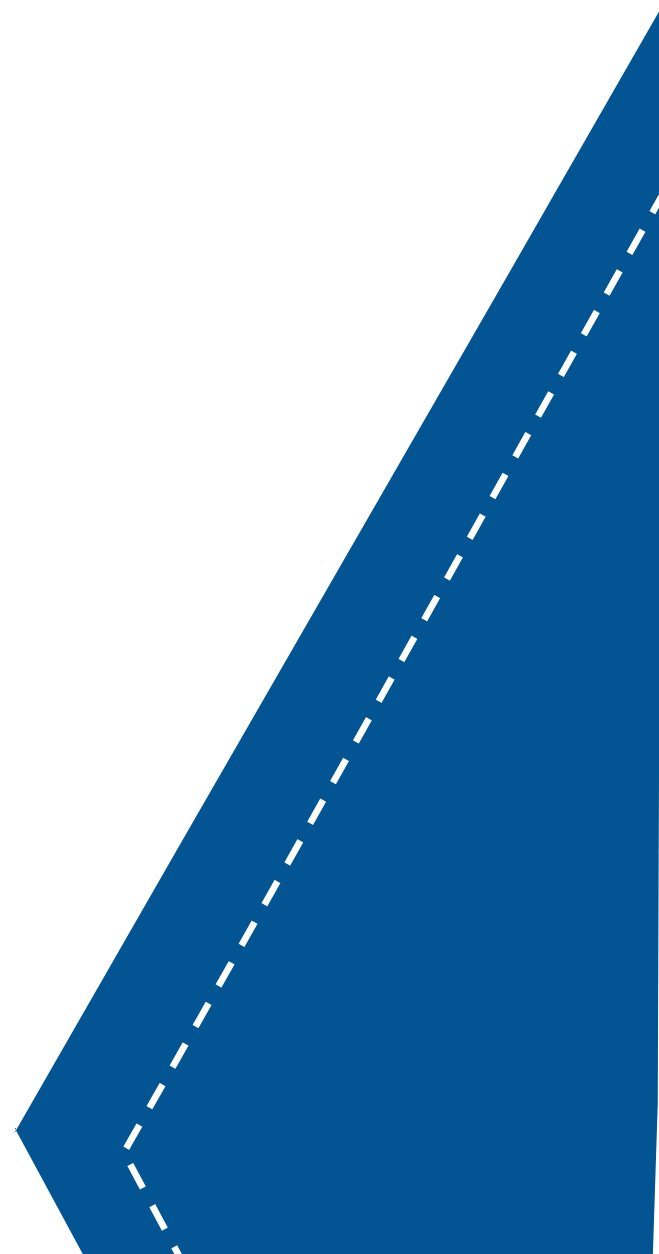


GDOT's National Electric Vehicle Infrastructure Deployment Plan

December 5, 2022





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



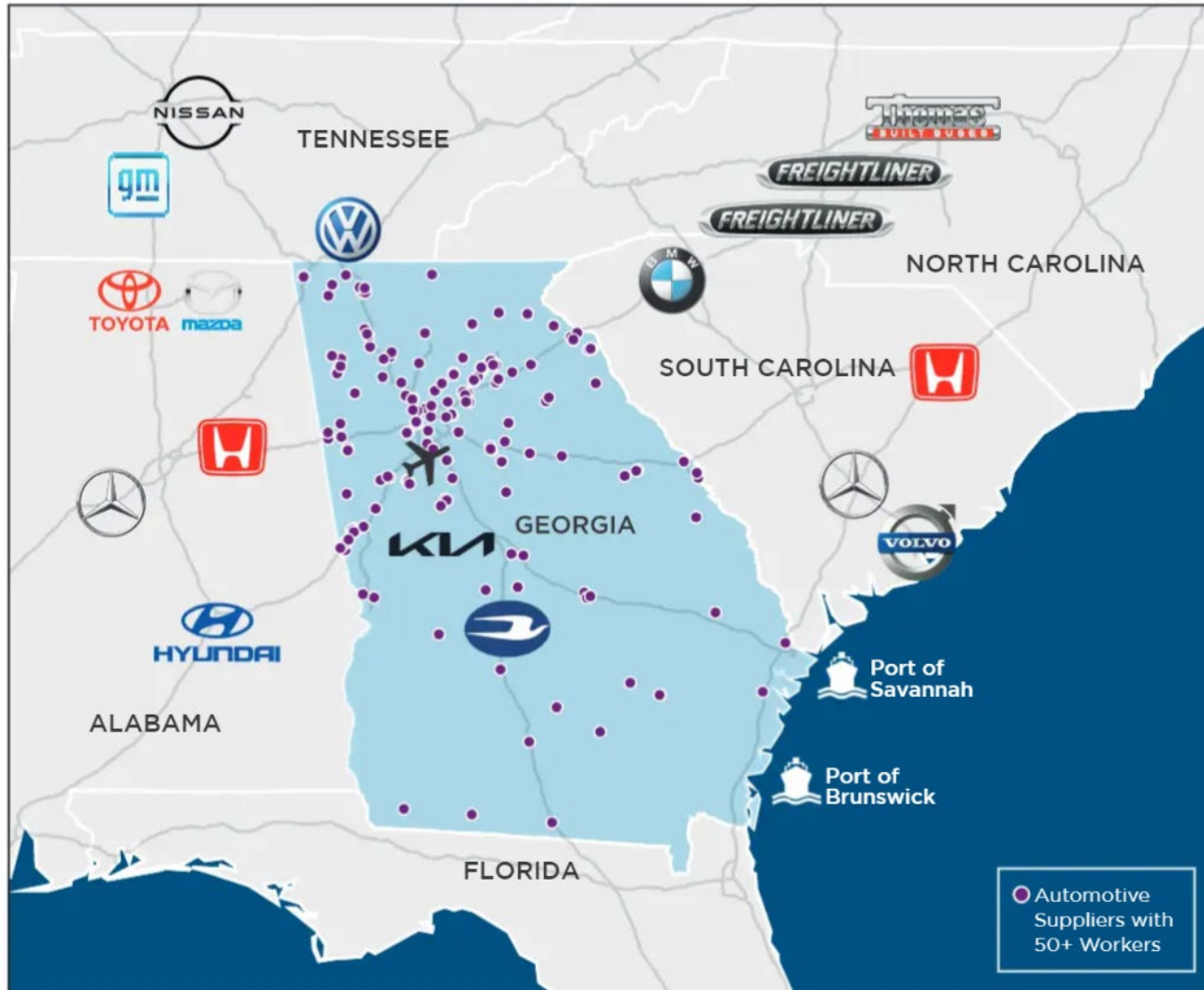
#1 IN EV

Auto registrations in the Southeast US

5 Committees, incl. 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.

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



Recent EV Developments in Georgia (2018-2022)

- ✓ 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

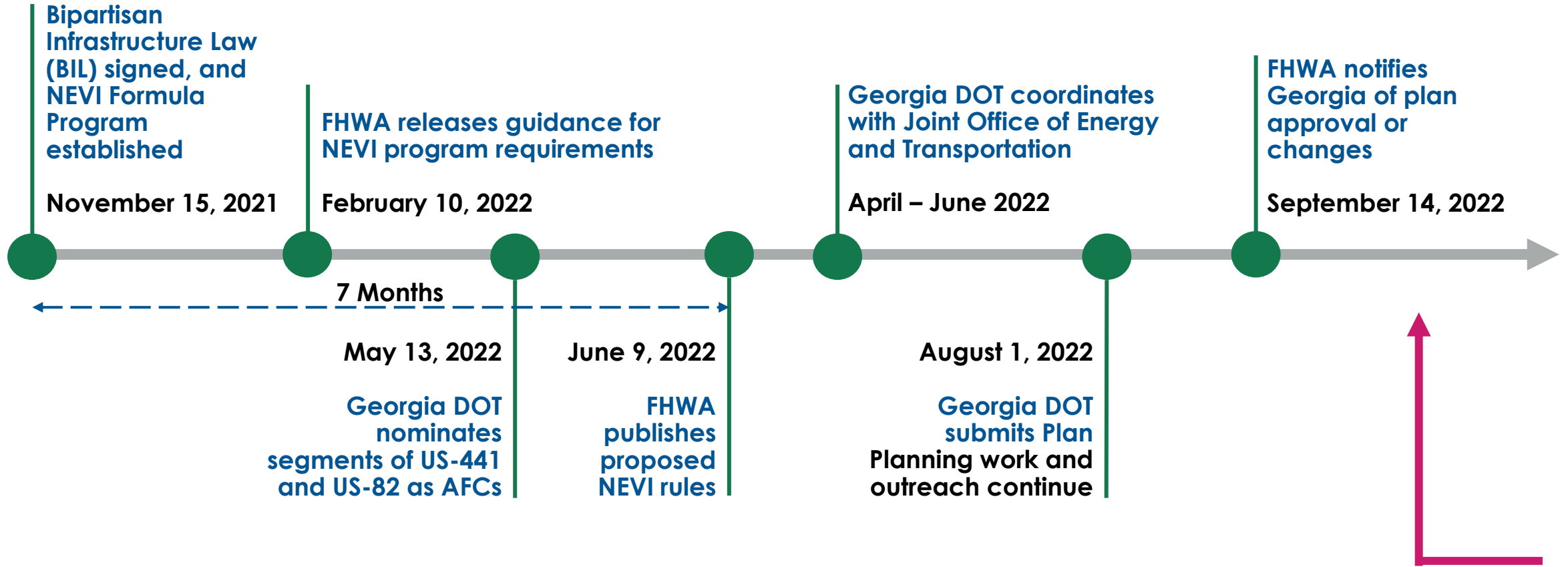
National Electric Vehicle Infrastructure



Joint Office of
**Energy and
Transportation**

- NEVI timeline
- Overview of the NEVI program
- Vision and goals
- Stakeholder engagement
- Developing first deployments on Alternative Fuel Corridors
- Next Steps

NEVI timeline



We are here



USDOT & USDOE National Electric Vehicle Infrastructure (NEVI) Program

Purpose of the Program

- 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
- Reduce transportation-related greenhouse gas emissions and help put the U.S. on a path to net-zero emissions by no later than 2050
- Position U.S. industries to lead global transportation electrification efforts

NEVI Program Overview



Funding

- Total nationwide NEVI funding is \$5B over thru 2026
- \$135M* apportioned to Georgia, max of 80% federal share



NEVI Plan

- Compliant with federal requirements from FHWA/Joint Office of Energy and Transportation (JPO)
- Key elements of the plan include considerations for:
 - Stakeholder engagement
 - Equity / Justice40
 - Workforce development
 - Infrastructure deployment

NEVI Program Overview (continued)



Program requirements

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



Evolving Guidance

- Original guidance provided in February 2022
- Notice of Proposed Rule Making / Q&A released in June
- Additional ADA guidance provided in August
- Final rulemaking TBD (e.g., Buy America, cybersecurity, data)

GDOT's NEVI 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



Compliance with federal requirements:

Sites will be developed in accordance with federal rules and requirements and result in 100% of Georgia's Interstates and AFCs being fully built out to NEVI Formula program standards.



Customer-driven deployment:

Convenient and sufficient charging investment where EV drivers prefer to charge, regardless of whether private sector investment can fully fund.



Economic development:

Sites should be placed so that they optimize the economic development opportunity from electric vehicles.



Private sector ownership and operation (including non-profits):

Sites will be delivered and operated by non-state entities.



Sustainability and reliability of operations:

Sites will be developed to ensure that charging achieves high operational performance.

Customer Driven Deployment: EV Trip Types

Trip

Description

Typical charger type

Federal Eligibility for New EV Program

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



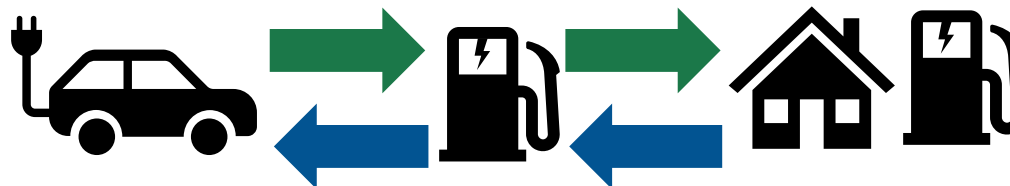
Level 2 Chargers



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)



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

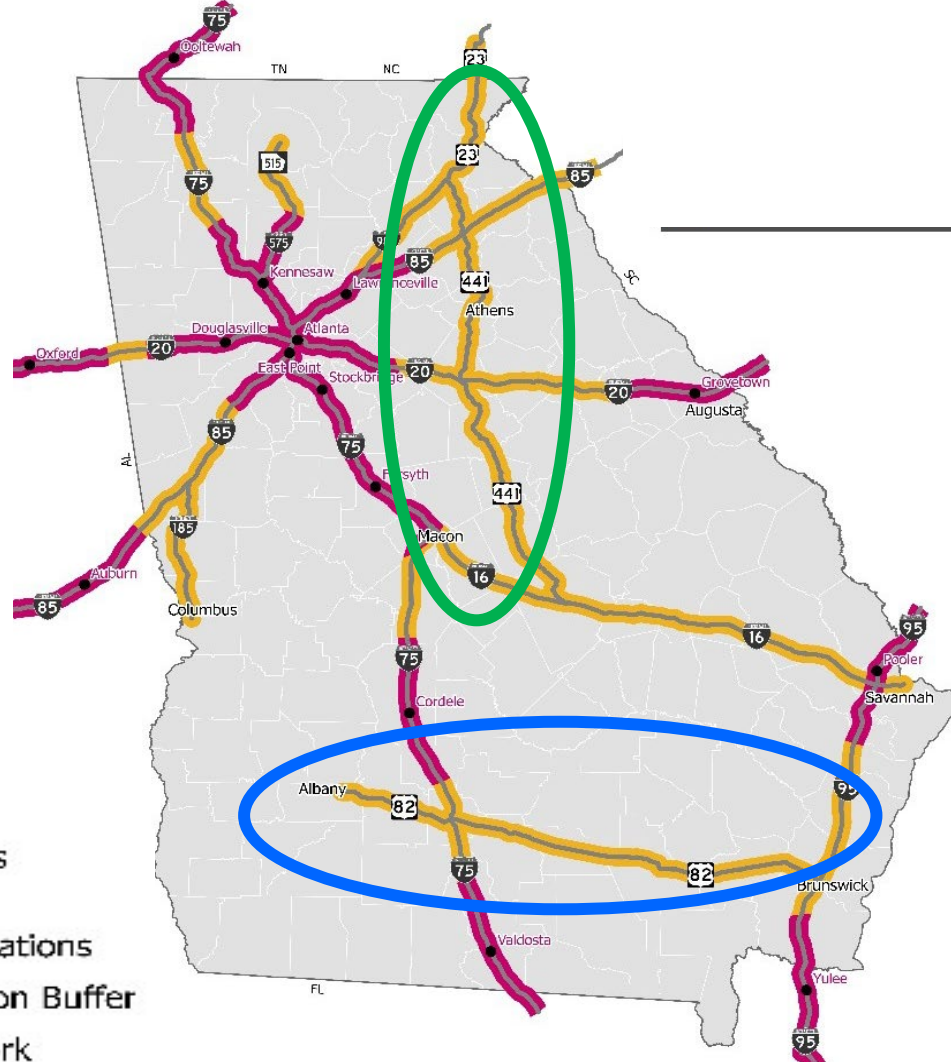
Based on proximity and density of tourist destinations

EV Adoption

% of areas with EV market share

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**

Alternative Fuel Corridors (Rounds 1-6)

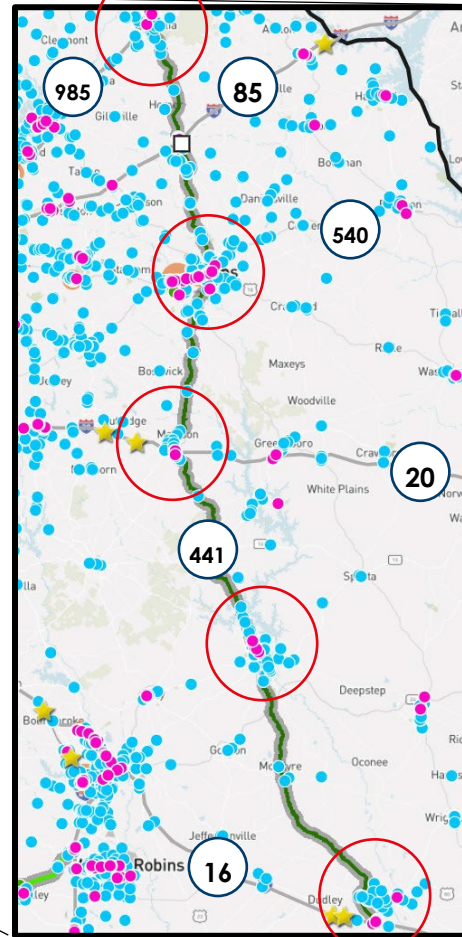
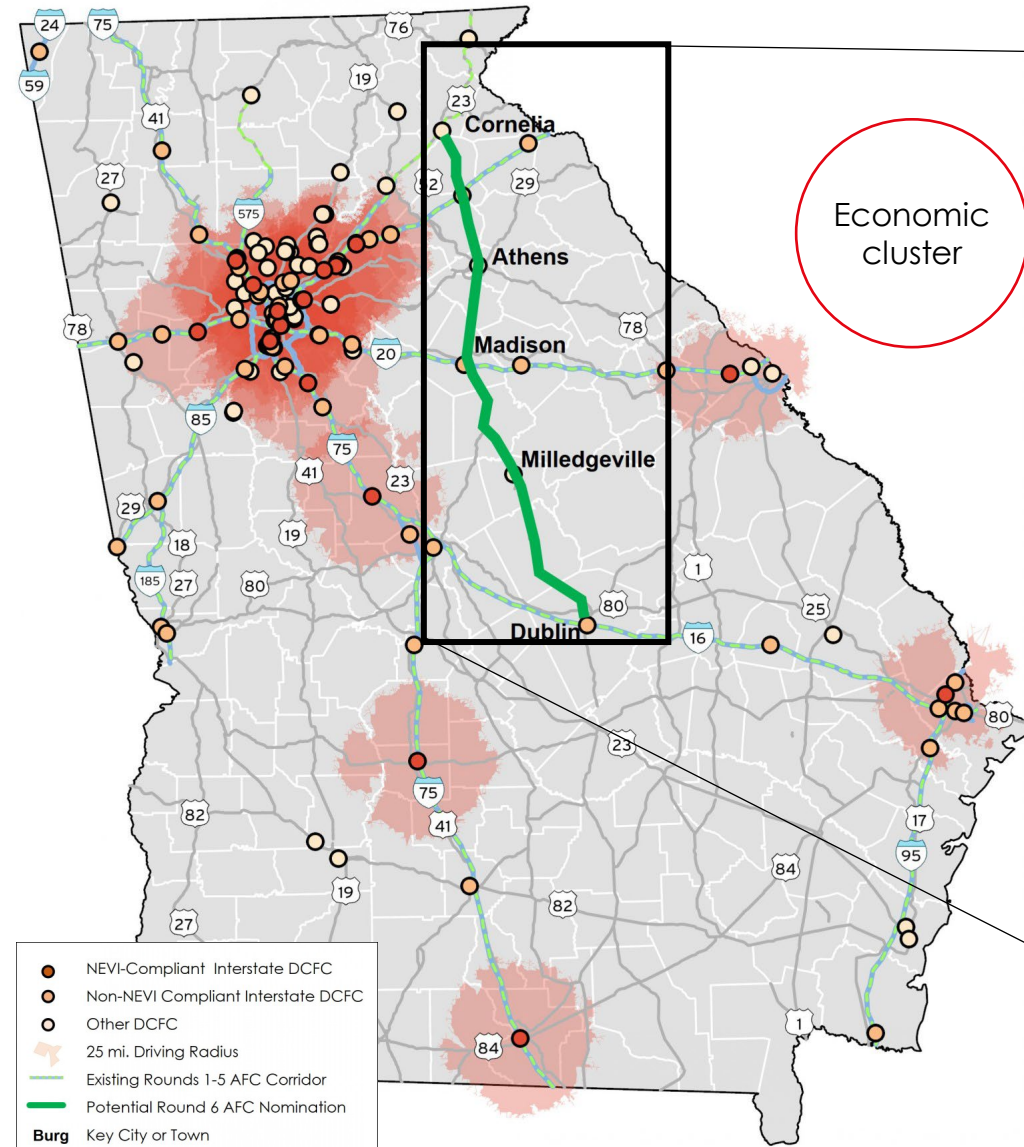
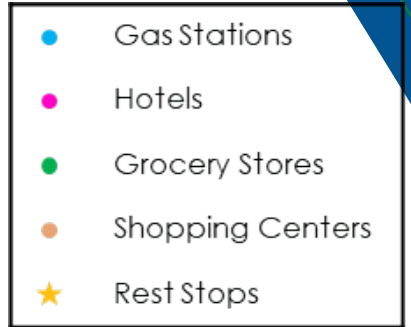
● NEVI-Compliant DCFC Stations

25 Mile NEVI DCFC Station Buffer

Gaps in NEVI AFC Network

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

Real Estate Cluster Analysis



Corridor Benefits

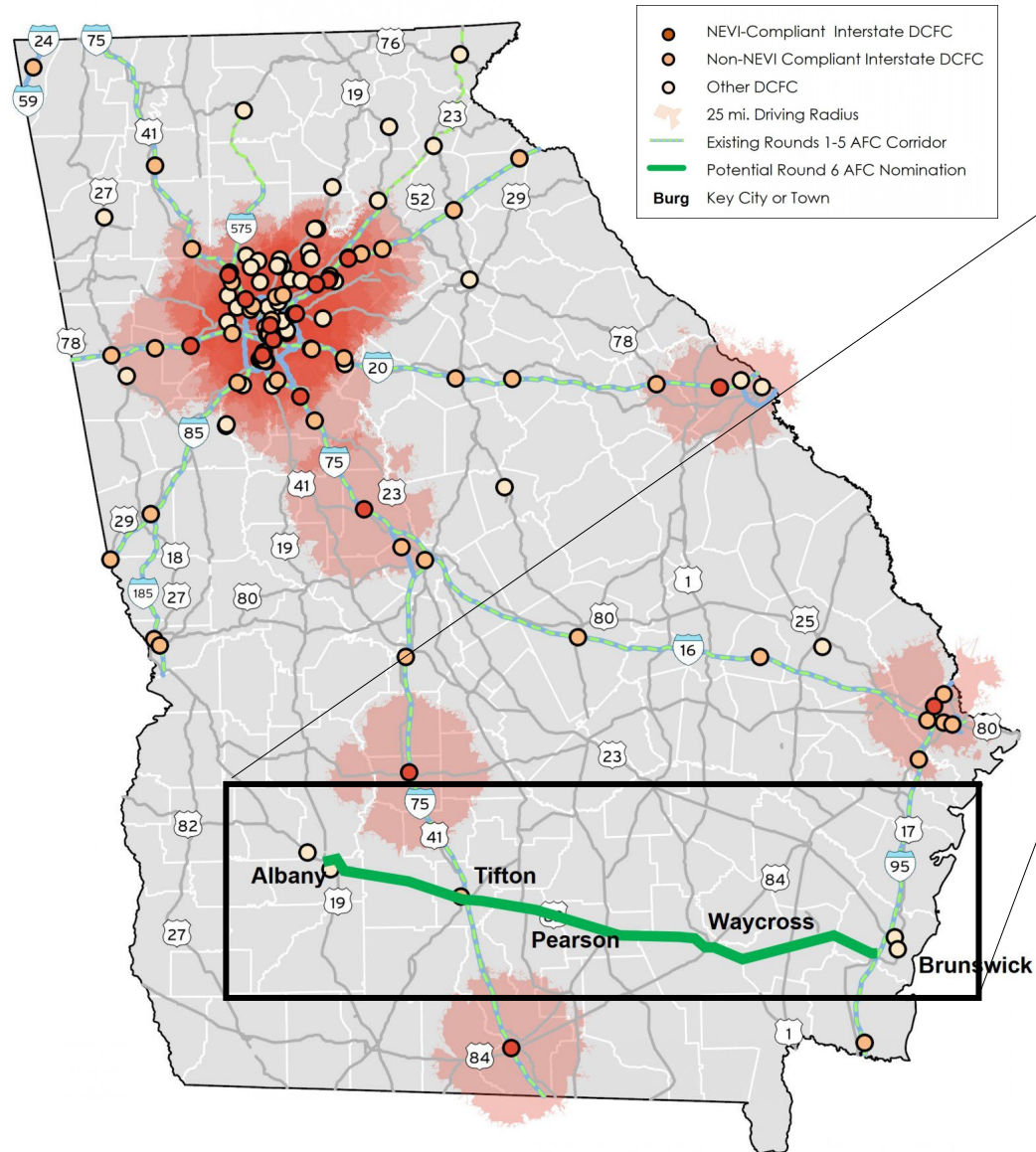
- Strong site host potential with 5 major economic clusters
- Close to Rivian and SK Innovation; major tourism sites along the route
- Relatively high EV share of new vehicle sales in many counties

Corridor Characteristics

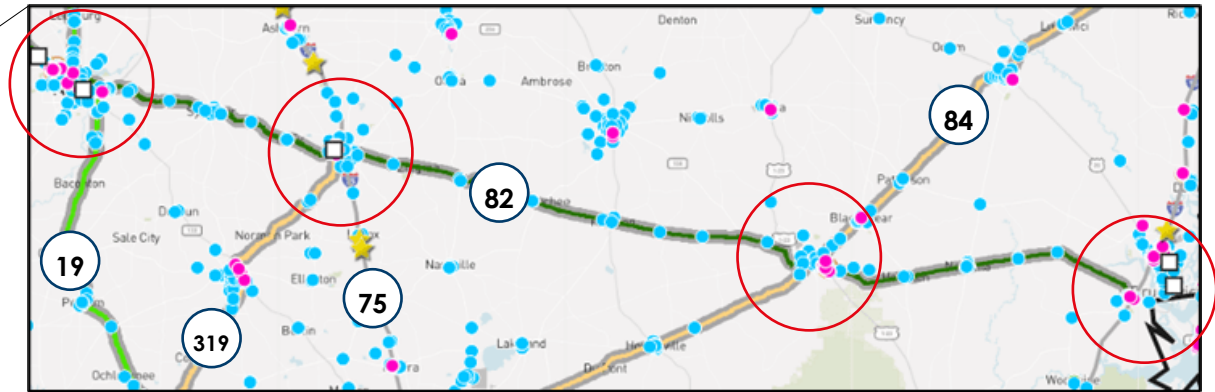
- Length = 165 miles
- Estimate 5 stations, 3 could overlap other AFCs (US-23, I-20, I-16)

*Designated by FHWA

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



Real Estate Cluster Analysis

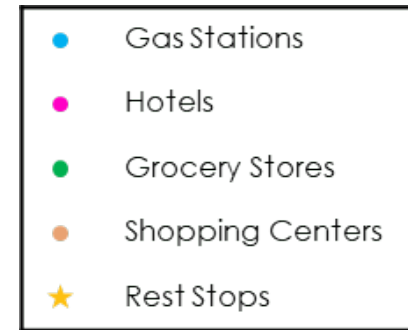


Corridor Benefits

- GEMA Evacuation Route
- Serves southeast Georgia

Corridor Characteristics

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



*Designated by FHWA

Next Steps

- ❑ Approval of GDOT's NEVI Plan by Federal government (September 14, 2022)
- ❑ Monitor outcomes of the work of the General Assembly's 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
- ❑ 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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<https://www.dot.ga.gov/NEVI>