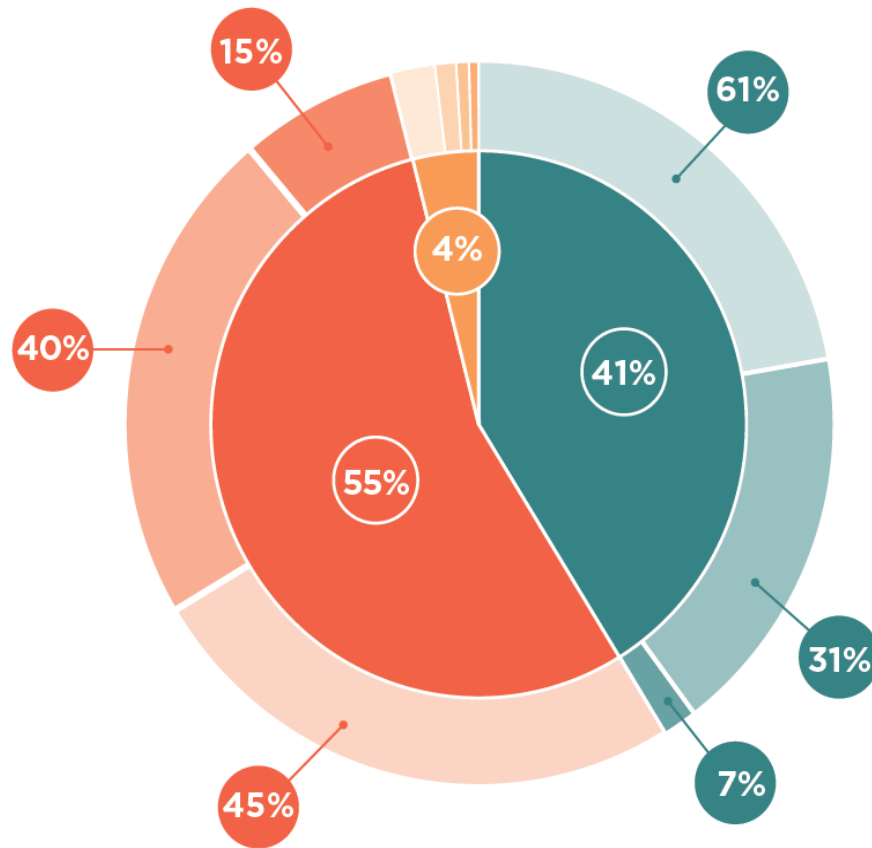




Miami-Dade County CITT Municipal Workshop

October 5, 2023

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Director, Resilience Planning and Implementation



Communitywide Sources of Emissions

■ Buildings and Energy **41%**

- Electricity **61%**
- Other Fuels **31%**
- Natural Gas **7%**

■ Transportation and Land Use **55%**

- Air Travel **45%**
- Ground - Gasoline **40%**
- Ground - Diesel **15%**

■ Water and Waste **4%**

- Landfilled Waste **53%**
- Wastewater Energy **25%**
- Incinerated Waste **12%**
- Other **10%**



Climate Action Strategy

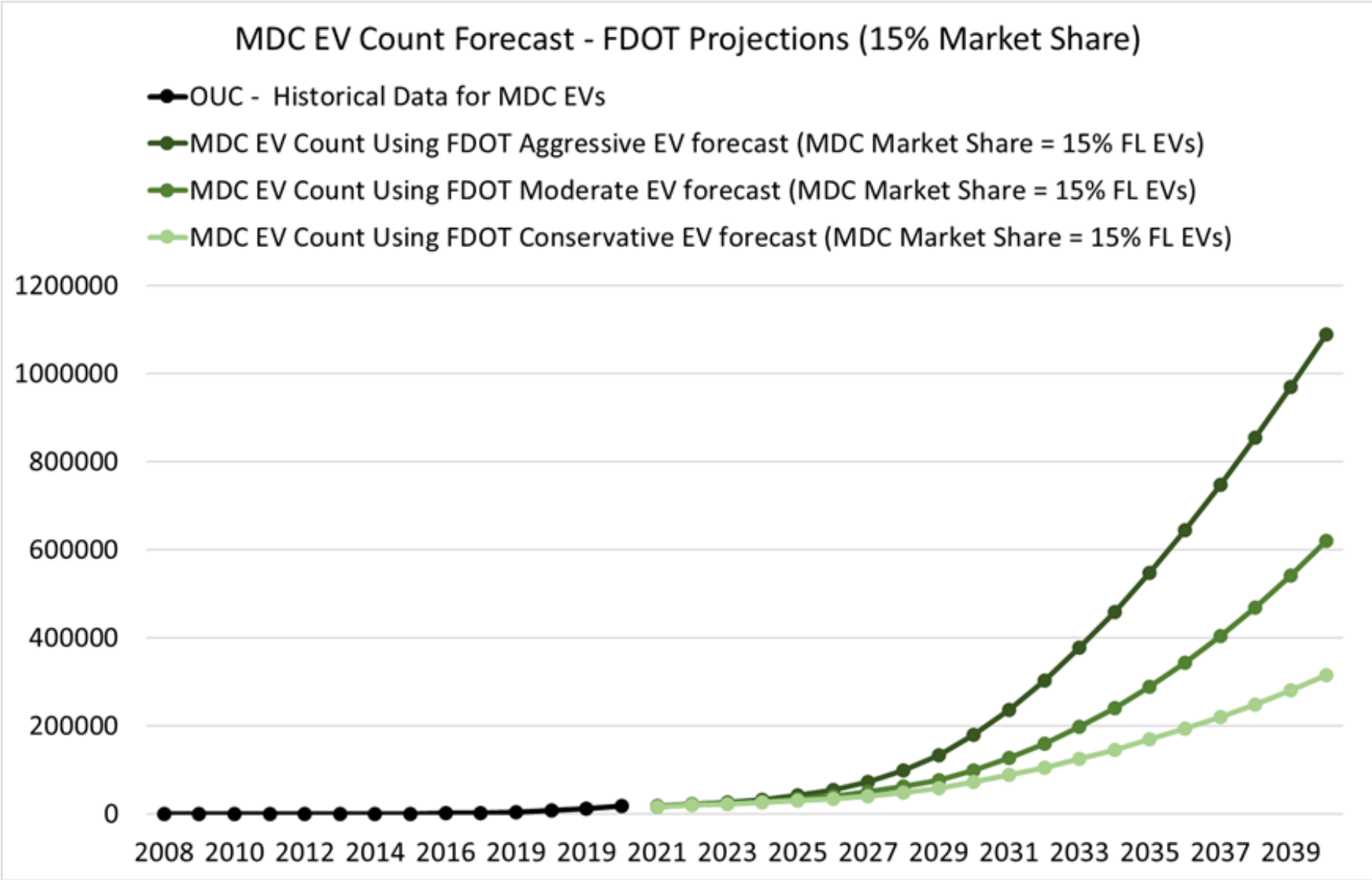


The County has committed to the international Race to Zero goal of reducing GHG emissions 50% by 2030 compared to 2019 levels with the goal of reaching net zero emissions by 2050. The County's Climate Action Strategy outlines the steps the County will take to achieve the 2030 reductions including:

- 1) Shifting 10% of the transportation mode share away from Single Occupancy Vehicles
- 2) Reducing GHG emissions from MIA by 50% and PortMiami by 25%
- 3) Transitioning 30% of communitywide vehicles to electric
- 4) Transitioning the County fleet to electric – 80% of light vehicles and 50% of buses



Electric Vehicle Projections



Fleet Conversion

- Beginning in 2021, at least 10% of each Department's annual light fleet purchases should be battery electric and increase by an additional 10% each year or more thereafter with the goal of converting our entire light fleet by 2030.
- Fleet Chargers will be installed on 66 County sites over the next five years to support the conversion.
- MDC has 53 electric buses with 122 authorized for purchase through 2024 – 10% of County's bus fleet will be electric.
- MDC was ranked as the fourth greenest fleet in North America at the Green Fleets Conference in Raleigh.



Federal Guidance and Funding

- **Corridor Charging Discretionary Grant Program.** This \$1.25B program will strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure along designated Alternative Fuel Corridors.
- **Community Charging Discretionary Grant Program.** This \$1.25B program will strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure in communities.
- **EV Charger Reliability and Accessibility Accelerator.** NOFO was published on Sept. 13, 2023, offering up to \$100 million to repair or replace broken or non-operational EV chargers.
- **Justice40 Initiative.** All programs include a Justice40 goal that 40% of the overall benefits of Federal investments flow to disadvantaged communities.

CPRG Overview

- The Climate Pollution Reduction Grant is a two-staged program funded through the IRA and administered by EPA. It includes \$250 million for noncompetitive planning grants, and \$4.6 billion for competitive implementation grants.
- Our four-county region received a ±\$1 million planning grant over a four-year period. The grant does not require matching funds.
- The State of Florida is one of only four states that declined the \$3 million in planning grant funding made available.
- Miami-Dade County is serving as the lead organization for grant administration.
- The PCAP, due on March 1, 2024, will include a focused list of near-term, high-priority, implementation ready measures to reduce GHG pollution. Projects identified in the PCAP will be eligible to compete for implementation funding.

Policy and Regulations

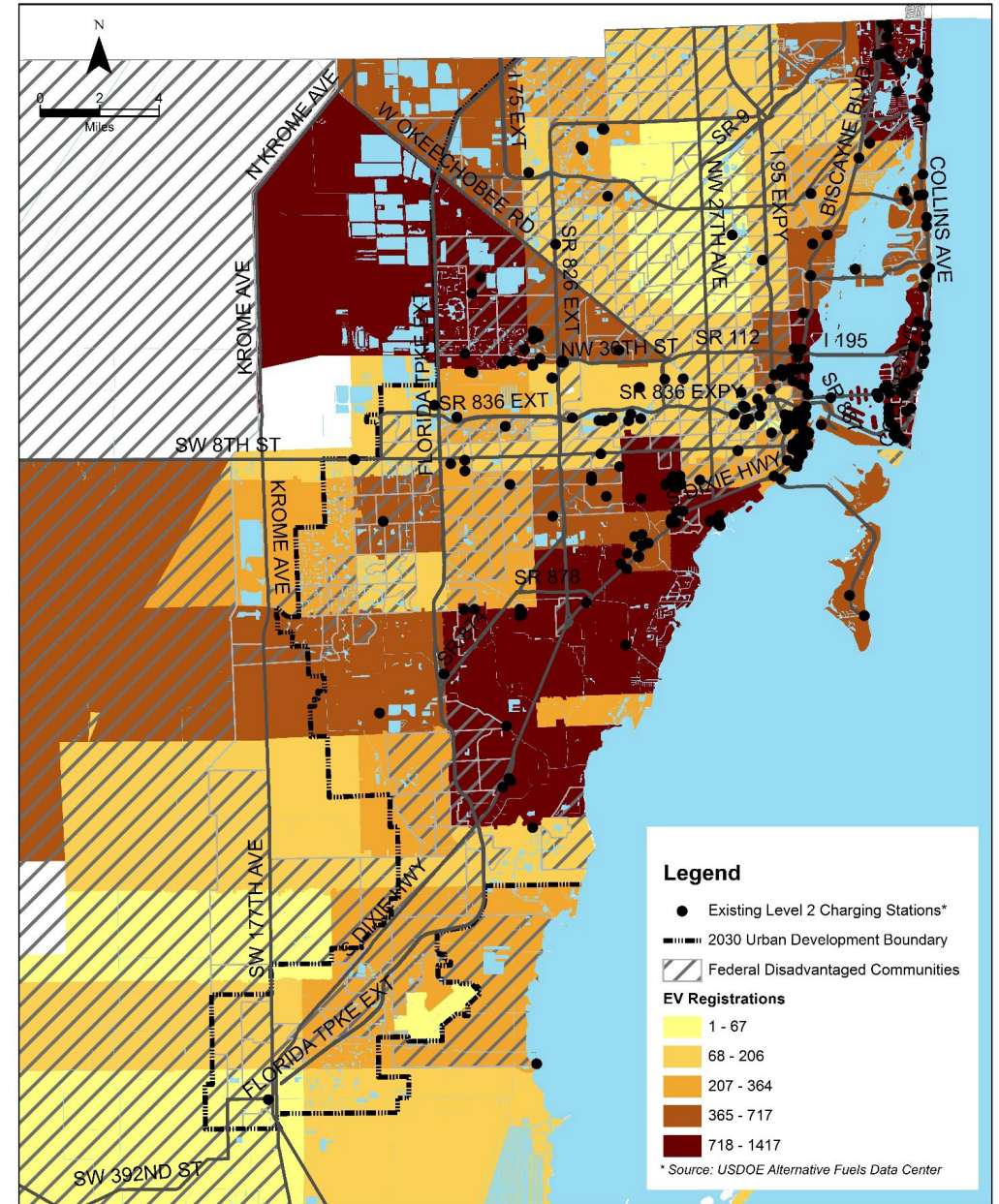
- **Zoning Code:** Projects (other than SFR and Duplex) with 10 or more required off-street parking spaces must provide at least 20% of the required spaces as “EV-Ready” with full circuitry installed and ready for a minimum Level 2 charger to be connected.
- **Building Code:** MDC proposed two amendments to the 2024 edition of the Florida Building Code aimed at facilitating the transition to electric vehicles. These amendments were adopted as appendices. Local governments throughout the State can adopt these through their local boards to allow for implementation within their jurisdictional boundaries.
 - 1) For one- and two-family dwellings and townhouses with garages, the amendment requires the electrical panel capacity and service capacity to be sufficient to accommodate EV charging equipment
 - 2) For new commercial construction, the amendment requires EV Capable parking spaces (requires electrical panel capacity and installation of raceways) and EV Ready parking spaces (requires extension of branch circuitry to parking space).
- **Sustainable Buildings Ordinance:** County Projects must install EVSE on 2% of all parking spaces used by the project.

CFI - Community Charging Grant Application

Community Charging Application



- Based on the FDOT moderate EV adoption forecast, there are projected to be 99,540 PEVs registered in Miami-Dade County by 2030 and 620,010 PEVs by 2040.
- Utilizing the EVI Pro-Lite Tool, it is estimated that the County will need 3,902 Level 2 charging plugs to support 2030 EV projections.
- There are currently approximately 1,125 public Level 2 chargers in Miami-Dade County, well below the 3,902 needed to support 2030 EV projections.



Community Charging Application



- The application would add 390 Level 2 charging ports at community facilities throughout Miami-Dade County.
- Included partnerships with Miami Dade College for installation at 8 campuses and Miami Gardens for the installation of the first chargers.
- All facilities are owned or leased by the Miami-Dade County or grant partners
- Includes 112 Level 2 charging plugs at 14 transit hubs throughout the County with 8 ports (4 locations) dedicated for car share services.
- Includes 4 solar charging units with battery storage that will be located at MDFR Station 1.

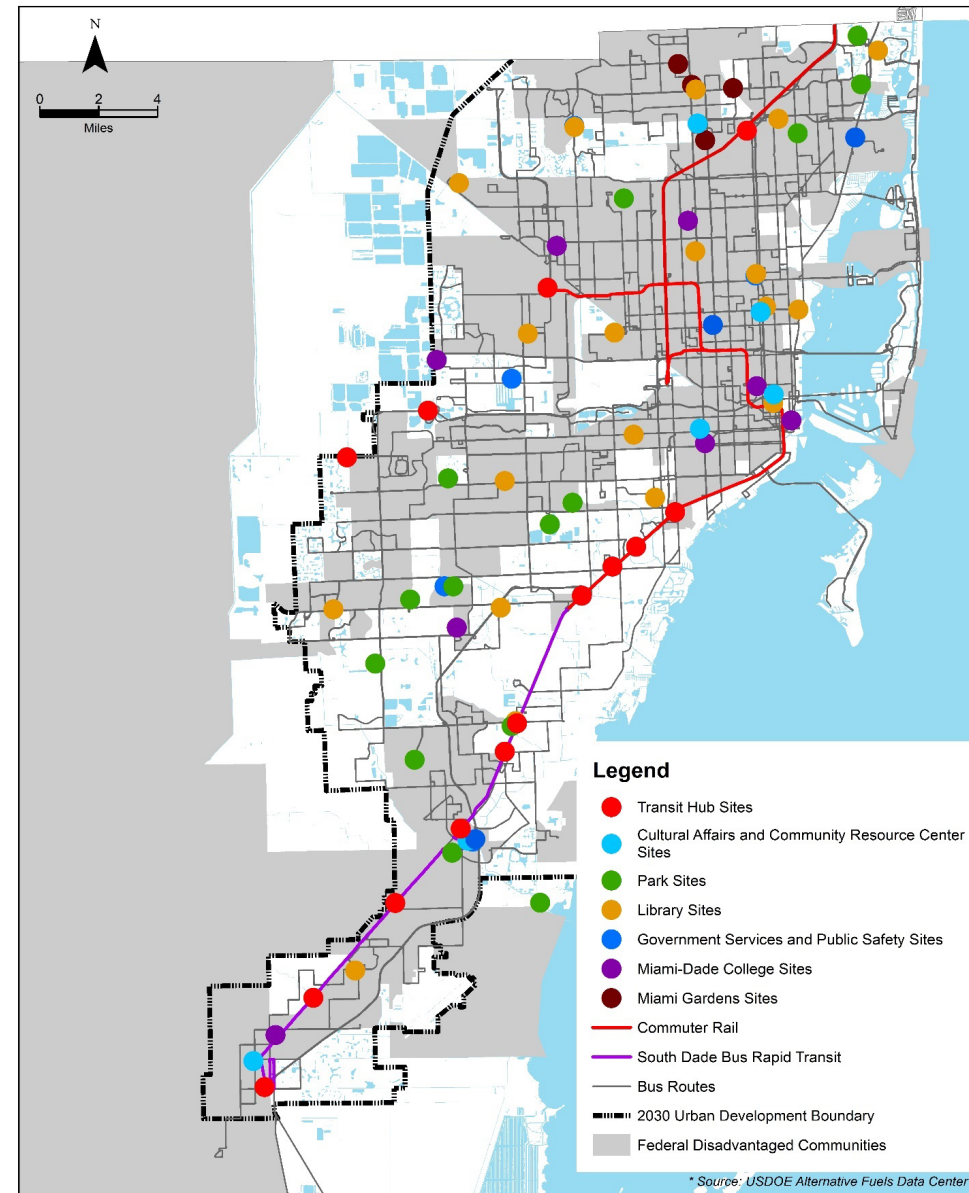
# EVSE Sites	Facility Type	General Description*
14	Transit Hubs	These facilities connect the community with transit services for our extensive bus system and our heavy rail rapid transit system known as "Metrorail." Four of these locations also include dedicated ports for carshare vehicles.
19	Public Libraries	The Miami-Dade County Public Library System (MDCPLS) seeks to ensure that opportunities for literacy, learning, and personal growth are available to all. The MDCPLS serves 6,762,294 visitors per year. These facilities also serve as spaces for community engagement and several locations provide assistance with social services.
3	Cultural Facilities	These performing arts facilities offer cultural experiences.
3	Community Resource Centers	Miami-Dade County Community Resource Centers offer a variety of social services to economically disadvantaged individuals and families interested in achieving self-sufficiency.
14	County Parks	Parks vary in size from neighborhood to regional parks and offer passive and active recreational activities.
3	Government Service Hubs	These Government Service Hubs include several services on a central campus, including libraries, government offices, performing arts facilities, and more.
5	Public Safety Buildings	These include Miami-Dade County Police Department and Miami-Dade County Fire Rescue facilities. These facilities are staffed 24/7 offering enhanced security for EVSE users.
8	College Campuses	These Miami Dade College campuses support academic enrichment for commuting students. MDC enrolls more Hispanic undergraduate students than any other college or university in the United States and also has the third largest Black non-Hispanic undergraduate enrollment.
4	Miami Gardens Facilities	This will introduce the first electric vehicle chargers within the City of Miami Gardens, the most predominant African American municipality in the County. The City has a population of approximately 110,000 residents, with 70.8% African American and 26.2% Hispanic.

Community Charging Application



Proposed to include two outreach efforts:

- **Disadvantaged Communities.** The County intends to contract with one or more community-based organizations (CBO) to develop and facilitate a public engagement process, focusing on disadvantaged areas.
- **Multi-family Property Owners.** Miami-Dade County will partner with a non-profit to host one or more webinars geared toward multi-family property owners to educate them on the benefits and process of installing EV infrastructure onsite, options for car share programs, permitting considerations, and available rebates/incentives.

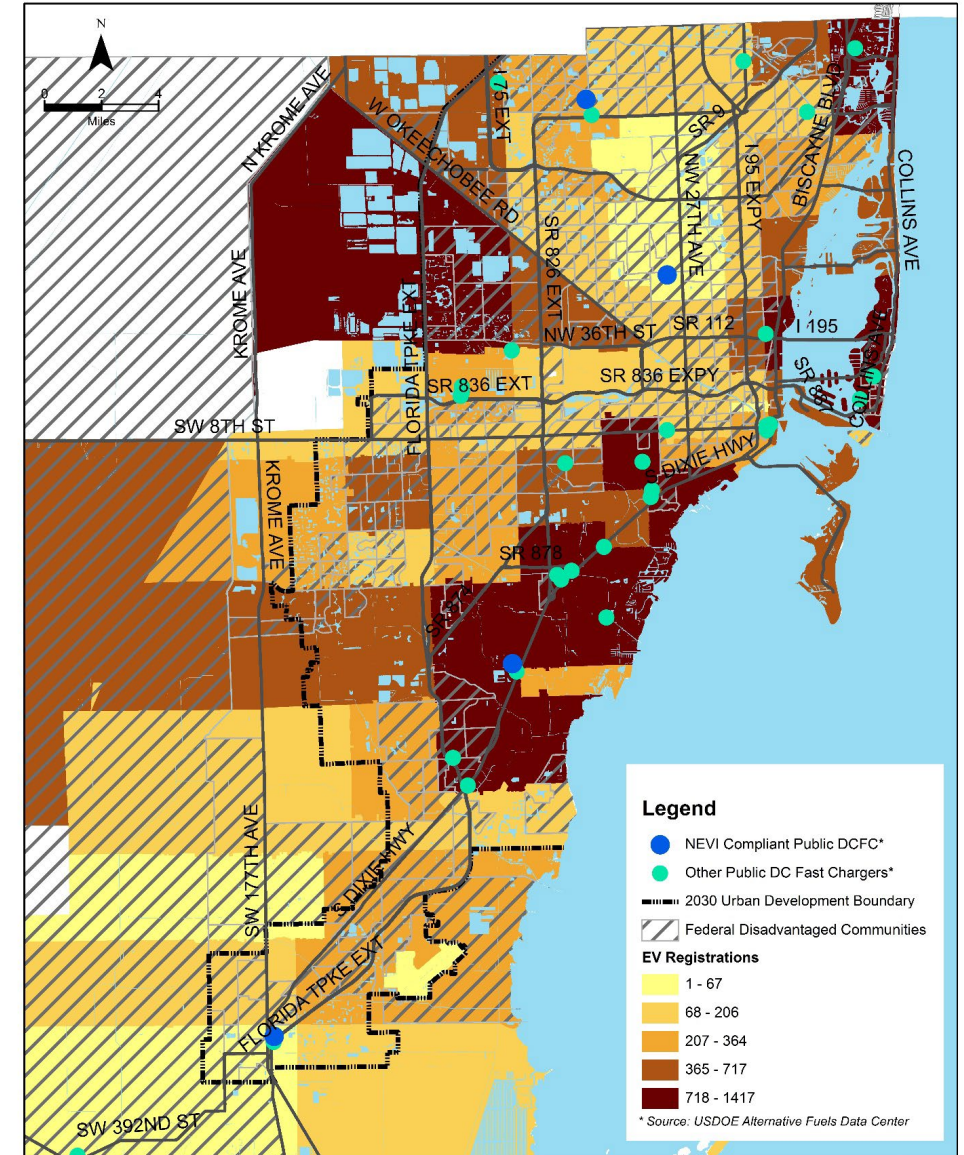


CFI - Corridor Charging Grant Application

Corridor Charging Application



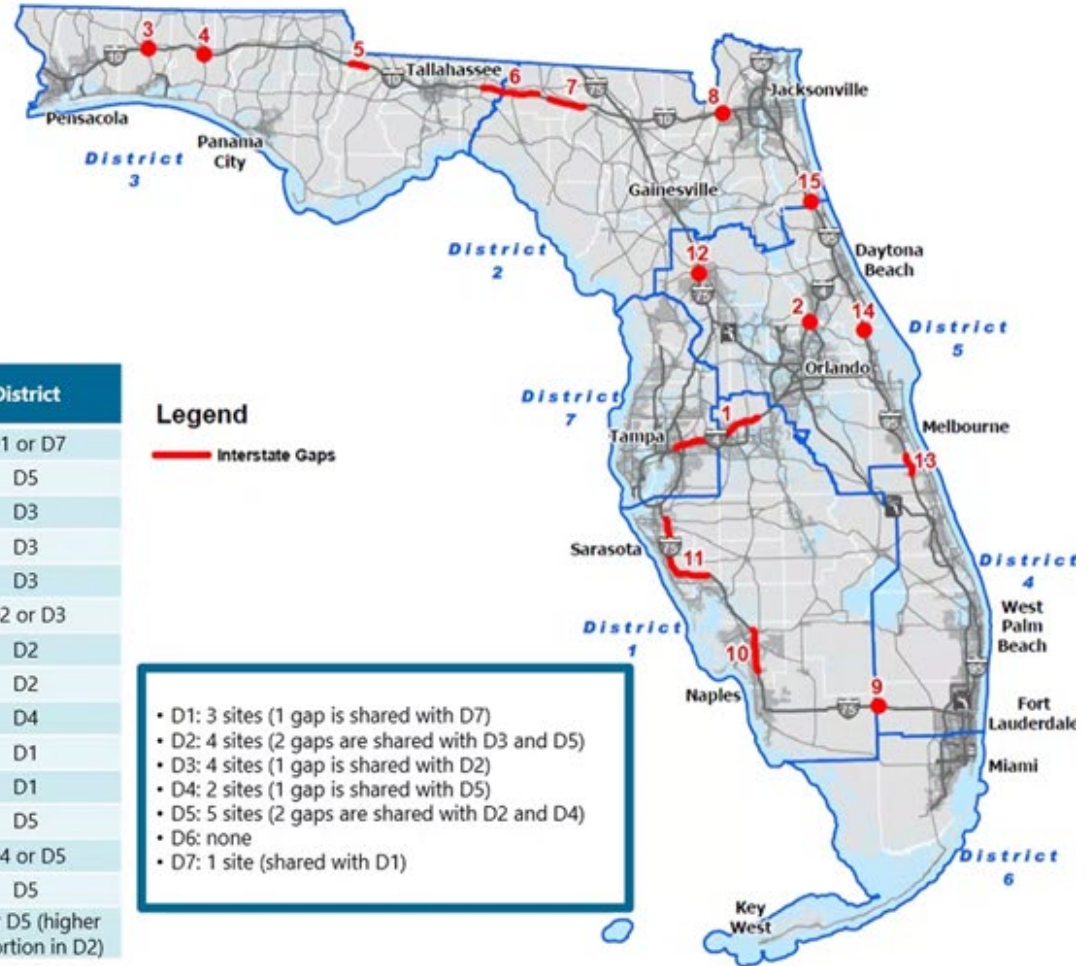
- Based on FDOT's moderate EV adoption forecast, there are projected to be 99,540 PEVs registered in Miami-Dade County by 2030 and 620,010 PEVs by 2040.
- Utilizing the EVI Pro-Lite Tool, it is estimated that the County will need 265 DC Fast Charging (DCFC) plugs to support 2030 EV projections.
- There are currently ± 204 DC Fast Chargers in Miami-Dade County spread across 36 locations, however, many utilize proprietary hardware or software systems that are not broadly accessible to all vehicles.
- Only 18 chargers spread across four locations are compliant with the National Electric Vehicle Infrastructure program standards. Only two of those locations are along Alternative Fuel Corridors.



State of Florida Deployment Plan

Phase 1 – Fill Major Interstates Gaps

Gap	Corridor	Start – Mile Post	End – Mile Post	Number of Sites Required	District
Segment 1	Interstate 4 (SR 400)	5	48	1	D1 or D7
Location 2	Interstate 4 (SR 400)	104	104	1	D5
Location 3	Interstate 10 (SR 8)	56	56	1	D3
Location 4	Interstate 10 (SR 8)	85	85	1	D3
Segment 5	Interstate 10 (SR 8)	158	166	1	D3
Segment 6	Interstate 10 (SR 8)	225	251	1	D2 or D3
Segment 7	Interstate 10 (SR 8)	258	275	1	D2
Location 8	Interstate 10 (SR 8)	343	343	1	D2
Location 9	Interstate 75 (SR 93)	49	49	1	D4
Segment 10	Interstate 75 (SR 93)	123	143	1	D1
Segment 11	Interstate 75 (SR 93)	179	220	1	D1
Location 12	Interstate 75 (SR 93)	352	352	1	D5
Segment 13	Interstate 95 (SR 9)	156	166	1	D4 or D5
Location 14	Interstate 95 (SR 9)	231	231	1	D5
Location 15	Interstate 95 (SR 9)	298	298	1	D2 or D5 (higher proportion in D2)



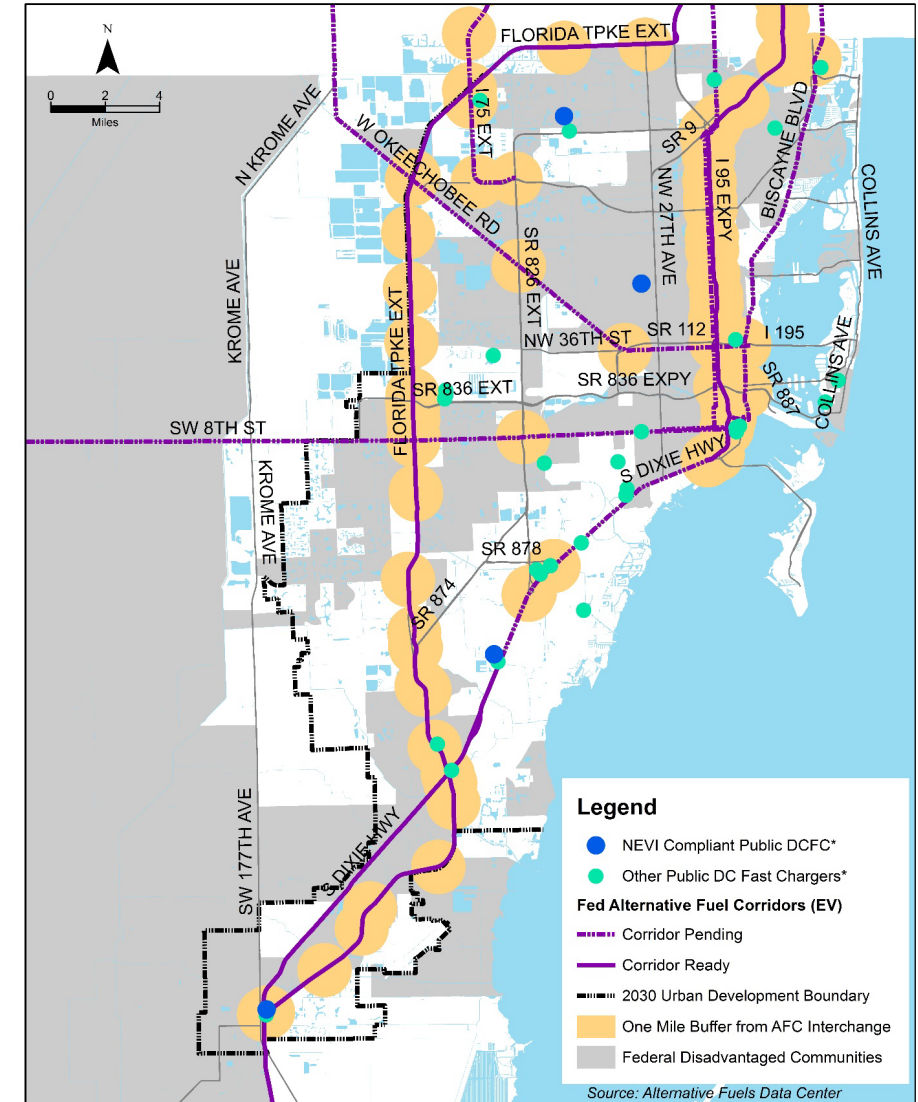
Corridor Charging Application



The application supports deployment of \pm 100 DCFC plugs on 10 to 15 private commercial properties within one mile of AFC interchanges by awarding funding to third-party entities.

Sites that meet the following criteria will be prioritized for funding:

1. Locations within one mile of an interchange located at the intersection of two roadways with traffic volumes that exceed 100,000 AADT; or
2. Locations within one mile of an interchange located at the intersection of two roadways that are designated as Primary Evacuation Routes by the State of Florida; and
3. Locations within a Disadvantaged Community; and
4. Locations that address a “gap” in DC Fast Charging infrastructure which includes locations along AFCs that do not contain a minimum of 10 DCFC ports for every 100,000 AADT within 20 miles of the proposed site along the AFC; and
5. Locations that include amenities such as restrooms and food facilities.



Thank you!

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