TRANSPORTATION ELECTRIFICATION EFFORTS IN FLORIDA

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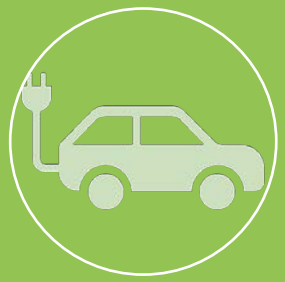
GLOBAL EV MARKET TRENDS



500 Light Duty EV Models Available Globally by 2022

Lithium Battery Prices dropped 87% since 2010 with current average price of $156/ kWh

Environmental and sustainability objectives are driving EV policy support at all governance levels

PRIVATE SECTOR ACTIONS

	"Born electric" OEMs are projected to capture an increasing share of the market.
	Tesla, Lordstown Motors, Rivian, et al. Newly Proposed Rivian Adventure Network
	Legacy automakers, are beginning to prepare for the shift to electric transportation through a variety of commitments and market actions.
	GM and VW – fully electric by 2035. Volvo – fully electric by 2030. Ford is investing billions in EVs.
	Increased investment in medium and heavy duty electric fleets
	New "Electric Island" in Portland - Daimler Trucks North America (DTNA) and Portland General Electric (PGE) Amazon, FedEx, Walmart fleet Commitments

CURRENT AND PROJECTED FEDERAL ACTIONS

American Rescue Plan, or "COVID Stimulus" - $17 Billion for Florida and Local Governments

EV Charging Infrastructure tax credit extension

Pending Congressional action on Infrastructure Bill and Surface Transportation Reauthorization later in 2021

Corporate Avg Fuel Economy (CAFE) Standards 2.0

STATE ACTIONS

SB7018 – ELECTRIC VEHICLE MASTERPLAN

- Requires FL agencies collaborate to coordinate, develop, and recommend a Master Plan for the development of electric vehicle charging station infrastructure along the State Highway System
- This approach leverages the expertise and strengths of each agency to harmonize Florida's statewide efforts and create a flexible and strategic planning process
- Interim Report submitted on December 1, 2020
- Final Report is due on July 1, 2021

EV MASTERPLAN AREAS OF FOCUS

Develop Goals and Targets	Promote EVSE deployment	Private EV adoption
Public EV/fleet adoption	Guidance and Best Practices to local jurisdictions and state agencies	Mitigate Revenue Impacts
Develop Outreach, Education and Marketing Strategy	Coordinate Electrification Efforts	Establish State and local agency roles
Reexamine Utility rates and roles	Identify funding options	Prioritize plan for deploying EVSE

FLORIDA DEPARTMENT OF TRANSPORTATION

- Autonomous, Connected, Electric and Shared (ACES) Transportation Roadmap Initiative
  - Defines the role of public agencies, private sector, and academic universities in the Florida ACES Transportation Roadmap Initiative
  - Through collaboration, proactive communication, sharing of data, development of standards, hardware, software, and lessons learned, goal is to ensure Florida will remain at the forefront of ACES development and compete with other states in the U.S. for prominence in these areas
- Lead agency for developing the EV Infrastructure Masterplan

OFFICE OF ENERGY EV ROADMAP

- Began as a forward-thinking exercise in 2019 to examine the impacts of emerging transportation technologies and its nexus with Florida's energy policies
- Convened electric transportation stakeholders to examine policy options and market trends in Florida, in conjunction with Central Florida Clean Cities
  - Impact of EV charging on the grid
  - Identify gaps in EV infrastructure deployment
  - Best practices for siting EVSE
  - Identify technical or regulatory barriers to the expansion of EVSE
- Final Report published on December 31, 2020.

FLORIDA PSC AND UTILITY EFFORTS

- **Current market trends are "driving" convergence of the transportation and energy sectors**
  - Will need to establish a regulatory paradigm to reflect that
- **PSC examined the role of Florida's public utilities in several utility filings in 2020 and 2021**
  - TECO – CIAC Waiver for DC Fast Charging, pending docket for EVSE deployment pilot
  - FPL – EVolution Pilot, approved rate pilot in 2020
  - Duke Energy Florida – Park and Plug Pilot, pending docket for EVSE deployment; residential rates
- **Other Activities via FEECA**
    - Tampa Electric – Distributed Energy Resource Management System pilot, including fleet charging
    - Florida Power and Light – exploring residential EV managed charging, battery storage, vehicle-to-grid applications

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

- **Diesel Emissions Reductions Act**
  - Grant funds to improve the air quality associated with transportation emissions and particulate matter
- **Volkswagen Settlement**
  - Phase 1 of EVSE Grant program awarded 27 segments along the state highway system to facilitate evacuations
  - Phase 2 is geared towards several areas of the state not included in Phase 1, notably I-10
  - School bus electrification program, initial $57 million program

LOCAL GOVERNMENT EFFORTS

Southeast Florida Regional Climate Compact – published "Electric Vehicles and EV Infrastructure: An Introductory Guide" in June 2020

City of Orlando/OUC – EV Roadmap and largest EVSE deployment of any city in the Southeastern United States plus dealership incentive program and EVSE as a service offering

JEA – examining the utility role in transportation electrification efforts, including EVSE deployments

FLORIDA LIGHT DUTY EV GROWTH PROJECTIONS

Sierra Club/Bloomberg New Energy Finance Projections										
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EV Sales (% of New Vehicles sold)	1.79%	2.52%	3.75%	5.80%	7.29%	9.96%	13.11%	15.96%	19.33%	24.09%
EV Sales (Total new vehicle sales)	23,370	32,741	49,129	76,653	96,975	132,934	175,609	214,307	260,302	324,183
Total New Light Duty Vehicle Sales	1,303,380	1,297,719	1,309,747	1,321,837	1,330,975	1,334,273	1,339,502	1,342,778	1,346,621	1,345,717
Statewide Cumulative EVs	86,059	118,077	166,229	241,490	336,416	466,433	637,843	846,321	1,098,651	1,412,082

Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
EV Sales (% of New Vehicles sold)	27.96%	32.86%	38.07%	42.23%	47.58%	51.00%	54.42%	57.10%	58.88%	60.22%
EV Sales (Total new vehicle sales)	375,771	441,568	511,192	567,079	640,569	689,718	739,779	781,187	809,475	831,105
Total New Light Duty Vehicle Sales	1,343,961	1,343,785	1,342,767	1,342,835	1,346,299	1,352,388	1,359,389	1,368,103	1,374,787	1,380,114
Statewide Cumulative EVs	1,773,252	2,195,710	2,681,943	3,216,098	3,814,074	4,449,105	5,119,035	5,811,980	6,511,360	7,206,595

Source: FL PSC (Draft Plan) March 2021