**EV-Ready Ordinance Report** 

The City of Fort Lauderdale



Sustainability Division Report to the Fort Lauderdale City Commission Stefan Perritano | Sustainability Coordinator September 5, 2023



The City of Fort Lauderdale











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02	Long Te
03	How EV
04	EV-Rea
05	Staff Re

# Contents

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erm Trends in the EV Market

/-Ready Ordinances are Written

ady Ordinances in other Jurisdictions

ecommendation

CAM 23-0649 Exhibit 2 Page 2 of 17



# **Timeline of Progress**

Ordinance



- Authority

Met with DSD to discuss feedback and ways forward

> CAM 23-0649 Exhibit 2 Page 3 of 17



# ADOPTED NETNET ZERO IN CITYZEROOPERATIONSin 2021by 2040

Fort Lauderdale's commitment to Net Zero and joining of the ICLEI150 Race to Zero ensures the City will strive to eliminate greenhouse gas emissions

Transitioning both the City and private vehicles to EVs is essential in supporting the Commission's goal to achieve Net Zero

# NET ZERO CITY WIDE **by 2050**

Page 4 of 17



# **Advance Fort Lauderdale Comprehensive Plan**

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**CLIMATE CHANGE** 

# CLIMATE CHANGE OBJECTIVE



CLIMATE CHANGE PRINCIPLE: Take active ownership in reducing the magnitude of Climate Change Impacts through mitigation strategies. OBJECTIVE CC 1.1: The City of Fort Lauderdale shall reduce greenhouse gas emissions to mitigate Fort Lauderdale's contribution to global climate change. Increase renewable energy production and distribution.

# CLIMATE CHANGE EVALUATION MEASURE



EVALUATION MEASURE CC 1.2.5: The City of Fort Lauderdale shall reduce its fossil fuel use for City vehicles by 20% below 2015 levels by 2025 through the replacement of City fleet with low emission vehicles and other fuel efficiency strategies. City of Fort Lauderdale **EV-Ready Ordinance Report** 



# Fort Lauderdale 2021 Neighborhood Survey

As a place to visit

As a place for play & leisure

As a place to live

As a place to seasonally reside

**Overall quality of life** 

As a place to work

**Overall image of City** 

As a place to retire

As a place to raise children

**Overall sense of community** 

As a City that is moving in the right direction

As a place to educate children

As a City committed to green & sustainable practices

52%				36%			10% 2%	
43%			40%			12% <mark>4%</mark> "		
2	.8%		50%			15%	<b>6%</b> 2%	
	34%		42%			19%	4%	
18%	5	50	%		22%	6	8% 2%	
19%	6	48	%		22%	5	8% 2%	
14%		47%			22%	139	6 4%	
23	%	32%		239	%	13%	8%	
<b>12%</b>	3	3%	3	3%		16%	7%	
10%	35	%	289	%	20	)%	8%	
12%	28%	6	25%		20%	1	6%	
10%	27%		32%		18%	1	L <b>3%</b>	
9%	26%		32%		20%	1	L <b>3%</b>	
6	20%	40%	60	0%	80%	6	10	
	Excellent	Good	Neutral	Be	elow Ave	rage	Poo	



# **Percent of OEM EV Fleet over Time**



# EV Sales & Market Trends

Most car-makers have goals to partially or completely transition their fleets to electric

Toyota has announced a goal of ending production of all traditional internal combustion engines (ICE) by 2040

EU has banned the import and sale of new combustion engines by 2030

New York and California banned the sale of new combustion engines by 2035

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# **America's Investing in EV Supply Chains**







# **Growing Charging Desert in Florida**





th

# Number of Electric Vehicles

**Electric Vehicle Charging Stations per Capita** 

# 4 3 rd

# **Electric Vehicle Charging** Stations per Registered EV

Exhibit 2 Page 9 of 17





# What is an EV-Ready Ordinance?

# **EV-CAPABLE**

Parking spaces that have listed raceway (conduit) and electrical capacity (breaker space) allocated in a local subpanel to accommodate future EVSE installation.

# **EV-READY**

Parking space that includes the following components: listed raceway (conduit), sufficient electrical panel service capacity, overcurrent protection devices, wire, and suitable termination points such as a junction box with a service loop.

# **EVSE INSTALLED**

A fully installed and operating EV charging unit. The equipment, as defined by the national Electrical Code, is provided to support future electric charging. This shall include but not be limited to: the design load placed on electrical panels and service equipment to support the additional electrical demand, the panel capacity to support additional feeder/branch circuits, the installation of raceways, both underground and surface mounted, to support the electric vehicle supply equipment.

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# Planning for the Future Saves Developers' Money

# Cost per EV Parking Space: New Construction vs Retrofit

Case Study prepared for the City and County of San Francisco (2016)



The case study considers a parking lot with ten total spaces and two EV parking spaces, and compares the EV infrastructure installation costs at the time of new construction versus building retrofit. "EV parking spaces" define spaces that have an EV-ready outlet, and include the electrical panel capacity, raceways, breakers, outlet boxes, and wiring to install an EV charger at any given time in the future.

- Balance of Circuit
- Raceway

Permitting & Inspection

**Construction Management** 



# **Florida State Government support for EV-Ready** Mandates at the Local Level



FLORIDA ELECTRIC VEHICLE ROADMAP

EXECUTIVE REPORT December 2020























"Develop minimum EVready parking requirements: Work with state and local government partners to establish minimum EVready parking requirements for planning future EVSE or requirements for installing **EVSE** based on different land uses or building types."



# **EV-Ready Ordinances in Florida**

	Single Family, Duplex		Multifamily		Commercial				
	EV Capable	EV Ready	<b>EVSE Installed</b>	EV Capable	EV Ready	EVSE Installed	EV Capable	EV Ready	EVSE Installed
Jupiter, FL									1 rapid charger at
									any
									new fueling station
Miami Beach, FL					20+ units	20+ units			
					2% of req. spaces	2% of req. spaces			
Hollywood, FL	1 space			min. 1 space			min. 1 space		
Boca Raton, FL				20+ spaces					
				15% of req. spaces	10% of req. spaces	5% of req. spaces	15% of req. spaces	10% of req. spaces	5% of req. spaces
Miami Dade County, FL					10+ spaces		10+ spaces	10+ spaces	
					10% of req. spaces		10% of req. spaces	10% of req. spaces	
Coral Gables, FL*				10+ spaces	10+ spaces	10+ parking spaces	10+ spaces	10+ spaces	10+ parking spaces
				20% of req. spaces	15% of req. spaces	5% of req. spaces	20% of req. spaces	15% of req. spaces	5% of req. spaces
Boynton Beach, FL						2/50 units			2/50,000 sq. ft
Winter Park, FL							10% of req. spaces		1/20 req. spaces
Orlando, FL				20% of req. spaces		250+ spaces,	20% of req. spaces		250+ spaces,
						2% of req. spaces			2% of req. spaces
Miami, FL				20% of req. spaces			20% of req. spaces		
Leon County, FL					10% of req. spaces			25+ spaces,	
								10% of req. spaces	
City of Largo, FL		1/dwelling		20% of req. spaces			20% of req. spaces		
		unit							



# Feedback from Initial Stakeholder Meetings



### Feedback from Downtown Developers Authority

An understanding of the need for minimum baselines but would like to see incentives worked in to offset cost



# Feedback from DSD Facilitated Developers Group

Believe that current standards enacted by other jurisdictions were not strong enough and supported extremely high baselines



### Feedback from DSD

Do not believe that incentives alone will get the City into a position to support the private residential EV fleet



# Feedback from Sustainability Advisory Board

Believe baselines are needed to meet the Commission's goal to achieve Net-Zero



Florida currently has about 5,600 Level 2 chargers and 955 Level 3 chargers, but is expected to have 1.06 million EV potential in 2027. To support these vehicles, S&P Global Mobility forecasts that Florida will need to grow its charging infrastructure to about 77,000 Level 2 and 6,800 Level 3 charging stations.

S&P Global Mobility

> CAM 23-0649 Exhibit 2 Page 14 of 17



# **Staff Recommendations for an EV-Ready Ordinance**

# **Require Minimum Baselines**

In light of recent legislative outcomes and shifts within the automotive industry, staff recommends that minimum EV-Ready baselines are necessary to meet projected future demand for EV charging infrastructure within the City.



# Parking Space Threshold

Staff recommends that the EV–Ready ordinance apply to new commercial and multi–family developments that exceed a specified parking space threshold.

# **Incentives for Increased Implementation**

Staff recommends introducing an optional higher standard, which would activate specific incentives if achieved by the developer. This approach will encourage developers to make more comprehensive preparations for new properties to meet both present and anticipated demand.

CAM 23-0649 Exhibit 2 Page 15 of 17



# **Next Steps**

# We are seeking guidance regarding the next steps to take based on these recommendations.



Legal Review

Stakeholder Outreach

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### Revisions

### PZB and Commission

CAM 23-0649 Exhibit 2 Page 16 of 17

# Questions

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