

# MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

## COMMITTEE MEMORANDUM

TO: Land Use and Sustainability Committee

FROM: Alina T. Hudak, City Manager 

DATE: January 25, 2023

SUBJECT: **Discuss Requirements for EV Parking in New Developments.**

### HISTORY

On November 16, 2022, at the request of Commissioner Ricky Arriola, the City Commission referred the subject discussion (C4 T) to the Land Use and Sustainability Committee (LUSC).

### BACKGROUND

As noted in the attached referral memo, the item sponsor would like the LUSC to examine the current EV parking requirements for new developments and determine what adjustments to the code and power grid need to be made to accommodate the increased rate of EV adoption.

On January 13, 2016, an Ordinance was adopted by the City Commission establishing the City's current electric vehicle parking requirements for new construction as follows:

#### ***Sec. 130-39. Electric vehicle parking.***

##### *(a) Definitions.*

(1) *Electric vehicle means any motor vehicle registered to operate on public roadways that operates either partially or exclusively on electric energy. Electric vehicles include:*

- a. Battery-powered electric vehicles;*
- b. Plug-in hybrid electric vehicles;*
- c. Electric motorcycles; and*
- d. A fuel cell vehicle.*

(2) *Electric vehicle charging level means the standardized indicator of electrical force, or voltage, at which the battery of an electric vehicle is recharged.*

- a. Level 1 transfers 120 volts (1.4-1.9 kW) of electricity to an electric vehicle battery.*
- b. Level 2 transfers 240 volts (up to 19.2 kW) of electricity to an electric vehicle battery.*



In terms of power consumption, the required Level 2 chargers do not exert a significant impact on the City’s power grid, with a power draw that is approximate to a clothes dryer, as noted in the comparison chart below:

Comparison of EV Charging Levels from a depleted battery\*

	Charge Time	Voltage/Amps	Power Equivalent
Level 1	Up to 20 hours	120/15	Toaster
Level 2	Up to 7 hours	240/40	Clothes Dryer
DC Fast Charger	Up to 30 minutes	480/125	15 Central A/C units

\* Source: Florida Department of Agriculture and Consumer Services

The City currently does not have any requirements for DC Fast Chargers, which are equivalent to the Tesla Fast Charger. Only Tesla cars are equipped to utilize Tesla chargers, but Tesla cars can utilize generic DC fast chargers. Such chargers are typically used for quick charging for long-range travel along major highways.

A local representative from Florida Power and Light (FPL) has indicated that, in general, there are no issues with the larger power grid serving Miami Beach. Depending on the type and location of an EV charger, property upgrades may be required, as follows:

- A Level 2 (240v) charger connects to a building electrical panel. Depending on the building electrical load, an expansion of the electrical panel system may be required to accommodate the number of EV chargers proposed; this may include additional transformers on site or expanded electrical vault rooms.
- A Level 3 charger requires dedicated transformers.

According to the representative from FPL, either scenario above would still be able to be accommodated by the larger regional power grid.

In terms of best practices, the following is noted with regard to EV requirements in the City of Coral Gables and Miami-Dade County:

City of Coral Gables

The City of Coral Gables recently updated their requirements for electric vehicle charging and parking, as follows:

- When ten (10) or more off-street parking spaces are required, a minimum of five percent (5%) of the required off-street parking spaces shall be reserved for electric vehicle parking, and provide an electric charging station for each space, with a minimum of one (1) space reserved for electric vehicle parking. The requirement increased from 2% to 5%.
- When ten (10) or more off-street parking spaces are required, a minimum of fifteen

percent (15%) of the required off-street parking spaces shall have Electric Vehicle Supply Equipment infrastructure installed for the future installation of Electric Vehicle Charging Stations (“EV-Ready”). The requirement increased from 3% to 15%.

- When ten (10) or more off-street parking spaces are required, a minimum of twenty percent (20%) of the required off-street parking spaces shall have listed raceway (conduit) and electrical capacity (breaker space) allocated in the electrical room local subpanel to accommodate future EVSE installations (“EV-Capable”). The requirement increased from 15% to 20%.

### Miami-Dade County

As of January 1, 2022, Miami-Dade County requires that developments with 10 or more total number of required off-street parking spaces must provide a minimum of 20% of the parking spaces to be Electric Vehicle Supply Equipment Ready (EVSE-Ready) spaces. But in no event will this be less than 1 EVSE-Ready Space.

### SUMMARY

As the current EV parking requirements in Section 130-39 have not been updated since adoption, the Administration recommends that the following be considered:

1. An increase to the minimum level 2 charging requirements from 2% to 5% of the parking spaces provided; alternatively, a mandatory requirement for built in power connections could be included.
2. Requiring at least two (2) DC Fast Chargers (Level 3 chargers) in stand-alone parking garages that exceed a certain number of parking spaces.
3. Establishing a requirement that all multifamily developments providing off-street parking install and provide access to an electrical power supply rated at 240 volts (Level 2) or greater, for all off-street parking spaces (“EV-Ready”). This would allow for the installation of additional electric vehicle parking chargers in the future for all spaces. Currently this requirement only applies to developments of more than 20 units.

If there is consensus on some or all of these options, as well as any others that may be discussed, the Administration recommends that the LUSC send the proposal back to the City Commission for referral to the Planning Board.

### CONCLUSION

The Administration recommends that the Land Use and Sustainability Committee discuss the proposal and provide any applicable recommendation to the City Commission.

*RW*  
ATH/RW/TRM/MAB