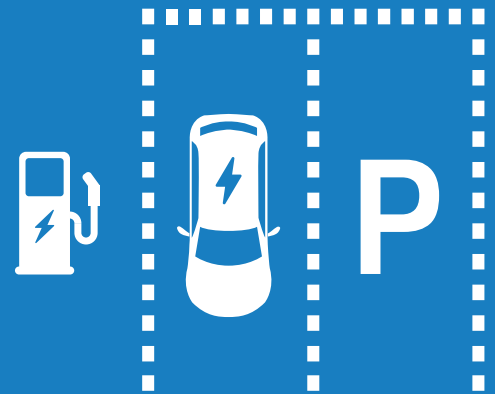


AN EV-READY ORLANDO

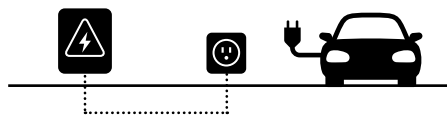
An electric vehicle (EV) readiness ordinance requires some portion of new-construction parking spaces (and sometimes major renovations of existing ones) to include different levels of infrastructure that enable EV charging.¹



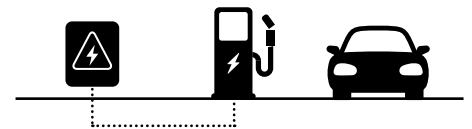
There are different levels of EV readiness:



EV Capable: Install electrical panel capacity with a dedicated branch circuit and a continuous raceway from the panel to the future EV parking spot.



EV Ready: Install electrical panel capacity and raceway with conduit to terminate in a junction box or 240-volt charging outlet (typical clothing dryer outlet).

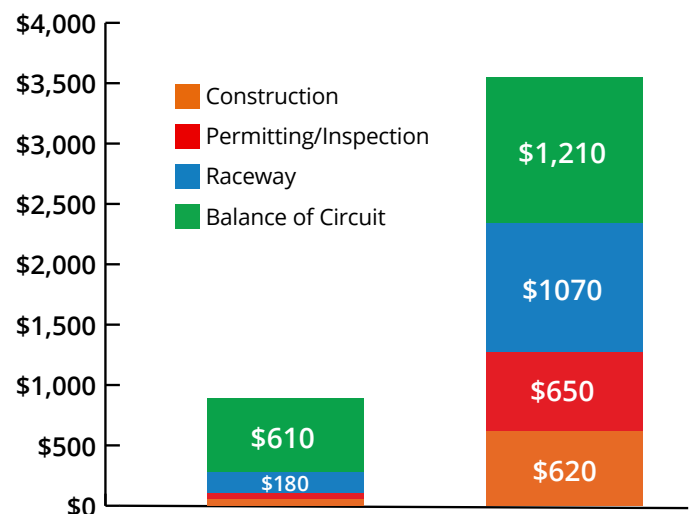


EVSE (electric vehicle supply equipment) Installed: Install a minimum number of Level 2 EV charging stations.

Why EV Readiness?

- Researchers have found convenient access to EV charging is one of the most critical factors in people's decisions to purchase an electric vehicle. One of the most cost-effective ways to increase EV-charging infrastructure is to construct new buildings in a way that makes installing charging later much more affordable. In addition to enabling public charging at new commercial buildings, new residential and office buildings are also critical, as 80 percent of charging occurs either at home or the workplace.²
- Costs to make parking EV-ready at the time of construction are typically small, but can be very expensive for building owners and tenants to install EV charging later—investing in EV readiness typically saves around 75 percent compared to retrofit costs.³

Per Parking Space Costs for EV-Ready



*Cost estimates can range substantially by local market context, different types of buildings, and parking spaces.

¹ Definitions: Southwest Energy Efficiency Project (SWEPP). Images: City of Sacramento
² U.S. Department of Energy
³ Southwest Energy Efficiency Project (SWEPP)



Meeting Orlando's Sustainability Goals

Under the leadership of Mayor Buddy Dyer, the city of Orlando has set ambitious sustainability goals to reduce greenhouse gas (GHG) emissions 90 percent by 2040, and achieve 100 percent clean electricity by 2050. Currently, vehicle fuel sales (diesel and gasoline) constitute 20 percent

of the city's overall GHG emissions. In order to meet these goals, the market transformation to electric vehicles (EV) is critical. By going electric, Orlando can save money for residents and fleets, reduce greenhouse gas emissions, and reduce air pollution to improve public health.

The Challenge with Gas



- Vehicles are a major contributor to air pollution in Orange County, contributing 85% of carbon monoxide (CO) emissions and 73% of nitrogen (NOx), which are precursors to ozone.⁴

Air pollution directly impacts human health and frequently impacts more vulnerable racial and socioeconomic groups disproportionately.⁵



- AAA estimates the average annual costs for owning a car to be more than \$8,000.⁶



- Orlando emits more than 1 million tons of CO2 from on-road transportation annually.⁷

The Opportunity with Electric

- With zero tailpipe air pollutant emissions and lower life cycle emissions, EV adoption will improve local air quality and reduce the health impacts of air pollution for all.
- While EVs currently cost more up front, they are cheaper to operate and maintain, saving the average driver in Orlando up to \$4,000 over five years in reduced costs.⁸

More affordable used EVs are becoming available, and analysts predict cost parity for new cars and SUVs between 2024 and 2028.⁹

- EVs produce up to 62% fewer life cycle emissions compared to gasoline vehicles.¹⁰

In Florida, the average EV produces only 4,261 lbs. of CO2 per year compared to 11,435 lbs. by a gasoline-powered vehicle. As more solar power is produced, EVs will become even cleaner.

What else is happening to encourage EV adoption and enable easier EV-charging access?

- The Orlando Utilities Commission (OUC) offers programs for installing EV chargers at local organizations and businesses, such as the Charge-Up program: <https://www.ouc.com/business/commercial-ev-charging-service>
- The city of Orlando and OUC are investing to expand public EV charging throughout the city, with a planned 100 additional EV chargers to be installed by 2021.
- The city of Orlando is partnering with OUC to provide EV adoption education, including EV Ride & Drives and educational events.
- The city of Orlando and OUC are partnering with local dealers to provide salespeople with tools and resources to improve EV sales and educate consumers on the benefits of driving electric.

⁴ EPA National Emissions Inventory

⁵ Proceedings of the National Academy of Sciences

⁶ AAA

⁷ New York Times/Boston University

⁸ Based on driving 12k miles/year, gas at \$3.75/gal electricity at \$0.10 kWh, electrical efficiency of

3 miles/kWh, average conventional vehicle 22.5 MPG. OUC

⁹ International Council on Clean Transportation

¹⁰ U.S. DOE Alternative Fuels Data Center

