
September 26, 2023

If You Need 100 Car Chargers Right Now, You're Already Behind The EV Revolution

The rising popularity of [electric vehicles](#) is catching some developers and property owners by surprise.

For Paul Williams, the founder and president of Greenspeed Energy Solutions, it has created an opportunity. He recently got a call from a multifamily developer looking to install his company's EV chargers at their property.

“They had only a couple of chargers in a new build, and nine out of the first 10 tenants who were applying drove EVs, and they only had four ports,” Williams said. “He was in a panic to start filling in the blanks.”

As electric vehicles become commonplace, developers in South Florida are quickly trying to adapt while owners of existing properties are grasping for solutions to meet demand, creating a wave of challenges for new developments and existing projects alike.



[Unsplash/Michael Fousert](#)

Electric vehicles are projected to account for half of all new car sales by 2030.

“The demand is definitely there,” said Daniel Catalfumo, CEO of the development, construction and management firm Catalfumo Cos. “If you don't plan way into the future, before you start building, you can't just call up and say, ‘I need to add 100 car chargers.’”

Existing buildings were designed with specific energy requirements that are unable to support the mass deployment of EV chargers, Catalfumo said. His [Palm Beach Gardens](#)-based firm, which has built over 75M SF of commercial and multifamily space, has found that adding new infrastructure isn't easy and sometimes isn't even feasible.

“Electrical rooms are not designed for it, the power is not designed for it, the conduits in the slab are not designed for it,” he said.

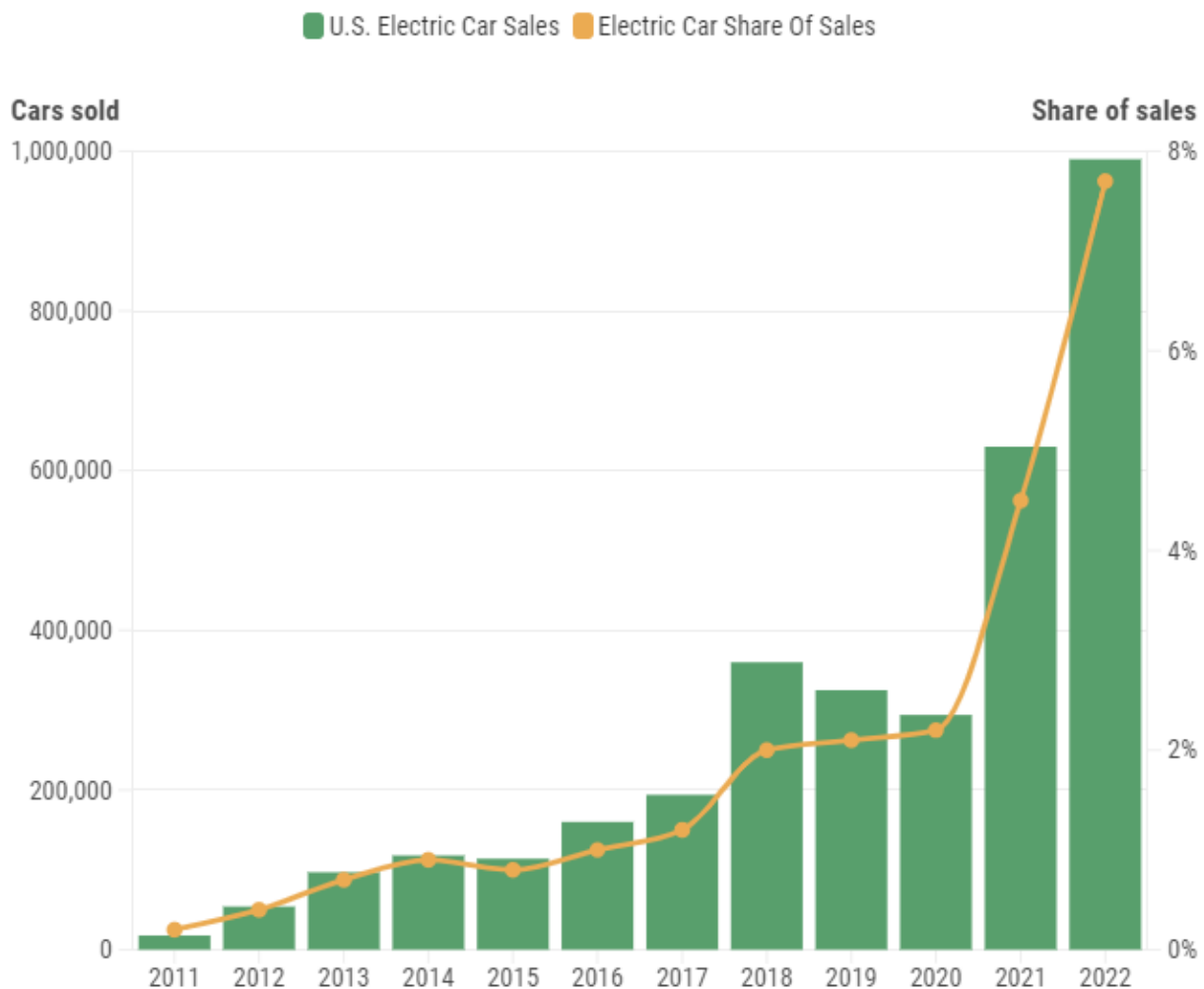
Trying to retrofit chargers into existing properties can result in “conduits running all over the place, like spaghetti, through your whole garage.”

Finding solutions at existing developments and designing projects for an EV-dominated future may well become a requirement to attract tenants and users.

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An estimated 27 million EVs will be driving U.S. roads by 2030, climbing to 92 million by 2040, according to a [PwC analysis](#). By 2030, just over half of passenger cars sold in the U.S. will be EVs, [according to BloombergNEF](#).

Florida offers a microcosm of the shift to EVs as the influx of new arrivals from other states, a large proportion of which have been [well-heeled professionals from Northern locations](#) who are more likely to be driving EVs, has spurred a development boom that puts the state on the leading edge of construction trends. Florida's 229,000 EV registrations are the second most in the country, according to Florida Power & Light Co., the state's largest utility provider.



Source: [International Energy Agency](#) • Note: Includes battery electric vehicles and plug-in hybrid electric vehicle models.

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George Coloney, the South Florida-based director of real estate leasing at US Supercharge, which installs fast-charging stations, said he is fielding calls from representatives for condo associations that are looking to get ahead of mass EV adoption.

“We had an attorney call us that has over 500 condo associations, and they're so confused,” Coloney said. “They don't know what to do because they don't know whether to put one at every location within a parking garage or certain banks.”

US Supercharge is approaching owners with a profit-sharing model where the company installs fast-charging stations at no cost to the owner and splits the profits from their use. However, the focus on rapid charging is creating bottlenecks.

“We have to work with the utility. We've been like eight, nine weeks waiting just for an upgrade for a box,” Coloney said. “They won't even take our deposit, forget about how long it's going to take to get the box.”

The need to upgrade infrastructure is a common refrain at existing developments, Williams said. Adding EV chargers often requires a new utility transformer and new electrical equipment that is metered separately from the rest of the property. Even after capacity is increased, charging speed is frequently impacted.

“We've retrofitted a lot of condos, past tense, and we can do 110[-volt] chargers, very slow trickle chargers for cars,” Catalfumo said. “That's all the power that's there for that building. You just can't bring more power in.”



Courtesy of Catalfumo Cos.

The Ritz-Carlton Residences in Palm Beach Gardens will have two EV chargers for each of its 106 condos.

Building For When ‘Gas Will Become Obsolete’

The challenges Catalfumo has experienced updating existing projects led the firm to take a proactive approach at its latest development, The Ritz-Carlton Residences in Palm Beach Gardens.

The 106-condo development is under construction on 11 acres at 2200 PGA Blvd. It will have 280 charging stations, two stations for every condo and more for visitors and property employees.

Catalfumo said the chargers were a selling point for buyers at Ritz, where top-level amenities and services are expected.

“It’s just the new way of the future for somebody building for 2030 or 2040, because we know gas will become obsolete one day in the future,” Catalfumo said.

To offer more than double the high-speed electric chargers than there are units at the property, Catalfumo had to include a separate electrical room dedicated to EV chargers at the property and work directly with FPL to upgrade the power transmission along the street.

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“We were smart enough to do this two and a half years ago, and actually they upsized their entire grid for us,” Catalfumo said. “They did all the calculations and they upsized their whole transmission line to our property. If we didn’t do it then, it would have been too late to call them now that we’re under construction.”

The partnership between Catalfumo and FPL is part of the utility’s long-term plan to facilitate the electrification of transportation. It launched a program in 2019 that offers EV charging solutions at commercial and residential properties, installing chargers for zero upfront cost and billing users with a monthly fee.

In its [Ten Year Power Plant Site Plan](#) published in April, FPL says it is preparing for the increased adoption of electric vehicles, which it forecasts will add 8,300 gigawatt-hours of power consumption by 2032. The state is the second-largest producer of electricity in the country, behind Texas. Florida generated 246,450 GWh in 2021, [according to the Energy Information Administration](#).

“FPL is positioned to meet the increased demand that comes with more electric vehicles in Florida,” Jason Lopez, a communications specialist at FPL, said in an email. “We study EV adoption metrics and factor them into our Ten-Year Site Plan, which guides our generation and grid planning.”



Courtesy of Ocean Land Investments

Ocean Land Investments is planning to make half of the parking spaces at its 392-unit project in downtown Fort Lauderdale EV-capable.

‘A Crystal Ball Into The Future’

[Fort Lauderdale](#)-based [Ocean Land Investments](#) is also adding charging infrastructure at a new multifamily project to future-proof the project ahead of a rise in electric vehicle adoption. The development firm is preparing to break ground on a [392-unit property](#) at 105 Northwest Third Ave. in downtown Fort Lauderdale, where 50% of the project’s 493 parking spaces are planned to be EV-capable.

“It’s far and above what the market is currently offering, but we think that we are targeting it right,” said Brandon Spirk, Ocean Land’s senior director of design and construction. “We’re trying to be responsible developers. We’re trying to, as much as practically possible, have a crystal ball into the future.”

Ocean Land isn’t planning to put the chargers that cars plug into at each of the more than 200 spaces but is instead adding in the required wiring and electrical capacity that will make the spaces EV-ready. This allows the firm to control costs while still positioning the property to be able to keep pace with rapid adoption, Spirk said.

The firm is also avoiding chargers that have the fastest refill speeds, known as Level 3 chargers, and is instead designing the property to support Level 2 chargers that take several hours to fill a battery rather than the 30-to-60-minute speeds provided by Level 3 systems.

“I don’t think that there’s a need for Level 3 charging, but if we were talking about that, then you need to communicate and coordinate with your utility provider right away because that’s a level of demand that is quite gargantuan,” Spirk said. “When you compare it to what an entire building might consume, it’s on the same level.”

Level 2 chargers were more akin to installing a clothes dryer, Spirk said, but they still require larger electrical rooms and coordination with utility companies on transformer capacity.

Ocean Land is planning the large bank of charging stations in part because it sees the adoption of electric vehicles as the first step in a broader shift to a rent-on-demand model in urban cores.

“The future is actually going to be transit provided by single-passenger vehicles that will likely be repurposed and utilized either as multipassenger vehicles or fractional ownership vehicles,” Spirk said.

Those cars will likely be electric, Spirk said, because it would allow them to maintain a better level of connectivity to the internet than gas-powered vehicles and will enable the cars to share information about availability, level of charge and readiness. The push toward [self-driving cars](#) will further shift consumer perspectives away from cars being seen as personal vehicles to another form of mass transit, he said.

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Until that day comes, the ability to quickly scale EV capacity will give Ocean Land the ability to win new tenants and buyers, Spirk said.

“We're not looking at this as trying to offer a competitive advantage, but to the extent that other developers aren't offering this degree of capable spaces, we do have a competitive advantage,” he said. “We believe that this is going to accelerate much more rapidly than the mainstream is thinking that it will be adopted.”