Wired for Change:

How Commercial Real Estate Must Adapt for the Electric Grid of the Future

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Envision a future where 50% to 75% of vehicles that park at a building require charging. EVs could account for 81% of new car sales in the United States by 2040, according to BloombergNEF.

To power all those cars, the US must quadruple the number of EV chargers between 2022 and 2025, and grow more than eight-fold by 2030, estimates S&P Global. However, many predictions around charger demand overlook a fundamental need: infrastructure. A level 2 charger, the most common type used at commercial buildings, delivers 7-19 kilowatts (kW) per hour to a vehicle. When multiplied by dozens or hundreds of chargers, the electricity demand is simply too great for the existing supply to meet.

Commercial real estate owners have an opportunity to play a significant role in the electric grid of the future. Properties equipped to meet occupants' needs for reliable EV charging will stay competitive and command higher valuations.

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Buildings at the confluence of an electrified future

Many tenants are already negotiating with building owners to get infrastructure to support their transition to electric fleets and enable employees to charge at work. JLL research shows 36% of corporate occupiers have leases that include EV charging today and an additional 42% would like to include it in their leases upon renewal.

Since most buildings don't have the proper infrastructure today to meet this surging demand, owners and occupiers must work together to achieve shared goals and outcomes. Some properties will require energy efficiency improvements to free up electricity capacity, and others may need major infrastructure upgrades. Consider the following:

- **Building infrastructure:** Most office towers, apartment buildings and industrial parks were not designed to be transportation fuel stations. Investing in advanced assets like microgrids with onsite renewables, battery storage, fuel cells or hydrogen stations can help expand electricity capacity and diversify the energy supply.
- **Utility coordination:** A building may need new transformers or substations to increase electricity capacity. If so, securing those infrastructure upgrades from the utility will take time and possibly a co-investment. Even if a building has sufficient capacity, early talks with a utility provide an opportunity to take advantage of incentives or pre-negotiate rates so that one is not hit with excess demand charges once there is expanded EV charging. In Illinois, for example, ComEd currently offers an EV charging delivery rate option for commercial customers to incentivize charging infrastructure development. Participating in a demand response program or adding onsite generation can help to manage utility challenges.

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- **Financing capital improvements:** Expanding electrification infrastructure requires many complex financing decisions. Building owners may find opportunities to coordinate with utilities and tenants on co-investments for infrastructure upgrades. They must also determine how to revalue buildings to reflect the addition of desirable infrastructure.
- **Monetization opportunities:** JLL Research estimates that in 2021, the US logistics industry spent $136.5 billion on fuel, and US consumers spent $491.2 billion to power their passenger vehicles. As these expenditures shift from gasoline to electricity provided at home and workplaces, commercial real estate owners have an untapped opportunity to generate additional operating income. They must decide whether to monetize EV charging with an energy-as-a-service model or other arrangement.
- **Decarbonization:** Expanding EV charging is often part of a broader decarbonization strategy. If net zero emissions are the goal, you must determine how to source renewable energy to power chargers, whether through local assets, power purchase agreements (PPAs) or onsite installations such as rooftop solar panels.
- **Managing energy supply and demand:** Even if you collect and analyze energy data at your properties today, you will need to drastically scale those efforts to manage an expansive EV charging network on top of other energy consumption. This operational demand may require new investments in software, cloud infrastructure and talent to help optimize supply and demand.

Every building will require a unique strategy depending on its occupants' needs and the role its owners and tenants want to play in the energy ecosystem. Whether a logistics center powering a fleet of electric trucks, a shopping center, or an office tower, taking a holistic approach will allow you to achieve optimal balance.



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Acting with urgency

Electrification upgrades can take several years to plan and implement. The average backlog for a typical utility upgrade, such as a new transformer or substation, hovers around 12-18 months across the US. Those who don't start now will find themselves behind the curve. Look for advisers that can explain what financing arrangements are working for other property owners, facilitate conversations with vendors and utilities, and help you understand the impact on property valuations. As the lines blur between real estate owners and energy providers, having a partner who bridges the divide can help develop a path forward to an EV-centric future.

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