The key role for commercial real estate in advancing electric vehicles by Daniel Colombini and Vinod Palal

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The largest contributor to U.S. greenhouse gas emissions is transportation, and road travel accounts for three-quarters of transportation emissions globally, with 45% of that coming from passenger vehicles. That's why it's so crucial that the United States shift from fossil-fueled vehicles to electric ones, and commercial real estate can play a key role in that transition.

The United States has set a goal that half of all new vehicles sold in the nation will be zero-emissions vehicles, including electric or plug-in hybrids, by 2030. But a major challenge is having sufficient infrastructure in place to support charging those vehicles. The U.S. Infrastructure Investment and Jobs Act of 2021 includes $7.5 billion to build out the first-ever national network of electric vehicle (EV) chargers, and the Inflation Reduction Act of 2022 offers expanded federal tax credits to persuade more businesses to add chargers.

Still, there's the chicken-and-egg problem of which comes first: sufficient sales of electric vehicles or the supply of needed chargers. As The Wall Street Journal states, "The government is pouring billions of dollars into developing a national highway charging network. But businesses aren't sure how they will make money, and the nascent industry looks messy."

The challenge is greatest in the case of long-distance travel, where drivers need confidence that there will be sufficient available and speedy chargers, and commercial providers of chargers need confidence that the market will justify the investment. But a significant portion of road travel is commuting, and that’s where commercial real estate broadly enters the picture.

In 2017, commuting to and from work accounted for about a quarter of total vehicle trips in the United States, and about 30% of vehicle-miles traveled. While the COVID-19 pandemic may have changed those numbers somewhat – with an increase in remote working counter-balancing a shift from public transportation to private cars – a 2022 Statista survey shows that 76% of American commuters still use their own cars to move between home and work.

That means that a significant portion of the needed shift to electric vehicles can be addressed by considering the challenge differently: Think of long-road travel and commuting (plus local deliveries) as separate channels to be addressed.

The two have very different obstacles, because commuting is far more predictable and the distance covered in each trip is shorter. Commuting also has two major sources of chargers – home-based and work-based, and a major resource on which to draw: commercial real estate.

Commercial real estate – office, retail, industrial, and residential – can offer EV chargers in its garages or parking lots as a service to tenants, employees, residents, visitors, and fleets, as a competitive marketing advantage, and as a sign of environmental commitment. It also has major advantages over providers of chargers to long-distance drivers.

Those advantages include the following: it is dealing with a known population of drivers; it can survey their needs; it can then phase in the installation of EV chargers, based on known demand. The survey of needs can determine not only whether those being surveyed drive electric cars but where else they may be charging them. Do they have an EV charger at home, for instance? How much do they need to rely on EV charging at the specific commercial property?

Commercial real estate owners can then create a strategy for installing EV chargers that makes financial sense from the outset. Most properties have some infrastructure capacity – without a service upgrade – to add charging stations for a small portion of current parking spaces. Any needed upgrades can be designed to match anticipated demand in phases, so that the investment and the demand are closely aligned.

The investment has three primary cost factors: the upfront infrastructure upgrade required; the financial incentives available, and the potential for the upfront cost to be reimbursed over time through a nominal surcharge (perhaps 10 cents per hour per charge) beyond the energy consumed by each vehicle. Government and utility incentives are often available, such as the federal tax credit, and can cover 50% or more of the cost. The extent of incentives can be affected by location and type of property.

Commercial real estate owners have the added advantage of a long-term commitment to their property. That enables patience in achieving a suitable return on the infrastructure investment.

The transition to electric vehicles is vital. Commercial real estate owners can advance this national priority, while ensuring that the investment suits the demand on a specific property and will achieve the projected return. That will provide a major jolt to our national ambitions.

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