

Electric Vehicles and Commercial Real Estate

Charging infrastructure, land use and value creation

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How real estate owners can look to unlock value from the UK's accelerating EV transition

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- The UK's accelerating shift to electric vehicles is reshaping infrastructure needs. Charging has both energy and spatial considerations, and therefore a real estate opportunity. Rising adoption, structural policy support, and a lag in public charging provision all point to opportunity. Portfolios with underutilised or grey space, in strategic locations, are increasingly well placed to create value with charging infrastructure.

TAKEAWAYS BY NUMBERS

 **23%** of all new cars ZEV

Zero-emission vehicles (ZEVs) are accounting for an increasing proportion of new cars, reaching 23% in 2025, up from 7% in 2020. The ZEV mandate, as well as ongoing government grant support, will likely see adoption continue to rise.

 **8X** increase in ownership

BEV ownership has risen eight-fold in five years to 1.6 million cars, yet public charging has only tripled since 2021. The BEV-to-public charger ratio has deteriorated from 11 to around 14, underscoring the structural need for more charging infrastructure.

 **7.6m** BEVs potential by 2030

The shift to electric is being met with climbing car ownership, driven by more new, as well as longer-tenure vehicles. By conservatively projecting five-year growth trends, and assuming ZEV targets are met, almost 2.1 million BEVs could be newly registered in 2030, leading to a total BEV fleet of around 7.6 million (20% of all cars).

 **89,000** rapid chargers

Meeting a Norway-style provision, where almost all new cars are electric, would indicate that 213,000 public chargers would be required by 2030, including 89,000 rapid (DC) chargers. This implies a need for 62,000 new DC chargers, potentially requiring 1,900 acres of land.

 **200** acres of potential

EV charging infrastructure can utilise grey or disused sites rather than green space. Applying specific criteria to Birmingham and Bristol alone identified nearly 200 acres of potential forecourt-suitable land demonstrating the larger nationwide opportunity. Rural and strategic road corridors could also be well-placed to capture demand and strengthen asset resilience.

EV SHIFT UNDERWAY

The UK's accelerating shift to electric vehicles demands a rapid expansion of public charging. This is a land-use challenge as much as an energy challenge. For real estate owners, there is a clear opportunity to reposition underused assets, create value, and strengthen resilience by aligning with structural demand.

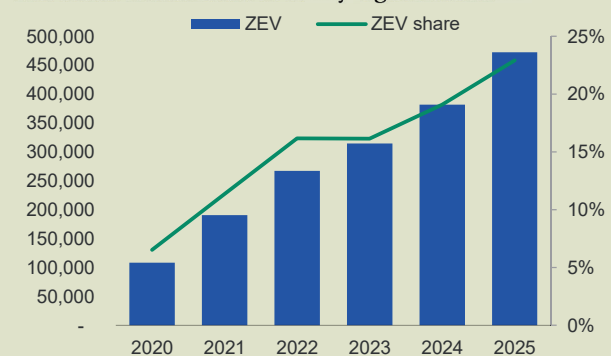
The transition to e-mobility is firmly underway with zero-emission vehicles (ZEVs) accounting for 23% of all newly registered cars in 2025, up from just 7% in 2020, according to data from DfT. March 2026 set a new record for EV sales as fuel prices climbed amid geopolitical events. This rapid growth has meant that nearly 1.6 million battery electric vehicles (BEVs) were on the road by Q3 2025, an eight-fold increase in five years.

Yet, charging infrastructure has struggled to keep pace with the numbers tripling since the end of 2021. As a result, the BEV-to-public-charger ratio has deteriorated from 11 to around 14, signalling an expanding gap that real estate owners will be instrumental in filling.

This imperative will likely continue with Government policy reinforcing the trajectory. ZEV mandates require manufacturers to hit 33% ZEV sales in 2025, with some flexibility introduced, rising to 80% by 2030. With overall car ownership rising and vehicles remaining on the road for longer, electric stock is set to compound year-on-year.

Fig 1. On the rise

The number and share of newly registered ZEVs



Source: Knight Frank Insight, DfT, DVLA

“For property owners, the question is whether suitable assets exist within their portfolios and how these can be brought forward to capture both revenue and resilience benefits.”



SUPPORTING INFRASTRUCTURE GAP

To enable a more rapid adoption of EVs we need better charging infrastructure. As the saying goes: What came first the chicken or the egg, one cannot exist without the other. By the end of 2025 the UK had more than 116,000 public charge points, including c.26,000 rapid or ultra-rapid (DC) chargers according to DfT data. While this marks strong growth since 2021, it remains below EV adoption.

As such, structural pressures include:

- Volume: Rising BEV stock is exceeding the growth in public charging facilities.
- Mix: Rapid/ultra-rapid DC chargers are expanding but remain a low proportion of total (22%) and may be insufficient for long-distance, fleet and commercial needs.
- Distribution: Provision varies significantly between urban centres, strategic roads and rural communities.

Barriers such as range anxiety, charger availability and charging time remain key obstacles for consumers. For property owners, these barriers translate into opportunity: demand is growing, supply is lagging, and suitable land is a critical lever.

For those providing the chargers – predominantly charge point operators (CPOs) - beyond land availability, power remains a key determinant and constraint. The ongoing grid connections and broader market reform are likely to enable greater visibility of power capacity.

REAL ESTATE'S ROLE

EV charging has rapidly evolved into a distinct commercial land use in its own right. As owners reassess their portfolios for resilience and diversification, charging infrastructure has the potential to offer:

- Revenue generation from underutilised sites (car parks, grey land, brownfield plots).
- Increased occupier attraction, especially for retail, logistics and workplaces where fleets or customers expect on-site charging.
- ESG alignment through enabling low-carbon mobility and supporting corporate disclosures.
- Portfolio resilience, by positioning assets within long-term decarbonisation trends.

The potential routes to entry are highlighted in the adjacent panel. For property owners, the question is whether suitable assets exist within their portfolios and how these can be brought forward to capture both revenue and resilience benefits.

MODELS

Real estate owners typically have two primary routes for delivering EV charging infrastructure: self-funded deployment or partnering with a CPO.

SELF FUNDED

The owner directly invests in and operates the charging infrastructure.

- **Upfront capital:** The owner funds installation costs. These vary widely depending on charger type. AC chargers are lower-cost and may benefit from grants; DC/rapid chargers can vary substantially due to power availability, grid works, groundworks and any canopy or ancillary installation.
- **Revenue retention:** The owner collects charging income from pay-as-you-go users.
- **Ongoing responsibilities:** All operating costs sit with the owner - electricity, back-office systems/subscriptions, software, maintenance and repairs.
- **Return profile:** Returns can be attractive as utilisation builds but are highly sensitive to electricity pricing, dwell time, local competition and the behavioural patterns of drivers in the catchment.

THIRD-PARTY FUNDED

A CPO funds, installs and operates the infrastructure on the landlord's site.

- **Commercial structure:** The CPO typically enters a long lease, often 20 years or more, securing an agreed number of parking bays for rapid or ultra-rapid charging infrastructure.
- **Income to landlord:** CPOs usually offer a base rent and/or a revenue or profit share structure, providing predictable income without capex exposure.
- **Responsibilities of the CPO:** The CPO pays for grid connection, installation, operation and maintenance, and retains charging revenues.
- **Site suitability:** Fully funded models are generally reserved for rapid DC hubs at retail destinations, roadside locations, forecourts or fleet-orientated sites. CPOs typically do not fund workplace or AC-only deployments due to weaker economics.

These can be run by tender to secure the best options.

SCALING DEMAND

The scale of the transition becomes clear when projecting forward using recent growth patterns. Assuming ZEV targets (with them predominant being BEVs) are met and five-year BEV car growth trends persist, 2.1 million BEVs could be newly registered in 2030. Assuming a 3% per annum vehicle retirement for BEVs and 4.6% all cars (the respective five-year averages) then the UK could see around 7.6 million BEV cars owned by 2030 (20% of all cars) and around 17.3 million by 2035 (42%).

This creates significant pressure for publicly accessible charging. We have modelled against a leader in this, Norway, where almost all new cars being sold are electric and 30% of the total fleet is BEV. The BEV-to-public-charger ratio is 35.6 with 42% of chargers being DC, according to European Commission data. Applying to the UK, this would imply around 213,000 public chargers would be required by 2030, with 89,000 being DC chargers.

These figures are conservative compared to other estimates, such as the Competition and Markets Authority's 280,000 to 480,000 charge points needed by 2030 and the National Energy System Operator's 9 million BEVs by 2030.¹ Yet, still represents a need for 62,000 new DC chargers by 2030, a compounded annual growth rate (CAGR) of 28%, not far from the current pace of 26%.

Whilst public charger to BEV ratios are much lower across European comparisons more broadly, 7 BEVs-per-charger, the overall EV adoption level is lower with just over 2% of total fleets being BEV and less than 20% are DC chargers.

SPATIAL OPPORTUNITY

Delivering 62,000 new rapid chargers by 2030 could require around 1,900 acres of land, based on an illustrative 0.03 acres per charging bay (c.121 sqm)². Crucially, some of this can be met through grey or previously disused land.

To demonstrate the scale of untapped urban potential, our analysis identified close to 200 acres of potential suitable land in Birmingham and Bristol alone, using filters such as:

- parcels over 0.5 acres
- derelict
- freehold ownership
- no active planning consents
- adjacency to motorways or A/B roads
- traffic counts above 20,000 vehicles a day.

Together, by applying broad assumptions, these could potentially deliver around 1,000 chargers.

Rural and roadside locations also present compelling opportunities as 60% of the UK's busiest traffic locations, often on motorways, lack a rapid charger within five minutes and 10% lack one within 10, as Knight Frank research previously highlighted.

Traffic flows are no longer the sole defining metric. A strategic, data-led approach, combining geospatial analysis with demographic trends, EV penetration, and charging among other indicators, is required for identifying and understanding potentially viable sites for deployment.

KEY CONSIDERATIONS

Owners assessing charging opportunities should consider:

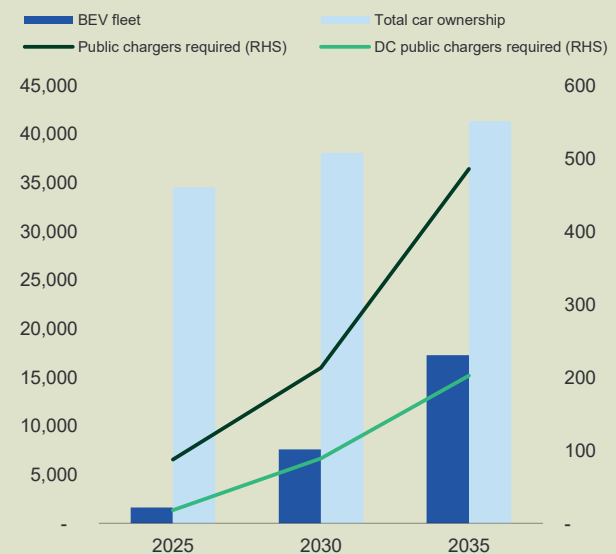
- Power and grid readiness: What is the site's available capacity? What reinforcement would be required?
- Demand analysis: Who will use the chargers: consumers, fleets, logistics operators or mixed traffic? What dwell times and charging speeds are appropriate?
- Location and access: Proximity to roads with sustained traffic volumes, visibility and ease of access.
- Commercial models: Third-party operator partnership vs. owner-funded vs. hybrid.
- Planning and permitting: Local planning approaches to EV infrastructure.

FLEETING EVS

Whilst the analysis has predominantly focused on cars, fleet electrification of HGVs and LGVs is growing, albeit from a low base. By Q3 2025 only 0.2% of HGVs and 0.1% of LGVs were BEV, yet incentives, such as the grants up to £120,000 for electric trucks, are accelerating adoption. Nearly 10% of newly registered LGVs in Q3 2025 were ZEVs; HGV registrations reached 2.2% from below 1%. Initiatives such as EV100+ are increasing momentum among large operators, as well as potential for autonomous vehicles, adding pressure on logistics networks to support charging at scale.

Fig 2. BEV scenarios

Potential future BEV ownership and charging requirements based on historical growth, ZEV targets and Norway level charging provision, all thousands



Source: Knight Frank Insight, DfT, DVLA

BIGGER PICTURE

Ultimately, the trajectory is clear. EV adoption is likely to continue to rise, and charging capacity must accelerate to support the transition with real estate likely to be critical to delivering it. Owners with unused or under-deployed land may have an opportunity to create value, diversify income, and support the energy transition. The next step is understanding where within a portfolio the opportunity exists.

¹<https://www.gov.uk/government/publications/electric-vehicle-charging-market-study-final-report/final-report>

²This would include some space for supporting infrastructure, waiting spaces and pedestrian access. No food & beverage or other entities included.

MARKET HORIZON WATCH

NEW DIRECTIONS

Several developments could reshape the economics of charging:

- Vehicle-to-grid integration, supported by the UK's Clean Flexibility Roadmap, may create new revenue streams as fleets act as short-duration storage and energy use is optimised releasing spare capacity when demand is highest.
- Charging innovations, including wireless charging and ultra-rapid systems, are emerging, although grid requirements remain substantial.
- Autonomous vehicles could alter spatial patterns of charging, particularly for logistics.
- Policy stability is a watch point ahead of the next general election, although improving EV economics, especially if electricity prices are aided by supply expansion, may mean that any political shift is unlikely to deter adoption.

We will continue to monitor developments and what they could mean for the industry and owners going forward.

MARKET VIEW



David Goatman,
Global Head of Energy & Sustainability

The UK EV charging market has entered a more data-driven and competitive phase, with rents for viable charging locations continuing to rise. Charge point operators remain highly acquisitive, and the market for rapid and ultra-rapid hubs is expanding as new participants enter and seek scale. This is supporting sustained annual growth and creating opportunities for landowners, occupiers with surplus land, and businesses aiming to enhance operational capability – but only in locations where utilisation evidence points to an undersupply of charging relative to local EV demand.

The market has moved on materially from the period when hub development was largely speculative. Early schemes were often selected on traffic flow and proximity to retail, with limited performance data. Operators now have clearer indicators of which sites succeed, enabling more targeted investment strategies and stronger rent competition. In several locations, rents have doubled over recent years. Not all sites will achieve this uplift and tender proposals can vary widely, making scrutiny essential. When advising asset owners, we always emphasise three points: assess your estate, obtain advice on site viability, and do not accept the first operator approach in an increasingly competitive landscape.

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The data and analysis in this report have been produced in collaboration with Knight Frank's Research Analytics and Data Science teams. To understand more about our capabilities please contact analytics@knightfrank.com



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