



## A bumpy road to electric avenue

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With unrelenting queues at the fuel pumps this past week, the time for the electric vehicle (EV) may well and truly have landed.

From individuals 'doing their bit' to a huge acceleration in policy, the EV market is booming. But what factors are at play?

As people and governments commit to moving away from fossil fuels, this article considers some of [the current barriers to EV adoption](#) and in particular what this might mean for property developers and purchasers.

### Can the grid infrastructure cope?

The EV market is currently immature but is growing with 8.5% of all vehicles in 2020 registered as EVs. As it stands, only 1.8% of used car sales are EVs.

Can the grid infrastructure cope? Will current and future EV drivers have to consider charging their vehicles in non-peak hours or use paid charging stations and car parks rather than residential grids?

The National Grid have confirmed that due to improved efficiency, the peak demand has fallen by roughly 16%. They anticipate that even if we all switched to EVs overnight – there would only be an increase of around 10% and the demand is within the range of manageable load fluctuation.

This is fine when demand spread throughout the day or week but there is the risk of a surge between 6 and 8pm when people return from work and plug in their cars. The government's EV task force recommends that future car chargers are "smart by design". No matter when you plug in, it will charge and pause during the evening when energy is most expensive and demand on the grid is highest.

The switch isn't going to happen overnight and the National Grid system is ever evolving. It is acknowledged that targeted investment is likely to be required, particularly on the motorway network – to ensure drivers have the confidence to make longer trips.

### What about the batteries – are manufacturers committed to the UK?

To meet the UK and global need, the number of automotive batteries produced annually will need to increase. In the UK, the following companies are making investments:

- Britishvolt plans for an electric car battery "gigafactory" on the 235-acre former Blyth power station have been approved.
- The sale of vans was booming during the pandemic – as a result of the home delivery pandemic and Vauxhall have announced plans to build electric vans at its plant in Cheshire with a £100m investment and government support with production starting in 2022.
- Nissan have committed to building a new generation all-electric model at its Sunderland site with hopes that the site will be operational in time for 2024 when the level of UK made components in cars manufactured in the UK is required to start increasing, in line with the UK's trade deal with the EU.

### **Will there be enough charge points?**

Ownership is not practical without charge points. At the moment public charge points are unevenly distributed and it's a bit of a postcode lottery.

Highways England have committed £15m to ensure charge points every 20 miles on 95% of the strategic road network. ZapMap reported that there were 11,054 public charging points in 2018 and by 17 September 2021 there are 25,725.

### **What is the impact on new residential developments?**

The planning process was being used as a tool to influence the inclusion of a certain number of charge points on new developments. However, requirements varied between councils.

The UK government has now shifted its position with the EV consultation proposing that building regulations are altered to provide for the inclusion of EV charge points at new residential buildings; new non-residential buildings and existing non-residential buildings.

Despite an initial delay, this now provides a consistent approach and strategy to facilitate mass adoption of EV vehicles in the UK.

### **What do developers need to do?**

As the demand for charge points grows, developers will need to:

- Start engaging with energy providers to discuss how they will be able to meet this demand / the new requirements.
- Observe their current energy connection [to establish whether updates to grid connections are needed](#). This should be considered early on in the planning stage as installing hubs can be time consuming due to the level of complexity involved.
- Include agreements relating EV charge points as part of the "utilities package" for a new development.
- Look into incorporating more renewable energy sources i.e. solar panels, as this will contribute to reducing their overall emissions, with the added benefit of meeting demand for power charge points.
- Pay close attention to the type of charging speed needed for a particular residential, commercial or retail locations. For example, [motorway service stations are more likely to need rapid charging spots](#),

whilst residential property can rely on slower chargers.

Initially, this may be seen as an additional cost or burden but it is clear we heading for a fuel-free future. It's time to adapt and benefit from the rise in EVs.