

Press Release (Consumer)

Research reveals what drivers want from the UK's rapid charging network

New research from Petalite finds that while drivers still face frustrations around cost and availability, progress is accelerating as operators invest in faster, smarter, and more reliable charging.

The UK's rapid and ultra-rapid charging network has grown by 23% this year, reaching more than 17,700 high-powered chargers nationwide. Yet new research from [Petalite](#), a next-generation EV charging company, shows that drivers' priorities are evolving fast – and their expectations are already being reflected in the next phase of rollout.

In its 2025 report, [EV Charging: The Balancing Act](#), Petalite surveyed EV drivers and leading Charge Point Operators (CPOs) in the UK responsible for the UK's public rapid charging network. The findings reveal both the progress being made and the priorities for improvement. The industry is working hard to deliver fast, reliable, and accessible charging, which will ultimately result in a larger UK charging network to support more drivers transition to EV.

While cost remains the most common frustration, drivers say they most want to see improvements in availability, reliability, speed, and ease of use - areas that CPOs are already investing in.

The 10 biggest improvements EV drivers want to see in rapid and ultra-rapid chargers:

1. Availability: 41%
2. Reliability: 25%
3. Speed: 18%
4. Ease of use: 13%
5. Prices: 13%
6. Payment: 6%
7. Information: 5%
8. Onsite facilities: 4%
9. Security / Safety: 4%
10. App: 3%

Interestingly, amenities such as cafes or toilets rank much lower in importance for rapid charging users – only 16% of drivers citing a lack of on-site facilities as a frustration. This suggests that, for now, drivers are more focused on efficiency and reliability than on-site extras.

“EV drivers are clear about what they want – charge points that are readily available, that deliver an experience that is fast, simple, and reliable,” says Steven Gardener, CEO of Petalite. “Our research shows that operators understand this and are investing in the right areas. The rollout is

no longer just about quantity - it's about quality. Every successful charge builds confidence and loyalty."

Charging speed was the most important factor for EV drivers in selecting a preferred CPO. The research also found that 68% of drivers would rather queue to use a faster charger than opt for a slower alternative, showing that speed is the defining feature of a trusted charging network.

Petalite's survey highlights strong motivations for switching to electric vehicles, with the most common reasons to switch are:

- reduce environmental impact (64%)
- embrace new technology (61%)
- lower running costs of the vehicle (54%).

Despite the UK's rapid charging network expanding by 23% since the end of 2024 to a total of 17,734 nationwide, CPOs say they'll continue prioritising new charge points over replacement of existing charge points. Respondents also have an optimistic outlook when it comes to their future plans. Our research indicates that on average, operators plan to install around 270 new rapid/ultra-rapid charge points each to their network over the next 12 months.

This optimistic outlook from CPOs is despite the operational challenges they face as they scale the public charging network. CPOs cite a number of hurdles, including rising costs, planning complexity and grid connections. Three in four CPOs report delays or cancellations of site projects due to the grid or network constraints, which limits the pace of infrastructure rollout. This shortage is reflected in driver experiences, with more than half saying they've had to queue for a rapid charger on more than one occasion in the past 12 months.

However, CPOs say they will adopt smarter power management technologies to mitigate grid limitations and improve overall site performance.

CEO of Petalite, Steven Gardener, says his company's research shows the industry is at an inflection point: "The UK's rapid charging rollout has made good progress. Operators are moving beyond the 'build it and they will come' phase and their next chapter of growth will be underpinned by high-quality site selection and next generation charging technology that can overcome grid constraints. Improving site performance and EV driver experience isn't just about adding chargers, it's about ensuring that those chargers deliver as much energy as possible to drivers by using latest advances in technology.

"Consumer appetite for EV uptake continues to grow, as the wider cost savings of ownership are becoming increasingly apparent" adds Gardener. "However, we must also acknowledge that confidence is influenced by the charging experience. Providing reliable access alongside a fair and consistent pricing structure will be key to maintaining trust and loyalty among new and existing EV drivers."

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<https://www.petalite.io/resources/insights/ev-charging-the-balancing-act/>

Methodology

The whitepaper was produced by Petalite with independent research agency Coleman Parkes. It includes interviews with senior decision-makers from CPOs operating more than 2,600 public rapid and ultra-rapid chargers (15.4% of the UK market) and a survey of 700 EV drivers conducted in July and August 2025.

About Petalite

Petalite, a next generation electric vehicle (EV) charging company is redefining EV charging with its patented rapid/ultra rapid charging technology.

Petalite is based in Birmingham, UK with a multidisciplinary team of more than 40 engineering experts across hardware, software, mechanical, systems, safety, research and quality assurance - pushing the boundaries of what is possible in EV charging.

The team is driven by a shared commitment to engineering excellence, with the freedom to think differently and reimagine a better way of charging. Petalite's breakthrough SDC (sinusoidal direct current) technology radically simplifies the AC-DC conversion process at the heart of DC charging. This allows Petalite to create cost-effective charging solutions that provide superior availability, scalability, modularity, reliability and driver experience to support e-mobility, and accelerate the transition to a net-zero world.

www.petalite.io