petalite Freedom. Engineered

# Press Release (B2B)

**New Research highlights the "Balancing Act" facing the UK's Rapid/Ultra-rapid EV charging market**

A new industry report published by Petalite, a next-generation EV charging company, reveals how the UK's rapid and ultra-rapid public charging network is entering a new phase - one defined by the need to balance strong commercial performance with the reliable, high-speed experience drivers now expect.

The whitepaper, *EV Charging: The Balancing Act*, combines in-depth interviews with leading UK rapid/ultra rapid Charge Point Operators (CPOs) and a national survey of 700 EV drivers. It finds a clear tension at the heart of the public charging rollout: drivers want a simpler, faster, and more affordable charging experience but operators need higher utilisation to reach profitability. Achieving both will determine whether the next stage of the UK's EV transition can be sustained.

Key findings include:

- Driver frustration remains high: 54% of EV drivers report queuing occasionally or very often for a rapid charger, while 48% occasionally or very often encounter out-of-service units. Affordability is also a persistent pain point, with 40% naming high charging prices as their number one frustration.

- Speed is king: 68% of drivers prefer to wait for faster charging rather than use a slower charger immediately.

- Loyalty is earned at the charger: Drivers' loyalty to charging networks is shaped not by brand, but by performance. The top three most important factors for drivers when it comes to their favourite Charge Point Operator are: charging speed (62%), reliability (56%) and ease of use (56%) – which all directly relate to the network's hardware selection.

- Operational pressures: CPOs report various operational challenges such as site development complexity, regulation, cable theft, system communication and connectivity, as well as hardware failures. Grid connection delays, planning friction, and rising energy costs are also key issues.

- Optimistic despite headwinds: on average operators have plans to add another 273 new rapid/ultra-rapid charge points each to their networks in the next 12 months.

- Energy-based utilisation is key to profitability: 63% of CPOs identify energy-based utilisation as their top measure of site performance, and the most important factor for improving site EBITDA and ROI over the next 2-5 years.

Operators are moving beyond the "build it and they will come" phase of expansion, focusing instead on energy-based utilisation, reliability, and profitability. The next chapter of growth will be underpinned by high-quality site selection and next generation charging technology that can overcome grid constraints, as operators prioritise stronger financial performance and a consistent, high-power experience for drivers.

"This research shows an industry at an inflection point," says Steven Gardener, CEO of Petalite. "The UK's charging rollout is no longer a numbers game. Success will be defined by utilisation, reliability, and the ability to deliver a seamless charging experience. Drivers judge networks by what happens at the charger itself, and every successful session builds trust and loyalty, while every failed one erodes it."

The report also highlights that the UK's growing diversity of electric vehicles will intensify these challenges. With a wider range of battery sizes and charging capabilities entering the market – from smaller EVs limited to 50kW to new models capable of 400kW or more – CPOs must design sites and select hardware that can serve this evolving mix efficiently. So, the ability to flexibly manage power across multiple bays, and seamlessly add more charge points to popular sites will become critical to maintaining driver satisfaction and delivering site performance.

"The key takeaway from this research is that charging networks are evolving and the high-performing networks in the future will be smarter – not just larger," says Steven "Using next-generation charging technology will be key in delivering charging as quickly as possible to drivers and maximising energy utilisation for operators. By focusing on high quality site selection, reliability and future-proof technology, operators will improve the driver experience, win driver loyalty and strengthen site economics. The networks that succeed will be those that think ahead and build for the vehicles and expectations of tomorrow, not just the demands of today."

The full report, EV Charging: The Balancing Act, is available to download now at https://www.petalite.io/resources/insights/ev-charging-the-balancing-act/

**ENDS**

**About the report**

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