

Press release (4th February 2021)

Is it possible to charge an electric vehicle from flat-to-full in six minutes? eVc PowerTech thinks it is.

EV (Electric Vehicle) charging system manufacturer eVc PowerTech has won a Government grant and additional funding to the tune of £500,000 to develop a battery system that can be charged from flat-to-full in six minutes. As the electric vehicle market gathers momentum, the ability to be able to charge larger and more powerful batteries more quickly is a challenge that must be overcome.

Michael Boxwell, CEO of Birmingham based eVc PowerTech commented: "Our aim in the next few months is to create and demonstrate an EV battery system that can be charged from flat-to-full in just six minutes.

"Creating a system that allows an EV to charge in the same amount of time that it takes to refuel a conventional petrol or diesel car, will remove one of the most significant barriers to EV adoption."

The technology uses a proprietary state-of-the-art battery pack that has an estimated 25-year life. It could power an EV for one million miles before requiring replacement.

In the past decade, the focus on EV batteries has been on extending the range, whilst charging times have remained relatively static. Even for the latest electric cars from Porsche, Audi and Tesla, the fastest flat-to-full charging remains at around 30-40 minutes, much as it did in 2010.

The latest 350kW chargers do little to shorten the charging time. Compared to the 50kW chargers of a decade ago, they allow cars with bigger batteries to charge in the same amount of time.

Boxwell continued: "We are looking at the problem differently. Instead of focusing on range, we are focusing on keeping vehicles running around the clock by minimising recharge time.

"In the short-term, although vehicles with six minute EV battery packs will be a niche product and will have a shorter range, we are confident that once we crack the power delivery problem, the extended range will follow quickly. In five to ten years' time, six-minute EV technology is likely to be the norm for everyone."

As well as the Government funding, the project is being supported by four electric vehicle manufacturers, with others expressing interest.

eVc PowerTech will be demonstrating the new battery technology with two vehicles running on the streets of Birmingham in early 2021.

Creating a battery that can charge in six minutes has numerous technical challenges and not just with the battery itself. Charging the battery also presents huge technical, practical and commercial problems. However, this is where the company's PowerTech charging system comes in.

eVc PowerTech's main business focus is on developing a centralised, modular charging system that is capable of delivering up to 1MW, which is two to three times the power of existing state-of-the-art chargers, together with a unique power switching system that delivers the power to the vehicles that need it. This will be the only system that is capable of charging a battery in six minutes.

"By centralising the power management, our PowerTech charging system is capable of charging all EV types, splitting the power to charge up to 24 vehicles concurrently. It is capable of charging a smaller number of vehicles within six minutes," explained Mike Boxwell.

The PowerTech system is designed for fleets or locations where multiple vehicles need to be charged, such as charging hubs, taxis or last mile delivery fleets. Its modular design ensures it is expandable and futureproof.

Until now, eVc PowerTech has been funded by the founding Directors and shareholders. Recently, it has won funding totalling almost £500,000, co-funded by the UK's innovation agency, Innovate UK. eVc PowerTech has been further backed by Cyan Finance.

Managing Director Richard Gordon said: "This latest funding has meant we can really start to move our plans forward. We are now inviting the next round of investors to join us and take the system into full production for the global market."

Mike Boxwell concluded: "We are excited about our technology and the opportunities that are opening up for us. We know that what we are doing is technically and commercially feasible. We know that we can revolutionise EVs and EV charging."

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Editor's notes

eVc PowerTech Limited is an advanced technology EV charging equipment developer, creating state-of-the-art EV charging technologies focused around the needs of charging hubs and ultra-rapid charging.

The company's unique design provides faster charging for more vehicles at lower cost, balancing vehicle needs to grid capacity and providing easier, more cost-effective future upgrades.

Formed in January, 2019, the company is based in Birmingham, UK with a satellite office in Austin, Texas, USA.

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Media centre (including images):

<http://www.evcpowertech.com/electric-vehicle-news.html>