Qualcomm demonstrates 20 kW wireless dynamic charging at highway speeds

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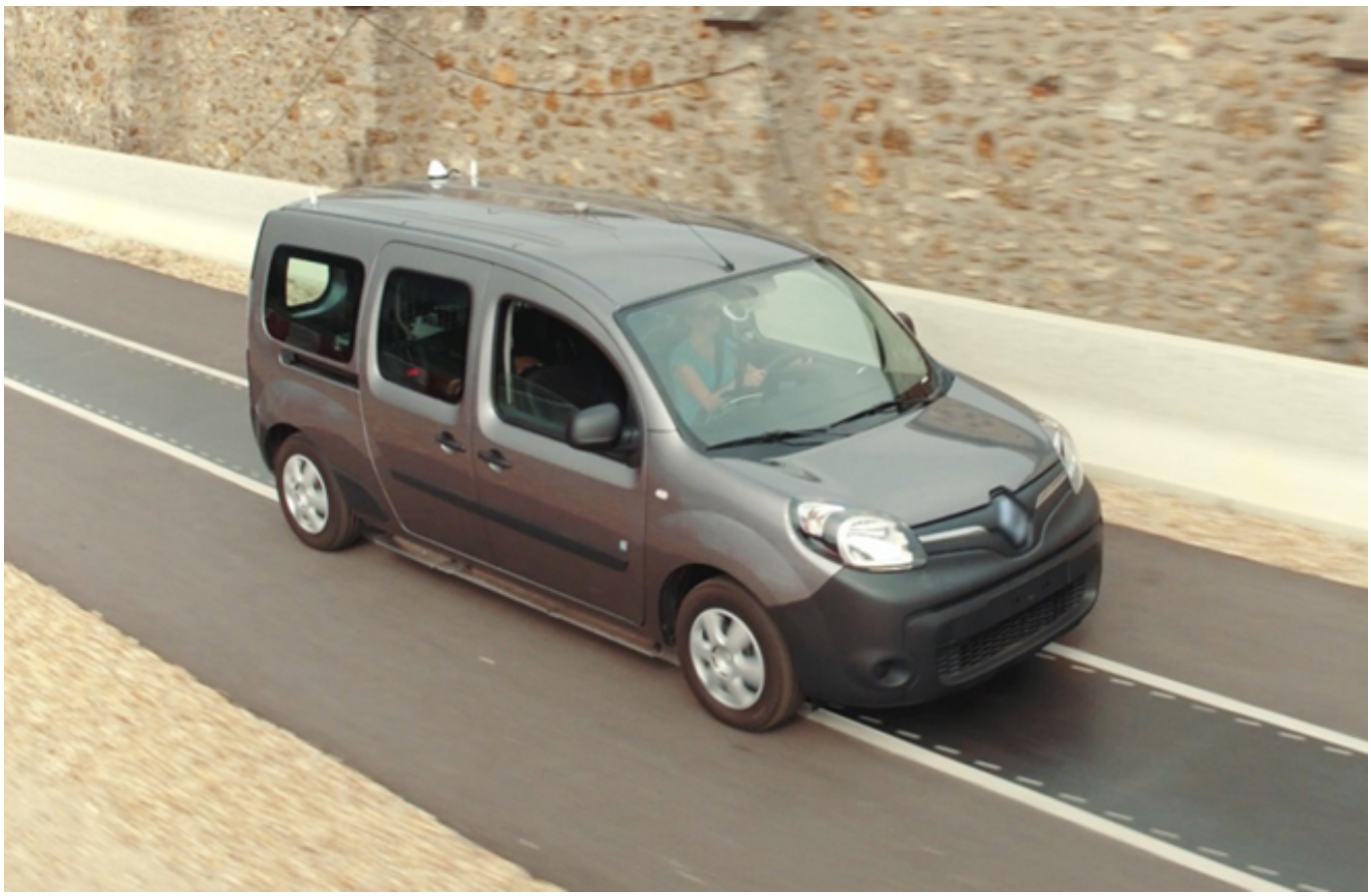

Plugging that J1772 connector into an EV's charging port is *such* a hassle! Wireless charging is the future, and dynamic charging, which allows vehicles to charge while rolling down the road, is the ultimate goal.

Now wireless charging pioneer Qualcomm has demonstrated a dynamic electric vehicle charging (DEVC) system that's capable of charging an EV dynamically at up to 20 kW at highway speeds (100 km/h).

Qualcomm also demonstrated simultaneous charging, in which two vehicles on the same track can charge dynamically at the same time. The vehicles were able to charge in both directions along the track, and even in reverse.

The demonstrations took place at the 100-meter FABRIC test track at Satory Versailles, recently built by the French research institute VEDECOM. Qualcomm's Halo DEVC system was integrated into the test track, and the receiving components were installed in two Renault Kangoo EVs.

VEDECOM will be performing a range of further tests to evaluate such things as vehicle identification and authorization, power level agreement between track and vehicle, and the speed and alignment of vehicles along the track.

"The installation of one of the world's first DEVC test platforms has provided us with a unique test facility and we look forward to expanding our expertise with the future testing," said Luc Marbach, CEO of VEDECOM.

Qualcomm envisages a transport system in which licensed operators build out the dynamic charging network, similar to the way that cellular communications networks have been deployed. DEVC technology would be integrated into one or more lanes of main roads and highways.

"Our engineers have worked closely with the Qualcomm and VEDECOM teams to complete the DEVC system demonstration," said Eric Feunteun, Electric Vehicle Program Director, Groupe Renault. "We see dynamic charging as a great vision to further enhance the ease of use of EVs."

"We are inventors. We are WEVC. This dynamic charging demonstration is the embodiment of this," said Steve Pazol, Qualcomm's VP and General Manager of Wireless Charging. "The combination of a global team of expert engineers and Qualcomm Halo technology, which covers all aspects of WEVC systems, irrespective of the magnetics used, has enabled us to really push the boundaries of the possible and outline our vision for future urban mobility."

Source: Qualcomm (https://www.qualcomm.com/news/releases/2017/05/18/qualcomm-demonstrates-dynamic-electric-vehicle-charging)

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Joe • a year ago

In the USA, the market opportunity is for HOT (HOV toll) lanes. EZpass/sunpass Payment ecosystem already in place. It would be easy to shift subsidies from state level 2 charger grant funds, to charging HOT lanes grants. And those will be the first lanes where Fully autonomous driving is legally allowed in some states. Clear incentives there, push autonomous EV's into HOT lanes, to get a charge, control traffic flow (optimized energy transfer too).

Outside of that, the USA has a degraded highway infrastructure, I doubt potholes, collapsing bridges and cracked pavement are part of Qualcomm's testing.

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Agreed. Should develop this system for inner cities, where most vehicles, including most EVs are at any given time. Any needed repairs to the roads and transmitters could be done quickly, just like with the street car rails and the tram overhead lines.

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Dennis Worley Joe • a year ago

What advantage has HOT have over the Qualcomm system?

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It would be complimentary. Qualcomm has just the inductive road tech. You need a payment ecosystem and roads that can support it. Toll roads with controlled access and regulatory approvals for self driving like HOT/HOV lanes provide a perfect spot to deploy the Qualcomm tech. Basic math would mean the car offsets most of its usage with equal charge. Up to 20kw at 60mph, is a charge rate of ~50mph range. Basically powering a car off the road and saving the battery. Great for small battery cars. Honestly this makes more sense for hybrids sitting in traffic to eliminate smog. Stop the engine while driving slow.

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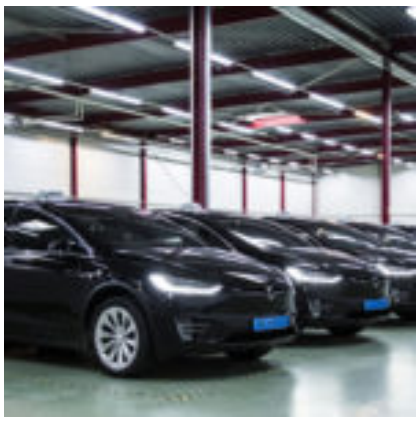

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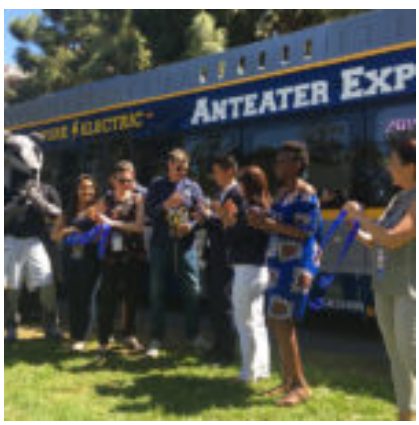

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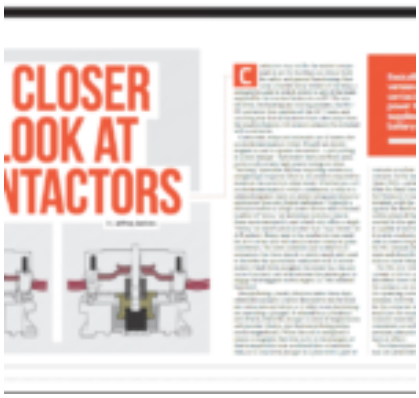

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