

Renault joins London wireless EV charging trial

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(Phys.org) -- Renault and Qualcomm this week signed a Memorandum of Understanding that they will cooperate on work at the upcoming London trial of Qualcomm Halo Wireless Electric Vehicle Charging (WEVC) technology, an event to take place in a few months. Preparations underway for the WEVC trial involve an assembly of government authorities and businesses, to install and test wireless electric cars. UK company Delta Motorsport, an automotive and motorsport engineering consultancy, has agreed to participate in trials carried out on specially adapted E4 coupes, and France-based Renault will use its vehicles too.

[Qualcomm](#)'s Halo technology will be fitted on up to ten electric vehicles; this is a wireless technology that Qualcomm purchased last year from the

University of Auckland's HaloIPT. The Halo system, consisting of a [charging](#) terminal, flat pad and receiving pad on the car, transmits kilowatts of electricity over the air. There is a charging pad on which EV owners park their vehicles. The pad is activated by the presence of the vehicle, sending a charge through the air gap between the ground pad and the receiving pad. Halo uses electro-magnetic induction to transfer 3, 7 or even 20 kW of power between two coils. Transmission rates are reported as similar to what can be achieved with a traditional cable charger. Qualcomm claims that energy losses are small and as a result the charging method's efficiency of 90 percent is comparable to conventional charging with a cable.

All of the cars chosen for the trial are fully [electric](#). The trial will be ongoing for about two years. In the first phase, the system will be used on vehicles in controlled environments, with ten to 20 charging pads, to help evaluate [Halo](#)'s commercial viability. A second round of trials will involve Renault in 2013. Announcing its participation, Jacques Hebrard, vice president of Energy and Environment Advanced Projects director at Renault, said Renault's entry in the WEVC London trial will complement [Renault](#)'s European research and development project with other partners to demonstrate wireless inductive charging of EVs "in a public environment with a high level of performance and safety."

Qualcomm's stated goal is to make the charging of electric vehicles simple and effortless, but the two-phase London trials will also provide some much-needed answers by industry players and consumers beyond ease and comfort. The trial will help to evaluate the commercial viability of [wireless](#) charging of [electric vehicles](#); to better understand issues in integrating WEVC technology into EVs; the deployment of WEVC in a "megacity"; and to get user feedback on using WEVC-enabled EVs.

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