Case Study - Taxis

High-Powered Wireless EV Charging — Is It Finally Time?

As long as I've been covering electric vehicles (nearly a decade) there's been a debate in the industry about the potential for high-powered wireless charging. This is the kind of debate that can go on for hours upon hours without moving either side. However, it has probably gone under many people's radar that there's been some serious progress in recent years, or at least claims of serious progress.

For a long time, I saw the claim that wireless charging couldn't provide high-power charging. And I didn't see any pushback to that idea. But then Momentum Dynamics (and perhaps others I'm forgetting now) starting putting out news about achievements in high-power wireless charging.

Another longstanding claim was that the efficiency sucked. However, we've also reported on **much improved efficiency** — but there is little clarity on what this current technology offers, so we'll reach out for feedback on that.

(PLACEHOLDER CONTENT)

Well, we're going to get more than ry tests, and wireless dreams now, because high-power wireless charging systems from M nics are going into a trial program with Jaguar I-PACE electric taxis in Oslo, Norway. The program will also include Nordic taxi operator Cabonline (NorgesTaxi AS) and Fortum Recharge, which is the largest provider of EV charging points in Norway.

Assuming a decent balance between driving and waiting for passengers (and a change of drivers once or twice), a vehicle could be in operation 24/7. In a city like London with an Ultra Low Emissions Zone or a requirement that taxis be electric, this is extra valuable. Though, even simple economics should do the job to push this solution forward.

Aside from the entire program coming about at all, perhaps the most interesting aspect of it to me is that Fortum and Momentum Dynamics are teaming up. There's humongous potential for Momentum Dynamics to scale up alongside or inside Fortum. Momentum Dynamics CEO Andy Daga certainly seemed enthusiastic about the rollout:

"This is a technology breakthrough moment in the development of wireless charging for all communities. By providing unlimited driving range our system enables Oslo cab drivers to stay in revenue service all day. We are pleased that the system was integrated by Momentum and Jaguar Land Rover engineers into the I-PACE in a matter of weeks, even with the difficulties of COVID-19. This project perfectly outlines the automatic electric taxi charging model for any city looking to implement zero emission transportation."

Image courtesy Jaguar Land Rover/ElectriCity.

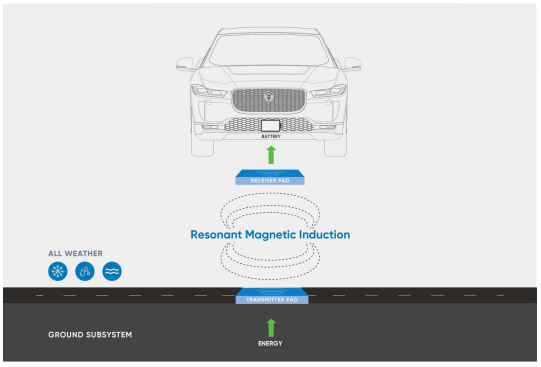

Image courtesy Momentum Dynamics/ElectriCity.

Oslo is an unsurprising place for this trial. EV market share is at 56% in Norway's auto market so far this year, far above any other country. Norway intends for all new auto sales to be electric starting in 2025, and is hopeful Oslo will have 100% electric taxis by 2024. I have no doubt that Norway and Oslo can achieve those goals. Of course, humans can always muck things up, but as we're seeing, the cars are ready, the charging tech is ready, the batteries are getting into production, and driving electric is simply better all around.

Good luck to Momentum Dynamics, Jaguar, Fortum, Cabonline/NorgesTaxi, Oslo, and Norway on this pilot program. I'm sure many people in the charging industry, in the auto industry, and in city government and policy roles, and in the broad, global EV fan club will be watching the results carefully.