

THE NEXT GENERATION OF ELECTRIC POWER TRANSFER



PROJECT OBJECTIVES

1. Improve Electric Vehicle (EV) battery safety.
2. Elevate consumer willingness to adopt EVs to reduce vehicular pollution.
3. Increase renewable power energy storage for city grids.

PROJECT SUMMARY

Electric Vehicles (EV) have often been touted as the future of transportation, but commercially there have been challenges in getting people to swap to EV.

We seek to improve the adoption rate of EV through innovative technology to improve consumers' receptivity.

Our project uses high-efficiency wireless power transfer technology to enable large power transfer to and from EV batteries. This opens the door to many refuelling methods beyond conventional plug-in charging, which has seen many restrictions.

Concentrating our efforts on battery swapping infrastructure, we can eliminate range anxiety, which is a big pain point for EV users as their vehicles will be able to achieve faster refuelling rates. Furthermore, EV's battery safety is greatly improved as charging connectors will not be required. The adoption of more EV hinges on the use of wireless charging that can transfer large amounts of power at high efficiency.

On the country level, battery charging stations provide a commercially viable way for governments to improve their energy grid by allowing renewable energy storage. Energy will be stored during the day and released at night, when renewable energy sources are not producing any energy and demand for electricity is higher.

We hope to catalyse hot-swap battery charging stations of the future and help increase the proliferation of clean EVs on our roads.

PROJECT OUTCOMES

We hope to commercialise the use of our project's inductive charging coils to broaden EV charging capabilities. Through this, we have the potential to improve EV safety, elevate consumer willingness to adopt EVs and provide a new method of energy storage.

CONVENTIONAL CHARGING STATION



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