Wireless Inductive/Resonance Charging

HOW COULD THIS HELP?

- Charges electric vehicles wirelessly
- Solves range issues

HOW DOES THIS WORK?

- An infrastructure application uses magnetic fields embedded in the pavement to wirelessly transmit electric currents between metal coils thus enabling the wireless charging of electric vehicles while the vehicle is stopped or in motion.

INVESTMENT

+ V2X ROADSIDE UNIT COST PER MILE-FREEWAYS
$52,000
+ V2X ROADSIDE UNIT COST PER INTERSECTION-SIGNALIZED CORRIDORS
$26,000
+ V2X SIGNAL CONTROLLER COST PER INTERSECTION-SIGNALIZED CORRIDORS
$10,000
+ FIBER OPTICS COST PER MILE
$158,000

TRANSPORTATION NEEDS ADDRESSED

ENVIRONMENT

SOLUTION IMPROVEMENTS

- Electric vehicles experiencing short range
- Excessive emissions
- Excessive electricity consumption

SOLUTION PITFALLS

- Large scale project
- Costly

Disclaimer: all content is for planning purposes only and published as of Summer 2020. Contact the author at shacav@mdot.maryland.gov with any questions or comments.

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION