

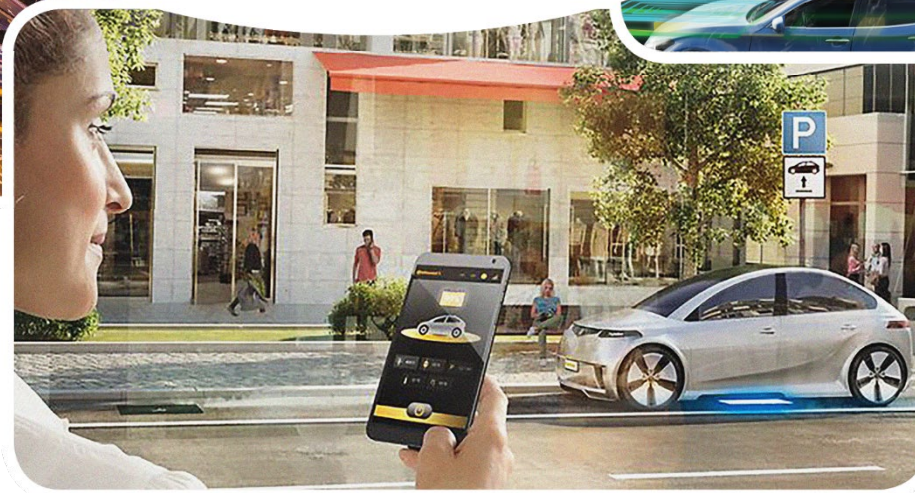
Co-optimized power and transportation networks



Smart charging across vehicle classes and user groups



Synergy with connected and autonomous vehicles



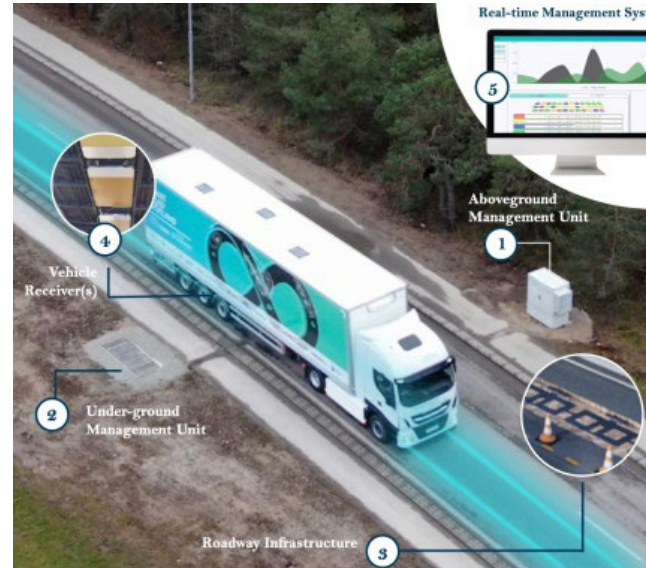
Wired and wireless charging systems bring power to the vehicle

High utilization = Low cost charging

Pilot Demonstration Technology Components



CharIn Plug-in Megawatt Charging System (MCS)



In-motion Dynamic Wireless Charging



5G Networked Smart Grid and Charge Management

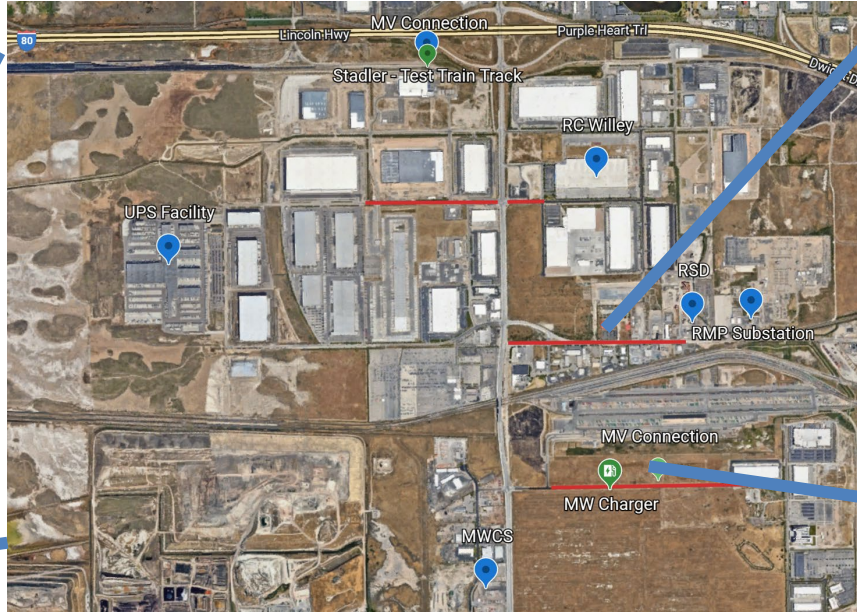
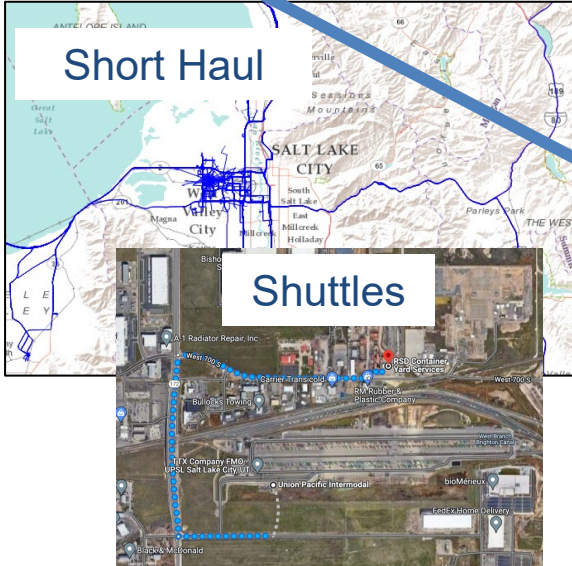


Megawatt Static Wireless Charging

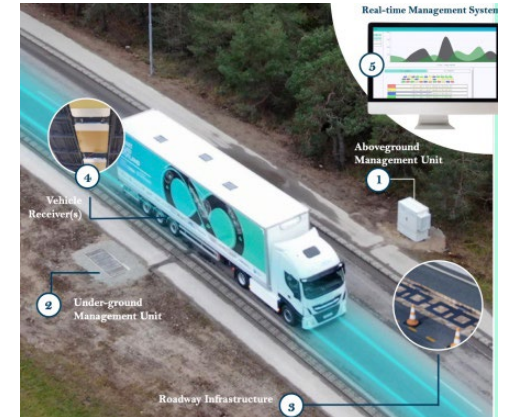
UIPA Electrification Pilot – Phase 1



Routes



In-motion Dynamic Wireless Charging



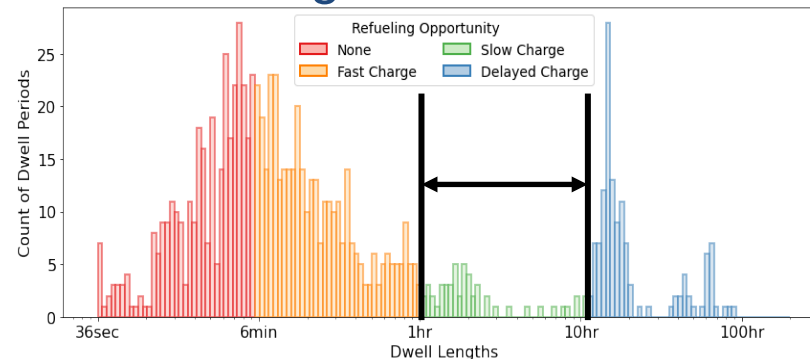
Megawatt Static Wireless Charging



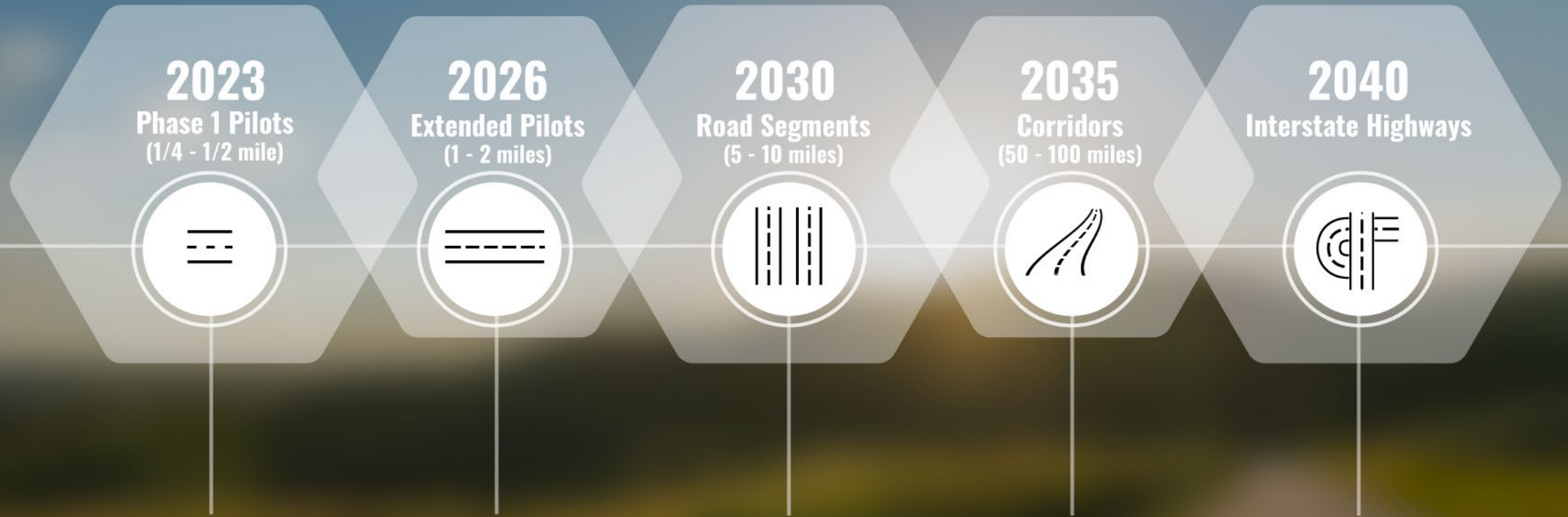
Vehicles



Modeling – Data Collection



20-Year Roadway-Electrification Roadmap



2023: Electric Roadway pilots installed in Utah, Indiana, and Florida.

2026: Initial learnings extended as supply chain is built out.

2030: Installing roadway segments in key locations across the US.

2035: Electric Roadway corridors established.

2040: Electric Roadways expand from metro areas.