

Executive Summary
VEHICLE REMOTE CHARGE
ALL-ELECTRIC VEHICLE TRANSPORTATION
VIA WIRELESS POWER TRANSMISSION
PARISE RESEARCH TECHNOLOGIES

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This wireless power transmission system provides for all-electric transportation, eliminating gasoline and diesel driven vehicles from our highways, utilizing a renewable energy source. The major drawbacks to all-electric replacing gasoline and diesel driven vehicles are the distance between fuel fill-ups and the time required to refuel; this system eliminates both these problems. This non-polluting all-electric transportation system provides the same range, power, mobility and maneuverability people expect and currently have with gasoline and diesel powered vehicles. The wireless power beam can be microwave, laser, or any other power beam that can be transmitted over a substantial distance from the power transmitter to the vehicle with minimal power attenuation in the atmosphere.

The system also provides an excellent transition, using hybrid electric, from today's transportation system to all-electric; the system can start with public transportation, then grow to incorporate the private sector. The transportation system can be initiated in city traffic where pollution is the worst and gradually be expanded to the suburbs and to rural areas. This charging system can be used with any proposed all-electric system of today: battery, flywheel, ultra-capacitor, fuel cell, etc.

With the energy being transferred via wireless power beams, there will be minimum impact on current traffic patterns because most of the work will be performed along the roadside and overhead.

The proposed transportation system can start with an intra-city downtown public transportation demonstration to display the efficacy of the system. The transportation system will be cost effective, pay as you go and grow; the user pays for the system. The system could also be demonstrated on a golf course either to recharge electric golf carts during nighttime storage or to power the carts during the day while they are in service on the course.

The next generation transportation system for the country will be a multi-billion dollar industry. This system can capture that market.

The cost to produce a 40-watt demonstration recharge system is estimated to be \$35,000. A prototype stationary multi-battery recharge system (golf carts at night) would cost approximately \$1.7MM. A prototype multi-vehicle stationary or mobile vehicle recharge system would cost approximately \$3.75MM.

The system has four issued US patents, Nos. 5,982,139, 6,114,834, 6,792,259, and 7,068,991, and Patent Pending, for the Remote Charging System for a Vehicle, an all-electric transportation system.

Will license/sell technology, or sponsored support is requested to build a prototype all-electric vehicle with receiver on the vehicle and a remote power transmitter to demonstrate the usefulness of the system.

[3 References]

