Next big thing: Electric buses

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Electric cars are a very hot topic, particularly with Motor Trend picking the Tesla S as its Car of the Year, but rarely do you hear anyone talk about electric buses. America is not a country of public transportation. We lack the infrastructure—mostly due to the logistical complications of trying to accommodate for such a large geographical area—for it to become a major discussion. But, we do have *a lot* of busses—a lot of buses that are running on gasoline or diesel and belching pollution into cities and country alike. In fact, according to Carbonfund.org, a 20 mile city bus trip would emit about 13 lbs of CO_2.

Obviously, as with any electric vehicle, the first thing people freak out about is charging the vehicle. Because buses run all day, they generally don't have enough of a charge to get through the entire time. But, researchers at Utah State University have designed an electric bus that works in conjunction with an inductive charging system placed in the road at bus stops.

The bus, called Aggie Bus [1], was developed by WAVE and USTAR Advanced Transportation Institute. The system takes advantage of the consistency of public transit. Buses, unlike cars, run the same routes over and over again, so the chargers can be placed at the stops. This allows the bus to charge all day, instead of requiring that it return to a garage.

The Aggie Bus uses a high-power, high-efficiency wireless power transfer system to wirelessly charge while it goes about its usual route. According to the university, the bus can transfer 5Kw of power over 10 inches at about 90 percent efficiency , which is pretty amazing and shows great potential for future uses.

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[1] http://www.psfk.com/2012/12/electric-bus-charges-itself.html