

To: Staff

From: Cole Nielsen

Re: Report needed on resonant wireless charging

With the battery life of portable electronics leveling off, there is a huge opportunity to develop long range wireless charging to power electronics. I read into a particular technology, called resonant inductive coupling, which utilizes coils with matched resonances to transfer power with higher efficiency and range than standard methods. I want a 5 page paper on the feasibility of using this technology in long range settings, e.g. have coils in the floor of a room powering portable electronics in the room. Specifically determine the maximum power transfer feasible to typically sized portable electronics (phones, laptops) with this technology over a 1-2 m range and if this is enough to power these devices.