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Wireless Electricity Transfer Inches Closer to Reality

By Jordan Robertson The Associated Press

SAN FRANCISCO — Imagine charging your laptop computer or cell phone without plugging them into an electrical socket. That's a luxury that could be provided by wireless power transmission, a concept that has been bandied about for decades but is creeping closer to becoming viable.

Building off work unveiled last year by Massachusetts I nst itute of Technolog y researchers, Intel Corp. this week demonstrated how to make a 60-watt light bulb glow from an energy source 3 feet away. The Intel team did it with relatively high efficiency, losing only a quarter of the energy the researchers started with.

"That to me is the most striking part about it — transmitting 60 watts at 75 percent efficiency over several feet," Intel's chief technology officer, Justin Rattner, said in an interview. "The power pack for your laptop isn't that efficient ... it's one of those things that's almost too good to be true."

Wireless transmission of electricity makes use of some basic physics. Electric coils that resonate at the same frequency can transmit energy to each other at a distance.

But the technology has a long way to evolve before it becomes a commercial product. In both the MIT and the Intel work, researchers used charging coils far too large for wide-scale use.

Even so, Rattner said Intel is in the early stages of trying to modify a laptop to accept wireless power. One challenge is figuring out how to prevent the electromagnetic field from interfering with the computer's other parts, he said.

Eventually, a homeowner could attach a large transmitter to a wall — or even bury it inside the wall — and plant many smaller receivers inside nearby tables and chairs and other pieces of furniture, creating the ultimate in recharging convenience.