

Jan. 5, 2018

FCC Approves Wireless Charging at a Distance

The Federal Communications Commission has certified transmitters capable of focusing radio frequencies for recharging devices on the fly. The system, developed by Energous, is designed to provide power-at-a-distance for small electronic devices, including smart phones, earbuds, fitness trackers, hearing aids, smart speakers, toys, remote controls and various other household devices.

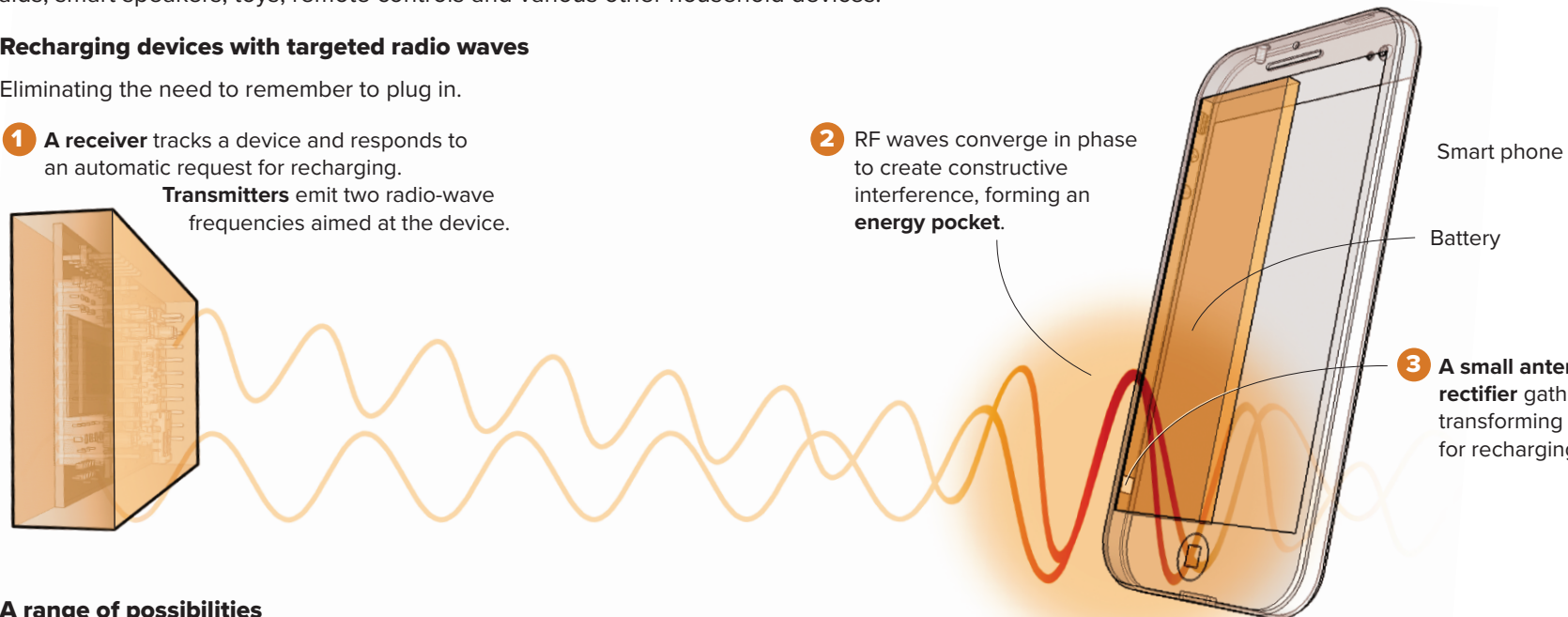
Recharging devices with targeted radio waves

Eliminating the need to remember to plug in.

- 1 A receiver** tracks a device and responds to an automatic request for recharging.
Transmitters emit two radio-wave frequencies aimed at the device.

- 2 RF waves** converge in phase to create constructive interference, forming an **energy pocket**.

- 3 A small antenna and a rectifier** gather RF radiation, transforming it into DC current for recharging the battery.



A range of possibilities

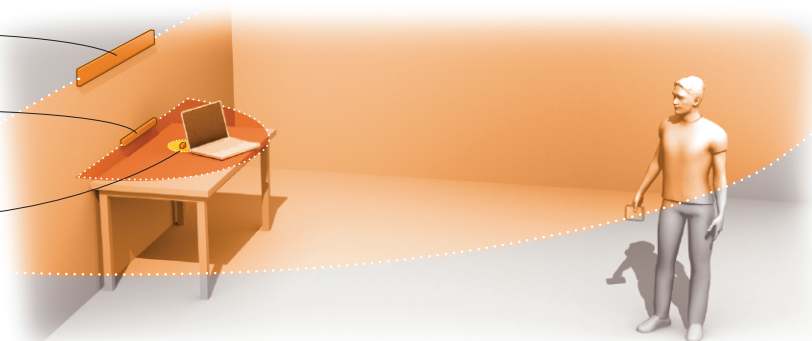
Energous transmitters are capable of remotely charging devices from various distances.

TRANSMITTERS

Far field
(15-foot radius)

Mid field
FCC-certified
(2-3-foot radius)

Near field
(Adjacent to or
embedded in
device)



Addressing health concerns

Energous says that its approved transmitter “underwent rigorous, multi-month testing to verify it met consumer safety and regulatory requirements.”

The FCC warns that high levels of RF energy can rapidly heat biological tissue. The eyes and testes are most vulnerable. But the agency says, at low levels of exposure, “the evidence for production of harmful biological effects is ambiguous and unproven.”

Sources: FCC, Energous, U.S. Patent and Trademark Office

By Patterson Clark, POLITICO Pro DataPoint

Click here for more information about DataPoint,
and your Account Manager will follow up shortly.