

Isle of Wight festival attendees have wearable charging technology taking care of mobile device power needs-- Vodafone trials the Power shorts and Recharge sleeping bags, both with built-in thermoelectric Power Pocket chargers.



A University of Southampton development, the Power Pocket consists of multiple "thermocouples" making a thermomaterial small enough to stitch into clothing. Taking advantage of the difference between body and outside temperatures (the so-called Seebeck effect), the material generates voltage and current when heat flows through the warm (body-facing) and cool (outside-facing) sides of the material.

According to the researchers 8 hours inside the sleeping bag provide up to 24 minutes of talk time or 11 hours of standby time (assuming the temperature inside the sleeping bag is 37 degrees, regular human body temperature) while a full day's worth of wearing Power shorts should charge a smartphone for up to 4 hours.

Data from the festival trials should help build even more resilient modules-- after all, clothing needs to be both flexible and hardwearing, and one usually folds a sleeping bag into a fairly small package once done, well, sleeping.

As for even further in the future, the University of Southampton team also has ambitions for "vampire" wireless sensors laced into clothing, which gather and send data over ad-hoc wireless networks through the power of ambient room temperature alone.

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