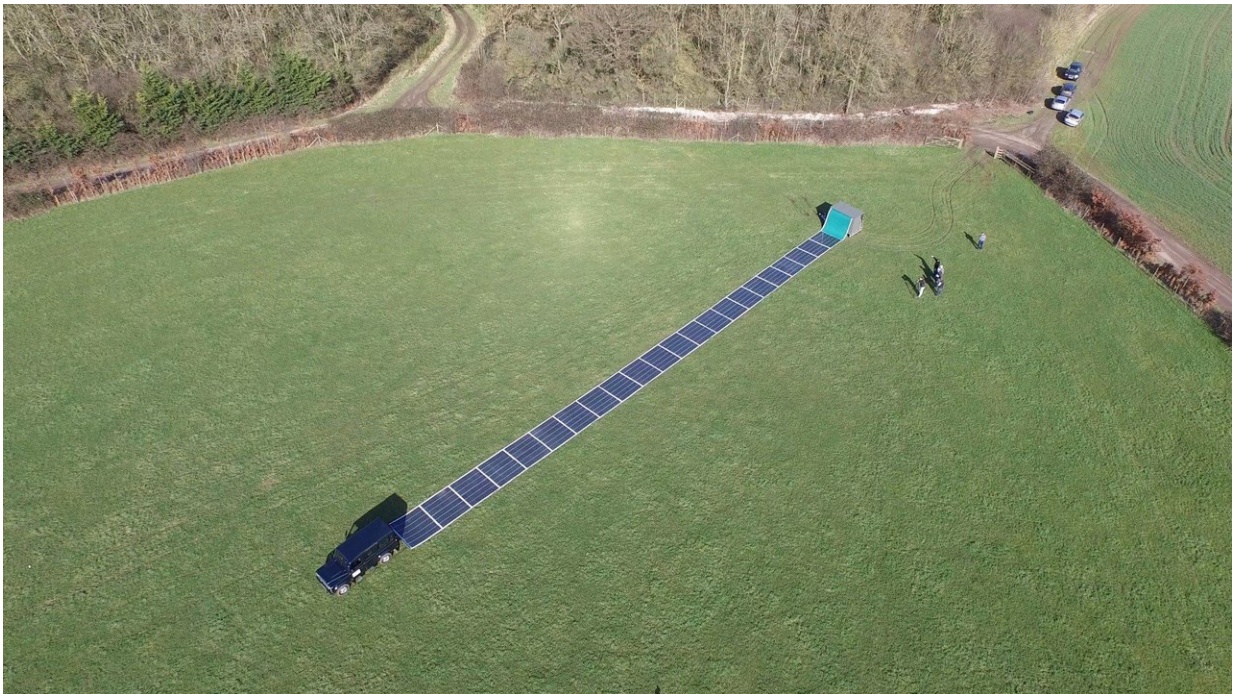


# Power system takes portable approach with roll-up solar panels

October 6 2017, by Nancy Owano

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Credit: Renovagen

(Phys.org)—Imagine a solar power plant with a rollable solar field—a mat rolled out in minutes that can give stranded residents the power they need to get by. That is reality, as a company's portable solar power technology is being used on Flat Holm Island off the coast of Cardiff.

The system is called Rapid Roll.

"Until recently, the island got its electricity from some conventional [solar panels](#) and a diesel generator," said Tibi Puiu in *ZME Science*.

The island has growing electricity needs, however. It's hoped the project could step up to meet electricity needs in times of natural disasters. The BBC News reported on the island roll-out, where the solar panels are laid out like a carpet on the ground, taking about two minutes.

It can provide an average of [11KW](#) of power to provide power for the small number of residents and visits by tourists.

*ZME Science* said "A much larger version rolls out solar power from a shipping container in [less](#) than an hour for 300 kW of power."

The system delivers 24 hours of energy, enough to power the island for a whole day. Also, "A 4×4's [trailer](#) can hold enough solar panelling to power a 120-bed mobile clinic," said *Business News Wales*.

One common complaint about solar farms with their fixed panel systems has been that the space could be better utilized for other purposes, but this concept is portable. You can use it and you can remove it.

"The spooling system also includes an electric or electro-hydraulic drive system (along with [manual](#) backup) which enables the solar field to also be stowed away within a few minutes."

The site's FAQ section pointed out that "If a very severe storm/hurricane is forecast," the solar field can be stowed away in advance of the storm.

Panels have a life span of 10 years.

Renovagen is the company behind Rapid Roll, and the company is

focused on commercial-scale portable [solar power](#) systems.

The company site provides the technical details.

What they have is a solar PV array as a single piece mat. There is built-in structural support and power-transmission cabling embedded [throughout](#).

Battery storage? The Rapid Roll system includes a racked lithium-ion battery [bank](#). They said they work with a number of battery suppliers "to offer a range of options across the price vs performance scale."

The BBC said its batteries can store 24KW/h of power, about 1 day's worth of energy use on the island.

John Hingley, managing director, Renovagen, said in the BBC report they have had a show of interest from military disaster relief and humanitarian agencies, and remote mining exploration companies.

For sure one can easily think about the hurricane-hit communities cut off from [power](#) to appreciate that a rapid deployment of solar panels could help people in the future through such devastation.

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