

UK Solar Innovator Planning Unique Thin Film Pilot

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UK-based company Power Roll has picked up £5.8 million in investment over the past six months and plans to begin pilot production this year. The company has developed a unique flexible thin-film technology, which promises to combine both solar generation and storage. Power Roll has developed a thin-film PV solution which it says it can produce at a cost of \$0.03/W.

[Power Roll](#), a technology startup based in the north of the [UK](#), this week announced that it has raised £5.8 million (US\$8 million) from various investors over the past six months, and expects to begin pilot production of its flexible thin-film PV technology later this year.

“The success of our latest funding round will ensure that we have sufficient capital to meet key milestones as we scale up the technology,” said Power Roll CEO Neil Spann. “As well as opening our roll-to-roll pilot plant for our unique solar film this year, we are developing other applications including capacitors and sensors, and are strengthening our team to support market delivery.”

The company has developed a unique thin-film technology, which promises to offer combined solar and storage in a single device. It uses a flexible polymer substrate, embossed with what it calls “microgrooves smaller than a human hair,” onto which it deposits an active solar cell material via a technique developed in house.

Power Roll is currently working with a perovskite solar ink, and has already achieved 11% efficiency, with a roadmap to bring this to 20%. Power Roll also states that its substrate is compatible with any photo absorbing ink.

And beyond solar, Power Roll also states that applying different material coatings to its microgroove film could also create both energy storage devices and capacitors. Potentially, they could create a device that is a solar cell on one side, with combined energy storage on the rear. The company has developed a roll-to-roll solution to produce the solar film, and

promises production costs as low as \$0.03 per watt.

New investors

Investors in the two recent funding rounds include Indigo 7 Ventures (i7v), Kero Development Partners and RAB Capital, as well as the conversion to equity of a £1.25 million loan from the [UK](#) government's Future Fund scheme.

“Power Roll’s technology has the capacity to change the outlook of solar installation the world over, not only by a dramatic reduction in cost, but also because it opens up the use of a huge variety of sites and buildings that would not be suited to traditional solar installations,” said Doug Duguid, Chief Executive of i7v. “Power Roll’s core microgroove technology has a number of other applications beyond solar, and as a result, they have created a platform product with potentially multiple uses, which is very appealing to us as an investor.”

Read the [original article](#) on pv magazine.