



The solar panel is placed on the rear of the backpack, which accumulates charge through exposure to sunlight during the day | Photo source [Solarpak](#)

[Innovation](#) > [Sustainability](#) > [Solar-powered backpack provides light to off-grid students](#)

SOLAR-POWERED BACKPACK PROVIDES LIGHT TO OFF-GRID STUDENTS

 SUSTAINABILITY

A former Ivorian computer retailer created a backpack that provides light to help children in remote villages study after dark

Spotted: During a business trip to a remote part of Cote d'Ivoire, Evariste Akoumian came across children who, living in areas cut off from the power grid, were trying to study in the dark with oil lamps. The former computer retailer's solution for this involves harnessing the most available resource: sunlight. This became Solarpak, a small, lightweight backpack onto which a solar panel is strapped, alongside a detachable lamp that produces light when connected to the battery with a regular USB cable.

The solar panel is placed on the rear of the backpack, which accumulates charge through exposure to sunlight during the day. The battery takes half an hour to fully charge and is then able to supply the LED reading light for up to five uninterrupted hours. This allows children to complete their assignments and study at home after dark, which hasn't been possible for many rural communities in Cote d'Ivoire for quite some time. The bags also come in cool designs and colours, a major change for students who are used to carrying their school supplies in plastic bags or rice sacks.

The first 500 bags were produced in 2016. To reach as many children as possible, Evariste seeks partnerships with institutions that promote primary school education and also meets with government departments, NGOs, and various United Nation agencies, gaining Solarpak significant adoption and widespread reach. Furthermore, thousands of the bags have been donated to charity, around 55,000 have been sold, and there are plans to export the bags to Gabon, Burkina Faso, Madagascar, as well as NGOs based in Germany and France.

Evariste was motivated by the need to better the lives of children living in poor communities where education is not often prioritised because of the lack of infrastructure and poor standard of living. Solarpak's promise to improve the academic performance of these students by allowing them to study after dark will hopefully set a precedent for other companies to give such students a better chance at breaking the vicious cycle of poor literacy and less-than-average living standards.

Explore More: [Education Innovations](#) | [Sustainability Innovations](#)

26th February 2020

Website: solarpak.net

Contact: [instagram.com/solarpak](https://www.instagram.com/solarpak)

[Download PDF](#)

Takeaway:

Evariste was motivated by the need to better the lives of children living in poor communities where education is not often prioritised because of the lack of infrastructure and poor standard of living. Solarpak's promise to improve the academic performance of these students by allowing them to study after dark, will hopefully set a precedent for other companies to give such students a better chance at breaking the vicious cycle of poor literacy and less-than-average living standards.