

bots **cover story**

# Doing good with solar power

Noor Shahiwan Ismail harvests the sun's energy not just to make a living but to also help the have-nots, writes Izwan Ismail

**G**OING to Orang Asli villages in the peninsula and in Sarawak to provide free electricity has been part of Noor Shahiwan Ismail's routine since 2011.

That was the year when he established his company SolarGE, offering the solar brand Suncrox. With a major in biology from University Pertanian Malaysia and a Master's degree in environmental science from the same university, what he is doing does not really reflect his academic pursuits thus far.

Noor Shahiwan decided to take a totally different path in work because of his interest in solar energy, which he says has good potential in years to come. It is also his passion to help those without electricity, especially the Orang Asli community in the rural areas.

He didn't start his company immediately after his studies, but instead entered Malaysian Technology Development Corporation's graduate entrepreneurship programme aimed at training selected graduates to become technopreneurs. It is called Symbiosis.

Later, Noor Shahiwan received a fund of RM1.7 million from MTDC to start Suncrox Solar.

## WHERE IT ALL BEGAN

Noor Shahiwan believes in giving back to the community and helping the unfortunate, and in his case, through his expertise in generating electricity using solar power. During his startup years, he managed to create a solar charge controller, to keep batteries from overcharging. The device regulates the voltage and current from the solar panels to the battery.

Then he came up with the brand Suncrox, which means sun and crocodile, as the reptile can regulate temperature effectively under the sun. "That's how it all began," says the 30-year-old father of three.

Although Noor Shahiwan created the solar charge controller, he doesn't sell it individually but instead, provides the solution for the whole solar system. These are normally installations for small and medium-industries' outlets, chalets, food trucks, camper vans, boats, street lights, farms and buildings in remote areas.

*We chose DIY so that these people would be able to maintain and fix the system themselves...*

Noor Shahiwan

The solar installations are more suitable for buildings and small factories which use a lot of electricity and as such, will have significant savings. It is also suitable for buildings or structures in remote areas where there is no electricity supply.

"For residential homes, it is cheaper to use electricity provided by TNB because residential houses normally don't use that much electricity," he adds.

## ACHIEVEMENTS

Noor Shahiwan has handled both small and big installations, including the smart solar toilet for UKM, 10kW grid tie rectification for UJA, solar power-assisted buggy for Penang Hill, solar auto lighting for Felcra, village street lights for a government project, solar light for a food manufacturer's factory compound, solar power for a mosque in Sabah, solar fertigation system for the Agricultural Department, a solar-powered chalet in Langkawi, and solar-powered layby for Guthrie Highway, among others.

Suncrox has also done a number of projects in countries such as Indonesia, Thailand, Myanmar, Saudi Arabia and the Philippines.

Noor Shahiwan is also active in many solar and green technology events worldwide. His company won the Malaysia's Boss Award for Most Voted Greentech from 27,000 public votes.

He was also selected to enter the Collective Global Accelerator in London in 2017, the top 10 solar energy start-ups for the EXPO2017 in Astana, Kazakhstan, the Global Cleantech Innovation



Villagers installing the solar system from Suncrox.



Noor Shahiwan giving a demo on how to install the solar system at an Orang Asli settlement.



Noor Shahiwan at one of his projects overseas.

tools such as cutters, everything. If we just provide the system, it will break down. But if they install themselves, they will know how to repair it if it breaks down." The solar power each family generates can provide up to five hours of electricity, enough for powering light bulbs and charging phones.

"Prior to the solar power, the Semai community used cooking oil and generators to generate electricity. Cooking oil is more expensive there and the Semai community pay RM1.50 per kg of oil and RM10 for the generator set.

"So the solar system saves them money and gives sustainable power for a longer time," he says.

In addition, Suncrox has also provided solar power to rural hospitals in Sabah, Sarawak, Myanmar and a few African countries such as Sudan, Tanzania, Kenya and Uganda under the Sport and Youth Ministry's project.

## FUTURE TARGET

Noor Shahiwan aims to attain 1,000 beneficiaries for his social enterprise initiative. Currently, 650 individuals / families have benefited from Suncrox's solar initiative. "We gave a Tier One solar home system to the recipients, which is enough for powering up lights and charging phones or anything with a USB," he says. Noor Shahiwan is also championing an advocacy campaign where 1 kW of solar energy should subsidise one person or one house's electricity. "To provide a home with basic Tier 1 solar is just RM200," he says. He hopes he can get 1,000 beneficiaries by the end of the year.



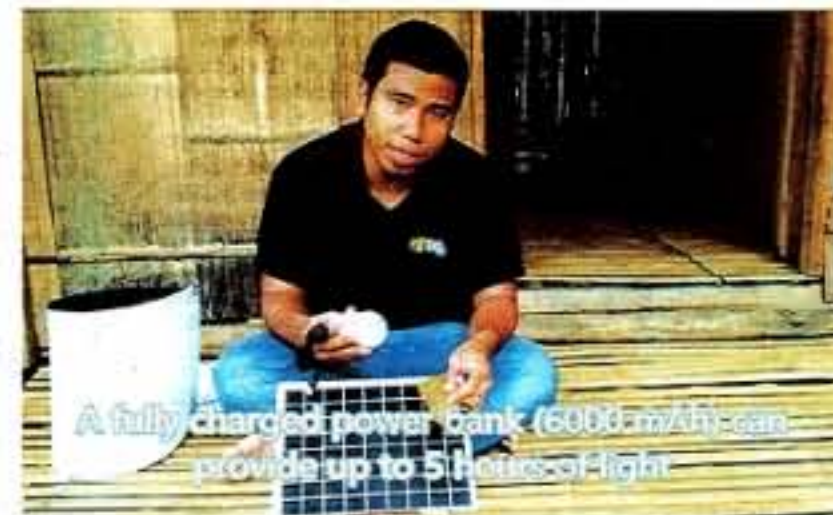
Solar panel from Suncrox.

Programme 2016 in Malaysia, a global annual competition and accelerator-based programme aimed to identify, fund and nurture Malaysian startups in clean technologies.

His other achievements include being the first runner-up of the Inclusive Innovation Challenge 2015. He was also a recipient of the Maverick Award for the most innovative solution to tackle real and pressing issues like power access in conjunction with The Mercy Excellence Awards for Social Enterprises.

## HELPING THE HAVE-NOTS

One of the reasons Noor Shahiwan ventured into the solar business was that he wanted



Simple tier 1 solar system.

to help those who have never had electricity in their lives.

He uses some of his company's revenue to help rural folk such as the Orang Asli community who have been living without electricity deep in the jungle. "There are still many people living without basic needs and that's where sustainable energy like solar can be useful," he says. For example, he and his team has installed a solar system at an Orang Asli Semai settlement in Kg Sop, Pos

Lerjang, Kuala Lipis, Pahang.

"It's a DIY initiative where the Orang Asli were taught to install the solar system themselves," says Noor Shahiwan.

"We chose DIY so that these people would be able to maintain and fix the system themselves, it's pretty simple," he says, adding that the response was overwhelming as the Semai community, including the women and the elderly folk, was very eager to learn. "We provide

A fully charged power bank (6000 mAh) can provide up to 5 hours of light