UNNY Singapore might seem like the perfect place to start a solar power business, but Frank Phuan, co-founder and CEO of clean energy solutions provider Sunseap Group, knows better. The city-state has no lack of sunlight, but it also has clouds. Perhaps most importantly, Singapore does not enjoy the luxury of having swathes of cheap land to install solar panels, he explains.

In fact, the sheer density of high-rise buildings here makes hoisting solar panels up to rooftops no mean feat. And those are just limitations from the physical environment.

Unlike many countries in the world which dangle benefits to encourage the generation of clean energy, the Singapore government has adopted a "no subsidy, no incentive" approach, says Mr Phuan.

"The solar energy you generate has to be priced competitively against other natural gas-driven energy in order to survive here," he explains. "From that perspective, it's good because it drives a Singaporean company like us to try to be successful in a very harsh environment. I always say that Singapore has the most challenging solar environment in the whole world."

But Sunseap has managed to flourish despite the circumstances. With the full liberalisation of the retail electricity market by the end of this year, Mr Phuan tells *The SME Magazine* that the group intends to seize on the opportunities that are opening up and how he plans to propel the business forward.

For a start, his interest in solar energy came from his late father, who owned a solar panel manufacturing business started in the 1970s which supplied mainly to Europe. Many countries in Europe during that period started to switch to solar energy as a result of government incentives.

"Whenever you generate clean energy, the government buys it at a premium, in what is known as a feed-in tariff," he explains. A feed-in tariff is meant to accelerate investment in renewable energy technologies by offering long-term contracts to renewable energy producers.

"From my father's perspective, we always wanted our government to offer similar subsidies to propel the solar industry. But that never came to pass."

Fast forward to 2011 when Mr Phuan came up with the radical idea of selling solar energy as a service instead of solar panels as a product – a model completely different from the family's manufacturing business.

This led to the birth of a separate company Sunseap Leasing, co-founded with Lawrence Wu, a school mate. Describing his business partner, Mr Phuan says: "He always tells people that he's the banker and I'm the engineer, as that's what our background is. In order to deploy the millions of capex to generate solar, you need finance and engineering."

The two decided back then to buy solar panels from Mr Phuan's father, effectively becoming one of his early local customers. Their new model makes sense, Mr Phuan says, because of the high upfront costs involved in setting up solar panels.

"If you buy a solar system and install it on your roof, it's like buying years of power upfront, praying that it works and you get your returns. Nobody wants to do that."

Instead, Sunseap pays for the entire system installation and commissioning costs, essentially lowering the customer's



TIME TO SHINE

The future looks bright for clean energy solutions provider Sunseap Group, with the changing shift in consumer sentiment and new developments in the industry

BY **VIVIEN SHIAO**

"I THINK CREATING THE IMPACT IS MORE IMPORTANT THAN DOUBLING THE HEADCOUNT."

- Frank Phuan, co-founder & CEO, Sunseap Group

risk to zero. All the client pays for is the electricity consumed.

The energy that is produced is cleaner, greener and even cheaper than the market price, says Mr Phuan. "In Singapore, it's very unique. Not only do we not get a premium, we give a discount for clean energy ... That's why it's challenging from the perspective of price point."

The family business, from which they initially bought solar panels, eventually moved away from manufacturing in 2014 and changed its name to Sunseap Enterprises. It now exists as one of the system integrators that helps the group install solar panels. It is a separate entity from Sunseap Group, which it deals with on an arm's length basis, says Mr Phuan.

One surprising fact about Sunseap was that the fledgling business started off with public sector housing in Singapore. The Housing Development Board (HDB) released the first solar leasing tender in 2011, which Sunseap won.

Sunseap has not looked back since. Mr Phuan estimates that by the end of 2018, the group would have installed photovoltaic (PV) systems on almost 1,800 HDB blocks altogether. The HDB is currently the largest stakeholder in the installation of solar PV systems in Singapore.

But the HDB is far from being Sunseap's only client. Notably, major multinational corporations such as Apple – and most recently Microsoft – have signed clean energy deals with Sunseap to power their operations.

This is through the group's retail arm Sunseap Energy, which has the wholesale licence to buy energy from the grid or from power generated by Sunseap Leasing, and sell it to customers.

"All these MNCs come out in the news, but there are easily 500-600 SMEs that we sell clean energy to," says Mr Phuan, citing food and beverage group Sakae Holdings as one client.

With the opening up of the residential electricity market in Singapore this year, things are getting even more exciting for the group. This means that Sunseap is no longer restricted to just commercial and industrial players, and can now sell clean energy to individual households.

"It opens up the whole B2C (business to consumer) market that we have never been exposed before," says Mr Phuan.

For the soft launch of the OEM in Jurong which started on April 1, 2018, Sunseap has announced a collaboration with telecommunications company StarHub to provide bundle deals to residents.

Consumers can gain from discounts of up to 20 per cent on their current electricity bills, Mr Phuan says. This is because Sunseap has already reached grid parity – which means that the group can generate power at less than the price of traditional energy from the electricity grid.

With greener and cheaper energy produced, Mr Phuan believes that it makes "absolute sense" for residents to choose the cleaner option. But he acknowledges that competition is stiff. To date, there are at least 31 electricity retailers vying for a piece of the pie, with 19 active ones.



"For a start, we want to reach out to people who are green-minded, who are willing to get involved in the green movement . . . If everyone goes down that path of comparing price points, it's just a price competition," he says.

"While there are many retailers out there, there aren't many that produce clean energy here in Singapore. We are creating a blue ocean in a sea of red."

The goal is to eventually reach out to the entire mass market and slowly change mindsets about the carbon footprint, adds Mr Phuan. And while greater energy consumption might lead to more profits for the business, it is the green message that the company is trying to get across. "Sometimes, the human mentality is that if it's cheaper, I can afford to use more. That's against what we want to do, actually," he adds.

Clean energy retail to households is just a first step for Sunseap. The group is in the midst of developing products and services that will promote energy efficiency to the mass market. This is done through its engineering and research and development (R&D) team, which collaborates with institutes of higher learning (IHL) and research houses.

While Sunseap receives no grants or incentives from the government to generate clean energy, R&D is an area where the group has received support to help it to innovate. "If you create new products and services, the government is there to defray some of your costs," says Mr Phuan.

LOOKING UP Y

By the end of 2018, Sunseap would have installed photovoltaic (PV) systems on almost 1,800 HDB blocks altogether



08 the SME magazine 09

Towkays



CREATING IMPACT

Sunseap deployed more than 600 people to install the solar panels for its last HDB project - many of whom it trained to



"WHILE THERE ARE MANY RETAILERS OUT THERE, THERE AREN'T MANY THAT PRODUCE CLEAN ENERGY HERE IN SINGAPORE. WE ARE CREATING A BLUE OCEAN IN A SEA OF RED."

- Mr Phuan (below)



Smart metering to measure a household's energy flow is one such product that is in the pipeline. "Right now, if you can't measure something, there's no way for you to understand and appreciate it. We have come up with a very simple way to track usage of energy in your household," says Mr Phuan.

This smart meter is a device that can be clamped onto a cable and it sends energy readings to a mobile platform $\,$ such as an app for users to track. It also does not require an engineer to install, he says.

Another current development in the works is an ultraefficient air-conditioner, which is slated to be rolled out by the end of the year. Existing air-cons come with tick ratings, which are an indication of energy efficiency. The most energy efficient ones currently go up to five ticks, but Mr Phuan says that they are working on creating one with eight ticks.

The final piece of the puzzle that forms the group is business unit Sunseap International, which is responsible for the group's activities outside Singapore. Sunseap is currently in 10 markets, with offices and operations in

countries such as Cambodia, Thailand, the Philippines, India, Malaysia and Australia. Its most recent market additions are Taiwan and China.

"We are looking to enter Myanmar, Laos, and Indonesia those are the three countries that we have yet to get a foothold. But we are planning to live up to our name," quips Mr Phuan. The very name Sunseap, which is short for Sun South-east Asia Pacific, points to how the business was created with the entire region in mind.

"I'm very glad to say that today, (the lack of incentives by the government) made us so tough as a company . . . it becomes easier for us to expand into the region," he says.

When Sunseap goes abroad, it is looked upon as a disruptor in the region that is going against local incumbents. "When we go into the region and enjoy incentives, that's great but we don't need it. It's a very different game play from other solar players in the market who are gunning for the incentives. We are the odd one out again," laughs Mr Phuan.

But even as the group is keeping ahead of the competition, it still has its challenges that could hinder its expansion plans. As energy is usually a regulated industry with different policies in each country, working with the different regulators and governments will continue to be an ongoing challenge.

But for Mr Phuan, the future looks bright, with the changing shift in sentiment and the new developments that lie in store especially this year. After years of organic growth, it is also moving to its next phase of expansion through mergers and acquisitions.

"Many people see us as a solar company as that's where we came from. But I hope with this B2C effort, people can start to see that we are an energy company," he says.

He believes that the tides are turning when it comes to the rise of clean energy. Shareholders of the company include coal miner Banpu and oil and gas giant Shell – powerhouses of traditional energy. "These guys invested in us for a reason they believe in the new energy story as well," he says.

Even as growth is expected due to the nature of the business, he prefers to think of the impact made as a gauge of success. As an example, he points out that the group needed to deploy over 600 people to install the solar panels for its last HDB project - many of whom it trained to do the job.

"As we move to energy retail to households, the impact will be more. You will be impacting more people and telling them about the message of clean energy. I think creating the impact is more important than doubling the headcount."