

## CLEANTECH

Solar energy start-ups waving excel sheets promise high returns but think before you invest in them **p2**

# The sweet spot in solar

Start-ups promise high returns if you invest in them but there's a catch, cautions **M Ramesh**

Is solar an attractive investment asset class? It sure is. Returns are heady, typically upwards of 16 per cent and the opportunity is transient. So, come on, cash in on it — after all, as Brutus told Cassius, “there is a tide in the affairs of men, which, taken at the flood, leads on to fortune.”

This is the pitch of some solar companies to high net worth individuals. The pitch seems to be pretty good, but is there a catch lurking somewhere? Well, sigh, yes. There is a sweet spot for investments in solar, but, as with other investment classes, there is a risk too. Brave the risk, you could make good money.

The business of putting up the sparkling, blue panels to face the sun and producing electricity is one that encompasses two distinct sub-segments.

The first is the large solar plants, usually upwards of 100 MW. These cost hundreds of crores (₹4-4.5 crore a MW, as a thumb rule). These are the plants that are at the back of the steep fall in the prices of solar power that we keep reading about. These ‘utility-scale, ground-mounted’ plants are typically not investment products; these are mature, standardised, better-understood businesses that are run with moneys coming in from equity funds and bank loans.

If SEBI relaxes its rules for crowd funding, these large plants could also become investment opportunities, but at the moment, they are more for entrepreneurs than passive investors.

But there is another solar, which

is at the heart of what has come to be known as ‘corporate buying of renewable energy’, (a theme on which the International Renewable Energy Agency recently brought out a study.) Companies like Google, Apple and Walmart, or Infosys and Tata Motors in India, have committed themselves to buying green power. Some of them may own solar (or wind) plants, but many — especially, the smaller companies — prefer to just buy solar power from energy companies.

In India, there was about 2,000 MW of wind and solar capacity put up for supplying energy directly to companies; Bridge to India, a solar consultancy, expects this figure to go up to 8,600 MW by 2023. Most of it is likely to be solar.

The energy companies that cater to this market work usually on the ‘opex model’ — they put up the solar plant at their own cost and sell only the electricity. These plants typically range from 100 kW to a few MW in capacity and could either be put up on roofs or on the ground, either in a single, or multiple locations. The power is then sold to the buyer under power purchase agreements. The cost of the power comprises the agreed tariff plus ‘open access charges’, which refers to a plethora of levies that electricity regulators allow electricity distribution companies.

A good example of such agreements is the one between the Mumbai-based CleanMax Solar and Volvo Group India Pvt Ltd. Under the agreement, CleanMax puts

up a 2.5 MW solar plant; the electricity from it is sold to Volvo. CleanMax is the market leader with 70 corporate customers, 140 MW in rooftops and another 400 MW in ground-mounted plants, and among the other larger players are Amplus, Sunshot, Fourth Partner Energy and Solar Town.

These well-funded, large companies cater to the big corporates, which market is now fast getting saturated — the high-rated corporate customers have mostly been taken up.

## The opex model

However, another market is opening up to these ‘opex model’ companies — that of the lesser-rated corporates and owners of large buildings. Established solar companies like CleanMax and Amplus; a bunch of solar start-ups, founded with money pooled in from the ‘family and friends’ constituency, are also chasing this market. The established solar companies have institutional funding, the start-ups don’t. They go to high net worth individuals with an excel sheet. They constitute the sweet spot in solar for investment.

Returns are attractive, could go as high as 18 per cent, says Rahul Dasari, Director and Chief Executive, Sunshot, a company that has raised ₹50 crore from 12 individual investors for 12 MW of assets. If the returns are so high, why aren’t investors thronging at the doors of the energy companies? Here comes the fine print. Lack of awareness is a reason, but there are a few other issues too, the

biggest of which is confidence in solar.

You know gold and real estate. Maybe you have had a brush with art and could take a call on investing in a painting, or you know that if you buy a crate of wine that sits in a vault in France, its value will appreciate over time. But solar? Solar is still a relatively unknown animal. How good is the guy who builds the solar plant? Unlike the well-standardised ground mounted plants, the rooftop plants, which are typically the ‘investment asset class’, are customised to the roofs, leaving little scope for standardisation or good practice norms. One bad example is enough to turn away hundreds of investors.

## Beyond the excel sheet

The sector is filled with enthusiastic dilettantes — this writer has seen a solar plant in Tamil Nadu that slopes northwards, where the builder felt that the loss of energy due to the northward slope was “only 4 per cent”. Secondly, even if the plant builder is good, can you trust whether the purchaser of electricity will pay — or not go bankrupt?

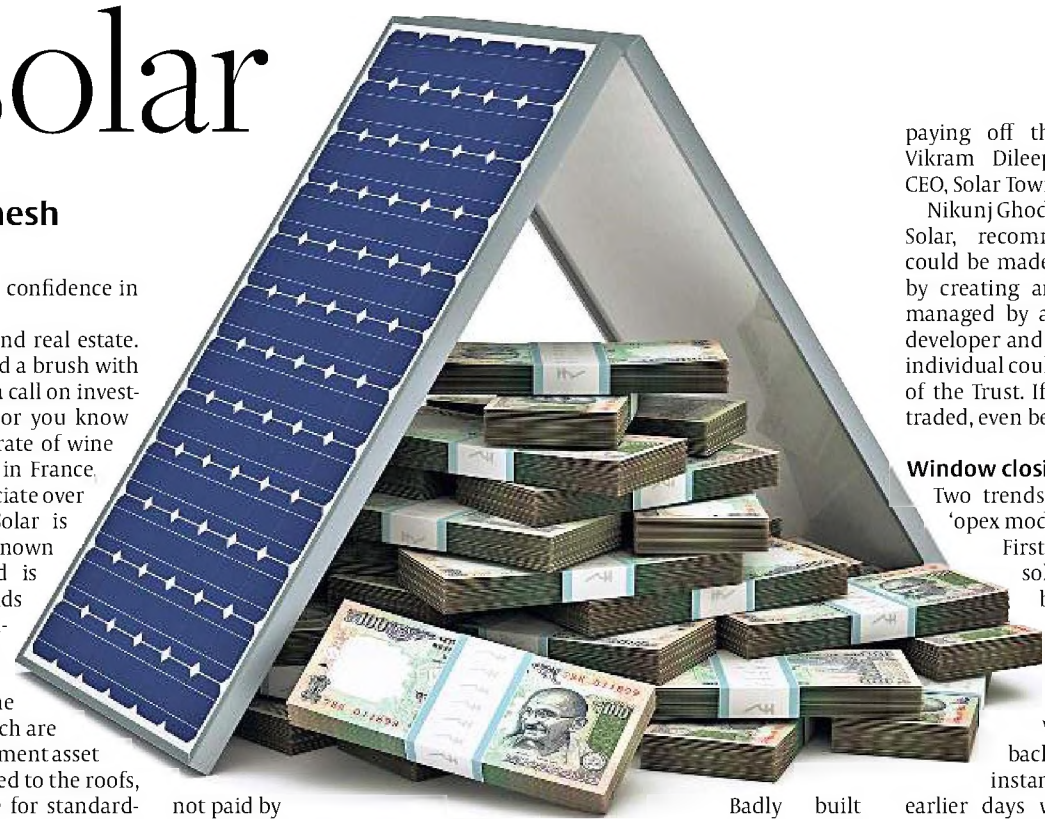
Ask Thirumalai Bhoovarahan, a young entrepreneur who struck pay dirt in a software venture, who has invested a few crores in solar directly. In one instance, the builder, with whom he has an agreement, has not paid for months because he himself was

not paid by

his tenant, a food retailer.

“Everything looks excellent on an excel sheet,” says Bhoovarahan, noting that returns are indeed as high as between 16 and 20 per cent. “But the collection issues are real, and if you factor them in, the rates of return drop.”

Collection risk, of course, depends upon who the purchaser of electricity is. If it is a reputable corporate, the risk is less, but the market today is mostly of lesser-rated companies and owners of large commercial buildings. In fact, even with top-rated corporates, disputes cannot be ruled out. Bhoovarahan recalls a dispute over the “deemed generation” clause, which obliges the buyer to pay even if he does not consume a certain amount of electricity. The picture is less rosy than on an excel sheet.



paying off the investors,” says Vikram Dileepan, Founder and CEO, Solar Town.

Nikunj Ghodavat, CFO, CleanMax Solar, recommends that solar could be made into an asset class by creating an investment trust managed by a high-quality solar developer and the high net worth individual could subscribe to units of the Trust. If the units could be traded, even better.

## Window closing

Two trends are discernible in ‘opex model’ solar.

First, over time, start-up solar companies grow bigger and start securing institutional funding, which is cheaper than HNI money.

Warburg Pincus-backed CleanMax, for instance, grew in its

earlier days with individual investor finance. Today it does not need them much. The entire market could move from the hands of start-ups to the bigger companies.

Second, the tariffs are falling, depressing returns. Earlier, rooftop tariffs used to be linked to utility tariff, usually at a specified discount, and a provision for annual increase in the tariff.

Today, customers don’t care what the utility charges, they want a low tariff. Tariffs today hover around ₹4.5 a kWhr, and annual de-escalation is becoming the norm.

For these two reasons, solar as an investment asset class seems to be an opportunity that may be open only for some years. But then, who knows? If crowd-funding opens up, or the residential rooftop market also goes ‘opex’, then the play will continue.

Badly built plants and the buyer not paying are two warts that mar the looks of solar, but still if investors could identify good builders and reputable consumers — this calls for some understanding of the market and some punting — they could get very lucky.

Once there is a deal between the investor and the solar company, there are many ways of handling asset ownership. The asset could be novated to the investor. Solar Town prefers to create a limited liability partnership to own the solar plant; investors become partners in the LLP.

A typical agreement promises a fixed return (12 per cent), and a clause that Solar Town would buy out the partner after a certain number of years. “We prefer to own the residual cash flows after