



○ SOLAR PLANT: COURTESY OF ADANI GROUP

SUNSHINE BLUES

SOLAR ENERGY FIRMS
ARE IN WAIT-AND-WATCH
MODE; THEY ARE HOPING TO
SEE A REVERSAL IN MACRO
CONDITIONS THAT HAVE
SLOWED DOWN THE SECTOR.

BY AVEEK DATTA

There is little one can do when one is caught in a downpour on a day that began in fine, sunny weather. It's best to take shelter and wait it out, hoping that the sun would be back before long. Solar power companies in India are in a similar situation. No longer do they enjoy the benign macro conditions that prevailed four years ago when they set sail in good hope in the wake of the government setting a target of achieving a clean energy generation capacity of 175 gigawatt (GW) by 2022.

HOWEVER, companies in the renewable power sector in India should be heartened to see how things are panning out. The government has revised its green power installation target for 2022 to 227 GW from 175 GW and has announced its intention of auctioning 40 GW of renewable capacity every year till 2022; a lot of this capacity is expected to be met through solar power. Solar capacity addition stood at 9.4 GW in FY18, up 69% over the previous year. The revised target would require an additional investment of \$50 billion.

But solar power firms are in wait-and-watch mode. Rising interest rates, a depreciating rupee and the regulatory uncertainty over the prices of imported photovoltaic (PV) modules needed for solar power generation have made them assume a cautious approach. "Power developers have to be extremely cautious when they pitch for new tenders," says Rahul Munjal, chairman and managing director of Hero Future Energies, a part of the Hero Group, which has 1.2 GW of installed renewable power capacity. "Till now, people have bet on assumptions like interest rates staying at a certain level for a few years while bidding for projects. But the scale has become so large that one can't afford to make mistakes anymore," he explains.

Also, renewable energy tariffs in the country have fallen to a record low of under Rs 3 per unit—a result of aggressive competition in the sector as well as improving technology. While low prices have ensured that renewable energy has a ready market among various state governments and the Centre (since it makes solid economic sense and no longer remains just an environmental obligation), it has also substantially reduced the margin for error of judgement in making assumptions with respect to variable factors such as which way interest rates or the rupee will move.

Jayant Parimal, CEO of Adani Green Energy, the recently-listed renewable energy generation arm of the Ahmedabad-based Adani

Group, says that intense competition has seen tariffs fall to "incredibly low levels", resulting in possible failure of project completion. "This may cause distress to bidders who have bid aggressively assuming further fall in PV prices and stable dollar/rupee rates. We may see serious equity and returns erosion for such developers."

The renewable energy sector in India has had a good run due to a benign interest rate regime in the last two-three years, coupled with the rupee staying firm. Most developers didn't feel the need to incur additional expenditure towards hedging their dollar exposure.

India Ratings and Research warns in a May report that a Re 1 increase in the rupee's value vis-à-vis the dollar can lead to a margin erosion of 2 paise per unit, given the lag between the time of bidding and finalisation of module supply. It adds that the equity internal rate of return for a solar project was at around 11.38% with the dollar valued at Rs 68, as compared to 12.26% when the dollar was at Rs 65.

In the year gone by, the industry also grappled with the disruption arising from the imposition of the goods and services tax on solar modules; delays in creation of transmission infrastructure; and the uncertainty around imposition of duties on solar PV modules imported from China to boost domestic production.

A raging debate in the solar energy space in FY18 has been around solar modules and its prices. To protect domestic manufacturers, a probe was launched in July last year into the dumping of solar cells from China, Taiwan, and Malaysia.

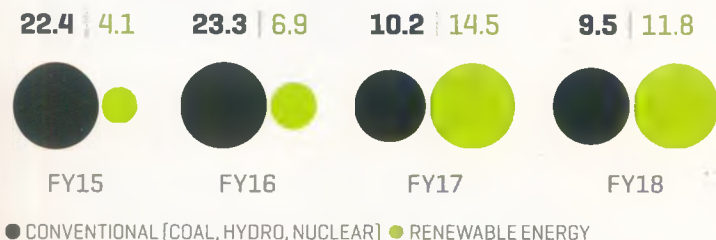
In January this year, the Directorate General of Safeguard Customs and Central Excise recommended imposing a 70% safeguard duty on imported solar cells and modules. Around 90% of the solar modules used by India's solar power projects are imported from China; modules account for around 60% of a project's cost.

Though the government clarified in June that no such safeguard duty was in the offing, the uncertainty over the issue in the preceding months led to a slowdown in the sector; developers were worried that import duties might hamper the viability of projects that have already been bid for—often at throwaway tariffs. The anti-dumping probe is still going on.

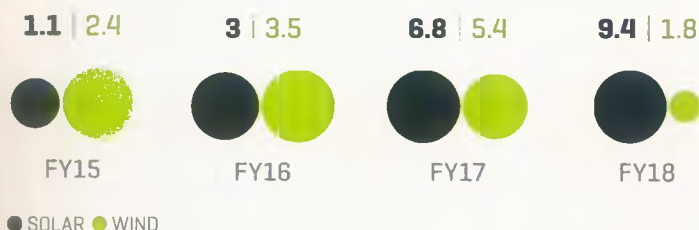
"Out of the total 5.5 GW solar power capacity that has been bid out during FY18, as much as 2.9 GW has been bid at tariffs equal to or lower

STATUS CHECK

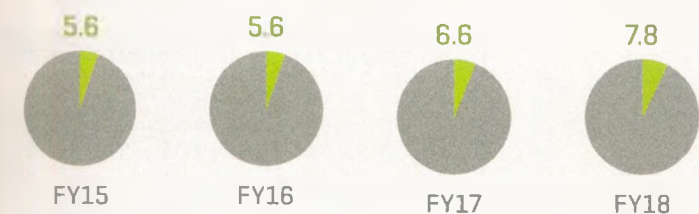
POWER CAPACITY ADDITION IN INDIA: CONVENTIONAL VS. RENEWABLES [GW]



SOLAR VS. WIND ENERGY CAPACITY ADDITION [GW]



SHARE OF RENEWABLE ENERGY IN ALL-INDIA POWER VOLUME [%]



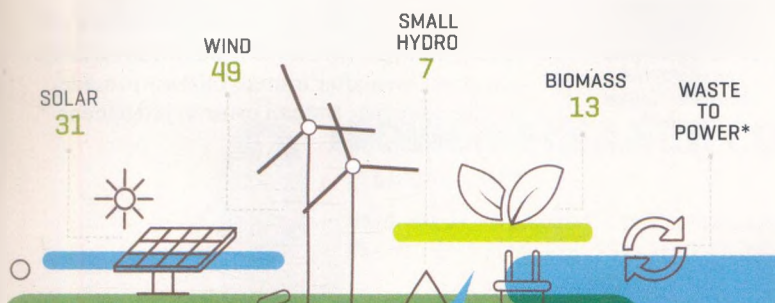
SOURCE: ELARA CAPITAL

RENEWABLE ENERGY INSTALLED CAPACITY AS OF MARCH 2018

Total capacity:
69,022 MW

● SHARE OF EACH GREEN POWER SOURCE [%]

*SINCE THE SHARE OF WASTE TO POWER IS VERY SMALL, IT HAS BEEN ADDED TO THE REST TO ROUND OFF THE PERCENTAGE.
SOURCE: RENEW POWER DRAFT RED HERRING PROSPECTUS



than Rs 3 per unit. The developers have based the bids on expectations of [a] fall in imported module prices and certain other advantages like the availability of land and evacuation infrastructure for projects in solar parks," says a note dated June 6 by credit rating agency ICRA. "However, risks have accentuated because of the unexpected reversal in the trend of falling module prices with prices rising from about 30 cents a watt in May 2017 to about 36 cents a watt in August 2017," the note says. The ICRA report further states that an 8 cent per watt decrease in module prices can lower capital costs by 13%.

ANDREW HINES, CO-FOUNDER of Clean-Max Solar, which develops rooftop and open access solar projects (sold directly to private customers and not through government contracts), says that if the quantum of duty is moderate and leads to a 5% to 10% increase in the project cost, power purchasers would still be interested in buying solar energy as it would be cheaper than grid-connected thermal power. But if the duty was in the range of 70%, as contemplated earlier, a pass-through of the increased cost would make solar energy unattractive. "More than the quantum, the issue with duties is the uncertainty around them," says Hines, whose company, backed by Warburg Pincus and IFC, has an installed capacity of 450 megawatt (MW).

To boost domestic manufacturers of solar modules, the government is planning to make it mandatory that project developers source a certain amount of modules locally for some large future tenders. Munjal says this is better than imposing duties, which could raise costs. "The idea to create an Indian manufacturing industry is noble. But it should not be at the cost of consumers. By structuring tenders like this, increase in the cost of power can be avoided," he says.

Domestic module manufacturers, which have a total installed capacity of 3.5 GW, are obviously in favour of any measure boosting local production.

"Any big industry like solar power cannot be entirely dependent on imports, which is the

case today," says Sunil Rath, director of sales and marketing at Waaree Energies, which has a 1.5 GW capacity to make solar modules. "Creation of an ecosystem that gives demand visibility to developers and manufacturers will persuade global companies to invest in India. The resultant scale will help make Indian modules price-competitive."

Ramesh Nair, CEO of Mundra Solar, the solar module manufacturing arm of the Adani Group, says that "governments of the day must not be swayed by immediate imperatives but guided by medium- and long-term interest of the country" while deciding on matters such as imposition of duties on imported solar modules.

THERE ARE THOSE WHO SEE the rain letting up sooner or later. "The slowdown is a passing phase. During FY18, the number of tenders was limited by the government owing to sudden reductions in tariff and the reaction time of discoms," says Parimal of Adani Green Energy. But things are likely to get better next year with the "government planning large number of tenders in the renewable energy sector and we expect capacity growth to pick up from the next fiscal".

Also, prices of modules from China are expected to fall in the coming months due to an oversupply arising from a cap on new solar power installations there. This could help Indian solar firms offset the depreciating rupee (the currency has lost close to 6% over the last one year versus the dollar) and rising interest rates. But Rath points out that while an overdependence on Chinese modules might bode well for Indian developers as long as prices remain depressed, they will also have to bear the brunt when prices begin to rise. A manufacturing base in India could help offset this supply and currency fluctuation risk.

On tariffs, Hero's Munjal believes they have bottomed out and are unlikely to fall further. "The tariffs in the industry are almost down to the cost of raw materials," he says.

The renewable energy sector is entering a phase of maturity, as evidenced by large companies going public. Adani Green Energy, which was demerged from Adani Power and listed separately on the bourses in June, has a



ANDREW HINES,
CO-FOUNDER,
CLEANMAX SOLAR

"IF THE QUANTUM OF DUTY LEADS TO AN INCREASE OF 5%-10% IN THE PROJECT COST, POWER PURCHASERS WOULD STILL BE INTERESTED IN BUYING SOLAR ENERGY AS IT WOULD BE CHEAPER THAN GRID-CONNECTED THERMAL POWER."



JAYANT PARIMAL,
CEO, ADANI
GREEN ENERGY

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▼
227
gigawatt
India's revised
green power
installation target
for 2022, for which
an additional
\$50 billion will be
required

market value of Rs 4,222 crore. An installed generation capacity of 1,958 MW implies a valuation of Rs 2.15 crore per MW.

The next big event in the renewable energy space will be the initial public offering of ReNew Power, India's largest independent renewable power producer with an operating capacity of 3,920 MW. If ReNew was to enjoy a valuation similar to Adani Green Energy, it could imply a market capitalisation of Rs 8,428 crore—as big as Reliance Power and bigger than Adani Power (the conventional energy business of the group).

There may a lull in the sector, but the companies are gaining scale and the stakes are rising. Munjal says that as a small player, life can go on even after a small mistake is made. But for a big fish, a small error in judgement can prove costly. ■