

Solar sees some success in Bengaluru, even as BESCOM fails to meet solar rooftop targets | Citizen Matters, Bengaluru

About Revathi Siva Kumar 32 Articles

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Solar installation at Bengaluru Airport Pic credit: bialairport.com

Even as Karnataka leads the country in renewable energy production and Bengaluru has many successful solar installations, the Bangalore Electricity Supply Company Ltd (BESCOM) is unlikely to meet its target of generating 1200 MW electricity from rooftop solar panels by 2022.

BESCOM has achieved only 140 MW from solar rooftop so far, because it isn't getting enough applications from Bengalureans currently.

The good news

Bengaluru is definitely the Number 1 hotspot for solar installations. This year, the Kempegowda International Airport [inaugurated](#) its 3.35 MW rooftop solar power plant.

“The airport has increased the consumption of solar power to over 50 million units through on-site and off-site solar Power Purchase Agreements (PPA). They now meet 67 percent of the airport's annual energy requirements,” said Hari Marar, MD & CEO of Bangalore International Airport Ltd (BIAL).

Within a year, the airport hopes to become self-sufficient in power by generating more than 4.7 million units of electricity per annum. The goal is to achieve 100 percent renewable power by 2020.

The solar power plant at the airport is installed across eight rooftops. It would reduce carbon dioxide emissions by 3800 tonnes every year, said Marar. He added that their aim has been to become a “role model for sustainable progress”. So they have helped to cement a “long-term commitment to sustainability and community engagement” in order to bring about a cultural change. The solar projects will enable BIAL to reduce its carbon footprint and reach “energy neutrality”.

“Among Indian states, Karnataka has one of the most progressive policies on solar energy. This has encouraged BIAL to work with state authorities to implement the plan,” he said.

Meanwhile Bangalore University has become [entirely solar-powered](#). The project was executed in just 40 days – solar panels were installed in three buildings, generating 530 kWh, which saves the university about Rs 1.5 crore per year.

Microsoft Corporation [declared](#) the first renewable energy deal after it went in for a deal to buy 3 megawatts of solar-powered electricity from Atria Power, to meet 80 percent of the power needs for its new office building. “Investing in local solar energy to help power our new Bengaluru office building is good for Microsoft, good for India and good for the environment,” [said](#) Anant Maheshwari, President, Microsoft India.

Positive signals?

Official sources from BESCOM also said that [Renewable Purchase Obligation](#) makes it mandatory for BESCOM to purchase a minimum of eight percent of its total energy from renewable sources.

The national target for solar power generation is [100 gigawatts by 2022](#). Of this, 40 GW is to be generated from rooftop solar projects.

Karnataka's target is to achieve 2400 MW of solar power generation by 2022. P Krishnamurthy, General Manager (Power Purchase) at BESCOM says, "In Karnataka, we have already commissioned projects for 5000 MWs. We are going to commission projects for another 2500 MW, for which we already signed the Power Purchase Agreements (PPA). We have already reached our obligation, so now if we are targeting more, we are exceeding our obligation." He added that in the last two years, they were backdowning thermal power stations so as to bank on solar power.

Pushing for Solar Rooftop

BESCOM has innovated some progressive schemes such as the [Light Detection and Ranging \(LiDAR\) project](#) with CSTEP that uses technology to search and understand a particular site's potential for solar generation. It is being used on an experimental basis in some city spots such as Malleswaram.

Models such as 'Capex' is beneficial to consumers since it would totally owned and operated by them, said a BESCOM official, on condition of anonymity. She pointed out that [Phase 2](#) of BESCOM's solar project is ongoing, with the policy specification that the power company itself has to generate as well as distribute solar power.

The cost of rooftop solar panels have come down from Rs 1 lakh per KW to Rs 40,000 per KW. Due to the introduction of online applications, there has been some increase in the number of applicants though it is not as high as was expected, she said.

Solar installation schemes under BESCOM

If you want to go in for solar installations, you can go in for either Net Metering or Gross Metering scheme.

If you are opting for the Net Metering scheme, you can utilise the electricity that gets generated by your Solar Rooftop System to meet your internal or captive requirements. If you have excess electricity, then you can export it to the grid. When you import power from the grid, the exports are adjusted against your imports, which will lower your bill. BESCOM sources pointed out that Net metering is based on the concept of self-consumption plus export to the grid.

If you want to go for the Gross Metering scheme, then all the electricity that gets generated by your Solar Rooftop System gets exported to the grid, while all the electricity needed for consumption gets imported from the grid. You, as a consumer, would be paid a feed-in-tariff (FIT) for the electricity exported to the grid.

BESCOM sources said that this is just like a business. "You can use the power you generate, and sell the excess that you don't," said one source.

High costs and lack of incentives

However, Joseph Hoover, environmental activist, said that the costs were too high. “If the government gives subsidies, then people will adopt the practice, but the government is not doing it. People may be interested in going for green solar panels, but the moment you tell someone that it may cost Rs 2-2.4 lakh, you are immediately putting up the barricades that block progress. Moreover, monthly maintenance costs Rs 4000 to Rs 6000.”

Bhargavi S Rao, independent researcher, also agreed that solar energy installations in private establishments have not increased, mainly because “people are just not getting subsidies from the government.”

Although BESCO has seen more online applications for solar rooftop connections since last September, the spurt is not high enough, admitted official sources. “We have streamlined our capacity and made it easier to apply for solar installations. Still, we are not getting the numbers we expected,” said one source on condition of anonymity.

Residential buyers were taking a cautious and careful, wait-and-watch approach, as government subsidies might be announced anytime, she added. Moreover, new high-rises getting built are blocking sunlight from low-roofed buildings, which have added another constraint for applicants.

Also see: [Solar rooftop connections: Why are city homes lagging?](#)

Dr T V Ramachandra, from the Centre for Ecological Sciences (CES), Indian Institute of Sciences (IISc), said, “The city has a number of glass facade buildings, which are said to be the biggest energy consumers. The government should make the switch to solar energy mandatory,” he said. “We would be able to generate 14,000 to 17,000 units of electricity every year by installing solar panels,” he explained.