

# Solar energy, the route to self-sustenance

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**GURUGRAM:** The demand for electricity in Gurugram has been increasing annually by 10-12%, according to the power distributor, Dakshin Haryana Bijli Vitran Nigam (DHBVN). With a potential to reduce electricity bills, solar energy is a viable alternative to Gurugram's power and pollution woes.

The city is facing a 25% shortage in power supply this year, which leads to outages in the city, said KC Aggarwal, superintending engineer of DHBVN.

As evident from the city's 2014 draft master plan, a substantial amount of power is consumed by the industrial sector, while the overall demand has increased by 55% since 2006 across all sectors. The demand for electricity to meet the city's infrastructure, including streetlights, motors and water pumps is also

rising.

In 2014, new and renewable energy department of Haryana (HAREDA) announced grid-connected solar rooftop policy and made it mandatory for every new house across the state with an area up to 500 square yards or more to install a solar power system, besides net metering policy.

"The government provides subsidies to consumers who purchase solar panels and other equipment from affiliated sellers. The government has made it mandatory for all public buildings, such as schools, health centres and offices to have rooftop solar panels in Gurugram," an official said.

Rameshwar Singh Beniwal, project officer, HAREDA, said that the total installed capacity of solar rooftop installation in the city has reached 25MW this year.

According to HAREDA, currently,

there are about 500 net-metered projects (houses/buildings that have opted for the net-metering scheme) in the city. Further, 5MW of the 25MW is generated through subsidised rooftop panels.

"We have some issues with respect to the net-metering scheme, which is being resolved on a priority, with the assistance of DHBVN officials," Rameshwar Singh, project officer, HAREDA, said.

The Rapid Metro has also installed the first set of solar panels at the depot near the station at Sector 54 Chowk. The solar plant, with a capacity of over 400 kilowatts peak (kWp, a solar energy term), will produce pollution-free solar energy of 1.18 crore units over its 25-year lifetime.

In a move to turn self-sufficient in power generation, initiatives to promote solar energy have been taken by many societies. Wellington Estate, a condominium in DLF-5 installed solar panels, through which the society generates

approximately 200 kW of solar power and saves Rs20 lakh per year on electricity bills.

"We have already installed equipment to handle a capacity of 200 kW. In the second phase, we will get additional 150 kW. The advantage of the second phase is that we will be getting more power from lesser space because the new panels are advanced ones and will generate 370 watts each. The existing panels produce only 320 watts each," Vineet Bagga, president, Wellington Estate RWA, said.

Earlier, the residents used to pay 50 paise per sqft. Now, they pay only 35 paise per sqft. Around 40% of the electricity that goes to all common areas, including elevators, streetlights, lobby lights, water pumps, etc, comes from solar panels. After the second phase, solar power will cover almost 75% of the common area consumption.

The government gives a grant of

Rs20,000 per kilowatt to schools that comply with the orders.

Schools such as Suncity World School, Scottish High International School, Open Sky School, Pathways World School, NorthCap University and many others have installed solar panels.

"We have installed a 77kW solar plant in our school that produces 8,500 units," Rupa Chakravarty, principal of Suncity World School, said.

Corporates have embraced solar energy as a part of their CSR initiatives.

"Fortunately, the Haryana government has issued a slew of incentives to encourage the adoption of solar energy. The solar energy is not only cost-effective but also has the potential to reduce the carbon footprint. It can play an instrumental role in overcoming the city's dependency on diesel generators, which severely increases air pollution," said Shubhra Puri, of Gurgaon First NGO.

## they say

Freed of wires, the city will look a lot better. Unlike the present distribution system, the Smart Grid project will reduce technical faults, short circuit and pilferage.

JA IDEEP FOGAT,  
executive engineer, DHBVN

The electricity distribution and maintenance system in Gurugram is poor as the agency responsible for this is not effectively responding to faults and fixing the issues on time.

SUNIL YADAV, president, Palam Vihar RWA