

With affordable solar panels, Delhiites can cut power bills

Equipment Cost ₹6L, Return Of Investment Within 6 Years

TIMES NEWS NETWORK

New Delhi: With the Haryana government making rooftop solar power systems mandatory for all buildings on a plot size of 500 square yards or more, the issue has generated a lot of interest among Delhiites as well. Many residents now want to know how exactly they can get their homes powered by the alternative energy.

While experts say that the most feasible option for Delhi will be to set up rooftop solar systems for large commercial establishments such as malls and industries first, even residents can reduce their electricity bills drastically by investing in rooftop solar photovoltaic (PV) systems. TOI takes a sneak peek at the options available to Delhiites.

There are many solar equipment companies in Delhi, which are empanelled with the ministry of new and renewable energy (MNRE) for the "capital subsidy scheme". Residents can select one of them and get their houses and rooftops scoped for what capacity panels may be required. Usually for a 3-BHK house with five fans and five lights and an AC, a 5-KW system is ideal.

Currently, MNRE offers 30% subsidy on solar equipment. Even the Delhi government is likely to increase the subsidies, which will bring down the cost even further: A 5-KW system will cost Rs 6.65 lakh after the MNRE subsidy. But what is most important is the roof space. Larger roofs

HARNESSING SUN TO POWER HOMES

How you can install a rooftop solar system in your house

3-BHK independent house

CAPACITY | 5 KW

What can you run?



5

fans



5

tubes



1

AC

and small appliances

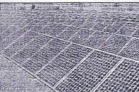
► Residents can also install a 250-litre solar water heater

Roof area needed | 75 sq m

Orientation | South-north

Cost | ₹6.6 lakh after 30% govt subsidy* (battery included)

Cost of water heater | ₹40,000



4-storey apartment

CAPACITY | 20 KW

What can you run?



5

fans



5

tubes



1

AC

& small appliances on each floor

Roof area needed | Over 300 sq m

Orientation | South-north

Cost | ₹20 lakh after 30% govt subsidy*

Loans | Most nationalized banks offer loans for purchase of solar equipment at 2% interest rate

Companies | MNRE website has a list of manufacturers including the Delhi-based firms empanelled under the capital subsidy scheme for solar rooftop systems

* The subsidy offered by Union ministry of new and renewable energy
Source: Delhi-based solar equipment firms

are better from the points of view of cleaning and maintenance of the solar panels.

"The panels should be south-facing with minimal shadow obstruction. Consumers should look for A-grade panels as their efficiency is higher. The panels may have to be replaced every 14 to 15 years when their efficiency starts to decrease," said Anand Prabhu Patanjali, renewable energy campaigner of Greenpeace India. Residents should be careful that trees or other taller buildings

do not cast shadows on the solar panels. According to Jose George of Delhi-based Mass Solar Technologies, "Almost all nationalized banks such as SBI and Vijaya Bank are offering loans at 2% interest rate for the purchase of these equipment. The process can be facilitated by the company. There is a lot of interest among Delhiites about rooftop systems. We have close to 112 such residential projects of various capacities in the city."

Patanjali said residents

Many solar equipment companies in Delhi are empanelled with ministry of new and renewable energy for capital subsidy scheme

can have a return on investment (ROI) after six to seven years of installation.

According to an assessment done by Tata Power Delhi Distribution Limited (TPDDL) for four-bedroom homes, "Assuming usual loads in four-BHK house—the connected load can be of five ACs, seven lights, two water heaters, five fans, one TV and refrigerator—a 12-KW system will do. However, all of these equipment do not run simultaneously usually." Such a 12-KW system will cost about Rs 12 lakh.

Residents can make use of the recently approved net metering facility in Delhi. This system facilitates consumption of electricity generated by the rooftop project and allows for feeding the surplus into the grid or the network of the distribution company. "In the international context, the rooftop solar projects have two distinct ownership arrangements—self-owned wherein rooftop owner also owns the PV system and the other is third-party ownership in which a developer owns the PV system and also enters into a lease or commercial arrangement with the rooftop owner," said a TPDDL spokesperson.