

# Metro stns in extended line to get solar panels

TIMES NEWS NETWORK

**Chennai:** More than 74 lakh kilowatt-hours of solar energy generated every year through the solar panels installed in metro stations in the city power lights and electrical appliances in the stations and depot, saving nearly ₹1.4 crore on electricity bills. Now, Chennai Metro Rail Limited has planned to install more such solar photovoltaic panels in its newly opened metro stations in North Chennai to further reduce dependency on the Tangedco and cut down emissions.

Officials said at present,

they have solar panels installed in at least 18 stations including Alandur, Anna Nagar east, Kilpauk, Nehru Park, Shenoy Nagar, Egmore, Meenambakkam, and CMBT as well as on the roof tops of depots, train sheds and administration building at Koyambedu. The electricity generated is mostly used to power lights and electrical appliances used in stations and depots. Together, these panels hold a capacity of 5.6MWp and they on an average generate 74.6 lakh kilowatt-hours (kWh).

"We have planned another 300kWp (kilowatts-peak) plant on our phase-1 extension sta-



File photo

**WIN-WIN:** From the power generated by solar panels at 18 locations in the city, CMRL saves ₹1.4 crore in electricity charges a year

tion roofs," an official said. "The solar power generated is used for our own utilities, and

this reduces usage of Tangedco electricity," the official said. There are 40 stations in city and the extension line from Washermenpet to Wimco Nagar has eight stations

In addition, metro trains too save around 30% energy it consumes from the system, as it has the capacity to generate its own energy. The trains run on a regenerative braking system where three-phase traction motors installed in the trains act as generators to produce electricity whenever brake is applied. The electricity goes into the overhead electricity lines (OHE) lines. One metro train

takes up about 6,300kWh (units) a day, which is enough supply to power six houses for a year including lights, fans and basic domestic appliances. Generating its own power reduces dependency on TNEB, which in turn can save its power generation and eventually carbon emissions. A four-car metro train, which runs approximately for about 400km a day, generates around 1,900kWh through the traction system. This electricity is mostly consumed by the rolling stocks (trains) in the same electrical section and the remaining is fed back to CMRL's 33kV network.