

# Floating solar panel project to power garbage tippers in Andhra

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GUNTUR: Works to install a 500 kW floating solar project at Sangam Jagarlamudi will be completed soon. This plant will produce an average of 2,500 KWH of power every day, which will be used for charging of 220 electric garbage tippers.

United Nations Industrial Development Organisation (UNIDO) launched the Sustainable Cities Integrated Approach Pilot Project in 28 select cities, including Guntur and Vijayawada, across the world. The project aims to support transformational shifts towards a low-emission and resilient path.

In this context, 220 electric tippers were allotted to the Guntur Municipal Corporation (GMC) for door-to-door collection of garbage for effective solid waste management. Each 3W auto can collect waste from over 900 households on a daily basis. The city was divided into 66 clusters and each cluster has about 10 micro pockets. Further, each micro pocket has about 300 households.

These e-tippers replaced over 200 diesel autos, reducing fuel usage by 7.20 lakh litres per annum. In view of the power requirement by these e-tippers (602 MW/annum), GMC officials planned to set up a solar photovoltaic (PV) powerplant with a budget of Rs 3 crore. Of the total, UNIDO extended Rs 2.5 crore. The plant will be adequate for 100% battery charging of all the proposed e-tippers on a daily basis.

The amount of CO2 emissions that can be reduced by using the solar power plant is 738 tonnes per annum and 18,450 tonnes in the next 25 years, contributing to achieving a pollution-free city. UNIDO city coordinator Ramana P Rao said the objective of the project is not only to lower greenhouse gas emissions but also to ensure that it results in Net Zero Carbon emissions.

“The idea is to produce solar power that is required for the operations of all the 220 e-tippers, so that they are not dependent on conventional thermal electric power, resulting in net zero carbon investment and technology demonstration projects. But the land required to set up this plant is not available in the city limits and so a floating solar plant of 500 KWp capacity is being installed at Guntur water supply reservoir located at Sangam Jagrlamudi,” he explained.