

DST's R&D centre sets an example of solar energy implementation

International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), an autonomous R&D Centre of Department of Science and Technology (DST), has set up a rooftop solar (RTS) photovoltaic plant of 500-kilowatt' peak (KWp) capacity. The move is expected to promote best practices of clean energy implementation in scientific institutions.



The total plant capacity of 500 KWp has been connected to power grid provided by Telangana State Southern Power Distribution Company Limited (TSSPDCL). Established across three shadow-free building rooftops, it covers an approximate area of 5000 Sq.m with 300 KWp of monocrystalline silicon and 200 KWp of polycrystalline silicon solar panels.

When connected to the grid, only the load that exceeds the plant capacity will be drawn from the Electricity Board, thus reducing the energy consumption. Similarly, the power produced by the plant is also synchronized with the diesel generators available in the centre, which will minimize the diesel consumption.

The annual energy generation of the plant is estimated to be 9 lakh units, and the surplus will be to a tune of 30%, which can be returned back to TSSPDCL as per the mutual agreement. The cost of the project is Rs 3.45 crore, and the plant is in operation since 2019.

By harnessing renewable energy sources, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), an autonomous R&D Centre of Department of Science and Technology (DST) has not only aimed at reduction of expenditure on energy but also joined the National Action Plan on Climate Change.