

**GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS
RAJYA SABHA
STARRED QUESTION NO. 177
ANSWERED ON 17.03.2025**

INTERNATIONAL CONFERENCE ON GREEN METRO SYSTEMS

***177. SHRI MAYANKBHAI JAYDEVBHAI NAYAK:**

Will the Minister of Housing and Urban Affairs be pleased to state:

- (a) Government's plans to expand the installation of vertical Bifacial Solar Plants and Rooftop Solar Power Systems across other metro networks in the country to enhance renewable energy adoption;
- (b) the manner in which Government plans to integrate green metro systems into country's broader net-zero emissions goal by 2070;
- (c) the specific incentives or policies being introduced to encourage metro corporations across the country to adopt energy-efficient technologies and green building certifications; and
- (d) the role private sector plays in financing and implementing green metro initiatives, and whether any public-private partnership models are being explored?

ANSWER

**THE MINISTER OF HOUSING AND URBAN AFFAIRS
(SHRI MANOHAR LAL)**

(a) to (d): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF THE RAJYA SABHA STARRED QUESTION NO. 177 FOR ANSWER ON 17th MARCH 2025 REGARDING INTERNATIONAL CONFERENCE ON GREEN METRO SYSTEMS.

(a) More than 88 MWp capacity rooftop solar plant has been installed in various metro networks across the Country. Further, Delhi Metro Rail Corporation (DMRC) has installed 50 KW vertical bifacial solar panels on its viaducts.

(b) & (c) Government of India has issued National Urban Transport Policy, 2006 and Metro Rail Policy, 2017 for systematic planning of public transport projects including Metro Rails in order to achieve sustainable mobility. Metro Rail systems are environment friendly mass rapid rail system, which reduces number of road vehicle resulting in reduction of air and noise pollution. Metro Rail Systems are implemented with State of the Art energy efficient technology such as LED lighting, Variable Voltage Variable Frequency (VVVF) drives in lifts, escalators and air conditioning, Variable Refrigerant Flow (VRF) in Station Control Room and Equipment Rooms etc. including deployment of rolling stock with regenerative braking system. Such energy efficient systems along with solar roof top system reduce energy consumption besides harnessing green energy. These steps contribute significantly in making metro projects efficient, sustainable and environment friendly.

(d) In metro rail system, the installation of rooftop and ground mounted solar panels is generally done through private participation under Renewable Energy Service Company (RESCO) model wherein Solar Power Developer is paid for energy generated from this plant.
