

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

**LOK SABHA  
UNSTARRED QUESTION NO. 1552  
TO BE ANSWERED ON 28.07.2021**

**GREEN RAILWAYS**

**1552. DR. SUKANTA MAJUMDAR:**

**SHRI VINOD KUMAR SONKAR:**

**SHRI PRATAPRAO JADHAV:**

**SHRI RAJVEER SINGH (RAJU BHAIYA):**

**SHRI BHOLA SINGH:**

**SHRI SANJAY SADASHIVRAO MANDLIK:**

**SHRI SHRIRANG APPA BARNE:**

**SHRI CHANDRA SEKHAR SAHU:**

**SHRI SUDHEER GUPTA:**

**SHRIMATI SANGEETA KUMARI SINGH DEO:**

**SHRI RAJA AMARESHWARA NAIK:**

**DR. JAYANTA KUMAR ROY:**

**SHRI BIDYUT BARAN MAHATO:**

**Will the Minister of RAILWAYS be pleased to State:**

**(a) whether Railways has taken various initiatives to transform itself into 'Green Railways' and if so, the details thereof;**

**(b) whether Railways has plans to utilise its unused vacant land parcels for setting up Solar Plants for its traction power requirement and if so, the details thereof;**

**(c) whether Railways has set a target of becoming 'Net Zero Carbon Emission' by 2030 and if so, the details thereof;**

**(d) whether Railways proposes to make assessment and rating of major Railway Workshops and Production Units as 'Green Industrial Units' and if so, the details thereof;**

**(e) whether Railway Stations have been certified for implementation of Environment Management System and if so, the details thereof and the other steps being taken by the Government in this regard?**

**ANSWER**

**MINISTER OF RAILWAYS, COMMUNICATIONS AND ELECTRONICS &  
INFORMATION TECHNOLOGY**

**(SHRI ASHWINI VAISHNAW)**

**(a) to (c): Yes, Sir. Indian Railways (IR) has planned to utilize renewable energy as a part of its plan to reduce its energy consumption through conventional sources. As a part of this, about 123 Mega Watt (MW) of solar plants (both on Rooftops and on land) and about 103 MW of Wind power plants have already been commissioned (as on 30.06.2021) over IR. Further, 53 passenger coaches have also been fitted with solar panels.**

**In addition to above, IR has also taken a number of initiatives to transform itself into 'Green Railways', as follows:**

- i). Use of energy efficient technologies like completely switching over of production of locomotives to energy efficient three-phase electric locomotives with regenerative features, switching off of trailing loco carrying light load, monitoring of energy consumption of locomotives through microprocessor based energy meters, use of head on generation (HOG) technology instead of Diesel generators for feeding coaches for lighting and air conditioning load.**
- ii). Conversion of 25 number of Diesel Power cars of diesel Electric Multiple Units (DEMU) into dual fuel mode, substituting diesel with Compressed Natural Gas (CNG).**
- iii). Water conservation and management.**
- iv). Afforestation.**
- v). Fitment of Bio toilets in coaches.**

**vi). Green certification and waste management.**

**Further, IR has decided to utilize its unused vacant Land parcels for setting up of Land Based Solar Plants in phased manner as per feasibility for meeting its power requirement and thereby becoming a 'Green mode of transportation' and fulfilling its goal of 'Net Zero Carbon Emission' by 2030.**

**Following actions have, inter-alia, been taken:**

- i). Pilot project of 2 MW land based solar plant at Diwana (Haryana) has been commissioned.**
- ii). Pilot project of 1.7 MW land based solar plant at Bina (Madhya Pradesh) has been commissioned.**
- iii). 400 MW of solar power has been tied up with Rewa Ultra Mega Solar Limited (RUMSL).**
- iv). For further proliferation of solar plants on vacant unused Railway land, initially tenders for about 1.4 Giga Watt (GW) capacity have already been invited.**

**(d) Assessment and rating of major workshops and production units of IR as Green Industrial Units has been started with 'GreenCo' certification of two workshops and one Production Unit in 2016-17. At present, 39 Workshops, 7 Production Units, 8 loco sheds and one store depot have been 'GreenCo' certified.**

**(e) At present, about 630 Railway Stations have been certified with ISO: 14001 certification for implementation of Environment Management System (EMS). In addition, 19 more Railway stations have also been certified as Green Railway Stations over IR.**

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