

# Rajasthan Leads in Solar Power Installation at Railway Stations

# Why in News?

According to the statement of the Union Railway Minister in the Lok Sabha, the Indian Railways is making all endeavors to promote solar energy in line with the Government policies and Rajasthan has the highest number of Installations Units Among All States and UTs.

# **Key Points**

- Solar power plants have been installed at 275 railway stations in Rajasthan the highest in the country: 73 stations between 2014-15 to 2019-20 and 200 more were added between 2020-21 to February, 2025.
- Renewable Energy Plan of Indian Railways:
  - Indian Railways has set a target of achieving 100% electrification by 2025-26.
  - Railways aims to become <u>net-zero</u> carbon emitter by 2030.
    - To achieve this target, Railways will meet its energy requirements through renewable energy, which will be a mix of solar energy and wind energy.
  - Railways will install solar power plants on the rooftops of its stations and utilise its vacant land.
  - Indian Railways aims to set up 20 GW of solar power plants on its vacant land by 2030.
- Solar Power Plants at Railway Stations -Top 5 States (as of February 2025):
  - Rajasthan 275
  - Maharashtra 270
  - West Bengal 237
  - Uttar Pradesh 204
  - Andhra Pradesh -198

## Solar Energy

#### Introduction:

 Solar energy is a renewable and clean energy source obtained from the sun by directly converting sunlight into electric energy. Through solar panels and solar thermal plants, it is used to generate electricity, heat and power appliances.

### Benefit:

- Solar energy is available throughout the day especially when the demand for electrical energy is highest.
- Devices that convert solar energy into electrical energy have longer life and also require less maintenance.
- Unlike conventional thermal power generation (by coal), solar energy does not cause pollution problems and promotes the production of clean electrical energy.
- There is an abundance of free solar energy in almost all parts of the country.
- There is no need to use electrical wires and transmission in the use of solar energy.

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