

# Pradhan Mantri Suryodaya Yojana

#### Source: IE

### Why in News?

Recently, the Indian Prime Minister launched the 'Pradhan Mantri Suryodaya Yojana,' a pioneering government initiative aimed at installing rooftop solar power systems in one crore households across the nation.

### What are Rooftop Solar Panels?

- About: Rooftop solar panels are <u>photovoltaic panels</u> installed on the roof of a building that is connected to the main power supply unit.
- Benefit: It reduces the consumption of grid-connected electricity and saves electricity costs for the consumer.
  - Surplus solar power units generated from the rooftop solar plant can be exported to the grid as per the metering provisions.
  - The consumer can receive monetary benefits for the surplus exported power as per the prevailing regulations
- Related Government Initiatives: In 2014, the government launched the <u>Rooftop Solar</u>
  <u>Programme</u> that aimed to achieve a cumulative installed capacity of 40,000 megawatts (MW) or 40 gigawatts (GW) by 2022.
  - However, this target could not be achieved. As a result, the government extended the deadline from 2022 to 2026.
  - According to some reports, the Pradhan Mantri Suryodaya Yojana seems to be an attempt to help reach the target of 40 GW rooftop solar capacity.

# What is the Current Solar Capacity in India?

- India's Current Solar Capacity:
  - Rooftop Solar Capacity: Total rooftop solar installed capacity is around 11.08 GW as of December 2023
    - Gujarat tops the list with 2.8 GW, followed by Maharashtra by 1.7 GW.
    - According to a recent report by <u>Council on Energy, Environment and Water</u> (<u>CEEW</u>), only 20% of rooftop solar capacity installations are in the residential sector, with the majority in commercial and industrial sectors.
      - The report suggests that India's 25 crore households could deploy 637
        GW of solar energy on rooftops, and just one-third of this could meet the entire residential electricity demand in the country.
  - Total Installed Capacity: According to the Ministry of New and Renewable Energy solar power installed capacity in India has reached around 73.31 GW as of December 2023.
    - In terms of total solar capacity, **Rajasthan is at the top with 18.7 GW.** Gujarat is at the second position with 10.5 GW.
    - When it comes to rooftop solar capacity, **Gujarat tops the list with 2.8 GW**, followed by Maharashtra by 1.7 GW.

# **India's Surging Energy Demand**

- India is projected to experience the highest energy demand growth globally over the next three decades, as per the International Energy Agency.
  - Despite an increase in coal production, India is committed to achieving 500 GW of renewable energy capacity by 2030.
- Also, the country aims for 50% of electricity generation from non-fossil fuel sources by 2030, having already reached 43%, with renewables contributing 30% to the total installed capacity.
  - Rapid growth in renewable capacity, especially in solar energy, is essential to meet the surging electricity demand.

# What are the Other Government Initiatives to Harness Solar Energy?

- National Solar Mission
- Solar Park Scheme
- Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)
- Suryamitra Skill Development Programme
- International Solar Alliance

### **UPSC Civil Services Examination Previous Year Question (PYQ)**

#### **Prelims**

- Q. Consider the following statements: (2016)
  - 1. The International Solar Alliance was launched at the United Nations Climate Change Conference in 2015.
  - 2. The Alliance includes all the member countries of the United Nations.

#### Which of the statements given above is/are correct?

- (a) 1 only
- **(b)** 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (a)

### **Mains**

**Q.** India has immense potential of solar energy though there are regional variations in its developments. Elaborate. **(2020)** 

PDF Refernece URL: https://www.drishtiias.com/printpdf/pradhan-mantri-suryodaya-yojana