Pradhan Mantri Suryodaya Yojana

Why in news?

Recently, Prime Minister announced Pradhan Mantri Suryodaya Yojana under which 1 crore households will get rooftop solar power systems.

India's Status of Current Solar Capacity
• India currently stands at ***4th place*** globally in solar power capacity. • As per Ministry of New and Renewable Energy (MNRE), solar power installed capacity in India has reached around 73.31 GW as of 2023. • Solar power has the major share in the country's current renewable energy capacity, which stands at around 180 GW. • In total solar capacity, ***Rajasthan*** is at top with 18.7GW followed by Gujarat. • As of 2023, Rooftop solar installed capacity is around 11.08 GW. • ***Gujarat*** (2.8 GW) tops the rooftop solar capacity followed by Maharashtra.

What is Pradhan Mantri Suryodaya Yojana?

- **Aim-** To equip ***1 crore*** poor to middle-class households with rooftop solar panels in a bit to provide electricity from solar energy.

Significance of the Scheme

- **Cost effective**- It will reduce the electricity bill for poor and middle class.
- In a solar rooftop system, there is only an upfront capital investment and minimal cost for maintenance.
- **Aatmanirbar Bharat**- It will push India's goal of becoming self-reliant in the energy sector.
- **Additional income**- It will provide income to generate surplus electricity generation.
- **Massive national campaign**- It will mobilize residential segment consumers to adopt rooftop solar in large numbers.
- **Reaching the targets**- It could help India achieve ***net zero target by 2070.***
- India aims to reach ***500 GW of renewable energy by 2030***, hence expanding solar energy is crucial to achieve this target.
- It seems to be a new attempt to help reach the target of ***40 GW rooftop solar capacity.***
- **Saves electricity cost** - It reduces the consumption of the grid-connected electricity and saves electricity cost for the consumer.

As per the Council on Energy, Environment and Water (CEEW) report, the residential sector currently accounts for just 20% of the installations of rooftop

solar capacity.

What is the Rooftop Solar Program?

- **Launch year-** 2014
- **About-** To promote the installation of solar panels on the roofs of residential, community, institutional, industrial and commercial buildings.
- **Aim-** To achieve a cumulative capacity of ***40 GW of rooftop solar by 2022.***
- **Implementation-** By Ministry of New and Renewable Energy in collaboration with the State Government and distribution companies (DISCOMs)
- **Scheme extension**- 2022 to 2026
- **Central financial assistance**- Given to eligible projects and DISCOMs that facilitate the installation and operation of rooftop solar systems.

At the end of 2023, the total solar installed capacity in the country had reached only 73.3 GW, of which grid-connected rooftop solar contributed just about 11 GW.

What steps were taken to promote solar energy?

- **Solar park scheme**- Aims to facilitate the setting up of large-scale solar power projects in solar parks, which are zones of land with suitable infrastructure and access to the grid.
- **National Solar Mission**- One of the 8 key National Mission's which comprise India's National Action Plan on Climate Change (NAPCC).
- **Viability Gap Funding scheme (VGF)-** One-time grant implemented through Solar Energy Corporation of India (SECI), a public sector undertaking under the Ministry of New and Renewable Energy.
- **Central Public Sector Undertaking Scheme (CPSU)** - Aims to achieve 12 GW of solar power capacity from CPSUs by 2023.
- **Defence Scheme-** Aims to promote the installation of solar power plants by the defence sector and the para-military forces.
- **Canal bank and Canal top Scheme**- Aims to promote the installation of solar power plants on the banks and tops of the canals.
- **Bundling scheme**- Aims to promote the installation of solar power plants by bundling the solar power with the thermal power from the unallocated quota of the central generating stations (CGS).
- **PM KUSUM scheme**- Aimed at ensuring energy security for farmers in India, along with honouring India's commitment to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs).
- **Production Linked Incentive (PLI) -** Scheme for high efficiency solar aims to enhance India's manufacturing capabilities and exports in the solar sector.
- **Green Energy Corridors**- Established to create intra-state transmission system for renewable energy projects.

- **International Solar Alliance**- A joint effort by ***India and France*** to mobilize efforts against climate change through deployment of solar energy solutions with an aim of ***One Sun, One World, One Grid.***

References

1. Indian Express- New rooftop solar scheme
2. PIB- Pradhan Mantri Suryodaya Yojana

