



Status of Solar Power Projects

For Prelims: Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects, Initiatives for Solar Energy

For Mains: Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects, Challenges in Project Implementation, Status of Solar Energy, Initiatives for Solar Energy

Why in News?

Recently, the **Ministry for New and Renewable Energy** has reported that the government has so far sanctioned the development of [solar projects](#) with a capacity of nearly 39,000 MW but **only 25% have actually been commissioned so far.**

- These solar projects were sanctioned under the '**Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects**'.

What is the Scheme for Development of Solar Parks and Ultra Mega Solar Power Projects?

- **About:**
 - The scheme was rolled out by the **Ministry of New & Renewable Energy** in 2014.
 - Under this scheme, it was proposed to set up **at least 25 Solar Parks and Ultra Mega Solar Power Projects** targeting over 20,000 MW of solar power installed capacity within a span of 5 years starting from 2014-15.
 - The capacity of the Scheme was **enhanced from 20,000 MW to 40,000 MW.** These parks are proposed to be set up by 2021-22.
- **Implementing Agency:**
 - The implementing agency is termed as **Solar Power Park Developer (SPPD).**
- **Features:**
 - The scheme envisages **supporting the States/UTs in setting up solar parks** at various locations in the country with a **view to create required infrastructure** for setting up of **solar power projects.**
 - The solar parks are developed in collaboration with the State Governments and their agencies, Central Public Sector Undertakings, and private entrepreneurs.

What are the Challenges in Solar Projects Commissioning?

- Hurdles in **acquisition of land** with clear title.
- A "mismatch" in the **time taken to set up a project** and the **infrastructure to route the power** produced to the grid.
- Environmental issues and the halt in economic activity due to [COVID-19](#).
 - In recent years, the habitat of the [Great Indian Bustard](#), a critically endangered species numbering less than 200 in Rajasthan, has been **encroached upon by solar power projects particularly by transmission lines** that endanger the bird.

- The [Supreme Court](#) in April 2022, had directed that power companies lay **underground cables in solar parks in Rajasthan**, though few companies have actually complied. The government had told the Supreme Court that laying underground cables **would greatly raise the cost of solar power**.

What is the Overall Status of Solar Energy in India?

- As of October 2022, 61GW of solar power had been installed so far, according to numbers presented in Parliament.
- Further, India has set an **ambitious target to achieve a capacity of 175 GW worth of renewable energy** by the end of 2022 (100 GW was to be solar power), which expands to 500 GW by 2030. This is the world's largest expansion plan for renewable energy.
- India was the **second-largest market in Asia for new solar PV capacity** and third globally. It ranked **fourth for total installations (60.4 GW)**, overtaking Germany (59.2 GW) for the first time.
- As of June 2022, **Rajasthan and Gujarat** were the top states for large-scale solar, accounting for 53% and 14% of installations, respectively, followed by Maharashtra with 9%.

What Initiatives has India Taken for Solar Energy?

- **Solar Park Scheme:**
 - The [Solar Park Scheme](#) plans to build a number of solar parks, each with a capacity of nearly 500 MW, across several states.
- **Rooftop Solar Scheme:**
 - The [Rooftop Solar Scheme](#) aims to harness solar power by installing solar panels on the roof of houses.
- **Atal Jyoti Yojana (AJAY):**
 - The AJAY scheme was launched in September 2016 for the installation of solar street lighting (SSL) systems in states with less than 50% of households covered with grid power (as per [Census 2011](#)).
- **National Solar Mission:**
 - It is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge.
- **SRISTI Scheme:**
 - Sustainable rooftop implementation of Solar transfiguration of India (SRISTI) scheme to promote rooftop solar power projects in India.
- **International Solar Alliance (ISA):**
 - The [ISA](#) was conceived as a joint effort by **India and France** to mobilize efforts against climate change through the deployment of solar energy solutions.

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)

Exp:

- India and France launched the International Solar Alliance (ISA) to boost solar energy in developing countries.
- It was launched at the United Nations Climate Change Conference in Paris in November 2015 by the Indian Prime Minister and French President. Its secretariat is located in Gurugram, India. Hence, statement 1 is correct.
- At initial stage ISA was opened to membership of countries lying fully or partly between the Tropics of Cancer and Capricorn (torrid zone).
- In 2018, the membership of ISA was opened for all the UN members. However, all the member countries of the UN are not its members. Hence, statement 2 is not correct.
- Currently, 80 countries have signed and ratified the ISA Framework Agreement while 98 countries have signed the ISA Framework Agreement. Therefore, option (a) is the correct answer.

Mains

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

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