

"Development of Solar Parks and Ultra-Mega Solar Power Projects Scheme"

sometimes exorbitantly more on a cost per MW basis as well as in losses during transmission. Smaller projects incur significant costs in site development, transmission lines, water procurement, and infrastructure. Developers can also expect a longer time frame for the acquisition of land, clearances, and permissions, resulting in production timelines that often grow longer. In December of 2014, the Government of India launched the "Development of

Solar Parks and Ultra-Mega Solar Power Projects Scheme" with the aim of facilitating solar park projects to allow for a faster start to implementation and a target project period of 2025-26.



Features of the scheme:

- In 2014, the Ministry of New & Renewable Energy initiated the scheme for the establishment of 25 Solar Parks and Ultra Mega Solar Power Projects.
- The solar park scheme intends to facilitate the establishment of Solar Power generated capacity of 20,000 MW (installed) over a period of 5 years.
- On 21-03-2017 the capacity of the scheme was increased from the initial capacity of 20,000 MW to 40,000 MW, which is proposed to be established by 2025-26.
- The Solar Park scheme is aimed at providing assistance to create the required infrastructure for solar power generation projects in the states/UTs using various methods.
- All States and Union Territories are eligible to avail of the solar park scheme.
- Solar Parks are development in association with the State Governments, CPUS, and private entrepreneurs.
- Solar Power Park Developers (SPPDs) are



implementing agencies of the scheme.

Who can Apply?

1. State Governments/UTs

The identification and transfer of appropriate land for solar parks and projects are the primary responsibility of State Governments and Union Territories. They may develop the parks through the State Nodal Agencies (SNAs) or State Renewable Energy Development Agencies.

2. Public Sector Enterprises

Central Public Sector Undertakings (CPSUs) such as NTPC, NHPC, SECI, etc., may develop Solar Parks. In fact, these entities are incentivized to develop Ultra Mega Solar Power Projects in collaboration with state agencies or in an independent context.

3. Private Developers

Private enterprises can apply to develop solar projects by bidding to win projects awarded by government schemes, and/or through negotiations with state governments. Private companies can also partner with a state agency or private entity to participate in the park development.

4. Joint Ventures and Special Purpose Vehicles (SPVs)

State governments, public entities, and private companies may form joint ventures or Special Purpose Vehicles (SPVs) to co-develop parks. These SPVs are sometimes used to bring together funds and resources and manage the development and operation of solar parks.

5. Cooperative and Community-Based Organizations

Certain state-based schemes may allow community organizations or cooperatives to develop smaller solar energy projects and, or pools, develop greater projects and a collective investment.

6. International Developers and Investors

International entities and investors can approach the schemes through direct foreign investment and/or joint ventures as Independent Power Producers (IPPs), mostly for the Ultra

Mega Solar Power Project.

7. Renewable Energy Service Companies (RESCOs)

RESCOs may approach for the setup and expected operation of solar parks - particularly in arrangements to have RESCOs own the solar power plant and sell energy to consumers and or grid.

CFA Pattern

The Ministry provides Central Financial Assistance (CFA) for the purposes of preparing a Detailed Project Report (DPR) of up to Rs. 25 lakh for each solar park, as well as financial assistance of up to Rs. 20.00 lakh per MW or up to 30% of the project cost, including Grid-connectivity cost, whichever is less, after attaining prescribed milestones. The scheme provides various ways of SPPD selection and eligibility of CFA.

Mode	Brief Description	CFA Pattern
Mode 1	The State designated nodal agency or a State Government Public Sector Undertaking (PSU) or a Special Purpose Vehicle (SPV) of the State Government. Central Public Sector Undertakings (CPSUs) like SECI, NTPC etc.	Rs 12 lakh/MW or 30 % of the project cost to SPPD for development of internal infrastructure, and Rs 8 lakh/MW or 30 % of the project cost to the CTU/STU for creation of external transmission infrastructure.
Mode-2	A Joint Venture Company of State designated nodal agency and Solar Energy Corporation of India Ltd (SECI).	Rs 12 lakh/MW or 30 % of the project cost to SPPD for development of internal infrastructure, and Rs 8 lakh/MW or 30 % of the project cost to the CTU/STU for creation of external transmission infrastructure.
Mode-3	The State designates SECI as the nodal agency	Rs 12 lakh/MW or 30 % of the project cost to SPPD for development of internal infrastructure, and Rs 8 lakh/MW or 30 % of the project cost to the CTU/STU for creation of external transmission infrastructure.

Mode-4	Private entrepreneurs with/without equity participation from the State Government	Rs 12 lakh/MW or 30 % of the project cost to SPPD for development of internal infrastructure, and Rs 8 lakh/MW or 30 % of the project cost to the CTU/STU for creation of external transmission infrastructure.
Mode-6	Private entrepreneurs without any Central Financial Assistance from MNRE	No CFA
Mode-7	SECI will act as the Solar Power Park Developer (SPPD) for Renewable Energy Parks	Rs 20 lakh/MW or 30 % of the project cost for external transmission infrastructure only.
Mode-8	CPSU/ state PSU/ Government organization / their subsidiaries or the JV of above entities can act as SPPD.	Rs 20 lakh/MW or 30% of the project cost for internal infrastructure only.

	or the JV of above entities can act as SPPD.	
--	--	--

In order to obtain financial support, it is necessary to send proposals to MNRE/SECI. As of 30-06-2023, 37,990 MW of capacity has been sanctioned in 12 states with a number of approved parks being implemented.

Legal issues involved :

1. Land Acquisition Challenges and Regulatory Compliance

- Inability to acquire big pieces of land, as land ownership is normally fragmented.
- Inadequate compensation that can result in litigation cases.
- Allegations of forced eviction of people.
- working on different state laws on land acquisitions.

2. Environmental Impact Assessment

- Detailed assessment considering local ecosystem impacts, water resources, and

biodiversity.

- Concerns over land degradation and disturbances in agricultural practices.

3. **Community Engagement and Consent**

- Informed consent from the local communities.
- Mitigating socio-economic impacts on the livelihood of locals.

4. **Grid Integration and Transmission Access**

- Arranging grid connectivity for large solar projects.

5. **Regulatory Compliance**

- Compliances related to complex regulatory mechanisms and obtaining necessary permissions and clearances.

Risk involved :

1. **Regulatory Risks:**

- Change in policy that may affect project viability
- Issues with land acquisition are very problematic, including bureaucratic hurdles, local opposition, or legal disputes.
- Delays in permits and approvals availability delay the project timelines.

2. **Financial Risks:**

- High initial investment with financial uncertainties affects funding availability
- Fluctuation in tariff and currency exchange risks impact revenue.
- Credit risk is paramount, as the failure to honor PPAs means losses in revenues.

3. **Technical Risks:**

- Grid integration is difficult.

- Obsolescence of technologies makes the existing one obsolete.
- Performance risks: Failure of equipment, degeneration in solar panels, and less-than-expected irradiance.
- Storage maybe expensive and relatively developing.

4. Environmental and Social Risks:

- Large-scale solar projects are said to cause degradation of land, disruption of habitat, and other ecological hazards.
- Water consumption can stress local water supplies.
- Community resistance may be in opposition to projects due to land use, environmental concerns, or lack of perceived regional benefit.
- Climate risks may destroy equipment and disrupt operations.

5. Operational and Management Risks:

- Supply chain interruption impacts project timelines.
- Shortage of skilled labor affects the quality and efficiency of the project.
- Operational challenges are to be met with effective operations and maintenance strategies.

6. Legal Risks:

- Contractual disputes may lead to litigation.
- The compliance by organizations to local, national, and international regulations is becoming more complicated and expensive.

Website: www.astrealegal.com Email: contact@astrealegal.com Contact: +91 9822720483,

Disclaimer - This publication is provided for general information and does not constitute any legal opinion. This publication is protected by copyright. © 2024 Astrea Legal Associates LLP.