

- The previous Solar Power Policy-2013 and Solar Rooftop PV Plant Policy-2014 is hereby being presented as Draft U.P. Solar Power Policy-2017
- Comments/Suggestions are invited till 15-07-2017 on draft Uttar Pradesh Solar Power Policy-2017
- Comments/Suggestions may be sent through email at **dirupneda@gmail.com / compneda@rediffmail.com** or may be sent by post at

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This is a draft of the proposed Solar Power Policy -2017 therefore information provided or provisions /incentives proposed are not final. Final Solar Power Policy-2017 will be promulgated after the approval of competent authority.

***Uttar Pradesh Solar
Power Policy
2017***

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1. Preamble

India, being a tropical country receives adequate solar radiation for 300 days. However, solar power has not been able to contribute to a significant share in the Indian energy mix. The grid-connected capacity of Solar PV in India stands at 12.5 GW (as of April, 2017) of the total 329 GW installed in the country. The market for solar power is, however, set to grow significantly due to improved economics of solar projects and rise in the prices of the fossil fuels. Another push to the sector includes Government of India's commitment to 40% of the country's power from renewable sources by 2030 including achievement of 100 GW from solar power by 2022, of which 40 GW is allocated specific to solar rooftop projects. Additionally, the amendment in the National Tariff Policy in 2016 also targets to achieve 8% contribution from solar energy in the total state mix (excluding hydro) by 2021 .

To achieve a sustainable development route that provides for advancement in economic as well as environmental objectives, the Government of Uttar Pradesh is determined and taking necessary steps to encourage the generation based on renewable energy sources. The State has potential of 23.8 GW of Solar Energy which the State intends to harness to support the energy requirements of the State as well as meet the MNRE targets of 10.7GW of solar power which includes 4300MW from solar rooftop by 2022.

In order to address the energy demand and access issues, the state is also targeted to provide 24 hours electricity connections to rural and urban households by 2018-19. Attaining such an ambitious target will require a complete transformation of power sector scenario in Uttar Pradesh including tapping huge solar energy potential. Additionally, solar energy deployment in the state will also attract investments creating many jobs in the state. The solar industry provides both one-time jobs during pre-commissioning/ construction phase and regular operations and maintenance positions over the life of the project. Investments in the solar industry as well as domestic manufacturing of solar panels will help create direct and indirect employment opportunities in both skilled and unskilled sector.

Thus, keeping in view vast potential of solar power in the state and to improve the power availability, the Government is keen in establishing solar energy based power plants in the state. To achieve this, objective, U.P. State Government hereby declares and adopts **Solar Power Policy, 2017**.

2. Title

This policy shall be known as “**The Uttar Pradesh Solar Power Policy 2017**”.

3. Objectives

This solar policy has the following specific objectives:

- To encourage participation of Private Sector and provide investment opportunities to set up solar power projects in the state
- To support in providing environment friendly and affordable Power for All.
- To promote Research & Development, innovations and skill development in the state
- To achieve its target of 8% Solar Renewable Purchase Obligation (Solar RPO) by 2022.

4. Operative Period

This policy shall come into operation from date of issuance and shall remain in operation for a period of five (5) years or till the Government notifies the new policy whichever is earlier.

The Solar Power Projects (SPPs) that are taken up during the operative period shall continue to be eligible for the incentives declared under this policy.

5. Applicability of the Policy

The solar policy shall be applicable for the following solar projects set up within the state:

1) Utility Scale Solar Power Projects (SPPs)

Utility scale grid-connected solar power projects based on both Photo Voltaic (PV) as well as Solar Thermal technologies pertaining to:

- Projects set up for sale of power to UP Electricity Distribution licensees
- Projects set up for sale of power to third parties within the State or outside the State
- Projects set up for captive generation/ group captive generation (including those funded and owned by developers) with intention to sale part generation to Electricity Distribution Company or Third party.

2) Solar Rooftop Projects

State shall encourage the development of solar rooftop projects to meet the MNRE target of 4300MW for the State of UP by 2022.

3) Off-Grid Applications:

- Solar Street Lights
- Solar powered agricultural pump sets
- Any other off grid solar product.

6. Regulatory Framework

The Electricity Act 2003, as amended from time to time, mandates the State Electricity Regulatory Commission, to set tariffs for renewable energy as well as to issue regulations pertaining to renewable power purchase obligation (RPO), and set charges for wheeling, transmission and distribution of electricity.

7. Policy Targets

The Government of Uttar Pradesh in its endeavor to achieve minimum 8% solar energy out of the total projected consumption (as defined in the Tariff Policy), proposes to meet the target of 10700MW solar power for UP including 4300 MW from rooftop solar projects by FY 22.

8. Implementation Plan

The State shall encourage implementation of the Solar Power under below mentioned segments:

8.1 Utility scale grid-Connected Solar Projects

8.1.1 Category-1: Solar Park

State Government will promote the development of integrated solar parks for utilizing waste lands in the State for generation of power. Through development of solar parks, private participation will be encouraged by providing “plug and play” options for developers. Size of Solar Parks set up will be minimum 100 MW capacity at contiguous location, subject to minimum capacity condition of Solar Park laid down by Ministry of New and Renewable Energy (MNRE), Government of India for providing Central Financial Assistance (CFA) for development of Solar Park.

The solar parks can be set up under:

A. Public Sector Solar Parks

The State shall support the development of solar parks under any of the following modes:

1. Solar Parks developed and managed by Central/ State Government Public Sector Undertaking (PSU) or a Special Purpose Vehicle (SPV) of the State Government
2. Solar Parks developed and managed by a Joint Venture Company (Lucknow Solar Power Development Corporation Limited) comprising of UPNEDA (50% equity) and Solar Energy Corporation of India (SECI) (50% equity)
3. Solar Parks developed and managed by Solar Energy Corporation of India (SECI) on behalf of State Government on mutually agreed terms.

Government of U.P will provide the following Incentives:

- i. Land on lease or Right to use basis for development of Solar Park.
- ii. Connectivity of Solar Park to the nearest transmission Substation.
- iii. Support for strengthening of Grid network
- iv. The State through UPPCL/Distribution licensee to offer purchase of 100 % power generated from solar park out of which atleast 50% of the power will have to be sold to UPPCL/Distribution Licensee.

Location of the Solar Park shall be finalized in consultation with State Transmission utility to optimize the cost of transmission. Allocation of the Solar Power Projects inside the Solar Park will be done through bidding as per guidelines of Ministry of New and Renewable Energy (MNRE), Government of India

B Private Sector Solar Parks

The state shall promote the solar parks developed by private companies.

Government of U.P will provide the following Incentives:

- i Support for strengthening of Grid network
- ii The State through UPPCL/Distribution licensee to offer purchase of 100 % power generated from solar park out of which atleast 50% of the power will have to be sold to UPPCL/Distribution Licensee

8.1.2 Category-2: Large scale stand-alone solar projects with sale of power to Distribution Licensee

The nodal agency for such projects shall be UPNEDA. The minimum project size shall be 5MW at a single location and shall be awarded through competitive bidding process as per Ministry of New and Renewable Energy (MNRE), Government of India guidelines.

Incentives:

State Government will bear one-third of the cost of construction of transmission line, for maximum transmission line length of 15 km for the solar projects in the Bundelkhand and Purvanchal region of the State. Remaining cost for construction of transmission line, bay and substation will be borne by the Project Developer. Incentive will be available only in case of construction of Transmission line by State Transmission Utility (STU)/Distribution licensee.

Other charges will be applicable as per the UP Electricity Regulatory Commission (UPERC) regulations, as amended from time to time.

8.1.3 Facilities for third Party sale

- (i) Intrastate sale of solar power to any third party shall be exempted from any wheeling charges/transmission charges.
- (ii) Interstate sale of solar power shall be exempted from any cross subsidy surcharge and wheeling charges/transmission charges applicable inside the state.
- (iii) Metering for sale of power shall be done at STU/Distribution licensee substation end

8.2 Grid-Connected Solar Rooftop Projects

The State shall encourage implementation of the grid connected rooftop solar photovoltaic power plants on public buildings, domestic, commercial and industrial establishments through following arrangements as per Rooftop Solar PV Grid Interactive systems Gross/Net Metering Regulations, 2015 (RSPV Regulations, 2015) issued by UPERC and amended from time to time:

8.2.1 Implementation Arrangement:

- a) **Net Metering:** The policy shall be applicable to Renewable Energy (RE) Beneficiary, who installs RE Systems under Net Metering Arrangement as per UPERC RSPV Regulation, 2015. Generally, such RE Systems shall be located in the premises of RE Beneficiary. In case of multi storied buildings, residential colonies, commercial buildings, etc, Renewable Energy (RE) System could be located at common facility area; the same could supply to the bulk power connection or connection for common facilities therein, and, in other cases, without hindering or encroaching upon the lawful rights of the other occupants.
- b) **Gross Metering:** In this arrangement energy in a system is measured under which entire energy generated from a rooftop Solar PV system installed at eligible consumer premises is delivered to the distribution system of the licensee.

8.2.2 Implementation Plan:

8.2.2.1 Government/Public Institutions

- i. The Government of Uttar Pradesh shall promote deployment of rooftop solar photovoltaic plants for captive/self-consumption on the offices of the government organizations/State government owned or aided institutions under Net metering mechanism. Installation of these Rooftop solar photovoltaic plants through third party (Renewable Energy Supply Company -RESCO) will be

encouraged wherein the consumer shall enter into a power purchase agreement with the Third Party and enter into Net-Metering agreement with the Distribution licensee.

- ii. The State shall endeavor to participate and avail benefits under the MNRE's scheme on Grid Connected Rooftop and Small Power Plants Programme. Further, the State shall take active part in the Ministry of New and Renewable Energy (MNRE) scheme on implementation of rooftop solar power plants on the roofs of the State Government department and State Public Sector Units namely 'Achievement-Linked Incentive' for Government Sector or any other incentive available under any Government scheme from time to time.
- iii. All the public institutions such as government owned or aided hospitals, research institutions, educational institutions, hostels & training institutions, libraries, establishments of Indian railways, in the State, such as ticket reservation centre, Railway stations, research and development organization, rest houses, inspection houses etc, shall endeavor to install grid connected rooftop solar photovoltaic power plant and generates & consume some percentage of their annual electricity consumption from such plant.
- iv. Nodal Agency, UPNEDA will play an active role in collection of demand for installation of Grid connected Solar Rooftop Power Plants from Government departments. UPNEDA will finalize model contract conditions and carry out competitive bidding for discovery of tariff and selection of Renewable Energy Service Companies (RESCO's) for implementation of Grid connected Solar Rooftop projects on Government buildings.
- v. Funds from the Government of Uttar Pradesh may be made available for providing payment security in case any State Government, Semi Government, Government aided organizations, Government owned corporations and statutory bodies etc decide to implement Solar Rooftop project through third Party (RESCO) mode. However depending on the response generated some budgetary support may also be provided by Government of U.P. for installation of Rooftop Solar Power Plants in State Government, Semi Government, Government aided organizations and corporations.

8.2.2.2 Residential & Private Institutions

The Government of Uttar Pradesh shall encourage the Residential, Commercial and Industrial units to implement Grid connected rooftop solar power plant, of suitable capacity, on the roof of their premises/area following the regulations as notified by Uttar Pradesh Electricity Regulatory Commission from time to time.

8.2.3 Incentives for implementation of Grid-connected solar rooftop projects

The following incentives shall be available to the Grid connected Rooftop Solar PV Plants implemented by the eligible entities, as applicable, during the Operative Period of the policy,

- i. To promote large scale installation of Grid connected Rooftop systems under Net-Metering arrangement in private residential sectors, State Government will provide subsidy of Rs 10000/KW to a maximum limit of subsidy Rs 20000 per consumer on first come first basis for the first 100 MW applications submitted online to UPNEDA. Subsidy will be disbursed to beneficiary after successful installation and commissioning of Rooftop solar systems with net metering and submission of all documents to the State Nodal agency (UPNEDA). In case the project installation is delayed for more than 6 months, the subsidy shall be withdrawn by UPNEDA. This subsidy will be in addition to any Central Financial Assistance available from Ministry of New and Renewable Energy, Government of India which would be dispersed by State Nodal Agency.

- ii. The height of the module structure carrying rooftop solar panels, in addition to the building height, shall not be counted towards total height of the building as permitted by building bye laws. Further in case a solar rooftop project is implemented, no further building permission will be required from the local development authorities/local bodies on this account.
- iii. In compliance to the Rule 47A of Indian Electricity Rules, 1956 the installation and testing of rooftop solar power plant up to 10 kW, will be exempted from the inspection by the Electrical Inspector of the State of Uttar Pradesh. The appropriate Distribution Licensee shall undertake the inspection of the rooftop solar power plant up to 10 kW before commissioning.

8.2.4 Metering Arrangement, Evacuation Voltage & Interconnection with the distribution system

Metering arrangement, evacuation voltage of electricity generated from Solar Power Plants and interconnection of the Rooftop Solar Power Plant with the network of the distribution licensee will be as per UPERC RSPV Regulations 2015 and as amended from time to time.

8.3 Other Off-Grid Applications

Off Grid applications like Solar Street Lights and Solar Water Pumps for irrigation purpose are being deployed presently in the State on large scale with State subsidy .Government of UP will encourage off grid applications in rural areas of the State .State Government will review from time to time and provide support as appropriate .Government of U.P. has declared “Minigrd Policy U.P. -2016” which is annexed with this policy which may be reviewed by State Government as required from time to time.

9 . Ease of Business-Enabling Provisions

The State, in order to encourage solar based generation, has prepared the following measures for improving the ease of doing business. However the project developer has to ensure that the generation is within the time limit stipulated in the PPA or within a maximum period of 2 years from the date of application whichever is earlier, failing which the provisions under this policy automatically stands cancelled. The following provisions are for Solar Power Projects (SPP) and solar parks, wherever applicable:

i) Single Window Clearance System

The nodal agency will undertake single window clearance for all Solar Power Producers.

ii) Energy Banking

Banking of 100% energy in every financial year shall be permitted, subject to verification by the officials of the concerned State Distribution Company as per banking provisions of UPERC CRE Regulations 2014 and as amended from time to time.

iii) Electricity Duty

Electricity duty for ten years shall be exempted for sale to Distribution licensee, captive consumption and third party sale in respect of all solar projects set up within the state.

10 Government of India incentives

Various concessions allowed by Ministry of New and Renewable Energy (MNRE) for solar projects including central excise duty & customs duty exemptions shall be allowed to the project developer.

11. Empowered Committee

To resolve key bottlenecks in implementation of this policy and resolve any other Inter departmental issues that may arise from time to time, an Empowered committee will be constituted under the chairmanship of the Chief Secretary of the State. The committee will have the following members:-

Chief Secretary	- Chairman
Infrastructure & Industrial Development Commissioner	-Member
Additional Chief Secretary/ Principal Secretary Energy	-Member
Secretary /Principal Secretary, Additional Sources of Energy	-Member
Secretary /Principal Secretary, Finance	-Member
Secretary /Principal Secretary, Planning	-Member
Secretary /Principal Secretary, Revenue	-Member
Secretary /Principal Secretary, Housing	- Member
Managing Director, UPPCL	-Member
Managing Director, UPPTCL	-Member
Managing Director, Concerned DISCOM	-Member
Director, UPNEDA –	-Member Secretary

12 Nodal Agency

Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) will be the nodal agency for facilitating solar policy as envisaged by the relevant authorities.

12.1 Role of Nodal Agency

The Nodal Agency will facilitate and assist the project developers and undertake the activities to achieve the objectives of the policy.

12.2 Bidding of Projects

The Nodal agency will be responsible for carrying out all the tasks related to bidding process for Solar Power Projects in the state.

12.2.1.For utility scale Solar projects Government of U.P. shall provide funds for activities like hiring of consultants for Bid process management, Outsourcing of single window system and other incentives to be made available directly under this policy or on any other activity or works which are required for implementation of Solar Policy in the State.

12.2.2 For projects being set up under other departmental budgets, concerned departments will bear the cost related to feasibility report preparation and bid process management. Nodal Agency may charge a nominal facilitation charge for providing this service.

12.3 Facilitation for Government Land/Space

Facilitate allotment of suitable land/space in control of State Government or its agencies.

12.4 Coordination with other Departments.

For arranging right of way, if any, water supply and connecting infrastructure like roads etc Nodal agency will coordinate with other Government departments for expediting the setting up of Solar Projects.

12.5 Training

Develop appropriate skilled manpower by tying up with training and educational institutions.

12.6 Formulating of Subsidy Scheme available to installation of Rooftop Solar Power Plants in Residential Sector

Nodal Agency shall formulate scheme to provide for State subsidy as mentioned in Para 8.2.3(i)

13 R&D Activities

To promote awareness amongst researchers and to assist private sector in solving key issues related to reliability, adaptability of technology for Indian conditions with special reference to Uttar Pradesh, The State Government shall set up Solar Research & Development, testing and standardization facility in two institutes/universities in UP.

14 Skill Development and Capacity Building

It has been realized that a large number of solar energy professionals will be required not only in UP, but in the entire country to achieve ambitious target of 100 GW of solar capacity. The government of UP, through UPNEDA shall design training programs in association with National Institute of Solar Energy (NISE) to train electricians, mechanical & civil experts on solar. Various skill development programs will be designed by UPNEDA and NISE and subsequently training will be imparted across the state. Skills will be developed across segments including – installation, operation and maintenance of solar projects, testing of solar products, solar resource assessment, refurbishment, etc. UPNEDA will provide certifications under these development programs.

15 Benefits under other Policies of Government of U.P.

- i. Incentives available for Solar Power Projects shall be available as in Infrastructure Investment and Industrial Policy of the State as prevalent from time to time. Fiscal incentives available as per Infrastructure Investment and Industrial Policy of State from time to time will be payable from the budgetary provisions made in that policy.
- ii. Government of UP has delegated powers to Commissioners for early disposal of permission to be provided under land ceiling Act.
- iii. Solar PV projects shall be exempted from obtaining Environmental clearance

16 Power to amend & interpret the policy

Government of UP will have power to amend/ review/relax/interpret any of the provisions under this policy as and when required.

Wastelands/barren lands in State

Mini Grid Policy
Annexure-1