



सत्यमेव जयते

Government of Rajasthan

RAJASTHAN
**Solar Energy
Policy, 2019**





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Rajasthan Solar Energy Policy, 2019

Energy Department
Government of Rajasthan



ASHOK GEHLOT
Chief Minister, Rajasthan

Rajasthan is a land of resilient people. For centuries they have braved harsh geo-climatic conditions to shape themselves into one of the most vibrant and colourful cultures in the world. This land of blistering sun and vast tracts of barren land is now leading the green energy revolution in India.

Rajasthan's solar generation potential has been assessed at 142 GW. The State Government plans to systematically harness this potential and has set for itself an ambitious target of 30 GW capacity by 2024-25 which will transform the energyscape of the state and the country.

In 2011, we had formulated the State's first Solar Policy to kick-start the State's solar journey. I am glad to see that Rajasthan now stands as one of the top solar states in India. At this stage of the progression curve, the sector now requires a fresh impetus for the next leap.

The Rajasthan Solar Energy Policy-2019 is manifestation of a new, multidimensional vision for this sector. It aims at far-reaching interventions at all levels of the generation pyramid and across the consumption chain, involving all stake-holders, and employment generation for our youth.

I invite you to partner with Rajasthan in writing a new chapter in the history of sustainable energy of the country.

A handwritten signature in black ink, appearing to read 'Ashok Gehlot'.

Ashok Gehlot



Dr. B. D. KALLA
Minister of Energy, Government of Rajasthan

If you are holding this document in your hand, it is unlikely that you are not already familiar with how vibrant Rajasthan's solar sector is.

With the right policy environment, the State has successfully leveraged two important natural endowments – availability of vast un-cultivable land strips and abundant solar radiation throughout the year – to become a front-runner in the sector.

In the Budget speech for 2019-20, Hon'ble Chief Minister had announced a new Solar Policy to further augment the generation capacity in the State. I am glad that guided by his vision, we have formulated the Solar Energy Policy, 2019, which will pave way for the next round of growth of this sector.

This document is an outcome of study of sector's best-practices and a detailed dialogue with various stakeholders. We have significantly broad-based the policy framework for a more holistic and comprehensive development of the sector.

I am sure this investor-friendly policy will encourage further investment in capacity generation and allied activities and also spur employment generation.

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Dr. B. D. Kalla

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1 Preamble

- 1.1 Growing concerns of global warming and climate change require emphasis on clean and green energy. The Renewable Energy sources lay foundation for planners in developing the policy framework to ensure energy security and equity along with achieving the goals of reducing carbon emission and pollution mitigation.
- 1.2 Utility scale power producers, small power generators, state utilities such as generation, transmission and distribution companies, regulatory and power management agencies, Government and consumers are major stakeholders in the Renewable Energy (RE) sector. This Policy is envisaged for facilitation of the stakeholders for promoting solar energy sector while safeguarding interests of the end consumer.
- 1.3 Renewable energy brings enormous benefits in the form of zero fuel cost resulting in electricity prices free from volatility and external influence, reduced water usage, low import bill, and pollution mitigation.
- 1.4 Over past several decades, demand for power has grown and the State has added conventional power capacity on a large scale. The State has achieved self-reliance in availability of power. Furthermore, renewable energy has become commercially viable, therefore, state utilities and other stakeholders have increased interest and focus on renewable energy.
- 1.5 Solar energy can be deployed in a decentralised manner which brings benefit of reduced transmission & distribution losses and savings in cost of establishing additional transmission infrastructure because of generation of power at load centres. Decentralised generation through solar rooftop systems, off-grid applications and small solar power plants at consumers end are efficient ways of utilisation of solar energy.
- 1.6 On a life cycle basis, electric vehicles are environmentally cleaner than fossil fuel based vehicles. It is right time to push for a rapid transition of transport sector based primarily on electric vehicles, requiring further policy interventions to align electric vehicles charging by renewable energy based systems.
- 1.7 The State has vast and largely untapped potential in terms of intense solar radiation, one of the highest number of sunny days in a year and availability of vast barren/un-cultivable unutilised government/private land. This has potential to make Rajasthan a highly preferred destination for solar energy at the global level.
- 1.8 To meet the global commitment Government of India, has fixed a national target of 175 GW Renewable Energy, which includes 100 GW from Solar Energy by the year 2022. This will reduce dependence on conventional sources of energy by promoting non-conventional energy sources.
- 1.9 In view of ambitious national projections of RE capacity addition, planning of transmission system is an important factor to facilitate scaling up of renewable energy. Transmission planning requires a new framework in terms of multi stakeholder process and a long-term perspective plan. Better structured RE procurement system can be created based on low generation cost and best value to the system.
- 1.10 Due to unpredictability and variability of Renewable Energy generation, its large scale integration to the grid is a challenging task. It requires upgradation of transmission and distribution infrastructure. This leads to increase in system level cost of RE which is to be borne by the state utilities and the government. Seamless integration of

renewable power with grid to ensure grid stability requires deployment of technologies and implementation models for ancillary services.

- 1.11 Optimal generation capacity mix of renewable and conventional energy sources requires to be assessed by considering possible technology options, to match the future demand curve and energy requirement with the generation profile of the State.
- 1.12 Open access consumers are one of the major stakeholders using renewable power to fulfil their energy demand as well as renewable purchase obligations. Therefore, challenges of such consumers are to be addressed through a suitable regulatory and policy framework.
- 1.13 To keep pace with the changing needs of the solar energy sector, State Government has decided to review the existing Rajasthan Solar Energy Policy, 2014.

2 Vision and Objectives

- 2.1 To develop solar power sector in the State with “stakeholder-driven” policy.
- 2.2 To be a major contributing State for achieving the national target of 100 GW capacity of solar energy as a part of global commitment.
- 2.3 To achieve “optimal energy mix” of conventional and renewable power, ensuring energy security of the State, efficient grid management and protecting interests of all stakeholders.
- 2.4 To promote new technologies in solar energy generation and storage to make solar energy more cost competitive and reliable source of energy for consumers.
- 2.5 To facilitate development of infrastructure in generation, transmission, distribution and manufacturing sector of renewable energy.
- 2.6 Create better atmosphere to innovate and invest for micro, small and medium enterprises for harnessing solar energy.
- 2.7 Human resource development with particular reference to renewable energy and generation of employment opportunities.
- 2.8 To facilitate and support research & development activities in the field of RE. Nurturing better products, processes and systems to promote growth of renewable energy.
- 2.9 To deploy ancillary services for making the grid flexible for RE Power integration by various modes like Demand Side Management, Time of Day Tariff, Scheduling & Forecasting, Storage Systems, Reactive Power Management, Grid Reserve/Balancing Capacity, etc.

3 Title and Enforcement

- 3.1 This Policy will be known as Rajasthan Solar Energy Policy, 2019.
- 3.2 The Policy will come into operation with effect from 18.12.2019 and will remain in force until superseded by another Policy.
- 3.3 State Government may amend/modify/review this Policy as and when required.

4 Definitions

- 4.1 In this Policy, unless the context otherwise requires:
1. **"Act"** means Electricity Act, 2003, including amendments thereto;
 2. **"ABT"** means Availability Based Tariff;
 3. **"CAPEX Mode"** means the mode under which entire investment is to be incurred by the power consumer for installation of solar power plant;
 4. **"CEA"** means Central Electricity Authority;
 5. **"Ceiling Act, 1973"** means the Rajasthan Imposition of Ceiling on Agricultural Holdings Act, 1973;
 6. **"Central Agency"** means National Load Dispatch Centre (NLDC) as designated by the Central Electricity Regulatory Commission vide Order dated 29.01.2010 for the purposes of the REC Regulations;
 7. **"CERC"** means the Central Electricity Regulatory Commission, constituted under sub-section (1) of Section 76 of the Electricity Act, 2003;
 8. **"CERC REC Regulations"** means Central Electricity Regulatory Commission (Terms & Condition for recognition and issuance of Renewable Energy Certificate for Renewable



- Energy Generation) Regulations, 2010 notified by CERC vide Notification dated 14.01.2010 as amended from time to time;
9. **"Contract Demand"** means regular contract demand plus standby contract demand, if any, of the Consumer with DISCOM;
 10. **"COD"** means Commercial Operation Date, i.e. the date when the Power Plant gets commissioned as per rules/provisions;
 11. **"Collector"** means Collector of a district as defined in the Rajasthan Land Revenue Act and includes every officer authorized to discharge the duties of Collector under the Act/Rules/Executive Orders of the Government of Rajasthan;
 12. **"CPP" or "Captive Power Plant"** means Captive Power Plant as defined in Electricity Act, 2003 and Electricity Rules, 2005;
 13. **"CSP"** means Concentrated Solar Power;
 14. **"DISCOM of Rajasthan"** means a distribution licensee of the State, such as Jaipur DISCOM, Jodhpur DISCOM and Ajmer DISCOM;
 15. **"District Level Committee" or "DLC"** means the Committee constituted by the State Government for a District from time to time under Clause (b) of sub-rule (l) of rule 2 of the Rajasthan Stamps Rules, 2004;
 16. **"Energy Storage Systems" or "ESS"** shall mean the system(s) installed in addition to the solar PV and/or wind power capacity as part of the project, that can capture energy produced at one time for use at a later time;
 17. **"Financial Year"** means a period commencing on 1st April of a calendar year and ending on 31st March of the subsequent calendar year;
 18. **"Force Majeure"** means any event or circumstance which is beyond the reasonable direct or indirect control and without the fault or negligence of the solar power producer or developer and which results in solar power producer's/developer's inability, notwithstanding its reasonable best efforts, to perform its obligations in whole or in part and may include rebellion, mutiny, civil unrest, riot, strike, fire, explosion, flood, cyclone, lightning, earthquake, act of foreign enemy, war or other forces, theft, burglary, ionizing radiation or contamination, Government action, inaction or restrictions, accidents or an act of God or other similar causes;
 19. **"Generating Plant Sub-station/Pooling Sub-Station"** means Sub-station developed by the Solar Power Producer/Developer for interfacing with the receiving sub-station;
 20. **"Government" and "State"** mean Government of Rajasthan and the State of Rajasthan respectively;
 21. **"Grid Code"** means Rajasthan Electricity Regulatory Commission (Rajasthan Electricity Grid Code) Regulations, 2008/Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time;
 22. **"Gross Metering"** means methodology under which the entire electricity generated by the rooftop/ ground mounted Solar PV System set up in the premises of the consumer is delivered to the distribution system of the licensee;
 23. **"GST"** means Goods and Services Tax;
 24. **"Interconnection Line"** means Transmission/Distribution Line connecting Generating Plant Sub-station/Pooling Sub-station of Developer/Power Producer to Receiving Sub-Station of ISTS/RVPN/DISCOMs of Rajasthan;
 25. **"Inter-Connection Point"** shall mean a point at Extra High Voltage (EHV) substation of Transmission Licensee or High Voltage (HV) substation of distribution licensee, as the case may be, where the electricity produced from the RE generating station is injected into the Grid;
 26. **"IREDA"** means Indian Renewable Energy Development Agency;
 27. **"ISTS"** means Inter State Transmission System;

28. **"Licensee"** includes a person deemed to be a licensee under Section 14 of the Electricity Act, 2003;
29. **"MNRE"** means Ministry of New and Renewable Energy of Government of India, responsible to develop and deploy new and renewable energy for supplementary energy requirement of the country;
30. **"National Solar Mission or Solar Mission"** means Jawaharlal Nehru National Solar Mission 2009 launched by Government of India;
31. **"Net Metering"** means the methodology under which electricity generated by the Rooftop/Ground mounted Solar PV System set up in the premises of a consumer under the CAPEX/RESCO mode is primarily for self consumption, and the surplus generated electricity, if any, is delivered to the distribution licensee which will be off-set against the electricity supplied by the distribution licensee to the consumer during the billing cycle;
32. **"Nodal Agency"** means Rajasthan Renewable Energy Corporation Limited (RREC);
33. **"NVVN"** means NTPC Vidyut Vyapar Nigam, a wholly owned subsidiary company of NTPC;
34. **"Person"** means an individual or a firm/company registered under the Companies Act 1956;
35. **"Pooled Cost of Power Purchase"** means the weighted average price at which the distribution licensee has purchased the electricity including the cost of self-generation, if any, in the previous year from all the energy suppliers excluding short-term power purchases and those based on renewable energy;
36. **"PPA"** means Power Purchase Agreement;
37. **"Pooling Station"** means sub-Station developed by the Developer for interface with the Receiving Sub-station;
38. **"Project Capacity"** shall mean the maximum Alternating Current (AC) capacity at the delivery point;
39. **"Receiving Sub-station"** means EHV/HV Sub-Station developed by RVPN/DISCOM of Rajasthan for evacuation of power generated from Renewable Energy Sources;
40. **"Renewable Energy Certificate" or "REC"** means the Renewable Energy (Solar) Certificate issued by the Central Agency in accordance with the procedure prescribed by it and under the provisions specified in this regard by the Central Electricity Regulatory Commission (Terms & Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010;
41. **"Renewable Energy Power Plants"** means power plants other than the conventional power plants generating grid quality electricity from Renewable Energy Sources;
42. **"Renewable Energy Sources"** means and includes non-conventional renewable generating sources as approved by the Ministry of New & Renewable Energy, Government of India;
43. **"RERC"/"Commission"** means Rajasthan Electricity Regulatory Commission;
44. **"RESCO Mode"** means the methodology in which entire investment is to be incurred by a company/individual other than the consumer for setting up of the solar power project in the consumer premises and the consumer pays for the electricity generated from such solar power project at mutually agreed tariff to such investor company/ individual;
45. **"RPO"** means Renewable Purchase Obligation;
46. **"RREC/RRECL"** means Rajasthan Renewable Energy Corporation Ltd;
47. **"RVPN"** means the Rajasthan Rajya Vidyut Prasaran Nigam Limited;
48. **"RVUN"** means the Rajasthan Rajya Vidyut Utpadan Nigam Limited;

49. **"RUVN/RUVNL"** means the Rajasthan Urja Vikas Nigam Limited;
50. **"SECI"** means the Solar Energy Corporation of India;
51. **"SLEC"** means State Level Empowered Committee constituted under the provisions of this Policy;
52. **"SLSC"** means State Level Screening Committee constituted under the provisions of this Policy;
53. **"Solar Farm/Park"** means a group of solar power plants in the same location used for the generation of electric power;
54. **"Solar Power Park Developer"** means a person who develops and/or maintains solar parks and the related common infrastructure facilities;
55. **"Solar Power Producer/Developer"** means a person that makes an investment for setting up of solar power project and generating electricity from solar energy;
56. **"Solar Plant/Solar Power Plant"** means a power plant or system utilizing solar energy through solar photo-voltaic or concentrated solar thermal devices for generating electricity;
57. **"Solar PV Power Plant"** means Solar Photo Voltaic (SPV) Power Plant that uses sunlight for direct conversion into electricity through Photo Voltaic technology;
58. **"Solar Thermal Power Plant"** means Solar Thermal Power Plant that uses sunlight through Concentrated Solar Power (CSP) technology based on either line focus or point focus principle for conversion into heat/steam which can be used for producing electricity;
59. **"Scheduled Commissioning Period"** means the scheduled period of the completion of the project counted from the date of "final approval" from SLSC/SLEC to the date of "COD";
60. **"State Agency"** means Rajasthan Renewable Energy Corporation Ltd. or any other agency designated by the Rajasthan Electricity Regulatory Commission for accreditation and recommending the Renewable Energy Project for registration with Central Agency in accordance with the procedure prescribed by it and under the provisions specified in the CERC REC Regulations;
61. **"State Load Dispatch Centre" or "SLDC"** means the Centre established by the State Government for the purposes of exercising



the powers and discharging the functions under Section 31&32 of the Electricity Act, 2003;

62. **"Tariff"** means the schedule of charges for generation, transmission, wheeling and supply of electricity together with terms and conditions for application thereof;

63. **"WBA"** means Wheeling and Banking Agreement.

- 4.2 The terms not defined above will have their usual meanings.

5 Target

- 5.1 The Policy aims to achieve a target of 30,000 MW Solar Power Projects up to 2024-25 in the State as under:

S.No.	Particulars	Capacity
1	Utility/Grid Scale Solar Parks	24,000 MW
2	Distributed Generation	4,000 MW
3	Solar Rooftop	1,000 MW
4	Solar Pumps	1,000 MW

- 5.2 The State DISCOMs will purchase solar energy as per the Renewable Purchase Obligation (RPO) as determined by RERC.

- 5.3 State will endeavour to develop Solar Power Projects for sale of power to parties other than DISCOMs of Rajasthan and for captive consumption, within and outside the State.

- 5.4 This Policy also aims to promote Solar Energy as under:

- i. Promotion of small Decentralized Grid Connected Solar Power Projects at load centres.



- ii. Promotion of Rooftop Solar Projects through Net Metering and Gross Metering mechanism or in any other manner as per the provisions of Electricity Act, 2003 and relevant Regulations/Orders issued by RERC/CERC.
- iii. Promotion of Off-Grid Solar applications like Solar Water Pumps, home lighting systems, water heater, etc.
- iv. Promotion of Solar Energy Projects with Storage Systems.
- v. Promotion of Electric Vehicles (EV) Charging Stations by Renewable Energy.
- vi. Development of Solar Parks.
- vii. Strengthening of Transmission and Distribution Network for Renewable Energy.
- viii. Promotion of manufacturing industries of solar energy equipment and storage systems.
- ix. Promotion of floating/canal top/reservoir top solar power projects.

6 RREC to act as Nodal Agency

RREC to act as nodal agency for:

- i. Registration of projects;
- ii. Approval of projects;
- iii. Development of Solar Parks;
- iv. Selection of projects by process of competitive bidding on request of RUVNL/ DISCOMs;
- v. Facilitating allotment of Government land;
- vi. Facilitating approval of power evacuation plan and allocation of bays and other related facilities;
- vii. Facilitating execution of PPA/WBA with DISCOMs of Rajasthan/RVPN/NVVN/ SECI/RUVNL (as may be applicable);
- viii. Arranging any other statutory clearances/ approvals;
- ix. Facilitating water allocation for Solar Thermal Power Plant/for auxiliary consumption and cleaning of Solar PV Plants;
- x. Coordination with MNRE/NIWE/DISCOMs of Rajasthan/RVPN/Central Agency/other relevant agency;
- xi. Accreditation and recommendation of the Solar Power Projects for registration with Central Agency under REC Mechanism.

PROJECT BASED PROVISIONS AND INCENTIVES

7 Rooftop PV Solar Power Systems

7.1 Rooftop PV Solar Power Systems with Net Metering

The State Government will facilitate installation of Rooftop PV Solar Power Systems in the State. It will endeavour to develop 33 district headquarters as 'Green Energy Cities' in next 5 years by installing 300 MW of Solar Rooftop Systems in the following manner:

- i) The State will promote setting up of grid connected Rooftop PV Solar Power Plants under Net metering arrangement. The DISCOMs will allow Solar Rooftop capacity addition up to 50% of the capacity of the distribution transformer of the area.
- ii) Rooftop Solar Power Plants can be set up on Government Buildings on RESCO Model.
- iii) The DISCOMs will develop a suitable and comprehensive consumer-friendly IT application for facilitating online timely approvals and monitoring of these projects.
- iv) Rooftop consumers will be provided subsidies/incentives as per the guidelines of MNRE/State Government.
- v) Start-ups will be promoted for installation of Rooftop Solar Systems.
- vi) Benefits such as banking facility and payment of surplus energy by DISCOMs under Net-metering Scheme as applicable to domestic consumers, will also be applicable to Government offices, Government schools, Government colleges, Government hospitals and any other Government buildings notified by State Government under the Net Metering Scheme.



vii) Maximum time period for execution of various activities in respect of Solar Rooftop Systems under Net Metering by DISCOMs will be as under:

S. No.	Activity	Maximum Time Period
1	Issuance of NOC	7 days from receipt of application
2	Solar & Net Meter Testing	7 days from depositing of meters
3	Execution of Net Metering Agreement	3 days from submission of draft agreement
4	Commissioning/ Connection of Rooftop system	3 days from receipt of application

7.2 Rooftop PV Solar Power Systems with Gross Metering

Solar Rooftop Systems can also be set up under gross metering scheme as per the guidelines prescribed by the State Government/ Government of India. The entire generated power will be supplied to DISCOMs at a tariff determined by RERC. Solar Rooftop Systems up to 1 MW capacity will be allowed under this Scheme.

7.3 Appropriate provisions would be made in Urban Building Bylaws to promote and facilitate use and installation of Solar Rooftop Systems.

8 Decentralized Grid Connected Solar Power Projects

Decentralized Grid Connected Solar Power Projects provide an opportunity to meet power requirement close to the load centres. Such generation will help the utilities to reduce their T&D losses and optimize the cost of transmission and distribution system.

8.1 The State will promote setting up of decentralized solar power projects with a minimum capacity of 0.5 MW and maximum capacity of 3 MW in the premises and vicinity of 33 kV Grid Sub-Stations for sale of power to DISCOMs. The sub-stations for which decentralized solar power projects are to be established will be selected by RUVNL/ DISCOMs. The tariff for these projects will be determined on basis of tariff-based competitive bidding process or as per the

guidelines of State Government/ Government of India.

8.2 State aims to increase participation of farmers in solar energy sector to augment their sources of income by production and sale of solar energy to DISCOMs, in following manner:

8.2.1 Farmers, on their own or through a developer, can set up decentralised power project on their un-cultivable agriculture land as per clause 8.1.

8.2.2 The State will promote solarization of existing grid connected agriculture pumps as per the provisions/guidelines issued by DISCOMs based on Regulations of RERC/Guidelines of Central/State Government.

9 Off-Grid Solar Applications

- 9.1 The State will promote and incentivize off-grid solar applications, including hybrid systems, as per the guidelines issued by MNRE to meet various electrical and thermal energy requirements for domestic and commercial use.
- 9.2 The State will promote setting up of solar power plants by persons for sale of power to consumers through its own distribution system/local solar grid.
- 9.3 The State will also promote setting up of stand-alone solar systems to provide electricity to households in remote villages/hamlets (Dhanis).
- 9.4 The State will promote installation of Solar PV Pumps for pressure irrigation systems.



10 Utility Grid Power Projects

10.1 Solar Power Projects in Rajasthan for sale of power to DISCOMs of Rajasthan

The State will promote setting up of solar power projects for sale of power to DISCOMs of Rajasthan on the tariff discovered through competitive bidding process:

- i) To fulfil Renewable Purchase Obligation (RPO) target fixed by RERC.
- ii) DISCOM/RUVNL may purchase solar power beyond RPO limit and can avail the benefit of REC as per CERC Regulations/NLDC guidelines.

10.2 Solar Power Projects sanctioned under guidelines/schemes of MNRE

The State will promote setting up of Solar Power Projects under the Guidelines/ Schemes of MNRE or Solar Power Projects allocated through competitive bidding by/for other State Utilities/Entities.

10.3 Solar Power Projects for captive use

The State will promote setting up of solar power projects for captive use as under:

10.3.1 Solar Power Projects within premises of a consumer of Rajasthan:

1	Capacity	Up to Contract Demand of the consumer
2	Transmission and Wheeling Charges	Not applicable
3	Banking	As per clause 16.3
4	Electricity Duty	Exempted as per clause 16.4
5	Additional Surcharge	Not applicable
6	Cross Subsidy Surcharge	Not applicable
7	Contribution towards Rajasthan Renewable Energy Development Fund	Not applicable

10.3.2 Solar Power Projects outside the premises of consumer of Rajasthan:

1	Capacity	Up to Contract Demand of the consumer
2	Transmission and Wheeling Charges	As per clause 16.5
3	Banking	As per clause 16.3
4	Electricity Duty	Exempted as per clause 16.4
5	Additional Surcharge	Not applicable
6	Cross Subsidy Surcharge	Not applicable
7	Contribution towards Rajasthan Renewable Energy Development Fund	Not applicable

10.3.3 Solar Power Projects set up in the State for captive use outside Rajasthan through open access:

1	Capacity	As per requirement of the consumer
2	Transmission and Wheeling Charges	As per RERC Regulations
3	Banking	Not applicable
4	Electricity Duty	Not applicable
5	Additional Surcharge	Not applicable
6	Cross Subsidy Surcharge	Not applicable
7	Contribution towards Rajasthan Renewable Energy Development Fund	As per clause 22

10.4 Grid connected Solar Power Projects for Third Party Sale

The State will promote setting up of solar power projects for third party sale within/ outside the State as under:

10.4.1 Solar Power Projects within premises of consumer of Rajasthan (under RESCO mode):

1	Capacity	Up to Contract Demand of the consumer
2	Tariff	As mutually agreed
3	Transmission and Wheeling Charges	Not applicable
4	Banking	As per clause 16.3
5	Electricity Duty	As per GoR Orders
6	Additional Surcharge	As per RERC Regulations
7	Cross Subsidy Surcharge	Not applicable
8	Contribution towards Rajasthan Renewable Energy Development fund	As per clause 22

10.4.2 Solar Power Projects set up for sale of power within State through open access:

1	Generating Plant Capacity	Any capacity projects
2	Sale to the consumer	Up to Contract Demand of the consumer
3	Tariff	As mutually agreed
4	Transmission and Wheeling Charges	As per clause 16.5
5	Banking	As per clause 16.3
6	Electricity Duty	As per GoR Orders
7	Additional Surcharge	As per RERC Regulations
8	Cross Subsidy Surcharge	Not applicable
9	Contribution towards Rajasthan Renewable Energy Development Fund	As per clause 22

10.4.3 Solar Power Projects set up for sale of power outside State through open access/power exchange:

1	Generating Plant Capacity	Any capacity projects
2	Tariff	As mutually agreed
3	Transmission and Wheeling Charges	As per RERC Regulations
4	Banking	Not applicable
5	Electricity Duty	Not applicable
6	Additional Surcharge	Not applicable
7	Cross Subsidy Surcharge	Not applicable
8	Contribution towards Rajasthan Renewable Energy Development Fund	As per clause 22

10.5 The Projects set up under clause 10.3 & 10.4 will also be eligible for RE (Solar) Certificate as per Orders/Regulations issued in this regard by the appropriate Commission.

10.6 The State will also promote setting up of floating/reservoir top/canal top Solar Power Projects for sale of power to DISCOMs through competitive bidding or for captive use/third party sale.

11 Solar Power Projects with Storage Systems

- 11.1 Solar power is intermittent in nature as it is available only in daytime and it also depends on prevailing weather conditions. Therefore, to reduce the variability of output of solar power injected into the grid and to ensure availability of firm power for a particular period, the State will promote Solar Power Projects with storage systems in form of battery storage, pumped hydro storage or any other grid interactive storage system.
- 11.2 Initially, power up to the capacity of 5% of RPO target in MW (Solar & Non-Solar combined) from Solar Power Projects with Storage Systems (including Wind and Wind-Solar Hybrid Power Projects with Storage Systems), will be procured by Rajasthan DISCOMs at a tariff discovered through competitive bidding, in addition to the RPO target.
- 11.3 The minimum rated energy capacity of an Energy Storage System (ESS) shall be equal to 'X/2' MWh, where 'X' is the installed capacity of the Project in MW. For example, in case the installed capacity of a Project is 50 MW, then minimum energy rating of the ESS installed shall be 25 MWh.
- 11.4 The State will also promote Solar Power Projects with Storage Systems for captive use/third party sale.
- 11.5 The State will facilitate Research and Development (R&D) of storage technologies including generation of hydrogen for use in hydrogen fuel cell, by renewable energy.



DEVELOPMENT OF SOLAR PARKS

12 Solar Park

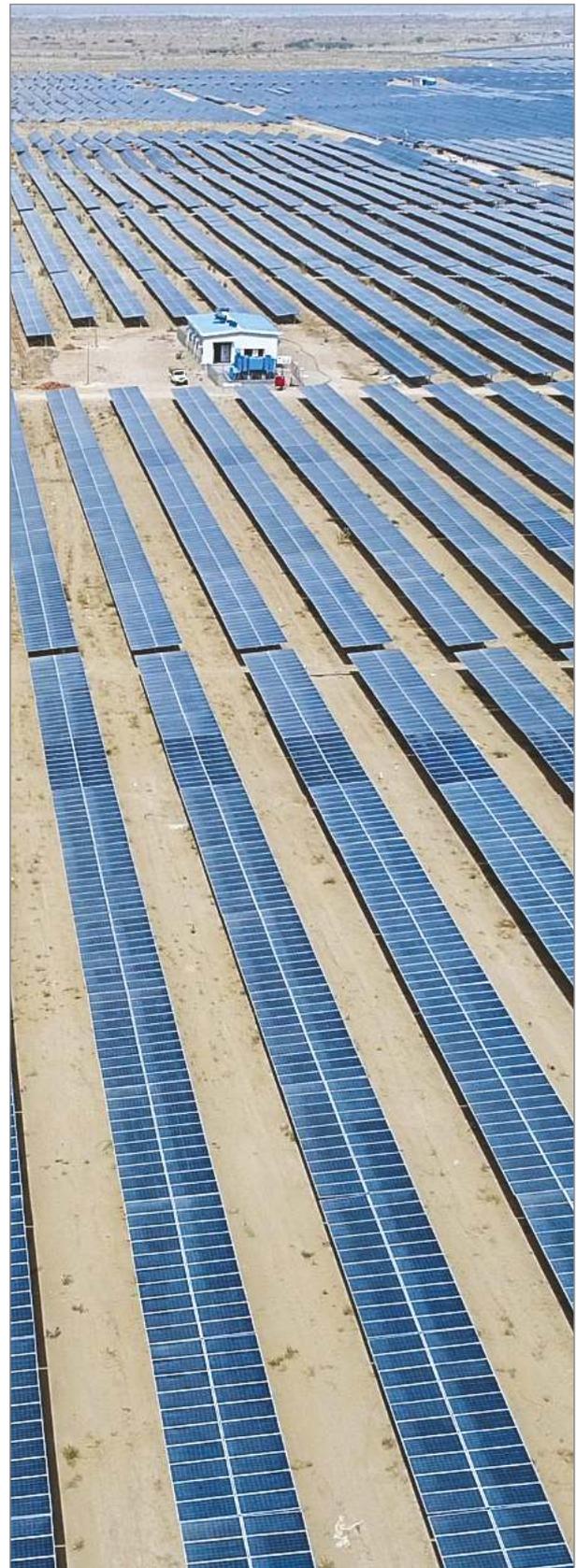
Solar Park is a concentrated zone for development of solar power projects. It provides a well demarcated area with proper civil and power system infrastructure to a power producer, where the risk in projects is minimized and the fast approval process is facilitated. The Solar Power Park Developer creates supporting infrastructure and facilities including power evacuation, water arrangements, internal roads and administrative facilities.

12.1 Solar Parks by RREC

Rajasthan Solar park Development Company Ltd., a Special Purpose Vehicle (SPV) in the form of a subsidiary company of RREC, has been established for development of infrastructure and management of Solar Parks. RREC will develop Solar Parks in Rajasthan on its own or through any other SPV which may be created as required.

12.2 Development of Solar Parks by Private Sector

- (i) State will promote development of Solar Parks by Private Sector. The Private Sector Solar Power Park Developer (SPPD) will submit an application in the prescribed online format to RREC for development of Solar Park along with a non-refundable Registration charges @ Rs10,000/ MW + GST subject to maximum of Rs10 lac + GST for each Solar Park. RREC will complete the processing of registration application within a period of 30 days.
- (ii) The Private Sector Solar Power Park Developer(s) shall be obliged to create common infrastructure facilities for development of Solar Park(s) such as creation of power evacuation systems and development of roads, lights, water supply systems and other administrative support systems.



- (iii) The SPPD will be allowed to acquire agriculture land from title holder (Khatedar) for developing Solar Park(s) in excess of ceiling limit in accordance with the provisions of Rajasthan Imposition of Ceiling on Agriculture Holding Act, 1973.
- (iv) Land conversion will not be required in accordance with the provisions of Rajasthan Tenancy Act, 1955 and Rajasthan Land Revenue Act, 1956 for the development of solar park on private agriculture land.
- (v) Allotment of Government land to Private Sector Solar Power Park Developer(s) for development of Solar Park(s) will be considered on recommendation of RREC.
- (vi) The Private Sector Solar Power Park Developer(s) shall be responsible for registration of solar power projects within their park with RREC as per the provisions of Rajasthan Solar Energy Policy, 2019.

12.3 Development of Solar Parks through Joint Venture Companies (JVCs)

12.3.1 The State will promote development of Solar Parks in Joint Venture with private

developers by investing up to 50% equity or any other percentage of equity participation as decided by the State Government. The cost of land allotted by State Government would be part of its equity participation in the joint venture company.

12.3.2 The State Government will separately formulate guidelines regarding selection of partner for the formation of Joint Venture Companies in a transparent manner for the purpose of development of Solar Park.

12.3.3 Applicant will submit proposal to RREC for formation of Joint Venture Company with the State Government. RREC after examining the same will submit the proposal to SLSC, which will recommend it to SLEC if found suitable as per the guidelines. The SLEC after examining the proposal will submit it to the State Government for final approval.

12.3.4 The State Government on its own or through any other agency designated by it will promote setting up of Ultra Mega Renewable Energy Power Park (UMREPP) in joint venture with Central Public Sector Undertakings.

13 Promotion of setting up of Renewable Energy based Electric Vehicle Charging Stations

The shift to clean and green transport has become necessary due to increase in carbon emission from fossil fuel which leads to global warming and climate change. The rapid increase in fossil fuel consumption due to rising vehicular movement has led to increase in pollution and an adverse impact on Balance of Payment situation because of the rising import bill.

The above factors are main reasons for adoption of Electric Vehicles (EV) and supporting technologies. The requirement of suitable grid-grade electricity is seen as a major challenge for establishing sufficient charging stations for the EVs. Charging of EVs from electricity generated from fossil fuel based conventional sources does not reduce emissions. For

further reduction of carbon footprint it is essential that the EVs are charged from renewable energy sources. In view of the above, the State will promote the use of renewable energy for charging of EVs in the following manner:

- i. The Charging Infrastructure will be developed as per the guidelines and standards issued by Ministry of Power and Central Electricity Authority.
- ii. The EV charging stations may be established by the State/Central Public Sector Undertakings, private operators or under public private partnership models.
- iii. Government land will be allotted at 50% concessional rate for first 500 renewable energy based EV charging stations installed within 5 years from the date of commencement of this Policy.
- iv. The charging station service providers may set up renewable energy generation plants within their premises for captive use, and may also draw renewable power through open access from generation plants located within the State to avail the benefits as provided under clause 16 of this Policy.
- v. The aforesaid benefits would also be available to

the chain of EV charging stations owned by a single service provider.

- vi. The State will support Research and Development activities regarding promotion and use of Renewable Energy by EV charging stations and also for the impact of EV charging infrastructure on the grid.



REGISTRATION AND APPROVALS

14 Registration of Solar Power Projects

14.1 All projects installed in the State shall be required to be registered with RREC.

14.2 The Solar Developer/Power Producer will submit an online application for registration to

RREC in the prescribed format along with requisite documents.

14.3 Each Developer/ Power Producer will deposit non-refundable registration charges with RREC as under:

S. No.	Project Capacity	Rate
1	For Project \leq 10 MW capacity	Rs 50,000 per MW
2	For Projects $>$ 10 MW and \leq 50 MW capacity	Rs 5 lac per project
3	For Projects $>$ 50 MW and \leq 100 MW capacity	Rs 10 lac per project
4	For Projects $>$ 100 MW capacity	Rs 30 lac per project

- 14.4 The GST and other charges, as applicable, shall be payable in addition to the registration charges. Registration will not confer any right to the Solar Power Producer and will not create any obligation on the part of RREC.
- 14.5 The Solar Power Projects registered under the policies prior to this Policy and three years before the commencement of this policy, for which project developer has not applied for in-principle clearance, the registration of such projects shall be allowed to be re-validated within 6 months from the commencement of this Policy by depositing Rs5,000 per MW with applicable GST, otherwise the registration of such projects shall be deemed to have been cancelled. Such re-validated projects will be required to apply for in-principle clearance within 1 year from the date of re-validation, failing which the registration shall be deemed to be cancelled.
- 14.6 The Solar Power Projects registered under the Rajasthan Solar Energy Policy, 2014 in the period of three years prior to the date of commencement of this Policy, shall be deemed to be registered under this Policy with the same registration number allotted earlier, and, the power producers of such projects shall have to apply for in-principle clearance within 3 years from the date of original registration or within 1 year from the date of commencement of this Policy whichever is later, failing which the registration shall be deemed to be cancelled.
- 14.7 The projects registered under this Policy shall have to apply for in-principle clearance within a period of 2 years from date of registration, failing which the registration shall be deemed to be cancelled.
- 14.8 For the projects already commissioned under RE (Solar) certificate mechanism, the Developer/Solar Power Producer will have to deposit Accreditation/Registration fee with State Agency/Central Agency as per the procedure laid down by the regulations/orders of the appropriate Commission.
- 14.9 The installation of Solar Power Plants not registered with RREC and without prior approval of competent authority as per policy provisions will be liable to be disconnected from the Grid. The developer/power producer will be required to submit certificate of registration of project with RREC to the Sub-Registrar or any other officer authorized by the Government for the registration of sale/lease deed of the land.
- 14.10 No prior registration with RREC will be required for participation in bidding as per the clause 8.1, 10.1, 10.2 & 11.2. Only successful bidders will be required to register their projects with RREC.
- 14.11 No registration will be required for solar power projects connected to low tension grid under Net/Gross Metering Scheme.
- 14.12 Developer/power producer can transfer its registered capacity or part thereof to its 'holding', 'subsidiary', 'fellow subsidiary' or 'ultimate holding' company with the prior approval of RREC on payment of an amount equal to 50% of the registration charges. However, the provisions of clause 14.5 & 14.6

shall be applicable to the transferee.

14.13 Developer/Power Producer can transfer the registered capacity or part thereof from one

registration to its another registration with the prior approval of RREC on payment of an amount equal to 25% of the registration charges.

15 Allotment/Procurement of Land

15.1. Allotment of Government Land to Solar Park /Solar Power Projects

Government land will be allotted to Solar Park /Solar Power Projects as per the provisions of Rajasthan Land Revenue (Allotment of land for Setting up of Power Plant based on Renewable Energy Sources) Rules, 2007, as amended from time to time. Solar Power Park Developer shall be allowed to sub-lease the allotted land as per the aforesaid rules.

15.1.1 RREC will recommend, on case-to-case basis, to the concerned District Collector for allotment of government land only on submission of cash security deposit of Rs5 Lac per MW by demand draft/RTGS in favour of RREC, Jaipur. The security deposit will be

refunded to the developer in proportion to the commissioned capacity of the project on written request of applicant. The security deposit shall be forfeited in case the allotted land is not used within the specified period as per allotment rules. If land is not allotted, security deposit will be refunded on the written request of the applicant.

15.1.2 For setting up of Solar Power Plants based on different technologies, maximum land area which can be allotted to the Developer/Solar Power Producer will be as under:



S. No.	Technology	Maximum area that can be allotted
i	SPV on Crystalline Technology	2.0 Hectare/MW
ii	SPV on Crystalline Technology with tracker	3.0 Hectare/MW
iii	SPV on Thin Film/Amorphous Technology with or without tracker	3.5 Hectare/MW
iv	Solar Thermal (CSP): Parabolic Trough / Tower/Other Technology with or without storage	a) Up to PLF of 21%: 3.5 Hectare/MW b) For every 1% increase in PLF, 0.15 Hectare/MW additional land will be allotted

Note: For solar power projects with storage system, additional land will be allotted as per the rules prescribed by the Revenue Department, GoR.

15.2. Solar Power Projects on Private Land

15.2.1 The State will promote setting up of Solar Power Project/Solar Farm on private land. Developer shall be permitted to set-up Solar Power Project/Solar Farm on private agriculture land without the requirement of land conversion in accordance with the provisions of Rajasthan Tenancy Act, 1955 and Rajasthan Land Revenue Act, 1956 and the rules made thereunder.

15.2.2 Solar Power Producers shall also be allowed to acquire/hold private land from the title holders (Khatedar) for setting up of Solar Power Plant in excess of ceiling limit in accordance with the provisions of Ceiling Act, 1973.

15.3 Stamp Duty

Rates of stamp duty levied on the land used for setting up of solar power plant/solar park shall be equal to twice the rates of stamp duty leviable on agriculture land of that area.

16 Incentives/facilities available to Solar Power Projects

16.1 Grant of incentives available to Industries

Generation of electricity from Solar Power Plant shall be treated as eligible industry under the schemes administered by the State's Industries Department and for incentives available to industrial units under the Rajasthan Investment Promotion Scheme (RIPS).

16.2 Availability of Water

Water Resources Department will allocate

required quantity of water from IGNP canal/the nearest available source for cleaning of solar panels and auxiliary consumption for Solar PV Power Plants and water requirement for Solar Thermal Power Plants subject to the availability of water. Power Producer will intimate estimated water requirement to RREC along with source of water. After assessment/scrutiny, case of water requirement shall be forwarded to the Water

Resources department. The modifications(s) required, if any, in the existing canal system will be done by the Water Resources Department at the cost of the Power Producer.

16.3 Banking

Banking of energy at the drawl end within the State shall be permitted for Captive Consumption and third party sale on yearly basis. Banking charges shall be adjusted in kind @ 10% of the energy delivered at the point of drawl. The banking year shall be from April to March. However, drawl of banked energy will not be allowed during peak hours as determined by DISCOMs. The unutilized banked energy at the end of year shall lapse.

16.4 Exemption/Relaxation from Electricity Duty

The electricity consumed by the Power Producer for captive use within the State under clause 7.1, 10.3.1, 10.3.2, 11.4 & 13(iv) will be exempted from payment of Electricity Duty for 7 years from COD.

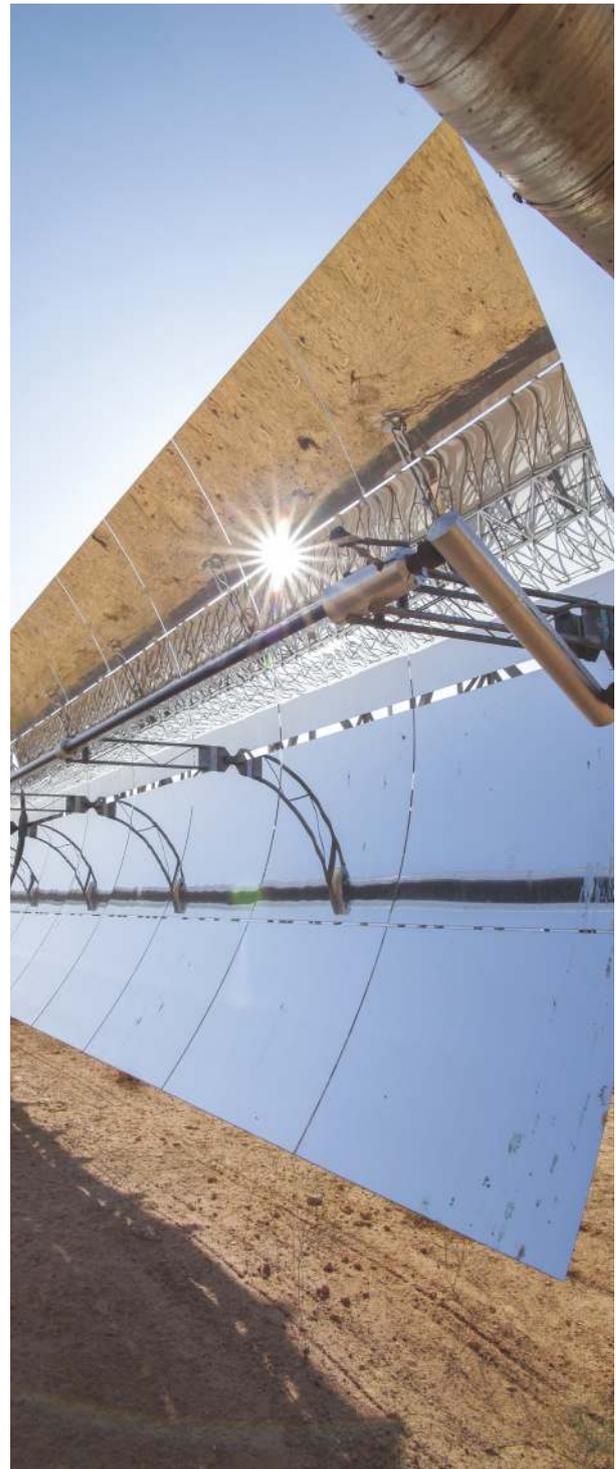
16.5 Transmission and Wheeling charges

For Solar Power Projects set up for captive use/third party sale within the State after the commencement of this policy and up to March 2023 or for a capacity of 500 MW (Solar, Wind and Wind-Solar Hybrid, with or without storage, taken together) whichever is earlier, the transmission and wheeling charges will be levied as under:

- i. For Solar Power Project under clause 10.3.2 and 10.4.2: @ 50% of normal transmission and wheeling charges for a period of 7 years from date of commissioning of the project.
- ii. For Solar Power Project under clause 11.4: @ 25% of normal transmission and wheeling charges for a period of 7 years from date of commissioning of the project.
- iii. For Solar Power Project under clause 13(iv): @ 100% exemption in normal transmission and wheeling charges for a

period of 10 years from date of establishing of Electric Vehicle (EV) charging station.

- iv. The above provisions will be applicable for an individual plant capacity of maximum 25 MW.



APPROVAL MECHANISM

17 Committees for Project Approval

In-principle clearance and final approval will be granted by State Level Screening Committee/ State Level Empowered Committee as the case may be. The constitution of the committees will be as under:

17.1 State Level Screening Committee (SLSC)

- i) Principal Secretary/Secretary, Energy, GoR (Chairman)
- ii) Chairman & Managing Director, RVPN
- iii) Managing Director, RREC
- iv) Managing Director JVVNL/AVVNL/ JDVVNL/RUVNL
- v) Director (Finance), RREC
- vi) Director (Technical), RREC - Convener

17.2 State Level Empowered Committee (SLEC)

- i) Chief Secretary, GoR (Chairman)

- ii) Principal Secretary/Secretary, Revenue, GoR
- iii) Principal Secretary/Secretary, Energy, GoR
- iv) Principal Secretary/Secretary, Water Resources Department, GoR
- v) Chairman, Rajasthan Renewable Energy Corporation Ltd.
- vi) CMD, Rajasthan Rajya Vidyut Prasaran Nigam Ltd.
- vii) Principal Chief Conservator of Forest (HoFF), Forest Department, GoR
- viii) District Collector of concerned District (Special Invitee)
- ix) MD, Rajasthan Renewable Energy Corporation Ltd., (Member- Secretary)

18 In-Principle Clearance of Solar Power Projects

18.1 For projects under Clause 8.1, 10.1, 10.2 and 11.2

These projects will be governed by the provisions of the bid document and will not require in-principle clearance from SLSC.

18.2 In-Principle Clearance of Solar Power Projects under Clause 10.3, 10.4, 11.4 and 13 (iv)

In-principle clearance of projects under clause 10.3, 10.4, 11.4 and 13(iv) will be granted by the State Level Screening Committee after

evaluating/examining the project proposals on the following criteria:

- Detailed project report
- Financial capability of the power producer (Annexure-1)
- Availability of land
- Availability of power evacuation system for proposed project
- Availability of water for solar thermal plant, if required

- Documentary evidence of power purchase agreement or an undertaking in case of sale to third Party through open access or undertaking for sale of power in the power exchange

18.3 Timeline for In-Principle Clearance

Solar Power Producer to whom Government land is allotted will have to apply for in-

principle clearance of the project within three months from the date of signing of lease deed of the allotted Government land. If Solar Power Producer fails to apply for in-principle clearance within the time prescribed, RREC will recommend for cancellation of allotment of Government land with the approval of SLSC.

19 Security Deposits

19.1 For projects under Clause 10.3, 10.4, 11.4 and 13(iv)

After in-principle clearance of the projects under clause 10.3, 10.4, 11.4 and 13(iv) by the State Level Screening Committee (SLSC), the Developer/Power Producer will be required to deposit security amount of Rs10 lac/MW in the form of bank guarantee or Rs5 lac/MW in cash within one month without interest and within 3 months with interest @ 9% per annum from the date of issue of in-principle clearance. In case Developer/Power Producer fails to deposit security money within stipulated time as mentioned above, then the in-principle clearance shall be deemed to be cancelled without any notice.

19.2 The developer/power producer, who has submitted the project security within prescribed time period, shall be required to apply for final approval within 6 months from the date of issue of in-principle clearance, failing which in-principle clearance shall be deemed to be cancelled without any notice.

19.3 In case the developer/power producer wants to withdraw his project within 6 months of

depositing the security deposit, or in-principle clearance has been cancelled under deemed provision of clause 19.2, then 25% security deposit will be forfeited and balance 75% amount of the security will be refunded to the developer/power producer on his written request. This clause will be applicable only for new projects registered under this Policy.

19.4 The security amount deposited by the developer/power producers shall be non-convertible and non-transferable.

19.5 The security deposit shall be refunded on written request of the developer/power producer in proportion to the capacity commissioned after the commissioning of such capacity. The remaining amount shall be forfeited after the expiry of the scheduled commissioning period including extension as per Clause 23.2.

19.6 For Projects under clause 8.1, 10.1, 10.2 and 11.2

Security deposit will be governed by the provisions of bid document and power purchase agreement.

20 Final Approval of Solar Power Projects

20.1 All in-principle cleared projects of capacity up to 20 MW under clause 10.3, 10.4, 11.4 and 13(iv) will be submitted to the State Level Screening Committee (SLSC) for final approval.

20.2 All in-principle cleared projects by SLSC of capacity more than 20 MW under clause 10.3, 10.4, 11.4 and 13(iv) will be submitted to the State Level Empowered Committee (SLEC) for final approval.



21 Power Purchase Agreement

The Power Purchase Agreement between the Developer/Power Producer and Procurer of Power will be executed in the following manner:

21.1 Solar Power Projects sanctioned under clause 8.1, 10.1, 10.2 and 11.2

For the projects sanctioned under clause 8.1, 10.1, 10.2 and 11.2, the Power Purchase agreement/Power Sale agreement will be executed as per the provisions of the bid document.

21.2 Solar Power Projects for Captive Use/Third Party Sale

For projects sanctioned under clause 10.3.2, 10.3.3, 10.4.2 and 10.4.3, the Developer/Power Producer shall execute Wheeling and Banking Agreement (WBA) with DISCOM(s). In case transmission system of RVPN is also used, then power producer will execute separate Transmission Agreement with RVPN.

21.3 Assignment of PPA

PPA/WBA will be allowed to be assigned in parts or full to other parties under following conditions:

- i. After completion of the project and its connectivity to the grid;
- ii. Consent of RREC & RVPN/DISCOM(s) and related parties;
- iii. On payment of Rs2 lac per application to RREC (GST will be payable as applicable).

21.4 In case the project is financed by any financial institution/lender, the name of financial institute/lender may be included in PPA on request of Developer/Power Producer.

22 Rajasthan Renewable Energy Development Fund (RREDF)

Wind and Solar power are unpredictable and variable in nature and their large scale integration to the grid is a challenging task having both technical and financial implications. It requires up-gradation of transmission and distribution infrastructure of the power utilities leading to increase in system level cost of the RE injected into the grid. This increased cost has to be borne by the state utilities and the Government in various forms, mainly as expenditure for development of large power system infrastructure for grid management, other

supporting infrastructure and facilitation works for the stakeholders.

In view of the above, Rajasthan Renewable Energy Development Fund is being utilized as per the plan approved by the State Level Steering Committee constituted under the chairmanship of Chief Secretary, Government of Rajasthan. This development fund will be raised in the following manner:

22.1 In case of Solar Power Project set up in

Rajasthan for sale of power to parties other than DISCOMs of Rajasthan, a contribution towards Rajasthan Renewable Energy Development Fund shall be made by the power producer, from the date of commissioning, as under:

S. No.	Period	Rate* of Contribution
1	Projects commissioned up to 31.03.2024	Rs2 lac/MW/year
2	Projects commissioned from 01.04.2024 to 31.03.2025	Rs3 lac/MW/year
3	Projects commissioned from 01.04.2025 to 31.03.2026	Rs4 lac/MW/year
4	Projects commissioned on/after 01.04.2026	Rs5 lac/MW/year

*Rate will be applicable for entire life cycle of the project from the date of commissioning of the project.

22.2 The contribution to the RREDF as above shall be levied on the projects which will be commissioned on or after the commencement of this policy and for the entire life-cycle of the project, from the date of commissioning. However, for the projects against which bids have been submitted prior to commencement of this Policy, the contribution towards RREDF

shall be @ Rs1 lac/MW/Year for entire life cycle of the project.

22.3 There will be no requirement of contribution towards RREDF for the Solar Power Projects commissioned on or after the date of commencement of this Policy, for sale of power to DISCOMs of Rajasthan either directly or through any other Agency/Trader. However, such projects commissioned before the date of commencement of this Policy, for sale of power to DISCOMs of Rajasthan through any Agency/Trader, will continue to pay the contribution towards RREDF @ Rs1 lac/MW/Year for the remaining life of the Project.

22.4 There will be no requirement of contribution towards RREDF for the Solar Power Projects commissioned on or after the date of commencement of this Policy for captive consumption within the State.

22.5 Solar Power Producer shall deposit the contribution towards Rajasthan Renewable Energy Development Fund by 30th of April in every financial year without interest and up to 30th of June with interest @ 9% per annum. If it is not deposited up to 30th June, then RVPN/DISCOM or any other Central/State Government entity will take suitable action, such as but not limited to recovery of dues from the power bill of the Power Producer or disconnection from Grid till the depositing of dues with interest, on recommendation of RREC.

23 Time frame for Completion of Solar Power Projects

23.1 The time schedule for completion of Solar Power Projects under Clause 8.1, 10.1, 10.2 and 11.2 will be governed by provisions of bid document and Power Purchase Agreement.

23.2 The time schedule for completion of the Solar Power Projects, sanctioned under Clause 10.3, 10.4, 11.4 and 13(iv), will be as under:

Type of Projects	Time Schedule for Completion
SPV	
Up to 20 MW capacity	Within 15 months from the date of final approval
More than 20 MW and up to 50 MW capacity	Within 18 months from the date of final approval
More than 50 MW capacity	Within 24 months from the date of final approval
CSP	
Up to 25 MW capacity	Within 24 months from the date of final approval
More than 25 MW and up to 100 MW capacity	Within 36 months from the date of final approval
More than 100 MW and up to 200 MW capacity	Within 42 months from the date of final approval
More than 200 MW capacity	Within 48 months from the date of final approval

Provided that extension in time schedule may be granted by RREC on case-to-case basis after depositing penalty amount along with applicable GST as under:

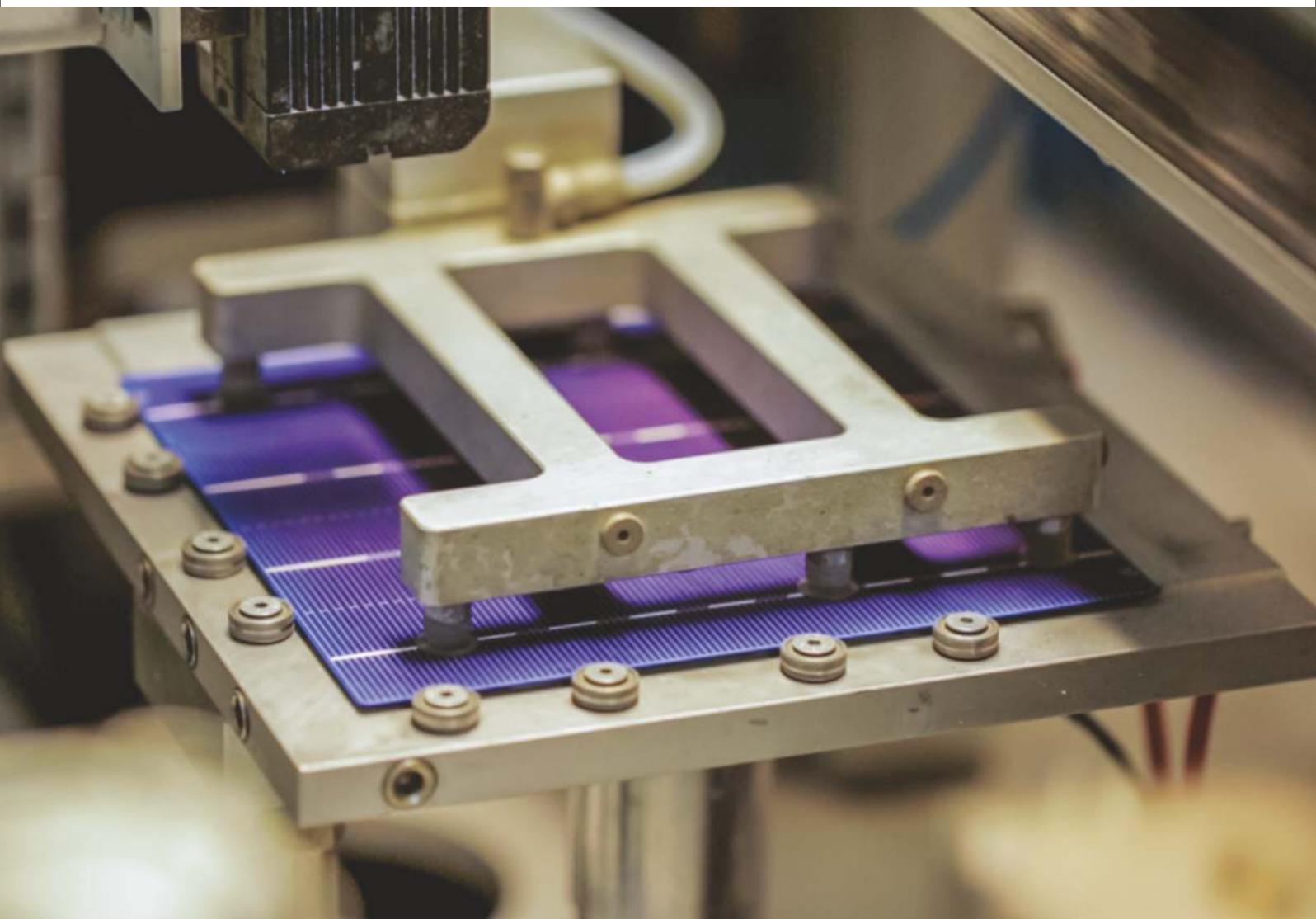
S. No.	Period of Delay	Penalty on Un-commissioned Capacity
i.	For delay up to 1 month	Rs25,000 per MW
ii.	For delay up to 3 months	Rs50,000 per MW
iii.	For delay up to 6 months	Rs1,00,000 per MW
iv.	For delay up to 9 months	Rs1,50,000 per MW
v.	For delay up to 15 months	Rs2,00,000 per MW

In case of delays beyond 15 months SLEC on its satisfaction, regarding commissioning of the project, may provide further extension by imposing a penalty @ Rs2,000 per day per MW for each day beyond the period of 15 months, this penalty for each day of delay would be over and above the penalty of Rs 2,00,000 per MW for the delay up to 15 months.

24 Manufacturing of Solar Energy Equipment

The Government aims to promote manufacturing facilities for solar energy equipment in Rajasthan leading to the development of Solar Energy Eco-system, and to facilitate employment generation in the State with following concessions:

- i. Benefits of Micro, Small and Medium Enterprises (MSME) Policy to eligible manufacturers
- ii. Land allotment at 50% concessional rate in industrial area/any other area
- iii. Exemption of 100% Stamp duty
- iv. Full exemption in Electricity Duty for 10 years
- v. Investment subsidy on SGST to solar energy equipment manufacturers: 90% of SGST due and deposited for 7 years
- vi. Employment Subsidy as per RIPS: Reimbursement of 90% of contribution paid for employees for 7 years
- vii. Interest subsidy as per RIPS, treating solar energy equipment manufacturing as thrust sector
- viii. Other benefits of Rajasthan Investment Promotion Scheme (RIPS)
- ix. Any other concession besides the above as customized package under the RIPS.



25 Evacuation and Grid Interfacing of Solar Energy

25.1. Evacuation and Grid Interfacing through Inter State Transmission System

Inter State Transmission System is being developed in the State for evacuation of RE power to other States.

25.2. Evacuation and Grid Interfacing through Intra State Transmission System

25.2.1 Development of Power Evacuation System in RE Potential Areas

RVPN will prepare action plan for development of Power Evacuation Network taking into consideration:

- (i) Existing and forthcoming evacuation system of ISTS
- (ii) Existing State Transmission Utility Network
- (iii) RE potential of the area
- (iv) Future energy demand and RE integration with conventional power.

25.2.2 Evacuation of solar power generated shall be made through the transmission and distribution network being maintained by RVPN and DISCOMs respectively.

25.2.3 Grid Interfacing

The grid interfacing arrangements for power using solar as Renewable Energy Sources will be made by Developer/RVPN/DISCOM as under:

i. Pooling Sub-station

Interfacing arrangements such as transformers, panels, kiosks, protection, metering, HT lines from the points of generation to the Pooling Sub-station including the Pooling Sub-station shall be developed and maintained by the

Developer/Power Producer as per the Grid Code applicable from time to time and will also bear its entire cost.

ii. Receiving Sub-station

RVPN/Concerned DISCOM shall finalise the location of Receiving Station in consultation with RREC on which the electricity generated will be received at minimum 33 kV level.

25.2.4 Grid Connectivity

For creation of proper facility for receiving power at the receiving sub-station of RVPN/DISCOM on request of Developer/Power Producer, the Developer/Power Producer shall pay grid connectivity charges, as finalized by RERC from time to time to RVPN/DISCOM as the case may be. These charges will be paid by the Developer/Power Producer to RVPN/DISCOM. The charges will include cost of complete line bay (including civil works) and its inter-connections with existing electrical system.

25.2.5 Transmission and Distribution Network

- i. For augmentation of transmission/distribution systems to evacuate the power from receiving sub-station, RVPN/DISCOM shall develop/augment the necessary transmission/distribution network within mutually agreed timeframe.
- ii. For grid connectivity/construction of line to be arranged by RVPN/DISCOM on request of Developer/Power Producer, the Developer/Power Producer shall submit a time frame for construction of their plant along with bank guarantee equivalent to the cost of bay and

- dedicated transmission/ distribution line with an undertaking to use the system within prescribed time period. RVPN/DISCOM(s) will provide the Power Evacuation facilities within the scheduled time frame. The bank guarantee shall be returned to the Developer/Power Producer after commissioning of the project on depositing amount of penalty, if any, on account of delay in the utilization of the system.
- iii. In case line bay has been built and grid connectivity provided by RVPN at a particular system voltage (say 33kV), and Power Producer at a later date wants to supply the power on higher voltage (say 132kV), the requested modification, like addition of line bay on higher voltage, interconnection with main bus, etc. shall be done by RVPN as a deposit work on behalf of the Power Producer subject to its feasibility.
 - iv. In case a Power Producer initially connects its feeder to DISCOM's substation and later on desires to connect the feeder to RVPN's Sub-station, the additional line shall be constructed by Power Producer and the addition of line bay in RVPN substation shall be done by RVPN as deposit work on behalf of the Power Producer.
 - v. RVPN/DISCOM shall provide the inter-connection facility one month before the scheduled COD as intimated by the Developer subject to condition that the grid connectivity charges are deposited by the Developer/Power Producer, and sufficient time is available with RVPN/DISCOM for creating the interconnection facility.
 - vi. The Developer/Power Producer shall install necessary current limiting devices such as Thyristor in the generating equipment. Capacitors of sufficient rating shall be provided to ensure the maintenance of average power factor as per the requirement of State Load Dispatch Centre, measured at metering point.
 - vii. In case the Power Producer injects amount of power which is more than the approved/contracted power into the Grid, then excess power will not be adjusted/accounted for by DISCOM/RVPN. Such power plant will be liable to be disconnected till such time the excess installed capacity is removed/de-commissioned.
 - viii. **Transmission line from Pooling Sub-station to Receiving Sub-station**
The evacuation system beyond Pooling Sub-station till the nearest Receiving Sub-Station shall be developed as under:
 - a. **Grid Connected Solar Power Plants commissioned under Tariff-based Bidding for Sale of Power to DISCOMs of Rajasthan**
The power evacuation transmission line from generating plant sub-station/ pooling sub-station to the receiving RVPN/DISCOMs sub-station will be laid as per terms & conditions of bid document and power purchase agreement.
 - b. **Grid connected Solar Power Plants commissioned under clause 10.3, 10.4, 11.4 and 13(iv)**
The power evacuation transmission line from the generating plant sub-station/ pooling sub-station to RVPN/DISCOMs receiving sub-station will be laid as per regulations of RERC.
 - ix. The DISCOMs will endeavour to get the wheeling charges determined from RERC on per unit (kWh) basis, payable on actual energy wheeled by the open access consumer of RE Power.
 - x. The DISCOMs of Rajasthan will develop power systems as per the requirement of

Rooftop Solar Systems in line with the guidelines/orders issued by RERC.

- 25.3 The Developer/Power Producer shall comply with the Grid Code including Load Dispatch and System Operation Code, Metering Code, Safety Code, relevant regulations/orders of the Commission etc. as applicable from time to time in the State of Rajasthan.

25.4 Reactive Power Charges

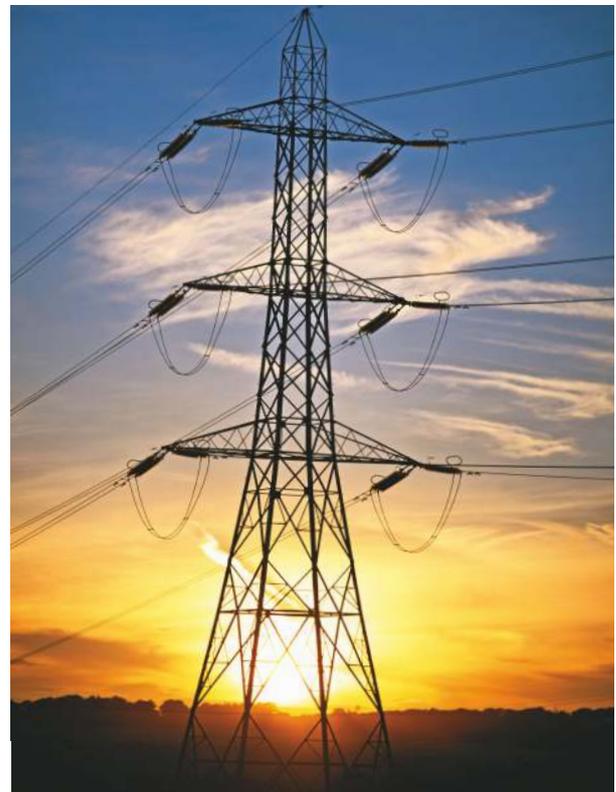
The drawl of reactive power shall be charged by RVPN/DISCOMs as per the RERC Regulations, as amended from time to time.

25.5 Common Pooling Sub-Station

Solar Power Producers may build Common Pooling sub-station to evacuate the generated solar power to RVPN/DISCOM substation through common transmission line with separate metering system at the common pooling sub-station, and main metering system at RVPN/DISCOM sub-station.

26 Timeline for Utilisation of Power Evacuation Facilities

- i. For providing evacuation facilities to the Solar Developers/Power Producers, RVPN/DISCOMs will update the availability of transformation capacity and bay availability on its website and the approval will be disposed off within one month by RVPN/DISCOMs.
- ii. In case of non-approval of power evacuation by RVPN/DISCOM(s) within specified time frame, the case will be put up before SLSC for suitable decision, on the request of the Developer/Power Producer.
- iii. The Power Evacuation facilities granted by DISCOMs/RVPN as per the grid connectivity procedure/guidelines of DISCOMs/RVPN, will be utilized by Solar Developers/ Power Producers within 3 years from the date of approval, otherwise power evacuation approval may be cancelled and same may be allocated to other developers/producers on priority basis.



27 Measures for Grid Stability

27.1 RVPN/DISCOMs shall take appropriate technical measures for ensuring grid stability and safety.

27.2 RVPN will develop a plan for storage system requirement for Rajasthan State to mitigate un-predictability and variability of renewable energy.

(I) RVPN will study impact of un-predictability

and variability of RE power on the grid and requirement of storage system at grid end to reduce the same.

(ii) A plan for examining financial and technical viability for development of storage system at the grid sub-station level will also be prepared by RVPN.

28 Forecasting & Scheduling

- i. All Solar Power Projects shall forecast and schedule their generation as per Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, RERC (Intra-state ABT) Regulation, 2006, RERC (Rajasthan Electricity Grid Code) Regulation, 2008 and RERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generating Sources) Regulations, 2017 as amended from time to time.
- ii. SLDC will ensure 'Must Run' Status of RE Plants in the State and maintain the data of RE Power Curtailment in transparent manner.
- iii. SLDC will develop infrastructure for forecasting & scheduling with financial support from Rajasthan Renewable Energy Development Fund for access of realtime generation data.
- iv. A Committee consisting of following members under the Chairmanship of Chairman & Managing Director, RVPN shall be constituted for monitoring of Solar & Wind generation, forecasting & scheduling and curtailment



issues:

1. Director(Operation), RVPN
2. Director(Technical), RVPN
3. Director(Technical), RREC
4. Chief Engineer, RUVNL
5. Chief Engineer(LD), RVPN – Convener
6. Two members appointed by the State Government from the persons of eminence in power sector and representatives of Solar & Wind Power Industry

The Energy department will be the Administrative Department of this Committee.

- v. For the stability of Grid, the State will initiate steps to achieve accurate forecasting & scheduling of RE Power Projects with the technical support from MNRE/NIWE. RVPN/SLDC will collaborate with NIWE for such technical support.

OTHER INITIATIVES

29 Solarisation of Stand Alone Mini Drinking Water Supply Systems in Rural Areas

RREC will fund solarisation of the Stand Alone Mini Drinking Water Supply Schemes in rural areas by energizing the pumps from solar energy. The project will be taken up on pilot basis for 200 schemes considering the availability of ground water in the

area. The project while ensuring the supply of drinking water will also address the issue of non-availability of funds with the Gram Panchayats for payment of electricity bills.

30 Project Management Consultancy (PMC)

RREC will work as a Project Management Consultant, on chargeable basis, for implementation of Renewable Energy based projects taken up by various Government departments and agencies.

RREC may also take up the works related to Renewable Energy sector in the Non-government domain/Government agencies/Government organisations.

31 RREC to undertake studies in Renewable Energy for further Policy Interventions

RREC to undertake following studies in Renewable Energy for further Policy Interventions:

- i. Estimating the impact of promoting solar rooftop capacity addition on the grid and the state power utilities
- ii. Assessment of various implementation models for setting up of EV charging stations
- iii. Improving the cost competitiveness of solar manufacturing plants
- iv. Analysing and identifying suitable technologies and implementation models for ancillary services
- v. Identification of actual requirement of storage capacity and suitable technologies considering the demand curve and generation profile of the State
- vi. Identifying requirement for training and workshops for capacity building of human resource of RREC regarding regulatory framework and market reforms
- vii. To identify optimal generation capacity mix of renewable and conventional energy sources, considering possible technology options, to match the future demand curve and energy requirement with the generation profile of the State
- viii. Analysing methodology for scheduling and forecasting, efficient accounting, metering and settlement of transactions of Renewable Energy for making grid operations RE friendly
- ix. Assessing the technical and financial impact of making conventional power plants flexible for ensuring large scale RE integration
- x. Integrated planning leading to convergence between Transmission Infrastructure Development and the location of Renewable Energy projects
- xi. Study the Business life cycle of Solar Power Projects in context to impact on environment

32 Savings

The Power Plants already approved and/or commissioned before commencement of this Policy

will continue to be governed by the policy/ regulations prevailing at the relevant time.

33 Regulation

The provisions of this Policy shall be the guiding principles for Rajasthan Electricity Regulatory Commission.

34 Power to Remove Difficulties

If any doubt, dispute, difference or issue arises in regard to interpretation/implementation of this Policy, State Level Empowered Committee may take decision in such matters, not inconsistent with the

provisions of the Policy, as may appear to be necessary and expedient for removing the difficulties either on its own motion or on a written representation from the stakeholders.

ANNEXURE-1

The Power Producer desirous to set up Solar Power Plant in State of Rajasthan under captive use/sale to third party within and outside the State must fulfil the following minimum financial criteria:

Qualification Criteria for Solar PV/Thermal Projects

Net Worth

The "Net Worth" of the company should be equal to or greater than the value calculated at the rate of Rs1 crore or equivalent US\$ per MW of the project capacity. The computation of Net Worth shall be based on unconsolidated audited/unaudited accounts of the company. For the purpose of the computation of net worth, the best year in the last four years including current running year shall be considered. The company, would thus be required, to submit annual audited accounts for the last three financial years and for part of the current running year (Un-audited), while indicating the year, which should be considered for evaluation, along with a certificate from the Chartered Accountant to demonstrate the fulfilment of the criteria.

For companies, which are newly incorporated, the net worth criteria should be met seven days prior to the date of submission of application by the Project Developer. To demonstrate fulfilment of the criteria, the Project Developer shall submit a certificate from a Chartered Accountant certifying the net worth on the date seven days prior to submission of application. Further, the Project Developer shall submit the un-audited financial statements of the company for the date on which the certificate of chartered accountant has been obtained.

{Note: For the Qualification Requirements, if data is provided by the Project Developer in foreign currency, equivalent rupees of Net Worth will be calculated using bills selling exchange rates (card rate) USD/INR of State Bank of India prevailing on the date of closing of the accounts for the respective financial year as certified by the Project Developer's banker.

For currency other than USD, Project Developers shall convert such currency into USD as per the exchange rates certified by their banker prevailing on the relevant date

and used for such conversion.}

Net Worth Calculation for an Individual/ Partnership firm

Net Worth = Proprietor's/Partner's Capital reflecting in the Audited Balance Sheet

Add: Free Reserves (Including the Credit balance of Reserve and Surplus appearing in the Balance Sheet)

Subtract: Intangible Assets

Subtract: Miscellaneous Expenditures to the extent not written off and carry forward losses.

Net Worth calculation for a Company

Net Worth = Paid up Share capital which includes

1. Paid up Equity share capital and
2. Fully, compulsorily and mandatorily convertible Preference Shares, and
3. Fully, compulsorily and mandatorily convertible debentures

Add: Free Reserves

(Including share premium provided it is realised in Cash or Cash equivalents)

Subtract: Revaluation Reserves

Subtract: Intangible Assets

Subtract: Miscellaneous Expenditures to the extent not written off and carry forward losses.

For the purpose of meeting financial requirements only unconsolidated audited annual accounts shall be used. However, audited consolidated annual accounts of the Project Developer may be used for the purpose of financial requirements provided the Project Developer has at least twenty-six percent (26%) equity in each company whose accounts are merged in the audited consolidated account and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered beyond the equity participation of Project Developer.

In case of a Consortium the financial requirement to be met by each Member of the Consortium shall be computed in proportion to the equity commitment made by each of them in the Project Company. Any consortium, if selected shall incorporate a Project Company with equity participation by the Members

in line with consortium agreement before signing the PPA/WBA/Wheeling Agreement. The Project Developer may seek qualification on the basis of financial capability of its Parent Company.

In case of land/any other asset, only the book value will be considered. The value of land/any other assets will not be re-valued for calculating net worth. Any reserve created due to this shall not be counted for calculating net worth.

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