



सत्यमेव जयते

Government of Rajasthan

**RAJASTHAN**  
**Wind and Hybrid**  
**Energy Policy, 2019**





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# Rajasthan Wind and Hybrid Energy Policy, 2019

Energy Department  
Government of Rajasthan



**ASHOK GEHLOT**  
Chief Minister, Rajasthan

When you drive through the vast, barren landscapes in western Rajasthan, you will inevitably notice, as far as the eye can see, skyscraping wind turbines rubbing shoulders with beautiful, sandstone-carved monuments. This is the new Rajasthan – a leader in wind energy production in the country.

We had propelled these winds of change with our dedicated Wind Policy in 2012. Rajasthan's wind energy potential has now been assessed in excess of 127 GW. Given the environmental concerns facing the world today, harnessing this potential is more a responsibility for us towards our future generations than an opportunity.

In this backdrop, I am glad to share with you our new Wind and Hybrid Energy Policy 2019. This Policy aims at giving a new fillip to the already vibrant wind power sector in the State and optimising generation capacity through complementing the existing investment, besides attracting new projects and generating employment.

This Policy, through various hybrid models, will give the existing and new investors an opportunity to exploit the renewable energy potential for which Rajasthan is exceptionally well positioned.

I invite all stakeholders 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'. The signature is stylized and fluid.

Ashok Gehlot



**Dr. B. D. KALLA**

**Minister of Energy, Government of Rajasthan**

Rajasthan's Wind Energy Policy, 2012 paved the way for initial growth of this sector in the State.

Growing contribution of solar and wind power in the overall generation capacity calls for mitigation of unpredictability and variability in power supply from such sources, to ensure overall grid security and stability. Towards this, hybridisation of these two complementary technologies is the way forward, as it leads to optimum utilisation of infrastructure: land and transmission system.

The Wind and Hybrid Energy Policy, 2019 promotes developing new wind as well as hybrid projects, repowering of existing wind projects and hybridisation of existing wind and solar power plants.

This Policy will also promote blending of renewable power with thermal power, thus helping in reducing fuel consumption and carbon-emission.

I invite the developers in wind, solar and thermal power sector to benefit from the provisions of this forward looking Policy and deepen their engagement with Rajasthan for a brighter future.

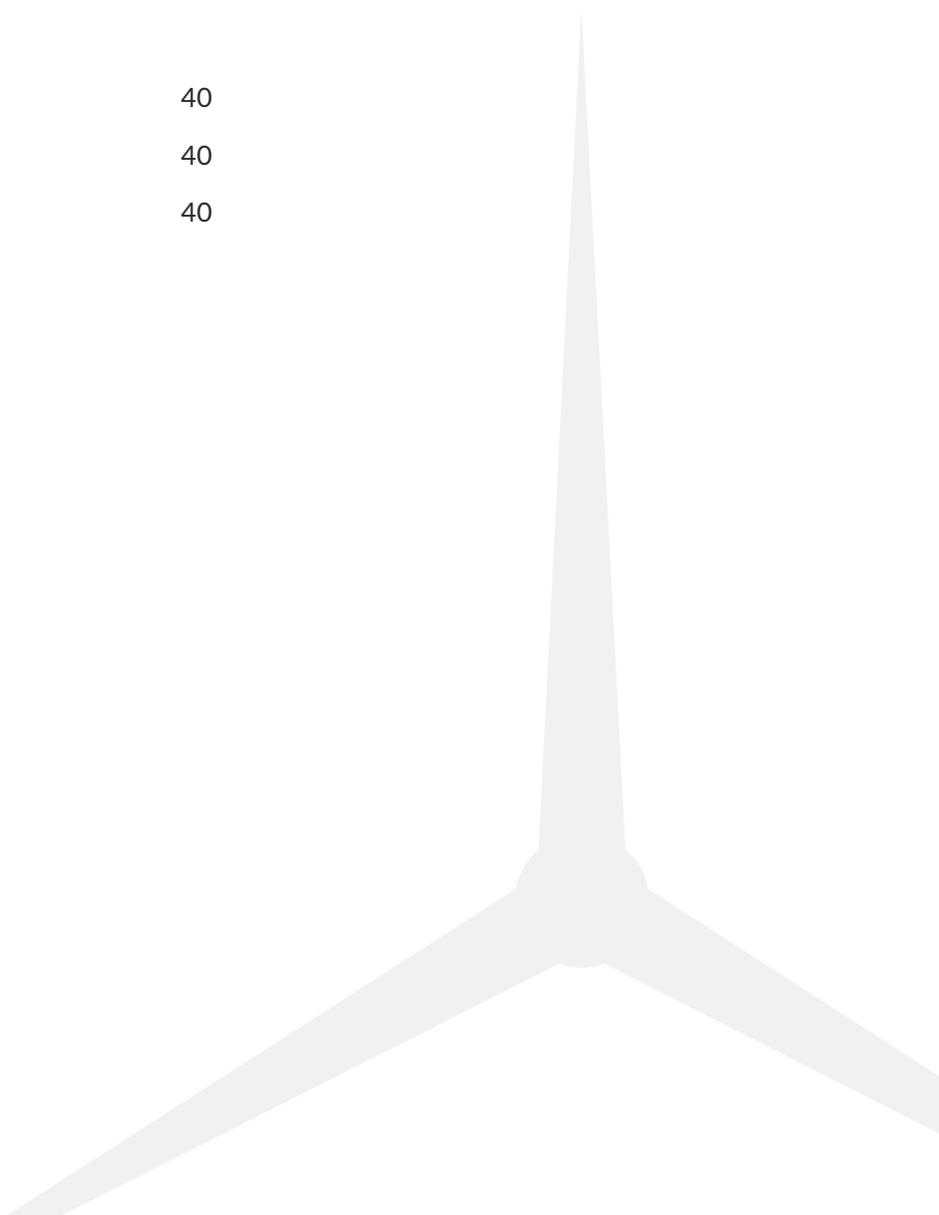
A handwritten signature in Hindi script, which reads 'डॉ. बी. डी. कल्ला'.

**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. Renewable Energy sources lay foundation for planners in developing a 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 the consumers are the major stakeholders in the Renewable Energy (RE) sector. This Policy is envisaged for facilitation of the stakeholders for promoting Wind and Hybrid energy sector while safeguarding the interests of the end consumer.
- 1.3. To meet the global commitment, Government of India, has set a national generation target of 175 GW Renewable Energy, which includes 60 GW from Wind Energy by the year 2022. This will reduce dependence on conventional sources of energy by promoting non-conventional energy sources.
- 1.4. National Institute of Wind Energy (NIWE), Government of India, has recently assessed that Rajasthan state has a wind power potential of 1,27,756 MW. The aim of this Policy is to create an enabling environment for harnessing maximum potential of wind power through Government, Private and individual efforts.
- 1.5. Solar and wind power being unpredictable and variable in nature, pose challenges of grid security and stability. Solar and wind resources are complementary to each other and hybridisation of these two technologies would help in minimising the variability and would lead to optimum utilisation of infrastructure including land and transmission system.
- Superimposition of wind and solar resources map exhibits high to moderate Wind and Solar energy potential areas in the State.
- 1.6. It is desirable to have suitable policy interventions for developing new hybrid projects and also for encouraging hybridisation of existing wind and solar power plants.
- 1.7. Appropriate capacity storage systems are required to match the demand curve with generation profile of wind-solar hybrid power projects.
- 1.8. Ministry of New and Renewable Energy (MNRE), Government of India has estimated that installation of over 3000 MW wind power capacity in India, at high wind energy potential sites, is from old and small-sized wind turbines of capacity below 500 kW. Therefore, optimal utilisation of wind energy resource requires 'Repowering' of old turbines with new large-sized turbines.
- 1.9. Ministry of Power, Government of India has issued a mechanism regarding "Flexibility in Generation and Scheduling of Thermal Power Stations to reduce the cost of power to the consumer" wherein thermal power plants are allowed to blend Renewable power with Thermal power, keeping the combined generation equal to the contracted capacity. This will help in reducing fuel consumption and carbon emission.
- 1.10. To keep pace with the changing needs of the Wind and Hybrid Energy sector, State Government has decided to review the existing 'Policy for Promoting Generation of Electricity from Wind, 2012'.

## 2 Vision

- 2.1. To promote Wind Power Projects and required Storage Systems.
- 2.2. Promotion of “Repowering” of Wind Power Projects.
- 2.3. Strengthening of Transmission and Distribution Networks in the State for Renewable Energy integration.
- 2.4. Promotion of Wind Resource Assessment Programme.
- 2.5. To promote industries in manufacturing of wind energy equipment.
- 2.6. Hybridisation of Wind & Solar technologies to meet the challenges of grid security and stability along with optimum utilisation of land resources and transmission systems.
- 2.7. Hybridisation of existing conventional thermal power plants with Renewable Energy for reducing fuel consumption and carbon emission.

## 3 Title and Enforcement

- 3.1 This Policy will be known as Rajasthan Wind and Hybrid Energy Policy, 2019.
- 3.2 The Policy will come into 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. “**CEA**” means Central Electricity Authority;
  4. “**Ceiling Act, 1973**” means the Rajasthan Imposition of Ceiling on Agricultural Holdings Act, 1973;
  5. “**Central Agency**” means National Load Dispatch Centre (NLDC) as designated by the Central Electricity Regulatory Commission vide Order dated 29.1.2010 for the purposes of the Renewable Energy Certificate (REC) Regulations;
  6. “**CERC**” means the Central Electricity Regulatory Commission, constituted under sub-section (1) of Section 76 of the Electricity Act, 2003;

7. **"CERC REC Regulations"** means Central Electricity Regulatory Commission (Terms & Conditions for Recognition and Issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 notified by CERC vide Notification dated 14.1.2010 and amended from time to time;
8. **"Contract Demand"** means regular contract demand plus standby contract demand, if any, of the consumer with DISCOM;
9. **"COD"** means Commercial Operation Date i.e. the date when the Power Plant gets commissioned as per rules/provisions;
10. **"Collector"** means Collector of a district as defined in the Rajasthan Land Revenue Act and includes every officer authorised to discharge the duties of Collector under the Act/Rules/Executive Orders of the Government of Rajasthan;
11. **"CPP" or "Captive Power Plant"** means Power Plant as defined in Electricity Act, 2003 and Electricity Rules, 2005;
12. **"DISCOM of Rajasthan" or "DISCOM"** means a distribution licensee of the State, such as Jaipur Discom, Jodhpur Discom and Ajmer Discom;
13. **"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 (I) of rule 2 of the Rajasthan Stamps Rules, 2004;
14. **"Developer"** means a person who develops and/or maintains Wind/Hybrid Power Projects and also creates and/or maintains common infrastructure facilities including required power systems;
15. **"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;
16. **"Financial Year"** means a period commencing on 1st April of a calendar year and ending on 31st March of the subsequent calendar year;
17. **"Force Majeure"** means any event or circumstance which is beyond the reasonable direct or indirect control and without the fault or negligence of the Developer /Power Producer and which results in Developer's/Power Producer'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;
18. **"Government" and "State"** means the Government of Rajasthan and the State of Rajasthan respectively;
19. **"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;
20. **"GST"** means Goods and Services Tax;
21. **"Hybrid Power Project"** means a power project which generates power by combining conventional and non-conventional energy sources or combining two or more non-conventional energy sources and feeding the generated power through a common pooling station/evacuation system into the grid;
22. **"Interconnection Line"** means Transmission /Distribution Line connecting Generating Plant Sub-station / Pooling Station of Developer /Power Producer to Receiving substation of ISTS/RVPN/DISCOMs of Rajasthan;
23. **"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 electricity produced from the



- RE generating station is injected into the grid;
24. **"IREDA"** means Indian Renewable Energy Development Agency;
  25. **"ISTS"** means Inter-State Transmission System;
  26. **"Licensee"** includes a person deemed to be a licensee under Section 14 of the Electricity Act, 2003;
  27. **"MNRE"** means Ministry of New and Renewable Energy, a Government of India Ministry responsible to develop and deploy new and renewable energy for supplementary energy requirement of the country;
  28. **"NIWE"** means National Institute of Wind Energy;
  29. **"Nodal Agency"** means Rajasthan Renewable Energy Corporation Limited (RREC);
  30. **"NVVN"** means NTPC Vidyut Vyapar Nigam, a wholly owned subsidiary company of NTPC;
  31. **"Person"** means an individual or a firm / company registered under the Companies Act 1956;
  32. **"Pooled Cost of Power Purchase"** means the weighted average price at which the distribution licensee has purchased 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;
  33. **"PPA"** means Power Purchase Agreement;
  34. **"Policy-1999"** means Policy for Promoting Generation of Power through Non-Conventional Energy Sources issued on 11th March, 1999;
  35. **"Policy-2000"** means Policy for Promoting Generation of Power from Wind issued on 4th February, 2000;
  36. **"Policy-2003"** means Policy for Promotion of Electricity Generation from Wind issued on 30th April, 2003;
  37. **"Policy-2004"** means Policy for Promoting

- Generation of Electricity through Non-Conventional Energy Sources issued on 25th of October, 2004;
38. **"Policy-2012"** means Policy for Promoting Generation of Electricity from Wind issued on 18th July, 2012;
  39. **"Pooling Station"** means sub-station developed by the Developer for interface with the Receiving Sub-station;
  40. **"Power Producer"** means a person that makes investment for setting up of Wind/Hybrid Power Project and generating grid grade electricity from wind/hybrid energy;
  41. **"Project Capacity"** means the maximum Alternating Current (AC) capacity at the delivery point;
  42. **"Receiving Sub-station"** means EHV/HV Sub-station developed by RVPN/DISCOM of Rajasthan for evacuation of power generated from Renewable Energy Sources;
  43. **"Renewable Energy Certificate" or "REC"** means the Renewable Energy Certificate issued by the Central Agency in accordance with the procedure prescribed by it and under the provision 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;
  44. **"Renewable Energy Power Plants"** means the power plants other than the conventional power plants generating grid quality electricity from Renewable Energy Sources;
  45. **"Renewable Energy Sources"** means and includes non-conventional renewable generating sources as approved by the Ministry of New & Renewable Energy, Government of India;
  46. **"RERC"** means Rajasthan Electricity Regulatory Commission;
  47. **"RERC REC Regulations"** means Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010 notified by RERC vide Notification dated 23.12.2010 amended from time to time;
  48. **"RREC"/"RRECL"** means Rajasthan Renewable Energy Corporation Limited;
  49. **"RVPN"** means the Rajasthan Rajya Vidyut Prasaran Nigam Limited;
  50. **"RVUN"** means the Rajasthan Rajya Vidyut Utpadan Nigam Limited;
  51. **"RUVN"/ "RUVNL"** means the Rajasthan Urja Vikas Nigam Limited;
  52. **"RPO"** means Renewable Purchase Obligation;
  53. **"Scheduled Commissioning Period"** means the scheduled period of the completion of the project counted from the date of Final Approval by SLEC to the date of "COD";
  54. **"SECI"** means the Solar Energy Corporation of India;
  55. **"SLEC"** means State Level Empowered Committee constituted under the provisions of this Policy;
  56. **"SLSC"** means State Level Screening Committee constituted under the provisions of this Policy;
  57. **"State Agency"** means Rajasthan Renewable Energy Corporation Ltd. or any other agency designated by the Rajasthan Electricity Regulatory Commission for accreditation and recommending 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;
  58. **"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;

59. **“Tariff”** means the schedule of charges for generation, transmission, wheeling and supply of electricity together with terms and conditions for application thereof;
60. **“Wind Farm”** means a group of wind turbines at the same location used for production of electric power;
61. **“Wind-Solar Hybrid Projects”** means a deployment of a combination of solar and wind energy sources for generation of power fed into the grid through a common pooling station/ evacuation system wherein the capacity of one resource is at least 25% of the other resource.
62. **“WRA”** means Wind Resource Assessment;
63. **“WTG”** means Wind Turbine Generator;
64. **“WBA”** means Wheeling and Banking Agreement.
- 4.2 The terms not defined above will have their usual meanings.

## 5 Objectives

- 5.1 To establish Rajasthan as a National leader in wind energy in phased manner for promoting use of Renewable Energy in various applications.
- 5.2 Harness renewable potential in the State and thereby increase share of Renewable Energy in generation mix of the State and meeting RPO requirement.
- 5.3 Optimize power procurement cost by procuring maximum share of Renewables.
- 5.4 Productive use of abundant wasteland, thereby utilizing the un-utilised/under-utilised land for creation of Wind energy hub.
- 5.5 Develop power evacuation infrastructure and distribution network.
- 5.6 Attract investors/developers to set up RE generation capacity for Rajasthan and other states.
- 5.7 Attract investors to setup manufacturing facilities by promoting manufacturing ecosystem.
- 5.8 Creating investment opportunities for small and medium enterprises.
- 5.9 Creating employment opportunities, and creation of skilled and semi-skilled manpower resources through promotion of technical and other related training facilities.
- 5.10 The State will deploy ancillary services for making the RE Power grid compliant by various modes like Demand Side Management, Time of Day tariff, Forecasting & Scheduling, Storage Systems, Reactive Power Management, Grid Reserve/Balancing capacity, etc.
- 5.11 To provide a framework for promotion of large grid connected Wind-Solar Hybrid system for optimal and efficient utilisation of transmission infrastructure and land, reducing the variability in Renewable power generation and achieving better grid stability.
- 5.12 To encourage new technologies, methods and way outs involving combined generation of wind & solar power and other emerging technologies like storage systems.
- 5.13 To promote setting up of the Wind-Solar Hybrid Power Projects for sale of power to Distribution Companies of Rajasthan/Rajasthan Urja Vikas Nigam Ltd. as

per their requirement and commercial viability.

- 5.14 The small Solar-Wind Hybrid systems will also be promoted to meet day as well as night hours power requirements, especially in remote/rural areas.
- 5.15 Hybridization of Conventional Thermal Power Plants by RE power will be promoted to reduce

fuel consumption and emission of green house gases.

- 5.16 In addition to above, The State will endeavour to develop Wind-Solar Hybrid Power Projects for sale to parties other than Distribution Companies of Rajasthan for captive consumption and third party sale within and outside the State.

## 6 RREC to Act as Nodal Agency

**RREC to act as Nodal Agency for:**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>a) Registration of projects;</li> <li>b) Approval of projects;</li> <li>c) Selection of projects by process of competitive bidding on request of RUVNL/DISCOMs;</li> <li>d) Facilitating allotment of Government Land for projects;</li> <li>e) Facilitating approval of power evacuation plan, allocation of bays and other related facilities;</li> <li>f) Facilitating execution of PPA/WBA with DISCOMs of Rajasthan/RVPN/ NVVN/SECI/</li> </ul> | <ul style="list-style-type: none"> <li>RUVNL (as applicable);</li> <li>g) Arranging other statutory clearances/ approvals;</li> <li>h) Coordination with MNRE/NIWE/DISCOMs of Rajasthan/RVPN/Central Agency/State Agency;</li> <li>i) Accreditation and recommendation of the Wind/Wind-Solar Hybrid Power Projects for registration with Central Agency under REC mechanism.</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## WIND POWER PROJECTS

### 7 Target for Wind Power Generation

7.1 **This Policy aims to achieve the following targets:**

- 7.1.1 2000 MW wind power capacity for fulfillment of Renewable Purchase Obligation (RPO) of State DISCOMs in respect of wind energy as determined by RERC up to 2024-25. DISCOMs/RUVNL may procure wind energy

beyond the RPO as per their requirement and commercial viability.

- 7.1.2 In addition to above capacity, State will support to develop 2000 MW Wind Power Projects for captive consumption and for sale to parties other than DISCOMs of Rajasthan within and outside the State.

## 8 Generation of Power from Wind

### 8.1 Wind Power Plants for sale of power to DISCOM(s) of Rajasthan

The State will promote setting up of Wind Power Projects for sale of power to DISCOMs of Rajasthan on the tariff discovered through competitive bidding process to fulfill Renewable Purchase Obligation (RPO) target fixed by RERC. DISCOMs/RUVNL may procure wind energy beyond RPO as per their requirement and commercial viability.

### 8.2 Utility Grid Power Projects for captive use /third party sale within and outside the State of Rajasthan

8.2.1. The State will promote setting up of Wind Power Projects for captive use/third party sale for consumers within the State. The maximum permissible capacity of individual plant for captive use will be limited to the “contract demand” of the consumer. The generating plant capacity for third party sale can be any capacity, however the consumer will be allowed to take power from such plant up to the contract demand only.

8.2.2. The State will allow setting up of Wind Power Projects of any capacity for captive use/third party sale outside the State or sale through the Power Exchange.

8.2.3. Such Power Producers (under clause 8.2.1 & 8.2.2) will also be eligible for RE (Non-Solar)

Certificate as per Orders/Regulations of the appropriate Commission.

### 8.3. Wind Power Projects with Storage Systems

8.3.1. The State will promote Wind Power Projects with storage systems to reduce the variability of output of wind power into the grid and to ensure availability of firm power for a particular period.

8.3.2. Initially, power up to the capacity of 5% of RPO target in MW (Solar & Non-Solar combined) from Wind Power Projects with Storage Systems (including Solar 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.

8.3.3. The State will promote Wind Power Projects with storage systems for captive use/third party sale.

8.3.4. 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.

8.3.5. The State will facilitate Research and Development (R&D) of Storage Technologies.

## 9 Repowering of Wind Power Projects

The State will promote Repowering of existing wind turbines that have completed at least 10 years in operation. Other provisions will be as per the guidelines/policies issued by MNRE from time to time.

9.1. In case of power being procured by State DISCOMs through existing PPA, the power generated corresponding to average of last three year's generation prior to repowering

would continue to be procured on the terms of PPA in-force and remaining additional generation may be purchased by DISCOMs at a tariff discovered through competitive bidding in the State at the time of commissioning of the repowering project.

- 9.2. The Wind Power Producer shall also be allowed to use the additional generated power for captive use/third party sale.
- 9.3. In case of Repowering of the projects, lease period of land beyond normal period will be extended on recommendation of RREC for the

useful life of the project.

Note: Suitable amendment will be made in Land Revenue Rules, 2007 for repowering of the projects.

- 9.4. In case of Repowering, the power evacuation facility for new pooling station or augmentation of existing substation will be provided by RVPN/DISCOMs based on load flow studies.



## 10 Purchase of Wind Power by DISCOMs

10.1. The minimum Renewable Purchase Obligations (RPO) for the DISCOMs of Rajasthan shall be governed by the relevant orders of RERC.

10.2. The DISCOMs of Rajasthan will purchase the power produced by the wind power projects sanctioned under clause 8.1, 8.3.2 and 9.1 of this Policy.

## 11 Power Purchase Agreement

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

### 11.1. Wind Power Plants For Sale of Power to DISCOM(s) of Rajasthan

11.1.1. For the projects sanctioned under clause 8.1, the Power Purchase Agreement will be executed between DISCOMs of Rajasthan / Rajasthan Urja Vikas Nigam Limited (RUVNL) and successful bidders/Power Producers as per the provisions of bid documents at the tariff discovered through process of competitive bidding.

11.1.2. The PPA of the Wind Power Projects selected through competitive bidding under clause 8.1, 8.3.2 & 9.1 will be executed as per terms and conditions of the bid document.

### 11.2. Wind Power Plants for captive use/third party sale

For the projects sanctioned under clause 8.2, 8.3.3 & 9.2, the Developer/Power Producer shall execute a Wheeling and Banking Agreement with DISCOM(s) for wheeling

and banking. In case transmission system of RVPN is also used, then Power Producer and/or Developer will execute separate Transmission Agreement with RVPN.

### 11.3. Assignment of PPA

11.3.1. 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 Rs. 2 lac per application to RREC (GST will be payable as applicable).

11.4. 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.

## 12 Settlement of Accounts

The account of all transactions between the Power Producer and the DISCOM/RUVNL/RVFN

regarding price of power and transmission/wheeling charges shall be settled on monthly basis.

## 13 Allotment/Procurement of Land

### 13.1. Allotment of Government Land for Establishing Wind Power Projects

13.1.1. Government land will be allotted to Wind Power Project 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.

13.1.2. For setting up of Wind Power Project, maximum area that may be allotted to the Developer shall be 3 hectares/MW

Note: For the wind power projects with storage system, additional land will be allotted as per the rules prescribed by the Revenue Department, Government of Rajasthan (GoR).

13.1.3. 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 Rs.1 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 the written request of the applicant. The security deposit shall be forfeited in case the allotted land is not used within the specified period as per the allotment rules. If land is not allotted, security deposit will be refunded on the written request of the applicant.

13.1.4. Sub-Lease of part of land in favour of Power

Producer will be permitted as per the 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. Land will be sub-leased by the concerned District Collector on recommendation of RREC before or after commissioning of WTG.

### 13.2. Procurement of private land for establishing Wind Power Projects

13.2.1. The State will promote setting up of Wind Power Project / Wind Farm on private land. Developer shall be permitted to setup Wind Power Project 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.

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

### 13.3. Stamp Duty

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

# 14 Registration of Wind Power Projects

- 14.1. All projects installed in the State shall be required to be registered with RREC.
- 14.2. The Developer/Power Producer will submit an online application for registration to RREC in the prescribed format along with the requisite documents.
- 14.3. Each Developer/Power Producer will deposit non-refundable registration charge with RREC as under:

1	For Project <100 MW capacity	Rs 50,000 per MW
2	For Projects ≥ 100 MW capacity	Rs 50 lac per Project

GST and other charges, as applicable, shall be payable in addition to the registration charge. Registration will not confer any right on the Developer/Power Producer and will not create any obligation on the part of RREC.

- 14.4 Wind Power Projects which have been registered under Policy, 2012, will be deemed to have been registered under this Policy, 2019 on the same registration number allotted earlier and such power projects will be governed by the provisions of this Policy.
- 14.5 For the projects under RE (Non-Solar) certificate mechanism, in addition to the registration with RREC, the Developer/Power Producer will have to deposit

Accreditation/Registration fee with State Agency/Central Agency as per procedure laid down by the regulations/orders of the appropriate Commission.

- 14.6 Developer/Power Producer can transfer its registered capacity or part thereof to its 'holding', 'subsidiary', 'fellow subsidiary' or 'ultimate holding' company with prior approval of RREC on payment of an amount equal to 50% of registration charge.
- 14.7 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 amount equal of 25% of registration charge.
- 14.8 No prior registration with RREC will be required for participation in bidding as per clause 8.1, 8.3.2 & 9.1. Only successful bidders will be required to register their projects with RREC.
- 14.9 Installation of Wind 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 authorised by the Government for the registration of sale/lease deed of the land.

## 15 State Level Screening Committee (SLSC)

A State Level Screening Committee (SLSC) will be constituted for in-principle clearance of the projects. The SLSC will have following constitution:

- 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



## **16 In-Principle Clearance of Wind Power Projects**

### **16.1 In Principle Clearance of Wind Power Projects under Clause 8.2, 8.3.3 & 9.2**

In principle clearance of projects under clause 8.2, 8.3.3 & 9.2 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
- Availability of land
- Availability of power evacuation system for

proposed project

- 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

### **16.2 For projects under Clause 8.1, 8.3.2 & 9.1**

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

## **17 Security Deposit**

### **17.1. For projects under Clause 8.2, 8.3.3 & 9.2**

17.1.1 After in-principle clearance of the projects by the State Level Screening Committee (SLSC), the Developers/Power Producers will be required to deposit security amount @ Rs 5 lac/MW in the form of DD/RTGS 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.

17.1.2 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.

17.1.3. 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 17.1.2, 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.

17.1.4. The security amount deposited by the Developer/Power Producer shall be non-convertible and non-transferable.

17.1.5. The security deposit shall be refunded, on the 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 30.1.

#### 17.2 For projects under clause 8.1, 8.3.2 & 9.1

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

## 18 State Level Empowered Committee (SLEC)

All in principle cleared projects will be submitted to the State Level Empowered Committee (SLEC) for final approval. The State Level Empowered Committee shall consist of following members:

- |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>I) Chief Secretary, GoR (Chairman)</li> <li>ii) Principal Secretary/Secretary, Revenue, GoR</li> <li>iii) Principal Secretary/Secretary, Energy, GoR</li> <li>iv) Principal Secretary/ Secretary, Water Resources Department, GoR</li> </ul> | <ul style="list-style-type: none"> <li>v) Chairman, Rajasthan Renewable Energy Corporation Ltd</li> <li>vi) CMD, Rajasthan Rajya Vidyut Prasaran Nigam Ltd</li> <li>vii) Principal Chief Conservator of Forest (HoFF), Forest Department, GoR</li> <li>viii) District Collector of concerned District - Special Invitee</li> <li>ix) MD, Rajasthan Renewable Energy Corporation Ltd., (Member- Secretary)</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 19 Wind Resource Assessment Programme

For utilisation of wind as an energy source, Wind Resource Assessment (WRA) studies had been carried out by MNRE at various locations in the State. The MNRE has also permitted independent private participation for WRA. WRA studies were done in limited locations. With a view to further assessing wind resources potential, RREC will also allow/undertake Wind Energy Resource

Assessment studies by private developers for exploring additional locations.

#### 19.1 Registration for establishment of wind monitoring station for wind resource assessment studies

19.1.1 For carrying out wind resource assessment studies, Developer shall select the location for establishing the wind monitoring station and

shall register the application with RREC in prescribed online format along with the required documents.

19.1.2 Along with application, the Developer shall deposit an amount of Rs. 10,000 per site with RREC towards registration charge, which shall be non-refundable. Goods and Services Tax (GST) will also be payable as applicable. Fee, if any, to NIWE will also be payable, as applicable.

#### 19.2 Allotment of land for setting up of Wind Monitoring Station

The Government land up to 150m by 150m required for setting up of wind monitoring station will be allotted on temporary basis to the Developer/Power Producer for maximum period of 3 years at DLC rates. The allotment for such land will be done at the level of concerned District Collector on the recommendation of RREC. After completion of wind assessment studies, the wind monitoring station shall be dismantled at the cost of Developer and land shall revert to the State Government free from all encumbrances.

#### 19.3 Non requirement of No Objection Certificate (NOC) from Gram Panchayat for allotment of land for establishment of wind monitoring station

NOC from Gram Panchayat will not be required for allotment of Government land (Siwai Chak land) for establishment of wind monitoring station.

#### 19.4 General Guidelines for Wind Resource Assessment Studies

19.4.1 The Developer shall follow the guidelines for wind resource assessment studies issued by Ministry of New & Renewable Energy, Government of India.

19.4.2 The Developer will bear all costs including the costs of installation of wind monitoring station along with accessories and will also include its O&M expenses.

19.4.3 The Developer shall submit NIWE report to RREC on completion of wind resource assessment studies.

19.4.4 The Developer shall not be entitled to claim any cost/charges, expenses and incidental charges incurred in connection with the studies for submission of NIWE report to RREC.

19.4.5 Purchase and acquisition of private land, if any, shall be sole responsibility of the Developer.

19.4.6 The Developer shall take necessary permissions of Forest Department, wherever required under Forest Conservation Act before installation of wind monitoring station. The wind monitoring station would be installed by the Developer after completing various formalities with the Forest Department. Compliances of various orders passed by Hon'ble Courts would also be ensured by the Developer.

## 20 Manufacturing of Wind Energy Equipment

The Government aims to promote manufacturing facilities for wind energy

equipment in Rajasthan leading to the development of Wind Energy Ecosystem and

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 wind 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 wind 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.



## HYBRID POWER PROJECTS

# 21 Target of Hybrid Power Projects

The Policy aims to achieve a target of 3,500 MW projects up to the financial year 2024-25 in the State as under:

1	Hybridization of existing Wind/Solar Plants	200 MW
2	New Wind-Solar Hybrid Projects	2000 MW
3	Wind-Solar Hybrid with Storage Systems	500 MW
4	Hybridization of existing Conventional Plants	800 MW



## 22 Generation of Power from Wind-Solar Hybrid Projects

22.1 The State will promote setting up of Wind-Solar Hybrid Power Projects for optimal and efficient utilisation of infrastructure and land, and to achieve better grid stability under the following categories:

- a) Sale of power to DISCOMs at tariff discovered through transparent bidding process.
- b) Captive use and sale to third party within and outside State through open access/power exchange. The maximum permissible capacity of individual plant for captive use within the State will be limited to “contract demand” of the consumer. The Generating plant capacity for third party sale can be any capacity. However, the consumer of the State will be allowed to take power from such plant up to the contract demand only.

The power procured from the hybrid project may be used for fulfillment of solar RPO and non-solar RPO in proportion to the rated capacity of solar and wind power in the hybrid plant respectively or as per the orders/regulations issued by appropriate Commission.

22.2 The sizing of the wind/solar capacity would be assessed by the developer on the basis of local resource characteristics. However, a wind-solar power plant will be recognised as hybrid plant if the rated power capacity of one resource (wind/solar) is at least 25% of the rated power capacity of other resource (solar/wind).

22.3 For the purpose of this Policy, the plants are classified into two categories:

### **Type A Projects: Hybridisation of existing Wind/Solar Projects**

This category includes conversion of existing /under construction Wind or Solar Power Plants into Hybrid Projects.

### **Type B Projects: New Wind-Solar Hybrid Projects**

This includes new Wind-Solar Hybrid power generation projects that are not registered with RREC till the date of commencement of this Policy.

All fiscal and financial incentives available to Wind and Solar power projects will also be made available to Wind-Solar Hybrid projects.

### **22.4 Generation of Power from Wind-Solar Hybrid Projects with Storage Systems**

22.4.1 The State will promote Wind-Solar Hybrid Power Projects with storage systems to reduce the variability of output of RE Power into the grid and to ensure availability of firm power for a particular period.

22.4.2 Initially, power up to the capacity of 5% of RPO target in MW (Solar & Non-Solar combined) from Wind-Solar Hybrid Power Projects with Storage Systems (including Wind and Solar Power Projects with Storage Systems), will be procured by Rajasthan DISCOMs at a tariff discovered through competitive bidding, in addition to the RPO target.

22.4.3 The State will promote Wind-Solar Hybrid Power Projects with storage systems for captive use/third party sale.

22.4.4 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.

22.4.5 The State will facilitate Research and Development (R&D) of Storage Technologies.

### **22.5 Hybridisation of existing Conventional**

### Thermal Power Plants

22.5.1 The State will promote hybridisation of existing Conventional Thermal Power Plants by allowing setting up of Renewable Power Plants by the Conventional Power Generators for using its Thermal power or Renewable power to meet its scheduled generation from the specific thermal generating station. This flexibility will provide the thermal power generators an opportunity to optimally utilise generation from RE sources and also help in reducing emissions. DISCOMs will also receive firm power including Renewable power, which will help them to meet their Renewable Purchase Obligations.

22.5.2 The generating companies will be allowed to utilise such Renewable capacities for supplying power against existing commitments to supply power from its thermal power plants to DISCOMs.

22.5.3 Any net gain realised by the generator by blending Renewable power with Thermal power shall be shared equally between the generator and DISCOMs after the approval of the Regulator.

22.5.4 The DISCOMs will be eligible to fulfill their RPO requirement against such RE procurement. The Generators will also be eligible to fulfill their Renewable Generation Obligations, through such RE power generation, if applicable in future.

## 23 Registration of Hybrid Power Project

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

23.1 The Hybrid Developer/Power Producer will submit an online application for registration to RREC in the prescribed format along with requisite documents.

23.2 Each Hybrid Developer/Power Producer will deposit non-refundable registration charge with RREC as under:

S.	Project Capacity	Rate
1	Project ≤10 MW	Rs50,000 per MW
2	Projects > 10 MW and ≤ 50 MW	Rs5 lac per project

S.	Project Capacity	Rate
3	Projects > 50 MW and ≤ 100 MW	Rs10 lac per project
4	Projects > 100 MW	Rs30 lac per project

23.3 The GST and other charges, as applicable, shall be payable in addition to the registration charge. Registration will not confer any right on the Developer/Power Producer and will not create any obligation on the part of RREC.

23.4 In case of hybridisation of existing wind/solar project, registration of additional solar/wind capacity will be required. In such cases, the existing registration number in the category will be assigned to hybrid power projects. The

provisions of registration will be as per the clause 23.2 on the additional capacity created.

- 23.5 Power producers seeking benefits under the RE certificate mechanism, will have to deposit accreditation/registration fee along with applicable GST with State Agency / Central Agency as per the procedure laid down by the regulations/orders of the appropriate Commission.
- 23.6 No prior registration with RREC will be required for participation in the bidding as per clause 22.1(a) & 22.4.2. Only successful bidders will be required to register their projects with RREC.
- 23.7 The installation of Hybrid 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 authorised by the Government for the registration of sale/lease deed of the land.

- 23.8 Developer/Power Producer can transfer its registered capacity or part thereof to its 'holding', 'subsidiary', 'fellow subsidiary or 'ultimate holding' company with prior approval of RREC on payment of amount equal to 50% of registration charge.
- 23.9 Developer/ Power Producer can transfer the registered capacity or part thereof from one registration to its another registration with prior approval of RREC on payment of amount equal to 25% of registration charge.

## 24 Allotment of Land for Setting up of Wind-Solar Hybrid Power Projects

- 24.1 Government Land will be allotted to Wind-Solar Hybrid Power Project 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.
- 24.2 For setting up of Wind-Solar Hybrid Power Plants based on different technologies, maximum land area which can be allotted to the Developer/Power Producer will be as per the provisions of Rules mentioned at clause 24.1 which is as under:

S. No.	Technology	Maximum area that can be allotted
1	SPV on Crystalline Technology	3.0 hectare/ MW
2	SPV on Crystalline Technology with tracker	3.5 hectare/ MW
3	SPV on Thin film/Amorphous Technology with or without tracker	3.5 hectare/ MW

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

- 24.3 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 Rs3 lac per MW by demand draft/RTGS in favour of RREC, Jaipur. The security deposit will be refunded to the Developer/Power Producer in proportion to the commissioned capacity of the project on the written request of the applicant. The security deposit shall be forfeited in case the allotted land is not used within the specified time period as per the allotment rules. If land is not allotted, security deposit will be refunded on the written request of the applicant.
- 24.4 Sub-Lease of part of land in favour of Power Producer will be permitted as per the 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. Land will be sub-leased by the concerned District Collector on recommendation of RREC before or after commissioning of the project.
- 24.5 **Procurement of private land for establishing Wind-Solar Hybrid Power Projects**
- 24.5.1 The State will promote setting up of Wind-Solar Hybrid Power Project on private land. Developer shall be permitted to set-up Wind-Solar Hybrid Power Project 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 there under.
- 24.5.2 Hybrid Power Producers shall also be allowed to acquire/hold private land from title holders (Khatedar) for setting up of Wind-Solar Hybrid Power Plant in excess of ceiling limit in accordance with the provisions of Ceiling Act, 1973.
- 24.6 **Stamp Duty**
- Rates of stamp duty levied on the land used for setting up of hybrid power plant shall be equal to twice the rates of stamp duty leviable on agriculture land of that area.

## 25 In Principle Clearance of Hybrid Projects

### 25.1 For Projects under Clause 22.1 (a) & 22.4.2

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

### 25.2 In Principle Clearance of Projects under Clause 22.1 (b), 22.4.3 & 22.5

In principle clearance of projects under clause 22.1 (b), 22.4.3 & 22.5 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
- Availability of land
- Availability of power evacuation system for proposed project
- Documentary evidence of power purchase agreements or an undertaking in case of sale to third party through open access or undertaking for sale of power in the Power Exchange

## 26 Security Deposit

### 26.1 For projects under Clause 22.1 (b), 22.4.3 & 22.5

As per clause 17.1.1 to 17.1.5 of this Policy.

### 26.2 For projects under clause 22.1(a) & 22.4.2

The security deposit will be governed by provisions of bid document and power purchase agreement.

## 27 Final Approval of the Hybrid Power Projects

The final approval to the Hybrid Power Projects under clause 22.1 (b), 22.4.3 & 22.5 will be granted by SLEC as per clause 18 of this Policy.

## 28 Power Purchase Agreement

The Power Purchase Agreement between the Wind-Solar Hybrid Power Producer and/or Developer and Procurer of power will be executed in the following manner:

### 28.1 Projects for Sale of Power to DISCOM(s) of Rajasthan

The PPA of the Projects selected through competitive bidding under clause 22.1(a) and 22.4.2 will be executed as per terms and conditions of the bid document.

### 28.2 Projects for captive use/third party sale within and outside the state of Rajasthan

For the projects sanctioned under clause 22.1(b) & 22.4.3, the Developer/Power Producer shall execute a Wheeling and Banking Agreement with DISCOM(s). In case transmission system of RVPN is also used,

then Power Producer and/or Developer will execute a separate Transmission Agreement with RVPN.

### 28.3 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)

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.

## 29 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, with 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 utilised 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:

29.1 In case of Hybrid 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, on the solar capacity of such project from the date of commissioning, as under:

S. No.	Period	Rate*
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 date of commissioning of the project.

29.2 Contribution to the RREDF as above shall be levied on solar capacity of hybrid power projects that will be commissioned on or after commencement of this Policy and for entire life-cycle of the project, from date of commissioning. However, for projects against which bids have been submitted prior to commencement of this policy, contribution towards RREDF shall be @ Rs1 lac/MW/Year for entire life cycle of the project.

29.3 There will be no requirement of contribution towards RREDF for solar capacity of the hybrid 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 contribution towards RREDF @ Rs1 lac/ MW /Year for the remaining life of the Project.

29.4 There will be no requirement of contribution towards RREDF for the solar capacity of such projects commissioned on or after date of commencement of this Policy for captive consumption within State.

29.5 Hybrid 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 of 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 power bill of the Power Producer or disconnection from Grid till the depositing of dues with interest, on recommendation of RREC.

## OTHER PROVISIONS FOR WIND AND HYBRID POWER PROJECTS

### **30** Time Frame for Completion of Wind and Hybrid Power Projects

The time frame for completion of projects sanctioned under this Policy will be as follows:

#### 30.1 Time frame for completion of projects sanctioned under clause 8.2, 8.3.3, 9.2, 22.1(b), 22.4.3 & 22.5

30.1.1 The time frame for completion of project, from the date of "Final Approval" by SLEC would be as follows:

Project Capacity	Completion Schedule
Up to 25 MW	8 Months
Above 25 MW- 50 MW	14 Months
Above 50 MW - 75 MW	18 Months
Above 75 MW - 100	22 Months
Above 100 MW	26 Months

30.1.2 The RREC may extend the completion schedule of the project given in clause 30.1.1 above, on the written request of the Developer/Power Producer giving convincing reasons for delay in the completion beyond the scheduled commissioning period of the project. The charges for time extension shall be as under:

Time period	Amount payable for extension
Up to two-month extension in the date of scheduled commissioning	Rs. 25,000/MW

Beyond Two month and up to four-month extension in the date of scheduled commissioning	Rs. 50,000/MW
Up to nine-month extension in the date of scheduled commissioning	Rs. 1,00,000/MW

30.1.3 The Board of Directors of RREC will be empowered to determine the period of delay on account of force majeure conditions as well as on merits of the case and condoning of delay thereof as given in clause 30.1.1. Accordingly, the Board shall also be empowered to relax the extension charges as mentioned in clause 30.1.2 on merits of each case.

30.1.4 In case the Project is delayed beyond nine months and is not considered by the Board of Directors for further extension, in such case the matter shall be decided by SLEC for relaxation by granting further extension afresh or for cancellation of the Project and forfeiture of Security Deposit thereof.

30.1.5 For the purpose of calculating the time period for completion of project, the date of issue of certificate by Electrical Inspector, Government of Rajasthan for energising the Wind/Hybrid Plant and lines from the Wind/Hybrid plants to the pooling station will be considered, provided that the Power Producer has submitted relevant PPA/WBA. In case the PPA/WBA is submitted after the issuing of certificate by Electrical Inspector, the date of submission of PPA/WBA will be

treated as date of completion of the project. However, payment towards the energy supplied to the DISCOM shall be governed by the provision of PPA executed by the Developer, Power Producer and DISCOM(s).

**30.2 Time frame for completion of projects sanctioned under clause 8.1, 8.3.2, 9.1, 22.1(a) & 22.4.2**

The time frame for completion of projects will be governed by the provisions of bid document and power purchase agreement.

## **31 Evacuation and Grid Interfacing of Power from Wind-Solar Hybrid Projects (For Type-A Projects)**

Where power evacuation is already granted to the existing wind/solar project and there is margin of capacity available in transmission line/GSS of RVPN/DISCOMs, injection of power from additional wind/solar capacity to be set up will be allowed. If any augmentation in the existing transmission system is required due to addition of such wind/solar capacity, up to the receiving end substation of RVPN/DISCOMs, the same shall be undertaken by the developer at its own cost.

Evacuation of RE power generated shall be made through the transmission and distribution network being maintained by RVPN and DISCOMs respectively. For augmentation of transmission/distribution system to evacuate the power from receiving substation, RVPN/DISCOMs of Rajasthan shall develop/augment the necessary transmission/distribution network within mutually agreed timeframe.

## **32 Evacuation and Grid Interfacing of Power from Wind Energy/Wind-Solar Hybrid Projects (For Type-B Projects)**

**32.1 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.

**32.2 Evacuation and Grid Interfacing through Intra State Transmission System for Wind Energy/New Wind-Solar hybrid Projects**

**32.2.1 Development of Power Evacuation System in RE Potential Area**

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

32.2.2 Evacuation of RE Power generated shall be made through the transmission and distribution network being maintained by RVPN and DISCOMs respectively.

### 32.2.3 Grid Interfacing

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

#### i. Pooling Substation

Interfacing arrangements such as transformers, panels, kiosks, protection, metering, HT lines from the points of generation to the Pooling Sub-station including the Pooling Substation 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 Substation

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.

### 32.2.4 Grid Connectivity

For creation of proper facility for receiving power at the receiving substation of RVPN/DISCOM on request of Developer/Power Producer, the Developer/Power Producer shall pay grid connectivity charges, as finalised 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 interconnections with existing electrical system.

### 32.2.5 Transmission and Distribution Network:

- i. For augmentation of transmission/



- distribution systems to evacuate the power from receiving Substation, RVPN/DISCOM shall develop/augment the necessary transmission/distribution network within mutually agreed time frame.
- 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 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 utilisation 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 requisite modification, like addition of line bay on higher voltage, inter-connection 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 Power Producer initially connects its feeder to DISCOM's substation but later on desires to connect the feeder to RVPN's Substation, 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 inter-connection 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 requirements 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 Substation to Receiving Sub-station**  
The evacuation system beyond Pooling Substation till the nearest Receiving Substation shall be developed as under:
    - a. **Grid Connected Power Plants commissioned under clause 8.1, 8.3.2, 9.1, 22.1(a) & 22.4.2**  
The power evacuation transmission line from pooling sub-station to the receiving RVPN/DISCOMs sub-station will be laid as per terms and conditions of bid document and power purchase agreement.
    - b. **Grid Connected Power Plants commissioned under clause 8.2, 8.3.3, 9.2, 22.1(b) & 22.4.3**  
The power evacuation transmission line from the pooling substation to RVPN/DISCOMs receiving substation will be laid as per regulations of RERC.
  - ix. The DISCOMs will endeavor 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.
- 32.3 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.

#### 32.4 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.

#### 32.5 Time line for utilisation of Power Evacuation Facilities:

- i. For providing evacuation facilities to the Developers/ Power Producers, RVPN/DISCOMs will update the availability of transformation capacity and bay availability on its website and approval will be disposed off within one month by RVPN/DISCOMs.
- ii. In case of non-approval of power evacuation by RVPN/DISCOMs 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 utilised by Developers/Power Producers within 3 years from the date of approval, otherwise power evacuation approval may be cancelled and the same may be allocated to other developers/producers on priority basis.



## 33 Forecasting & Scheduling

- 33.1 All Wind Power Projects shall forecast and schedule their generation as per Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, RERC (Intra-state ABT) Regulations, 2006, RERC (Rajasthan Electricity Grid Code) Regulations, 2008 and RERC (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2017 as amended from time to time.
- 33.2 For Hybrid Projects, scheduling and forecasting will be as per applicable Regulations of appropriate commission.
- 33.3 SLDC will ensure must run Status of RE Plants in the State and maintain the data of RE Power Curtailment in transparent manner.
- 33.4 SLDC will develop infrastructure for forecasting & scheduling with financial support from Rajasthan Renewable Energy Development Fund for access of real time generation data.
- 33.5 A Committee consisting of following members

under the Chairmanship of Chairman & Managing Director, RVPN shall be constituted for monitoring of Solar and 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.

- 33.6 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.

## 34 Incentives/ Facilities Available to Wind / Hybrid Power Projects

### 34.1 Grant of incentives available to Industries

Generation of electricity from Wind/Hybrid Power Plants shall be treated as eligible industry under the schemes administered by the Industries Department and for incentives available to industrial units under the Rajasthan Investment Promotion Scheme (RIPS).

### 34.2 Availability of Water

Water Resources Department, GoR will allocate required quantity of water from IGNP canal/the nearest available source for cleaning of solar panels and auxiliary consumption for Hybrid 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.

### 34.3 Banking

Banking of energy generated from Wind/Wind-Solar Hybrid Power Projects at the drawl end within the State shall be permitted for the 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 unutilised banked energy at the end of year shall lapse.

### 34.4 Exemption/Relaxation from Electricity Duty

The electricity consumed by the Power Producer of wind/wind-solar hybrid projects for captive use within State will be exempted from payment of Electricity Duty.

### 34.5 Transmission and Wheeling charges

For Wind/Wind-Solar Hybrid 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 & Wind-Solar Hybrid, with or without storage, taken together) whichever is earlier, the transmission and wheeling charges will be levied as under:

- i. For Power Project set up for captive use/third party sale within State: @ 50% of normal transmission and wheeling charges for a period of 7 years from date of commissioning of the project.
- ii. For Wind/Wind-Solar Hybrid Power Project with Storage System and repowered wind Power Projects set up for Captive use/Third party sale within State: @ 25% of normal transmission and wheeling charges for a period of 7 years from date of commissioning of the project.
- iii. The above provisions will be applicable for an individual plant capacity of maximum 25 MW.

## 35 Studies in Renewable Energy Sector

**RREC to undertake following studies in Renewable Energy sector for further Policy Intervention:**

- i. Improving the cost competitiveness of wind manufacturing plants.
- ii. Analysing and identifying suitable technologies and implementation models for Ancillary Services.
- iii. Identification of actual requirement of storage capacity and suitable technologies considering the demand curve and generation profile in the State.
- iv. Assessment of various alternative models for Repowering of Wind Power Projects, Hybridisation of existing Power Projects, new Hybrid Power Projects and small Wind & Hybrid Systems.
- v. Identification of incentives to promote new technologies in Wind Energy, Repowering and

Hybrid Power Systems.

- vi. Identifying the 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. Study the business life cycle of RE and hybrid projects in context to impact on Environment.

## 36 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.

## 37 Regulation

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

## 38 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 the written representation from the stakeholders.



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