

POLICY FOR PROMOTION OF ELECTRICITY GENERATION FROM WIND, 2003

(Issued vide Energy Deptt. letter No.F.20(3)Energy/98/Pt.III dated 30.4.2003)

1. Introduction.

- 1.1 The Govt. of Rajasthan had brought out a Policy for Promotion of Generation of Power from Non-conventional Sources on 11.3.99. A separate Policy aimed at achieving installed capacity of 100 MW exclusively from Wind was issued on 4th February, 2000. The operative period of both Policies ends in March 2004.
- 1.2 There has been encouraging growth in development of wind power projects in the State in the recent past, primarily due to prevailing incentives and benefits offered in the afore-mentioned Policies. The capacity build up of 100 MW envisaged in the 2000 Policy is expected to be achieved by December, 2003.
- 1.3 Developers, manufacturers, investors alike have been calling for formulation of a new Policy well before the expiry of the existing Policy so that the momentum gained is maintained. As a demonstration of their continued commitment to setting up of wind energy generation capacity in the State of Rajasthan, developers have shown willingness and registered their applications with RREC for setting up wind power projects of additional capacity of 200-250 MW.
- 1.4 The level of tariff protection with guaranteed escalation and wheeling charges provided in the 2000 Policy, in accordance with MNES guidelines, is no longer affordable to RVPN as it imposes a heavy financial burden on it. Moreover, the identification of more potential sites, improvement in conversion efficiency, reduction in lending rates by the financial institutions, availability of large size machines on commercial scale and downtrend in capital costs, have all necessitated a review of the incentives and benefits in the existing Policies. A revised Policy is therefore proposed. However the existing Policy dated 4.2.2000 shall continue to be applicable to those Wind Power Projects, upto the cap of 100 MW, for which RREC has given specific approval.

2. Background

- 2.1 The wind resource assessment programme is implemented by MNES through State Nodal Agencies and Center for Wind Energy Technology (C-WET). A total of 45000 MW gross wind potential has been assessed in the country.
- 2.2 IITM has so far identified following potential sites in the various districts of Rajasthan specifying average wind speed, wind density profile and power potential per square meter.

S. No	Wind Mast Site	District	Annual Mean Wind Speed KMPH At 20/25 m	Annual Mean Wind Power Density (W/M ²)	
				At 20/25 m	Extra-polated at 50 M
1.	Devgarh	Chittorgarh	19.88	151	281
2.	Harshnath	Sikar	20.62	206	617
3.	Jaisalmer	Jaisalmer	19.79	182	311
4.	Khodal	Barmer	17.00	135	229
5.	Mohangarh	Jaisalmer	15.50	117	243
6.	Phalodi	Jodhpur	17.40	142	261

2.3 Wind assessments studies at following additional locations are under progress:-

S.No.	Village	District
1.	Dadrewa	Churu
2.	Bissau	Jhunjhunu
3.	RD 1.6 Suratgarh	Sriganganagar
4.	Napasar	Bikaner
5.	Mahajan	Bikaner
6.	Kathoti	Nagaur
7.	Balesar	Jodhpur
8.	Kanod	Jaisalmer
9.	Suratgarh	Sriganganagar
10.	Jaisalmer	Jaisalmer

2.4 Three demonstration wind power projects at Jaisalmer, Devgarh in Chittorgarh and Phalodi in Jodhpur districts have been set up by the State nodal agency with aggregate capacity of 6.35 MW and MNES grant of Rs. 3.84 crore / project.

2.5 Against the total wind power capacity of 1639 MW achieved in India (Tamilnadu – 895 MW, Maharashtra - 399 MW, Gujarat – 166 MW, A.P.- 92.6 MW, Karnataka – 93.00 MW, Rajasthan – 60 MW) a gross potential of 5400 MW and technical potential of 845 MW has so far been assessed in Rajasthan.

2.6 Large investment has been carried out by PSU's, public utilities and corporate houses to meet power generation demand and avail financial and fiscal incentives and benefits throughout the country. Higher capacity machines with larger rotar dia and higher hub heights are now available yielding higher output i.e. higher conversion ratio.

3. Objectives:-

The objectives of this Policy are to support wind power generation programme based on wind resource studies and assessment and attract investment in the State. There is no cap on generation of power, however, it will not be obligatory for RVPN to purchase power beyond 250 MW within this Policy.

4. **Operative Period:-**

This Policy shall come into operation from the date of its publication in the Official Gazette and will be applicable to Wind Power Plants commissioned upto 31st March, 2009, unless superseded or modified by any other order. This Policy supersedes the Policy for Promoting Generation of Power through Wind issued vide Government Order No. F.20(3)Energy/98 dated 4.2.2000. After this Policy comes into effect all new approvals, PPA' s, Wheeling Agreements etc. will be granted / executed only under this Policy. However the existing Policy dated 4.2.2000 shall continue to be applicable to those Wind Power Projects, upto the cap of 100 MW, for which RREC has given specific approval.

5. **Eligible Producers:-**

Wind Farm developers, WEG manufacturers, Government Owned Companies, private companies, Joint Venture Companies and private investors would be Eligible Producers under this policy. The eligible producer shall obtain permission for installation of wind power plant from RERC/State Government.

6. **Definition:-**

Following expressions would have meanings assigned to them as follows unless the context otherwise requires:

- (a) "COD" means ' Commercial Operation Date' .
- (b) "Collector" means Collector 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.
- (c) "Developer" means a body which develops Wind Farms and transfers it to investors.
- (d) "DLC" means ' District Level Committee' to fix the price and for purposes of registration.
- (e) "Eligible Project" means Wind Farm with a capacity which is not more than 25 MW.
- (f) "Eligible wind farm" means a Wind Farm as detailed in clause 7 of this policy.
- (g) "Investor" means a body interested in investing in a Wind Farm.
- (h) "Jaipur Discom, Jodhpur Discom and Ajmer Discom" means the respective electricity distribution companies
- (i) "Manufacturer" means manufacturer of WEGs.
- (j) "MNES" means Ministry of Non-conventional Energy Sources, a Central Government Ministry promoting use of Non-conventional Energy Sources in India.
- (k) "RERC" means ' Rajasthan Electricity Regulatory Commission' .

- (l) "RREC" means Rajasthan Renewable Energy Corporation.
- (m) "RIICO" means Rajasthan Industrial & Investment Corporation.
- (n) "RVPN" means the Rajasthan Vidyut Prasaran Nigam.
- (o) "State" and "Government" means, respectively, the State of Rajasthan and the Government of Rajasthan.
- (p) "Wind Energy Generator" means a machine/device which converts kinetic energy of wind into electrical energy with any technology.
- (q) "Wind Farm" means cluster of WEG' s erected by a single developer and generating electricity from wind.

7. Eligible Wind Farm:-

Wind Farms of an Eligible Producer would be eligible, if it satisfies the following conditions:

- 7.1 The Wind Farm Developer or WEG manufacturer has experience of having set up at least 7.5 MW wind generation capacity in the country or is a manufacturer of wind energy generators having supplied, installed, commissioned wind energy generation capacity of at least 25 MW in India or is a company promoted by such entrepreneur and/or manufacturer.
- 7.2 The WEG' s installed are new machines.
- 7.3 Minimum capacity of WEG' s proposed for installation would be 225 KW.

8. Use of power produced:-

Wind Farm Developer / Investor would be eligible for using the power produced for captive consumption or making sale to a third party or to RVPN or any combination of the three options available. A PPA or Wheeling Agreement, or both, as the case may be, will be required to be entered into with RVPN/concerned Discom(s).

9. Price for Power:-

- 9.1 In the case of power to be sold to RVPN / DISCOMS, RVPN would pay a rate of Rs. 3.32 per unit for power supplied during 2003-04 which shall be increased at a simple rate of 2% (of Rs. 3.32) every year on 1st

April of the year for a period of up to 10 years i.e. up to 2012-13 with Base year 2003-04. Thereafter, from 2013-14 and onwards a fixed rate of Rs. 3.92 per unit charges to be paid by RVPN for a period upto the 20th year of the project.

- 9.2 In case of sale of power to third party the Investor / Developer shall obtain license from RERC under Rajasthan Power Sector Reforms Act 1999. The tariff applicable for such third party sale shall be determined by RERC. Investors would be free to negotiate quantum of sale of power, if effected to a third party, and bill and collect the same directly from such third party.

10. **Wheeling: -**

RVPN / Discoms will undertake to transmit on their grid the power generated by the Eligible Producer and make it available to such Eligible Producer for captive use or sale to a third party nominated by such Eligible Producer within the State. Such sales would attract a uniform wheeling charge of 10% of the energy fed into the grid, irrespective of the distance from the generating station. However, the third party so nominated will have to be consumer of DISCOM of category "Large Industrial Service", as defined in Discom Tariff rules, unless the concerned DISCOM specifically relaxes this condition.

11. **Banking:-**

The RVPN will permit banking of the energy generated in a calendar year by Eligible Producer for the period upto 31st December of the said calendar year. The banked energy, if not consumed within this period, would be treated to have been sold to RVPN at 60% of the prevailing energy charges of ' Large Industrial Service tariff' rate.

12. **PPA, Settlement and Security Package:-**

- 12.1 RVPN will enter into a Power Purchase Agreement for a period of 20 years from COD.
- 12.2 All transactions between RVPN and the Eligible Producers involving wheeling, banking or sale of power will be settled on monthly basis.
- 12.3 RVPN / concerned DISCOM shall sign the PPA / WBA within one month of its presentation.

13. **Exemption from Electricity Duty:-**

Consumption of electricity generated by Eligible Producers for its captive use or for sale to a nominated third party will be exempted from Electricity Duty for a period of five years from COD.

14. **Grid Interfacing, Metering :-**

- 14.1 Interfacing, including transformers, panels, kiosks, protection, metering, HT lines from the points of generation to the nearest pooling station / technically feasible point determined by RVPN/ concerned DISCOM, as well as their maintenance, will be undertaken by the Eligible Producer as per the specifications and requirements of the RVPN/concerned DISCOM, for which such Eligible Producers will bear the entire cost. Alternatively, these works and their maintenance could be undertaken by concerned Discom at charges to be mutually agreed between them.
- 14.2 RREC will finalize plan for the location of pooling station in consultation with RVPN and respective DISCOM for accepting inter-connection of the individual wind farm. The Developer shall deposit Rs. two lacs per MW with RREC for developing such pooling station. This amount would be transferred by RREC to RVPN.
- 14.3 RVPN/concerned Discom will undertake to augment sub-station capacity at 132/33 or 33/11 KV or higher levels, augmentation of transmission lines and all related works at its cost, to receive the power generated by Eligible Producer.
- 14.4 Developer could be allowed to set up own Sub-station and transmission lines but at their cost and as per pre-approved laid down specifications and prudent utility practices of RVPN. This would help projects to be commissioned within specified time frame. RVPNL would have to create upstream strengthening of the transmission as well as sub-stations capacity for which necessary comfort level can be asked by RVPN/RREC from the developers / investors, so that this additional capacity is not wasted due to non-utilization in the absence of non-creation of downstream facility by the Developer / Investor. The facility so created would be deemed to have been transferred to RVPN by the developers/investor for further operation and maintenance. The amount for development of pooling station shall not be charged from such Wind Farms.
- 14.5 RVPN / concerned DISCOM shall grant the inter-connection facility, wherever adequate power evacuation capacity is available, within 15 days of intimation or COD, whichever is later.
- 14.6 The Eligible Producer, at his cost, will install, at the pooling station, two separate meters, one for the import of power from the grid and another for export to the grid. RVPN/concerned Discom will seal the meters and metering boxes. In addition to the above one back up metering system shall also be provided at the Wind Farm.
- 14.7 One meter for recording reactive power drawn from the Grid shall also be provided.
- 14.8 The Eligible Producer will install necessary current limiting devices such as Thyristors in the generating equipment. Capacitors of sufficient

rating will also be provided in the Wind Farm to ensure that the average power factor is maintained above 0.9, measured at metering point of the Wind Farm.

14.9 The Eligible Producer shall comply with Grid Code including Load Despatch and System Operation Code, Metering Code, Protection Code, Safety Code etc. as applicable from time to time in the State of Rajasthan.

15. Facilitation by RREC:-

RREC shall facilitate clearances for the project at the State and Central levels and shall also facilitate PPA with RVPN/concerned DISCOM and grant of loans by IREDA/ PFC/ REC and other term loan Agencies/commercial Banks.

16. Allotment of Sites to eligible producers :

16.1 The Developer will select the site for establishing the Wind Farm, after ascertaining the wind parameters in the wind mast areas mentioned in the Policy. RREC will take all necessary actions for allotting sites to developers, in accordance with procedure approved by GOR.

16.2 The State Government will provide land for the proposed wind farm at 10% of DLC rates on first cum first served basis. The land allotment would be treated as cancelled if the project is not commissioned as per committed schedule, at the sole discretion of RREC.

17. Application processing fee and clearances : -

17.1 The Developer shall deposit an amount of Rs. 25,000/- per MW along with his application towards processing fee, which shall be non-refundable.

17.2 RREC/RVPN/Discom will provide clearances within a period of two months from the date of submission of application.

17.3 If the applicant does not take effective steps to achieve the COD within in the stipulated period, the application/PPA could be terminated by RREC/RVPN, as also the allotment of site.

18. Security Deposit :-

The Developer shall deposit with RREC a refundable amount of Rs. one lac per MW as security deposit towards completion of the project within the stipulated time. The amount could be forfeited by RREC in the event of failure of the developer to adhere to the stipulated schedule of COD.

19. Application :-

The Application format is enclosed for the convenience of the Developer to expedite project approvals.



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APPLICATION FORM FOR SUBMITTING PROPOSALS UNDER THE STATE POLICY FOR PROMOTION OF ELECTRICITY GENERATION FROM WIND ENERGY IN RAJASTHAN

(Please read the policy and the scheme issued there under before filling this application additional sheets may be enclosed in case the space provided under any of the columns is insufficient)

1. Name of the applicant organization
2. State whether you are
 - a) Company registered under Indian Companies Act 1956.
 - b) Co-operative Society
 - c) Any other corporate entity
3. Address
 - I Office:
 - a) Telephone No.
 - b) Fax No.
 - c) Email Address
 - II Residence of MD contact person:
 - a) Telephone No.
 - b) Fax No.
4. In case of any other corporate entity mention list of partners directors owners
5. Whether income tax assessed, if yes, please state the year up to which assessment made (copies of assessment for last three years to be enclosed)
6. If answer to 5 is No, state whether the promoter is an assessee
7. Income tax permanent A/c. No.
8. Present activity / business carried on by the applicant or his firm

9. Give details of the turn over of the organization in the last three years (copies of the profit and loss account and balance sheet to be enclosed)
10. Capacity of the proposed Wind Farm
11. No. of Wind Energy Generators (with capacities) proposed to be installed along with individual capacity of generators
12. Location at which Wind Farm is proposed (only out of eight locations mentioned in the policy)
13. Wind assessment & feasibility report, DPR of proposed site is enclosed (Applications not accompanied with feasibility report will not be entertained). Feasibility report should include site details. Wind assessment data, estimated generation, cash flow analysis including profitability statement, assumptions made etc.
14. Tick the appropriate:
 - a) The power generated from the project would be used for captive consumption.
 - b) The power generated from the project would be used for making sale to the third party.
 - c) The power generated from the project would be sold to the RSEB.
 - d) Any other option
15. Estimated cost of the project proposed
16. How do you propose to raise the required finance for the project
 - a) Equity share capital
 - b) Promoters contribution
 - c) Term Loans

17. Do you envisage any foreign collaboration, if so please furnish the details
18. The time frame within which you plan to take up different activities connected with the project (Please furnish the bar-chart)
19. Please furnish the details of previous experience in the field of wind power generation and or manufacturing of WEGs, or experience in generation of grid quality power.
20. Details of the application fee remitted:
 - a) Amount Rs.
 - b) Demand Draft No.
 - c) Date
21. Can you help access bilateral grants concessional loans for GOR to provide soft loan for your project (if yes give details of the agency and preliminary terms and conditions)
22. Any other relevant information

Signature of applicant
with seal of company

DECLARATION

I / We certify that all information furnished above are true to the best of my / our knowledge and belief. I / We shall abide by such terms and conditions that the Government may impose for allotment of capacity.

Date :

Place :

Signature of applicant
with seal of company