Rajasthan Electricity Regulatory Commission

Vidyut Viniyamak Bhawan, Near State Motor Garage,Sahakar Marg, Jaipur-302001
Phone: 0141-2741299, 2740067, Fax: 0141-2741018, E-mail: rercjpr@yahoo.co.in
website: www.rerc.rajasthan.gov.in

PUBLIC NOTICE

In exercise of powers conferred under Section 61 and Section 62 read with Section 86 and Section 181 of the Electricity Act, 2003 (No. 36 of 2003), and all other provisions enabling it in this behalf, the Rajasthan Electricity Regulatory Commission having framed the following Draft Regulations, invites suggestions/comments from the interested persons before finalizing them.

Rajasthan Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020.

Notice is hereby issued inviting comments/suggestions on the above Draft Regulations from interested persons. The copy of the Draft Regulations may be obtained from the Receiving Officer of the Commission on payment of Rs. 100/-. The Draft Regulations along with Explanatory Memorandum are also available on Commission's website www.rerc.rajasthan.gov.in.

The comments/suggestions, if any, should reach the Receiving Officer of the Commission on or before 14.08.2020.

Secretary

(Not to be published)
No. RERC/Secy./Notice/ Regulation /D Dated:

(B.K.Dosi)
Secretary

RERC

राजस्थान विद्युत विनियामक आयोग

विद्युत विनियामक भवन, स्टेट मोटर गेरेज के पास, सहकार मार्ग,जयपुर–302001
दुरभाष : ई.पी.बी.एक्स 0141–2741299, फैक्स :0141–2741018
ई–मेल रू rercjpr@yahoo.co.in Website: www.rerc.rajasthan.gov.in

सार्वजनिक सूचना

विद्युत अधिनियम, 2003(2003 सं. 36,) की धारा 61 एवं धारा 62 सहपठित धारा 86 एवं धारा 181, एवं अन्य सभी प्रावधान जो इस संदर्भ में इसे सामर्थ्य प्रदान करते हैं, के अंतर्गत राजस्थान विद्युत विनियामक आयोग द्वारा प्रारूप विनियम बनाये गये है। इनको अंतिम रूप देने से पूर्व आयोग द्वारा सभी इच्छुक व्यक्तियों से सुझाव/टिप्पणियां आमंत्रित की जाती हैंः

राजस्थान विद्युत विनियामक आयोग (अक्षय ऊर्जा स्त्रोतों से टैरिफ विनिर्धारण हेतु निबन्धन व शर्तें) विनियम, 2020.

एतद्द्वारा उपरोक्त वर्णित प्रारूप विनियमो की सूचना जारी कर इच्छुक व्यक्तियों से सुझाव/टिप्पणियाँ आमन्त्रित किये जाते हैं.। प्रारूप विनियम मय समर्थन विवरण की प्रतिलिपी आयोग के प्राप्तकर्ता अधिकारी के पास उपलब्ध है जिसे रू 100 का नकद भुगतान कर प्राप्त किया जा सकता है। प्रस्तावित विनियम मय सर्मथक विवरण आयोग की वैबसाईट www.rerc.rajasthan.gov.in पर भी उपलब्ध हैं.

यदि कोई व्यक्ति सुझाव/टिप्पणियाँ देना चाहे तो आयोग के प्राप्तकर्ता अधिकारी को दिनांक 14.08.2020 तक या इससे पूर्व प्रस्तुत कर सकता है।

सचिव

(Not to be published)

(बी.के. दोसी)
सचिव

RAJASTHAN ELECTRICITY REGULATORY COMMISSION

NOTIFICATION (DRAFT)

Jaipur, _____, **2020**

No. RERC/Secy/Reg – ____ **-** In exercise of the powers conferred under Section 61 and Section 62 read with Section 86 and Section 181 of the Electricity Act, 2003 (No. 36 of 2003) and all other powers enabling it in this behalf, the Rajasthan Electricity Regulatory Commission, after previous publication, hereby makes the following Regulations, namely:

Part - I
Preliminary

1 Short title, Extent and commencement

1.1 These Regulations may be called as 'Rajasthan Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2020'.

1.2 These Regulations shall extend to the whole of the State of Rajasthan. These Regulations shall be applicable for determination of tariff in cases covered under these Regulations from April 1, 2020 and onwards up to March 31, 2023:

Provided that for all purposes including review matters pertaining to the period till FY 2019-20, the issues related to determination of tariff shall be governed by the RERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 or RERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 or RERC (Terms and Conditions for Determination of Tariff for Renewable Energy Sources – Wind and Solar Energy) Regulations, 2014 or RERC (Terms and Conditions for Determination of Tariff for Renewable Energy Sources – Biomass, Biogas and Biomass Gasifier Energy) Regulations, 2015, including amendments thereto, as the case may be.

1.3 These Regulations shall come into force on the date of notification of these Regulations and unless reviewed earlier or extended by the Commission and shall remain in force till March 31, 2023 from the date of commencement.

2 Definitions

2.1 In these Regulations, unless the context otherwise requires:

(a) **'Act'** means the Electricity Act, 2003 (36 of 2003), including amendments thereto;

(b) **'Auxiliary Energy Consumption'** means the quantum of energy consumed by auxiliary equipments of the generating station and transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the generating station;

(c) **'Average Annual Demand (in MW)'** means previous financial year consumption (kWh) divided by (1000 x8760)

or where contract demand is applicable, the average annual demand shall be considered equivalent to the 80% of the Contract Demand with Distribution Licensee;

(d) **'Base Rate'** means the one-year Marginal Cost of Funds-based Lending Rate ('MCLR') as declared by the State Bank of India from time to time;

(e) **'Biomass'** means wastes produced during agricultural and forestry operations (for example straws and stalks) or produced as a byproduct of processing operations of agricultural produce (e.g., husks, shells, deoiled cakes, etc.); wood produced in dedicated energy plantations or recovered from wild bushes/weeds; and the wood waste produced in some industrial operations;

(f) **'Biomass Gasification'** means a process of incomplete combustion of biomass resulting in production of combustible gases consisting of a mixture of Carbon Monoxide (CO), Hydrogen (H2) and traces of Methane (CH4), which is called producer gas;

(g) **'Biogas'** means a gas created when organic matter like crop residues, sewage, agro/bio-industrial effluent and manure breaks down in an oxygen-free environment (ferments);

(h) **'COD'** or "Date of Commercial Operation" shall mean the date on which the generating plant is synchronized with the grid system;

(i) **'CERC'** means the Central Electricity Regulatory Commission;

(j) **'Commission'** means the Rajasthan Electricity Regulatory Commission;

(k) **'Control Period'** means a period during which the norms for determination of tariff specified in these Regulations shall remain valid;

(l) **'Existing Generating Station'** means a generating station, which has achieved COD prior to the coming into effect of these Regulations;

(m) **'Extended Period'** means the tariff period of a Renewable Energy Power Plant after the expiry of Power Purchase Agreement;

(n) **"Financial Year"** means a period commencing on 1st April of a calendar year and ending on 31st March of the subsequent calendar year;

(o) **'Floating Solar PV project'** or 'FPV' means a solar PV power project where the arrays of photovoltaic panels on a structure of the project float on top of a body of water, such as artificial basin or lake, with the help of floater, anchoring and mooring system;

(p) **"Generation Tariff"** means tariff for ex- bus supply of electricity from a generating station;

(q) **"Gross Calorific Value"** in relation to a generating station means the heat produced in kilo-calories by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;

(r) **"Gross Station Heat Rate"** means the heat energy input in kilo-calories required to generate one kWh of electrical energy at generator terminals;

(s) **"Inter-connection Point"** means a point at EHV substation of transmission licensee or HV sub-station of distribution licensee, as the case may be, where the electricity produced from the RE generating station is injected into the Rajasthan Grid;

(t) **"MNRE"** means the Ministry of New and Renewable Energy of the Government of India;

(u) **'Municipal solid waste'** or 'MSW' means and includes commercial and residential wastes generated in a municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes, but includes treated bio-medical wastes;

(v) **'Non fossil fuel based co-generation plant'** means a generating station that uses the process in which more than one form of energy (such as steam and electricity) are produced in a sequential manner by use of biomass;

(w) **'New Generating Station'** means a generating station with a COD after coming into effect of these Regulations;

(x) **'Operation and Maintenance Expenses'** or **'O&M Expenses'** means the expenditure incurred on operation and maintenance of the project, and includes the expenditure on manpower, repairs, spares, consumables, insurance and other overheads;

(y) **'Pumped storage hydro project'** means a hydro power project which generates power through water stored as potential energy, pumped from a lower elevation reservoir to a higher elevation reservoir;

(z) **'Refuse derived fuel'** or **'RDF'** means segregated combustible fraction of solid waste other than chlorinated plastics in the form of pellets or fluff produced by drying, de-stoning, shredding, dehydrating, and compacting combustible components of solid waste that can be used as fuel;

(aa) **'Renewable Energy'** or **'RE'** means the energy generated from Renewable Energy Sources;

(bb) **'Renewable Energy Power Plants'** means the power plants other than the conventional power plants generating electricity from Renewable Energy Sources;

(cc) **'Renewable Energy Sources'** means renewable source of energy such as water, wind, sunlight, biomass, bagasse, municipal solid waste and other such sources as approved by the MNRE;

(dd) **'Renewable energy with storage project'** means a combination of renewable energy project with storage or a combination of renewable hybrid energy project with storage at the same point of grid connection brought to the inter-connection point;

(ee) **'Renewable Hybrid Energy Project'** means a renewable energy project that produces electricity from a combination of renewable energy sources, connected at the same point of grid connection brought to the inter-connection point;

(ff) **'Re-powering'** means the process of replacing older wind turbines with newer ones that have either a higher name-plate capacity or higher CUF, which results in a net increase in power generated from the same site;

(gg) **'RRECL'** means Rajasthan Renewable Energy Corporation Limited (RRECL), working as a State Nodal Agency for promoting & developing Non-conventional Energy Sources in the State;

(hh) **'Small Hydro Projects'** means Hydro Power projects with an installed capacity up to and including 25 MW or as defined by the Government of India, from time to time at a single location;

(ii) **'Solar PV power project'** means the Solar Photo Voltaic power project that uses sunlight for direct conversion into electricity through Photo Voltaic technology and is based on technologies such as crystalline silicon or thin film or any other technology as approved by MNRE;

(jj) **'Solar Thermal power project'** means the Solar Thermal power project that uses sunlight for direct conversion into electricity through Concentrated Solar Power technology based on either line focus or point focus principle;

(kk) **'State Load Despatch Centre'** or" SLDC" means the centre established by the State Government for the purpose of exercising the powers and discharging the functions under Section 31 of the Act;

(ll) **'Storage'** means energy storage system utilizing methods and technologies like, Solid State Batteries, Flow Batteries, Pumped Storage, Compressed Air, fuel cells, hydrogen storage or any other technology, to store various forms of energy and to deliver the stored energy in the form of electricity;

(mm) **'Tariff Period'** means the period for which tariff is to be determined by the Commission on the basis of principles and norms specified under these Regulations;

(nn) **'Useful Life'** in relation to a Unit of a generating station shall mean the following duration from the date of commercial operation (COD) of such generation facility, namely:

(a)	Wind energy power project	25 years
(b)	Biomass power project with Rankine cycle technology	25 years
(c)	Non-fossil fuel cogeneration project	25 years
(d)	Small Hydro Plant	40 years
(e)	Municipal Solid Waste (MSW)/ and Refuse Derived Fuel (RDF) based Power project	25 years
(f)	Solar PV/ Floating Solar PV / and Solar thermal power project	25 years
(g)	Biomass Gasifier based power project	25 years
(h)	Biogas based power project	25 years
(i)	Renewable hybrid energy project	Minimum of the Useful Life of different Renewable Energy technologies combined for Renewable Hybrid Energy Project for Composite Tariff as specified in Regulation 82
(j)	Renewable energy with storage project	Same as Useful Life of project assuming that there is no storage

(oo) **'Wheeling'** means the operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to

be determined under Section 62 of the Act;

(pp) **'Year'** means a financial year.

Abbreviations used in these Regulations shall have the meaning as stated in **Annexure-I.**

2.2 The words and expressions used in these Regulations and not defined herein, but defined in the Act or any other Regulations of the Commission, shall have the meaning assigned to them under the Act or any other Regulation of the Commission.

3 Scope of Regulation and extent of application

3.1 These regulations shall apply to those new generating station(s) or unit based on renewable energy sources, which fulfil the following criteria:

(a) are commissioned in the State of Rajasthan for generation and sale of electricity to Distribution Licensee(s) in the State during the Control Period;
(b) are Eligible projects as per eligibility criteria specified in Regulation 4 of these Regulations;
(c) whose tariff is to be determined by the Commission under Section 62 read with Section 86 of the Act:

3.2 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff, if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government, as envisaged under Section 63 of the Act.

3.3 The tariff and other terms and conditions applicable to existing RE projects shall be governed by the provisions of the applicable Regulations or Tariff Orders issued by the Commission from time to time.

3.4 The terms and conditions other than related to tariff determination as specified in these regulations shall also be applicable for Renewable Energy based captive power plants and Renewable Energy plants supplying power to third party under Open Access.

4 Eligibility Criteria

a) Wind power project – The project that uses new wind turbine generators and is located at sites, on-shore or off-shore, approved by RRECL or State Government.

b) Solar PV power project, floating solar PV project and Solar thermal power plant – The project is based on technologies approved by MNRE;

Provided that floating solar project installed with existing renewable energy project other than ground mounted Solar PV project shall be treated as renewable hybrid energy project.

c) Biomass power project based on Rankine Cycle Technology – The Biomass power project using new plant and machinery and having grid connected system that uses Rankine Cycle technology and using biomass fuel sources:

d) Biogas based power project- The project shall qualify to be termed as a Biogas based power project, if it is using new plant and machinery and having grid connected system that uses 100% biogas fired engine or producer gas turbines, coupled with

Biogas technology for co-digesting agriculture residues, manure and other bio waste as approved by MNRE.

e) Biomass Gasifier based power project - The project shall qualify to be termed as a Biomass Gasifier based power project, if it is using new plant and machinery having a grid connected system that uses 100% producer gas engine or turbine, coupled with Gasifier technologies approved by MNRE.

f) Non-fossil fuel based co-generation project – The project that uses new plant and machinery, and is based on topping cycle mode of co-generation;

Topping cycle mode of co-generation – Any facility that uses non-fossil fuel input for the power generation and also utilizes the thermal energy generated for useful heat applications in other industrial activities simultaneously:
Provided that for the co-generation facility to qualify under topping cycle mode, the sum of useful power output and one half the useful thermal output be greater than 45% of the facility's energy consumption, during crushing season.
Explanation- For the purposes of this clause,

a) 'Useful power output' is the gross electrical output from the generator. There will be an auxiliary consumption in the cogeneration plant itself (e.g. the boiler feed pump and the FD/ID fans). In order to compute the net power output, it would be necessary to subtract the auxiliary consumption from the gross output. For simplicity of calculation, the useful power output is defined as the gross electricity (kWh) output from the generator.
b) 'Useful Thermal Output' is the useful heat (steam) that is provided to the process by the cogeneration facility.
c) 'Energy Consumption' of the facility is the useful energy input that is supplied by the fuel (normally bagasse or other such biomass).
d) 'Topping Cycle' means a co-generation process in which thermal energy produces electricity followed by useful heat application.

g) Renewable Hybrid Energy Project – The rated capacity of generation from one renewable energy source is at least 25% of the rated capacity of generation from other renewable energy source(s), which operate at the same point of grid connection brought to the inter-connection point.

Provided that energy is injected into grid at the same interconnection point and metering is done at such common interconnection point accordingly.

h) Small Hydro Project – The project that uses new plant and machinery and is located at sites approved by RRECL or State Government.

i) Municipal Solid Waste based Power Projects – The project uses new plant and machinery based on Rankine cycle technology and uses municipal solid waste as fuel.

j) Refuse derived fuel-based power projects – The project uses new plant and machinery based on Rankine cycle technology and uses refuse derived fuel as fuel.

k) Renewable energy with storage project – The renewable energy project including renewable hybrid energy project that uses, partly or fully, renewable energy generated from such project to store energy into storage facility which is connected at the same point of grid connection brought to the inter-connection point, as the renewable energy project.

l) Renewable Energy Project during extended period- The project shall qualify to be termed as Renewable Energy Project during extended period, when its Power Purchase Agreement has expired and the Distribution Company (s) has agreed to continue availing power from such project at its discretion considering the overall energy requirement, RPO targets and reasonableness of price for procurement of power from such projects (equivalent to or lower than the latest tariff discovered through competitive bidding)

Part -II
General Principles

5 Control Period

5.1 The Control Period under these Regulations shall be of three (3) financial years starting from April 1, 2020:

Provided that the tariff determined as per these Regulations for the RE projects commissioned during the Control Period, shall continue to be applicable for the entire duration of the Tariff Period as specified in Regulation 6 below.

Provided further that the tariff norms specified in these regulations shall continue to remain applicable until notification of the revised norms through subsequent re-enactment of these regulations.

6 Tariff Period

6.1 The Tariff Period for Renewable Energy power projects will be same as their Useful Life as defined in Regulation 2.1 (nn).

6.2 The Tariff Period shall commence from the date of commercial operation of the Generating Station or Unit, as the case may be.

7 Competitive Bidding for procurement of power generated by grid-connected RE Projects

7.1 The tariff shall invariably be determined through a transparent process of competitive bidding in accordance with the Guidelines issued by the Central Government under Section 63 of the Act, inter-alia for the following types of RE Projects:

a) Wind power projects;
b) Solar PV power projects;
c) Solar Thermal power projects;
d) Renewable hybrid energy projects;
e) Renewable with Storage projects:
f) Repowering of Wind Power Projects

7.2 The Commission shall adopt the tariff for a RE Power Project where such tariff has been determined through a transparent process of competitive bidding in accordance with the Guidelines issued by the Central Government under Section 63 of the Act.

Provided that, in case the Competitive Bidding Guidelines for any particular technology are not issued by the Central Government, the Competitive Bidding Guidelines issued for the other technologies issued by the Central Government with suitable deviations approved by the Commission may be followed by Distribution Licensee for procurement of power through competitive bidding.

Provided further for Renewable Energy projects below threshold limit of eligibility specified in Competitive Bidding Guidelines issued by the Central Government, the Competitive Bidding Guidelines issued for that particular technology with suitable deviations approved by the Commission may be followed by Distribution Licensee for procurement of power through competitive bidding.