JOINT ELECTRICITY REGULATORY COMMISSION
(FOR THE UT OF J&K AND THE UT OF LADAKH)
To be published in Extra-Ordinary Part III, Section 4
DRAFT NOTIFICATION

Jammu, the_____2023

No. JERC-JKL/Reg/2023/…… In exercise of the powers conferred under Sections 61, 66 and 86 read with Section 181 of the Electricity Act, 2003 and all other powers enabling it in this behalf, the Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh hereby makes the following Regulations.

Chapter 1

1. Short Title, Commencement and Extent

1.1. These Regulations shall be called the Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh (Terms and Conditions for Tariff Determination for grid-interactive Renewable Energy Sources) Regulations, 2023.

1.2. These Regulations shall come into force from the date of their publication in the Official Gazette.

Chapter 2

2. Definitions

2.1. In these Regulations, unless the context otherwise requires:

1 **"Act"** means the Electricity Act, 2003 (36 of 2003), including amendments thereto;

2 **"Auxiliary Energy Consumption",** means the quantum of energy consumed by auxiliary equipment of the Generating Station and transformer losses within the Generating Station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the Units of the Generating Station: Provided that it shall not include energy consumed for supply of power by the generating Station to its housing colony and other facilities, and for construction works at the generating Station;

3 **"Average Power Purchase Cost"** or **"APPC"** means the weighted average price at which the Distribution Licensee has purchased or is expected to purchase electricity (excluding procurement from RE sources and liquid fuel sources), including the cost of self-generation, if any, as approved by the Commission in the relevant Tariff Order or any other general or specific Order;

4 **"Biogas"** means a gas created when organic matters like crop residues, sewage, and manure break down in an oxygen-free environment;

5 **"Biomass"** means wastes produced during agricultural and forestry operations (such as straws and stalks, etc.) or produced as a by-product of processing operations of agricultural produce (such as husks, shells, de-oiled cakes, etc.); wood produced in dedicated energy plantations or recovered from wild bushes/weeds; and the wood waste produced in some industrial operations;

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

7 **"Capacity Utilisation Factor"** or **"CUF"** means the ratio of actual gross energy generated by the project to the equivalent energy output at its rated capacity over the year;

8 **"CERC"** means the Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Act;

9 **"CERC RE Tariff Regulations"** means the applicable Regulations of the Central Commission governing Renewable Energy ('RE') Tariff determination;

10 **"Commission"** means the Joint Electricity Regulatory Commission for the UT of Jammu & Kashmir and the UT of Ladakh;

11 **"Control Period"** or **"Review Period"** means the period during which the norms for determination of tariff specified in these Regulations shall remain in force and are subject to review after the Control Period (except Capital Cost and Statutory Changes);

12 **"Date of Commissioning"** means the date of commissioning declared by a Generating Company in relation to a Unit of its Generating Station:

Provided that the date of commissioning shall be certified based on joint inspection by RE Generator and concerned Distribution Licensee or SLDC as may be applicable;

13 "**Distribution Company/ Distribution Licensee (Discom in brief)**" means a person granted a Licence under Section 14 (b) of the Act authorizing him to operate and maintain a distribution system and supply electricity to the consumers in its area of supply;

14 **"Eligible Project"** means any of the Renewable Energy Projects with or without Storage as per details given under Clause 4;

15 **"Existing Renewable Energy Plants",** means renewable generating stations, which have achieved COD prior to coming into force of these Regulations;

16 **"Gross Calorific Value" or 'Calorific** Value' in relation to a fuel used in generating station means the heat produced in kilocalories by the 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;

17 **"Installed capacity" or 'IC'** means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals), approved by the Commission from time to time;

18 **"Inter-connection Point"** shall mean the interface point of the renewable energy generating facility with the transmission system or distribution system, as the case may be:

- **i.** in relation to wind energy projects and solar photovoltaic projects, the inter-connection point shall be a line isolator on the outgoing feeder on HV side of the pooling sub-station;
- **ii.** in relation to small hydro power, biomass power, and solar thermal power projects, the inter-connection point shall be the line isolator on the outgoing feeder on HV side of the generator transformer;

19 **"MNRE"** means the Ministry of New and Renewable Energy of the Government of India;

20 **"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 including treated bio-medical wastes;

21 **"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 overheads;

22 **"Plant Load Factor or (PLF**)" in relation to a generating station for a given period means the total sent out energy corresponding to scheduled generation during the period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:

PLF = 10000 x ΣSGi/ {N x IC x (l00-AUXn)} %,

Where,

IC = Installed Capacity of the generating station or unit in MW,

SGi = Scheduled Generation in MWh for the i^{th} time block of the period,

N = Number of time blocks during the period, and

AUXn = Normative Auxiliary Energy Consumption as a percentage of gross energy generation;

23 **"Project"** means a generating station or the evacuation system up to an inter-connection point, as the case may be, and in the case of a small hydro generating station includes all components of the generating facility such as dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation;

24 **"Renewable Energy Power Plants"** means power plants other than the conventional power plants generating grid-quality electricity from renewable energy sources;

25 **"Renewable Energy Sources"** means renewable sources such as small hydro, wind, and solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and other such sources as approved by the MNRE;

26 **"Small Hydro"** means Hydro Power projects with a station capacity up to and including 25 MW;

27 **"Solar PV power"** means the Solar Photo Voltaic power project that uses sunlight for direct conversion into electricity through Photo Voltaic;

28 **"Solar Thermal power"** 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;

29 **"Station Heat Rate" or 'SHR'** means the heat energy input in kilocalories required to generate one kilowatt-hour (kWh) of electrical energy at generator terminals of a thermal generating station;

30 **"Tariff period"** means the period for which tariff is to be determined by the Commission on the basis of norms specified under these Regulations;

31 **"Tariff Order"** in respect of a Licensee means the last order in force issued by the Commission for that Licensee indicating the tariff to be charged by the Licensee from various categories of consumers for supply of electricity;

Explanation: Any Distribution Licensee, Transmission Licensee and generating Units connected to the distribution system and the person availing open access in transmission or distribution system are also included in this term;

32 "Useful Life" in relation to a unit of a generating station including an evacuation system 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	20 years
c)	Small Hydro Plant	35 years
d)	Municipal Solid Waste (MSW)/and	20 years
e)	Solar PV/Solar thermal power project with or without Energy Storage	25 years
f)	Solar Wind Hybrid	25 years
g)	Biomass Gasifier based power project	20 years
h)	Biogas-based power project	20 years

33 "Year" means financial year

2.2. Save as aforesaid and unless repugnant to the context or if the subject matter otherwise requires, words and expressions used in these Regulations and not defined hereunder, but defined in the Act, or other Regulations issued by the Commission shall have the meanings assigned to them respectively in the Act or any other Regulations issued by the Commission.

3. Scope and Extent of Application

3.1 These Regulations shall apply in all cases where tariff for a power generating station or a unit thereof commissioned during the Control Period and based on renewable sources of energy, is to be determined by the Commission under Section 62 read with Section 86 of the Act.

3.2 Provided that in cases of Wind, Small Hydro projects, Biomass power based on the Rankine cycle, Biomass gasifier, Biomass gasifier, Biogas power projects, Biogas power projects, and Municipal Solid Waste, these Regulations shall apply subject to the fulfillment of eligibility criteria specified in Regulation 4 of these Regulations

4. Eligibility Criteria

Tariffs for the following category of Renewable Energy Plants shall be determined under Section 62 of the Act;

4.1 **Wind power project** – using new wind turbine generators, located at the sites approved by the State Nodal Agency/State Government with a **capacity less than 5 MW**;

4.2 **Small hydro project** – located at the sites approved by State Nodal Agency/ State/UT Government using new plant and machinery, and installed power plant capacity to be lower than or **equal to 25 MW** at a single location;

4.3 **Solar PV Power Project** – Based on technologies approved by MNRE with a capacity **less than 5 MW**;

4.4 **Biomass power project based on Rankine cycle technology**- Biomass power projects using new plant and machinery based on Rankine cycle technology and using biomass fuel sources, without the use of fossil fuel;

4.5 **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 and having a Grid connected system that uses 100% producer gas engine, coupled with gasifier technologies approved by MNRE

4.6 **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 a grid-connected system that uses 100% Biogas fired engine, coupled with Biogas technology for co-digesting agriculture residues, manure, and any other biowaste as may be approved by MNRE;

4.7 **Municipal Solid Waste (MSW) based power projects** – The project shall qualify to be termed as a Municipal Solid Waste (MSW) based power project if it is using new plant and machinery based on incineration technology and using Municipal Solid Waste (MSW) as fuel sources;

4.8 Tariff for the following categories of project for which the Central Government has issued guidelines for tariff-based competitive bidding shall be adopted by the Commission under Section 63 of the Act;

a) Wind power projects using new wind turbine generators with a capacity equal to or more than 5 MW;

b) Solar PV projects based on technologies approved by MNRE with capacity equal to or more than 5 MW;

c) Wind Solar Hybrid projects having a capacity equal to 50 MW or more located at the same or different location with new turbine generators/ solar modules approved by the MNRE;

5. General Principles

5.1 Control Period

The Control Period or Review Period under these Regulations shall be of three (3) years starting from the date of the notification of these Regulations, of which the first year shall be the financial year 2023-24 and the last year shall be the financial year 2025-26:

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 revision in Regulations for the next Control Period shall be undertaken prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until the commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations subject to adjustments as per revised Regulations.

6. Tariff Period

6.1 The Tariff Period for Renewable Energy power projects will be as per their Useful Life as defined in Regulation 2.1 (33).

6.2 The Tariff Period under these Regulations shall be considered from the date of commercial operation of the respective Renewable Energy generating plants.

6.3 Tariff determined as per these Regulations shall be applicable for Renewable Energy power projects for the entire duration of the Tariff Period as stipulated under Clause (6.1) and (6.2).

7. Generic Tariff

7.1. The Generic Tariff shall be determined by the Commission in accordance with these Regulations for the following types of projects:

1. Wind Power projects below 5 MW capacity
2. Solar PV projects below 5 MW capacity
3. Small hydro projects up to 25 MW capacity;
4. Biomass power projects including biomass gasifiers;
5. Biogas power projects;

Provided that, in case of special circumstances, the Project Developer may approach the Commission for determination of Project Specific Tariff for the above types of projects.

Provided further that the Generic Tariff determined by the Commission through a Generic Tariff Order shall be excluding the impact of Capital Subsidy:

Provided also that in case any Project under the above types of Projects avails Government Subsidy, the impact of subsidy shall be considered as per provisions given in these Regulations:

Provided also that Financial and Operational norms except Capital Cost, O&M Expenses, and Capacity Utilisation Factor or Plant Load Factor (as applicable) as specified in these Regulations would be the ceiling norms while determining the Project Specific Tariff.

8. Project Specific Tariff

8.1 Project Specific Tariff, on a case-to-case basis, shall be determined by the Commission for the following types of projects:

1 Waste-to-energy projects
2 Solar Thermal
3 Solar Wind Hybrid
4 Any RE projects having energy storage component
5 Any other Renewable Energy technology as approved by the MNRE.

8.2 Determination of Project-specific tariff for generation of electricity from such Renewable Energy sources shall be in accordance with such terms and conditions as stipulated under relevant Orders of the Commission.

No annual generic tariff shall be determined for the technologies mentioned in Clause 8.1 of this Regulation:

8.3 Provided that the Financial and Operational norms as may be specified in these Regulations would be the ceiling norms, suitably adjusted for subsidy amount (if any), while determining the Project Specific Tariff.

9. Petition and proceedings for determination of tariff

9.1 The Commission shall determine the generic tariff at the beginning of each year of the Control Period for Renewable Energy technologies mentioned in Regulation 7 for projects to be commissioned in that year.

9.2 A Petition for determination of Project Specific Tariff shall be filed by the Project developer and shall be accompanied by:

1 Information as applicable, and as appended in these Regulations;
2 Fees for filing the Petition, as applicable;
3 Detailed project report outlining the following:
a. technical and operational details;
b. site-specific aspects;

c. premise for capital cost and financing plan, etc.;
d. A statement of all applicable terms and conditions;
e. expected expenditure for the period for which tariff is to be determined;
f. A statement containing full details of the calculation of any subsidy and incentive received, due, or assumed to be due from the Central Government and/or State Government / Administration;
g. the proposed tariff calculated without consideration of the subsidy and incentive (with working in iterative Excel format).

4 The consent from the Distribution Licensee to procure power at a tariff approved by the Commission in the form of Initialled Energy Purchase Agreement (EPA), Memorandum of Understanding (MoU) or letter from the Distribution Licensee of the area.

5 Any other information that the Commission requires from the Petitioner to submit.

6 The proceedings for determination of tariff shall be in accordance with the applicable (Conduct of Business) Regulations, as amended from time to time.

10. Procurement of Power from Renewable Energy Projects

10.1 For Renewable Energy Technologies, for which the Generic Tariff is determined by the Commission, the JKPCL/Distribution Licensee may procure power from such projects either at the Generic Tariff approved by the Commission or through the competitive bidding process:

Provided that in case the JKPCL/Distribution Licensee opts to procure power from any Renewable Energy Project(s) set up within their licensed area at the Generic Tariff approved by the Commission, the JKPCL/Distribution Licensee shall file the Petition for prior approval of a standard Energy Purchase Agreement for procurement of power from Renewable Energy Project(s);

Provided further that in case the JKPCL/Distribution Licensee opts to procure power from Renewable Energy Projects through a competitive bidding process, the Generic Tariff determined by the Commission shall act as a ceiling tariff, and for such procurement of power, the Distribution Licensee shall file the Petition for adoption of tariff under Section 63 of the Act.

For Renewable Energy Projects, for which the Project Specific Tariff is determined by the Commission or tariff is adopted under Section 63 of the Act, the JKPCL/Distribution Licensees shall file the Petition for prior approval of the Energy Purchase Agreement for procurement of power from such Renewable Energy Project(s):

Provided that in case the Project Developer and JKPCL/Distribution Licensee opt to file the Petition for approval of EPA and determination of tariff, the Project Developer and JKPCL/Distribution Licensee shall file a Joint Petition in this regard.

10.2 The JKPCL/Distribution Licensee shall comply with all the statutory and regulatory provisions for procurement of power from Renewable Energy Projects, as applicable from time to time.

10.3 All Renewable Energy power plants shall be treated as 'Must Run' power plants and procurement of power by JKPCL/Distribution Licensee from such power plants shall not be subjected to 'Merit Order Despatch' principles.

11. Tariff Structure

11.1 The tariff for Renewable Energy technologies shall be a single-part tariff consisting of the following fixed-cost components:

a. Operation and maintenance expenses;
b. Interest on loan capital;
c. Depreciation;
d. Interest on working capital;
e. Return on equity:

Provided that for Renewable Energy technologies like biomass power projects, biomass gasifiers, and biogas power projects having fuel cost components, single-part tariff with two components, fixed cost component and fuel cost component, shall be determined.

12. Tariff Design

12.1 The generic tariff shall be determined considering the year of commissioning of the project, on a levelized basis for the Tariff Period:

Provided that for Renewable Energy technologies having a single-part tariff with two components, the tariff shall be determined on a levelized basis considering the year of commissioning of the project for the fixed cost component while the fuel cost component shall be determined on the basis of year of operation (i.e. financial

year wise). The fuel cost for each financial year shall be applicable for all projects operational during the year, irrespective of its date of commissioning.

12.2 For the purpose of levelized tariff computation, the discount factor equivalent to Post Tax weighted average cost of capital shall be considered and Levelization shall be carried out for the 'useful life' of the Renewable Energy project.

12.3 The above principles shall also apply for project-specific tariff.

Chapter 3: Financial Principles

13. Capital cost

Norms for capital cost, as specified in relevant chapters of these regulations, shall be inclusive of land cost, pre-development expenses, all capital work including plant & machinery, civil work, erection, commissioning, financing cost, interest during construction, and evacuation infrastructure up to inter-connection point.

14. Debt Equity Ratio

14.1 For determination of generic tariff and project-specific tariff, the debt-equity ratio shall be considered as 70:30:

Provided that, for project-specific tariff, where the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan;

Provided further that for project specific tariff where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff;

Provided also that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;

Provided also that the debt-equity ratio shall be considered after deducting the amount of grant or capital subsidy received for the project to arrive at the amount of debt and equity.

Explanation-The premium, if any, raised by the generating company, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid-up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the renewable energy project.

14.2 The project developer shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding the infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the renewable energy project.

15. Loan and Finance Charges

15.1 Loan Tenure

For the determination of generic tariff and project-specific tariff, loan tenure of 15 years shall be considered.

15.2 Interest on Loan

1 The loans arrived at in the manner indicated in Regulation 14 shall be considered as gross normative loan for calculation for interest on loan. For project-specific tariff, the normative loan outstanding as on 1st of April of every year shall be worked out by deducting the cumulative repayment up to 31st March of previous year from the gross normative loan.

2 For the purpose of computation of tariff, normative interest rate of two hundred (200) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months shall be considered.

3 Notwithstanding any moratorium period availed by project developer, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

16. Depreciation

16.1 The value base for the purpose of depreciation shall be the capital cost of the project admitted by the Commission. The salvage value of the project shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the project:

16.2 Depreciation rate of 4.67% per annum shall be considered for the first 15 years and remaining depreciation shall be evenly spread during remaining Useful Life of the project.

16.3 Depreciation shall be computed from the first year of commercial operation:

Provided that, for determination of project-specific tariff, in case of commercial operation of the project for part of the year, depreciation shall be computed on a pro-rata basis.

Provided that, no depreciation shall be allowed to the extent of grant or capital subsidy received for the project.

17. Return on Equity

17.1. The value base for equity shall be as determined under Regulation 14.

17.2. The normative Return on Equity shall be 14%. The normative Return on Equity shall be grossed up by the latest available notified Minimum Alternate Tax (MAT) rate for the first 20 years of the Tariff Period and by the latest available notified Corporate Tax rate for the remaining Tariff Period.

18. Interest on Working Capital

18.1 The Working Capital requirement in respect to wind power projects, small hydro projects, solar PV power projects, floating solar projects, solar thermal power projects, and renewable energy with storage projects shall be computed in accordance with the following:

a) Operation and Maintenance expenses for one month;

b) Receivables equivalent to 45 days of tariff for the sale of electricity calculated on normative Capacity Utilization Factor or Plant Load Factor, as the case may be; and

c) Maintenance spares equivalent to 15% of Operation and Maintenance expenses

18.2 The Working Capital requirement in respect of biomass power projects with Rankine cycle technology, biogas power projects, biomass gasifier-based power projects, non-fossil fuel-based co-generation projects, municipal solid-waste based power projects, and refuse-derived fuel-based power projects shall be computed in accordance with the following:

a) Fuel costs for four months equivalent to normative Plant Load Factor;

b) Operation and Maintenance expenses for one month;

c) Receivables equivalent to 45 days of tariff for the sale of electricity calculated on the plant load factor; and

d) Maintenance spares equivalent to 15% of Operation and Maintenance expenses.

18.3 In the case of renewable hybrid energy projects, the Working Capital requirement shall be the sum of the Working Capital requirement determined as per norms applicable for renewable energy sources, in proportion to their rated capacity in the project.

18.4 Interest on Working Capital shall be at an interest rate equivalent to the normative interest rate of three hundred and fifty (350) basis points above the average State Bank of India Marginal Cost of Funds based Lending Rate (MCLR) (one-year tenor) prevalent during the last available six months.

19. Calculation of capacity utilization factor and plant load factor:

The number of hours in a year for calculation of the capacity utilization factor and plant load factor, as the case may be, shall be considered as 8760.

20. Operation and Maintenance Expenses

20.1 Operation and Maintenance expenses shall be determined for the Tariff Period of the project based on normative O&M expenses specified in these regulations for the first year of the Control Period.

20.2 Normative O&M expenses allowed during the first year of the Control Period under these regulations shall be escalated at the rate of 3.84% per annum for the Tariff Period.

21. Rebate

21.1 For payment of bills of the generating company through revolving and valid letter of credit on presentation or through National Electronic Fund Transfer (NEFT) or Real Time Gross Settlement (RTGS) payment mode within a period of 5 days of presentation of bills, a rebate of 1.5% on bill amount shall be allowed.

Explanation: In case of computation of '5 days', the number of days shall be counted consecutively without considering any holiday. However, in case the last day or 5th day is official holiday, the 5th day for the purpose of rebate shall be construed as the immediate succeeding working day.

21.2 Where payments are made on any day after 5 days within a period of one month from date of presentation of bills by the generating company, a rebate of 1% shall be allowed.

22. Late payment surcharge

In case the payment of any bill for charges payable under these regulations is delayed beyond a period of 45 days from the date of presentation of bills, a late payment surcharge at the rate of 1.50% per month shall be levied by the generating company.

23. Subsidy or incentive by the Central or the State Government

23.1 The Commission shall take into consideration any incentive, grant or subsidy from the Central or State Government, including accelerated depreciation benefit, availed by the project, while determining the tariff under these regulations:

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated depreciation, if availed, for the purpose of tariff determination:

a) Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate and corporate

income tax rate as per relevant provisions of Income Tax Act, 1961 as amended from time to time; and

b) Capitalization of renewable energy projects during second half of the fiscal year.

c) Per unit benefit shall be derived on levelized basis at discount factor equivalent to weighted average cost of capital.

23.2 Any grant, subsidy or incentives availed by renewable energy project, which is not considered at time of determination of tariff, shall be deducted by the beneficiary in subsequent bills after receipt of such grant, subsidy or incentive in suitable instalments or within such period as may be stipulated by the Commission.

24. Statutory Charges

The renewable energy project developer shall recover from the beneficiaries, the statutory charges imposed by the State and Central Government such as water cess, electricity duty on auxiliary consumption subject to maximum of normative auxiliary consumption.

Chapter 4: Technology-specific Parameters for Wind Energy Projects

25. Capital Cost

25.1. The Capital Cost for Wind Energy Projects shall include the Wind Turbine Generator including its auxiliaries, land cost, site development charges and other civil works, transportation charges, evacuation cost up to inter-connection point, financing charges and Interest during Construction, and capital investment relating to forecasting and scheduling. The normative Capital cost for the Wind Energy Projects for the control period shall be as given in the table below:

UT	Normative Capital Cost (Cr/MW)
J&K	6.5
Ladakh	7.0

25.2. The Capital Cost specified above will remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission

26. Capacity Utilisation Factor

The normative Capacity Utilization Factor (CUF) for the wind power project in the UT of J&K and the UT of Ladakh shall be 35% as per India's Wind Power Atlas published by NIWE

27. Operation and Maintenance Expenses

27.1. The normative O&M expenses for the base year of the control period shall be Rs. 9 lakhs per MW, for the purpose of tariff determination.

27.2. The normative O&M expenses for subsequent years shall be derived considering 3.84% escalation per annum.

Chapter 5: Technology specific parameters for Solar PV Projects

28. Capital Cost

28.1 The normative Capital Cost for Solar PV projects shall be as follows:

UT	Normative Capital Cost (Cr/MW)
J&K	6.0
Ladakh	6.5

28.2 The Capital Cost specified above will remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

29. Capacity Utilisation Factor

The normative CUF for Solar PV Projects in UTs shall be as given below

UT	Normative Capacity Utilization Factor
J&K	18%
Ladakh	21%

30. Auxiliary Consumption

Normative Auxiliary Consumption for small hydro projects shall be 0.25%.

31. Operation and Maintenance Expenses

31.1. The normative O&M Expenses for the first year of the Control Period, shall be as given below:

UT	O&M expenses (Lakh/MW)
J&K	9.75
Ladakh	14

31.2. The normative O&M expenses for subsequent years shall be derived considering 3.84% escalation per annum.

Chapter 6: Technology specific parameters for Small Hydro Project

32. Capital Cost

32.1. The normative Capital Cost for small hydro projects shall be as follows:

UT	Below 5 MW	5MW to 25 MW
J&K	11 Cr/MW	10 Cr/MW
Ladakh	12 Cr/MW	11 Cr/MW

32.2. The Capital Cost specified above will remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

33. Capacity Utilisation Factor

CUF for Small Hydel Projects shall be 40%.

34. Auxiliary Consumption

Normative Auxiliary Consumption for small hydro projects shall be 1.0%.

35. Operation and Maintenance Expenses

35.1. The normative O&M Expenses for the first year of the Control Period, shall be as given below

	O&M expenses for first year of control period	
UT	Below 5 MW (Lakh/MW)	5MW to 25 MW (Lakh/MW)
J&K	41.78	31.34
Ladakh	41.78	31.34

35.2. The normative O&M expenses for subsequent years shall be derived considering 3.84% escalation per annum.

Chapter 7: Technology specific parameters for Biomass Power Projects based on Rankine Cycle Technology

36. Capital Cost

The normative Capital Cost shall be Rs. 6.25 Cr/MW.

37. Plant Load Factor

37.1. PLF for determining fixed charge component of Tariff shall be:

1. During 1st year: 70%;
2. From 2nd Year onwards: 80%

38. Auxiliary Consumption

38.1. The auxiliary power consumption factor shall be as follows: -

1. During first year of operation: 11%
2. From 2nd year onwards: 10%

39. Station Heat Rate

The Station Heat Rate for Biomass Power projects shall be 4200 kcal/kWh.

40. Operation and Maintenance Expenses

40.1. The normative O&M expenses for the first year of the Control Period shall be 5% of the capital cost for first year.

40.2. The normative O&M expenses for subsequent years shall be escalated at the rate of 3.84% per annum.

41. Fuel Mix, Fuel Price, and Calorific Value

41.1. The Biomass Power plant shall be designed in such a way that it uses different types of non-fossil fuels available within the vicinity of the Biomass Power project such as crop residues, agro-industrial residues, forest residues, etc., and other biomass fuels as may be approved by MNRE.

41.2. The Biomass Power Generating Companies shall ensure fuel management plan to ensure adequate availability of fuel to meet the respective project requirements.

41.3. The Biomass Fuel Price of Rs 3921.59/tonne and Calorific Value of 3100 kcal/kg shall be considered by the Commission.

41.4. Biomass fuel price at the time of determination of tariff may be approved by the Commission based on an independent study, if required, to be carried out by constituting an UT level committee consisting of representatives of Nodal Agency, State Government, Distribution Licensees, biomass power producers' association and any other organization.

42. Use of Fossil Fuel

The use of fossil fuels shall not be considered.

Chapter 8- Technology specific parameters for Biomass Gasifier Power Projects

43. Capital Cost

The normative Capital Cost shall be Rs. 5.93 Cr/MW.

44. Plant Load Factor

The Threshold PLF for determining the fixed charge component of the tariff shall be 85%.

45. Auxiliary Consumption

The auxiliary power consumption factor shall be 10% for the determination of the tariff.

46. Operation and Maintenance Expenses

46.1. The normative O&M expenses for the first year of the Control Period shall be 10% of the capital cost for the first year.

46.2. The normative O&M expenses for subsequent years shall be escalated at the rate of 3.84% per annum.

47. Fuel Mix, Fuel Price and Specific Fuel Consumption

47.1. The Biomass Gasifier Power plant shall be designed in such a way that it uses different types of non-fossil fuels available within the vicinity of biomass power project such as crop residues, agro-industrial residues, forest residues, etc., and other biomass fuels as may be approved by the MNRE.

47.2. The Biomass Gasifier based Power Generating Companies shall ensure fuel management plan to ensure adequate availability of fuel to meet the respective project requirements.

47.3. The Biomass Fuel Price of Rs 3921.59/tonne shall be considered by the Commission.

47.4. Normative specific fuel consumption shall be 1.25 kg per kWh for Biomass Gasifier based power project.

47.5. Biomass fuel price at the time of determination of tariff may be approved by the Commission based on an independent study if required, to be carried out by constituting a State/ UT level committee consisting of representatives of State/UT Nodal Agency, State Government, Distribution Licensees, biomass power producers' association and any other organization.

48. Use of Fossil Fuel

The use of fossil fuels shall not be considered.

49. Monitoring Mechanism for the use of fuel

49.1. The Project Developer shall furnish a monthly fuel usage statement and monthly fuel procurement statement duly certified by Chartered Accountant/Cost Accountant to the beneficiary (with a copy to appropriate agency appointed by the Commission for the purpose of monitoring the fuel consumption) for each month, along with the monthly energy bill.

49.2. Non-compliance with the condition of fossil fuel usage by the Project Developer during any financial year, shall result in withdrawal of applicability of tariff as per these Regulations for such Biomass Power project.

Chapter 9: Technology specific parameters for Biogas based Power Projects

50. Capital Cost

The normative Capital Cost shall be Rs. 11 Cr/MW.

51. Plant Load Factor

Threshold PLF for determining fixed charge component of Tariff shall be 90%.

52. Auxiliary Consumption

The auxiliary power consumption factor shall be 12% for the determination of tariff.

53. Operation and Maintenance Expenses

53.1. The normative O&M expenses for the first year of the Control Period shall be 5% of the capital cost for first year.

53.2. The normative O&M expenses for subsequent years shall be escalated at the rate of 3.84% per annum.

54. Fuel Cost (Feed stock Price) and Specific Fuel Consumption

54.1. The Feed stock Price of Rs 1567/tonne shall be considered by the Commission.

54.2. Normative specific fuel consumption shall be 3 kg per kWh for Biogas based power project.

Chapter 10: Miscellaneous

55. Deviation from norms

Tariff for sale of electricity generated from a generating plant based on Renewable Energy sources may also be agreed between a generating company and a licensee, in deviation from the norms specified in these Regulations subject to the conditions that the levelized tariff over the useful life of the project on the basis of

the norms in deviation does not exceed the levelized tariff calculated on the basis of the norms specified in these Regulations.

56. Power to Relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the Parties likely to be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

57. Power to Remove Difficulties

In case of any difficulty arising while giving effect to the provisions of these Regulations, the Commission may either suo-motu or on a Petition, by an order, make such provisions not inconsistent with the provisions of the Act as may appear to be necessary for removing the difficulty.

58. Power to amend

The Commission may at any time add, vary, alter, suspend, modify, amend or repeal any of the provisions of these Regulations.

By Order of the Commission.

V.K. Dhar, (JKAS)
Secretary, JERC
J&K and Ladakh