ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION
Vidyut Niyantrana Bhavan, Adjacent to 220/132/33 KV AP Carbides SS,
Dinnedevarapadu Road, Kurnool - 518 002, Andhra Pradesh.
Phones: 08518 - 294823,24,25,26

Draft Regulation

The Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025.

Regulation .....of 2025

Preamble

Section 62 and Section 86 (1) (b) of the Electricity Act, 2003 (for short **"the Act**"), require the Commission to determine the tariff for supply of electricity by a generating company to a distribution licensee and to regulate electricity purchase and procurement process of distribution licensee including the price at which electricity shall be procured, from the generating companies or licensee or from other sources through agreements for purchase of power for distribution and supply within the State. Section 61 of the Act requires the Commission to specify the terms and conditions for such determination of tariff. Accordingly, the Commission issued Regulation 1 of 2008, the Andhra Pradesh Electricity Regulatory Commission (Terms and conditions for determination of tariff for supply of electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensees) Regulation, 2008. This Regulation is applicable to all generating companies supplying or intending to supply electricity to a Distribution Licensee,

and all Distribution Licensees for the purchase of electricity from generating companies, other licensees, including trading licensees, captive generating plants and any other source. However, this Regulation states that the determination of tariff for supply of electricity to a distribution licensee from non-conventional sources of generation shall be in accordance with such terms and conditions as stipulated in relevant separate Orders of the Commission. The above Regulation was adopted by this Commission by APERC (adaptation) Regulation 2014.

Whereas the Commission issued Regulation 1 of 2015, the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff determination for Wind Power Projects) Regulations, 2015, for FY2015-16 to FY2019-20. However, the Commission by Order dated 13.07.2018 in OP.No.5 of 2017 has curtailed the applicable period from 5 years to 2 years and the Regulation ceased to be in force from 01.04.2017 keeping in view the falling wind power prices, the competitive bidding guidelines issued by the Government of India for wind power procurement under Section 63 and consumer's interest. However, the Commission held that the DISCOMS may procure power from wind power projects in accordance with Sections 61, 62, 64 and 86 (1) (b) of the Electricity Act, 2003 and Sections 21 and 26 of the Andhra Pradesh Electricity Reform Act, 1998 and rules, regulations, practice directions and orders issued there under until an appropriate regulation in that behalf is made by this Commission and any Power Purchase Agreement or tariff thereunder for such procurement shall be guided by the principles contained in the provisions of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2017.

Whereas the Hon'ble APTEL in its Order dated 08.03.2022 in Appeal No.250 of 2014 & batch, inter alia, has directed APERC & TGERC to initiate a study for determining the normative parameters for Biomass and Bagasse based Power Plants under their jurisdiction and located in the State of Andhra Pradesh and Telangana and frame Tariff Regulation as per directions given in the said Order.

Whereas the Hon'ble Supreme Court in its judgement dated 23.11.2022 in Civil Appeal No. 1933 of 2022, the TATA Power Company Limited Transmission Vs Maharashtra Electricity Regulatory Commission & Ors, inter alia, affirmed that *"Sections 62 and 63 stipulate the modalities of tariff determination. The non-obstante clause in Section 63 cannot be interpreted to mean that Section 63 would take precedence over Section 62 at the stage of choosing the modality to determine the tariff. The criteria or guidelines for the determination of the modality of tariff determination ought to be notified by the Appropriate State Commission either through regulations under Section 181 of the Act or guidelines under Section 61 of the Act*". The Hon'ble Supreme Court also directed SERCs *"to frame Regulations under Section 181 of the Act on the terms and conditions for determination of tariff. While framing these guidelines on determination of tariff, the Appropriate Commission shall be guided by the principles prescribed in Section 61, which also includes the NEP and NTP. Where the Appropriate Commission(s) has already framed regulations, they shall be amended to include provisions on the criteria for choosing the modalities to determine the tariff, in case they have not been already included. The Commissions, while being guided by the principles contained in Section 61, shall effectuate a balance that would create a sustainable model of electricity regulation in the States.* ***The Regulatory Commission shall curate to the specific needs of the State while framing these regulations.*** *Further, the regulations framed must be in consonance with the objective of the Electricity Act 2003, which is to enhance the investment of private stakeholders in the electricity regulatory sector so as to create a sustainable and effective system of tariff determination that is cost-efficient so that such benefits percolate to the end consumers."*

Whereas paragraph 6.4 (2) of the National Tariff Policy 2016 issued by the Government of India under Section 3 of the Act states that "*the States shall endeavour to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste-to-energy plants. Procurement of*

power by Distribution Licensee from renewable energy sources from projects above the notified capacity shall be done through competitive bidding process, from the date to be notified by the Central Government. However, till such notification, any such procurement of power from renewable energy sources projects may be done under Section 62 of the Electricity Act, 2003. While determining the tariff from such sources, the Appropriate Commission shall take into account the solar radiation and wind intensity, which may differ from area to area to ensure that the benefits are passed on to the consumers."

Whereas the Government of Andhra Pradesh, through the Special Chief Secretary Energy Department, by letter dated 05.02.2025 inter alia has informed the Commission that "*the Government of Andhra Pradesh through the AP ICE Policy, 2024 has been committed to promoting sustainable and clean energy solutions to meet the growing energy demands while minimising environmental impact. The AP ICE Policy, 2024 aims to enhance the adoption of renewable energy sources and ensure the reliable and affordable supply of electricity to all consumers.*" The letter further communicated that *"under Section 108 of the Electricity Act, 2003, the State Government is empowered to issue policy directions to the State Electricity Regulatory Commission in matters involving public interest. Invoking this provision, the Government of Andhra Pradesh requests the Andhra Pradesh Electricity Regulatory Commission (APERC) to adopt the Andhra Pradesh Integrated Clean Energy Policy, 2024, and undertake the necessary regulatory amendments to facilitate its seamless implementation.*" The GoAP, also requested the APERC to *"determine the tariff in accordance with Section 62 of the Electricity Act Act, 2003 for various technologies i.e. Solar, Wind, Wind-Solar Hybrid projects and PSP projects, Mini and Small Hydro Projects without imposing any ceiling on Capacity Utilization Factor (CUF) or Plant Load Factor (PLF) and such determined tariff shall be applicable for all such projects that will come up during the operative period (5 years from the date of issuance of the policy) of the Integrated Clean Energy Policy.*"

Whereas under Section 61 of the Act, the SERCs shall, subject to the provisions of the Act, specify the terms and conditions for the determination of tariff, and in doing so, inter alia, shall be guided by the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

In light of the above, in exercise of powers conferred under Sections 61, 62, 86(1)(b) read with Section 181 (2) (zd) of the Electricity Act, 2003, and all other powers enabling in this behalf, the Andhra Pradesh Electricity Regulatory Commission hereby makes the following draft Regulation, namely:

1. Short title and commencement

(1) These regulations may be called the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2025.

(2) These Regulations shall extend to the whole of the State of Andhra Pradesh

(3) These regulations shall come into force on the date of its publication in the Andhra Pradesh Gazette, and, unless reviewed earlier or extended by the Commission, shall remain in force up to 31.03.2030.

2. Definitions and Interpretation

(1) In these regulations, unless the context otherwise requires,

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

b) '**Auxiliary energy consumption**' or '**AUX**' in relation to a period in the case of a generating station 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;

c) **'Biomass'** means wastes produced during agricultural and forestry

operations (for example, straws and stalks) or produced as a by-product of processing operations of agricultural produce (e.g., husks, shells, de-oiled cakes); wood produced in dedicated energy plantations or recovered from wild bushes or weeds; and the wood waste produced in some industrial operations; including such other wastes as may be recognised by the Central Government, as being part of biomass;

d) **'Biomass gasification'** means the 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);

e) **'Biogas'** means a gas produced when organic matter like crop residues, sewage, and manure breaks down (ferments) in an oxygen-free environment;

f) **'Capital cost'** means the capital cost of a project as referred to in Regulations 11, 23, 26, 30, 38, 45, 49, 55, 61, 66, 70 and 74;

g) '**Commission**' means the Andhra Pradesh Electricity Regulatory Commission referred to in sub-section (1) of section 86 of the Act;

h) **'Conduct of Business Regulations'** means the Andhra Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, or any subsequent amendment thereof;

i) **'Control Period'** means the period during which the norms for the determination of tariff specified in these regulations shall remain valid;

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

k) **'Grid Code'** means the Indian Electricity Grid Code Regulations, 2023, issued by CERC as amended from time to time or any subsequent

re-enactment thereof;

l) **'Gross calorific value'** or **'GCV'** in relation to a fuel used in a generating station means the heat produced in kCal by the complete combustion of one kilogram of solid fuel, or one litre of liquid fuel or one standard cubic metre of gaseous fuel, as the case may be;

m) **'Gross station heat rate'** or **'Gross SHR'** means the heat energy input in kCal required to generate one kWh of electrical energy at the generator terminals of a generating station;

n) **'Installed capacity**' or '**IC'** means the summation of the nameplate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals). In the case of solar PV power projects and floating solar projects, installed capacity shall be the sum of the nameplate capacities (Nominal AC power) of the project inverters.

o) **'Inter-connection point'** shall mean the interface point of a renewable energy generating facility with the transmission system or distribution system, where the energy is injected, as the case may be, and include:

i. In relation to wind power projects, solar PV power projects, renewable hybrid energy projects and renewable energy with storage Projects, a line isolator on the outgoing feeder on the HV side of the pooling sub-station; and

ii. In relation to small hydro projects, biomass gasifier-based power projects, non-fossil fuel-based cogeneration projects, and solar thermal power projects, a line isolator on the outgoing feeder on the HV side of the generator transformer.

p) **'MNRE'** means the Ministry of New and Renewable Energy of the Government of India;

q) **'Municipal solid waste'** or **'MSW'** means and includes commercial and

residential wastes generated in a municipal or notified area in either solid or semi-solid form, and excludes industrial hazardous wastes, but includes treated bio-medical wastes;

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

s) **'Operation and Maintenance expenses'** or **'O&M expenses'** means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;

t) '**Project**' means a generating station or an evacuation system up to an inter-connection point, as the case may be, and in the case of a small hydro project, includes all components of the generating facility such as a dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation;

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

v) **'Refuse derived fuel'** or **'RDF'** means a 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;

w) **'Renewable energy'** or **'RE'** means the electricity generated from renewable energy sources;

x) **'Renewable energy project'** means a generating station that produces electricity from renewable energy sources;

y) **'Renewable energy source'** means and includes sources of renewable energy such as hydro, wind, and solar, including their integration with combined cycle, biomass, biofuel cogeneration, urban or municipal waste, and such other sources as recognised or approved by the Central Government ;

z) **'Renewable energy with storage project'** means a combination of renewable energy projects with storage or a combination of renewable hybrid energy projects with storage at the same interconnection point;

aa) **'Renewable hybrid energy project'** means a renewable energy project that produces electricity from a combination of renewable energy sources connected at the same interconnection point;

bb) **'Small hydro project'** means a hydropower project 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;

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

dd) **'Solar thermal power project'** means a project that uses sunlight for direct conversion into electricity through concentrated solar power technology and is based on line focus or point focus principle;

ee) **'State Nodal Agency'** means the agency in a State as may be designated by the Ministry of New and Renewable Energy to promote efficient use of renewable energy in that State;

ff) **'Storage'** means an energy storage system utilising 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;

gg) **'Tariff period'** for renewable energy projects will be the same as their Useful Life, and the tariff period shall be considered from the date of commercial operation of such power projects.

hh) **'Useful Life'** in relation to the project, including a dedicated evacuation system, from the date of commercial operation of such project, shall mean the following: -

i	Wind power project	25 years
ii	Biomass power project with Rankine cycle technology	25 years
iii	Non-fossil fuel-based cogeneration project	25 years
iv	Small hydro Project	40 years
v	Municipal solid waste-based power project / Refuse-derived fuel - based power project	20 years
vi	Solar PV power / Floating solar project/Solar thermal power project	25 years
vii	Biomass gasifier-based power project	25 years
viii	Biogas-based power project	25 years
ix	Renewable hybrid energy project	Minimum of the Useful Life of different RE technologies combined for Renewable Hybrid Energy Project for Composite Tariff as specified under Regulation 69.
x	Renewable energy with storage project	Same as the Useful Life of the project, assuming that there is no storage
xi	Pumped Storage Power(PSP) Project	40 Years

ii) **'Year'** means a financial year.

(2) Words and expressions used and not defined in this Regulation but defined in the Act shall have the meanings assigned to them in the Act. Expressions used herein but not specifically defined in this Regulation or in the Act but defined under any law passed by a competent legislature and applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

3. Scope and extent of application

The Licensees shall preferably endeavour to procure energy from all renewable energy sources as per the Ministry of Power/MNRE, the Government of India, notified competitive guidelines under section 63 of the Act wherever applicable. However, in all cases, these regulations shall apply where the tariff, for a grid-connected generating station or a unit thereof commissioned during the Control Period and based on renewable energy sources, is to be determined by the Commission under Section 62, read with Section 86 of the Act:

Provided that in cases of wind power projects, small hydro projects, biomass power projects with Rankine cycle technology, non-fossil fuel based co-generation projects, solar PV power projects, floating solar projects, solar thermal power projects, renewable hybrid energy projects, renewable energy with storage projects, biomass gasifier based power projects, biogas based power projects, municipal solid waste based power projects, refuse derived fuel based municipal solid waste power projects, and pumped storage power (PSP) projects, these regulations shall apply subject to the fulfilment of eligibility criteria specified in Regulation 4 of these Regulations.

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 the State Nodal Agency or Appropriate Government.

b) Small hydro project – The project that uses new plant and machinery and is located at sites approved by the State Nodal Agency or Appropriate Government.

c) Biomass power project with Rankine cycle technology – The project that uses new plant and machinery, is based on Rankine cycle technology and does not use any fossil fuel.

d) Non-fossil fuel based co-generation project – The project that uses new plant and machinery and is based on the topping cycle mode of co-generation.

Topping cycle mode of cogeneration – Any facility that uses non-fossil fuel input for power generation and also utilises the thermal energy generated for useful heat applications in other industrial activities simultaneously:

Provided that for the cogeneration facility to qualify under topping cycle mode, the sum of useful power output and one-half the useful thermal output must be greater than 45% of the facility's energy consumption during the crushing season. Explanation- For the purposes of this clause,

(a) **'Useful power output'** is the gross electrical output from the generator. The cogeneration plant will have an auxiliary consumption (e.g., the boiler feed pump and the FD/ID fans). 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 generator's gross electricity (kWh) output.

(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 cogeneration process in which thermal energy

produces electricity, followed by a useful heat application.

e) Solar PV power project, floating solar project, and solar thermal power project—The projects are based on technologies approved by MNRE.

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

f) Renewable hybrid energy project – The rated capacity of generation from one renewable energy source is at least 25% of the rated power capacity of the other resource, which operates at the same point of interconnection:

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

Provided further that each 1 (one) MW of contracted Wind Solar Hybrid Project shall achieve a minimum CUF of 40%.

g) Biomass gasifier-based power project—The project uses new plant and machinery and has a grid-connected system that uses a 100% producer gas engine coupled with gasifier technologies approved by MNRE.

h) Biogas-based power project—The project uses new plant and machinery and has a grid-connected system that uses a 100% biogas-fired engine, coupled with biogas technology for co-digesting agriculture residues, manure, and other biowaste, as approved by MNRE.

i) Municipal solid waste-based power projects—The project uses new plant and machinery based on Rankine cycle technology and municipal solid waste as fuel.

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

k) Renewable energy with storage project—This includes a renewable hybrid energy project that uses, partly or fully, renewable energy generated from such a project to store energy in a storage facility connected at the same point of interconnection as the renewable energy project.

Chapter 1: General Principles

5. Control Period

The Control Period under these Regulations shall be from 01.04.2025 to 31.03.2030:

The tariff determined as per these regulations for the RE projects commissioned during the Control Period shall remain valid for the tariff period. Further, the tariff norms specified in these regulations shall remain applicable subject to such conditions as may be stipulated by the Commission until notification of the revised norms through subsequent re-enactment of these regulations.

6. Project-specific tariff

The Commission shall determine the project-specific tariff on a case-by-case basis. The financial and operational norms specified in these regulations, except for capital cost, shall be the ceiling norms while determining the project-specific tariff.

7. Petition and proceedings for the determination of the tariff

(1) A petition for determination of project-specific tariff shall be accompanied by such fee as may be specified in the Andhra Pradesh Electricity Regulatory Commission (Payment of Fees) Regulations, 2012, as amended from time to time or any subsequent re-enactment thereof, and shall be accompanied by:

a) Information in forms 1.1, 1.2, 2.1, 2.2 and 2.3, as the case may be, as appended to these regulations;

b) Detailed project report outlining technical and operational details, site-specific aspects, basis for capital cost, detailed break-up of capital cost and financing plan;

c) A statement of all applicable terms and conditions and anticipated expenditure for the period for which the tariff is to be determined;

d) A statement containing details of the calculation of any grant, subsidy, or

incentive received, due or assumed to be due, from the Central Government or State Government or both. This statement shall also include the proposed tariff calculated without such subsidy or incentive.

e) Consent from the licensee; and

f) The following documents, in case of a petition for determination of project-specific tariff by renewable energy projects, where tariff from such renewable energy sources is generally determined through a competitive bidding process in accordance with provisions of Section 63 of the Act:

i. Rationale for opting for a project-specific tariff instead of competitive bidding; and

ii. Competitiveness of the proposed tariff vis-à-vis the tariff discovered through competitive bidding/ tariff prevalent in the market.

g) Any other information directed by the Commission.

(2) The proceedings for determining the tariff shall be in accordance with the provisions of the Conduct of Business Regulations. On submission of a complete petition accompanied by all requisite information and particulars, the petitioner shall, within 3 (three) working days of an intimation given to him, publish a notice in at least 1 (one) English daily newspaper in English language and 1 (one) Telugu daily newspaper in Telugu language having wide circulation in the area to which the application pertains, outlining the proposed capital cost and tariff structure. as the case may be, and such other matters as may be stipulated by the Commission, and invite suggestions and objections from the public:

(3) The Commission shall, as far as possible, pass an Order determining the tariff within 120 (one hundred and twenty) days of receiving a complete petition for tariff determination and after considering all suggestions and objections received from the public.

8. Tariff Structure

The tariff for renewable energy sources shall consist of the following components:

(a) Return on equity.

(b) Interest on loan;

(c) Depreciation;

(d) Interest on working capital, and

(e) Operation and Maintenance expenses;

Provided that for renewable energy projects having a fuel cost component, like biomass power projects with Rankine cycle technology, biomass gasifier-based power projects, biogas-based power projects, and non-fossil fuel-based cogeneration projects, a single-part tariff with two components, fixed cost component and fuel cost component, shall be determined.

9. Tariff Design

(1) The tariff shall be determined, on a levelized basis, considering the year of commissioning of the project, for the tariff period of the project:

Provided that for renewable energy projects having a single part tariff with two components, the fixed cost component shall be determined on a levelized basis considering the year of commissioning of the project while the fuel cost component shall be determined on a year of operation basis in the Tariff Order to be issued by the Commission.

(2) A discount factor equivalent to the post-tax weighted average cost of capital shall be considered for levelized tariff computation.

10. Treatment for Over-Generation

In case a renewable energy project, in a given year, generates energy in excess of the capacity utilisation factor or plant load factor, as the case may be specified under these Regulations, the tariff for such excess energy shall be 50

paise per unit. However, in preceding years, if the generated energy is lower than the capacity utilisation or plant load factor, such shortfall energy shall be paid at the normal tariff determined in the Order before arriving at an excess energy payment of 50 paise per unit.

Provided that the cumulative energy at the end of any given year shall not exceed the CUF for payment of the normal tariff.

Chapter 2: Financial Principles

11. Capital Cost

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

12. Debt Equity Ratio

(1) For determining a tariff, the debt-equity ratio shall be considered as 70:30, provided that:

i. The project-specific tariffs, 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.

ii. The project specific tariffs where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff;

iii. The equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;

iv. 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; and

v. The premium, if any, raised by the generating company while issuing share capital and investing internal resources created out of its free reserve for the project's funding 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 utilised for meeting the capital expenditure of the renewable energy project.

(2) The project developer shall submit the resolution of the company's Board or the 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.

13. Loan Tenure and Interest on Loan

(1) Loan Tenure

To determine the tariff, the loan tenure of 15 years shall be considered.

(2) Interest on Loan

(a) For the calculation of interest on loans, the loans arrived at in the manner indicated in Regulation 12 shall be considered gross normative loans. The normative loan outstanding as of April 1st of every year shall be worked out by deducting the cumulative repayment up to March 31st of the previous year from the gross normative loan.

(b) The 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.

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

14. Depreciation

(1) The value base for the purpose of depreciation shall be the capital cost of the project approved by the Commission. The salvage value of the project shall be considered as 10%, and depreciation shall be allowed up to a maximum of 90% of the capital cost of the project:

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

(2) A depreciation rate of 4.67% per annum shall be considered for the first 15 years, and the remaining depreciation shall be evenly spread during

the remaining Useful Life of the project.

(3) Depreciation shall be computed from the first year of commercial operation:

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

15. Return on Equity

(1) The value base for equity shall be as determined under Regulation 12.

(2) The normative Return on Equity for renewable energy projects other than small hydro projects shall be 14%, and that for the small hydro projects shall be 15%. 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.

16. Interest on Working Capital

(1) The Working Capital requirement in respect of wind power projects, small hydro projects, solar PV power projects, floating solar projects, solar thermal power projects, municipal solid waste-based power projects and refuse refuse-derived fuel-based 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 the normative Capacity Utilisation Factor or Plant Load Factor, as the case may be; and

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

(2) The Working Capital requirement in respect of biomass power projects with Rankine cycle technology, biogas power projects, biomass gasifier-based power projects and non-fossil fuel-based cogeneration projects shall be computed in accordance with the following:

a) Fuel costs for two months equivalent to the 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.

(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.

(4) Interest on Working Capital shall be at an interest rate equivalent to the normative interest rate of three hundred and twenty-five (325) 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.

17. Calculation of capacity utilisation factor and plant load factor:

As the case may be, the number of hours in a year for calculation of the capacity utilisation factor and plant load factor shall be considered as 8766.

18. Operation and Maintenance Expenses

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

(2) Normative O&M expenses allowed during the first year of the Control Period, i.e. financial year 2025-26, under these regulations, shall be escalated at the rate of 5.25% per annum for the Tariff Period.

19. Rebate

(1) A 1.5% rebate on the bill amount shall be allowed for payment of the generating company's bills 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 7 days of bill presentation.

Explanation: In the computation of “7 days”, the number of days shall be

counted consecutively without considering any holiday. However, in case the last day or the 7th day is an official holiday, the 7th day for the purpose of rebate shall be construed as the immediate succeeding working day.

(2) Where payments are made on any day after 7 days within a period of one month from the date the generating company presents bills, a rebate of 1% shall be allowed.

20. Late payment surcharge

In case the payment of any bill for charges payable under these regulations is delayed beyond 45 days from the date of presentation of bills, the generating company shall levy a late payment surcharge as specified in the Ministry of Power—Electricity (Late Payment Surcharge and Related Matters) Rules, 2022, as amended from time to time.

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

(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:

i. Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate and corporate income tax rate as per relevant provisions of the Income Tax Act, 1961, as amended from time to time; and

ii. Capitalisation of renewable energy projects during the second half of the fiscal year.

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

(2) Any grant, subsidy, or incentive availed by a renewable energy project that is not considered at the time of tariff determination 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.

(3) If the central or State Government or their agencies provide any generation-based incentive that is specifically over and above the tariff, such incentive shall be taken into account while determining the tariff and deducted by the licensee in subsequent bills raised by the particular Renewable energy project.

22. Statutory Charges

The renewable energy project developer shall recover from the licensees the statutory charges imposed by the State and central government, such as electricity duty on auxiliary consumption, subject to the maximum normative auxiliary consumption.

Chapter 3: Parameters for wind power projects

23. Capital Cost

Considering the prevailing market trends, the Commission shall determine only project-specific capital costs.

24. Capacity Utilisation Factor

(1) Capacity utilisation factor norms for this Control Period shall be as follows:

Annual Mean Wind Power Density (W/m2)	Capacity Utilisation Factor
Up to 220	22%
221-275	24%
276-330	28%
331-440	33%
> 440	35%

(2) The annual mean wind power density specified in sub-regulation (1) above shall be measured at a 100-meter hub height. For wind hubheights above 100 -meters,the developers may indicate the CUF.

(3) Wind power projects shall be classified into particular wind zone sites as per MNRE guidelines for wind measurement. Based on the validation of the wind mast by the National Institute of Wind Energy, the State Nodal Agency should certify the zoning of the proposed wind farm complex.

25. Operation and Maintenance expenses

Considering the prevailing market trends, the Commission shall determine only project-specific O&M expenses.

Chapter 4: Parameters for small hydro projects

26. Capital Cost

(1) The normative capital cost for small hydro projects during the first year of the Control Period, i.e. the financial year 2025-26, shall be as follows:

Maximum capital cost for small hydro projects for FY2025-26	Below 5 MW	890 (**Rs. lakh/ MW)**
	5 MW to 25 MW	1027 (**Rs. lakh/ MW)**

(2) The capital cost for small hydro projects as specified for the first year of the Control Period shall remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

27. Capacity Utilisation Factor

It shall be project specific and shall not be less than 40 % (Project specific).

28. Auxiliary Consumption

Normative auxiliary consumption for the small hydro projects shall be considered as 1.0%.

29. Operation and Maintenance expenses

(1) Normative O&M Expenses for the first year of the Control Period, i.e. financial year 2025-26 shall be as under:

Description	**Project Size**	**O&M Expenses (Rs. lakh/ MW)**
O&M Expenses	Below 5 MW	39.66
	5 MW to 25 MW	28.72

(2) Normative O&M Expenses allowed at the commencement of the Control Period, i.e. financial year 2025-26 under these regulations, shall be escalated at the rate specified in Regulation 18 of these Regulations for the Tariff Period.

Chapter 5: Parameters for biomass power projects based on Rankine cycle technology

30. Capital Cost

(1) The normative capital cost for the first year of the Control Period, i.e. financial year 2025-26 shall be as under:

Biomass power projects based on Rankine cycle technology	Maximum Capital Cost (Rs. lakhs/ MW)
Projects with water- cooled condenser	595
Projects with air-cooled condenser	607

(2) The capital cost for biomass power projects based on Rankine cycle technology as specified for the first year of the Control Period shall remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

31. Plant Load Factor

For the purpose of determination of tariff, the Plant Load Factor shall be considered as 80%.

32. Auxiliary Consumption

The normative auxiliary consumption shall be as follows: -

a) For projects using water-cooled condenser: 10%

b) For projects using air-cooled condenser: 12%

33. Station Heat Rate

The Station Heat Rate shall be:

a) For projects using travelling grate boilers: 4200 kCal/kWh

b) For projects using AFBC boilers: 4125 kCal/kWh.

34. Operation and Maintenance expenses

Normative O&M Expenses for the first year of the Control Period, i.e. financial year 2025-26, shall be Rs.54.70 lakhs per MW and shall be escalated at the rate specified in Regulation 18 of these Regulations for the Tariff Period.

35. Use of Fossil Fuel

The use of fossil fuels shall not be allowed:

Provided that for biomass power projects based on Rankine cycle technology, the use of fossil fuels to the extent of 15% in terms of gross calorific value on an annual basis shall be allowed for the Useful Life of the project from the date of commercial operation.

36. Gross Calorific Value

The gross calorific value of biomass fuel, for the purpose of determination of tariff, shall be at 3100 kCal/kg.

37. Fuel Cost

Biomass fuel price during the first year of the Control Period, i.e. financial year 2025-26 shall be Rs.4262 per MT and shall be escalated at the rate of 3.45% per annum to arrive at the base price for subsequent years of the Control Period unless reviewed earlier by Commission. For the purpose of determining levelized tariff, a normative escalation factor of 3.45% per annum shall be applicable on biomass fuel price.

Provided that the Commission may review the biomass fuel price based on a study, consequent to which the biomass fuel price as provided in this Regulation shall stand modified with effect from the date of notification of the revised prices, by the Commission.

Chapter 6: Parameters for non-fossil fuel based co-generation projects

38. Capital Cost

Normative capital cost for the non-fossil fuel based co-generation projects shall be Rs. 562 lakhs/MW (Maximum) for the first year of the Control Period, i.e. financial year 2025-26 and will remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

39. Plant Load Factor

The plant load factor shall be 53%.

40. Auxiliary Consumption

The auxiliary consumption shall be considered as 8.5% for the computation of the tariff.

41. Station Heat Rate

The Station Heat Rate of 3600 kCal/ kWh for the power generation component alone shall be considered for the computation of tariff for non-fossil fuel based co-generation projects.

42. Gross Calorific Value

The gross calorific value for bagasse shall be considered as 2250 kCal/kg. For the use of biomass fuels other than bagasse, gross calorific value as specified under Regulation 36 shall be applicable.

43. Fuel Cost

The price of bagasse for the first year of the Control Period, i.e. financial year 2025-26, shall be Rs.2408 per MT and shall be escalated at the rate of 3.45% per annum to arrive at the base price for subsequent years of the Control Period unless specifically reviewed by Commission. For the purpose of

determining levelized tariff, a normative escalation factor of 3.45% per annum shall be applicable on bagasse prices.

Provided that the Commission may review the bagasse price based on study, consequent to which the table of bagasse price as provided in this Regulation shall stand modified with effect from the date of notification of the revised prices, by the Commission.

(1) For use of biomass other than bagasse in non-fossil fuel based co-generation projects, the biomass prices as specified under Regulation 38 shall be applicable.

44. Operation and Maintenance expenses

Normative O&M expenses during the first year of the Control Period, i.e. financial year 2025-26, shall be Rs. 28.90 lakhs per MW and shall be escalated at the rate specified in Regulation 18 of these Regulations for the Tariff Period.

Chapter 7: Parameters for solar PV power projects, solar thermal power projects and floating solar projects

45. Capital Cost

The Commission shall determine only project specific capital costs considering the prevailing market trends.

46. Capacity Utilisation Factor

The Commission shall only approve capacity utilisation factors for project specific tariffs:

Provided that the minimum capacity utilization factor for solar PV power projects shall be 21%:

Provided further that the minimum capacity utilization factor for solar thermal power projects shall be 23%:

Provided also that the minimum capacity utilisation factor for floating solar projects shall be 19%.

47. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

48. Auxiliary Consumption

The Commission shall only approve auxiliary consumption for project specific:

Provided that the maximum auxiliary consumption for solar PV power projects shall be 0.75%;

Provided further that the maximum auxiliary consumption for solar thermal power projects shall be 10%;

Provided also that the maximum auxiliary consumption for floating solar projects shall be 0.75%.

Chapter 8: Parameters for biomass gasifier based power projects

49. Capital Cost

Normative capital cost for biomass gasifier based power projects shall be Rs.677 lakhs/MW (Maximum) during the first year of the Control Period, i.e. the financial year 2025-26, and will remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

50. Plant Load Factor

The plant load factor for determination of tariff shall be considered as 85%.

51. Auxiliary consumption

The auxiliary consumption shall be considered as 10% for the determination of the tariff.

52. Specific fuel consumption

Normative specific fuel consumption shall be 1.25 kg per kWh.

53. Operation and Maintenance expenses

Normative O&M expenses for the first year of the Control period, i.e. financial year 2025-26, shall be Rs. 72.25 lakhs per MW and shall be escalated at the rate specified in Regulation 18 of these Regulations for the Tariff Period.

54. Fuel Cost

Biomass fuel price for biomass gasifier-based power projects shall be the same as for biomass power projects based on Rankine cycle technology as mentioned in Regulation 37.

Chapter 9: Parameters for biogas based power projects

55. Capital Cost

Normative capital cost for biogas based power projects shall be Rs.1354 lakhs/MW (Maximum) for the first year of the Control Period, i.e. financial year 2025-26 and shall remain valid for the entire duration of the Control Period unless reviewed earlier by the Commission.

56. Plant Load Factor

Plant load factor shall be considered as 90% for determination of tariff.

57. Auxiliary Consumption

The auxiliary consumption shall be considered as 12% for the determination of the tariff.

58. Operation and Maintenance Expenses

Normative O&M expenses for the first year of the Control Period, i.e. financial year 2024-25 shall be Rs. 72.25 lakhs per MW and shall be escalated at the rate specified in Regulation 18 of these Regulations for the Tariff Period.

59. Specific Fuel Consumption

Normative specific fuel consumption shall be 3 kg of substrate mix per kWh.

60. Fuel Cost (Feedstock Price)

Feedstock price during the first year of the Control Period, i.e. financial year 2025-26, shall be Rs.1702/MT and shall be escalated at the rate of 3.45% per annum to arrive at the base price for subsequent years of the Control Period unless specifically reviewed by the Commission. For the purpose of determining levelized tariff, a normative escalation factor of 3.45% per annum shall be applicable.

Chapter 10: Parameters for refuse derived fuel (RDF) based municipal solid waste (MSW) power projects

61. Capital Cost

The Commission shall determine only project specific capital costs considering the prevailing market trends..

62. Plant Load Factor

(1) Plant load factor for determining tariff for refuse derived fuel based municipal solid waste power projects shall be:

Sl. No.	Plant load factor	RDF
a)	During stabilisation period	65%
b)	During the remaining period of the first year (after the stabilization period)	65%
c)	2nd year onwards	80%

(2) The stabilisation period shall not be more than 6 months from the date of commercial operation of the project.

63. Auxiliary Consumption

The auxiliary consumption for determination of tariff shall be considered as 10% -15% based on technology.

64. Operation and Maintenance Expenses

Normative O&M expenses for the first year of the Control Period shall be 5% to 8.5% of the Capital Cost based on boiler and technology.

65. Fuel Cost

No Fuel Cost shall be considered for the determination of tariffs for RDF power projects.

Provided that for the purpose of start-up and shut down activity and temperature stabilisation during monsoon, alternate fuel from any other renewable energy source up to a ceiling of 5% of RDF consumed annually, shall be allowed without any additional impact on tariff.

Chapter 11: Parameters for Renewable Hybrid Energy Projects

66. Capital Cost

The capital cost shall be determined on a project specific basis considering the prevailing market trends.

67. Capacity Utilisation Factor

(1) The Commission shall determine only project specific capacity utilisation factor in respect of renewable hybrid energy projects, taking into consideration the proportion of rated capacity of each renewable energy source, as the case may be, and applicable capacity utilisation factor for such renewable energy sources, as the case may be:

Provided that the Wind-Solar Hybrid Project means a hybrid project if the rated power capacity of one resource is at least 25% of the rated power capacity of other resource.

Provided that the minimum capacity utilization factor for renewable hybrid energy projects shall be 40% when measured at the inter-connection point, where the energy is injected into the grid.

68. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

69. Tariff

The tariff for a renewable hybrid energy project shall be a composite levelised tariff for the project as a whole by factoring in the tariff components up to the minimum of the useful life of the RE technologies combined for such RE hybrid Project:

Provided that, in case any of the RE technologies combined for the RE hybrid project is left with a further useful life, the levelised tariff for the remaining

useful life of such RE technology shall be determined separately by factoring in the tariff components for the remaining useful life.

Chapter 12: Parameters for renewable energy with storage project

70. Capital Cost

The Commission shall determine only project specific capital costs for renewable energy with storage projects considering the prevailing market trends

71. Storage Efficiency

1 The Commission shall approve the storage efficiency only for project specific tariffs:

Provided that the minimum efficiency for storage based on the technology of solid state batteries shall be 85%:

2 Efficiency of the storage component of renewable energy with a storage project shall be measured as the ratio of output energy received from storage and input energy supplied to the storage component of such a project on an annual basis.

72. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

73. Tariff determination for Energy Storage

The tariff for renewable energy with storage project shall be a composite tariff or differential tariff based on the time of day, determined for energy supplied from the Project, including the energy supplied from the storage facility:

Provided that such tariff may be determined for the supply of power on round the clock basis or for time periods as agreed by the Project Developer and Beneficiary.

Chapter 13: Parameters for Pumped Storage Power (PSP) Projects

74. Capital Cost

The Commission shall determine only project specific capital costs for pumped storage power (PSP) projects considering the prevailing market trends

75. Storage Efficiency

1. The Commission shall approve the pumped storage power (PSP) projects only for project specific tariffs:
2. Provided that the minimum efficiency for pumped storage power (PSP) Projects shall be 80%

3 Efficiency of the storage component of energy with a storage project shall be measured as the ratio of output energy received from storage and input energy supplied to the storage component of such project on an annual basis.

76. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

77. Tariff determination for Energy Storage

The tariff for Pumped Storage Power (PSP) Projects shall be differential tariff based on the time of day/ round the clock tariff.

Chapter 14: Miscellaneous

78. All issues arising in relation to interpretation of terms in this Regulation shall be a matter for the decision of the Commission and on all such issues, the Commission's decision shall be final.

79. Deviation from norms

Tariff for electricity generated from a generating station based on renewable energy sources may also be agreed upon between the generating company and licensee, in deviation from the norms specified in these regulations:

Provided that the levelized tariff of the project calculated on the basis of the norms specified in these regulations shall be the ceiling levelized tariff.

80. Power to dispense with the requirement of the Regulation

The Commission shall have the power, for reasons to be recorded in writing to dispense with the requirements of any provision of this Regulation in a specific case or cases.

81. 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, relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

82. Power to remove difficulty

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provision of the Act, as may appear to be necessary for removing the difficulty.

83. Issue of orders and practice directions:

Subject to the provisions of the Electricity Act, 2003 and this Regulation, the Commission may, from time to time, issue orders and practice directions about the implementation of the Regulation and procedure to be followed and various matters which the Commission has been empowered by this Regulation to specify or direct.

84. Power to Amend: The Commission may at any time, add, vary, alter, modify, or amend any provisions of this Regulation.

APPENDIX

Form-1.1: Template for (Wind power projects/ Small hydro projects/ Solar PV power projects/ Solar thermal power projects/ Renewable energy hybrid power projects /Renewable energy with storage projects/PSP Projects/MSW/RDF)

Sl. No.	Assumption Head	Sub-head	Sub-head (2)	Unit	Parameter
1	Power Generation	Capacity	Installed Power Generation Capacity	MW	
			Capacity Utilization Factor (CUF)	%	
			Auxiliary Consumption	%	
			Commercial Operation Date (COD)	dd/mm/yyyy	
			Useful Life	Years	
2	Project Cost	Capital Cost	Normative Capital Cost	Rs. Crore/ MW	
			Capital Cost	Rs. Crore	
			Capital Subsidy, if any	Rs. Crore	
			Net Capital Cost	Rs. Crore	
3	Financial Assumption	Debt Equity	Tariff Period	Years	
			Debt	%	
			Equity	%	
		Debt Component	Total debt amount	Rs. Crore	
			Total equity amount	Rs. Crore	
			Loan Amount	Rs. Crore	
			Moratorium Period	Years	
			Repayment Period (incl moratorium)	Years	
			Interest Rate	%	
		Equity Component	Equity Amount	Rs. Crore	
			Return on Equity for First 20 years	% p.a.	
			Return on Equity after 20 years	% p.a.	
			Discount Rate	%	
		Depreciation	Dep Rate for 1st 15 years	%	
			Dep rate 16th year onwards	%	
		Incentives	GBI, if any	Rs. Crore	
			Period for GBI	Years	
4	O& M Expenses	Normative O&M Expense		Rs. Lakh/MW	
		O&M Expenses p.a.		Rs. Crore	
		Escalation Factor		%	
5	Working Capital	O&M Expenses		Month	
		Maintenance Spares	% of O&M Expenses	%	
		Receivables		Days	
		Interest on Woking Capital		% per annum	

Form-1.2: Template for (Biomass)

Sl. No.	Assumption Head	Sub-head	Sub-head (2)	Unit	Parameter
1	Power Generation	Capacity	Installed Power Generation Capacity	MW	
			Aux Consumption	%	
			PLF (1st year)	%	
			PLF (2nd year onwards)	%	
			Commercial Operation Date	dd/mm/yyyy	
			Useful Life	Years	
2	Project Cost	Capital Cost/ MW	Normative Capital Cost	Rs. Crore /MW	
			Capital Cost	Rs. Crore	
			Capital Subsidy, if any	Rs. Crore	
			Net Capital Cost	Rs. Crore	
3	Financial Assumption	Debt Equity	Tariff Period	Years	
			Debt	%	
			Equity	%	
		Debt Component	Total debt amount	Rs. Crore	
			Total equity amount	Rs. Crore	
			Loan Amount	Rs. Crore	
			Moratorium Period	Years	
			Repayment Period (including moratorium)	Years	
			Interest Rate	%	
		Equity Component	Equity Amount	Rs. Crore	
			Return on Equity for First 20years	% p.a.	
			Return on Equity after 20 years	% p. a.	
			Discount Rate	%	
		Depreciation	Dep Rate for 1st 15 years	%	
			Dep rate 16th year onwards	%	
		Incentives	GBI, if any	Rs. Crore	
			Period for GBI	Years	
4	O&M Expenses	Normative O&M Expenses		Rs. Lakh/MW	
		O&M Expenses p.a.		Rs. Crore	
		Escalation Factor		%	
5	Working Capital	O&M Expenses		Month	
		Maintenance Spares	% of O&M Expenses	%	
		Receivables		Days	
		Interest on WC		%	
6	Fuel Related assumptions	Station Heat Rate	During 1st year	kcal/kWh	
			2nd year onwards	kcal/kWh	
		Fuel Type and mix	Biomass Fuel Type-1	%	
			Biomass Fuel Type-2	%	
			Fossil Fuel (Coal)	%	
			GCV of Biomass Fuel Type-1	kcal/kWh	
			GCV of Biomass Fuel Type-2	kcal/kWh	
			GCV of Fossil Fuel (Coal)	kcal/kWh	
			Biomass Price (Fuel Type-1)/Yr 1	Rs./MT	
			Biomass Price (Fuel Type-2)/ Yr 1	Rs./MT	
			Fossil Fuel (Coal) Price)/ Yr 1	Rs./MT	
			Fuel Price Escalation Factor	% p.a.	

Form-2.1: Template for (Wind power projects or Solar PV power projects /Solar thermal power projects/ MSW/ RDF): Determination of Tariff Components

Units Generation	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Installed Capacity	MW												
Net Generation	MU												

Units Generation	Unit	Yr-13	Yr-14	Yr-15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr- 23	Yr- 24	Yr- 25
Installed Capacity	MW													
Net Generation	MU													

Tariff Components (Fixed charge)	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
O&M Expenses	Rs Lakh												
Depreciation	Rs Lakh												
Interest on term loan	Rs Lakh												
Interest on working Capital	Rs Lakh												
Return on Equity	Rs Lakh												
Total Fixed Cost	Rs Lakh												

Tariff Components (Fixed charge)	Unit	Yr-13	Yr-14	Yr-15	Yr-16	Yr-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25
O&M Expenses	Rs.Lakh													
Depreciation	Rs Lakh													
Interest on term loan	Rs Lakh													
Interest on working Capital	Rs Lakh													
Return on Equity	Rs Lakh													
Total Fixed Cost	Rs Lakh													

Per Unit Tariff components	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
PU O&M expenses	Rs/kWh												
PU Depreciation	Rs/kWh												
PU Interest on term loan	Rs/kWh												
PU Interest on working capital	Rs/kWh												
PU Return on Equity	Rs/kWh												
PU Tariff Components	Rs/kWh												

Per Unit Tariff components	**Unit**	**Yr-13**	**Yr-14**	**Yr-15**	**Yr- 16**	**Yr- 17**	**Yr- 18**	**Yr- 19**	**Yr- 20**	**Yr- 21**	**Yr- 22**	**Yr- 23**	**Yr- 24**	**Yr- 25**
PU O&M expenses	Rs/kWh													
PU Depreciation	Rs/kWh													
PU Interest on term loan	Rs/kWh													
PU Interest on working capital	Rs/kWh													
PU Return on Equity	Rs/kWh													
PU Tariff Components	Rs/kWh													

Levelized Tariff	**Unit**	**Yr-1**	**Yr-2**	**Yr-3**	**Yr-4**	**Yr-5**	**Yr-6**	**Yr-7**	**Yr-8**	**Yr-9**	**Yr-10**	**Yr-11**	**Yr-12**
Discount Factors													
Discounted Tariff components	Rs/kWh												
Levelized Tariff	Rs/kWh												

Levelized Tariff	**Unit**	**Yr-13**	**Yr-14**	**Yr-15**	**Yr- 16**	**Yr- 17**	**Yr- 18**	**Yr- 19**	**Yr- 20**	**Yr- 21**	**Yr- 22**	**Yr- 23**	**Yr- 24**	**Yr- 25**
Discount Factors														
Discounted Tariff components	Rs/kWh													
Levelized Tariff	Rs/kWh													

Form-2.2: Template for (Biomass power projects or non-fossil fuel based co-generation plants): Determination of Tariff Components

Units Generation	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Installed Capacity	MW												
Net Generation	MU												

Units Generation	Unit	Yr-13	Yr-14	Yr-15	Yr-16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr-23	Yr-24	Yr- 25
Installed Capacity	MW													
Net Generation	MU													

Tariff Components (Fixed charge)	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
O&M Expenses	Rs Lakh												
Depreciation	Rs Lakh												
Interest on term loan	Rs Lakh												
Interest on working Capital	Rs Lakh												
Return on Equity	Rs Lakh												
Total Fixed Cost	Rs Lakh												

Tariff Components (Fixed charge)	Unit	Yr-13	Yr-14	Yr-15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr- 23	Yr- 24	Yr- 25
O&M Expenses	Rs Lakh													
Depreciation	Rs Lakh													
Interest on term loan	Rs Lakh													
Interest on working Capital	Rs Lakh													
Return on Equity	Rs Lakh													
Total Fixed Cost	Rs Lakh													

Tariff Components (Variable Charge)	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Biomass Fuel Type-1	Rs Lakh												
Biomass Fuel Type-2	Rs Lakh												
Fossil Fuel (coal)	Rs												

	Lakh												
Municipal Solid Waste	Rs Lakh												
Refuse Derived Fuel	Rs Lakh												
Sub-total (Fuel Costs)	Rs Lakh												
Fuel cost allocable to power	%												
Total Fuel Costs	Rs Lakh												

Tariff Components (Variable Charge)	**Unit**	**Yr-13**	**Yr-14**	**Yr-15**	**Yr- 16**	**Yr- 17**	**Yr- 18**	**Yr- 19**	**Yr- 20**	**Yr- 21**	**Yr- 22**	**Yr- 23**	**Yr- 24**	**Yr- 25**
Biomass Fuel Type-1	Rs Lakh													
Biomass Fuel Type-2	Rs Lakh													
Fossil Fuel (coal)	Rs Lakh													
Municipal Solid Waste	Rs Lakh													
Refuse Derived Fuel	Rs Lakh													
Sub-total (Fuel Costs)	Rs Lakh													
Fuel cost allocable to power	%													
Total Fuel Costs	Rs Lakh													

Per Unit Tariff components (Fixed)	**Unit**	**Yr-1**	**Yr-2**	**Yr-3**	**Yr-4**	**Yr-5**	**Yr-6**	**Yr-7**	**Yr-8**	**Yr-9**	**Yr-10**	**Yr-11**	**Yr-12**
PU O&M expenses	Rs/kWh												
PU Depreciation	Rs/kWh												
PU Interest on term loan	Rs/kWh												
PU Interest on working capital	Rs/kWh												
PU Return on Equity	Rs/kWh												
PU Tariff Components (Fixed)	Rs/kWh												
PU Tariff Components (Variable)	Rs/kWh												
PU Tariff Components (Total)	Rs/kWh												

Per Unit Tariff components (Fixed)	**Unit**	**Yr-13**	**Yr-14**	**Yr-15**	**Yr- 16**	**Yr- 17**	**Yr- 18**	**Yr- 19**	**Yr- 20**	**Yr- 21**	**Yr- 22**	**Yr- 23**	**Yr- 24**	**Yr- 25**
PU O&M expenses	Rs/kWh													
PU Depreciation	Rs/kWh													
PU Interest on term loan	Rs/kWh													

PU Interest on working capital	Rs/kWh													
PU Return on Equity	Rs/kWh													
PU Tariff Components (Fixed)	Rs/kWh													
PU Tariff Components (Variable)	Rs/kWh													
PU Tariff Components (Total)	Rs/kWh													

Levelized Tariff	**Unit**	**Yr-1**	**Yr-2**	**Yr-3**	**Yr-4**	**Yr-5**	**Yr-6**	**Yr-7**	**Yr-8**	**Yr-9**	**Yr-10**	**Yr-11**	**Yr-12**
Discount Factors													
Discounted Tariff components(Fixed)	Rs/kWh												
Discounted Tariff components (Variable)	Rs/kWh												
Discounted Tariff components(Total)	Rs/kWh												
Levelized Tariff (Fixed)	Rs/kWh												
Levelized Tariff (Variable)	Rs/kWh												
Levelized Tariff (Total)	Rs/kWh												

Levelized Tariff	**Unit**	**Yr-13**	**Yr-14**	**Yr-15**	**Yr- 16**	**Yr- 17**	**Yr- 18**	**Yr- 19**	**Yr- 20**	**Yr- 21**	**Yr- 22**	**Yr- 23**	**Yr- 24**	**Yr- 25**
Discount Factors														
Discounted Tariff components (Fixed)	Rs/kWh													
Discounted Tariff components (Variable)	Rs/kWh													
Discounted Tariff components (Total)	Rs/kWh													
Levelized Tariff (Fixed)	Rs/kWh													
Levelized Tariff (Variable)	Rs/kWh													
Levelized Tariff (Total)	Rs/kWh													

Form-2.3: Template for (Small Hydro projects/PSP Project): Determination of Tariff Components

Units Generation	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12	Yr-13
Installed Capacity	MW													
Net Generation	MU													

Units Generation	Unit	Yr-14	Yr-15	Yr-16	Yr-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25	Yr-26
Installed Capacity	MW													
Net Generation	MU													

Units Generation	Unit	Yr-27	Yr-28	Yr-29	Yr-30	Yr-31	Yr-32	Yr-33	Yr-34	Yr-35	Yr-36	Yr-37	Yr-38	Yr-39	Yr-40
Installed Capacity	MW														
Net Generation	MU														

Tariff Components (Fixed charge)	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12	Yr-13
O&M Expenses	Rs Lakh													
Depreciation	Rs Lakh													
Interest on term loan	Rs Lakh													
Interest on working Capital	Rs Lakh													
Return on Equity	Rs Lakh													
Total Fixed Cost	Rs Lakh													

Tariff Components (Fixed charge)	Unit	Yr-14	Yr-15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr- 23	Yr- 24	Yr- 25	Yr- 26
O&M Expenses	Rs Lakh													
Depreciation	Rs Lakh													
Interest on term loan	Rs Lakh													
Interest on working Capital	Rs Lakh													
Return on Equity	Rs Lakh													
Total Fixed Cost	Rs Lakh													

Tariff Components (Fixed charge)	**Unit**	**Yr-27**	**Yr-28**	**Yr-29**	**Yr-30**	**Yr-31**	**Yr-32**	**Yr-33**	**Yr-34**	**Yr-35**	**Yr-36**	**Yr-37**	**Yr-38**	**Yr-39**	**Yr-40**
O&M Expenses	Rs Lakh														
Depreciation	Rs Lakh														
Interest on term loan	Rs Lakh														
Interest on workingCapital	Rs Lakh														
Return on Equity	Rs Lakh														
Total Fixed Cost	Rs Lakh														

Per Unit Tariff components	**Unit**	**Yr-1**	**Yr-2**	**Yr-3**	**Yr-4**	**Yr-5**	**Yr-6**	**Yr-7**	**Yr-8**	**Yr-9**	**Yr-10**	**Yr-11**	**Yr-12**	**Yr-13**
PU O&M expenses	Rs/kWh													
PU Depreciation	Rs/kWh													
PU Interest on termloan	Rs/kWh													
PU Interest on working capital	Rs/kWh													
PU Return on Equity	Rs/kWh													
PU Tariff Components	Rs/kWh													

Per Unit Tariff components	**Unit**	**Yr-14**	**Yr-15**	**Yr-16**	**Yr-17**	**Yr-18**	**Yr-19**	**Yr-20**	**Yr-21**	**Yr-22**	**Yr-23**	**Yr-24**	**Yr-25**	**Yr-26**
PU O&M expenses	Rs/kWh													
PU Depreciation	Rs/kWh													
PU Interest on term loan	Rs/kWh													
PU Interest on working capital	Rs/kWh													
PU Return on Equity	Rs/kWh													
PU Tariff Components	Rs/kWh													

Per Unit Tariff components	**Unit**	**Yr-27**	**Yr-28**	**Yr-29**	**Yr-30**	**Yr-31**	**Yr-32**	**Yr-33**	**Yr-34**	**Yr-35**	**Yr-36**	**Yr-37**	**Yr-38**	**Yr-39**	**Yr-40**
PU O&M expenses	Rs/kWh														
PU Depreciation	Rs/kWh														

PU Interest on termloan	Rs/kWh														
PU Interest on workingcapital	Rs/kWh														
PU Return on Equity	Rs/kWh														
PU Tariff Components	Rs/kWh														

Levelized Tariff	**Unit**	**Yr-1**	**Yr-2**	**Yr-3**	**Yr-4**	**Yr-5**	**Yr-6**	**Yr-7**	**Yr-8**	**Yr-9**	**Yr-10**	**Yr-11**	**Yr-12**	**Yr-13**
Discount Factors														
Discounted Tariff components	Rs/kWh													
Levelized Tariff	Rs/kWh													

Levelized Tariff	**Unit**	**Yr-14**	**Yr-15**	**Yr-16**	**Yr-17**	**Yr-18**	**Yr-19**	**Yr-20**	**Yr-21**	**Yr-22**	**Yr-23**	**Yr-24**	**Yr-25**	**Yr-26**
Discount Factors														
Discounted Tariff components	Rs/kWh													
Levelized Tariff	Rs/kWh													

Levelized Tariff	**Unit**	**Yr-27**	**Yr-28**	**Yr-29**	**Yr-30**	**Yr-31**	**Yr-32**	**Yr-33**	**Yr-34**	**Yr-35**	**Yr-36**	**Yr-37**	**Yr-38**	**Yr-39**	**Yr-40**
Discount Factors															
Discounted Tariff components	Rs/kWh														
Levelized Tariff	Rs/kWh														

(By Order of the Commission)

Place : Kurnool
Date: 27.05.2025.

Sd/- 27.05.2025
P.KRISHNA
Commission Secretary (I/c)