



Chhattisgarh State Electricity Regulatory Commission

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Suo-Motu Petition No. 101 of 2025

In the matter of-

Determination of generic tariff for FY 2025-26 for Renewable Energy Sources based plants under Regulation 9.1 of the Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of tariff for Renewable Energy sources) Regulations, 2025

Present : **Vivek Ganodwale, Member (Law)**
: **Ajay Kumar Singh, Member (Tech)**

ORDER

(December 26, 2025)

Regulation 9.1 of Chhattisgarh State Electricity Regulatory Commission (Terms and conditions for determination of tariff for Renewable Energy sources) Regulations, 2025, (hereinafter referred to as "the RE Tariff Regulations 2025") mandates the Commission to determine the generic tariff on the basis of the Suo-motu petition, for the following renewable energy technologies (RE technologies) in accordance to the norms as specified under the RE Tariff Regulations 2025;

- (a) Small Hydro Projects;
- (b) Non-fossil fuel-based co-generation Plants;

- (c) Solar PV power project for 0.5 MW to 2 MW capacity; and
- (d) Biogas based power project.

2. Generic tariff of the RE projects achieving COD during the first year of control period (i.e., FY 2025-26) has been determined through this order. Details of the tariff are enclosed herewith this Order.

3. Comments /suggestions of the stakeholders on this proposal are invited by 20.01.2026 and hearing will be held on 22.01.2026 at 03:30 pm at the Commission's courtroom.

Suo-motu P No 101 of 2025

Generic levelled generation tariff for various renewable energy technologies, for FY 2025-26

1. The generic generation tariff for various renewable energy technologies are discussed below:

1.1 Useful Life: Regulation 2.1(pp) of the RE Tariff Regulations 2025 defines 'useful life' in relation to a unit of a generating station as per following from the date of commercial operation (COD) of such generation facility:

Renewable Energy Projects	Years
Small Hydro Plant	40
Non-fossil fuel-based co-generation Plants	25
Solar PV power projects	25
Biogas based power projects	25

1.2 Tariff Period: As per Regulation 6 of RE Tariff Regulations 2025, the tariff period, in respect of the RE projects, shall be considered from the COD of the renewable energy generating stations and shall be considered as useful life of the RE Projects.

1.3 Tariff Structure: As per Regulation 10.1 of the RE Tariff Regulations 2025, the tariff for RE projects shall be single part tariff consisting of the following fixed cost components:

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

For renewable energy technologies having fuel cost component, like Biogas based power projects, non-fossil fuel based co-generation projects, single-part tariff with two components, viz., fixed cost component and fuel cost component, shall be determined.

1.4 Tariff Design: As per para 11.1 in RE Tariff Regulations 2025, the generic tariff shall be determined on levelized basis for the Tariff Period from COD and levelisation of tariff is considered for useful life of the project.

2. Parameters for tariff determination

2.1 Capital Cost: Regulation 13 of the RE Tariff Regulations 2025 stipulates that the norms for the capital cost as specified in the technology specific chapter shall be inclusive of all capital works like plant and machinery, civil works, erection and commissioning, financing and interest during construction, preliminary and pre-operative expenses and evacuation infrastructure up to inter-connection point.

The Commission has specified the normative capital cost for first year of control period i.e., FY 2025-26 for various RE technologies viz Small Hydro Power, Non-Fossil Fuel based Cogeneration, Solar PV Projects for 0.5 MW to 2 MW capacity and Biogas based power project. Technology specific capital cost of RE projects is discussed herein under:

A. Capital cost of Small Hydro Projects:

Regulation 28.1 of the RE Tariff Regulation 2025, specifies normative capital cost for small hydro projects for FY 2025-26 as follows.

Project Size	Capital Cost (Rs. Lakh/MW)
Up to 5 MW	890.00
Above 5 MW to 25 MW	1027.00

B. Capital Cost of Non-fossil fuel based Co-generation Projects:

Regulation 34 of the RE Tariff Regulation 2025, specifies normative capital cost for non-fossil fuel based co-generations for FY 2025-26 as Rs. 562 Lakh/MW.

C. Capital Cost of Solar PV power project for 0.5 MW to 2 MW capacity:

Regulation 42.1 of the RE Tariff Regulation 2025, specifies normative capital cost for Solar PV power project for 0.5 MW to 2 MW capacity for FY 2025-26 as Rs. 3.5 Crore/MW.

D. Capital Cost of Biogas based power project:

Regulation 56 of the RE Tariff Regulation 2025, specifies normative capital cost for Biogas based power project for FY 2025-26 as Rs. 1354 Lakh/MW.

2.2 Debt-Equity Ratio: Regulation 14.1 of the RE Tariff Regulations 2025 provides that the debt equity ratio of 70:30 is to be considered for determination of generic tariff based on Suo-motu petition.

2.3 Loan and Finance Charges: As per regulation 15 of the RE tariff Regulations 2025, for the purpose of determination of tariff, loan / debt tenure of 15 years shall be considered. The normative interest rate shall be considered as 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. Since, tariff will be applicable from 1st April of the respective years, State Bank of India MCLR, for period prior to six months from the 1st April has been considered. State Bank of India MCLR and average MCLR is shown below.

FY 2025-26	
Month	One year tenor MCLR Rate, % (SBI)
15 th Mar 2025	9.00
15 th Feb 2025	9.00
15 th Jan 2025	9.00
15 th Dec 2024	9.00
15 th Nov 2024	9.00
15 th Oct 2024	8.95
Average	8.99

In terms of the above, the computations of interest on loan comes out as 10.99% for FY 2025-26.

2.4 Depreciation: As specified in regulation 16 of the RE tariff Regulations 2025, value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset. The depreciation

rate for the first 15 years of the Tariff Period shall be 4.67% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 16th year onwards on 'Straight Line Method'.

2.5 Return on Equity: Regulation 17.1 of the RE Tariff Regulations 2025 provides that the value base for the equity shall be 30% of the capital cost for generic tariff determination. Further regulation 17.2 stipulates the normative return on equity 14% for renewable energy projects other than small hydro projects and 15% for small hydro projects, to be grossed up by prevailing MAT rate for first 20 years. MAT rate, as on 1st April 2025, (for companies having profit above Rs. 10 Cr) is 17.472%. ROE for the remaining tariff period shall be grossed up by the latest available notified Corporate Tax rate.

2.6 Interest on Working Capital: As per regulation 18 of the RE tariff Regulations 2025, working capital requirement in respect of small hydro power, solar PV power projects shall be computed as per following:

- I. Operation & Maintenance expenses for one month;
- II. Receivables equivalent to 45 days of energy charges for sale of electricity calculated on the normative PLF or CUF;
- III. Maintenance spare @ 15% of operation and maintenance expenses

The Working Capital requirement in respect of non-fossil fuel based co-generation projects power project and biogas based power project shall be computed as per following:

- I. Fuel costs for four months equivalent to normative PLF;
- II. Operation & Maintenance expense for one month;
- III. Receivables equivalent to 45 days of fixed and variable charges for sale of electricity calculated on the target PLF;
- IV. Maintenance spare @ 15% of operation and maintenance expenses

Interest on Working Capital shall be at interest rate equivalent to normative interest rate of three hundred twenty five (325) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months for the determination of tariff. Accordingly, interest rate comes out as 12.24% for FY 2025-26.

2.7 Operation & Maintenance Expenses: As per provisions in RE Tariff Regulations 2025, O&M expenses shall be determined for the Tariff Period based on normative O&M expenses specified by the Commission for first year of the Control Period and shall be escalated at the rate of 5.25% per annum over the Tariff Period.

A. O & M Expenses for Small Hydro Projects:

As per regulation 31.1 & 31.2 of the RE Tariff Regulation 2025, O & M expenses for small hydro projects for FY 2025-26 shall be as follows;

Project Size	O& M Expenses (Rs. Lakh/MW)
Up to 5 MW	41.74
Above 5 MW to 10 MW	35.41
Above 10 MW to 25 MW	30.23

B. O & M Expenses for Non-fossil fuel based Cogeneration Projects:

As per regulations 40.1 & 40.2 of the RE Tariff Regulations 2025, normative O & M expenses for the Non-fossil fuel based Cogeneration Projects for the year 2025-26 shall be Rs. 30.42 Lakh/MW.

C. O& M Expenses for Solar PV power project:

As per regulations 44.1 & 44.2 of the RE Tariff Regulations 2025, normative O & M expenses for Solar Photovoltaic Power Project shall be Rs. 9.26 Lakh/MW for FY 2025-26.

D. O& M Expenses for Biogas based power project:

As per regulations 59.1 & 59.2 of the RE Tariff Regulations 2025, normative O & M expenses for Biogas based power project shall be Rs. 76.04 Lakh/MW for FY 2025-26.

2.8 Capacity Utilisation Factor (CUF): Regulations 29.1 and 43 of the RE Tariff Regulations 2025 specify the norms for Capacity Utilization Factor (CUF) in respect of the Small Hydro and Solar PV based power generating stations as per the details given in the table below which has been considered for determination of tariff.

RE Projects	CUF
Small Hydro projects	30%
Solar PV	21%

2.9 Plant Load Factor (PLF): Regulations 35.2 and 57 of the RE Tariff Regulations 2025 specifies the plant load factor for Non fossil Fuel based Co-generation projects and Biogas based power project as given in the table below which has been considered for determination of fixed charges.

RE Projects	PLF
Non fossil Fuel based Co-generation projects	38%
Biogas based power projects	90%

2.10 Auxiliary Power Consumption: Regulations 30, 36,45 and 58 of the RE Tariff Regulations 2025 stipulate the auxiliary power consumption as under which has been considered for determination of tariff of the RE projects.

RE Projects	Aux Cons
Small Hydro projects	1.0%
Non fossil Fuel based Co-generation projects	8.5%
Solar PV	0.25%
Biogas based power projects	12%

2.11 Station Heat Rate: The Station Heat Rates (SHR) specified under Regulations 37 of the RE Tariff Regulations 2025 for non-fossil fuel based co-generation projects is 3600 Kcal/kWh.

2.12 Calorific Value: In terms of Regulation 38 of the RE Tariff Regulations 2025, calorific value of bagasse for determination of tariff is 2250 Kcal/kg.

2.13 Fuel Cost: The Commission, in terms of Regulation 39 of the RE Regulations 2025, has specified the bagasse and feed stock price applicable during the period FY 2025-26 as Rs. 2817 and Rs.1761 per MT respectively. Further, as per regulations 39.3 and 61.1 these costs shall be escalated by 3.45% to arrive at price for subsequent years.

2.14 Specific Fuel Consumption: The Specific Fuel Consumption specified under Regulations 60 of the RE Tariff Regulations 2025 for biogas based power projects shall be 3 kg of substrate mix per kWh.

2.15 Discount Factor: The discount factor considered for the purpose of tariff levelisation is equal to the Post Tax weighted average cost of the capital on the basis of normative debt: equity ratio (70:30) specified in the RE Tariff Regulations 2025. Considering the normative debt equity ratio and weighted average of the post-tax rates for interest and equity component, the discount factor is calculated.

Interest Rate considered for the loan component of Capital Cost is 10.99%.

- i) **Small Hydro Plants:** For equity component rate of Return on Equity (ROE) considered at Post Tax ROE of 15% considering the IT rate of 34.94%. The discount rate derived by this method for all RE technologies is 9.51%.
- ii) **Solar PV, Co-generation Plants and Biogas power projects:** For equity component rate of Return on Equity (ROE) considered at Post Tax ROE of 14% considering the IT rate of 34.94%. The discount rate derived by this method for all RE technologies is 9.21%.

3. Generic Levellised Tariff FY 2025-26

In the light of the discussion made in the preceding paragraphs, the generic levellised tariffs of the following RE projects achieving COD during the financial year 2025-26 have been determined as under.

RE Projects	Levellised Tariff, Rs/kWh
Small Hydro projects below 5 MW	7.57
Small Hydro projects 5 MW to 10 MW	7.80
Small Hydro projects 10 MW to 25 MW	7.42
Mini/Micro Hydro projects (upto 2 MW)	8.07

RE Projects	Levelling Tariff, Rs/kWh
Non fossil Fuel based Co-generation projects– Fixed Cost	4.50
Non fossil Fuel based Co-generation projects– Variable Cost for FY 2025-26	4.93
Solar PV projects 0.5 MW to 2 MW	3.39
Biogas based power projects – Fixed Charges	4.88
Biogas based power projects – Energy Charges	6.00

The detailed computations for the generic tariff for various RE technologies have been enclosed to this Order as per the details given hereunder;

RE Projects	FY 2025-26
Small Hydro projects below 5 MW	Annexure: 1A
Small Hydro projects 5 MW to 10 MW	Annexure: 1B
Small Hydro projects 10 MW to 25 MW	Annexure: 1C
Mini/Micro Hydro projects (upto 2 MW)	Annexure: 1D
Non fossil Fuel based Co-generation projects	Annexure: 2
Solar PV projects 0.5 MW to 2 MW	Annexure: 3
Biogas based power projects	Annexure: 4

Above generic levelized tariff has been determined for the RE power projects (considering entire useful life and levelisation of tariff for the entire useful life), which are achieving COD during the FY 2025-26 having long term PPA for useful life with distribution companies in the State.

Tariff period shall be considered as useful life of the project and shall be considered from the COD of the renewable energy generating stations.

We order accordingly.

Member (Tech.)

Member (legal)