

RAJASTHAN ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

JAIPUR, 05 March, 2019

No.RERC/Secy./Regulation - 129

In exercise of the powers conferred under Section 61 and Section 62 read with Sections 86 and 181 of the Electricity Act, 2003 and all provisions enabling it in this behalf, the Rajasthan Electricity Regulatory Commission makes the following Regulations to amend Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Renewable Energy Sources-(Biomass, Biogas and Biomass Gasifier based Power Plants) Regulations, 2015 (hereinafter referred to as the 'Principal Regulations'), namely:

1. **Short title and commencement:**

- (1) These Regulations shall be called the "Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Renewable Energy Sources- Biomass, Biogas and Biomass Gasifier Energy) (First Amendment) Regulations, 2019."
- (2) These Regulations shall come into force from the date of their notification in the Official Gazette.

2. **Amendment in the Regulation 1 of the Principal Regulations:**

- (A) The existing sub-regulation (2) shall be amended as under:
The words and figures appearing in sub-regulation (2), "*upto FY 2018-19, i.e., March 31, 2019*" shall be substituted with words and figures "*up to FY 2019-20, i.e., March 31, 2020*".
- (B) The existing sub-regulation (3) shall be amended as under:
The words and figure "*four (4)*" appearing in sub-regulation (3) shall be substituted with words and figure "*five (5)*".

3. **Amendment in Regulation 4 of the Principal Regulations:**

The words and figures "*till 31.03.2019*" appearing in sub-regulation (1) of the Regulation 4 shall be substituted with words and figures "*till 31.03.2020*".

4. **Amendment in Regulation 5 of the Principal Regulations:**

- (A) The words and figure "*four (4)*" appearing in main provision of Regulation 5, shall be substituted with words and figure "*five (5)*".

- (B) The following new proviso shall be added below the existing proviso to Regulation 5 of the Principal Regulations:

"Provided further that the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations subject to adjustment as per revised Regulations."

5. Insertion of a new Regulation 6A in the Principal Regulations:

The following new Regulation 6 A shall be inserted:

"6A. Project specific tariff

- (A) *The Commission may determine project specific tariff, on case to case basis, as and when situation arises for the following types of projects:*
- (a) *Biomass Gasifier based projects, if a project developer opts for project specific tariff;*
 - (b) *Biogas based projects, if a project developer opts for project specific tariff;*
 - (c) *Municipal Solid Waste and Refuse Derived Fuel based projects with Rankine cycle technology;*
 - (d) *Other hybrid projects include renewable-renewable or renewable conventional sources; for which renewable technology is approved by MNRE;*
 - (e) *Any other new renewable energy technologies approved by MNRE.*
 - (f) *Projects covered under Central/State Government schemes.*
- (B) *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 hereunder:*

Provided that while determining the project specific tariff, financial and technical norms as specified under Part-III to VI of these Regulations can be deviated by the Commission by recorded reasons in the order."

6. Amendment in Regulation 7 of the Principal Regulations:

The following new sub-regulation (3) shall be added below existing sub-regulation (2) of Regulation 7:

- "(3) A petition for determination of project specific tariff shall be accompanied by such fee as may be determined by regulations and shall be accompanied by:*
- (a) *Information in forms 1.1 and 1.2 as the case may be, and as appended in these regulations;*

- (b) Detailed project report outlining technical and operational details, site specific aspects, premise for capital cost and financing plan, details of installation, manufacturer's/supplier's guaranteed and other technical particulars, recommended O&M practices and public safety requirements, etc.
- (c) A statement of all applicable terms and conditions and expected expenditure for the period for which tariff is to be determined.
- (d) A statement containing full details of calculation of any subsidy and incentive received, due or assumed to be due from the Central Government and/or State Government. This statement shall also include the proposed tariff calculated without consideration of the subsidy and incentive.
- (e) Any other information that the Commission requires the petitioner to submit."

7. **Amendment in the Regulation 9 of the Principal Regulations:**

The following new sub-regulation (4) shall be added below the existing sub-regulation (3) of Regulation 9:

"(4) The above principles shall also apply for project specific tariff determination."

8. **Amendment in the Regulation 11 of the Principal Regulations:**

The following new proviso to Regulation 11 of the Principal Regulations shall be added:

"Provided that for project specific tariff determination the generating company shall submit the break-up of capital cost items along with its petitions in the manner specified under Regulation 7."

9. **Amendment in the Regulation 12 of the Principal Regulations:**

The existing provision shall be numbered as sub-regulation (1) and the following new sub-regulation (2) to Regulation 12 shall be added below it:

"(2) For project specific tariff, the following provisions shall apply- If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

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

Provided further that the equity invested in foreign currency, if any, shall be designated in Indian rupees on the date of each investment."

10. Amendment in the Regulation 13 of the Principal Regulations:

(A) The sub-regulation (1) shall be substituted with the following:

"(1) Loan Tenure

For the purpose of determination of generic tariff, loan tenure of 13 years shall be considered."

(B) The sub-regulation (2) (b) shall be substituted with the following:

"(b) 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 Lending Rate (MCLR) (one year tenor) prevalent during the last available six months shall be considered."

11. Amendment in Regulation 14 of the Principal Regulations:

Sub-regulations (1) and (2) of Regulation 14 shall be substituted with the following:

"(1) The value base for the purpose of depreciation shall be the capital cost determined by the Commission (for generic tariff) or the capital cost admitted by the Commission (for project specific tariff), as the case may be. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.

(2) Depreciation rate of 5.28% per annum for the first 13 years and remaining depreciation shall be spread over the remaining useful life of the project considering the salvage value of the project as 10% of project cost shall be considered."

12. Amendment in Regulation 15 of the Principal Regulations:

(A) Sub-regulation (2) of Regulation 15 shall be substituted with the following:

"(2) The normative Return on Equity shall be 14 %, to be grossed up by prevailing Minimum Alternate Tax (MAT) as on 1st April of previous year for the entire useful life of the project."

(B) Sub-regulation (3) of Regulation 15 of the Principal Regulations may be deleted.

13. **Amendment in Regulation 16 of the Principal Regulations:**

Sub-regulation (2) of Regulation 16 shall be substituted with the following:

"(2) Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred (300) 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:

14. **Amendment in Regulation 18 of the Principal Regulations:**

The following proviso shall be added below the regulation 18:

"Provided that the rebate w.e.f. 1.4.2019 for payment of bills shall be as per provisions of rebate specified In RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 as amended from time to time."

15. **Amendment in Regulation 19 of the Principal Regulations:**

The following proviso shall be added below the regulation 19:

"Provided that the Late Payment Surcharge w.e.f. 1.4.2019 shall be as per provisions of Late payment Surcharge specified In RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019 as amended from time to time."

16. **Amendment in Regulation 22 of the Principal Regulations:**

The following proviso shall be added below the sub-regulation (3) of Regulation 22:

"Provided that the capital cost as specified for FY 2017-18 of the control period will remain valid for the entire remaining duration of control period unless reviewed earlier by the Commission."

17. **Amendment in Regulation 28 of the Principal Regulations:**

The words "till FY 2017-18" shall be inserted between the words "control period" and "in case" appearing in the last sentence of the main provision of Regulation 28.

18. **Amendment in Regulation 29 of the Principal Regulations:**

The words and figures "till 31.03.2019" appearing at regulation 29, shall be substituted with words and figures "till 31.03.2020" and the following proviso shall be added:

"Provided that the Biomass power generator in addition to fossil fuel may also use the solar power within the above limit of 15%"

19. **Amendment in Regulation 32 of the Principal Regulations:**

The following new proviso shall be added below the sub-regulation (3) of Regulation 32 :

"Provided that the capital cost as specified for FY 2017-18 of the control period will remain valid for the entire remaining control period unless reviewed by the Commission."

20. **Amendment in Regulation 37 of the Principal Regulations:**

The following new proviso shall be inserted below the Regulation 37:

"Provided for the years beyond 2017-18 of the control period, the biogas price for FY 2017-18 will change in the same proportion of change in Biomass fuel price determined based on the recommendations of the State Level Committee constituted under Regulation 28 of these Regulations unless specifically reviewed by the Commission."

21. **Amendment in Regulation 39 of the Principal Regulations:**

The following proviso shall be added below the sub-regulation (3) of Regulation 39:

"Provided that the capital cost as specified for FY 2017-18 shall be the same for subsequent years of the control period unless reviewed earlier by the Commission."

22. **Amendment in Regulation 46 of the Principal Regulations:**

Following new row shall be added below the table appearing at Regulation 46:

22	2019-20	7.6614
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23. **Amendment in Regulation 47 of the Principal Regulations:**

The existing provision of Regulation 47 shall be substituted with the following:

"47. Tariff for Plants under the REC mechanism:

The tariff of projects set up under REC Mechanism shall be governed by the RERC (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010 and amendments thereto."

24. **Amendment in Regulation 51 of the Principal Regulations:**

The existing sub-regulation (3) of Regulation 51 shall be substituted as under:

“(3) Energy Accounting:

Notwithstanding anything contrary contained in any other Regulations time being in force the Energy Accounting Shall be as under.

(a) If in any block injected energy is more than the energy drawn, the excess energy shall be computed. The excess energy of each time block shall be cumulated till the end of the month and shall be set off against the cumulative drawl Discom energy in the same month.

(b) For remaining excess injected energy, if any at the end of the month, the RE Power Generator/Developer would be entitled to get payment @60% of energy charges applicable for large industrial power tariff, excluding fuel surcharge, if any, in respect of 10% of unutilized banked energy after the end of the same month. Unutilized banked energy, in excess of 10% shall lapse. “

By Order of the Commission

(B.K.Dosi)
Secretary

Note:

The Principal Regulations were published in Rajasthan Gazette Extraordinary Part-7 on 06.07.2015.

Form- 1.1: Form Template (Biomass Power)

S.No	Assumption Head	Sub-Head	Sub-Head(2)	Unit	Parameter
1	Power Generation	Capacity	Installed Power Generation Capacity. Aux. Cons. Factor. PLF (during stabilisation upto 6 months). PLF (during 1 st year stabilisation). PLF (2 nd year onwards). Commercial Operation Date. Useful Life.	MW % % % % MM/YYYY Years	
2	Project Cost	Capital Cost/MW	Normative Capital Cost Capital Cost Capital Subsidy If any Net Capital Cost	Rs Lakh/MW Rs Lakh Rs Lakh Rs Lakh	
3	Financial Assumptions	Debt Equity Debt Component Equity Component Depreciation Incentives	Tariff Period Debt Equity Total Debt Amount Total Equity Amount Loan Amount Moratorium Period Repayment Period (includ. Moratorium) Interest Rate Equity amount Return on Equity for first 10 years. Return on Equity 11 th year onwards. Discount Rate Depreciation Rate for 1 st 13 yrs. Depreciation Rate 14 th years onwards Generation Based Incentive. If any Period for GBI	Years % % Rs Lakh Rs Lakh Rs Lakh Years Years Years % Rs Lakh % % % % p.a. % p.a. Rs L.p.a. Year	
4	Operation & Maintenance	Normative O&M expense O&M expense p.a. Escalation factor for O&M expense		Rs Lakh/MW Rs Lakh %	
5	Working Capital	O&M expense Maintenance Spare Receivable Interest on Working Capital	(% of O&M expenses)	Month % Month % p.a	
6	Fuel related assumption	Station Heat Rate	During stabilisation. Post stabilisation.	kCal/kWh kCal/kWh	

S.No	Assumption Head	Sub-Head	Sub-Head(2)	Unit	Parameter
		Fuel type & Mix	Biomass fuel type-1 Biomass fuel type- 2 Municipal Solid waste fuel Refuse Derived fuel Fossil fuel (coal) GCV of Biomass fuel type-1 GCV of Biomass fuel type-2 GCV of fossil fuel(coal) Biomass Price (fuel type-1)/yr-1. Biomass Price (fuel type-2)/yr-1. Fossil fuel price (coal)/yr-1 Fuel price escalation factor	% % % % % kCal/kg kCal/kg kCal/kg Rs/MT Rs/MT Rs/MT % p.a.	

Form – 1.2: Form Template for Biomass, Biogas and Biomass gasifier 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	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 Component (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	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 Component (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	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 Fixed Cost	Rs. Lakh																									

Per Unit Tariff Component (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	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																									

Levelling 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	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	Rs/kWh																									
Discounted Factor component (fixed)	Rs/kWh																									
Discounted Factor component (variable)	Rs/kWh																									
Discounted Factor component	Rs/kWh																									

(Total)																											
Levellised Tariff (fixed)	Rs/kWh																										
Levellised Tariff (variable)	Rs/kWh																										
Levellised Tariff (Total)	Rs/kWh																										