



Bihar Electricity Regulatory Commission

Vidyut Bhawan-II, Nehru Path, Patna 800 021

SMP-58/2025

In the matter of:

Suo Motu Proceeding for determination of generic levelled tariff for power generated from Renewable Energy Sources for FY 2025-26

And

In the matter of:

Bihar State Power Holding Company Ltd. (BSPHCL)
South Bihar Power Distribution Company Ltd. (SBPDCL)
North Bihar Power Distribution Company Ltd. (NBPDCCL)
Bihar State Power Transmission Company Ltd. (BSPTCL)
Bihar Industries Association (BIA)
Bihar Chamber of Commerce and Industries (BCCI)

..... **Respondent**

Quoram:

1. Amir Subhani - Chairman
2. A.K Sinha - Member (Technical)
3. P.S Yadav - Member (Legal)

Appearance:

1. Shri G.K Chandsah, G.M (Finance)	M/s Harinagar Sugar Mills
2. Shri Vedang V. Pitte	
3. Shri Ravi Kumar Singh	M/s Magadh Sugar & Energy Ltd.
4. Shri Naresh Bhatt, Secretary	
5. Shri Avijeet Lala, Advocate	Bihar Sugar Mills Association
6. Shri Mrityunjay Kumar, ESE	
7. Shri Satish Kumar, EEE	BREDA
8. Shri Chitranjan Tiwari	HPCL Biofuels Ltd.
9. Shri Irshad Akhtar, ESE	SBPDCL
10. Shri Jayant Kr. Dubey, ESE	NBPDCCL
11. Smt. Manju Kumari, AEE	

ORDER

Date:-02.03.2026

1.0 Background:-

- 1.1 In exercise of the powers conferred under section 3(1),61(h),62((1)(a), 86(1)(e) and 181 of the Electricity Act,2003 and provisions of the National Electricity Policy, 2005 and the Tariff Policy, 2016, the Commission notified BERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2025 (hereinafter referred to as "the RE Tariff Regulations 2025"), on the 5.11.2025.
- 1.2 Three years control period was fixed under Regulation 5 of RE Tariff Regulations 2025, of which the first year of the control period shall be the financial year 2025-26. Whereas, norms and mechanism for tariff determination of Renewable Energy Projects were fixed in the RE Tariff Regulations, 2025 for the control period 2025-26 to 2027-28. However, the RE tariff Regulation empowers the Commission to review the benchmark capital cost on annual basis.
- 1.3 Further, the commission, in due discharge of the mandate enunciated under regulation (8) of the RE Tariff Regulations 2025, proposed to determine the generic (levellised) tariff of the RE projects for the first year of the extant control period i.e FY 2025-26 as per the enclosed annexures I to XIII.
- 1.4 The Commission is empowered to specify the terms and conditions for determination of tariff under section 61 of the Electricity Act, 2003 (hereinafter referred to as Act). Section 62 (1) (a) of the Act stipulates that the appropriate commission shall determine the tariff for supply of electricity by a generating company to a distribution licensee. The Commission has been mandated to determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State under section 86 (1) (a) of the Act.
- 1.5 As per the regulation 8 of the RE Tariff Regulations, 2025, Commission initiated Suo-Motu Proceedings to determine the generic levelised tariff of the RE projects for the first year of the control period i.e FY 2025-26 vide instant Case No. 58/2025.
- 1.6 In line with BERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025, the Generic levellised tariff for the first year of control period i.e FY 2025-26 from Renewable Energy Sources

shall be applicable retrospectively from 01.04.2025 (for the RE Projects commissioned) till 31.03.2026. This tariff shall also be applicable for RE projects commissioned after 31st March 2026 until the next generic levelised tariff order for RE projects is issued by the commission. Such tariff shall be valid for 25 years from the commercial operation date (COD) of the project in question.

- 1.7 A Consultative Paper for determination of generic levelised tariff for Terms and Conditions for Tariff determination from Renewable Energy Sources for FY 2025-26 was prepared and Commission initiated the process for determination of tariff by registering it as case no. SMP-58/2025 for it. A public notice along with Consultative Paper were uploaded on the website of the Commission inviting comments/objections/suggestions from Discoms, Stakeholders and general public till 19.1.2026. The Consultative Paper was circulated among the stakeholders including North Bihar Power Distribution Company Ltd. (NBPDC), South Bihar Power Distribution Company Ltd. (SBPDCL). The public notice was also published in Hindi, English and Urdu daily newspapers having wide circulation in the state of Bihar.

2. Hearings:

Representatives of NBPDC, SBPDCL, BREDA and Bihar Sugar Mills Association etc. were present during hearing. Further, in course of hearing, Bihar Sugar Mills Association, BREDA, NBPDC & SBPDCL submitted their comments/ suggestion/ objections and argued the matter in support of their respective submissions. Commission heard the case at length and order was kept reserved.

3. Commission's views on the comments/suggestions/objections of stakeholders:

Commission has examined the comments/suggestions and submissions made in respect of the proposed tariff for FY 2025-26. Commission's point wise observations & views on the objections/suggestions received against instant proceeding are discussed below: -

S.No	BERC draft Tariff Order for RE sources for FY 25-26	Proposed provisions by Discoms	Suggestions/ Comments by Discoms	Commission's view
North Bihar Power Distribution Company Ltd. & South Bihar Power Distribution Company Ltd.				
1.	<p>Accelerated Depreciation (Para 36) Subsidy or incentive by the Central / State Government Regulation 23 of the RE Tariff Regulations provides as under: <i>"The Commission shall take into consideration any incentive grant or subsidy from the Central or State Government, including accelerated depreciation benefit if availed by the generating company, for the renewable energy power plants 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></p> <p>i) <i>Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate and corporate income tax rate as per relevant provisions of Income</i></p>	<p>Subsidy or incentive by the Central/State Govt./Treatment of Income Tax Benefit on <i>Accelerated Depreciation (AD)</i> <i>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></p>	<p>It is requested that Hon'ble BERC may issue an express mandate requiring all generators seeking tariff approval or tariff pass-through to submit, alongwith their tariff petition/ true-up applications and annually thereafter, a certified statement confirming that they have not claimed and will not claim Additional Depreciation (AD) under the Income-tax. Act in respect of the assets for which tariff relief is being sought.</p>	<p>The suggestion is accepted. One provision in this regards is added in clause 36 of the draft as under: <i>"Provided that all generators seeking tariff approval or tariff pass through shall submit a certified statement confirming that they have not claimed and will not claim Additional Depreciation (AD) under the Income-tax Act in respect of the assets for which tariff relief is being sought."</i></p>

	<i>Tax Act, 1961.....</i> <i>.....”</i>			
2.	<p>Working Capital Interest Rate (Para 29)</p> <p>Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred fifty (350) 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, The details are as under:.....</p>	<p>Interest rate of 12.30% (SBI MCLR+350 bps) Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred fifty (350) 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.</p>	<p>It is hereby submitted that as per the Hon’ble Commission (Terms and Conditions for Tariff Determination from RE Source) Regulations 2025 clause 18(d) which is mentioned below: Interest on Working Capital shall be at 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. However, as per the Hon’ble Consultative Paper for determination of generic levelized Tariff for FY 2025-26 for Power Generated from Renewable Energy Sources (Para 29) which is mentioned below: Interest on Working Capital shall be at interest rate equivalent to the normative interest rate of three hundred fifty (350) basis points above the average State Bank of India MCLR (One Year Tenor) prevalent during the last available six months.....</p>	<p>The suggestion is accepted. The draft clause 29 is corrected as under:</p> <p><i>“Interest on Working Capital shall be at 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.”</i></p>

			Therefore, it is requested to Hon'ble BERC to review the Capital Interest assumption periodically. Since Higher Finance Cost impacts the tariffs and it's recovery.	
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BIHAR SUGAR MILLSASSOCIATION (BSMA)

3	<p>Regulations 18 of the BERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025</p> <p>18. Interest on Working Capital— d. Interest on Working Capital shall be at 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</p>	<p>A. Erroneous Application of SBI MCLR Reference Period for Computation of Interest on Working Capital: In the Draft Generic Tariff Order, the Commission has computed the Interest on Working Capital by adopting the average SBI MCLR (one-year tenor) for the six-month period June 2025 to November 2025. On this basis, the average MCLR has been taken as 8.80%, and by adding a margin of 350 basis points, the IWC has been worked out at 12.30% for FY 2025–26. This computation directly governs the working capital cost recovery available to bagasse-based</p>	<p>By adopting SBI MCLR values for June 2025 to November 2025, the Draft Generic Tariff Order anchors IWC for FY 2025–26 to financial conditions prevailing after the tariff is deemed to have come into force on 01.04.2025. This misalignment suppresses the working capital recovery available to bagasse-based cogeneration plants and causes avoidable prejudice to a sector that is inherently working-capital intensive, thereby undermining regulatory certainty and fairness in tariff determination.</p>	<p>As per Regulation 1(ii) of the BERC(Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025, the effective date for these regulations coming into effect is from 1.4.2025. In view of this, the above suggestion is accepted, and clause 28 of the draft is modified accordingly.</p>
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	available six months.....	<p>cogeneration plants during the tariff year.</p> <p>It is respectfully submitted that the Draft Generic Tariff Order suffers from a fundamental inconsistency in the identification of the reference period for computation of SBI MCLR for the purpose of IWC. The tariff being determined in the present proceeding is for FY 2025–26 and, by operation of Regulation 5 of the BERG RE Tariff Regulations, 2025 as well as the Draft Order itself, is deemed to be applicable from 1 April 2025. In this regulatory setting, the expression “average SBI MCLR prevalent during the last available six months” occurring in Regulation 18(d) necessarily bears a direct nexus with the commencement of the tariff year.</p>	<table border="1" data-bbox="1128 121 1563 507"> <thead> <tr> <th>Month</th> <th>SBI MCLR (1-year tenor)</th> </tr> </thead> <tbody> <tr> <td>October 2024</td> <td>8.95%</td> </tr> <tr> <td>November 2024</td> <td>9.00%</td> </tr> <tr> <td>December 2024</td> <td>9.00%</td> </tr> <tr> <td>January 2025</td> <td>9.00%</td> </tr> <tr> <td>February 2025</td> <td>9.00%</td> </tr> <tr> <td>March 2025</td> <td>9.00%</td> </tr> <tr> <td>Average</td> <td>8.99%</td> </tr> </tbody> </table> <p>The average MCLR for the above period works out to approximately 8.99%, which rounds off to 9.00%. Applying the regulatory spread of 325 basis points, as expressly prescribed under Regulation 18(d), the IWC ought to have been computed with reference to an interest rate of 12.25%. While the Draft Generic Tariff Order has applied a spread of 350 basis points, the present submission is confined to the issue of identification of the correct reference period for SBI MCLR, which forms the foundational input for computation of Interest on Working Capital under the Regulations.</p>	Month	SBI MCLR (1-year tenor)	October 2024	8.95%	November 2024	9.00%	December 2024	9.00%	January 2025	9.00%	February 2025	9.00%	March 2025	9.00%	Average	8.99%	
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4		<p><u>B. Inconsistency in Identification of SBI MCLR for Computation of Interest on Loan</u></p> <p>In the Draft Generic Tariff Order for FY 2025–26, the Commission has computed the interest on loan by adopting SBI MCLR values for the period June 2025 to November 2025. However, the tariff is determined to be applicable from 01.04.2025. The reference period adopted for averaging SBI MCLR does not, therefore, precede the tariff year, resulting in the interest on loan for FY 2025–26 being benchmarked to financial parameters that are not aligned with the tariff period for which the tariff is being determined.</p> <p>It is respectfully submitted that the expression “last available six months” under Regulation 15 must be applied in a manner that is consistent with the tariff year for which the tariff is being determined. The reference SBI MCLR is required to have a clear temporal linkage with the commencement of the tariff year, so that the tariff reflects financial conditions prevailing at that point in time.</p>	<p>The Draft Generic Tariff Order adopts the same misaligned reference period for SBI MCLR both for computation of IWC and for computation of interest on loan. The simultaneous use of a non-aligned reference period for two distinct cost components compounds the distortion in tariff determination and operates to the prejudice of bagasse-based cogeneration plants, which are particularly sensitive to financing costs.</p> <p>It is therefore respectfully submitted that the SBI MCLR reference period adopted for computation of interest on loan also requires reconsideration and alignment with the six months preceding FY 2025–26, in conformity with the regulatory scheme.</p>	<p>As discussed at S. No. 2 and 3 herein above.</p>
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5		<p><u>B. Need for a Facilitative Regulatory Approach to Enable Continued Procurement from Uncontracted Bagasse-Based Cogeneration Capacity</u></p> <p>It is respectfully submitted that a substantial portion of Bihar’s bagasse-based cogeneration capacity remains uncontracted despite retaining significant residual useful life and being fully capable of continued export to the grid. Bagasse-based cogeneration accounts for more than 18% of Bihar’s total installed renewable capacity. However, over 68 MW of this bagasse-based cogeneration capacity presently remains uncontracted, largely on account of expiry of PPAs, notwithstanding the continued technical viability and efficient operation of these plants. This under- utilisation assumes particular significance in light of the State’s RPO position. Bihar State Power Holding Company Ltd., in its submissions before this Hon’ble Commission in Case No. 44 of 2025, has expressly acknowledged projected RPO shortfalls of 926 MUs in FY 2026–27, 2,397 MUs in</p>	<p>It is requested to provide appropriate regulatory enablers to facilitate power procurement from viable in-State bagasse-based cogeneration plants with expired PPAs but substantial residual useful life, consistent with Regulation 4.2 of the BERC RPO Regulations, 2025 and Section 86(1)(e) of the Electricity Act, 2003.</p>	<p>This suggestion is not related to matter in hand. Therefore, this suggestion is not accepted.</p>
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		<p>FY 2027–28, and 6,924 MUs by FY 2029–30. These admitted deficits demonstrate that available in-State renewable capacity is insufficient to meet statutory RPO requirements, thereby necessitating full utilisation of all viable in-State renewable resources, including bagasse-based cogeneration.</p> <p>Procurement from bagasse-based cogeneration plants with expired PPAs is commercially viable. Given that such plants have already undergone substantial capital recovery, procurement based on renewal of PPAs would entail a lower cost burden in practice.</p>		
BIHAR RENEWABLE ENERGY DEVELOPMENT AGENCY (BREDA)				
6			Draft for determination of Generic Levellised Tariff of the projects mentioned in point 4 appear in order.	Noted

4. Commission's Analysis and Order:

1. Regulation 7 of the RE Tariff Regulations, 2025 provides for determination of project specific tariff on case-to-case basis for the following types of Renewable Energy Projects:
 - i. Biomass Projects, Biomass gasifier-based power projects, and biogas-based power projects – if a project developer opts for project specific tariff;
 - ii. Solar PV power projects, floating solar projects and Solar Thermal Power Projects;
 - iii. Municipal solid waste-based power projects and refuse derived fuel based municipal solid waste power projects – if a project developer opts for project specific tariff;
 - iv. Renewable energy with storage projects;
 - v. Other hybrid projects include renewable–renewable or renewable–conventional sources, for which renewable technology is approved by MNRE;
 - vi. Any other new renewable energy technologies approved by MNRE.

2. Regulation "8" of RE tariff regulations, 2025 provides for determination of generic levelised tariff on annual basis for the following types of Renewable Energy projects:-
 - a. Biomass Power Projects based on Rankine Cycle technology;
 - b. Non-fossil fuel-based co-generation Projects
 - c. Biomass Gasifier based projects;
 - d. MSW/RDF project based on Rankine cycle

3. The Commission, in due discharge of the mandate of the RE Tariff Regulations 2025, proposes to determine the generic tariff of the RE projects mentioned in the point 4 above for the FY 2025-26 as per the details mentioned in **Annexure I to XIII**.

4. The proposed levelised generic tariffs for Biomass power projects with Rankine Cycle, Non-fossil fuel based co-generation projects, Biomass Gasifier based projects and MSW/RDF project based on Rankine cycle for FY 2025-26 are as under:-

USEFUL LIFE

5. Clause (hh) of Regulation 2 of the RE Tariff Regulations defines 'useful life' in relation to a unit of a generating station (including evacuation system)

to mean the following durations from the date of commercial operation (COD) of such generation facility:

(a) Wind energy power project	25 years
(b) Biomass power project with Rankine cycle technology	25 years
(c) Non-fossil fuel cogeneration project	25 years
(d) Small Hydro Project	40 years
(e) Municipal Solid Waste / and Refuse Derived Fuel based Project	20 Years
(f) Solar PV/Solar thermal power project	25 years
(g) Biomass Gasifier based power project	25 years
(h) Biogas based power project	25 years

CONTROL PERIOD

6. Regulation 5 of the RE Tariff Regulations provides that the control period for determination of tariff for renewable energy projects (RE projects) shall be of 3(three) years, of which the first year is FY 2025-26. The proviso to the said regulation stipulates that the tariff determined for the RE projects commissioned during the control period shall continue to be applicable for the entire duration of the tariff period as specified in Regulation 6 of the RE Tariff Regulations 2025, which mentions that tariff period for RE power projects will be same as defined in Regulation 2(hh) of these Regulations. It has further been provided that in case the Regulations for the next Control Period are not notified until commencement of the next Control Period (CP), the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulation, subject to subsequent adjustment as per revised Regulation.

TARIFF STRUCTURE

7. Regulation 9 of the RE Tariff Regulations stipulates that the tariff for RE projects shall be single part tariff consisting of the following fixed cost components:
- Return on equity;
 - Interest on loan;
 - Depreciation;
 - Interest on working capital; and
 - Operation and maintenance expenses;

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

TARIFF DESIGN

8. Regulation 10 of the RE Tariff Regulations outlines the principles for tariff design for RE generating projects as under:
 - (1) The generic tariff shall be determined on levelled basis considering the year of commissioning of the project, for the tariff period of the project provided that for renewable energy projects having single part tariff with two components, fixed cost component shall be determined on levelled basis considering the year of Commissioning of the project, while fuel cost component shall be determined on year of operation basis in the Tariff order to be issued by the Commission.
 - (2) For the purpose of levelled tariff computation, the discount factor equivalent to post-tax weighted average cost of capital shall be considered.
 - (3) The above provision shall also apply for project specific tariff.

LEVELLED TARIFF

9. Levelled Tariff is calculated by carrying out levelisation for 'useful life' of each technology considering the discount factor for time value of money. Norms considered for computation of tariff are as below:

DISCOUNT FACTOR

10. In accordance with Regulation 10(2) read with Regulation 14, of RE Tariff Regulations, 2023 the discount factor considered for this exercise is equal to the post tax weighted average cost of capital on the basis of normative debt equity ratio (70:30) specified in the Regulations.

Considering the normative debt equity ratio and weighted average of the post-tax rates for debt and equity component, the discount factor is calculated. Interest Rate considered for the loan component (i.e.70 %) of

capital cost is 10.80%. For equity component (i.e. 30 %), rate of Return on Equity (ROE) is considered at post tax rate of 14%.

As per Regulation 10 (2) read with Regulation 13 & 15(2), of the RE Tariff Regulations 2025, the discount factor considering weighted average post-tax cost of capital derived for all technologies taking the normative Debt – Equity ratio of 70:30 will be **9.11%, as per** the calculation shown below:-

$$((10.80 \% \times 0.70 \times (1 - 34.94\%)) + (14.0\% \times 0.30)) = \mathbf{9.11\%},$$

(Income tax rate @ 34.94%)

CAPITAL COST

11. Regulation 13 of the RE Tariff Regulations 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, and evacuation infrastructure up to inter-connection point. The Commission has proposed the normative capital cost, applicable for the third year of control period i.e. for FY 2025-26, for various RE technologies in the subsequent paragraphs.

Technology specific capital cost of RE projects is indicated hereinbelow:

(A) Capital Cost of Biomass based Power Projects

12. The Commission, under Regulation 25 of the RE Tariff Regulations, 2025 retains the normative capital cost for Biomass Power Projects based on Rankine cycle technology for FY 2025-26, as under:

Biomass Rankine Cycle Projects	Capital Cost (FY 2025-26) (Rs. lakh/MW)
Project [other than rice straw and juliflora (plantation) based project] with water cooled condenser	638
Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser	685
For rice straw and juliflora (plantation) based project with water cooled condenser	697
For rice straw and juliflora (plantation) based project with air cooled condenser	744

(B) Capital Cost of Non-fossil fuel based Cogeneration Projects

15. Non-fossil based cogeneration has been defined as the process in which more than one form of energy is produced in a sequential manner by using biomass. As per Regulation 4(d) of the RE Tariff Regulations. The project shall qualify to be termed as a non-fossil fuel-based co-generation project, if it is using new plant and machinery and is in accordance with the definition and also meets the qualifying requirement outlined below:

Topping cycle mode of co-generation—Any facility that uses non-fossil fuel input for the power generation and also utilizes the thermal energy generated for useful heat applications in other industrial activities simultaneously.

Provided that for the co-generation facility to qualify under topping cycle mode, the sum of useful power output and one half the useful thermal output be greater than 45% of the facility's energy consumption, during season.

16. The Commission, under Regulation 33 of RE Regulation 2025, has fixed the normative capital cost for the Non-Fossil Fuel Based Cogeneration Projects as Rs. 562 lakhs/MW for high pressure boiler projects for first year of Control Period (i.e. FY 2025-26), which will remain valid for the entire duration of the control period unless reviewed by the Commission.

(C) Capital Cost of Biomass Gasifier Power Projects

17. The Commission under Regulation 41 has proposed to retain the normative capital cost for the Biomass Gasifier power projects based on Rankine cycle to be Rs. 677 lakhs/MW for FY 2025-26.

(D) Capital Cost of power projects using Municipal solid waste/refuse derived fuel and based on Rankine cycle technology:

18. The capital cost for FY 2025-26 shall be the normative capital cost for the power projects which use MSW based on Rankine Cycle Technology shall be Rs. 1500 Lakh/MW and for refuse derived fuel-based Power Plant shall be Rs. 900 Lakh/MW. The capital cost shall remain valid during the control period unless reviewed earlier by the Commission.

Accordingly, the capital cost for the first year (i.e. for FY 2025-26) of the control period in respect of the renewable energy power generating stations is summarized as under:-

Renewable Energy Projects	Capital Cost (FY 2025-26) (Rs. lakh/MW)
(1) Biomass Based Power Projects	
a. Project [other than rice straw and juliflora(plantation) based project] with water cooled condenser	638
b. Project [other than rice straw and Juliflora(plantation) based project] with air cooled condenser	685
c. For rice straw and juliflora (plantation) based project with water cooled condenser	697
d. For rice straw and juliflora(plantation) based project with air cooled condenser	744
(2) Non-fossil fuel based Cogeneration Projects	562
(3) Biomass Gasifier Power Projects	677
(4) power projects using Municipal solid waste/refuse derived fuel and based on Rankine cycle technology	
a. MSW based on Rankine Cycle Technology	1500
b. Refuse derived fuel based MSW Power Plant	900

13. The Capital Cost, for above mentioned RE technologies, as proposed for first Year of the control period and shall remain valid during entire control period unless reviewed by the Commission.

DEBT-EQUITY RATIO

14. Sub-Regulation (1) of Regulation 14 of the RE Tariff Regulations 2025, stipulates as under: "*For determination of generic tariff, the debt equity ratio shall be 70:30*"
15. Based on the debt equity ratio of 70:30, the debt and equity components of the normative capital cost for determination of tariff for the RE projects have been worked out as under:

Renewable Energy Projects	Debt (Rs. Lakh)	Equity (Rs. Lakh)	Total (Rs Lakh)
(1) Biomass Based Power Projects			
Project [other than rice straw and juliflora (plantation) based project] with water cooled Condenser	446.60	191.40	638
Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser	479.50	205.50	685
For rice straw and juliflora (plantation) based project with water cooled condenser	487.90	209.10	697

For rice straw and juliflora (plantation) based project with air cooled condenser	520.80	223.20	744
(2) Non-fossil fuel based Cogeneration Projects	393.40	168.60	562
(3) Biomass Gasifier Power Projects	473.90	203.10	677
(4) power projects using Municipal solid waste/refuse derived fuel and based on Rankine cycle technology			
MSW based on Rankine Cycle Technology	1050	450	1500
Refuse derived fuel based MSW Power Plant	630	270	900

RETURN ON EQUITY

16. Regulation 17(b) of the RE Tariff Regulations, stipulates that "The normative Return on Equity shall be 14 %, to be grossed up by the latest available notified MAT rate for first 20 years of the tariff period and by the latest available notified corporate tax rate for the remaining period". Accordingly, the normative Return on Equity (ROE), after grossing up by latest available notified MAT rate of 17.47% (Average rate) derived for first 20 years of the tariff period and latest available notified corporate tax rate of 34.94% (Average rate) for remaining years of the tariff period, will be **16.96% and 21.52% respectively**. As per Calculation of "(14 %/(1-17.47%))" and "(14 %/(1-34.94%))"

INTEREST ON LOAN

17. Regulation 15 of the RE Regulation 2025, provides for computation of interest on loan as under:
- (a) *"The loan arrived at in the manner indicated in Regulation 14 shall be considered as gross normative loan for calculation of interest on loan. For project specific tariff, the normative loan outstanding as on 1st of April of every year shall be worked out by deducting the cumulative repayment up to 31st March of previous year from the gross normative loan.*
- (b) *For the purpose of computation of tariff, normative interest rate of two hundred (200) basis points above the average State Bank of India MCLR (Marginal Cost Lending Rate - one year tenure) prevalent during the last available six months shall be considered.*

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

18. The monthly data of MCLR for the last available six months from State Bank of India and the average MCLR is shown below.

Month	Tenure-wise MCLR Rates (Source: SBI Monthly Press Releases)
October 2024	8.95%
November 2024	9.00%
December 2024	9.00%
January 2025	9.00%
February 2025	9.00%
March 2025	9.00%
Avg. for last Available 6 months	8.99

19. **In terms of the above, interest rate for loan component after adding the stipulated 200 points over the average MCLR, has been determined as 10.99% per annum.**

DEPRECIATION

20. Regulation 16 of the RE Tariff Regulations, 2025 provides for computation of depreciation in the following manner:

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

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

b. Depreciation rate of 4.67 % per annum for first 15 years shall be considered. The remaining depreciation shall be spread during remaining useful life of the RE projects considering the salvage value of the project as 10% of project cost.

c. Depreciation shall be computed from the first year of commercial operation;

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

- 21.** In accordance with the above provisions, the rate of depreciation for the first 15 years has been considered as 4.67 % and from the 11th year onwards the same has been spread over the balance useful life of the RE project as under:

Details	Biomass	Non-fossil fuel cogeneration	Biomass Gasifier	power projects using MSW/RDF on Rankine cycle technology
Useful Life (in years)	25	25	25	20
Rate of depreciation for 15 years (%)	4.67	4.67	4.67	4.67
Rate of depreciation after 15 years (%)	2	2	2	4

INTEREST ON WORKING CAPITAL

- 22.** The Working Capital requirement in respect of biomass power projects with Rankine Cycle technology, Biomass Gasifier based power projects, non-fossil fuel-based co-generation, Municipal Solid Waste and Refuse Derived Fuel projects shall be computed in accordance with the following clause:
- Fuel costs for four months equivalent to normative PLF; however, in case of non-fossil fuel based co-generation, fuel cost for one month will be considered.
 - Operation & Maintenance expense for one month;
 - Receivables equivalent to 45 days of tariff for sale of electricity calculated on the PLF; and
 - Maintenance spare equivalent to 15% of operation and maintenance expenses
- 23.** Interest on Working Capital shall be at 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, Accordingly, the details are as under:

Details	Biomass	Non-fossil fuel cogeneration	Biomass Gasifier	power projects using Municipal solid waste/refuse derived fuel and based on Rankine cycle technology
For Fixed Charge				
O & M Expenses (in Month)	1	1	1	1
Maintenance spares (%) of O&M expenses	15	15	15	15
Receivables (in months)	1.5	1.5	1.5	1.5
For Variable Charge				
Fuel stock (in months)	4	1	4	4
Interest On Working Capital (%)	12.24%	12.24%	12.24%	12.24%

24. Calculation of PLF.—The number of hours per annum for calculation of PLF for various RE technologies shall be 8760.

Operation and Maintenance Expenses

25. Regulation 20 of the RE Tariff Regulations 2025, explains the computation of O & M expenses as under:

(1) Operation and Maintenance or O&M expenses shall comprise repair and maintenance (R&M), establishment including employee expenses, and administrative and general expenses.

(2) Operation and Maintenance expenses for the first Year of the Current Control Period, shall be determined on the basis of normative O&M expenses specified by the Commission in the Regulations.

(3) Normative O&M expenses for the first year of the Current Control Period (i.e. for FY 2025-26) is to be allowed after escalating the normative O&M expenses for the first year of the current Control period at the rate of 3.84% per annum for the Tariff Period.

Accordingly, the normative O&M expenses for various RE technologies specified under the relevant provisions of the RE Tariff Regulations for FY 2025-26 shall be as under:

Details	Biomass	Non-fossil fuel cogeneration	Biomass Gasifier	power projects using Municipal solid waste cycle technology	power projects using refuse derived fuel and based on Rankine cycle technology
O & M Expenses (in Rs Lakh per MW)(FY 2025-26)	56.05	29.60	74.02	126.10	75.67

Plant Load Factor

26. Regulations 26, 34, 41 and 47 of the RE Tariff Regulations specify the plant load factor for Biomass, Biomass Gasifier and MSW/ RDF based renewable energy generating stations as given in the table below which has been considered for determination of fixed charges component of tariff.

Renewable Energy Projects	PLF (%)	
(A) Biomass Power Projects based on Rankine cycle Technology	80	
(B) Biomass Gasifier based Power Projects	85	
(C) Non-fossil fuel based Cogeneration Projects	53	
(D) Municipal solid waste (MSW) /refuse derived fuel (RDF)	MSW	RDF
(i) During stabilization(6months)	65	65
(ii) During remaining period of the first year (after stabilization Period)	65	65
(iii) Second year onwards	75	80

Auxiliary Power Consumption

27. RE Tariff Regulations stipulate the auxiliary power consumption factor for different technologies as under:

Renewable Energy Projects	Auxiliary Consumption Factor
Biomass Power Projects based on Rankine cycle Technology	
The project using water cooled condenser	10%.
project using air cooled condenser	12%.

Non-fossil fuel co-generation Projects	8.5%
Biomass Gasifier based Power Projects	10%
Municipal solid waste based and Refuse Derived Fuel based power projects	15%

STATION HEAT RATE

28. The Station Heat Rates (SHR) specified under Regulations for biomass and non-fossil fuel-based co-generation projects are as under:

Renewable Energy Projects	SHR (kCal/kWh)
Biomass Power Projects based on Rankine cycle Technology	a. 4200 : for project using travelling grate boilers; b. 4125: for project using AFBC boilers.
Non-fossil fuel-based co-generation (for power generation component alone)	3600
Municipal solid waste based (MSW) /refuse derived fuel (RDF) based power projects	4200

Fuel Mix

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

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

30. The Biomass Gasifier based Power Generating Companies shall ensure fuel management plan to ensure adequate availability of fuel to meet the respective project requirements normative specific fuel consumption shall be 1.25 kg per kWh for Biomass Gasifier based power generating stations.
- The Calorific Value of the biomass fuel used for the purpose of determination of tariff shall be at 3100 kCal/kg.
 - The Gross Calorific Value for Bagasse shall be considered as 2250 kCal/kg. For the use of biomass fuels other than bagasse the calorific value as specified above shall be applicable.

- c. The Calorific Value of the Refuse Derived Fuel (RDF) used for the purpose of determination of tariff shall be at 2500 kcal/kg.

Fuel cost: Fuel Cost for FY 2025-26:-

- a. The Regulation 32 of RE Regulations 2025, has fixed the price of Biomass for the first year of the Control Period i.e. for FY 2025-26 @ ₹4472.72/ MT. It also provided that for the purpose of determining levelized tariff, a normative escalation factor of 3.45% per annum shall be applicable on biomass fuel price.
- b. (i) Similarly, the price of Bagasse for first year of Control Period (i.e. FY 2025-26) shall be Rs. 2859.32/MT.
(ii) For use of biomass other than bagasse in co-generation projects, the biomass prices as specified above shall be applicable.
- c. Biomass fuel price for the Biomass gasifier-based power project applicable for FY 2025-26 shall be the same as for the biomass based power project (Rankine cycle) as mentioned above.
- d. Similarly the Refuse derived fuel (RDF) price for FY 2025-26 shall be Rs 2620.49 per MT.

No fuel cost shall be considered for determination of tariff for the power projects using municipal solid waste (MSW).

Subsidy or incentive by the Central / State Government

Regulation 23 of the RE Tariff Regulations provides as under:

"The Commission shall take into consideration any incentive grant or subsidy from the Central or State Government, including accelerated depreciation benefit if availed by the generating company, for the renewable energy power plants 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 Income Tax Act, 1961.....*

.....

- iii) *Per unit benefit shall be derived on levelled basis at discount factor equivalent to weighted average cost of capital."*

Provided that all generators seeking tariff approval or tariff pass through shall submit a certified statement confirming that they have not claimed and will not claim Additional Depreciation (AD) under the Income-tax Act in respect of the assets for which tariff relief is being sought.

In terms of the above regulation, for the projects availing the benefit of accelerated depreciation, an applicable Income tax rate of 34.94% has been considered. For the purpose of determining net depreciation benefits, depreciation @ 7 % as per straight line method (Book depreciation as per Companies Act, 1956) has been compared with depreciation as per Income Tax Act i.e. 40% of the written down value method. Moreover, additional 20% depreciation in the initial year has been extended to new assets acquired by power generation companies vide amendment in the section 32, sub-section (1) clause (iia) of the Income Tax Act, accordingly depreciation as per Income Tax Act for the first year has been calculated at the rate of 60% i.e accelerated depreciation of 40% plus additional depreciation of 20%. Income tax benefits of accelerated depreciation and additional depreciation, has been worked out as per normal tax rate on the net depreciation benefit. Per unit levelised accelerated depreciation benefit has been computed considering the post-tax weighted average cost of capital as discount factor. Accelerated depreciation benefit has been computed as per existing provisions of Income Tax Act.

In the light of the discussion made in the preceding paragraphs, the generic tariff of different RE projects for the financial year 2025-26 has been arrived at as specified hereunder:

The generic levelised tariff for Renewable Energy (RE) based generating stations in accordance with provisions of Bihar Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025, determined on the basis of above parameter shall be as hereunder:

S.N.	Project	Fixed Cost (Rs./kwh)	Variable Cost (Rs./kwh)	Tariff (Without Accelerated Depreciation) (Rs./kwh)	Tariff (With Accelerated Depreciation) (Rs./kwh) (Applicable for projects commissioned in FY 2025-26)
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1	Biomass Gasifier Power Projects	3.42	6.21	9.63	9.49
2	Non Fossil fuel based Co-generation projects (Bagasse)	2.95	5.00	7.95	7.77
3	Non Fossil fuel based Co-generation projects (Other Than Bagasse)	2.98	5.68	8.66	8.48
4	Municipal solid waste based on Rankine cycle technology	6.98	0	6.98	6.48
5	RDF based on Rankine cycle technology.	4.33	5.18	9.51	9.23
6	Biomass Power Project [other than rice straw and Juliflora (plantation) based project with air cooled condenser with AFBC boiler	3.32	6.76	10.08	9.95
7	Biomass Power Project [For rice straw and juliflora (plantation) based project] with air cooled condenser with AFBC boiler	3.42	6.76	10.18	10.01
8	Biomass Power Project [For rice straw and juliflora (plantation)] with water cooled condenser with AFBC boiler	3.24	6.61	9.85	9.70
9	Biomass Power Project [other than rice straw and juliflora (plantation) based project] with water cooled condenser with AFBC boiler	3.14	6.61	9.75	9.61
10	Biomass Power Project [other than rice straw and Juliflora(plantation) based project with air cooled condenser with travelling grate boiler	3.33	6.89	10.22	10.07
11	Biomass Power Project [For rice straw and juliflora(plantation) based project] with air cooled condenser with travelling grate boiler	3.46	6.89	10.35	10.18
12	Biomass Power Project [For rice straw and juliflora (plantation)] with water cooled condenser with travelling grate boiler	3.28	6.73	10.01	9.86

13	Biomass Power Project [other than rice straw and juliflora (plantation) based project] with water cooled condenser with travelling grate boiler	3.15	6.73	9.88	9.74
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In line with BERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025, the Generic levelled tariff for the first year of control period i.e FY 2025-26 from Renewable Energy Sources shall be applicable retrospectively from 01.04.2025 (for the RE Projects commissioned) till 31.03.2026. This tariff shall also be applicable for RE projects commissioned after 31st March 2026 until the next generic levelled tariff order for RE projects is issued by the commission. This order shall be applicable to the projects located in the State of Bihar for the sale of electricity to the beneficiaries.

The Annexures (Annexure I to XIII) for Project-specific norms and detailed computations of the generic levelled tariff as indicated in above table are attached herewith.

Other terms and conditions as stipulated in Bihar Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2025, shall remain unchanged.

The Commission reserves the right to alter, modify or amend any provision of this order at any time, after following the due process.

**Sd/-
(P.S Yadav)
Member**

**Sd/-
(A.K Sinha)
Member**

**Sd/-
(Amir Subhani)
Chairman**

Annexure-I A

Norms and Parameter for Biomass Gasifier Power Project

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity Plant Load Factor Auxiliary Consumption	MW % %	1 85 10
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs.Lac/MW	677
3.	Financial Assumptions	Debt :Equity	Tariff Period Debt Equity	Year % %	25 70 30
		Debt Component	Total Debt Amount Total Equity Amount Repayment Period Interest rate	Rs. Lakh Rs. Lakh Year %	473.90 203.1 15 10.99%
		Equity Component	Equity Amount Return on Equity first 20 years ROE 20 th year onwards	Rs. Lakh %	203.1 16.96 21.52
		Discount rate	discount rate	%	9.11
		Depreciation	Depreciation rate first 10 years Depreciation rate 11 th year onwards	% %	4.67 2
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh %	74.02 3.84
5.	Working capital	O&M expenses		Month	1

		Maintenance Spare Receivables Interest on working capital	(% O & M expenses)	% Month %	15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate FuelType &mix	GCV of Fuel Specific fuel Consumption Price of Fuel fuel price escalation factor	kCal/Kwh kCal/Kwh Kg/Kwh Rs/MT %p.a	 1.25 4472.72 3.45

Annexure-I B

Determination of Tariff for Biomass Gasifier based technology (FY 2025-26)																											
Capital Cost	Lakh/MW	677																									
Units Generation	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745	0.745
Actual Generation	MU		6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701	6.701
Actual Generation month Wise	MU		0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558	0.558
Tariff Components Fixed Cost																											
Tariff Components Fixed Cost	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M Expenses	Rs Lakh		74.02	76.86	79.81	82.88	86.06	89.37	92.80	96.36	100.06	103.90	107.89	112.04	116.34	120.81	125.45	130.26	135.26	140.46	145.85	151.45	157.27	163.31	169.58	176.09	182.85
Depreciation	Rs Lakh		31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62	31.62
Interest on term loan	Rs Lakh		49.47	46.06	42.64	39.23	35.82	32.40	28.99	25.57	22.16	18.74	15.33	11.91	8.50	5.09	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		28.95	29.85	30.78	31.74	32.74	33.78	34.85	35.97	37.12	38.32	39.56	40.85	42.18	43.56	44.99	46.22	47.82	49.46	51.17	52.93	54.90	56.80	58.75	60.78	62.88
Return on Equity	Rs Lakh		34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45	34.45
Total Fixed Cost	Rs Lakh		218.51	218.83	219.30	219.91	220.68	221.61	222.70	223.96	225.40	227.03	228.84	230.86	233.08	235.52	238.17	242.47	231.07	237.91	245.01	252.37	260.42	277.35	285.58	294.12	302.98
Variable Cost																											
VARIABLE COST PER UNIT AT BUS BAR	Rs./Kwh	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
BIO MASS FUEL COST	Rs. Lakh		6.21	6.43	6.65	6.88	7.11	7.36	7.61	7.88	8.15	8.43	8.72	9.02	9.33	9.65	9.99	10.33	10.69	11.06	11.44	11.83	12.24	12.66	13.10	13.55	14.02
	Rs. Lakh		416.30	430.66	445.52	460.89	476.79	493.24	510.26	527.86	546.07	564.91	584.40	604.56	625.42	647.00	669.32	692.41	716.30	741.01	766.57	793.02	820.38	848.68	877.96	908.25	939.59
Per Unit Cost of Generation	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
O&M expn	Rs./Kwh		1.10	1.15	1.19	1.24	1.28	1.33	1.38	1.44	1.49	1.55	1.61	1.67	1.74	1.80	1.87	1.94	2.02	2.10	2.18	2.26	2.35	2.44	2.53	2.63	2.73
Depreciation	Rs./Kwh		0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Int. on term loan	Rs./Kwh		0.74	0.69	0.64	0.59	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int. on working capital	Rs./Kwh		0.43	0.45	0.46	0.47	0.49	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	0.82	0.85	0.88	0.91	0.94
RoE	Rs./Kwh		0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	
Total COG	Rs./Kwh		3.26	3.27	3.27	3.28	3.29	3.31	3.32	3.34	3.36	3.39	3.41	3.44	3.48	3.51	3.55	3.58	3.65	3.72	3.80	3.89	4.02	4.14	4.26	4.39	4.52
Levelised fixed Cost 3.22	Rs./Unit																										
LEVELLISED FIXED COST																											
NOMINAL FIXED TARIFF	Rs./Unit	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
DISCOUNT FACTOR	9.11%		1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12
PV OF NOMINAL FIXED TARIFF	Rs./Unit		3.26	2.99	2.75	2.53	2.32	2.14	1.97	1.82	1.67	1.55	1.43	1.32	1.22	1.13	1.05	0.91	0.85	0.81	0.76	0.72	0.70	0.66	0.63	0.59	0.56
LEVELLISED FIXED TARIFF	Rs./Unit		3.42																								
VARIABLE COST FOR FY 24-25	Rs./Unit		6.21																								
APPLICABLE TARIFF FOR 24-25	Rs./Unit		9.63																								
Depreciation Amount	%		90%																								
Book Depreciation Rate	%		5.28%																								
Tax Depreciation Rate	%		40%																								
Additional Depreciation	%		20%																								
Income Tax (Normal Rate)	%		34.940%																								
Capital Cost	Rs. Lakh		677.00																								
Discount Factor	%		9.11%																								
Accelerated Depreciation																											
Book Depreciation	Rs. Lakh	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Book Depreciation	Rs. Lakh		17.87	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75	35.75
Accelerated Depreciation																											
Opening	%		100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%		30.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%		70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	
Accelerated Depreciation	Rs. Lakh		203.10	236.95	94.78	56.87	34.12	20.47	12.28	7.37	4.42	2.65	1.59	0.96	0.57	0.34	0.21	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00
Net Depreciation Benefit	Rs. Lakh		185.23	201.20	59.03	21.12	-1.62	-15.27	-23.46	-28.38	-31.32	-33.09	-34.15	-34.79	-35.17	-35.40	-35.54	-35.62	-35.67	-19.45	0.03	0.02	0.01	0.01	0.00	0.00	0.00
Income Tax Gain	Rs. Lakh		64.72	70.30	20.63	7.38	-0.57	-5.34	-8.20	-9.91	-10.94	-11.56	-11.93	-12.16	-12.29	-12.37	-12.42	-12.45	-12.46	-6.80	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Discounting Factor			1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12
Discounted Tax Gain	Rs. Lakh		64.72	64.43	17.33	5.68	-0.40	-3.45	-4.86	-5.39	-5.45	-5.28	-4.99	-4.66	-4.32	-3.98	-3.66	-3.37	-3.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Levelised Income Tax Gain	Rs. Lakh		9.20																								

Annexure-II A
Norms and Parameter for Non-fossil fuel based Cogeneration (bagasse) Projects

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	53
			Auxiliary Consumption	%	8.5
2.	Power Cost	Capital Cost/MW	CapitalCost Project	Rs.Lac/MW	562
3.	Financial Assumptions	Debt :Equity	Tariff Period	Year	25
			Debt	%	70
		Equity	%	30	
		Debt Component	Total Debt Amount	Rs. Lakh	393.40
			Total Equity Amount	Rs. Lakh	168.60
			Repayment Period	Year	15
			Interest rate	%	10.99%
		Equity Component	Equity Amount	Rs. Lakh	168.60
			Return on Equity first 20 years	%	16.96
			ROE 20 th year onwards		21.52
Depreciation	discount rate	%	9.11		
	Depreciation rate first 10 years	%	4.67		
	Depreciation rate 11 th year onwards	%	2.00		

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs. Lakh/MW	29.60
				%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month	1
				%	15
				Month	1.5
				%	12.24
6.	Fuel related assumptions	Station Heat Rate		kCal/Kwh	3600
		Fuel Type & mix	GCV of F u e l	kCal/Kwh	2250
			Price of Fuel		
			fuel price	Rs/MT	2859.32
			escalation factor	%p.a	3.45

Determination of Tariff for Non-fossil fuel based (Bagasse) Cogeneration Projects (FY 2025-26)																												
Capital Cost		Lakh/MW	562																									
Units Generation		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity		MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation		MU		4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	
Auxiliary Consumption		MU		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	
Actual Generation		MU		4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	
Actual Generation month Wise		MU		0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	0.354	
Tariff Components Fixed Cost		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M Expenses		Rs Lakh		29.60	30.74	31.92	33.14	34.42	35.74	37.11	38.53	40.01	41.55	43.15	44.80	46.52	48.31	50.16	52.09	54.09	56.17	58.33	60.56	62.89	65.31	67.81	70.42	73.12
Depreciation		Rs Lakh		26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25	26.25
Interest on term loan		Rs Lakh		41.07	38.24	35.40	32.57	29.73	26.90	24.06	21.23	18.39	15.56	12.72	9.89	7.06	4.22	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital		Rs Lakh		8.35	8.55	8.75	8.97	9.19	9.43	9.67	9.92	10.19	10.46	10.75	11.04	11.35	11.68	12.01	12.15	12.55	12.98	13.41	13.86	14.45	14.93	15.44	15.95	16.49
Return on Equity		Rs Lakh		28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59	28.59
Total Fixed Cost		Rs Lakh		133.86	132.36	130.91	129.52	128.18	126.90	125.68	124.52	123.43	122.41	121.46	120.58	119.77	119.05	118.40	104.07	106.48	108.98	111.57	114.26	124.86	127.76	130.77	133.89	137.14
Variable Cost		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
VARIABLE COST PER UNIT AT BUS BAR		Rs./Kwh	5.00	5.17	5.35	5.54	5.73	5.92	6.13	6.34	6.56	6.78	7.02	7.26	7.51	7.77	8.04	8.32	8.60	8.90	9.21	9.52	9.85	10.19	10.54	10.91	11.28	
BIOMASS FUEL COST		Rs. Lakh	212.40	219.73	227.31	235.15	243.27	251.66	260.34	269.32	278.62	288.23	298.17	308.46	319.10	330.11	341.50	353.28	365.47	378.08	391.12	404.62	418.57	433.02	447.95	463.41	479.40	
Per Unit Cost of Generation		Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
O&M cogs		Rs./Kwh	0.70	0.72	0.75	0.78	0.81	0.84	0.87	0.91	0.94	0.98	1.02	1.05	1.10	1.14	1.18	1.23	1.27	1.32	1.37	1.43	1.48	1.54	1.60	1.66	1.72	
Depreciation		Rs./Kwh	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	
Int. on term loan		Rs./Kwh	0.97	0.90	0.83	0.77	0.70	0.63	0.57	0.50	0.43	0.37	0.30	0.23	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Int. on working capital		Rs./Kwh	0.20	0.20	0.21	0.21	0.22	0.22	0.23	0.23	0.24	0.25	0.26	0.27	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34	0.35	0.36	0.38	0.39	0.39	
Rate		Rs./Kwh	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	
Total COG		Rs./Kwh	3.15	3.12	3.08	3.05	3.02	2.99	2.96	2.93	2.91	2.88	2.86	2.84	2.82	2.80	2.79	2.45	2.51	2.57	2.63	2.69	2.94	3.01	3.08	3.15	3.23	
Levelised fixed Cost 2.69		Rs./Unit																										
LEVELLISED FIXED COST		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
NOMINAL FIXED TARIFF		Rs./Unit	3.15	3.12	3.08	3.05	3.02	2.99	2.96	2.93	2.91	2.88	2.86	2.84	2.82	2.80	2.79	2.45	2.51	2.57	2.63	2.69	2.94	3.01	3.08	3.15	3.23	
DISCOUNT FACTOR		Rs./Unit	9.11%	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12
PV OF NOMINAL FIXED TARIFF		Rs./Unit	3.15	2.86	2.59	2.35	2.13	1.93	1.75	1.59	1.45	1.31	1.20	1.09	0.99	0.90	0.82	0.66	0.62	0.58	0.55	0.51	0.51	0.48	0.45	0.42	0.40	
LEVELLISED FIXED TARIFF		Rs./Unit	2.95																									
VARIABLE COST FOR FY 24-25		Rs./Unit	5.00																									
APPLICABLE TARIFF FOR 24-25		Rs./Unit	7.95																									
Depreciation Amount		%	90%																									
Book Depreciation Rate		%	5.28%																									
Tax Depreciation Rate		%	40%																									
Additional Depreciation		%	20%																									
Income Tax (Normal Rate)		%	34.940%																									
Capital Cost		Rs. Lakh	562.00																									
Discount Factor		%	9.11%																									
Accelerated Depreciation		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Book Depreciation		%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Book Depreciation		Rs. Lakh	14.84	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	29.67	16.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Accelerated Depreciation		%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	
Opening		%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	
Allowed during the year		%	30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Closing		%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Accelerated Depreciation		Rs. Lakh	168.60	196.70	78.68	47.21	28.32	16.99	10.20	6.12	3.67	2.20	1.32	0.79	0.48	0.29	0.17	0.10	0.06	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	
Net Depreciation Benefit		Rs. Lakh	153.76	167.03	49.01	17.53	-1.35	-12.68	-19.48	-23.56	-26.00	-27.47	-28.35	-28.88	-29.20	-29.39	-29.50	-29.57	-29.61	-16.15	0.02	0.01	0.01	0.00	0.00	0.00	0.00	
Income Tax Gain		Rs. Lakh	53.72	58.36	17.12	6.13	-0.47	-4.43	-6.81	-8.23	-9.09	-9.60	-9.91	-10.09	-10.20	-10.27	-10.31	-10.33	-10.35	-5.64	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
Discounting Factor			1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
Discounted Tax Gain		Rs. Lakh	53.72	53.49	14.38	4.72	-0.33	-2.86	-4.03	-4.47	-4.52	-4.38	-4.14	-3.87	-3.58	-3.31	-3.04	-2.79	-2.56	-1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Levelised Income Tax Gain		Rs. Lakh	7.64																									
Net Generation		MU	2.124	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	4.248	
Average Generation		Lakh U	41.63																									
Levelised Income Tax Benefit		Rs./Kwh	0.18																									

Annexure-III A

Norms and Parameter for Non-fossil fuel based Cogeneration (Other than bagasse) Projects

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power	MW	1
			Generation Capacity		
			Plant Load Factor	%	53
			Auxiliary Consumption	%	8.5
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs.Lac/MW	562
3.	Financial Assumptions	Debt :Equity	Tariff Period	Year	25
			Debt	%	70
		Equity	%	30	
		Debt Component	Total Debt Amount	Rs. Lakh	393.40
			Total Equity Amount	Rs. Lakh	168.60
			Repayment Period	Year	10
			Interest rate	%	10.99
		Equity Component	Equity Amount	Rs. Lakh	168.60
			Return on Equity first 20 years	%	16.96
			ROE 21 th year onwards		21.52
discount rate	%		9.11		
Depreciation	Depreciation rate first 10 years	%	4.67		
	Depreciation rate 11 th year onwards	%	2.00		
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs. Lakh/MW	29.60
				%	3.84
5.	Working capital	O&M expenses Maintenance		Month	1
				%	15

		Spare Receivables Interest on working capital	(%O&M expenses)	Month	1.5
				%	12.24
6.	Fuel related assumptions	Station Heat Rate		kCal/Kwh	3600
		Fuel Type & mix	GCVof Fuel	kCal/Kwh	3100
			Price of Fuel	Rs/MT	4472.72
			fuel price escalation factor	%p.a	3.45

Annexure-IV A

**Norms and Parameter for Municipal solid waste based on Rankine cycle
technology Power Project**

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity PLF(During Stabilization) PLF(during 1 st year stabilization) PLF(2 nd year onwards) Commercial Operation Date Useful life Auxiliary Consumption	MW % % % mm/yyyy Year %	1 65 65 75 25 15
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs. Lac/MW	1500
3.	Financial Assumptions	Debt :Equity Debt Component Equity Component Depreciation	Tariff Period Debt Equity Total Debt Amount Total Equity Amount Repayment Period Interest rate Equity Amount Return on Equity first 20 years ROE 21 th year onwards discount rate Depreciation rate first 10 years Depreciation rate 11 th year onwards	Year % % Rs. Lakh Rs. Lakh Year % Rs. Lakh % % % %	25 70 30 1050 450 15 10.99 450 16.96 21.52 9.11 4.67 4.00

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh	126.10
				%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month	1
				%	15
				Month	1.5
				%	12.24
6.	Fuel related assumptions	Station Heat Rate Fuel &mix Type	Price of fuel fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	0

Annexure-IV B

Determination of Tariff for MSW based technology (FY 2025-26)																							
Capital Cost		Lakh/MW	1500																				
Units Generation	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Net Generation	MU		5.69	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	
Auxiliary Consumption	MU		0.854	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	
Actual Generation	MU		4.840	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	
Actual Generation month Wise	MU		0.403	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	0.465	
Tariff Components Fixed Cost		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		126.10	130.94	135.97	141.19	146.61	152.24	158.09	164.16	170.46	177.01	183.81	190.87	198.19	205.80	213.71	221.91	230.44	239.28	248.47	258.01	
Depreciation	Rs Lakh		70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	70.05	
Interest on term loan	Rs Lakh		111.55	103.85	96.15	88.45	80.75	73.05	65.35	57.66	49.96	42.26	34.56	26.86	19.16	11.47	3.77	0.00	0.00	0.00	0.00	0.00	
Interest on working Capital	Rs Lakh		9.62	9.72	9.82	9.94	10.06	10.19	10.33	10.48	10.64	10.82	11.00	11.19	11.40	11.62	11.85	12.00	12.38	12.78	13.19	13.61	
Return on Equity	Rs Lakh		76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	76.32	
Total Fixed Cost	Rs Lakh		393.64	390.88	388.31	385.95	383.79	381.86	380.15	378.67	377.43	376.45	375.74	375.29	375.13	375.26	375.70	376.24	379.14	388.38	397.98	407.94	
Variable Cost		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VARIABLE COST PER UNIT AT BUS BAR	Rs./kwh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
BIOMASS FUEL COST	Rs. Lakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Per Unit Cost of Generation	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
O&M expn	Rs./kWh	2.61	2.34	2.43	2.53	2.63	2.73	2.83	2.94	3.05	3.17	3.29	3.42	3.55	3.69	3.83	3.97	4.13	4.28	4.45	4.62		
Depreciation	Rs./kWh	1.45	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25		
Int. on term loan	Rs./kWh	2.30	1.86	1.72	1.58	1.45	1.31	1.17	1.03	0.89	0.76	0.62	0.48	0.34	0.21	0.07	0.00	0.00	0.00	0.00	0.00		
Int. on working capital	Rs./kWh	0.20	0.17	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.21	0.21	0.21	0.22	0.23	0.24	0.24		
RoE	Rs./kWh	1.58	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37		
Total COG	Rs./kWh	8.13	7.00	6.95	6.91	6.87	6.84	6.81	6.78	6.76	6.74	6.73	6.72	6.72	6.72	6.73	6.63	6.79	6.95	7.13	7.30		
Levelised fixed Cost 6.98	Rs./Unit																						
LEVELISED FIXED COST		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
NOMINAL FIXED TARIFF	Rs./Unit	8.13	7.00	6.95	6.91	6.87	6.84	6.81	6.78	6.76	6.74	6.73	6.72	6.72	6.72	6.73	6.63	6.79	6.95	7.13	7.30		
DISCOUNT FACTOR	9.11%	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19		
PV OF NOMINAL FIXED TARIFF	Rs./Unit	8.13	6.41	5.84	5.32	4.85	4.42	4.03	3.68	3.36	3.08	2.81	2.58	2.36	2.16	1.98	1.79	1.68	1.58	1.48	1.39		
LEVELISED FIXED TARIFF	Rs./Unit	6.98																					
VARIABLE COST FOR FY 24-25	Rs./Unit	0.00																					
APPLICABLE TARIFF FOR 24-25	Rs./Unit	6.98																					
Depreciation Amount	%	90%																					
Book Depreciation Rate	%	5.28%																					
Tax Depreciation Rate	%	40%																					
Additional Depreciation	%	20%																					
Income Tax (Normal Rate)	%	34.940%																					
Capital Cost	Rs. Lakh	1500.00																					
Discount Factor	%	9.11%																					
Accelerated Depreciation		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	
Book Depreciation	Rs. Lakh	39.60	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	79.20	43.20	0.00	0.00	
Accelerated Depreciation		%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	
Opening	%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%		
Allowed during the year	%	30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%		
Closing	%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%		
Accelerated Depreciation	Rs. Lakh	450.00	525.00	210.00	126.00	75.60	45.36	27.22	16.33	9.80	5.88	3.53	2.12	1.27	0.76	0.46	0.27	0.16	0.10	0.06	0.04		
Net Depreciation Benefit	Rs. Lakh	410.40	445.80	130.80	46.80	-3.60	-33.84	-51.98	-62.87	-69.40	-73.32	-75.67	-77.08	-77.93	-78.44	-78.74	-78.93	-79.04	-43.10	0.06	0.04		
Income Tax Gain	Rs. Lakh	143.39	155.76	45.70	16.35	-1.26	-11.82	-18.16	-21.97	-24.25	-25.62	-26.44	-26.93	-27.23	-27.41	-27.51	-27.58	-27.61	-15.06	0.02	0.01		
Discounting Factor		1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19		
Discounted Tax Gain	Rs. Lakh	143.39	142.76	38.39	12.59	-0.89	-7.65	-10.76	-11.93	-12.07	-11.69	-11.06	-10.32	-9.56	-8.82	-8.12	-7.46	-6.84	-3.42	0.00	0.00		
Levelised Income Tax Gain	Rs. Lakh	21.91																					
Net Generation	MU	2.420	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585	5.585		
Average Generation	Lakh U	43.41																					
Levelised Income Tax Benefit	Rs./kwh	0.50																					

Annexure-V A

Norms and parameter for Bio Mass [For rice straw and juliflora (plantation) based project] with water cooled condenser Power Project and AFBC Boiler

Sl. No.	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	80
			Commercial Operation Date Useful life	mm/yyyy Year	25
			Auxiliary Consumption	%	10
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs. Lac/MW	697
3.	Financial Assumptions	Debt :Equity	Tariff Period	Year	25
			Debt	%	70
		Equity	%	30	
		Debt Component	Total Debt Amount	Rs. Lakh	487.9
			Total Equity Amount	Rs. Lakh	209.1
			Repayment Period	Year	15
Equity	Interest rate	%	10.99		
		Equity Amount	Rs. Lakh	209.1	

		Component	Return on Equity first 20 years ROE 21 th year onwards	%	16.96 21.52
		Depreciation	discount rate	%	9.11
			Depreciation rate first 10 years	%	4.67
			Depreciation rate 11 th year onwards	%	2.00
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs. Lakh %	56.05 lakhs/MW 3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate	projects using AFBC boilers	kCal/Kwh	4125
		Fuel Type & mix	GCV of Biomass fuel	kCal/Kwh	3100
			Biomass Price	Rs/MT	4472.72
			fuel price escalation factor	%p.a	3.45

Annexure-V B

Determination of Tariff for Biomass Power Project [For rice straw and Juliflora(plantation) based project] with water cooled condenser and AFBC boiler (FY 2025-26)																												
Capital Cost	Lakh/MW	697																										
Units Generation	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Net Generation	MU		7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	
Auxiliary Consumption	MU		0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	
Actual Generation	MU		6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	
Actual Generation month Wise	MU		0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	
Tariff Components Fixed Cost	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
O&M Expenses	Rs Lakh		56.05	58.20	60.44	62.76	65.17	67.67	70.27	72.97	75.77	78.68	81.70	84.84	88.10	91.48	94.99	98.64	102.43	106.36	110.44	114.68	119.09	123.66	128.41	133.34	138.46	
Depreciation	Rs Lakh		32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55	32.55
Interest on term loan	Rs Lakh		50.94	47.42	43.90	40.39	36.87	33.36	29.84	26.33	22.81	19.30	15.78	12.27	8.75	5.24	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	Rs Lakh		28.25	29.11	30.01	30.94	31.91	32.91	33.94	35.02	36.13	37.29	38.49	39.73	41.02	42.35	43.74	44.91	46.45	48.04	49.69	51.40	53.31	55.14	57.03	58.99	61.02	
Return on Equity	Rs Lakh		35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46	35.46
Total Fixed Cost	Rs Lakh		203.25	202.78	202.36	202.10	201.96	201.95	202.07	202.33	202.73	203.28	203.98	204.85	205.88	207.08	208.46	192.95	198.28	203.80	209.54	215.48	231.34	237.74	244.38	251.27	258.42	
Variable Cost																												
YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
VARIABLE COST PER UNIT AT BUS BAR	Rs./Kwh	6.61	6.84	7.08	7.32	7.57	7.84	8.11	8.39	8.67	8.97	9.28	9.60	9.93	10.28	10.63	11.00	11.38	11.77	12.18	12.60	13.03	13.48	13.95	14.43	14.93		
BIOMASS FUEL COST	Rs. Lakh	417.09	431.48	446.36	461.76	477.69	494.17	511.22	528.86	547.11	565.98	585.51	605.71	626.61	648.22	670.59	693.72	717.66	742.41	768.03	794.52	821.94	850.29	879.63	909.97	941.37		
Per Unit Cost of Generation	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
O&M expn	Rs./kWh	0.89	0.92	0.96	1.00	1.03	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.40	1.45	1.51	1.56	1.62	1.69	1.75	1.82	1.89	1.96	2.04	2.11	2.20		
Depreciation	Rs./kWh	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52		
Int. on term loan	Rs./kWh	0.81	0.75	0.70	0.64	0.58	0.53	0.47	0.42	0.36	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Int. on working capital	Rs./kWh	0.45	0.46	0.48	0.49	0.51	0.52	0.54	0.56	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	0.81	0.85	0.87	0.90	0.94	0.97		
RoE	Rs./kWh	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56		
Total COG	Rs./kWh	3.22	3.21	3.21	3.20	3.20	3.20	3.20	3.21	3.21	3.22	3.23	3.05	3.13	3.20	3.28	3.06	3.14	3.23	3.32	3.42	3.67	3.77	3.87	3.98	4.10		
Levelised fixed Cost 3.07	Rs./Unit																											
LEVELISED FIXED COST																												
YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
NOMINAL FIXED TARIFF	Rs./Unit	3.22	3.21	3.21	3.20	3.20	3.20	3.21	3.21	3.22	2.98	3.05	3.13	3.20	3.28	3.06	3.14	3.23	3.32	3.42	3.67	3.77	3.87	3.98	4.10			
DISCOUNT FACTOR	9.11%	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12		
PV OF NOMINAL FIXED TARIFF	Rs./Unit	3.22	2.95	2.70	2.47	2.26	2.07	1.90	1.74	1.60	1.47	1.25	1.17	1.10	1.03	0.97	0.83	0.78	0.73	0.69	0.65	0.64	0.60	0.57	0.54	0.51		
LEVELISED FIXED TARIFF	Rs./Unit	3.24																										
VARIABLE COST FOR FY 24-25	Rs./Unit	6.61																										
APPLICABLE TARIFF FOR 24-25	Rs./Unit	9.85																										
Depreciation Amount	%	90%																										
Book Depreciation Rate	%	5.28%																										
Tax Depreciation Rate	%	40%																										
Additional Depreciation	%	20%																										
Income Tax (Normal Rate)	%	34.940%																										
Capital Cost	Rs. Lakh	697.00																										
Discount Factor	%	9.110%																										
Accelerated Depreciation																												
YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	0.00%	0.00%	0.00%	0.00%	0.00%			
Book Depreciation	Rs. Lakh	18.40	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	20.07	0.00	0.00	0.00	0.00	0.00	0.00			
Accelerated Depreciation																												
Opening	%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%			
Allowed during the year	%	30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
Closing	%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%			
Accelerated Depreciation	Rs. Lakh	209.10	243.95	97.58	58.55	35.13	21.08	12.65	7.59	4.55	2.73	1.64	0.98	0.59	0.35	0.21	0.13	0.08	0.05	0.03	0.02	0.01	0.01	0.00	0.00			
Net Depreciation Benefit	Rs. Lakh	190.70	207.15	60.78	21.75	-1.67	-15.72	-24.16	-29.21	-32.25	-34.07	-35.16	-35.82	-36.21	-36.45	-36.59	-36.67	-36.73	-20.03	0.03	0.02	0.01	0.01	0.00	0.00			
Income Tax Gain	Rs. Lakh	66.63	72.38	21.24	7.60	-0.58	-5.49	-8.44	-10.21	-11.27	-11.90	-12.29	-12.51	-12.65	-12.73	-12.78	-12.81	-12.83	-7.00	0.01	0.01	0.00	0.00	0.00	0.00			
Discounting Factor	0.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.																

Annexure-VI A
Norms and Parameter for Bio Mass [other than rice straw and Juliflora
plantation) based project] with air cooled condenser Power Project and AFBC
boiler

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	80
			Commercial Operation Date Useful life	mm/yyyy Year	25
			Auxiliary Consumption	%	12
2.	Power Cost	Capital Cost/MW	CapitalCost	Rs.Lac/MW	685
3.	Financial Assumptions	Debt :Equity	Tariff Period	Year	25
			Debt	%	70
		Equity	%	30	
		Debt Component	Total Debt Amount	Rs. Lakh	479.5
			Total Equity Amount	Rs. Lakh	205.5
			Repayment Period	Year	15
			Interest rate	%	10.99
		Equity Component	Equity Amount	Rs. Lakh	205.5
			Return on Equity first 20 years	%	16.96
			ROE 21 th year onwards		21.52
Depreciation	discount rate	%	9.11		
	Depreciation rate first 10 years	%	4.67		
	Depreciation rate 11 th year onwards	%	2.00		

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh %	56.05 lakhs/MW 3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate Fuel Type & mix	projects using AFBC boilers GCV of Biomass fuel Biomass Price fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	4125 3100 4472.72 3.45

Annexure- VI B

Determination of Tariff for Biomass Power Project [other than rice straw and Juliflora(plantation) based project] with air cooled condenser and AFBC boiler (FY 2025-26)																											
Capital Cost	Lakh/MW	685																									
Units Generation	MW	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841
Actual Generation	MU		6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167
Actual Generation month Wise	MU		0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514
Tariff Components Fixed Cost	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M Expenses	Rs Lakh		56.05	58.20	60.44	62.76	65.17	67.67	70.27	72.97	75.77	78.68	81.70	84.84	88.10	91.48	94.99	98.64	102.43	106.36	110.44	114.68	119.09	123.66	128.41	133.34	138.46
Depreciation	Rs Lakh		31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99	31.99
Interest on term loan	Rs Lakh		50.94	47.42	43.91	40.39	36.88	33.36	29.85	26.33	22.81	19.30	15.78	12.27	8.75	5.24	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		28.09	28.95	29.84	30.77	31.73	32.73	33.76	34.83	35.94	37.09	38.28	39.52	40.80	42.12	43.50	44.67	46.20	47.79	49.43	51.13	53.03	54.85	56.73	58.68	60.70
Return on Equity	Rs Lakh		34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85
Total Fixed Cost	Rs Lakh		201.92	201.42	201.03	200.76	200.62	200.60	200.71	200.97	201.36	201.91	202.61	203.46	204.49	205.68	207.05	191.86	197.18	202.70	208.43	214.37	230.04	236.44	243.07	249.95	257.08
Variable Cost																											
VARIABLE COST PER UNIT AT BUS BAR	Rs./Kwh	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
BIOMASS FUEL COST	Rs. Lakh		417.09	431.48	446.36	461.76	477.69	494.17	511.22	528.86	547.11	565.98	585.51	605.71	626.61	648.22	670.59	693.72	717.66	742.41	768.03	794.52	821.94	850.29	879.63	909.97	941.37
Per Unit Cost of Generation	Unit	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs./kWh		0.91	0.94	0.98	1.02	1.06	1.10	1.14	1.18	1.23	1.28	1.32	1.38	1.43	1.48	1.54	1.60	1.66	1.72	1.79	1.86	1.93	2.01	2.08	2.16	2.25
Depreciation	Rs./kWh		0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Int. on term loan	Rs./kWh		0.83	0.77	0.71	0.65	0.60	0.54	0.48	0.43	0.37	0.31	0.26	0.20	0.14	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs./kWh		0.46	0.47	0.48	0.50	0.51	0.53	0.55	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.71	0.72	0.75	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98
RoE	Rs./kWh		0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Total COG	Rs./kWh		3.27	3.27	3.26	3.26	3.25	3.25	3.25	3.25	3.26	3.27	3.29	3.30	3.32	3.34	3.36	3.11	3.20	3.29	3.38	3.48	3.73	3.83	3.94	4.05	4.17
Levelised fixed Cost 3.32	Rs/Unit																										
LEVELLISED FIXED COST	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
NOMINAL FIXED TARIFF	Rs./Unit	3.27	3.27	3.26	3.26	3.25	3.25	3.25	3.26	3.27	3.27	3.29	3.30	3.32	3.34	3.36	3.11	3.20	3.29	3.38	3.48	3.73	3.83	3.94	4.05	4.17	
DISCOUNT FACTOR	9.11%	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
PV OF NOMINAL FIXED TARIFF	Rs./Unit	3.27	2.99	2.74	2.51	2.30	2.10	1.93	1.77	1.63	1.49	1.37	1.26	1.16	1.07	0.99	0.84	0.79	0.75	0.70	0.66	0.65	0.61	0.58	0.55	0.51	
LEVELLISED FIXED TARIFF	Rs./Unit	3.32																									
VARIABLE COST FOR FY 24-25	Rs./Unit	6.76																									
APPLICABLE TARIFF FOR 24-25	Rs./Unit	10.08																									
Depreciation Amount	%	90%																									
Book Depreciation Rate	%	5.28%																									
Tax Depreciation Rate	%	40%																									
Additional Depreciation	%	20%																									
Income Tax (Normal Rate)	%	34.940%																									
Capital Cost	Rs. Lakh	600.00																									
Discount Factor	%	9.11%																									
Accelerated Depreciation	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Book Depreciation	Rs. Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Accelerated Depreciation	YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Opening	%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	
Allowed during the year	%	30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Closing	%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Accelerated Depreciation	Rs. Lakh	180.00	210.00	84.00	50.40	30.24	18.14	10.89	6.53	3.92	2.35	1.41	0.85	0.51	0.30	0.18	0.11	0.07	0.04	0.02	0.01	0.01	0.01	0.00	0.00	0.00	
Net Depreciation Benefit	Rs. Lakh	164.16	178.32	52.32	18.72	-1.44	-13.54	-20.79	-25.15	-27.76	-29.33	-30.27	-30.83	-31.17	-31.38	-31.50	-31.57	-31.61	-17.24	0.02	0.01	0.01	0.01	0.00	0.00	0.00	
Income Tax Gain	Rs. Lakh	57.36	62.31	18.28	6.54	-0.50	-4.73	-7.27	-8.79	-9.70	-10.25	-10.58	-10.77	-10.89	-10.96	-11.01	-11.03	-11.05	-6.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
Discounting Factor	Rs. Lakh	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
Discounted Tax Gain	Rs. Lakh	57.36	57.10	15.36	5.04	-0.35	-3.06	-4.31	-4.77	-4.83	-4.68	-4.42	-4.13	-3.83	-3.53	-3.25	-2.98	-2.74	-1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Levelised Income Tax Gain	Rs. Lakh	8.15																									
Net Generation	MU	3.084	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	
Average Generation	Lakh U	60.44																									
Levelised Income Tax Benefit	Rs./Kwh	0.13																									

Annexure-VII A
Norms and Parameter for Bio Mass [For rice straw and juliflora(plantation)
basedproject] with air cooled condenser and AFBC boiler Power Project

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity Plant Load Factor Commercial Operation Date Useful life Auxiliary Consumption	MW % mm/yyyy Year %	1 80 25 12
2.	Power Cost	Capital Cost/MW	CapitalCost Project	Rs.Lac/MW	744
3.	Financial Assumptions		Tariff Period	Year	25
		Debt :Equity	Debt Equity	% %	70 30
		Debt Component	Total Debt Amount Total Equity Amount Repayment Period Interest rate	Rs. Lakh Rs. Lakh Year %	520.8 223.2 15 10.99
		Equity Component	Equity Amount Return on Equity first 20 years ROE 21 th year onwards	Rs. Lakh % %	223.2 16.96 21.52
			discount rate	%	9.11
		Depreciation	Depreciation rate first 10 years Depreciation rate 11 th year onwards	% %	4.67 2.00

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh %	56.05 lakhs/MW 3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate Fuel Type & mix	projects using AFBC boilers GCV of Biomass fuel Biomass Price fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	4125 3100 4472.72 3.45

Annexure-VIII

A

Norms and Parameter for Bio Mass [other than rice straw and Juliflora plantation) based project] with water cooled condenser Power Project and AFBC boiler

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	80
			Commercial Operation Date Useful life	mm/yyyy Year	25
			Auxiliary Consumption	%	10
2.	Power Cost	Capital Cost/MW	CapitalCost	Rs.Lac/MW	638
3.	Financial Assumptions	Debt :Equity	Tariff Period	Year	25
			Debt	%	70
		Equity	%	30	
		Debt Component	Total Debt Amount	Rs. Lakh	446.6
			Total Equity Amount	Rs. Lakh	191.4
			Repayment Period	Year	15
			Interest rate	%	10.99
		Equity Component	Equity Amount	Rs. Lakh	191.4
			Return on Equity first 20 years	%	16.96
			ROE 21 th year onwards		21.52
Depreciation	discount rate	%	9.11		
	Depreciation rate first 10 years	%	4.67		
	Depreciation rate 11 th year onwards	%	2		

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh %	56.05 lakhs/MW 3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate Fuel Type & mix	projects using AFBC boilers GCV of Biomass fuel Biomass Price fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	4125 3100 4472.72 3.45

Annexure-VIII B

Determination of Tariff for Biomass Power Project [other than rice straw and Juliflora(plantation) based project] with water cooled condenser and AFBC boiler (FY 2025-26)																													
Capital Cost		638																											
Units Generation	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Net Generation	MU		7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01		
Auxiliary Consumption	MU		0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	
Actual Generation	MU		6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	
Actual Generation month Wise	MU		0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	
Tariff Components Fixed Cost		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
O&M Expenses	Rs Lakh		56.05	58.20	60.44	62.76	65.17	67.67	70.27	72.97	75.77	78.68	81.70	84.84	88.10	91.48	94.99	98.64	102.43	106.36	110.44	114.68	119.09	123.66	128.41	133.34	138.46		
Depreciation	Rs Lakh		29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	
Interest on term loan	Rs Lakh		46.62	43.41	40.19	36.97	33.75	30.53	27.32	24.10	20.88	17.66	14.45	11.23	8.01	4.79	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working capital	Rs Lakh		28.09	28.96	29.86	30.80	31.77	32.77	33.81	34.89	36.01	37.18	38.38	39.63	40.92	42.26	43.64	44.84	46.38	47.97	49.62	51.33	53.23	55.06	56.95	58.91	60.94		
Return on Equity	Rs Lakh		32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	
Total Fixed Cost	Rs Lakh		193.02	192.82	192.74	192.78	192.94	193.23	193.66	194.22	194.92	195.77	196.78	197.95	199.28	200.78	202.46	188.70	194.03	199.55	205.29	211.24	216.27	221.27	226.27	231.27	236.27	241.27	
Variable Cost		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
VARIABLE COST PER UNIT AT BUS BAR	Rs./Kwh		6.61	6.84	7.08	7.32	7.57	7.84	8.11	8.39	8.67	8.97	9.28	9.60	9.93	10.28	10.63	11.00	11.38	11.77	12.18	12.60	13.03	13.48	13.95	14.43	14.93		
BIOMASS FUEL COST	Rs. Lakh		417.09	431.48	446.36	461.76	477.69	494.17	511.22	528.86	547.11	565.98	585.51	605.71	626.61	648.22	670.59	693.72	717.66	742.41	768.03	794.52	821.94	850.29	879.63	909.97	941.37		
Per Unit Cost of Generation		Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
O&M expn	Rs./Kwh		0.89	0.92	0.96	1.00	1.03	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.40	1.45	1.51	1.56	1.62	1.69	1.75	1.82	1.89	1.96	2.04	2.11	2.20		
Depreciation	Rs./Kwh		0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47		
Int. on term loan	Rs./Kwh		0.74	0.69	0.64	0.59	0.54	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Int. on working capital	Rs./Kwh		0.45	0.46	0.47	0.49	0.50	0.52	0.54	0.55	0.57	0.59	0.61	0.63	0.65	0.67	0.69	0.71	0.74	0.76	0.79	0.81	0.84	0.87	0.90	0.93	0.97		
RoE	Rs./Kwh		0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51		
Total COG	Rs./Kwh		3.06	3.06	3.06	3.06	3.06	3.06	3.07	3.08	3.09	3.10	3.12	3.14	3.16	3.18	3.21	2.99	3.08	3.16	3.25	3.35	3.59	3.69	3.79	3.90	4.02		
Levelised/Boil Cost 2.82		Rs./Unit																											
LEVELISED FIXED COST		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
NOMINAL FIXED TARIFF	Rs./Unit		3.06	3.06	3.06	3.06	3.06	3.07	3.08	3.09	3.10	3.12	3.14	3.16	3.18	3.21	2.99	3.08	3.16	3.25	3.35	3.59	3.69	3.79	3.90	4.02			
DISCOUNT FACTOR	9.11%		1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12		
PV OF NOMINAL FIXED TARIFF	Rs./Unit		3.06	2.80	2.57	2.35	2.16	1.98	1.82	1.67	1.54	1.42	1.30	1.20	1.11	1.02	0.95	0.81	0.76	0.72	0.68	0.64	0.63	0.59	0.56	0.53	0.50		
LEVELISED FIXED TARIFF	Rs./Unit		3.14																										
VARIABLE COST FOR FY 24-25	Rs./Unit		6.61																										
APPLICABLE TARIFF FOR 24-25	Rs./Unit		9.75																										
Depreciation Amount	%		90%																										
Book Depreciation Rate	%		5.28%																										
Tax Depreciation Rate	%		40%																										
Additional Depreciation	%		20%																										
Income Tax (Normal Rate)	%		34.94%																										
Capital Cost	Rs. Lakh		638.00																										
Discount Factor	%		9.11%																										
Accelerated Depreciation		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
Book Depreciation	%		2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
Book Depreciation	Rs. Lakh		16.84	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	18.37	0.00	0.00	0.00	0.00	0.00	0.00			
Accelerated Depreciation		%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%			
Opening	%		100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%				
Allowed during the year	%		30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%				
Closing	%		70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%				
Accelerated Depreciation	Rs. Lakh		191.40	223.30	89.32	53.59	32.16	19.29	11.58	6.95	4.17	2.50	1.50	0.90	0.54	0.32	0.19	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.00	0.00			
Net Depreciation Benefit	Rs. Lakh		174.56	189.61	55.63	19.91	-1.53	-14.39	-22.11	-26.74	-29.52	-31.19	-32.19	-32.79	-33.15	-33.36	-33.49	-33.57	-33.62	-18.33	0.03	0.02	0.01	0.01	0.00	0.00			
Income Tax Gain	Rs. Lakh		60.99	66.25	19.44	6.96	-0.54	-5.03	-7.73	-9.34	-10.31	-10.90	-11.25	-11.46	-11.58	-11.66	-11.70	-11.73	-11.75	-6.41	0.01	0.01	0.00	0.00	0.00	0.00			
Discounting Factor			1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23									

Annexure IXA

Norms and Parameter for Bio Mass [other than rice straw and Juliflora plantation) based project] with water cooled condenser Power Project and travelling grate boiler

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	80
			Commercial Operation Date Useful life	mm/yyyy Year	25
			Auxiliary Consumption	%	10
2.	Power Cost	Capital Cost/MW	CapitalCost	Rs.Lac/MW	638
3.	Financial Assumptions		Tariff Period	Year	25
		Debt :Equity	Debt	%	70
			Equity	%	30
		Debt Component	Total Debt Amount	Rs. Lakh	446.6
			Total Equity Amount	Rs. Lakh	191.4
			Repayment Period	Year	15
			Interest rate	%	10.99
		Equity Component	Equity Amount	Rs. Lakh	191.4
			Return on Equity first 20 years	%	16.96
			ROE 21 th year onwards		21.52
			discount rate	%	9.11
		Depreciation	Depreciation rate first 10 years	%	4.67
			Depreciation rate 11 th year onwards	%	2
4.	Operation & Maintenance	Normative O&M expenses		Rs.Lakh	56.05 lakhs/MW

	ce	p.a. Escalation for O&M		%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptio ns	Station Heat Rate Fuel Type & mix	projects using AFBC boilers GCV of Biomass fuel Biomass Price fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	4200 3100 4472.72 3.45

Annexure- IXB

Determination of Tariff for Biomass Power Project [other than rice straw and Juliflora(plantation) based project] with water cooled condenser and travelling grate boiler (FY 2025-26)																											
Capital Cost	Lakh/MW	638																									
Units Generation	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701	0.701
Actual Generation	MU		6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	
Actual Generation month Wise	MU		0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	
Tariff Components Fixed Cost	Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M Expenses	Rs Lakh		56.05	58.20	60.44	62.76	65.17	67.67	70.27	72.97	75.77	78.68	81.70	84.84	88.10	91.48	94.99	98.64	102.43	106.36	110.44	114.68	119.09	123.66	128.41	133.34	138.46
Depreciation	Rs Lakh		29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79	29.79
Interest on term loan	Rs Lakh		46.62	43.41	40.19	36.97	33.75	30.53	27.32	24.10	20.88	17.66	14.45	11.23	8.01	4.79	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		38.52	39.41	39.33	31.28	32.36	33.29	34.15	35.45	36.58	37.36	38.99	40.26	41.57	42.93	44.34	45.56	47.13	48.75	50.42	52.16	54.09	55.95	57.87	59.86	61.92
Returns on Equity	Rs Lakh		32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	32.46	41.19	41.19	41.19	41.19
Total Fixed Cost	Rs Lakh		193.45	193.27	193.21	193.26	193.44	193.75	194.19	194.77	195.49	196.36	197.39	198.58	199.93	201.46	203.16	199.42	194.78	200.33	206.69	212.66	227.13	233.56	240.23	247.15	254.33
Variable Cost																											
VARIABLE COST PER UNIT AT BUS BAR	Rs/Kwh		6.73	6.97	7.21	7.45	7.71	7.98	8.25	8.54	8.83	9.14	9.45	9.78	10.12	10.46	10.83	11.20	11.59	11.98	12.40	12.83	13.27	13.73	14.20	14.69	15.20
BIOMASS FUEL COST	Rs. Lakh		424.67	439.32	454.48	470.16	486.38	503.16	520.52	538.48	557.05	576.27	596.15	616.72	638.00	660.01	682.78	706.34	730.70	755.91	781.99	808.97	836.88	865.75	895.62	926.52	958.48
Per Unit Cost of Generation	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M capex	Rs/kWh		0.89	0.92	0.96	1.00	1.03	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.40	1.45	1.51	1.56	1.62	1.69	1.75	1.82	1.89	1.96	2.04	2.11	2.20
Depreciation	Rs/kWh		0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	
Int. on term loan	Rs/kWh		0.74	0.69	0.64	0.59	0.54	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh		0.45	0.47	0.48	0.50	0.51	0.53	0.54	0.56	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.75	0.77	0.80	0.83	0.86	0.89	0.92	0.95	0.98
RoE	Rs/kWh		0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.65	0.65	0.65	0.65
Total COG	Rs/kWh		3.07	3.06	3.06	3.06	3.07	3.07	3.08	3.09	3.10	3.11	3.13	3.15	3.17	3.19	3.22	3.00	3.09	3.18	3.27	3.36	3.46	3.70	3.81	3.92	4.03
Levelised fixed Cost 2.83	Rs/Unit																										
LEVELISED FIXED COST																											
NOMINAL FIXED TARIFF	Rs./Unit		3.07	3.06	3.06	3.06	3.07	3.07	3.08	3.09	3.10	3.11	3.13	3.15	3.17	3.19	3.22	3.00	3.09	3.18	3.27	3.36	3.46	3.70	3.81	3.92	4.03
DISCOUNT FACTOR	9.11%		1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12
PV OF NOMINAL FIXED TARIFF	Rs./Unit		3.07	2.81	2.57	2.36	2.16	1.99	1.82	1.68	1.54	1.42	1.31	1.21	1.11	1.03	0.95	0.81	0.77	0.72	0.68	0.64	0.63	0.59	0.56	0.53	0.50
LEVELISED FIXED TARIFF	Rs./Unit		3.15																								
VARIABLE COST FOR FY 24-25	Rs./Unit		6.73																								
APPLICABLE TARIFF FOR 24-25	Rs./Unit		9.88																								
Depreciation Amount	%		90%																								
Book Depreciation Rate	%		5.28%																								
Tax Depreciation Rate	%		40%																								
Additional Depreciation	%		20%																								
Income Tax (Normal Rate)	%		34.940%																								
Capital Cost	Rs. Lakh		638.00																								
Discount Factor	%		9.11%																								
Accelerated Depreciation																											
Book Depreciation	%		2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs. Lakh		16.84	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	33.69	18.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																											
Opening	%		100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%		30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Closing	%		70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	
Accelerated Depreciation	Rs. Lakh		191.40	223.30	89.32	53.59	32.16	19.29	11.58	6.95	4.17	2.50	1.50	0.90	0.54	0.32	0.19	0.12	0.07	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00
Net Depreciation Benefit	Rs. Lakh		174.56	189.61	55.63	19.91	-1.53	-14.39	-22.11	-26.74	-29.52	-31.19	-32.19	-32.79	-33.15	-33.36	-33.49	-33.57	-33.62	-18.33	0.03	0.02	0.01	0.01	0.00	0.00	0.00
Income Tax Gain	Rs. Lakh		60.99	66.25	19.44	6.96	-0.54	-5.03	-7.73	-9.34	-10.31	-10.90	-11.25	-11.46	-11.58	-11.66	-11.70	-11.73	-11.75	-6.41	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Discounting Factor	1.00		0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
Discounted Tax Gain	Rs. Lakh		60.99	60.72	16.33	5.35	-0.38	-3.25	-4.58	-5.08	-5.13	-4.97	-4.70	-4.39	-4.07	-3.75	-3.45	-3.17	-2.91	-1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Levelised Income Tax Gain	Rs. Lakh		8.67																								
Net Generation	MU		3.154	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	6.307	
Average Generation	Lakh U		61.81																								
Levelised Income Tax Benefit	Rs/kwh		0.14																								

Annexure-XA

Norms and parameter for Bio Mass [For rice straw and juliflora (plantation) based project] with water cooled condenser Power Project and travelling grate Boiler

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity	MW	1
			Plant Load Factor	%	80
			Commercial Operation Date Useful life	mm/yyyy Year	25
			Auxiliary Consumption	%	10
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs.Lac/MW	697
3.	Financial Assumptions		Tariff Period	Year	25
		Debt :Equity	Debt	%	70
			Equity	%	30
		Debt Component	Total Debt Amount	Rs. Lakh	487.9
			Total Equity Amount	Rs. Lakh	209.1
			Repayment Period	Year	15
			Interest rate	%	10.99
		Equity Component	Equity Amount	Rs. Lakh	209.1
			Return on Equity first 20 years	%	16.96

		Depreciation	ROE 21 th year onwards discount rate Depreciation rate first 10 years Depreciation rate 11 th year onwards	% % %	21.52 9.11 4.67 2
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh %	56.05 lakhs/MW 3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month % Month %	1 15 1.5 12.24
6.	Fuel related assumptions	Station Heat Rate Fuel Type & mix	projects using travelling grate boilers GCV of Biomass fuel Biomass Price fuel price escalation factor	kCal/Kwh kCal/Kwh Rs/MT %p.a	4200 3100 4472.72 3.45

Annexure XIA

Norms and Parameter for Bio Mass [other than rice straw and Juliflora plantation) based project] with air cooled condenser Power Project and travelling grate boiler

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity Plant Load Factor Commercial Operation Date Useful life Auxiliary Consumption	MW % mm/yyyy Year %	1 80 25 12
2.	Power Cost	Capital Cost/MW	Capital Cost	Rs.Lac/MW	685
3.	Financial Assumptions	Debt :Equity Debt Component Equity Component	Tariff Period Debt Equity Total Debt Amount Total Equity Amount Repayment Period Interest rate Equity Amount Return on Equity first 20 years ROE 21 th year onwards discount rate	Year % % Rs. Lakh Rs. Lakh Year % Rs. Lakh % %	25 70 30 479.5 205.5 15 10.99 205.5 16.96 21.52

		Depreciation	Depreciation rate first 10 years	%	9.11
			Depreciation rate 11 th year onwards	%	4.67
				%	2
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs. Lakh	56.05 lakhs/MW
				%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month	1
				%	15
				Month	1.5
				%	12.24
6.	Fuel related assumptions	Station Heat Rate	projects using travelling grate boilers	kCal/Kwh	4200
				kCal/Kwh	3100
		Fuel Type & mix	GCV of Biomass fuel	Rs/MT	4472.72
			Biomass Price	%p.a	3.45
			fuel price escalation factor		

Annexure XIB

Annexure XII A

Norms and Parameter for Bio Mass [For rice straw and juliflora(plantation) based project] with air cooled condenser and Travelling grate boiler Power Project

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity Plant Load Factor Commercial Operation Date Useful life Auxiliary Consumption	MW % mm/yyyy Year %	1 80 25 12
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs.Lac/MW	744
3.	Financial Assumptions	Debt :Equity Debt Component Equity Component	Tariff Period Debt Equity Total Debt Amount Total Equity Amount Repayment Period Interest rate Equity Amount Return on Equity first 20 years ROE 21 th year onwards discount rate	Year % % Rs. Lakh Rs. Lakh Year % Rs. Lakh % %	25 70 30 520.8 223.2 15 10.99 223.2 16.96 21.52 9.11

		Depreciation	Depreciation rate first 10 years	%	4.67
			Depreciation rate 11 th year onwards	%	2
4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh	56.05 lakhs/MW
				%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month	1
				%	15
				Month	1.5
				%	12.24
6.	Fuel related assumptions	Station Heat Rate	projects using AFBC boilers	kCal/Kwh	4125
				kCal/Kwh	3100
		Fuel Type & mix	GCV of Biomass fuel	Rs/MT	4472.72
			Biomass Price	%p.a	3.45
			fuel price escalation factor		

Annexure XII B

Determination of Tariff for Biomass Power Project [For rice straw and Juliflora(plantation) based project] with air cooled condenser and travelling grate boiler (FY 2025-26)																											
Capital Cost		Lakh/MW	744																								
Units Generation		Unit	Year-->																								
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841	0.841
Actual Generation	MU	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167
Actual Generation month Wise	MU	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514	0.514
Tariff Components Fixed Cost		Unit	Year-->																								
O&M Expenses	Rs Lakh	56.05	58.20	60.44	62.76	65.17	67.67	70.27	72.97	75.77	78.68	81.70	84.84	88.10	91.48	94.99	98.64	102.43	106.36	110.44	114.68	119.09	123.66	128.41	133.34	138.46	
Depreciation	Rs Lakh	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74	34.74
Interest on term loan	Rs Lakh	55.33	51.51	47.69	43.87	40.05	36.23	32.42	28.60	24.78	20.96	17.14	13.32	9.51	5.69	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working capital	Rs Lakh	28.68	29.55	30.45	31.39	32.36	33.37	34.42	35.50	36.62	37.79	39.00	40.25	41.55	42.89	44.29	45.45	47.01	48.62	50.29	52.02	53.96	55.81	57.72	59.70	61.75	63.87
Return on Equity	Rs Lakh	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85	37.85
Total Fixed Cost	Rs Lakh	212.65	211.86	211.18	210.62	210.18	209.88	209.70	209.66	209.77	210.03	210.44	211.01	211.75	212.66	213.75	196.83	202.17	207.72	213.47	219.44	235.96	242.38	249.04	255.96	263.13	
Variable Cost		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
VARIABLE COST PER UNIT AT BUS BAR	Rs./kwh	6.89	7.12	7.37	7.62	7.89	8.16	8.44	8.73	9.03	9.34	9.67	10.00	10.35	10.70	11.07	11.45	11.85	12.26	12.68	13.12	13.57	14.04	14.52	15.02	15.54	
BIOMASS FUEL COST	Rs. Lakh	424.67	439.32	454.48	470.16	486.38	503.16	520.52	538.48	557.05	576.27	596.15	616.72	638.00	660.01	682.78	706.34	730.70	755.91	781.99	808.97	836.88	865.75	895.62	926.52	958.48	
Per Unit Cost of Generation		Unit	Year-->																								
O&M expn	Rs./kwh	0.91	0.94	0.98	1.02	1.06	1.10	1.14	1.18	1.23	1.28	1.32	1.38	1.43	1.48	1.54	1.60	1.66	1.72	1.79	1.86	1.93	2.01	2.08	2.16	2.25	
Depreciation	Rs./kwh	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Int. on term loan	Rs./kwh	0.90	0.84	0.77	0.71	0.65	0.59	0.53	0.46	0.40	0.34	0.28	0.22	0.15	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs./kwh	0.47	0.48	0.49	0.51	0.52	0.54	0.56	0.58	0.59	0.61	0.63	0.65	0.67	0.70	0.72	0.74	0.76	0.79	0.82	0.84	0.87	0.90	0.94	0.97	1.00	
RoE	Rs./kwh	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Total COG	Rs./kwh	3.45	3.44	3.42	3.42	3.41	3.40	3.40	3.40	3.40	3.41	3.41	3.42	3.43	3.45	3.47	3.19	3.28	3.37	3.46	3.56	3.83	3.93	4.04	4.15	4.27	
Levelised fixed Cost 346	Rs/Unit																										
LEVELLISED FIXED COST		YEAR	1																								
NOMINAL FIXED TARIFF	Rs./Unit	3.45	3.44	3.42	3.42	3.41	3.40	3.40	3.40	3.41	3.41	3.42	3.43	3.45	3.47	3.19	3.28	3.37	3.46	3.56	3.83	3.93	4.04	4.15	4.27		
DISCOUNT FACTOR	9.11%	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
PV OF NOMINAL FIXED TARIFF	Rs./Unit	3.45	3.15	2.88	2.63	2.40	2.20	2.02	1.85	1.69	1.55	1.43	1.31	1.21	1.11	1.02	0.86	0.81	0.77	0.72	0.68	0.67	0.63	0.59	0.56	0.53	
LEVELLISED FIXED TARIFF	Rs./Unit	3.46																									
VARIABLE COST FOR FY 24-25	Rs./Unit	6.89																									
APPLICABLE TARIFF FOR 24-25	Rs./Unit	10.34																									
Depreciation Amount	%	90%																									
Book Depreciation Rate	%	5.28%																									
Tax Depreciation Rate	%	40%																									
Additional Depreciation	%	20%																									
Income Tax (Normal Rate)	%	34.940%																									
Capital Cost	Rs. Lakh	744.00																									
Discount Factor	%	9.11%																									
Accelerated Depreciation		YEAR	1																								
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%
Book Depreciation	Rs. Lakh	19.64	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28	39.28
Accelerated Depreciation		%	100.00%																								
Opening	%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	30.00%	35.00%	34.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelerated Depreciation	Rs. Lakh	232.20	260.40	104.16	62.50	37.50	22.50	13.50	8.10	4.86	2.92	1.75	1.05	0.63	0.38	0.23	0.14	0.08	0.05	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs. Lakh	203.56	221.12	64.88	23.21	-1.79	-16.78	-25.78	-31.18	-34.42	-36.37	-37.53	-38.23	-38.65	-38.91	-39.06	-39.15	-39.20	-21.38	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00
Income Tax Gain	Rs. Lakh	71.12	77.26	22.67	8.11	-0.62	-5.86	-9.01	-10.90	-12.03	-12.71	-13.11	-13.36	-13.51	-13.59	-13.65	-13.70	-13.74	-7.47	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Discounting Factor	Rs. Lakh	1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15	0.13	0.12	
Discounted Tax Gain	Rs. Lakh	71.12	70.81	19.04	6.24	-0.44	-3.79	-5.34	-5.92	-5.99	-5.80	-5.48	-5.12	-4.74	-4.38	-4.03	-3.70	-3.39	-1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Levelised Income Tax Gain	Rs. Lakh	10.11																									
Net Generation	MU	3.084	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167	6.167
Average Generation	Lakh U	60.44																									
Levelised Income Tax Benefit	Rs./kwh	0.17																									

Annexure-XIII A

**Norms and Parameter for Refuse derived fuel (RDF) based on Rankine cycle
technology Power Project**

Sl. No	Assessment Head	Sub-Head (1)	Sub-Head (2)	Unit	Assumptions
1.	Power Generation	Capacity	Installed Power Generation Capacity PLF(During Stabilization up to 6 month) PLF(during 1 st year stabilization) PLF(2 nd year onwards) Commercial Operation Date Useful life Auxiliary Consumption	MW % % % mm/yyyy Year %	1 65 65 80 20 15
2.	Power Cost	Capital Cost/MW	Capital Cost Project	Rs.Lac/MW	900
3.	Financial Assumptions	Debt :Equity Debt Component Equity Component Depreciation	Tariff Period Debt Equity Total Debt Amount Total Equity Amount Repayment Period Interest rate Equity Amount Return on Equity first 20 years ROE 21 th year onwards discount rate Depreciation rate first 10 years Depreciation rate 11 th year onwards	Year % % Rs. Lakh Rs. Lakh Year % Rs. Lakh % % % %	20 70 30 630 270 15 10.99 270 16.96 21.52 9.11 4.67 4

4.	Operation & Maintenance	Normative O&M expenses p.a. Escalation for O&M		Rs.Lakh	75.67
				%	3.84
5.	Working capital	O&M expenses Maintenance Spare Receivables Interest on working capital	(%O&M expenses)	Month	1
				%	15
				Month	2
				%	12.24
6.	Fuel related assumptions	Station Heat Rate	GCV of Fuel	kCal/Kwh	4200
				kCal/Kwh	2500
		Fuel Type & mix	Price of Fuel fuel price escalation factor	Rs/MT	2620.49
				%p.a	3.45

Determination of Tariff for RDF based on Rankine cycle technology (FY 2025-26)																							
Capital Cost		Lakh/MW	900																				
Units Generation		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU			5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU			0.854	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051
Actual Generation	MU			4.840	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957
Actual Generation month Wise	MU			0.403	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496	0.496
Tariff Components Fixed Cost		Unit	Year-->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh			75.67	78.58	81.59	84.73	87.98	91.36	94.87	98.51	102.29	106.22	110.30	114.53	118.93	123.50	128.24	133.17	138.28	143.59	149.10	154.83
Depreciation	Rs Lakh			42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	42.03	36.00	36.00	36.00	36.00
Interest on term loan	Rs Lakh			66.93	62.31	57.69	53.07	48.45	43.83	39.21	34.59	29.97	25.36	20.74	16.12	11.50	6.88	2.26	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh			20.06	24.02	24.71	25.42	26.17	26.94	27.74	28.58	29.44	30.34	31.27	32.24	33.25	34.29	35.37	36.44	37.67	38.95	40.28	41.65
Return on Equity	Rs Lakh			45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79	45.79
Total Fixed Cost	Rs Lakh			250.48	252.72	251.81	251.04	250.42	249.95	249.64	249.50	249.53	249.74	250.13	250.72	251.50	252.49	253.70	251.40	257.75	264.34	271.17	278.27
Variable Cost		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VARIABLE COST PER UNIT AT BUS BAR	Rs./Kwh		5.18	5.36	5.54	5.73	5.93	6.14	6.35	6.57	6.79	7.03	7.27	7.52	7.78	8.05	8.33	8.61	8.91	9.22	9.54	9.87	
BIOMASS FUEL COST	Rs. Lakh		250.67	319.17	330.18	341.57	353.35	365.54	378.15	391.20	404.70	418.66	433.10	448.04	463.50	479.49	496.04	513.15	530.85	549.17	568.11	587.71	
Per Unit Cost of Generation		Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
O&M expn	Rs/kWh		1.56	1.32	1.37	1.42	1.48	1.53	1.59	1.65	1.72	1.78	1.85	1.92	2.00	2.07	2.15	2.24	2.32	2.41	2.50	2.60	
Depreciation	Rs/kWh		0.87	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.60	0.60	0.60	0.60	0.60	
Int. on term loan	Rs/kWh		1.38	1.05	0.97	0.89	0.81	0.74	0.66	0.58	0.50	0.43	0.35	0.27	0.19	0.12	0.04	0.00	0.00	0.00	0.00	0.00	
Int. on working capital	Rs/kWh		0.41	0.40	0.41	0.43	0.44	0.45	0.47	0.48	0.49	0.51	0.53	0.54	0.56	0.58	0.59	0.61	0.63	0.65	0.68	0.70	
RoE	Rs/kWh		0.95	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	
Total COG	Rs/kWh		5.18	4.24	4.23	4.21	4.20	4.20	4.19	4.19	4.19	4.19	4.20	4.21	4.22	4.24	4.26	4.22	4.33	4.44	4.55	4.67	
Levillised fixed Cost 4.33	Rs/Unit																						
LEVELLISED FIXED COST		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
NOMINAL FIXED TARIFF	Rs./Unit		5.18	4.24	4.23	4.21	4.20	4.20	4.19	4.19	4.19	4.19	4.20	4.21	4.22	4.24	4.26	4.22	4.33	4.44	4.55	4.67	
DISCOUNT FACTOR	9.11%		1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	
PV OF NOMINAL FIXED TARIFF	Rs./Unit		5.18	3.89	3.55	3.24	2.97	2.71	2.48	2.28	2.09	1.91	1.76	1.61	1.48	1.36	1.26	1.14	1.07	1.01	0.95	0.89	
LEVELLISED FIXED TARIFF	Rs./Unit		4.33																				
VARIABLE COST FOR FY 24-25	Rs./Unit		5.18																				
APPLICABLE TARIFF FOR 24-25	Rs./Unit		9.51																				
Depreciation Amount	%			90%																			
Book Depreciation Rate	%			5.28%																			
Tax Depreciation Rate	%			40%																			
Additional Depreciation	%			20%																			
Income Tax (Normal Rate)	%			34.940%																			
Capital Cost	Rs. Lakh			900.00																			
Discount Factor	%			9.11%																			
Accelerated Depreciation		YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Book Depreciation	%		2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	
Book Depreciation	Rs. Lakh		23.76	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	47.52	25.92	0.00	0.00	
Accelerated Depreciation		%	100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	
Opening	%		100.00%	70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	
Allowed during the year	%		30.00%	35.00%	14.00%	8.40%	5.04%	3.02%	1.81%	1.09%	0.65%	0.39%	0.24%	0.14%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	0.00%	
Closing	%		70.00%	35.00%	21.00%	12.60%	7.56%	4.54%	2.72%	1.63%	0.98%	0.59%	0.35%	0.21%	0.13%	0.08%	0.05%	0.03%	0.02%	0.01%	0.01%	0.00%	
Accelerated Depreciation	Rs. Lakh		270.00	315.00	126.00	75.60	45.36	27.22	16.33	9.80	5.88	3.53	2.12	1.27	0.76	0.46	0.27	0.16	0.10	0.06	0.04	0.02	
Net Depreciation Benefit	Rs. Lakh		246.24	267.48	78.48	28.08	-2.16	-20.30	-31.19	-37.72	-41.64	-43.99	-45.40	-46.25	-46.76	-47.06	-47.25	-47.36	-47.42	-25.86	0.04	0.02	
Income Tax Gain	Rs. Lakh		86.04	93.46	27.42	9.81	-0.75	-7.09	-10.90	-13.18	-14.55	-15.37	-15.86	-16.16	-16.34	-16.44	-16.51	-16.55	-16.57	-9.04	0.01	0.01	
Discounting Factor			1.00	0.92	0.84	0.77	0.71	0.65	0.59	0.54	0.50	0.46	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21	0.19	
Discounted Tax Gain	Rs. Lakh		86.04	85.65	23.03	7.55	-0.53	-4.59	-6.46	-7.16	-7.24	-7.01	-6.63	-6.19	-5.74	-5.29	-4.87	-4.47	-4.11	-2.05	0.00	0.00	
Levillised Income Tax Gain	Rs. Lakh		13.15																				
Net Generation	MU		2.420	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	5.957	
Average Generation	Lakh U		46.24																				
Levillised Income Tax Benefit	Rs./Kwh		0.28																				

