



MSR MEGA BIO POWER PRIVATE LIMITED

Ref: MSR MEGA BIO POWER/7.5MW/2021-22

Date: 02nd Nov 2021.

To

**The Chief General Manager (IPC&RAC)
TSNPDCL, Nakkalagutta, Vidyut Bhavan,
Warangal.**

**Sub: Submission of MSR's Comments/Replies to the Objections/Suggestions raised by
TSNPDCL**

Ref: 1. Objections/Suggestions received from TSNPDCL through Mail on 27.10.2021

Dear Sir,

Citing to the above subject and vide Ref(1), we have received Objections/Suggestions from TSNPDCL through Mail on 27.10.2021 in the matter of public notice Date:07.10.2021 in OP No: 71/2018 for determination of fixed cost tariff for 7.5 MW Industrial Waste Based Power Project of M/s MSR Mega Bio Power Pvt Ltd.

In this regard, we are herewith submitting the MSR's Comments/Replies to the objections/Suggestions raised by TSNPDCL.

Yours sincerely,

For MSR Mega Bio Power Pvt Limited

S.V. SubbaZeddy

Authorised Signatory

CC: The Secretary, Hon'ble TSERC, Vth Floor, Singareni Bhavan, Red Hills, Hyd.

“MSR Mega Bio Power Comments/Replies on the Objections/Suggestions raised by TSNPDCL”:

S. No.	Objections/Suggestions raised by TSNPDCL	Comments/Replies of MSR										
1	<p>Capital Cost : <u>Capital Cost proposed by the Developer @ Rs 671.5L/MW is too high and is not acceptable to the DISCOM.</u></p> <p>CERC RE tariff order specified the Capital cost (arrived based on indexation mechanism considering capital cost specified for FY 2013-14 as base year) as follows :</p> <table border="1" data-bbox="275 570 1003 1360"> <thead> <tr> <th data-bbox="275 570 642 639">Biomass Rankine Cycle projects</th> <th data-bbox="642 570 1003 639">Capital Cost (FY 2016-17) Rs. Lakh/MW</th> </tr> </thead> <tbody> <tr> <td data-bbox="275 639 642 846">Project (other than rice straw and julifora (plantation) based project) with water cooled condenser</td> <td data-bbox="642 639 1003 846">559.03</td> </tr> <tr> <td data-bbox="275 846 642 1019">Project (other than rice straw and julifora (plantation) based project) with air cooled condenser</td> <td data-bbox="642 846 1003 1019">600.44</td> </tr> <tr> <td data-bbox="275 1019 642 1193">For rice straw and julifora (plantation) based project with water cooled condenser</td> <td data-bbox="642 1019 1003 1193">610.80</td> </tr> <tr> <td data-bbox="275 1193 642 1360">For rice straw and julifora (plantation) based project with air cooled condenser</td> <td data-bbox="642 1193 1003 1360">652.20</td> </tr> </tbody> </table>	Biomass Rankine Cycle projects	Capital Cost (FY 2016-17) Rs. Lakh/MW	Project (other than rice straw and julifora (plantation) based project) with water cooled condenser	559.03	Project (other than rice straw and julifora (plantation) based project) with air cooled condenser	600.44	For rice straw and julifora (plantation) based project with water cooled condenser	610.80	For rice straw and julifora (plantation) based project with air cooled condenser	652.20	<p>We humbly submit that, From the table shown by TSNPDCL/DISCOM, Our Project comes under project (other than rice straw and julifora (plantation) based project with air cooled condenser and the capital cost determined by CERC for FY 2016-17 for this type of project was Rs. 600.44 Lakhs/MW.</p> <p>Though the capital cost that is to be considered for our project is Rs.600.44 lakhs/MW. we undertakes to submit that, As a substantial amount of time has passed since the project has been established and amounts against the sale of power have being paid at the interim tariff mentioned in the PPA, We have no objection to the submission of the TSNPDCL/DISCOM to consider the capital cost as Rs.559.03 crores, though it is slightly on the lower side.</p> <p>Therefore, we respectfully submits that the capital cost may be considered at Rs. 559.03 Lakhs/MW.</p>
Biomass Rankine Cycle projects	Capital Cost (FY 2016-17) Rs. Lakh/MW											
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	<p>It may please be noted that CERC in the tariff orders for further FYs from FY 2017-18 till FY 2020-21 has fixed the same Capital cost as was determined for FY 2016-17.</p> <p>Since the actual audited accounts of the Project are available in the subject case, this Hon'ble Commission is prayed to fix the Capital cost as per the actual audited costs incurred by the Petitioner subject to ceiling limit of Rs 559.03 L/MW fixed by the Hon'ble CERC for the relevant tariff year.</p>							
2	<p><u>Plant Load Factor (PLF) :</u></p> <p>Earlier APERC order dated 22.06.2013 fixed the PLF for the Industrial Waste based projects as 80% in line with CERC Regulations. Hence the PLF @ 80% may please be adopted.</p> <p>Since the Project is commissioned on 01.06.2016 and is currently in its 5th year of operation, the PLF may be fixed @ 80% which is applicable for second year onwards</p>	Suggestive						
3	<p><u>Auxiliary Consumption:</u></p> <p>Auxiliary Consumption @ 12% sought by the Developer is not acceptable to the DISCOM.</p> <p>Erstwhile APERC order dated 22.06.2013 adopted an auxiliary consumption of 10%. Further, CERC RE tariff order specifies for an auxiliary consumption of 10% from second year onwards. Since the project is running in 5th year of operation, auxiliary consumption @ 10% may be adopted.</p>	<p>We humbly submit that the TSNPDCL/DISCOM has considered the auxiliary consumption of 10% from the CERC RE Tariff Order for the FY 2016-17 for biomass projects using water cooled condensers, whereas our projects uses an air cooled condenser and is thus to be considered at 12% from the 2nd year onwards. The relevant extract of the CERC RE Tariff Regulations for the FY 2016-17 is herein below:</p> <table border="1" data-bbox="1165 1084 1942 1408"> <thead> <tr> <th data-bbox="1165 1084 1543 1198">Renewable Energy Projects</th> <th data-bbox="1543 1084 1942 1198">Auxiliary Consumption Factor</th> </tr> </thead> <tbody> <tr> <td data-bbox="1165 1198 1543 1258">Small Hydro</td> <td data-bbox="1543 1198 1942 1258">1 %</td> </tr> <tr> <td data-bbox="1165 1258 1543 1408">Biomass a) the project using water cooled condenser</td> <td data-bbox="1543 1258 1942 1408">11. During first year of operation:11%; 12. From 2nd year</td> </tr> </tbody> </table>	Renewable Energy Projects	Auxiliary Consumption Factor	Small Hydro	1 %	Biomass a) the project using water cooled condenser	11. During first year of operation:11%; 12. From 2 nd year
Renewable Energy Projects	Auxiliary Consumption Factor							
Small Hydro	1 %							
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			onwards:10%.
		b) project using air cooled condenser	13. During first year of operation:13%; 14. From 2 nd year onwards:12%.
		Non-fossil fuel co-generation	8.5 %
		Solar Thermal	10 %
		Biomass Gasifier	10 %
		Biogas	12 %
		<p>From the above table, it is to submit that, our project comes under (b), i.e., project using air cooled condenser.</p> <p>Therefore, we respectfully submit to this Hon'ble Commission to adopt Auxiliary Consumption in accordance with the orders passed in Suo-Motu Petition No. SM/03/2016 dated 29.04.2016 by the Hon'ble Central Electricity Regulatory Commission. As such, since the project is running in the 5th year of operation, auxiliary consumption @ 12% may be adopted.</p>	
4	<p><u>O&M expenses and escalation:</u></p> <p>O&M expenses @ Rs 47.26L/MW and escalation @5.72% sought by the Developer are too high and are not acceptable</p> <p>O&M expenses were determined @ 5.5% of capital cost for the first year of operation in the APERC order dated 22.06.2013. Accordingly, the same may please be adopted. Further annual escalation @ 3.84% for the O&M expenses may be adopted in line with the CERC RE tariff order dated 31.03.2021 in Petition No.2/SM/2021.</p>	<p>We humbly submit that the TSNPDCL/DISCOM has taken the parameters set out in the order dated 22.06.2013 of the erstwhile APERC. However, the said order was with regard to projects commissioned between FY 2004-09, and not for projects commissioned in FY 2016-17, and the parameters taken for the said control period does not reflect the contemporaneous parameters to be considered, unlike the CERC RE Tariff Order for FY 2016-17. As our project was commissioned in FY 2016-17, the relevant parameters as set out in the CERC RE Tariff Order for FY 2016-17 ought to be considered.</p>	

		We, therefore, prays this Hon'ble commission to consider and adopt Operation and Maintenance expenses and escalations in accordance with the orders passed in Suo-Motu Petition No. SM/03/2016 on 29-04-2016 by the Hon'ble Central Electricity Regulatory Commission.
5	<p><u>Debt Equity ratio:</u></p> <p>Debt Equity Ratio of 70:30 may be adopted in line with earlier Commission orders and CERC Regulations.</p>	Suggestive
6	<p><u>Depreciation:</u></p> <p>In line with the CERC RE tariff Regulations, the value base for the purpose of depreciation shall be the Capital cost of the project with 10% salvage value and depreciation be allowed up to maximum 90 % of the Capital cost @5.83% for 12 years and 2.51% thereafter.</p>	Suggestive
7	<p><u>Return on Equity:</u></p> <p>Return equity @ 20% for 1st 10 years and for 11th year onwards @24% sought by the Developer are too high and are not in line with the current market rates and are not acceptable to the DISCOM.</p> <p>Return on Equity @ 14% for whole plant life of 20 years may be adopted in line with the latest CERC RE tariff order dated 31.03.2021 in Petition No. 2/SM/2021.</p>	<p>We humbly submit that the TSNPDCL/DISCOM has relied on the Suo-Moto Petition No. 13/SM/2020, i.e., the CERC RE tariff order for the FY 2020-21 to arrive at 14% RoE, however the same is not applicable to projects commissioned in 2016 itself, and is applicable for projects commissioned only during the control period FY 2020-21. The same also does not reflect the contemporaneous parameters to be considered, and is based off the present factual circumstances, i.e., for FY 2020-21.</p> <p>As per the CERC RE tariff regulations as they stood on date on FY 2016-17, and as per Para 37 of the CERC RE Tariff order for FY 2016-17, the relevant RoE to be considered is as follows:</p> <p><i>“37.As per the Sub-Regulation (1) of Regulation 16 of the RE Tariff Regulations provides that the value base for the equity shall be 30% of the capital cost for generic tariff determination. Sub-Regulation (2) of the said Regulation</i></p>

		<p><i>stipulates the normative Return on Equity (ROE) as under:</i></p> <p>a) 20% per annum for the first 10 years, and</p> <p>b) 24% per annum from the 11th Year onwards.”</p> <p>Therefore, we respectfully submits that the Return on Equity may be adopted in line with the orders passed in Suo-Motu Petition No. SM/03/2016 on 29-04-2016 by the Hon’ble Central Electricity Regulatory Commission.</p>
8	<p><u>Interest on Debt:</u></p> <p>Interest on debt @12% being sought by the Developer is too high and is not acceptable to the DISCOM</p> <p>CERC RE tariff order dated 31.03.2021 in Petition No. 2/SM/2021 specifies Interest on debt @ 9%. The same may be adopted.</p>	<p>We humbly submit that, TSNPDCL/DISCOM has relied on the CERC RE tariff order for the FY 2020-21 to arrive at an interest on debt of 9.67%, however the same is not applicable to projects commissioned earlier in 2016 itself, and is applicable for projects commissioned only during the control period FY 2020-21. The same also does not reflect the contemporaneous parameters to be considered, but is based off the present factual circumstances, i.e., for FY 2020-21.</p> <p>In view of the above, we respectfully submits that the Interest on Debt of 12.76% may be adopted in line with the orders passed in Suo-Motu Petition No. SM/03/2016 on 29-04-2016 by the Hon’ble Central Electricity Regulatory Commission.</p>
9	<p><u>Interest on Working Capital:</u></p> <p>Interest on working capital @13.26% being sought by the Developer is too high and is not acceptable to the DISCOM.</p> <p>CERC RE tariff order dated 31.03.2021 in Petition No. 2/SM/2021 specifies Interest on Working Capital @ 10.50%. The same may be adopted.</p>	<p>We humbly submit that the TSNPDCL/DISCOM has relied on the CERC RE tariff order for the FY 2020-21 to arrive at an interest on working capital , however as stated above, the same is neither relevant nor applicable to our project. Therefore, we respectfully submits that the Interest on Working Capital may be adopted as 13.26% in accordance with the orders passed in Suo-Motu Petition No. SM/03/2016 on 29-04-2016 by the Hon’ble Central Electricity Regulatory Commission.</p>
10	<p><u>Discount Factor:</u></p> <p>With RoE @ 14% and 9% Interest on Debt, the Discount factor would be 8.30%. Accordingly, Discount factor @ 8.30% may be fixed, as against @10.64% being sought by the Developer is high and not acceptable to the DISCOM.</p>	<p>We humbly submits that the Discount factor may be adopted as 10.64% in accordance with the orders passed in Suo-Motu Petition No. SM/03/2016 on 29-04-2016 by the Hon’ble Central Electricity Regulatory Commission.</p>

11	<p><u>Station Heat Rate (SHR) :</u></p> <p>Though not specified by the Developer, SHR @ 4200 Kcal/Kwh may be adopted in line with this Hon'ble Commission earlier orders dated 16.05.2014 determining Variable Cost for Biomass/ Industrial Waste based power projects.</p>	Suggestive
12	<p><u>Gross Calorific Value (GCV) :</u></p> <p>Though not specified by the Developer, GCV @ 3100 Kcal/Kg may be adopted in line with the Commission's earlier orders dated 16.05.2014 determining Variable Cost for Biomass/ Industrial Waste based power projects.</p>	Suggestive
13	<p><u>Fuel Cost and escalation:</u></p> <p>Though not specified by the Developer, the fuel cost may be fixed in line with the cost indicated by the Hon'ble CERC in RE tariff orders with a 5% annual escalation.</p>	Suggestive
14	<p>The Fixed charges determined with the above submitted parameters may be made payable for a PLF of 80% of energy exported and Variable Cost only for the energy exported beyond 80% PLF.</p>	<p>In reply to Para No. 12 of TSNPDCL/DISCOM objection, We respectfully submits that fixed charges are payable for a PLF of 80% of energy for export to grid and where PLF during settlement period (Settlement period is one year from the date of commercial operation for calculation of fixed charges) exceeds 80%, variable cost and an incentive of 25 paise per unit shall be paid for every unit delivered excess of the 80% PLF in line with PPA dated 30.04.2016.</p>

In view of the above cited suggestions, we request your good selves to kindly consider our comments/replies and do the further needful.

Thanking you!

For MSR Mega Bio Power Pvt Limited

S.V. SubbaZeddy