

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 130 of 2021

Petition of Maharashtra State Electricity Distribution Co. Ltd. seeking review of Order dated 22 March 2021 passed in Case No. 162 of 2019 filed by Pune Bio Energy Systems Pvt. Ltd for determination of tariff of its Municipal Solid Waste processing project situated at Pune and the Order dated 03 July 2021 passed in Case No. 48 of 2021 seeking Review of the Order dated 22 March 2021.

M/s Maharashtra State Electricity Distribution Co.Ltd. (MSEDCL) : Petitioner
M/s. Pune Bioenergy System Pvt. Ltd. (PBESPL) : Respondent No.1
M/s Maharashtra State Electricity Transmission Co. Ltd. (MSETCL) : Respondent No.2
M/s Maharashtra State Load Dispatch Centre (MSLDC) : Respondent No.3

Coram

Shri I.M. Bohari, Member
Shri Mukesh Khullar, Member

Appearance

For the Petitioner
MSEDCL

Mr. Ravi Prakash (Adv.)

For the Respondents
PBESPL

Ms. Deepa Chavan (Adv)
Mr. Nimesh Vohra (Rep)

MSETCL
MSLDC

: Mr. Jagannath Chude (Rep)
: Mr. E. T. Dhengle (Rep)

ORDER

Date: 15 March 2022

1. Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) has filed the present Review Petition on 11 October 2021 under Section 94 (1) (f) of the Electricity Act 2003 (EA) and Regulation 85 of the MERC (Conduct of Business) Regulation 2004 seeking Review of Commissions Orders dated 22 March 2021 and 03 July 2021 passed in Case No. 162 of 2019 and Case No. 48 of 2021 (Impugned Orders) respectively.
2. **MSEDCL's main prayers are as follows:**
 - A. *Allow the present Review Petition;*
 - B. *Review the Tariff determined vide the Orders dated 22.03.2021 and 03.07.2021 passed in Case Nos. 162 of 2019 and 48 of 2021 in view of the various discrepancies and grounds cited hereinabove;*
 - C. *Pass any other such reliefs as may be deemed fit by the Hon'ble Commission.*
3. MSEDCL has stated that in Orders dated 22 March 2021 and 03 July 2021 passed in Case No. 162 of 2019 and Case No. 48 of 2021 there are certain apparent errors, and it has apprehension/concerns over the manner in which certain issues have been addressed by the Commission. This review Petition aims at rectification of the apparent errors and review of the certain critical rulings of the Commission so that the resultant Tariff for the Project is appropriately re-stated.
4. Major Events leading to the present Petition are depicted in table below:

Date	Event
15 July 2019	PBESPL filed Case No. 162 of 2019 under Section 62 (1) of EA,2003 and Regulations 8.1 and 8.2 of the MERC (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2015.
30 December 2019	The Commission notified MERC (Terms and Conditions for Determination of Renewable Energy Tariff) Regulations, 2019, which was applicable for the Control Period from FY 2020-21 to FY 2024-25.
20 August 2020	PBESPL filed the revised Petition
31 December 2020	Commission admitted the Petition in accordance with Section 64(2) of the Electricity Act, 2003 and directed the PBESPL to publish the Petition inviting objections and suggestions
27 January 2021	The Commission conducted a public hearing in Case No. 162 of 2019.

Date	Event
22 March 2021	The Commission passed the Order determining specific levelized Tariff for PBESPL's project: - Rs. 6.95/ kWh without considering the applicability of CFA and - Rs. 6.08/kWh after considering the maximum CFA of Rs. 50 Crore.
27 July 2021	MSEDCL filed an Appeal before APTEL (Appeal No. 248 of 2021) assailing the Order dated 22 March 2021 passed in Case No. 162 of 2019.
03 July 2021	During the pendency of the Appeal, PBESPL filed a Review Petition being Case No. 48 of 2021. The Commission partly allowed the Petition. By the said Order, the tariff of project was increased to Rs. 7.45/kWh without considering the applicability of CFA and Rs. 6.53/kWh after considering the maximum CFA of Rs. 50 Crore.
24 August 2021	Appeal No. 248 of 2021 came to be disposed off as withdrawn on 24 August 2021, with liberty to MSEDCL to pursue the present Petition.

Under this backdrop, the present Review Petition is being filed by MSEDCL.

5. At the e-hearing through video conferencing held on 18 January 2022, Advocate appearing on behalf of MSEDCL categorically submitted that it is not seeking Review of Review Order dated 3 July 2021. He restricted his submission in context with Original Order dated 22 March 2021 and explicitly pressed only (3) three grounds for review consideration. Grounds pressed for Review are consideration of transmission cost as a part of capital cost, contemplating VGF for tariff determination and non-consideration of efficiency factor for determining O&M escalation rate. Advocate of PBESPL restricted her submission on the points pressed by MSEDCL. She pointed out that issue of efficiency factor has been dealt by the Commission in its Review Order dated 3 July 2021. Evacuation arrangement is approved by STU and the same is not in control of PBESPL. Issue of VGF has been dealt by the Commission holistically in the Original Order dated 22 March 2021. The Commission enquired the PBESPL whether PBESPL has received any VGF or not. Representative of PBESPL clarified that it has not received any VGF from MNRE. With regards to non-consideration of efficiency factor while computation of O&M escalation rate, PBESPL informed that no project in Maharashtra for which tariffs have been adopted are successfully operational. Hence, Waste to Energy projects needs to be promoted. MSETCL and MSLDC have not commented on matter in hand.
6. The Commission notes that the Review Petition has been filed under Regulation 85 of the MERC (Conduct of Business) Regulations, 2004 which specifies as follows:

“
85. (a) Any person aggrieved by a direction, decision or order of the Commission, from which (i) no appeal has been preferred or (ii) from which no appeal is allowed, may, upon the discovery of new and important matter or evidence which, after the exercise of due diligence, was not within his knowledge or could not be produced by him at the time when the direction, decision or order was passed or on account of some mistake or error apparent from the face of the record, or for any other sufficient reasons, may apply for a review of such order, within forty-five (45) days of the date of the direction, decision or order, as the case may be, to the Commission.”

Thus, the ambit of review is limited and MSEDCL's Petition has to be evaluated accordingly. MSEDCL has filed this review Petition after withdrawing the Appeal No. 248 of 2021 and as per liberty granted by the Hon'ble APTEL in Order dated 24 August 2021 as follows:

“
On instructions, learned counsel, Mr. Ravi Prakash representing the appellant sought permission to withdraw the present appeal though also seeking liberty to approach the State Commission for a review of the Tariff Order. The learned counsel for the second respondent, on being asked, submits no objection to the request made.

The appeal and the accompanying applications are dismissed as withdrawn and liberty, as prayed for, is granted accordingly.”

Thereafter, MSEDCL has filed this review Petition on 11 October 2021. The Commission is dealing with the same in subsequent paragraphs.

7. Although, MSEDCL in its review Petition has raised various issues, Advocate of MSEDCL during the hearing in the matter has stated that it is restricting review Petition to only three issues, which are as follows:
 - (a) Consideration of transmission cost as a part of capital cost;
 - (b) Contemplating Viability Gap Funding (VGF) for tariff determination and;
 - (c) Non-consideration of efficiency factor for devising O&M escalation rate.

Similarly, Advocate appearing on behalf of PBESPL also restricted its submission on above three aspects only. Therefore, the Commission in subsequent paragraphs of this Order has dealt with only these three issues on which MSEDCL has pressed for review.

8. **Issue I: Consideration of transmission cost as a part of capital cost:**

MSEDCL Submission:

- 8.1. MSEDCL highlighted that during public consultation in Case No.162 of 2019, it presented the capital cost comparison for MSW projects in neighboring comparable States. The Commission has noted the same in its Order dated 22 March 2021.
- 8.2. The Commission has erred in permitting a capital cost of the proposed project at Rs. 22.45 Crores per MW, whereas approved Capital cost of the MSW Projects in other states are in the range of Rs. 14 Crores to Rs. 17.97 Crores per MW. MSEDCL compared the capital cost of PBESPL's project with Nagpur MSW based project.
- 8.3. In other States transmission cost has not been considered as a part of capital cost. MSEDCL urged that PMC could have been directed to bear the evacuation related expenses as project location is not decided by MSEDCL, but it has been decided by PMC.

PBESPL Reply:

- 8.4. A direct comparison between PBESPL's Waste to Energy Project in Pune and the Nagpur Waste to Energy plant without accounting for the sources of differences would not be a fair comparison.
- 8.5. The following table shows the comparison of Capital Cost components Pune Waste to Energy and Nagpur Waste to Energy project.

Parameter	Nagpur Waste to Energy Project (MERC Case No. 158 of 2017)	Pune Waste to Energy Project (MERC Case No. 162 of 2019)	Reasons
Viability Gap Funding (VGF) (Rs. Lakhs)	7,000	-	Project Specific VGF given to Nagpur Project
Transmission Cost (Rs. Lakhs)	-	1,697 [1592.93]	On account of change in MERC RE Tariff Regulations, 2015 to MERC RE Tariff Regulations, 2019 which rests the responsibility of power evacuation on the Project Developer
Right of Way Cost of Transmission Line (Rs. Lakhs)	-	1,697 [509.28]	As above

Transmission Line Civil Cost (Rs. Lakhs)	-	2,618	As above
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[Above table is reproduced from submissions of PBSEPL. However there is factual variation in details and hence correct numbers are shown in bracket in above table]

- 8.6. Keeping the other line items of Capital Cost constant and neutralizing the differences in Capital Cost because of the above line items, the capital cost/MW for the PBESPL's Waste to Energy Project comes out to be Rs. 11.65 Cr./MW which is lower than capital cost of Nagpur Waste to Energy Plant (Rs. 19.03 Cr/MW).
- 8.7. The tariff of Rs 7.45/unit, approved by the Commission for Pune project is inclusive of transmission line cost and if the transmission line costs are excluded then the comparison is like to like. The Pune Waste to Energy project tariff may be same or even lesser than the Nagpur plant tariff of Rs 7.00/unit. So MSEDCL's contention is incorrect.
- 8.8. Further, the planning of transmissions lines network from the sub-stations is done by STU/MSETCL. PBESPL has no control over the transmission line specifications (whether to opt for overhead configuration or underground one) nor MSETCL substation locations. The locations for the Waste to Energy projects are specified by the Municipal Corporations. The land allocated by Corporations are usually reserved for Solid waste management plants and notified in city development plans.

Commission's Analysis and Ruling:

- 8.9. The Commission notes that while evaluating the capital cost of the project, the Commission in its Order dated 22 March 2021 noted following:

"5.6.42 Regarding consideration of transmission/evacuation expenses in the transmission cost, Regulation 14 of MERC RE Tariff Regulations, 2019 specifies the Capital Cost to be considered for Tariff determination as below:

"14. Capital Cost

*The norms for Capital Cost as specified in the subsequent RE technology-specific Chapters shall be inclusive of all capital works, including land cost, plant and machinery, civil works, erection and commissioning, financing costs, preliminary and pre-operative expenses, interest during construction, and **evacuation infrastructure up to the inter-connection point:***

Provided that a Petition for project-specific tariff determination shall provide the break-up of Capital Cost items in the manner specified in Regulation 9."

5.6.43 Regulation 2 (t) of the MERC RE Tariff Regulations, 2019 defines the inter-connection Point as shown below:

*(t) 'Inter-connection Point' shall be the point where the **power from the Project is injected into the nearest transmission/distribution grid sub-station**, including the dedicated transmission/distribution line connecting the Projects with such substation;*

5.6.44 Further, Regulation 15 of MERC (RPO, Its Compliance and Implementation of REC Framework) Regulations, 2019 specifies the provision of grid connectivity framework as below:

*"15 Grid Connectivity Framework
Development of evacuation infrastructure shall be responsibility of concerned Generating Company and it shall be treated as integral part of project for the purpose of tariff determination."*

5.6.45 As per the above proviso of the Regulations, the transmission cost up to the nearest transmission/distribution grid sub-station shall be considered as a part of Capital Cost.

5.6.46 PBESPL has considered the cost of Transmission line (incl. taxes) as Rs. 1,696.65 Lakhs after deducting compensation from PMC of Rs. 515 Lakhs on account of change in location. PBESPL estimated the transmission line cost based on the quotes obtained from the MSETCL's approved vendors. The Commission noted that the PBESPL has considered four runs of 132 kV underground cable of length 9.35 km each. The Commission has considered the cable length of 8.88 km (8.78 km of cable length as submitted by PBESPL and 100m additional for cable termination) and recomputed the transmission line cost by considering the minimum cost of each component provided in the quotes submitted, which works out to be Rs. 1,592.93 Lakhs which includes taxes and after deduction of PMC compensation towards CIL. Hence the Commission has considered Rs. 1,592.93 Lakhs towards transmission line cost against a claim of 1,696.65 Crores."

8.10. In view of above dispensation, it is clear that the consideration of transmission cost as part of project cost is as per Regulatory framework. Further, the Commission has also duly considered the change in location compensation paid out by PMC to PBESPL, while allowing transmission cost.

8.11. Hence, there is no error on this aspect in the Order dated 22 March 2021.

9. **Issue II: Contemplating Central Financial Assistance during tariff determination:**

MSEDCL's Submission:

- 9.1. MSEDCL pointed out at Para 4.1.10 of the Order dated 22 March 2021 wherein PBESPL assured that it would offer discount in Tariff to the Discom in the event of VGF availed at a future date. Also, PBESPL requested the Commission to provide the sensitivity of VGF to corresponding change in tariff once the Commission has finalized all parameters for approved tariff.
- 9.2. There is error with respect to clarity on VGF aspect, which needs to be addressed.

PBESPL Reply:

- 9.3. Issue of VGF has been dealt by the Commission holistically in the Original Order dated 22 March 2021. Further, PBESPL stated that it has not received any VGF from MNRE.

Commission's Analysis and Ruling:

- 9.4. VGF is akin to the Central Financial Assistance (CFA). In the impugned Order the Commission has determined tariff without considering CFA (Rs. 6.95/kWh) and with CFA (Rs. 6.08/kWh) by providing following detailed justification:

“

6.1.1 In pursuance of Regulation 9 of MERC RE Tariff Regulations, 2019, the Commission hereby determines the project specific levelised Tariff for the said MSW-based power project of PBESPL as Rs. 6.95/ kWh without considering the applicability of CFA and Rs. 6.08/kWh after considering the maximum CFA of Rs.50 Crore.

6.1.2 The difference between the tariffs of with and without CFA is Rs. 0.88/kWh. The Net Present Value of the revenue generated from the difference between the tariffs results into Rs. 69.50 Crore calculated for the period of 25 years. The Commission opines that upon receiving CFA of Rs. 50 Crore, the balance amount of Rs. 19.50 Crore may be considered as inordinate and hence should not be passed on into the tariff. In view of the same, the Commission considers the levelized tariff of Rs. 6.08/kWh, which shall be applicable over a period of 25 years from the date of its Commercial Operation or for tenure of Concession Agreement, whichever is earlier. This Tariff Order shall be valid subject to fulfilment of Condition Precedent as outlined under Concession Agreement with PMC.

6.1.3 The Commission notes that PBESPL shall apply for the CFA in accordance with

MNRE's letter F. No. 20/222/2016-17 dated 28 February 2020 immediately after getting financial closure of the said MSW based power project. The Commission rules that, PBESPL and MEDA shall inform the Commission regarding the CFA or any such grant, subsidy or incentives received by PBESPL.

6.1.4 *If PBESPL fails to receive the CFA within 48 months from the date of issuance of this Order after making all efforts, the PBESPL may file a Petition before the Commission to revise the tariff without considering the CFA. PBESPL shall also bring out clearly in that Petition details of the efforts made along with justifications for failure of these efforts in obtaining the CFA. The Commission shall take appropriate decision after considering the efforts made and scrutinizing the matter. If it is found that the PBESPL have submitted the requisite documents and have made all the efforts to avail the CFA, then the Commission may admit the Petition and accordingly may allow levy of tariff without CFA i.e. Rs. 6.95/kWh. In addition, the Commission may also determine the carrying cost on account of the lower tariff received in past period due to the consideration of CFA in the capital cost of the project. Such impact in tariff may be directed to be recovered from the Distribution Licensee in subsequent bills to be raised by PBESPL towards sale of electricity.”*

- 9.5. Thus, the Commission has observed that if tariff is determined without considering CFA and such CFA amount if availed is reimbursed to Discom without altering the tariff determined, then generator would be accruing unintended amount of Rs. 19.50 Cr which cannot be allowed to be retained. Hence, to protect the interest of both parties, the Commission has ruled that in initial years, tariff determined with CFA (Rs. 6.08/kWh) would be applicable. Generator has to avail CFA in 48 months from CoD. In case even after taking all efforts, generator is not able to avail CFA then it can approach the Commission and the Commission may allow levy of tariff without considering CFA (Rs. 6.95/kWh). Further such higher tariff would be applicable from retrospective effect i.e. from date of CoD and generator would be compensated for lower revenue in the past period by way of carrying cost. [Subsequent to Review Order dated 3 July 2021 the Commission re-determined the project specific levelised Tariff as Rs. 7.45/kWh without considering the applicability of CFA and Rs. 6.53/kWh after considering the maximum CFA of Rs. 50 Crore.]
- 9.6. After such detailed ruling on the issue of CFA and its implication on tariff, the Commission is of the opinion that no further clarification is required.
- 9.7. Hence, there is no error on this aspect in Order dated 22 March 2021.
10. **Issue III: Non-consideration of efficiency factor for devising O&M escalation rate.**

MSEDCL Submission:

10.1. The Commission has not deducted efficiency factor while deciding annual escalation factor for projecting O&M expenses on the grounds that the waste to energy plants are at a 'nascent stage'.

10.2. The waste to energy plants are not a novel concept and with various such projects already being in existence, the Commission has not justified as to why this project should not be subject to the efficiency factor.

PBESPL Reply:

10.3. Issue of non-consideration of escalation factor for devising O&M escalation rate has been already dealt by the Commission in its earlier Review Order dated 03 July 2021 in Case No.48 of 2021.

10.4. The O&M expenses of Waste to Energy projects to a larger extent depend on the nature of waste available in a city. The Waste to Energy projects including the project of PBESPL will receive mixed waste which also contains inserts. The major secondary collection of waste also includes the waste collected from the ground resulting in soil, stones etc being carried over along with waste.

10.5. During the monsoon period, the waste and soil are wet which is one of the foremost reason for the Waste to Energy project not being properly operated in India.

10.6. The number of Waste to Energy plants in India are still very few in number as compared to the other parts of the world. These vital factors have to be considered while determining the tariff to give impetus to the development of such projects.

10.7. The Waste to Energy projects being the new concept in the state of Maharashtra, the Government of Maharashtra is promoting Waste to Energy projects in line with Maharashtra's state policy and has taken a larger perspective by issuing the Maharashtra RE Policy 2020, in which 200 MW of Waste to Energy capacity is envisaged in the State. Considering the precarious waste management situation in Urban cities like Pune, the National Green Tribunal has recommended such projects as a solution.

Commission's Analysis and Ruling:

10.8. The Commission in its Impugned Order dated 22 March 2021 has provided following rationale, while not considering efficiency factor:

“

5.13.11 Regulation 20 of the MERC RE Tariff Regulations, 2019 stipulates that the

Base Year O&M is to be escalated at the rate specified in the MERC MYT Regulations, 2019 over the Tariff Period for determination of the levelised Tariff. The Regulation 47.1(c), of the MERC (Multi-Year Tariff) Regulations, 2019, provides for escalation of O&M expense in subsequent years beyond the base year, ...

.....

5.13.12 Accordingly, the Commission has analysed the last 5-year average WPI and CPI indices from FY 2015-16 to FY 2019-20 considering 50% weightage to WPI and CPI, which works out to 2.59% per annum after deduction of 1% efficiency factor as shown in below:

.....

5.13.13 The Commission further notes that the PBESPL has requested not to deduct efficiency factor from the O&M escalation rate. **The Commission is of the view that waste to energy projects are relatively at nascent stage as compared to other renewable energy sources. The Commission is also aware that it requires additional efforts to reduce the foul smell, minimize emissions and maintain the plant PLF during the O&M unlike other RE sources. Hence, the Commission has considered annual escalation factor for projecting O&M expenses without deducting efficiency factor as 3.59% per annum.**

Hence, non-consideration efficiency factor while computation escalation factor for O&M expenses is a considered decision of the Commission for promotion of Waste to Energy projects, which cannot be treated as error apparent on face of record.


11. In view of above analysis and rulings, the Commission notes that there is no merits in the issues raised by MSEDCL for review of Orders dated 22 March 2021 and 03 July 2021.
12. Hence, the following Order:

ORDER

As noted in Paras (8), (9) and (10) Case No. 130 of 2021 is rejected.

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member


(Abhijit Deshpande)
Secretary

