

**ODISHA ELECTRICITY REGULATORY COMMISSION  
BIDYUT NIYAMAK BHAWAN  
PLOT NO.-4, CHUNAKOLI, SHAILASHREE VIHAR  
BHUBANESWAR - 751 021  
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**Present:       Shri U. N. Behera, Chairperson  
                  Shri A. K. Das, Member  
                  Shri S. K. Parhi, Member**

**Case No. 11/2016**

M/s. Shalivahana Green Energy Limited	.....	Petitioner
Vrs.		
GRIDCO Ltd. & Others	.....	Respondents

**In the matter of:     An application under Ss. 61,62(1)(a) and 86 of the Electricity Act, 2003 read with Regulation 10,51 & 73 of the OERC (Conduct of Business) Regulations, 2004 for determination of tariff for 24MW Biomass Power Plants for FY2016-17 after expiry of the control period FY 2013-14 to 2015-16 as per order dated 15.01.2014 in Case No.80 of 2013.**

**For Petitioner     :**     Shri R. P. Mohapatra, the authorized representative of M/s. Shalivahana Green Energy Ltd.

**For Respondent:**     Ms. Sasmita Patjoshi, Manager (RE Cell), Shri U. N. Mishra, CGM (PP), GRIDCO Ltd., Shri K. C. Nanda, DGM (Fin.), WESCO Utility, Shri S. K. Harichandan, AGM (Law), CESU, Shri C. R. Swain, DGM (Com.), CESU, Shri Laxmidhar Upadhaya, AGM (Com.), SOUTHCO Utility, and Ms. Niharika Pattanayak, ALO, DoE, GoO are present.

Nobody present on behalf of M/s. OREDA and NESCO Utility.

**ORDER**

**Date of hearing: 09.05.2017**

**Date of order:14.09.2017**

The present application has been filed by M/s. Shalivahan Green Energy Ltd., a biomass based power Generator having capacity of 20 MW. This project was commissioned with effect from 19.12.2011 during the first control period 2010-11 to 2012-13 adopted by the Commission. Accordingly the tariff of the plant was fixed in terms of the Commission's order dated 14.09.2010 in Case No. 37/2008 (Suo Motu).

2. The Petitioner had earlier approached the Commission to revise the price of the biomass fuel fixed by the Commission in its tariff order in Case No. 37/2008. The Commission vide its order in Case Nos. 151-155/2010 dated 23.09.2011 revised it to Rs.2316/MT from Rs. 1785/MT. Again the Petitioner approached the Commission with several prayers including further revision of price of biomass fuel and refund of expenditure already incurred for execution of transmission line and bay for connecting its plant to the OPTCL system. The

Commission in its order in Case No. 16/2013 dated 01.03.2014 revised the variable charges of the petitioner's plant by revising price of biomass fuel from Rs.2316/MT to Rs.2500/MT for the period from 2013-14 to 2015-16 which is the second control period. In the said order the Commission did not agree to the proposal of revision of fixed cost already allowed and also directed the parties to settle the connectivity issue with GRIDCO in terms of para 28 of Case No. 80/2013 (Suo Motu) dated 15.01.2014

3. In the present petition, the petitioner has submitted that the existing tariff for its Biomass project is unusually low and requires revision. The petitioner has based its petition on the notifications on variable charges for biomass power projects of CERC and certain SERCs. The Petitioner has also made a written additional submission on 13.06.2016. In summary the Petitioner has prayed for revision of variable cost on following account.
  - a. The Gross Calorific Value (GCV) may be revised to 3174 Kcal/kg.
  - b. The Station Heat Rate (SHR) may be considered at 4063 Kcal/kwh as per CERC norm.
  - c. The fuel cost may be revised to Rs.3600/MT in view of the increase in minimum labour wages, escalation in demand and transportation cost.
4. The petitioner has also prayed for redetermination of fixed cost considering additional capital cost of Rs.5.76 crore incurred by the petitioner on construction of the evacuation facility in terms of Commission's order dt.14.09.2010 in Case No. 37/2008 and in Case No.151-155/2010 dt.23.09.2011. The Petitioner stated that the levelised fixed component of tariff was determined at Rs.1.95 per Kwh without taking into consideration the cost of the infrastructure beyond the interconnection point which had been borne by the Petitioner even though it should have been constructed by OPTCL as per order of the Commission in Case No. 37/2008 dated 14.09.2010 on policy on harnessing power from renewable energy sources including co-generation.
5. The Petitioner has also prayed for consideration of additional expenditure of Rs.950 lakh on account of repair of damaged Transformer, Boiler, Turbine water treatment system and fuel handling system due to shut down of the plant and consequent theft of materials during the year 2012.
6. The petitioner has prayed the Commission to direct GRIDCO to reimburse ED charges paid towards use of auxiliary consumption of 10% of generation during 2014 as per the demand note issued by the Electrical Inspector.

7. The case was taken up for final hearing on 09.05.2017 since conciliation between the parties failed.
8. The respondent GRIDCO has submitted their counter to the submission of the petitioner which can be summarized as follows:
  - (a) The Biomass project of the Petitioner was commissioned in the 1<sup>st</sup> control period i.e. from FY 2010-11 to 2012-13 and COD was achieved on 19.12.2011 with the stipulated technical and financial parameters applicable to that control period. Therefore, the GCV and SHR specified for the 1<sup>st</sup> control period by the Commission cannot be revised.
  - (b) The Commission in their order dt.23.09.2011 in case No.151-155/2010 and in order dt.01.03.2014 in case No.16/2013 had revised the fuel cost only. The Commission in the order dt.01.03.2014 has mentioned that the fixed cost as determined in Case No. 37/2008 dated 14.09.2010 for the plant commissioned during 1<sup>st</sup> control period would continue to remain unchanged for the entire tariff period.
  - (c) The Commission has already rejected the claim of reimbursement of cost of evacuation infrastructure through fixed cost in their order dated 02.09.2015 in Case No.2/2015 which cannot be reconsidered now.
  - (d) The Petitioner has failed to achieve 80% PLF even after 2<sup>nd</sup> year of generation.
  - (e) The petitioner has not claimed any reimbursement of ED charges which may be considered within the stipulation of the order in case No.37/2008 dt.14.09.2010.
  - (f) Any compensation for repair arising out of long term shut down and theft of materials for the project can be addressed through insurance mechanism of the biomass project which is mandatory for a generation project.
9. The petitioner in its rejoinder to the counter of GRIDCO has given following submissions:
  - a) The parameters considered by CERC and some SERCs applicable for upcoming Biomass power plants may also be made applicable for the plants commissioned earlier.
  - b) As regards the review of GCV and SHR, the CERC in its Regulations in successive years have revised the GCV and SHR based on the field study carried out by National Productivity Council and recommendation of MNRE. The petitioner has prayed to approve the norms adopted in the various orders of CERC to determine the variable component of tariff applicable for FY 2016-17.

- c) As regards the escalation of fuel price, the petitioner has placed certain reasons such as increase in minimum wages for un-skilled worker resulting in higher loading and unloading and transportation costs.
- d) The petitioner has also submitted to revise the fixed cost after taking into account the expenditure incurred by the petitioner for construction of evacuation infrastructure beyond the interconnection point. The order dated 14.09.2010 provides that the appropriate licensee would be responsible for development of evacuation infrastructure beyond interconnection point. The provisions in the OERC (RCPO) Regulations, 2010 does not provide that the cost of evacuation infrastructure has to be borne by the RE developer. The petitioner, therefore, has submitted that they have not approached the Commission to review generic capital cost of Rs.450 lakh/MW but with a prayer to allow them to reimburse the expenditure incurred outside the scope of generic capital cost which stands at Rs.5.76 crore.
- e) That due to long shut down of the plant, owing to non-payment of the dues by the GRIDCO, the plant incurred heavy expenditure on repair, maintenance and replacement of components. The total expenditure of about Rs.9.60 crore may be treated as additional capital expenditure for determination of levellised fixed cost.
- f) Therefore, the levellised fixed cost may be determined at Rs.526.85 lakh/MW by adding Rs.28.80 lakh/MW towards evacuation facility and Rs.48.05 lakh/MW towards additional capital expenditure to the original capital cost of Rs.450.00 lakh/MW w.e.f 01.06.2015.
10. The Petitioner further submitted that the APTEL vide its order dated 04.05.2016 in Appeal No. 211 of 2015 filed by MP Biomass Energy Developers Association has fixed the GCV at 3100 Kcal/kg. and SHR at 4200 Kcal/kwh. The appeal on the same order by the State Distribution Company has been dismissed by the Hon'ble Supreme Court.
11. We heard the parties in detail. The petitioner's plant was commissioned during the 1<sup>st</sup> control period i.e. FY 2010-11 to FY 2012-13. The generic tariff for the biomass power plant was determined by the Commission as per Case No. 37/2008 dated 14.09.2010. The tariff for the Biomass power project was fixed in the following manner:-

<b>Levellised fixed component of tariff (Rs./KWh)</b>	<b>Variable (Fuel) component of tariff for FY 2010-11(Rs./KWh)</b>	<b>Effective Tariff for FY 2010-11 (Rs./KWh)</b>	<b>Benefit of accelerated depreciation (if availed) Rs./KWh)</b>	<b>Net tariff (Rs./KWh)</b>
1.95	2.14	4.09	(0.21)	3.88

12. The Commission later in Case No. 151-155/2010 reviewed the above order and re-determined the tariff of biomass power plant by revising biomass fuel cost to Rs.2316/MT inclusive of all costs instead of Rs.1785/MT considered in the earlier tariff order dated 14.9.2010. Thereafter, the tariff for biomass power plant was modified in the following manner:-

<b>Levellised fixed component of tariff (Rs./KWh)</b>	<b>Variable (Fuel) component of tariff for FY 2010-11 (Rs./KWh)</b>	<b>Effective Tariff for FY 2010-11 (Rs./KWh)</b>	<b>Benefit of accelerated depreciation (if availed) (Rs./KWh)</b>	<b>Net tariff (Rs./KWh)</b>
1.95	2.92	4.87	(0.21)	4.66

13. The Commission further in its order dated 01.03.2014 in Case No.16/2013 has determined the tariff of biomass power plant for 2nd control period starting from 2013-14 to 2015-16 and revised the fuel cost to Rs.2500 /MT for the power plant commissioned during 1<sup>st</sup> control period. The Commission has also observed in the same order that the fixed cost, however, as determined in Case No. 37/2008 dated 14.09.2010 for biomass power plant commissioned during the 1st control period would continue to remain unchanged for the entire tariff period. Therefore, there is no scope of revisiting the same again now.
14. The Commission also in the same order has stated that the input parameter for biomass power plant approved in Case No. 151-155/2010 dated 23.09.2011 is revised only in respect of fuel cost only. Therefore, the input parameters such as GCV at 3522 Kcal/Kg., station heat rate at 3800 Kcal/Kwh remain unchanged. While dealing with the matter on this subject in the order dated 23.09.2011 the Commission has categorically stated that the GCV norm adopted by the Commission are based on CERC norms and field study made by IMMT, Bhubaneswar at the instance of the Commission. Therefore, there is no need of revising the already adopted GCV of 3522 Kcal/Kg. considered in the Commission's order dated 14.09.2010 in Case No. 37/2008 since the GCV adopted by the Commission is based on the field study.
15. The Station Heat Rate (SHR) of the biomass plant basically depends on design aspect of the plant. The plant has already been commissioned in the 1<sup>st</sup> control period and its design parameters are fixed for the entire life of the plant. In addition to that this issue has also been put to rest vide our order in Case No. 16/2013 dated 01.03.2014 when the Commission revised the fuel cost of biomass plant for the second control period without altering other input parameters.

16. The reference to CERC order and MPERC order have no relevance here since the GCV and station heat rate have been fixed for the biomass power plant established in the first control period after a field study and after considering CERC order in this regard. This has been elaborated in our order in Case Nos. 151-155/2010 dated 23.09.2011. SHR and other variable components undergo changes for the plants established during subsequent control periods taking into consideration the rapidly changing technology, quality and specifications of the equipments, which cannot be retrospectively applied for the plants which have already been commissioned earlier.
17. The issue of connectivity has been dealt by the Commission in Case No. 2/2015 where the Commission has stated as follows:
- “12. *The Petitioner had entered into a Power Purchase Agreement (PPA) with GRIDCO dated 30.12.2010 where it has been agreed that Grid connectivity to evacuate power from the Biomass Generating Station is at nearest sub-station of OPTCL. This agreement has been signed well after issuance of our order dated 14.09.2010 as a special case with mutual consent of both the parties. The Commission had also notified a Regulation on 14.12.2010 called OERC (RCPO) Regulations, 2010 wherein the Commission stipulated delivery point for renewable energy project as nearest Grid sub-station having 132 KV/33 KV/ 11 KV voltage level. Therefore, it is clearly established that the Petitioner has consciously entered into the agreement accepting nearest sub-station of OPTCL as delivery point of the power generated by the Biomass plant.*
13. *The Petitioner had achieved CoD on 19.12.2011 and continued to inject power upto December, 2012 without any objection on the methodology of tariff fixation made by the Commission basing on its order dated 14.09.2010. The Petitioner had also not agitated the issue of reimbursement of the cost of evacuation infrastructure either in the earlier cases or in Case No. 93/2013 which was disposed of by the Commission. The matter has been settled long ago and closed. The present contention of the Petitioner appears to be an afterthought and therefore, there is no basis to accept the present petition.*”
18. In view of the order of the Commission as above the present petition on this issue of connectivity has already been settled and the Commission is not inclined to reopen the issue.
19. The petitioner in the present petition has also raised the issue of additional capital expenditure of Rs.950 lakhs in repairing of damages of plants equipment incurred in re-commissioning the project in June, 2015 after shut down with effect from 01.01.2012 for

reasons beyond its control. The petitioner has stated that due to long shut down of the plant heavy expenditure was incurred for repair, maintenance and replacement of components such as transformer, auxiliary equipment etc.

20. On the above issue we agree to the arguments of the GRIDCO that the onus of running of the plant and its protection from theft lies squarely with the petitioner and no compensation need be allowed on such account and this should have been settled through the insurance mechanism.
21. As regards to the fuel price the Commission has revised the same for the last time in their order in Case No. 80/2013 dated 15.01.2014 to Rs.2500 /MT. The Commission has also determined the year-wise tariff for biomass power plant in Case No. 16/2013 dated 01.03.2014 and the prevalent tariff for the petitioner plant is as follows:

<b>Year</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
<b>Variable tariff</b>	3.47	3.64	3.83
<b>Levelling fixed tariff</b>	1.95	1.95	1.95
<b>Year wise tariff</b>	5.42	5.59	5.78

In the above order the Commission has stated that the variable tariff shall be reviewed at the time of determination of tariff for third control period basing on prevailing fuel price at that point of time. Therefore, the Petitioner is required to raise this issue during the hearing for determination of tariff for third control period.

22. On the issue of ED the petitioner has submitted that office of SE (P)-cum-EI(G), Circle No.1, Keonjhar has raised a demand note for Rs.28,11,796/- towards ED charges for the energy used for auxiliary consumption @ 10% of generation. GRIDCO is directed to settle the issue as per the terms of the existing PPA with the Petitioner.
23. Accordingly, the case is disposed of.

Sd/-  
**(S. K. Parhi)**  
Member

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

Sd/-  
**(U. N. Behera)**  
Chairperson