ORDER

(Date of order: 30th November, 2016)

The Commission had issued a tariff order for procurement of power from Biomass based power plants on 02.03.2012 for the control period up to 31.03.2014. M/s Harvest Energy Private Ltd. filed an appeal no. 93 of 2012 before the Hon'ble Appellate Tribunal for Electricity (APTEL) against the aforesaid tariff order dated 02.03.2012. By its order dated 18.02.2013, the Hon'ble APTEL allowed the appeal and set aside the impugned tariff order and remanded back the matter to the Commission. The Summary of the findings of the Hon'ble APTEL are as under:

- (i) On Capital Cost, Gross Calorific Value, Station Heat Rate and price of biomass fuel, we find that the State Commission has not passed a reasoned order in deciding the normative values. We, therefore, remand the matter to State Commission to decide these norms based on the directions given in this judgment. We want to make it clear that we are not giving any finding on values to be adopted for the above normative parameters.
- (ii) Regarding Return on Equity, we find that the State Commission has allowed a higher ROE to the conventional power plants in its Tariff Regulations. Allowing a lower ROE to biomass based projects which are renewable source of energy is not in consonance with the provisions under Section 61(h) and 86(1)(e) of the Act. We, therefore, direct the State Commission to allow ROE not less than that allowed under its tariff Regulations as applicable to conventional generating stations.

The Hon'ble APTEL also directed the Commission to re-determine the tariff and pass the consequential order.

2. Pursuant to the aforesaid directions of the Hon'ble APTEL, the Commission had reviewed the norms and issued an order on 03.05.2013. The M.P. Biomass Energy Developers Association filed an appeal no. 144 of 2013 before Hon'ble APTEL against the aforesaid order dated 03.05.2013. By its order dated 29.05.2014, the Hon'ble APTEL partially allowed the appeal and with regard to the issues of GCV and SHR remanded back the matter to the Commission. The relevant paras 30,31 and 37 of the judgment dated 29.05.2014 are as follows:

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- "30. We agree that the normative value of GCV has to be decided based on the types of biomass fuels used in the State However, the State Commission has indicated that there is no established ground to determine the weighted average GCV. We find that neither the Appellants have furnished proper data giving the proportion of different biomass fuels used by them nor the State Commission took assistance of the concerned State agencies to obtain the data on availability of different types of biomass fuels in the State. The State Commission could take assistance from State Renewable Energy Agency, Agriculture Department to ascertain the availability of types of biomass fuels prominently in the State and assess the proportion of different biomass fuels. Data of GCV of different biomass fuels being available, it may be possible to determine the weighted average GCV of biomass fuel. Considering 15% use of coal and GCV of coal available in the State, the normative GCV may be determined. The Appellants are also directed to furnish data regarding actual use of different types of biomass fuel with the supporting documents to the State Commission for consideration.
- 31. Accordingly, we direct the State Commission to redetermine the GCV of fuel.
- 37. We find that the State Commission without any detailed analysis of the use of new technology in the biomass based generation has decided 5% reduction in heat rate over the norm specified by the Central Commission in its Regulations. The Regulations of the State Commission are also beginning from FY 2012-13 and cover the period of 2012-14. We find that the State Commission has reduced the SHR by 5% arbitrarily without any analysis. We therefore have to again remand the matter to the State Commission. We also direct the Appellants to furnish information regarding design heat rate, as certified by the manufacturer, factors affecting the SHR due to practical consideration and any other data that is relevant to decide the SHR to the State Commission and the State Commission shall consider the same. The State Commission shall consider the design heat rate for the technology used, variation to be allowed due to practical considerations, data submitted by the Appellants and any other relevant data. State Commission is an expert body and we expect it determine the norms based on some scientific basis. Data can also be obtained from renewed manufacturers of equipment for biomass based generating plant. Accordingly, we again remand the matter to the State Commission with directions to re-determine SHR based

on scientific analysis."

3. Pursuant to the aforesaid directions contained in the order dated 29.05.2014 passed by the Hon'ble APTEL, a public notice was issued to the appellants, respondents and the Department of New and Renewable Energy, Government of Madhya Pradesh (hereinafter referred as NRED) and the hearing was held on 03.07.2014. **However, the Appellants have not furnished any data for the consideration of the Commission**. The Department of New and Renewable Energy of the Government of Madhya Pradesh was directed to furnish a report on the aforementioned issues. The NRED vide its letter dated 10.07.2015 had submitted the test results of GCV of samples collected from six districts of Madhya Pradesh as under:

Sample	Gross Calorific Value(kCal/Kg.)				
Rice Husk	From 2780 to 2934				
Wheat Husk	From 3149 to 3368				
Soyabean Husk	From 3210 to 3349				

However, the weighted average GCVs were not submitted. The Commission was of the view that in absence of the weighted average GCVs, it would be difficult to arrive at the reasonable GCV for the purpose of determination of tariff for the State. Under the above circumstances, it was decided that the GCV for the period under consideration may be continued at 3600 Kcal/Kg. as fixed in the impugned order till a detailed study is carried out by an independent agency or the Department of New and Renewable Energy, Madhya Pradesh. The Commission was also of the view that the biomass power plants may not run on single fuel and a mix of fuels are used. The biomass power projects were already allowed in its tariff order dated 02.03.2012 to use fossil fuel up to 15% of the total requirement of fuel. Regarding SHR, the NRED had submitted that the SHR for the biomass plants works out in the range of 4229 to 4586 kCal/kWh based on the Specific Fuel Consumption at 1.5 -1.8 kg/kWh accepted by the CERC and the above worked out GCVs. Since the GCVs worked out by the NRED was not the weighted average GCV and the SHR of the plants actually functioning in the State was not furnished, therefore SHR based on above calculated GCVs could not be considered in the impugned order for the purpose of tariff determination till a detailed study is carried out by some independent agency or the Department of

New and Renewable Energy, Madhya Pradesh. Accordingly, the order was passed by the Commission on 13.08.2015 retaining the previous norms for GCV and SHR.

- 4. The M.P. Biomass Energy Developers Association filed an appeal no. 211 of 2015 against the aforesaid order dated 13.08.2015 before Hon'ble APTEL. Considering the appeal, the Hon'ble APTEL passed the order on 04.05.2016. The para 8.17 of the order dated 04.05.2016 states as under:
 - "8.17 It is to conclude after going through the Study Reports of various agencies such as National Productive Council, Central Electricity Authority, MNRE etc. and we found that the test results submitted by the Deputy Commissioner, NRED, Bhopal is almost nearer to the value suggested by the agencies specified above."
- 5. In addition to above, Table-I: Gross Calorific Value and Table-II: Test Results of Station Heat Rate of the order dated 04.05.2016 indicates the SHR under five scenarios as furnished by the NRED on the basis of test conducted on the samples of fuel viz. Rice Husk, Wheat Husk, Mulbury and Coal only.
- 6. Further, in para 8.21 of the order dated 04.05.2016, the Hon'ble APTEL has mentioned that:
 - "We after careful and serious analysis and survey of the aforesaid reports given by various agencies decide the Gross Calorific Value (GCV) in question as 3100 kCal/Kg and Station Heat Rate (SHR) at 4200 kCal/kWh. In these circumstances, the State Commission is bound to re-determine the tariff considering the GCV and SHR determined by us in this Judgment. Both these issues are hereby decided in favour of the Appellants and thus Appeal is liable to be allowed."
- 7. Moreover, the operative part of the order dated 04.05.2016 is reproduced below:

"The instant Appeal being Appeal No. 211 of 2015 is hereby allowed and the Impugned Order dated 13.08.2015 passed by the State Commission is hereby set aside. The state Commission is directed to re-determine the tariff adopting the Gross Calorific Value (GCV) and Station Heat Rate (SHR) determined by us above within two months from today positively under intimation to this Appellate Tribunal for our perusal. The State Commission is expected to comply with this Judgment in letter and spirit without seeking any excuse of

any kind whatsoever. No costs."

- 8. The Commission has observed that the appellants have failed to comply with the following directions issued in para 30 and 37 of the Judgment passed on 29.05.2014 by the Hon'ble APTEL, abstract of which is reproduced below:
- "30. The Appellants are also directed to furnish data regarding actual use of different types of biomass fuel with the supporting documents to the State Commission for consideration."
- "37...... We also direct the Appellants to furnish information regarding design heat rate, as certified by the manufacturer, factors affecting the SHR due to practical consideration and any other data that is relevant to decide the SHR to the State Commission and the State Commission shall consider the same."
- 9. The Hon'ble APTEL has not taken into cognizance of this fact and passed the order dated 04.05.2016 wherein specific numbers have been provided for the GCV and SHR, which could only have been arrived at by the Commission scientifically based upon the data to be furnished by the Appellant.
- 10. The Commission, therefore, filed a review petition no. 21 of 2016 before the Hon'ble APTEL. In the Review Petition, it was specifically mentioned that neither the M.P. Biomass Energy Developers Association and other Appellants of the Appeal No. 144 of 2013 nor the NRED furnished the required data to the Commission as per the directions of the Hon'ble APTEL dated 29.05.2014 and hence the GCV and SHR could not be determined scientifically.
- 11. The case was heard on 03.10.2016 and was not admitted and dismissed. The operative part of the order is reproduced below:
- "This Review Petition has been filed by Review Petitioner seeking review of order dated 04.05.2016 passed in Appeal No. 211 of 2015. Admittedly from order dated 04.05.2016 an appeal was carried to the Supreme Court by MP Power Management Company Ltd. and on 25.07.2016 the Supreme Court dismissed the said appeal by passing the following order:

"UPON hearing the counsel the Court made the following

ORDER

Exemption from filing certified copy of the impugned judgment is granted.

We find no substantial question of law arising for an order of formal adjudication of the appeal. The appeal is accordingly dismissed. Consequently, I.A. No.2 for stay is also dismissed."

In view of the above, this Review Petition cannot be entertained. Review Petition is dismissed accordingly."

- 12. Meanwhile, the M.P. Biomass Developers Association had filed an Execution Petition no. EP-7 of 2016 before Hon'ble APTEL against the Commission towards non-execution of order of the Hon'ble APTEL passed on 04.05.2016 in Appeal No. 211 of 2015. The case was heard on 03.10.2016 and the Execution Petition No. EP-7 of 2016 was disposed of with the direction that the order dated 04.05.2016 is to be implemented within a period of 8 weeks from 03.10.2016.
- 13. It is pertinent to mention here that:
 - (a) The para 8.10 of the tariff order dated 02.03.2012 provides as under:
 - "Scheduling:
 - 8.10 Biomass based power generation plants for more than 2 MW shall be subject to the 'scheduling' and 'merit order dispatch principles'."
 - (b) The para 8.6 of the tariff order dated 02.03.2012 provides as under:
 - " Power Purchase Agreement
 - 8.6 The State Government......financial year. Accordingly, the Power Purchase Agreements will be signed between the developer and the M.P. Power Trading Co. Ltd., Jabalpur. The M.P. Power Trading Company Limited, Jabalpur in turn will have back to back power supply agreement with the Discoms. The agreements will be for exclusive sale/purchase of electricity for a period of 20 years from the date of commissioning of plant."
 - (c) The paras 8.25 & 8.26 of the tariff order dated 02.03.2012 provide as follows:

"Monitoring Mechanism for use of fossil fuel:

- 8.26 Non-compliance with the condition of fossil fuel usage by the project developer, during any financial year, shall render power generated by such biomass power project ineligible as a generation from renewable source during such financial year. However, such defaulting Biomass Power Project shall continue to sell power to concerned distribution licensee even during the period of default at a rate lower by Re. 1.00/kWh below the applicable variable tariff determined as per this tariff order."
- (d) Section 86(1)(b) of the Electricity Act, 2003 provides as under:
 - "(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;"
- 14. In compliance to the directions of the Hon'ble APTEL passed in its judgment dated 04.05.2016, the Gross Calorific Value (GCV) at 3100 kCal/kg and Station Heat Rate (SHR) at 4200 kCal/kWh are considered. Accordingly, the Commission sets the year wise tariff for generation of electricity from new biomass energy projects commissioned on or after 02.03.2012 as under:
- (a) Commissioned on or after 02.03.2012 and during FY 2012-13

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
6.20	5.94	6.11	6.28	6.47	6.68	6.89	7.12	7.37	7.62
Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
7.57	7.92	8.29	8.68	9.09	9.53	9.98	10.45	10.95	11.48

(b) Commissioned during FY 2013-14 and thereafter:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
6.58	6.31	6.49	6.68	6.89	7.10	7.34	7.58	7.85	8.13
Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
8.08	8.46	8.85	9.27	9.71	10.17	10.65	11.16	11.69	12.25

- 15. In view of the aforesaid judgment dated 04.05.2016 passed by the Hon'ble APTEL and the applicable terms and conditions of the tariff order dated 02.03.2012, the tariff mentioned above in para 14 of this order shall be subject to the following terms and conditions:
- (a) This tariff shall be applicable till 31.03.2017 or the new tariff order is issued, whichever is earlier.
- (b) The projects for more than 2 MW are subjected to the 'scheduling' and 'merit order dispatch principles' in terms of the para 8.10 of the tariff order dated 02.03.2012 since date of commissioning.
- (c) This tariff order is applicable to the projects using rice husk, wheat husk, mulbury and coal (limited to 15% of the total fuel on annual basis) only as a fuel based on which GCV has been decided by the Hon'ble APTEL in its Judgment dated 04.05.2016.
- (d) This tariff shall be applicable for the projects for which Power Purchase Agreement has already been executed at the time of commissioning of the project.
- (e) The M.P. Power Management Co. Ltd., Jabalpur shall submit, the draft of the Power Purchase Agreement to be executed, if any, with the developer of biomass based power projects to be commissioned after the date of this order, for approval of the Commission.
- (f) The developers shall have to submit monthly information, as required under para 8.25 of the tariff order dated 02.03.2012, to the M.P. Power Management Co. Ltd., Jabalpur by 10th day of each month following the month of information failing which action as per the provisions of para 8.26 of the tariff order dated 02.03.2012 must be ensured by the M.P. Power Management Company Limited.

Ordered accordingly.

(Alok Gupta) Member (Dr. Dev Raj Birdi) Chairman