

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 8/RP/2024
in
Petition No. 238/GT/2020

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V, Member
Shri Harish Dudani, Member**

Date of Order: 10th March, 2025

In the matter of:

Review of the Commission's order dated 13.11.2023 in Petition No. 238/GT/2020 relating to the truing up of tariff of Rihand Super Thermal Power Station, Stage-III (1000 MW) for the period 2014-19.

And

In the matter of:

NTPC Limited,
NTPC Bhawan, Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110 003

..... Review Petitioner

Vs

1. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001
2. Rajasthan Urja Vikas Nigam Limited,
Vidyut Bhawan, Janpath,
Jaipur 302 005
3. Tata Power Delhi Distribution Limited,
Grid sub-station, Hudson Road,
Kingsway Camp, Delhi-110009
4. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi -110019.
5. BSES Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
Delhi-110092



6. Haryana Power Purchase Centre,
Shakti Bhawan, Sector -VI, Panchkula,
Haryana-134109
7. Punjab State Power Corporation Limited,
The Mall, Patiala-147001
8. Himachal Pradesh State Electricity Board Limited,
Kumar Housing Complex Building-II,
Vidyut Bhawan, Shimla-171004
9. Power Development Department,
Govt of J & K, Civil Secretariat, Srinagar
10. Electricity Department,
Union Territory of Chandigarh,
Addl. Office Building, Sector 9 D, Chandigarh
11. Uttarakhand Power Corporation Limited,
Urja Bhavan, Kanwali Road,
Dehradun-248001

.....Respondents

Parties present:

Shri Venkatesh, Advocate, NTPC
Shri Primal Piyush, NTPC
Shri Sidhant Pradhan, NTPC
Shri Mohit K. Mudgal, Advocate, BRPL & BYPL
Shri Apar Gupta, Advocate BRPL & BYPL
Shri Sachin Dubey, Advocate, BRPL & BYPL
Shri Mohit Jain, Advocate, BRPL & BYPL
Shri Naman Kumar, Advocate, BYPL

ORDER

Petition No. 238/GT/2020 was filed by the Review Petitioner, NTPC Limited, for truing up of tariff of Rihand Super Thermal Power Station, Stage-III (1000 MW) for the period from 2014-19 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short 'the 2014 Tariff Regulations') and the Commission vide order dated 13.11.2023 (in short, the 'impugned order') had disposed of the said petition. Aggrieved by the impugned order dated 13.11.2023, the Review Petitioner has filed this Review Petition on the ground that there is an error apparent on the face of the record limited to the following issue:



- a) *Error in the consideration of GCV of coal for computation of Interest on Working Capital for the period 2014-19;*

Hearing dated 4.4.2024

2. During the hearing 'on admission,' the representative of the Review Petitioner submitted that it had sought the review of the impugned order dated 13.11.2023 on the limited aspect of an error in consideration of GCV of coal for the computation of Interest on Working Capital (IOWC) for the period 2014-19. He also submitted that the weighted average GCV for the three months, based on the net coal quantities as per Form-15 of the petition and the monthly GCVs, as submitted by the Review Petitioner vide additional affidavit dated 30.6.2021, works out to 3609.30 kcal/kg, instead of 3668.76 kcal/kg considered by the Commission. Accordingly, the representative of the Review Petitioner submitted that the error apparent on the face of the order may be rectified. The Commission 'admitted' the Review Petition and ordered notice on the Respondents. Also, the Commission, after directing the Review Petitioner to file the following additional information, requested the parties to complete their pleadings in the matter.

(i) The GCV of the domestic coal submitted by the Petitioner on as billed basis for the periods January 2014, February 2014 and March 2014 as 4724.91KCal/kg, 4732 KCal/kg and 4818.16 KCal/kg respectively. The Petitioner is directed to furnish the as received GCV for the said period duly audited and certified and reason of variation between as billed and as received GCV thereon.

3. In compliance with the above directions, the Review Petitioner, vide affidavit dated 24.5.2024, has filed the additional information after serving a copy on the Respondents.

Hearing dated 29.8.2024

4. During the hearing on 29.8.2024, the Commission directed the Review Petitioner to furnish clarification on the following after serving a copy on the Respondents:

(a) Excel sheet of back calculation of the weighted average GCV as claimed by the Petitioner linked with the particulars submitted in Form-15.



5. In compliance with the above directions, the Petitioner, vide affidavit dated 30.9.2024, has submitted the additional information/clarification.

Hearing dated 8.10.2024

6. During the hearing, the learned counsel for the Review Petitioner submitted that there was an apparent clerical/arithmetical error in the consideration of GCV of coal for the computation of interest on working capital, and the same may be rectified. Accordingly, the learned counsel prayed that the order in the Review Petition may be reserved. The learned counsel for the Respondent BRPL & BYPL submitted that though they have filed their reply, objecting to the said relief prayed for by the Review Petitioner, it became evident from the rejoinder submissions of the Review Petitioner, that there is an apparent error in the consideration of GCV of coal for the computation of interest on working capital. Accordingly, the learned counsel submitted that the error in the impugned order may be rectified on this count. Based on the consent of the parties, the Commission reserved its order in the Review Petition.

7. Based on the submissions of the Petitioner and the documents on record, we proceed to examine the issue raised in the Review Petition as detailed below.

Error in the consideration of GCV of coal for computation of Interest on Working Capital for the period 2014-19;

8. The Commission, in para 99 of the impugned order dated 13.11.2023, considered the GCV of coal for the purpose of the Interest on Working Capital (IOWC) as 3668.76 kCal/kg, as arrived at by the net coal quantities, as per Form-15 of the petition, and the monthly GCVs, furnished by the Petitioner. The relevant para from the order is as under:

“99. The Petitioner has calculated GCV 3606.41 kCal/kg which represents average of GCVs of preceding three months. The weighted average GCV for three months based on the net coal quantities as per Form-15 of the petition and the monthly GCVs as submitted by the Petitioner (in table at paragraph 95 above) works out to 3668.76 kCal/kg.



“100. Accordingly, the cost for fuel components in working capital has been computed considering the fuel details (price and GCV) as per Form-15 of the petition except for ‘as received’ GCV of coal, which is considered as 3668.76 kCal/kg as discussed above. All other operational norms such as Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Cost have been considered as per the 2014 Tariff Regulations for calculation of fuel components in working capital.”

9. The Review Petitioner has pointed out that as per the methodology, the weighted average GCV, considering the net coal quantities as per Form-15 of the main petition and the monthly GCVs submitted by the Review Petitioner, works out as 3609.30 kCal/kg, whereas, the Commission, considered the same as 3668.76 kCal/kg. The Review Petitioner has also submitted that vide affidavit dated 30.6.2021 in the main Petition (Petition No. 238/GT/2020), it had furnished the additional details, with regard to the GCV on an ‘as received’ basis, as sought by the Commission, in other similar matters for the months of January 2014 to March 2014. It has stated that the quantities of the coal supplied during these months (domestic + imported) are as per Form-15 of the petition, and therefore, the weighted average GCV of coal for the months of January 2014 to March 2014 works out as 3609.30 kCal/Kg as under:

	January, 2014	February, 2014	March, 2014
GCV as submitted by the Review Petitioner vide affidavit dated 30.6.2021 for the months, on as received basis (kCal/kg)	R1 3666.18	R2 3470.40	R3 3682.66
Net coal supplied as per Form-15 during the month (domestic + imported) (MT)	Q1 1193893.87	Q2 1264544.57	Q3 1468828.81
Simple Average of GCV (kCal/kg)	$(R1 + R2 + R3)/3$ 3606.41		
Weighted average of GCV (kCal/kg) (as per the CERC methodology in para 110 of the impugned order)	$(R1*Q1 + R2*Q2 + R3*Q3) / (Q1+Q2+Q3)$ 3609.30		

10. The Review Petitioner, while pointing out that the Commission has calculated the weighted average GCV of coal for the months of January 2014 to March 2014 as 3668.76 kCal/kg (which needs to be corrected), has argued that the erroneous calculation led to the reduction in the fuel cost component and the energy charge rate in the



Receivable component of the IOWC calculation. Accordingly, the Review Petitioner has submitted that the error apparent in the impugned order dated 13.11.2023 with regard to the consideration of GCV of coal for the purpose of computation of IOWC may be rectified.

Reply of Respondents BRPL & BYPL

11. Though the Respondents BRPL & BYPL, vide reply dated 15.5.2024, had raised objections on the Review Petition, they have, during the hearing of the Review Petition on 8.10.2024, clarified that there is an apparent error in the consideration of GCV of coal for the computation of interest on working capital (considering the rejoinder submissions of the Review Petitioner) and the error on this count may be rectified. Accordingly, we proceed to rectify the apparent error in the impugned order, as stated in the subsequent paragraphs.

Decision

12. We have examined the submissions of the Review Petitioner made in the original Petition, based on which the Commission considered the weighted average GCV as 3668.76 kCal/kg in the impugned order dated 13.11.2023. The weighted average GCV was computed as per the data submitted by the Petitioner as per Form-15 in the petition. As stated, the Commission vide ROP of hearing dated 4.4.2024 and 29.8.2024 directed the Review Petitioner to furnish the additional information details as mentioned in paras 2 and 4 above, respectively, and in compliance with the said directions, the Review Petitioner has filed affidavits dated 25.4.2024 and 30.9.2024 respectively as stated in paras 3 and 5 respectively. The Review Petitioner has submitted that it had, vide affidavit dated 30.6.2021 in the original petition (Petition No. 238/GT/2020) inter-alia submitted the 'as received' basis GCV as below:



S. No.	Month	Wt. Avg. GCV of coal received (EM/AD basis) (kCal/kg)	Wt. Avg. Total Moisture (TM) (in %)	Wt. Avg. Equilibrated Moisture (EM/AD) (in %)	Wt. Avg. GCV of coal received (TM basis) (kCal/kg)
1	January 2014	3826.42	8.71	4.72	3666.18
2	February 2014	3773.94	12.08	4.39	3470.40
3	March 2014	3851.40	8.12	3.91	3682.66
Average					3606.41

13. The Review Petitioner has stated that, as mentioned in Form-15, during the period, the coal has been received at the generating station from both domestic sources as well as from imported sources. It has stated that the total quantity supplied during the months, as per Form-15, and the weighted average GCV of coal received (TM basis) is as under:

Sl. No.	Month	Quantity of coal supplied during the month (MT)	Wt. Avg. GCV of coal received during the month (TM basis) (kCal/kg)	
A	B	C	D	E = CxD
1	January 2014	1193893.879	3666.18	4377029861
2	February 2014	1264544.57	3470.40	4388475476
3	March 2014	1468828.81	3682.66	5409197105
Total		3927267.26		14174702442
Weighted average GCV for the period January, 2014 to March, 2014 (EC) (kCal/kg)			3609.30	

14. Further, the Review Petitioner submitted that the billed GCV at the mine end is measured on an Equilibrated Moisture (EM) basis without considering the moisture content in the coal, whereas the GCV at the station end is taken on the Total Moisture



(TM) basis. It has clarified that one of the reasons for the gap is the presence of surface moisture in the coal, as received, leading to the difference in the GCV measured on a TM basis at the unloading end, with respect to the GCV measured at the EQ basis at loading end. Further the coal supplied by coal companies is heterogeneous in nature, i.e., the quality and size of coal may vary from one point to another point. The Review Petitioner has stated that due to transportation and time-lapse, the quality of coal may diminish and also that the samples of mine end and station end are collected from different places and at different points of time, and therefore would result in different values. The Review Petitioner submitted an Excel sheet detailing the calculation of the weighted average GCV as claimed. However, upon review, it is observed that the Excel sheet submitted lacks proper linkage to the information provided in Form-15. Specifically, the methodology used to derive the month-wise weighted average GCV of coal for the corresponding months, linked with the quantities of coal supplied as reported in Form-15, has not been clearly demonstrated. Despite these submissions, there remains a lack of clarity regarding the GCV of domestic coal, as received by the Review Petitioner. This critical information, which is essential for verifying the claimed calculations, has not been furnished by the Petitioner.

15. In our view, the methodology followed for computing the weighted average GCV in the impugned order dated 13.11.2023 is as per the provisions of the 2019 Tariff Regulations. It is also clarified that the weighted GCV of coal has been computed, considering the normative transit loss of 0.20% applicable for the pit head stations, whereas the Review Petitioner has considered the normative transit losses of 0.34%, 0.38% and 0.30% for the months of January 2014, February 2014, and March 2014, for domestic coal. Therefore, in the absence of any proper data being submitted as sought vide ROP of hearing dated 29.8.2024, we find no reason to change/revise the figures of



the GCV of coal, as submitted by the Review Petitioner, for the calculation of the weighted average GCV of coal on this count.

16. It is, however, noticed that while calculating the weighted average GCV of coal, in the impugned order, we have inadvertently considered the wrong values for the GCV of coal for the months of January 2014 and February 2014, i.e., 3683.71 kCal/kg and 3471.50 kCal/kg against the Review Petitioner submitted values for GCV of coal for the aforesaid months as 3666.18 kCal/kg and 3470.40 kCal/kg, respectively. This, in our view, is an inadvertent arithmetical/clerical error in the impugned order dated 13.11.2023, and the same is required to be rectified. Accordingly, the review on this count. Therefore, considering the modified weighted average GCV of coal, the paragraphs (100 and 101) related to the Energy Charges, as determined in the impugned order dated 13.11.2023, stand modified as under:

“100. Accordingly, the cost for fuel components in working capital has been computed considering the fuel details (price and GCV) as per Form-15 of the petition except for ‘as received’ GCV of coal, which is considered as 3640 kCal/kg as discussed above. All other operational norms such as Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Cost have been considered as per the 2014 Tariff Regulations for calculation of fuel components in working capital.

101. Based on the above discussion, the cost for fuel component in working capital is worked out and allowed as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (15 days) generation corresponding to NAPAF	3619.91	3619.91	3619.91	3707.14	3707.14
Cost of Coal towards Generation (30 days) generation corresponding to NAPAF	7239.82	7239.82	7239.82	7414.27	7414.27
Cost of Secondary fuel oil 2 months generation corresponding to NAPAF	323.02	323.90	323.02	330.80	330.80

17. Consequently, paras 103 and 104 of the impugned order are corrected as under:

“103. The Petitioner has claimed Energy Charge Rate (ECR) of 126.17 Paise/kWh for the generating station. The allowable ECR, based on the operational norms as specified in Regulation 36(A) of the 2014 Tariff Regulations is as under:

	Unit	2014-19
Capacity	MW	1000



Gross Station Heat Rate	kCal/kWh	2402.07
Aux. Energy Consumption	%	5.75%
Weighted average GCV of Oil	kCal/lit	10421.99
Weighted average GCV of Coal	KCal/kg	3640
Weighted average price of Oil	Rs./KL	53312.05
Weighted average price of Coal	Rs./MT	1839.82
Rate of Energy Charge ex-bus	Rs./kWh	1.314

104. The Energy Charges for two months for computation of working capital based on ECR of Rs.1.314/kWh, has been worked out as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
15007.48	15048.59	15007.48	15369.10	15369.10

18. Further, the table under paragraph 105 (the fuel component and energy charges for two months in working capital) of the impugned order is rectified as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal for 45 days (15 days for coal stock and 30 days for generation) corresponding to generation at NAPAF	10859.73	10859.73	10859.73	11121.41	11121.41
Cost of Secondary fuel oil for 2 months corresponding to generation at NAPAF	323.02	323.90	323.02	330.80	330.80
Energy Charges for 2 months	15,007.48	15,048.59	15,007.48	15,369.10	15,369.10

19. Also, para 108 (working capital for Receivables) of the impugned order is rectified as under:

“108. Receivables equivalent to two months of capacity charges and energy charges has been worked out duly taking in to account mode of operation of the generating station on secondary fuel and are allowed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months (A)	15007.48	15048.59	15007.48	15369.10	15369.10
Fixed Charges - for two months (B)	17117.93	17330.10	17820.80	18161.15	18102.33
Total (C = A+B)	32125.41	32378.70	32828.28	33530.25	33471.43

20. In addition, the table under para 112 (rate of interest on working capital) of the impugned order stands rectified as under:



	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Cost of Coal towards Stock (15 days generation corresponding to NAPAF) (A)	3619.91	3619.91	3619.91	3707.14	3707.14
Working capital for Cost of Coal towards Generation (30 days generation corresponding to NAPAF) (B)	7239.82	7239.82	7239.82	7414.27	7414.27
Working capital for Cost of Secondary fuel oil (2 months generation corresponding to NAPAF) (C)	323.02	323.90	323.02	330.80	330.80
Working capital for Maintenance Spares (20% of O&M expenses) (D)	3284.77	3486.16	3700.14	3928.77	4172.86
Working capital for Receivables (2 months of sale of electricity at NAPAF) (E)	32125.41	32378.70	32828.28	33530.25	33471.43
Working capital for O&M expenses (1 month of O&M expenses) (F)	1368.65	1452.57	1541.73	1636.99	1738.69
Total Working Capital (G = A+B+C+D+E+F)	47961.58	48501.05	49252.89	50548.22	50835.20
Rate of Interest (H)	13.5000%	13.5000%	13.5000%	13.5000%	13.5000%
Interest on Working Capital (I = G x H)	6474.81	6547.64	6649.14	6824.01	6862.75

Annual Fixed Charges for the period 2014-19

21. Accordingly, para 114 (annual fixed charges for the period 2014-19) of the impugned order is rectified as under:

“114. Accordingly, the annual fixed charges approved for the period 2014-19 for the generating station are summarized as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
<i>Depreciation</i>	26593.24	27656.80	28943.09	29977.89	30138.31
<i>Interest on Loan</i>	25041.25	22861.79	21731.20	20123.98	18089.66
<i>Return on Equity</i>	28174.44	29483.59	31100.67	32397.18	32658.96
<i>Interest on Working Capital</i>	6474.81	6547.64	6649.14	6824.01	6862.75
<i>O&M Expenses</i>	16423.85	17430.80	18500.70	19643.85	20864.30
Total	102707.61	103980.62	106924.81	108966.91	108613.99

22. Review Petition No. 8/RP/2024 is disposed of in terms of the above.

Sd/
(Harish Dudani)
Member

Sd/
(Ramesh Babu V.)
Member

Sd/
(Jishnu Barua)
Chairperson