

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 28/RP/2017**  
**in**  
**Petition No. 322/GT/2014**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson**  
**Shri A.K. Singhal, Member**  
**Dr. M.K. Iyer, Member**

**Date of Hearing: 27.09.2017**  
**Date of Order: 15.12.2017**

**In the matter of**

Review of Commission's order dated 21.3.2017 in respect of determination of tariff of Sipat Super Thermal Power Station Stage-II (1000 MW) for the period from 1.4.2014 to 31.3.2019

**In the matter of**

NTPC Ltd  
NTPC Bhawan  
Core-7, SCOPE Complex  
7, Institutional area, Lodhi Road  
New Delhi- 110003

.....**Petitioner**

**Vs**

1. Madhya Pradesh Power Management Company Ltd  
Shakti Bhavan, Vidyut Nagar,  
Jabalpur- 482008
2. Maharashtra State Electricity Distribution Company Ltd  
'Prakashgad', Bandra (East)  
Mumbai-400051
3. Gujarat UrjaVikas Nigam Limited  
VidyutBhavan, Race Course,  
Vadodara- 390007
4. Chhatisgarh State Power Distribution Company Ltd  
Dhagania, Raipur- 492013
5. Electricity Department  
Govt. of Goa, 3<sup>rd</sup> Floor, VidyutBhavan,  
Panaji, Goa



6. Electricity Department  
Administration of Daman & Diu  
Daman- 396210

7. Electricity Department  
Administration of Dadra And Nagar Haveli  
Silvassa, via Vapi.....**Respondents**

**Parties present:**

ShriAjay Dua, NTPC  
ShriSachin Jain, NTPC

**ORDER**

This application has been made by the petitioner, NTPC, for review of order dated 21.3.2017 in Petition No 322/GT/2014, whereby the Commission had determined the tariff of Sipat Super Thermal Power Station Stage-II (1000 MW) (hereinafter the generating station) for the period from 1.4.2014 to 31.3.2019 in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 ('the 2014 Tariff Regulations'). The annual fixed charges determined by the said order dated 21.3.2017 is as under:

(₹in lakh)

	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	21860.49	21886.28	21886.28	21926.85	21967.43
Interest on Loan	14867.38	13358.26	12231.18	10697.77	8814.50
Return on Equity	25356.43	25509.32	25509.32	25556.62	25603.91
Interest on Working Capital	5681.92	5724.75	5760.50	5870.02	5903.89
O&M Expenses	20391.28	21495.91	22565.91	23705.91	24915.91
<b>Total</b>	<b>88157.48</b>	<b>87974.52</b>	<b>87953.19</b>	<b>87757.16</b>	<b>87205.63</b>

2. Aggrieved by order dated 21.3.2017, the petitioner has sought review of the said order on the ground of:

*“Non-consideration of weighted average landed price of coal as derived from Form-15 for the calculation of Interest on Working Capital for the period 2014-19.”*



3. The Commission by interim order dated 14.8.2017 admitted the review petition on the above issue and issued notice to the respondents. The Respondent, MPPMCL has filed its reply in the matter. Thereafter, the matter was heard on 27.9.2017 and the Commission, after hearing the parties reserved its orders in the petition.

4. Based on the submissions of the parties and the documents available on record, we proceed to examine the reliefs prayed for by the petitioner as stated in the subsequent paragraphs.

5. The petitioner in this petition has mainly submitted as under:

(a) Regulation 28 of the 2014 Tariff Regulations provides that the working capital inter alia covers the cost of fuel and receivables equivalent to two months energy charges. The regulation further stipulates that the landed cost of the fuel would be considered as per actuals for the three months preceding the first month in respect of the period for which tariff is to be determined.

(b) Accordingly, Form-15, containing details as regard to landed price of coal for the months of January,2014, February, 2014 and March, 2014, was furnished, based on which, the weighted average price of coal works out to Rs 2067.27/ MT. Accordingly, the cost of coal and the two months energy charges as part of receivables in the working capital isRs 2067.27/ MT.

(c) The Commission has inadvertently skipped Form-15 and considered the weighted average landed price of coal as Rs 1875.37/MT instead of Rs 2067.27/MT for the calculation of working capital for the period 2014-19.

Accordingly, the petitioner has submitted that there is an error apparent on the face of order dated 21.3.2017 and the same may be reviewed.

6. The respondent, MPPMCLvide affidavit dated 26.9.2017 has submitted as under:

(i) The petitioner had furnished details of fuel for computation of energy charges in Form 15 in the original petition, including the details of imported coal. Considering the domestic coal, the weighted average landed price of coal has worked out to Rs 1855/MTas under:

	<b>January 2014</b>	<b>February 2014</b>	<b>March 2014</b>
Net domestic coal supplied (MT)	1557640	1400043	1418275



Total amount charged (Rs)	2575092980	2513171984	3033115941
Landed coast of coal (Rs/MT)	1653.20	1795.07	2138.59
<b>Weighted average cost of coal (Rs/MT)</b>	<b>1855.90</b>		

(ii) Thus, the weighted average price of coal of Rs 1875.37/ MT considered by the Commission in order dated 21.3.2017 is on a higher side as compared to weighted average landed price of domestic coal.

(iii) Working capital is defined as the capital of a business used in its day to day operations, whereas the use of imported coal for generation of electricity is not a routine day to day process and is limited to the period when availability of domestic coal is not sufficient to cater the requirement of coal. This is evident from the fact that no coal was imported in the month of February 2014, whereas only 1.66% is imported during March 2014.

(iv) The GCV as per bill of domestic coal is 4242 Kcal/kg for landed cost of Rs 1653/MT whereas GCV of imported coal was only 3640 Kcal/kg for landed cost of Rs 7783/MT for the month of January 2014. Hence, it is evident that the cost of imported coal is exorbitant as compared to the domestic coal which has superior calorific value.

(iv) Regulation 28(2) of the 2014 Tariff Regulations stipulates for consideration of cost of fuel based on landed cost incurred by the generating company and GCV of the fuel as per actual and there is no provision for consideration of imported coal for the calculation of interest on working capital.

Accordingly, the respondent has prayed that interest on working capital may be calculated considering the weighted average cost of domestic coal only in order to avoid undue financial burden on beneficiaries.

### **Analysis and decision**

7. The matter has been examined. In order dated 21.3.2017, the Commission has considered the landed price of coal for preceding three months, i.e. January, 2014, February, 2014 and March, 2014 as Rs 1875.37/MT for computation of fuel component in interest on working capital.

8. It is observed that the weighted average landed cost of coal for Rs 1875.37/MT was calculated by dividing the sum of the product of amount charged for coal and



corresponding blending ratio with that of the sum of the product of net coal supplied by the coal company and blending ratio for the month of January, February and March, 2014.

9. The petitioner vide affidavit dated 27.10.2014 has claimed average landed cost of Rs. 2067.27/MT for the months of January 2014 to March 2014. It is observed that this has been arrived at by taking simple average of the landed cost duly taking in to account the blending ratio for each months i.e. January-March, 2014. This is in deviation with the prevailing practice of calculating landed cost of the received coal on weighted average basis.

10. On scrutiny of the calculation to arrive at the landed price of coal in order dated 21.3.2017, it is observed that the blending ratio has been applied on the quantity of domestic and imported coal received during the said three months. This, according to us, is an error apparent on the face of order as blending ratio is the ratio obtained at the consumption level while landed cost of coal is at the receipt level. Thus, applying blending ratio on quantity of coal at receipt level would yield erroneous results.

11. Further, an inadvertent error in our order dated 21.3.2017 pertaining to the weighted average GCV considered for working out the interest on working capital has been noticed. It is seen that the GCV (as billed) of 4425 kcal/kg for domestic coal has been considered in the said order instead of the GCV (as billed) of 4582 kcal/kg indicated by the petitioner in Form-15 in affidavit dated 19.8.2014.

12. After rectification of the errors as above, the average landed cost and GCV (as billed) of coal has been worked out as prescribed in Tariff Regulations, 2014 as follows:



	Wt. Avg. Price of Coal	January' 2014		February'2014		March' 2014		Total
		Domestic	Imported	Domestic	Imported	Domestic	Imported	
a	Qty (MT)	1557639.63	110182.83	1400042.97	-	1418275.08	45351.72	<b>4531492.23</b>
b	Amount (Rs.)	2575092981	857575341	2513171984	-	3033115941	304042137	<b>9282998384</b>
c	GCV (kCal/kg)	4395.00	6340.00	4390.00	-	4582.00	5728.00	
d	Weighted average landed price = (b/a) (Rs./MT)							<b>2048.55</b>
e	GCV x Qty = (a x c)	6845826173.85	698559142.20	6146188638.30	-	6498536416.56	259774652.16	<b>20448885023.07</b>
f	Weighted average GCV = (e/a) (kCal/Kg)							<b>4512.62</b>

13. Consequent upon the revision of weighted average price of coal to Rs 2048.55/ MT and weighted average GCV (as billed) of coal to 4512.62 kCal/kg as above, the receivable component of working capital allowed in order dated 21.3.2017 shall stand revised as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable charges- for two months	13349.98	13386.56	13349.98	13671.67	13671.67
Fixed charges- for two months	14731.79	14701.35	14697.74	14666.00	14574.08
<b>Total</b>	<b>28081.77</b>	<b>28087.91</b>	<b>28047.72</b>	<b>28337.68</b>	<b>28245.75</b>

(₹ in lakh)

14. Further, the rate of energy charge ex-bus of Rs.1.084/kWh as determined at paragraph no. 66 (based on formula given under para 64) of order in Petition No.322/GT/2014 dated 21.3.2017, shall stand revised to Rs.1.169/kWh. This is however, subject to notes (pertaining to application of adjustment formula for arriving at as received GCV) under table at paragraph no. 66 of order dated 21.3.2017.



15. Based on the above, the interest on working capital allowed in order dated 21.3.2017 is modified as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of coal stock- 15 days	3214.66	3214.66	3214.66	3292.13	3292.13
Cost of coal towards generation- 30 days	6429.33	6429.33	6429.33	6584.25	6584.25
Cost of secondary fuel oil- 2 months	312.73	313.59	312.73	320.27	320.27
Maintenance spares- 20% of O & M	4078.26	4299.18	4513.18	4741.18	4983.18
Receivables	28081.77	28087.91	28047.72	28337.68	28245.75
O&M expenses- 1 month	1699.27	1791.33	1880.49	1975.49	2076.33
<b>Total working Capital</b>	<b>43816.03</b>	<b>44136.00</b>	<b>44398.12</b>	<b>45251.00</b>	<b>45501.91</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on working capital</b>	<b>5915.16</b>	<b>5958.36</b>	<b>5993.75</b>	<b>6108.88</b>	<b>6142.76</b>

### Annual Fixed Charges

16. Accordingly, the annual fixed charges approved vide order dated 21.3.2017 shall stand revised as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	21860.49	21886.28	21886.28	21926.85	21967.43
Interest on loan	14867.38	13358.26	12231.18	10697.77	8814.50
Return on equity	25356.43	25509.32	25509.32	25556.62	25603.91
Interest on working capital	<b>5915.16</b>	<b>5958.36</b>	<b>5993.75</b>	<b>6108.88</b>	<b>6142.76</b>
O&M expenses	20391.28	21495.91	22565.91	23705.91	24915.91
<b>Total</b>	<b>88390.73</b>	<b>88208.13</b>	<b>88186.44</b>	<b>87996.03</b>	<b>87444.50</b>

17. All other terms of the order dated 21.3.2017 shall remain unchanged.

18. Review Petition No. 28/RP/2017 is disposed of in terms of the above.

-Sd/-  
(Dr. M.K.Iyer)  
Member

-Sd/-  
(A. K. Singhal)  
Member

-Sd/-  
(Gireesh B. Pradhan)  
Chairperson

