

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 340/GT/2014

Coram:

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

Date of Order: 5th January, 2025

In the matter of:

Revision of tariff of Korba Super Thermal Power Station, Stage-III (500 MW) for the periods 2009-14 and 2014-19- Implementation of the judgements of APTEL.

And

In the matter of

NTPC Limited
NTPC Bhawan, Core-7, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003

.....Petitioner

Vs

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Vidyut Nagar,
Rampur, Jabalpur – 482 008
2. Maharashtra State Electricity Distribution Company Limited,
Pradashgad, Bandra (East), Mumbai – 400 051
3. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan, Race Course, Vadodara
Gujarat – 390 007
4. Chattisgarh State Power Distribution Company Limited,
Raipur
5. Electricity Department, Department of Goa,
Vidyut Bhawan, Panaji Goa – 403 001
6. Electricity Department,
Administration of Daman & Diu
Daman – 396 210
7. Electricity Department,
Administration of Dadra & Nagar Haveli
Silvassa – 396 230

.... Respondents



ORDER

Background

Korba Super Thermal Power Station, Stage-III (500 MW) (in short, the generating station') of the Petitioner, with an installed capacity of 500 MW, was declared under commercial operation on 21.3.2011. The tariff for this generating station for the period from COD (21.3.2011) to 31.3.2014 was determined by the Commission's order dated 3.5.2012 in Petition No. 247/2010. Aggrieved by the said order, the Petitioner filed Review Petition No.16/RP/2012 on the issues, namely (a) delay in the commissioning of the project (not allowing time overrun) and (b) adjustment of Interest During Construction (IDC) prior to the commercial operation of the project and the same was allowed vide order dated 9.4.2013. Thereafter, Petition No. 208/GT/2013 was filed by the Petitioner for revision of the tariff after truing up exercise based on the actual additional capital expenditure for the years 2010-11 (21.3.2011 to 31.3.2011), 2011-12, and 2012-13 in accordance with the 2009 Tariff Regulations. The Petitioner also filed Petition No. 305/GT/2014 for revision of tariff in respect of the generating station for the period from 21.3.2011 to 31.3.2014 after truing-up, based on the actual additional capital expenditure incurred during the said period. However, the Commission by a combined order dated 31.8.2015, disposed of the above said petitions. Aggrieved by the order dated 31.8.2015, the Petitioner filed Review Petition No. 26/RP/2015 seeking review on account of an error apparent on the face of the record pertaining to the "calculation of the amount allowed for capitalization of initial spares as per the ceiling limit of 2.50% of original project cost," and the Commission, vide its order dated 20.6.2016, allowed the prayer and revised the annual fixed charges.



2. Subsequently, Petition No. 340/GT/2014 was filed by the Petitioner for approval of the tariff of the generating station for the period 2014-19, and the Commission, vide its order dated 3.3.2017 disposed of the same. However, the Commission, in the said order, in the exercise of the power under Regulation 103(A) of Conduct of Business Regulations, 1999, corrected the inadvertent omission in the computation of the normative O&M expenses of the generating station (which was allowed vide orders dated 31.8.2015) for the period from 21.3.2011 to 31.3.2014, by working out the same in accordance with the proviso under Regulation 19(a) of the 2009 Tariff Regulations (by multiplying the normative O&M expenses with a factor of 0.9) and accordingly revised the tariff order dated 31.8.2015/20.6.2016 (in Petition No. 26/RP/2015). Aggrieved by the order dated 3.3.2017, the Petitioner filed Appeal No.180/2017 before the APTEL on the following issues:

- (a) Reduction of the O&M expenses by applying the multiplication factor for 2014-19;*
- (b) Reduction of the Normative O&M expenses for the period 2009-14;*
- (c) Determination of Normative Heat Rate; and*
- (d) Disallowance of additional capital expenditure towards Simulator Package under the head of O&M expenses.*

3. During the pendency of the aforesaid appeal, Petition No. 395/GT/2020 was filed by the Petitioner for truing up of the tariff of the generating station for the period 2014-19, and the Commission vide order dated 21.3.2022 disposed of the same. Aggrieved by the order dated 21.3.2022, Review Petition No.18/RP/2022 was filed by the Petitioner, and the Commission allowed the said Review Petition on the issues viz., (a) Consideration of interest rates for 8 No.(s) of loan for computing the weighted average rate of interest; (b) Consideration of the impact of refinancing on interest rates of loans and (c) Adjustment of IDC while computing WAROI and revised the tariff of the generating station vide order dated 6.2.2023.



Revision of O&M expenses for the period 2014-19

4. While so, the issue of the reduction of the O&M expenses for the period 2014-19, by application of the multiplying factor was examined by APTEL in Appeal Nos 101/2017 and 110/2017, and the APTEL vide its judgment dated 11.1.2022 set aside the orders passed by the Commission and remanded the same for passing a reasoned order. In line with this decision, the Commission, in Petition No.395/GT/2020, while truing up the tariff of the generating station of the Petitioner for the period 2014-19, by order dated 21.3.2022, revised the normative O&M expenses. Thus, the issue of revision of the normative O&M expenses for the period 2014-19, in line with the APTEL judgment dated 11.1.2022 stands implemented.

Revision of O&M expenses for the period 2009-14

5. As stated in para 2(b) above, the Petitioner had also challenged the reduction of the normative O&M expenses vide Commission's order dated 3.3.2017 in Petition No.340/GT/2014 in the exercise of the power under Regulation 103(A) of Conduct of Business Regulations. However, the APTEL vide its judgment dated 1.12.2022 in Appeal No. 180/2017 held that changing the principle for determination of O&M expenses by treating the new station units as additional units of the already existing stations is not in consonance with the intent of Regulation 103A of the Conduct of Business Regulations. The relevant portion of the judgment is extracted below:

30. Thus, as per Regulation 103A it is clear that the Regulations 103A can be invoked for correcting clerical or arithmetic mistakes/errors, however in the instant case, the Central Commission has changed the principal of determination of O&M expenses by treating the new station units as additional units of already existing stations, which is not in consonance with the intent of Regulation 103A of Conduct of Business Regulations considering that any other interpretation of the aforesaid regulations is bad in law, we are inclined to accept the prayer of the Appellant."



6. Consequent to the above, the tariff of the generating station for the period 2009-14 (as approved vide order dated 31.8.2015/20.6.2016), which was later revised vide order dated 3.3.2017 in Petition No.340/GT/2014, is required to be modified in line with the above decision of APTEL. We proceed accordingly.

Revision of tariff for the period 2009-14

7. The Commission, vide its order dated 3.3.2017 in Petition No.340/GT/2014, had revised the annual fixed charges earlier approved for the period 2010-14 (vide order dated 31.8.2015 in Petition Nos. 208/GT/2013 and 305/GT/2014 and order dated 20.6.2016 in Petition no.26/RP/2015) as under:

	<i>(Rs. in lakh)</i>			
	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Depreciation	11450.32	11825.76	12176.98	12684.34
Interest on Loan	14181.50	14675.66	14220.61	13815.54
Return on Equity	14693.14	15004.72	15698.20	16722.16
Interest on Working Capital	2050.37	2093.06	2120.21	2161.21
O&M Expenses	6183.00	6538.50	6912.00	7308.00
Cost of Secondary Fuel Oil	1448.75	1452.72	1448.75	1448.75
Total	50007.07	51590.41	52576.74	54140.00

8. In consideration of the APTEL judgment dated 1.12.2022 (on the issue of reduction of the O&M expenses for the period 2010-14), the normative O&M expenses, the Maintenance spares, and O&M expenses for 1 month forming part of Interest on working capital for the period from 21.3.2011 to 31.3.2011 stands revised as under:

	<i>(Rs. in lakh)</i>			
Normative O&M expenses	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Allowed in order dated 3.3.2017	6183.00	6538.50	6912.00	7308.00
Allowed in this order	6870.00	7265.00	7680.00	8120.00

	<i>(Rs. in lakh)</i>			
O&M expenses for 1 month	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Allowed in order dated 3.3.2017	515.25	544.88	576.00	609.00
Allowed in this order	572.50	605.42	640.00	676.67

(Rs. in lakh)



Maintenance spares for Interest on working capital	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Allowed in order dated 3.3.2017	1236.60	1307.70	1382.40	1461.60
Allowed in this order	1374.00	1453.00	1536.00	1624.00

9. Accordingly, the interest on working capital and annual fixed charges approved in respect of the generating station for the period 2010-14, vide order dated 3.3.2017 in Petition No. 340/GT/2014, stands revised as under:

Interest on working capital

(Rs. in lakh)

	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Cost of Coal for 1.5 months	3562.26	3572.02	3562.26	3562.26
Cost of Secondary Fuel Oil 2 months	241.46	242.12	241.46	241.46
O & M expenses for 1 month	572.50	605.42	640.00	676.67
Maintenance Spares	1374.00	1453.00	1536.00	1624.00
Receivables for 2 months	13204.47	13488.29	13646.93	13915.17
Total Working Capital	18954.69	19360.84	19626.65	20019.56
Rate of interest (%)	11.00%	11.00%	11.00%	11.00%
Interest on working capital	2085.02	2129.69	2158.93	2202.15

Annual fixed charges

(Rs. in lakh)

	2010-11 (21.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14
Depreciation	11450.32	11825.76	12176.98	12684.34
Interest on Loan	14181.50	14675.66	14220.61	13815.54
Return on equity	14693.14	15004.72	15698.20	16722.16
Interest on working capital	2085.02	2129.69	2158.93	2202.15
O&M Expenses	6870.00	7265.00	7680.00	8120.00
Cost of Secondary Fuel Oil	1448.75	1452.72	1448.75	1448.75
Total	50728.72	52353.55	53383.47	54992.95

Note: 1) All figures are on an annualized basis. 2) All the figures under each head have been rounded. The figure in total column in each year is also rounded. Because of the rounding of each figure, the total may not be the arithmetic sum of individual items in columns.

10. The tariff revision in respect of the generating station for the period 2010-14, as above, does not have any consequential impact on the tariff approved for the generating station for the period 2014-19 vide order dated 3.3.2017 in Petition No.340/GT/2014 and order dated 6.2.2023 in Petition No.18/RP/2022 (in Petition No. 395/GT/2020). Accordingly, the issue regarding the 'reduction of the



normative O&M expenses for the period 2009-14' also stands implemented in terms of the APTEL judgment dated 1.12.2022.

Determination of Normative Heat Rate for the period 2014-19

11. In Petition No. 340/GT/2014, the Petitioner had claimed the following Normative heat rate (Gross station heat rate):

“89. The design heat rate as submitted by the petitioner in Form-2 of the petition is 2393.05 kcal/kWh, on the basis of turbine cycle heat rate of 1944.44 kcal/ kWh and Boiler Efficiency of 84.91%. Accordingly, the Gross Station Heat Rate (GSHR) of the generating station for the period 2014-19 as considered by the petitioner is 2393.05 kCal/kWh (=1.045x1944.44/0.8491).”

12. The Commission, vide order dated 3.3.2017, disposed of the said claim as under:

“92. It has been observed that the petitioner has considered Gross Station Heat Rate (GSHR) of 2393.05 kCal/kWh (=1.045x1944.44/0.8491) for the period 2014-19 with Boiler Efficiency of 84.91% whereas the 2014 Tariff Regulations specifies for normative minimum boiler efficiency of 85.00%.

93. In view of above discussion, the design heat rate of 2390.52 kCal/kWh (=1.045x1944.44/0.85) during the period 2014-19 has been computed based on Turbine Cycle Heat Rate of 1944.44 Kcal/kWh and Boiler Efficiency of 85.00%, and also considering margin of 4.50% as specified in the 2014 Tariff Regulations.”

13. Accordingly, the Gross Station Heat Rate of 2390.52 Kcal/ kWh was approved by the Commission in the truing up order dated 21.3.2022 in Petition No. 395/GT/2020 and in the order dated 6.2.2023 in Petition No. 18/RP/2022 in Petition No. 395/GT/2020.

14. In Appeal No.180/2017 filed by the Petitioner on this issue, APTEL vide its judgment dated 1.12.2022 held as under:

“89. Considering that the gross station heat rate of 2393.05 kCal/kWh claimed by the Appellant for 2014-19 is less than the gross station heat rate approved during 2009-14 in compliance with the Regulation 36(C)(c) of Tariff Regulations 2014 and thus ought to be allowed.

90. As already noted above, the approach, adopted by the Central Commission, in the Impugned Order is at variance with the practice followed by it in the Orders for 2014-19 period for several other stations, the Central Commission is expected to maintain a consistent stand.



91. Based on above we direct the Central Commission to revise the Heat Rate for Korba-III and Vindhyanchal-IV in 2014-19 period based on actual design boiler efficiency for consistency with its other orders. The issue is decided in favour of appellants.”

15. Accordingly, APTEL has remanded the matter to this Commission for revising the tariff of the generating station for the period 2014-19 by considering the Normative Gross Station Heat Rate (GSHR) of 2393.05 kCal/kWh instead of the GSHR of 2390.52 kCal / kWh considered by the Commission for the period 2014-19. Accordingly, the Normative heat rate (Gross station heat rate) of the generating station determined vide order dated 6.2.2023 in Petition No.18/RP/2022, stands revised as under:

- a) The allowable Energy Charge Rate (ECR), based on the operational norms as specified under the 2014 Tariff Regulations including modified heat rate of 2393.05 kCal/kWh and on weighted average GCV and price of fuel during the preceding three months, as adopted, vide order dated 21.3.2022 in Petition No. 395/GT/2020 and consequently in Review order dated 6.2.2023 in 18/RP/2022 in Petition No. 395/GT/2020, works out as under:

	Units	2014-19
Capacity	MW	500
Gross Station Heat Rate	kCal/kWh	2393.05
Auxiliary Energy Consumption	%	5.75
Weighted average GCV of oil	kCal/lit	10112.517
Weighted average GCV of Coal from January 2014 to March 2014	kCal/kg	3379.416
Weighted average price of oil	Rs. /KL	43555.959
Weighted average price of Coal	Rs. /MT	1131.345
Rate of Energy Charge ex-bus	Rs. /kWh	0.871

- b) Receivables equivalent to two (2) months of energy charge for the purpose of revision of Interest on Working Capital (IWC) has been worked out based on the ECR of Rs.0.871/kWh, duly considering the mode of operation of the generating station on secondary fuel, as under:

	<i>(Rs. in lakhs)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months of generation corresponding to NAPAF	4973.94	4987.57	4973.94	5093.79	5093.79

- c) Fuel Components in the working capital, for the purpose of interest on working capital, are revised as under:



(Rs. In lakhs)

	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Coal towards stock - 15 days (A)	1194.37	1194.37	1194.37	1223.15	1223.15
Working capital for Coal towards generation - 30 days (B)	2388.73	2388.73	2388.73	2446.29	2446.29
Working capital for Secondary Fuel Oil - 2 months (C)	131.95	132.31	131.95	135.13	135.13

16. Accordingly, the issue of the 'Determination of the normative Heat Rate for the period 2014-19' stands implemented in terms of the APTEL judgment dated 1.12.2022.

Disallowance of additional capital expenditure towards Simulator Package under the head of O&M expenses.

17. In Petition No. 340/GT/2014, the Petitioner had claimed the total Projected additional capital expenditure of Rs 920.00 lakh in 2016-17 (@ Sl. No 9 in the table under Para 18 of the order dated 3.3.2017) in respect of the 'Simulator package' on a cash basis under Regulation 14(1)(ii) of the 2014 Tariff Regulations and the Commission, vide order dated 3.3.2017, held as under:

"42. The petitioner has projected additional capital expenditure of ₹920.00 lakh in 2016-17 for Simulator package on cash basis under Regulation 14(1)(ii) and Regulation 54 of the 2014 Tariff Regulations. In justification, the petitioner has submitted that initially, the provision of Simulator package was not there in FR. However, in view of installation of technologically advanced unit of 500 MW in Korba, the simulator training facility for O&M employees was felt necessary for successful operation of the plant ensuring supply of power to beneficiaries on sustainable basis and hence the same has been incorporated in the revised cost estimate of Korba STPS Stage-III. The petitioner has further submitted that the work is expected to be completed in 2016-17.

43. xxxx.

44. In response to the above the petitioner in its rejoinder dated 22.7.2016 has submitted that it has already prayed for the extension of cut-off date by two (2) years under Regulation 54 i.e. 'Power to relax' for the works pertaining to original scope of work spilling beyond the cut-off date. The petitioner has submitted that since the expenditure against the balance works under the original scope of work is less than 1% of the approved project cost, the petitioner has claimed these works under Regulation 14(1)(ii) and Regulation 54 of the 2014 Tariff Regulations.

45. We have gone through the submissions of the petitioner and respondents. We are of the view that since the simulator training facility could be used for training of personnel of other stations as well, it would be more reasonable that this cost is booked under corporate expenses and is allocated to various other generating stations and form part of O&M expenses. We have therefore not considered the same separately."



18. In Appeal No.180/2017 filed by the Petitioner, APTEL rejected the findings of the Commission and vide its judgment dated 1.12.2022 held as under:

“78. The Appellant placed before us that the Central Commission has allowed similar relief of Rs 93.34 Lakhs vide order dated 06.12.2016 in Petition No. 295/GT/2014 under original scope of works along with other packages of Sipat-I for project in truing up tariff order for the period 2009-14 period.

79. Undisputedly, the asset is primarily meant for training of personnel working in O&M Department of the Appellant, which will be used for all stations besides Korba-III, however, the asset is of the nature of capital expenditure and does not belong to regular O&M expenditure incurred by Appellant for operating its stations, further, the Central Commission itself has considered this such package as separate package in case of Sipat-I and allowed as part of original scope of works.

80. The Appellant has submitted that the installation was meant for training of personnel on technologically advanced unit of 500 MW in Korba-III, thus, the asset may be used for training of personnel belonging to other stations or personnel belonging to other organizations.

81. Considering the above, the Central Commission is directed to reconsider its decision and pass a reasoned order afresh.”

19. Thus, APTEL, vide its judgment dated 1.12.2022, has directed the reconsideration of the above decision on this issue and pass a fresh order. It is observed that in an order dated 3.3.2017, the Commission held that the Petitioner may recover the projected expenses on the “Simulator Package” through the O&M expenses allowed to the generating station. We note that the normative O&M expenses notified under the 2019 Tariff Regulations were based on the actual O&M expenses incurred by the generating station for the period 2012-18. The Petitioner has not booked the actual capital expenditure incurred during the period 2014-19 on the “Simulator Package” under O&M expenses. As such, these expenses have not been included while framing the O&M expense norms for the tariff period 2019-24, and hence, the Petitioner would not be able to recover these expenses even during the period 2019-24 through the normative O&M expenses allowed to the generating station. As observed by APTEL, a similar claim of the Petitioner, in the case of the tariff of Sipat-I was allowed during 2009-14, vide order dated 6.12.2016. Considering the fact that the additional expenditure is of a capital nature and



cannot be recovered through the O&M expense norms of the generating station, the claim of the Petitioner for additional capitalization of the actual expenditure incurred towards the “Simulator Package” under the original scope of works (as indicated in Petition No. 395/GT/2020) as against the projected additional capital expenditure of Rs.920 lakh claimed on a projection basis (in Petition No.340/GT/2014) is allowed as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Expenditure on Simulator Package (accrual basis)	0.00	385.48	3.25	0.00	7.80
Undischarged liability (in above)	0.00	75.42	2.18	0.00	0.00
Expenditure on Simulator Package (cash basis)	0.00	310.06	1.07	0.00	7.80

20. Thus, the directions contained in the APTEL judgment dated 1.12.2022 stand implemented on this issue.

Revision of the capital cost for the period 2014-19

21. Based on the above, the capital cost, as approved in order 6.2.2023 (in Petition No.18/RP/2022), stands revised as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	250011.40	253002.11	255061.29	256627.29	257828.24
Add: Additional capital expenditure	2990.71	2059.18	1566.00	1200.95	329.75
Closing capital cost	253002.11	255061.29	256627.29	257828.24	258157.99
Average capital cost	251506.75	254031.70	255844.29	257227.76	257993.11

Note: The un-discharged liabilities corresponding to capital cost allowed as on 31.3.2019 works out to Rs.4384.43 lakh.

22. Consequent upon the revision of the capital cost as above, the impact of the same on the capital cost for the period 2019-24 shall be considered at the time of truing up of the tariff for the period 2019-24.

Return on Equity

23. Return on equity, as approved in the order dated 6.2.2023, is revised as under:



(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening	72766.16	73663.38	74281.13	74750.93	75111.22
Add: Addition of Equity due to additional capital expenditure	897.21	617.75	469.80	360.29	98.93
Normative Equity-Closing	73663.38	74281.13	74750.93	75111.22	75210.14
Average Normative Equity	73214.77	73972.25	74516.03	74931.07	75160.68
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for respective years	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax) annualized	14357.42	14576.23	14683.38	14765.17	14850.25

Interest on Loan

24. Interest on loan, as approved in the order dated 6.2.2023, is revised as under:

(Rs in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Gross opening loan	177245.23	179338.73	180780.16	181876.35	182717.02
B	Cumulative repayment of loan up to previous year	36831.48	49839.89	62878.48	75837.62	88814.51
C	Net Loan Opening (A-B)	140413.75	129498.84	117901.67	106038.73	93902.51
D	Addition due to additional capital expenditure	2093.50	1441.43	1096.20	840.67	230.83
E	Repayment of loan during the year	13023.35	13048.74	13022.05	13085.98	13124.71
F	Repayment adjustment on account of de-capitalization	14.94	10.15	62.91	109.09	102.77
G	Net Repayment (E-F)	13008.41	13038.59	12959.14	12976.89	13021.94
H	Net Loan Closing (C+D- G)	129498.84	117901.67	106038.73	93902.51	81111.40
I	Average Loan [(C+H) ÷2]	134956.30	123700.26	111970.20	99970.62	87506.96
J	WAROI	9.3486%	9.4117%	9.2282%	8.9099%	8.6928%
K	Interest on Loan (I x J)	12616.50	11642.27	10332.89	8907.31	7606.78
L	Adjustment for interest capitalised	61.69	3.79	7.42	73.44	0.00
M	Net Interest on loan (K-M)	12554.81	11638.47	10325.46	8833.87	7606.78

Depreciation

25. Depreciation, as approved in the order dated 6.2.2023, is revised as under:

(Rs in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Average capital cost	251506.75	254031.70	255844.29	257227.76	257993.11
B	Value of freehold land included in 'A'	3172.34	3471.33	3575.67	3681.77	3753.31
C	Aggregate Depreciable Value [(A-B) x 90%]	223500.97	225504.33	227041.76	228191.40	228815.82



		2014-15	2015-16	2016-17	2017-18	2018-19
D	Remaining aggregate depreciable value at the beginning of the year (C - Previous year's 'K')	186498.79	175493.74	163992.57	152183.08	139830.61
E	No. of completed years at the beginning of the year	3.03	4.03	5.03	6.03	7.03
F	Balance useful life at the beginning of the year (25-E)	21.97	20.97	19.97	18.97	17.97
G	Weighted average rate of depreciation	5.1781%	5.1367%	5.0898%	5.0873%	5.0872%
H	Depreciation during the year (A x G)	13023.35	13048.74	13022.05	13085.98	13124.71
I	Cumulative depreciation at the end of the year (before adjustment for de-capitalisation) (H + Previous year's 'K')	50025.53	63059.33	76071.23	89094.30	102109.92
J	Depreciation adjustment on account of de-capitalisation	14.94	10.15	62.91	109.09	102.77
K	Cumulative depreciation at the end of the year (I-J)	50010.59	63049.18	76008.32	88985.21	102007.15

Note: Cumulative depreciation at the end of 2013-14 is Rs 37002.18 lakh.

Receivables

26. Accordingly, the receivables component of the working capital, as approved order dated 6.2.2023, is revised as under:

	(Rs in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months	4973.94	4987.57	4973.94	5093.79	5093.79
Fixed Charges – for two months	8785.08	8775.79	8627.42	8505.98	8429.30
Total	13759.02	13763.35	13601.36	13599.77	13523.10

Interest on Working capital

27. Also, the Interest on Working Capital, as approved in the order dated 6.2.2023, is revised as under:

	(Rs in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19	
A	Working capital for Coal towards stock - 15 days	1194.37	1194.37	1194.37	1223.15	1223.15
B	Working capital for Coal towards generation - 30 days	2388.73	2388.73	2388.73	2446.29	2446.29
C	Working capital for Secondary Fuel Oil - 2 months	131.95	132.31	131.95	135.13	135.13
D	Working Capital for O&M expenses - 1 month	836.02	885.44	914.67	963.26	1015.72
E	Working Capital for Maintenance Spares - 20% of O&M	2006.44	2125.05	2195.21	2311.83	2437.73
F	Working Capital for Receivables - 2 months	13759.02	13763.35	13601.36	13599.77	13523.10
G	Total Working Capital (A+B+C+D+E+F)	20316.53	20489.25	20426.29	20679.43	20781.11
H	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%



		2014-15	2015-16	2016-17	2017-18	2018-19
I	Interest on Working Capital	2742.73	2766.05	2757.55	2791.72	2805.45

Annual Fixed Charges for the period 2014-19

28. Based on the above, the annual fixed charges, as approved in the order dated 6.2.2023, for the period 2014-19, stand revised as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13023.35	13048.74	13022.05	13085.98	13124.71
Interest on Loan	12554.81	11638.47	10325.46	8833.87	7606.78
Return on Equity	14357.42	14576.23	14683.38	14765.17	14850.25
Interest on Working Capital	2742.73	2766.05	2757.55	2791.72	2805.45
O&M Expenses	10032.20	10625.23	10976.06	11559.14	12188.63
Total	52710.51	52654.73	51764.51	51035.88	50575.81

Note: 1) All figures are on an annualized basis. 2) All the figures under each head have been rounded. The figure in total column in each year is also rounded. Because of the rounding of each figure, the total may not be the arithmetic sum of individual items in columns.

29. Accordingly, the tariff of the generating station for the period 2014-19 (In Petition No.340/GT/2014, Petition No. 395/GT/2014, and Petition No. 18/RP/2022) stands revised pursuant to the implementation of the APTEL judgment dated 1.12.2022 in Appeal No. 180/2017.

Sd/-
(Harish Dudani)
Member

Sd/-
(Ramesh Babu V.)
Member

Sd/-
(Jishnu Barua)
Chairperson

