

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 395/GT/2020**

**Coram:**

**Shri P. K. Pujari, Chairperson**

**Shri I. S. Jha, Member**

**Shri Arun Goyal, Member**

**Shri Pravas Kumar Singh, Member**

**Date of Order: 21<sup>st</sup> March, 2022**

**In the matter of**

Petition for truing up of annual fixed charges for the 2014-19 tariff period in respect of the Korba STPS Stage-III (500 MW).

**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-110003.
2. Maharashtra State Electricity Distribution Company Limited,  
Prakashgad, Bandra (East),  
Mumbai-400051.
3. Gujarat Urja Vikas Nigam Limited,  
2nd Floor Sardar Patel Vidyut Bhawan, Racecourse,  
Vadodara -390007.
4. Chhattisgarh State Power Distribution Company Limited,  
Vidyut Sewa Bhawan, Dagania,  
Raipur – 492001.
5. Electricity Department,  
Government of Goa, 3rd Floor, Vidyut Bhawan,  
Panaji, Goa-403001.



6. DNH Power Distribution Corporation Limited,  
UT of Dadra Nager & Haveli,  
Silvassa-396230.
7. Electricity Department,  
Administration of Daman & Diu,  
Daman-396210.
8. Chamundeshwari Electricity Supply Corporation Limited,  
Corporate Office, No. 29, Vijayanagar, 2nd stage, Hinkal,  
Mysore – 570 017.
9. Gulbarga Electricity Supply Company Limited,  
Main road,  
Gulbarga – 585 102, Karnataka.
10. Hubli Electricity Supply Company Limited,  
Corporate office, P.B. Road, Navanagar,  
Hubli – 580 025.
11. Kerala State Electricity Board Limited,  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram – 695 004.
12. Electricity department,  
Govt. of Puducherry, 137, NSC Bose Salai  
Puducherry- 605001.

... Respondents

**Parties Present:**

Shri Venkatesh, Advocate NTPC  
Mr. Siddharth Joshi, Advocate NTPC  
Mr. Abhiprav Singh, Advocate NTPC  
Mr. Rishub Kapoor, Advocate NTPC  
Mr. Parimal Piyush, Advocate NTPC  
Mr. Arvind Banerjee, CSPDCL  
Ms. Anurag Naik, MPPMCL

**ORDER**

This petition has been filed by the Petitioner, NTPC Limited for truing-up of tariff of Korba STPS Stage-III (500 MW) (hereinafter referred to as ‘the generating station’) for the 2014-19 tariff period in accordance with Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as ‘the 2014 Tariff Regulations’).



## **Background**

2. The generating station with an installed capacity of 500 MW achieved COD on 21.3.2011. Petition No.340/GT/2014 was filed by the Petitioner for approval of tariff of the generating station for the 2014-19 tariff period and the Commission vide its order dated 3.3.2017 approved the capital cost and annual fixed charges of the generating station as under:

### **Capital Cost allowed**

		<i>(Rs. in lakh)</i>				
		<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Capital Cost	250011.40	251136.40	253206.40	253706.40	253706.40
B	Additional Capitalization	1125.00	2070.00	500.00	0.00	0.00
C	Closing Capital Cost (A+B)	<b>251136.40</b>	<b>253206.40</b>	<b>253706.40</b>	<b>253706.40</b>	<b>253706.40</b>
D	Average Capital Cost [(A+C)/2]	250573.90	252171.40	253456.40	253706.40	253706.40

### **Annual fixed charges allowed**

		<i>(Rs. in lakh)</i>				
		<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	Depreciation	12964.41	13047.06	13113.55	13126.48	13126.48
	Interest on Loan	12853.27	11735.13	10603.01	9309.52	7878.82
	Return on Equity	14302.54	14466.26	14542.22	14557.00	14557.00
	Interest on Working Capital	2426.94	2436.62	2442.27	2467.92	2468.83
	O&M Expenses	8892.21	9346.71	9828.21	10341.21	10885.71
	<b>Total</b>	<b>51439.37</b>	<b>51031.79</b>	<b>50529.26</b>	<b>49802.14</b>	<b>48916.85</b>

3. Regulation 8(1) of the 2014 Tariff Regulations provides as follows:

*“(1) The Commission shall carry out truing up exercise along with the Tariff petition filed for the next Tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up. Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.”*

4. In terms of the above regulations, the Petitioner vide affidavit dated 7.1.2020, has filed the present petition for truing-up of tariff for the 2014-19 tariff period. The Petitioner in response to the ROP dated 27.7.2021 has submitted revised Form-1,



Form-3A and Form-13B on account of revision of normative O&M expenses and has claimed the following annual fixed charges:

	<i>(Rs in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	13013.01	13153.65	13013.64	13074.26	13113.22
Interest on Loan	12621.78	10890.05	9491.19	8065.15	6674.33
Return on Equity	14358.53	14568.86	14669.81	14754.93	14839.69
Interest on Working Capital	2688.44	2694.51	2765.82	2814.60	2834.60
O&M Expenses	10146.98	10708.67	11131.83	11867.17	12454.43
<b>Sub-total</b>	<b>52828.74</b>	<b>52015.74</b>	<b>51072.30</b>	<b>50576.10</b>	<b>49916.27</b>
<b>Additional O&amp;M Expenses</b>					
Impact of Pay Revision	0.00	17.89	1304.22	1316.47	1486.79
Impact of GST	0.00	0.00	0.00	70.54	104.11
Ash Transportation Expenditure	0.00	0.00	0.00	0.00	0.00
<b>Total Additional O&amp;M expenses</b>	<b>0.00</b>	<b>17.89</b>	<b>1304.22</b>	<b>1387.01</b>	<b>1590.90</b>
<b>Total Annual fixed Charges claimed</b>	<b>52828.74</b>	<b>52033.63</b>	<b>52376.52</b>	<b>51963.11</b>	<b>51507.17</b>

5. The Respondent No.1, MPPMCL, Respondent No.2 MSEDCL and the Respondent No.4 CSPDCL have filed their reply vide affidavits dated 20.7.2021, 6.1.2021 and 14.7.2021. The Petitioner has filed its rejoinder to the said replies, vide affidavits dated 1.9.2021, 25.5.2021 and 21.7.2021 respectively. The Petitioner has also filed certain additional information vide affidavits dated 29.6.2021 and 16.7.2021. The Commission after hearing the parties on 27.7.2021 directed the Petitioner vide Record of Proceedings (ROP) to submit certain additional information and reserved its order in the matter. In response, the Petitioner vide affidavit dated 18.8.2021 has filed the additional information after serving copies to the Respondents. Based on the submissions of the parties and the documents available on record, we proceed for truing-up the tariff of the generating station for the 2014-19 tariff period on prudence check as discussed in the subsequent paragraphs.



## **Capital Cost**

6. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

Clause 3 of Regulation 9 of the 2014 Tariff Regulations provides as follows:

*“9. Capital Cost:*

*(3) The Capital cost of an existing project shall include the following:*

*(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014.*

*(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*

*(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.*

*xxx...”*

7. The capital cost claimed by the Petitioner in Form-1(I) of the petition, is as follows:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	250011.40	253015.18	254773.65	256430.66	257653.02
Add: Additions during the period	1624.03	1045.68	1027.61	1298.89	372.01
Less: De-capitalization during the period	100.38	53.89	155.77	307.75	279.55
Add: Discharges during the period	1480.13	766.68	785.17	231.22	231.63
<b>Closing Capital Cost</b>	<b>253015.18</b>	<b>254773.65</b>	<b>256430.66</b>	<b>257653.02</b>	<b>257977.11</b>
Average Capital Cost	251513.29	253894.42	255602.15	257041.84	257815.07

8. It is observed that the Petitioner has wrongly included balance amount of (-) Rs.16.31 lakh as part of de-capitalization in 2018-19, instead of showing the same as part of additions in 2018-19, and the same is required to be rectified. Accordingly, the de-capitalization in 2018-19 has been considered as (-) Rs.263.24 lakh [(-) Rs.279.55 + Rs.16.31 lakh] and the Rs.16.31 lakh has been considered along with additions in 2018-19.



### **Capital cost as on 1.4.2014**

9. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

Clause 3 of Regulation 9 of the 2014 Tariff Regulations provides as follows:

*“9. Capital Cost:*

*(3) The Capital cost of an existing project shall include the following:*

*(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014.*

*(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*

*(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.*

*xxx...”*

10. The Commission vide order dated 20.6.2016 in Review Petition No. 26/RP/2015 in Petition No. 208/GT/2013 and 305/GT/2014 had admitted the closing capital cost of Rs.250011.40 lakh as on 31.3.3014 and the same capital cost was considered as the opening capital cost as on 1.4.2014 in order dated 3.3.2017 in Petition No. 340/GT/2014. Therefore, the capital cost of Rs.250011.40 lakh as on 31.3.3014 has been considered as the opening capital cost as on 1.4.2014 in terms of Regulation 9(3) of the 2014 Tariff Regulations.

### **Additional Capital Expenditure**

11. Regulations 14 of the 2014 Tariff Regulations provides as follows:

*“14 (1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

*(i) Un-discharged liabilities recognized to be payable at a future date;*

*(ii) Works deferred for execution;*

*(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*

*(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and*

*(v) Change in law or compliance of any existing law:*



*Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.*

*(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:*

*(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*

*(ii) Change in law or compliance of any existing law:*

*(iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and*

*(iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.*

*(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:*

*(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*

*(ii) Change in law or compliance of any existing law.;*

*(iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and*

*(iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc*

*14 (3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

*(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*

*(ii) Change in law or compliance of any existing law;*

*(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;*

*(iv) Deferred works relating to ash pond or ash handling system in the original scope of work;*

*(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;*

*(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*

*(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal/lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*

*xxx “*



**Projected additional capital expenditure allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014**

12. The details of the projected additional capital expenditure allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014 is summarized as below:

*(Rs. in lakh)*

	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Hydrogen Generation Building	14(1)(ii) and 54	280.00	0.00	0.00	0.00	0.00	280.00
Hydrogen Generation Plant		395.00	0.00	0.00	0.00	0.00	395.00
Ash Dyke Raising	14(3)(iv)	450.00	400.00	500.00	0.00	0.00	1350.00
Railway Siding for Ash SILO	14(1)(ii) and 54	0.00	720.00	0.00	0.00	0.00	720.00
Service Building		0.00	950.00	0.00	0.00	0.00	950.00
<b>Total additional capital expenditure</b>		<b>1125.00</b>	<b>2070.00</b>	<b>500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3695.00</b>

13. The Petitioner in Form-9A of the petition has submitted the actual additional capital expenditure incurred for the 2014-19 tariff period on accrual, as well as on cash basis, which also includes IDC. The additional capital expenditure claimed by the Petitioner (on cash basis) for the 2014-19 tariff period is shown as under:

*(Rs. in lakh)*

Sl. No	Head of Work/ Equipment	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>A</b>	<b>Admitted additional capital expenditure in order dated 3.3.2017</b>							
1	Hydrogen Generation Building	14(1) (ii) read with 14(2)(iv)	0.00	124.69	0.00	0.00	0.00	124.69
2	D-Type Quarters	14(1) (ii) read with 14(2)(iv)	371.06	41.53	0.00	0.00	0.00	412.59
3	Ash Dyke (Starter)	14(3)(iv)	0.00	0.00	85.04	0.00	0.00	85.04
4	Ash Dyke Raising	14(3)(iv)	507.56	693.55	578.68	665.56	345.61	2790.96
5	Railway Siding for Ash SILO	14(1)(ii) read with 14(2)(iv) & 54	0.00	0.00	0.00	560.63	0.00	560.63
	<b>Sub Total (A)</b>		<b>878.62</b>	<b>859.76</b>	<b>663.72</b>	<b>1226.19</b>	<b>345.61</b>	<b>3973.91</b>
<b>B</b>	<b>New Claims</b>							
6	Main Plant package	14(1)(ii) read with 54	430.96	14.48	0.00	0.00	0.00	445.44
7	Chimney package	14(2)(iv)	39.99	0.00	0.00	4.59	0.00	44.57





Sl. No	Head of Work/ Equipment	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19	Total
8	Fire detection & protection System	14(2)(iv)	0.97	0.00	3.86	0.00	2.29	7.13
9	CW System Package	14(2)(iv)	22.25	0.00	0.00	0.00	3.41	25.66
10	TG System Package	14(2)(iv)	2.18	67.5	7.81	0.00	0	77.49
11	Ash Handling System package	14(2)(iv)	18.80	0.00	6.45	21.03	26.40	72.68
12	Ash Water Recirculation System (AWRS)	14(2)(iv)	2.26	1.49	0.00	0.00	0.00	3.76
13	Electrical System LT Package	14(2)(iv)	84.62	0.00	0.00	0.00	0.00	84.62
14	Main Plant Civil Works	14(2)(iv)	65.94	101.91	61.63	13.55	1.34	244.36
15	CHP package	14(2)(iv)	0.00	0.82	71.11	0.00	0.00	71.93
16	CCTV	14(3)(iii)	77.44	1.64	0.00	0.00	0.00	79.08
17	Package ERV	14(2)(iv)	0.00	0.00	0.00	0.00	0.00	0
18	Offsite Civil	14(2)(iv)	0.00	0.00	231.56	0.00	0.00	231.56
19	AC & Ventilation	14(2)(iv)	0.00	0.00	7.69	0.00	0.00	7.69
20	Switchyard Package	14(2)(iv)	0.00	0.00	10.24	0.00	0.00	10.24
21	Cabling	14(2)(iv)	0.00	0.00	0.00	36.64	0.00	36.64
22	TG System Package		0.00	0.00	0.00	(-) 0.95	0.00	(-) 0.95
23	Electrical System LT Package		0.00	0.00	0.00	(-) 0.43	0.00	(-) 0.43
24	Lease Hold land	14(2)(iv)	0.00	(-)1.57	0.00	0.00	0.00	(-)1.57
25	Main Plant package		0.00	(-)0.36	0.00	0.00	0.00	(-) 0.36
26	AC & Ventilation		0.00	0.00	0.00	0.00	(-)6.7	(-) 6.7
27	Water Supply System		0.00	0.00	(-) 2.31	0.00	0.00	(-) 2.31
28	LP Piping		0.00	0.00	(-) 34.14	0.00	0.00	(-) 34.14
29	Township		0.00	0.00	0.00	(-)1.72	0.00	(-)1.72
30	Water Treatment Plant & PT Plant		0.00	0.00	0.00	0.00	(-)16.65	(-)16.65
	<b>Sub Total (B)</b>		<b>745.41</b>	<b>185.91</b>	<b>363.89</b>	<b>72.71</b>	<b>10.09</b>	<b>1378.02</b>
<b>C</b>	<b>Total Additional capital expenditure (C)=(A+B)</b>		<b>1624.03</b>	<b>1045.68</b>	<b>1027.62</b>	<b>1298.9</b>	<b>355.7</b>	<b>5351.93</b>
<b>D</b>	<b>Decapitalization</b>							
31	Decapitalizatio		100.38	53.89	155.77	307.75	263.24	881.04



Sl. No	Head of Work/ Equipment	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19	Total
	n of Spares (Part of Capital Cost)							
	<b>Sub Total (D)</b>		<b>100.38</b>	<b>53.89</b>	<b>155.77</b>	<b>307.75</b>	<b>263.24</b>	<b>881.04</b>
<b>E</b>	<b>Liability Discharged</b>							
32	Add.: Discharge of liabilities pertaining to allowed works for the prior period	14(2)(iv)	1480.13	766.68	785.17	231.22	231.63	3494.83
	<b>Sub Total (E)</b>		<b>1480.13</b>	<b>766.68</b>	<b>785.17</b>	<b>231.22</b>	<b>231.63</b>	<b>3494.83</b>
<b>F</b>	<b>Total Additional capital expenditure claimed (F) = (C-D+E)</b>		<b>3003.78</b>	<b>1758.46</b>	<b>1657.01</b>	<b>1222.37</b>	<b>324.09</b>	<b>7965.72</b>

14. It is observed that there is a variation in the additional capital expenditure claimed by the Petitioner in the present petition as against those allowed by the Commission vide order dated 3.3.2017 in Petition No. 340/GT/2014. This variation is on account of the difference between the projected additional capital expenditure allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014 on projection basis and the actual additional capital expenditure claimed by the Petitioner during the 2014-19 tariff period and also on account of certain new claims by the Petitioner like Main Plant package, Chimney package, Fire detection & Protection system, CW System Package, TG System Package, Ash Handling System package, Ash Water Recirculation System (AWRS), Electrical System LT Package, Main Plant Civil Works, CHP package, CCTV, Package ERV, Offsite Civil, AC & Ventilation, Switchyard Package and Cabling. We examine the item-wise actual additional capital expenditure claimed by the Petitioner for the 2014-19 tariff period as follows.

#### **A. Additional capital expenditure towards allowed works**

##### *(a) Hydrogen Generation Building*



15. As against the projected additional capital expenditure of Rs. 280.00 lakh in 2014-15 allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014 for Hydrogen Generation Building, the Petitioner has claimed additional capital expenditure of Rs.124.69 lakh in 2015-16 for the said asset/item under Regulation 14(1)(ii) read with Regulation 14(2)(iv) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the actual additional capital expenditure claimed by the Petitioner is lesser than the projected additional capital expenditure already admitted in order dated 3.3.2017 in Petition No. 340/GT/2014 and has therefore prayed to allow the same.

16. The matter has been considered. It is observed that the claim of the Petitioner towards Hydrogen Generation Building was allowed vide order dated 3.3.2017 with the following observations:

*“23. We have examined the matter in view of the submissions of the petitioner and since the additional capital expenditure incurred is under original scope of works and is required for successful operation of the plant and the benefits of the same shall be utilised by the beneficiaries hence we are inclined to allow the same and therefore invoke Regulation 54 of the 2014 Tariff Regulations and relax Regulation 14(1)(ii) of the 2014 Tariff Regulations.”*

17. These are balance works within the original scope of work and spilled over beyond the cut-off date (31.3.2014). Also, keeping in view that the additional capital expenditure actually incurred is lesser than the projected additional capital expenditure allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014, we allow the actual additional capital expenditure claimed by the Petitioner.

*(b) D-Type Quarters*

18. The Petitioner has claimed actual additional capital expenditure of Rs.371.06 lakh in 2014-15 and Rs.41.53 lakh in 2015-16 for D-Type Quarters under Regulation 14(1)(ii) read with Regulation 14(2)(iv) of the 2014 Tariff Regulations. In justification



for the same, the Petitioner has submitted that the Commission vide order dated 3.3.2017 in Petition No. 340/GT/2014 had granted liberty to the Petitioner to claim the expenditure with documentary evidence at the time of truing-up of tariff. The Petitioner has submitted that the contract for Civil Work of Permanent Township (PTS) was awarded to M/s Ober Construction Enterprises Private Limited vide Letter of Award dated 31.3.2010 for 74 numbers of "D" type quarters. It has also submitted that the construction work for the said 'Quarters' began on 15.4.2010, but got delayed due to various factors like, getting clearance from Forest department, Shortage of sand required for the construction work during the period from August 2013 onwards due to ban by National Green Tribunal (NGT) vide order dated 5.8.2013. The NGT order was implemented by the District administration in Korba area, which was lifted only by January 2014, thereby causing non-availability of the construction material for about six (6) months. In support of its claim, the Petitioner has submitted documentary evidence such as copy of letter dated 24.4.2010 written by the Petitioner to Forest Development Corporation, Chhattisgarh for permission to cut trees in silver jubilee park, Copy of order dated 26.8.2013 of Ministry of Environment, Forest and Climate Change granting stay on mining and also newspaper cuttings with regard to environmental clearances. The Petitioner has accordingly submitted that since these reasons were beyond the control of the Petitioner, the actual additional capital expenditure claimed may be allowed.

19. The Respondents, MPPMCL and CSPDCL have submitted that the additional capitalization claimed towards construction of D-type quarters, should have been completed before the cut-off date, and the reasons submitted by the Petitioner cannot be considered as reasons for delay. The Respondents have also submitted that it is not clear from the submissions of the Petitioner as to whether clearance/permission



was granted to the Petitioner as no letter/reply of the Forest department granting permission to the Petitioner has been annexed with the petition. The Respondents have further submitted that as there is no provision for claiming IDC beyond the cut-off date, the same may not be allowed to be capitalized. In response, the Petitioner has clarified that it has furnished the documentary evidence in terms of the liberty granted by the Commission in its order dated 3.3.2017 in Petition No. 340/GT/2014. As regards IDC, the Petitioner has submitted that it is entitled to claim IDC up to the date of capitalization of the expenditure, as evident in Form-9 appended to the 2014 Tariff Regulations. The Petitioner has further stated that IDC forms part of the construction cost and has been incurred on actual funds deployed on debt for successful completion of the said works. It has added that as per accounting principle, the asset/work has been capitalized, based on the total expenditure incurred (including cost of fund/interest etc.), and it always includes IDC. The Petitioner has therefore prayed that since the delay in completion of the works was due to uncontrollable factors, the entire cost incurred by the Petitioner may be allowed.

20. The matter has been considered. It is observed that Petitioner's claim in Petition No.340/GT/2014 for projected additional capital expenditure of Rs.220.00 lakh in 2014-15 for the said asset/item under Regulation 14(1)(ii) and Regulation 54 of the 2014 Tariff Regulations was disallowed vide order dated 3.3.2017 on account of absence of any documentary evidence substantiating the delay on account of the factors mentioned therein. However, liberty was granted to the Petitioner to approach the Commission with documentary evidence at the time of truing up of tariff of the generating station. The relevant portion of the order is extracted below:

*"35. We have examined the matter in view of the submissions of the petitioner. The petitioner has submitted that the delay was on account of delay in receiving clearance from the forest department and shortage of construction material. It is observed that the*



*petitioner has not submitted any documentary evidence substantiating the delay on account of forest clearance and shortage of construction material. Further, the petitioner has also not submitted how much delay is on account of which factor. In absence of the same we are not in position to carry out prudence and therefore have not considered the additional capital expenditure. The petitioner however is at liberty to approach the Commission with documentary evidence at the time of truing up”.*

21. The Petitioner has furnished the relevant documents in justification of the said claim towards the said asset/works. On prudence check of the same, we note that the reasons for the delay in completion of this work are beyond the control of the Petitioner. Therefore, the actual additional capital expenditure claimed by the Petitioner beyond the cut-off date is allowed under Regulation 14(1)(ii) read with Regulation 54 (Power to relax) of the 2014 Tariff Regulations.

22. As regards the IDC claimed beyond the cut-off date, Regulation 9(3)(b) read with Regulation 14(1)(ii) of the 2014 Tariff Regulations provides for consideration of the capital expenditure in respect of existing project as a part of capital cost as per conditions specified therein. Further, the borrowing cost for acquisition, construction and production of qualifying asset is considered as part of the capital cost. As IDC claimed by the Petitioner corresponds to the additional capital expenditure in respect of assets which form part of the original scope of work of the project, but deferred for execution, the IDC claimed by the Petitioner is also allowed.

*(c) Ash Dyke Raising*

23. Against the projected additional capital expenditure of Rs.1350.00 lakh allowed in 2014-17 (i.e., Rs.450.00 lakh in 2014-15, Rs.400.00 lakh in 2015-16 and Rs.500.00 lakh in 2016-17) for Ash Dyke Raising vide order dated 3.3.2017 in Petition No. 340/GT/2014, the Petitioner has claimed actual additional capital expenditure of Rs.2790.96 lakh during the 2014-19 tariff period (i.e. Rs.507.56 lakh in 2014-15, Rs.693.55 lakh in 2015-16, Rs.578.68 lakh in 2016-17, Rs.665.56 lakh in 2017-18 and



Rs.345.61 lakh in 2018-19) under Regulation 14(3)(iv) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the additional capital expenditure claimed has already been admitted by order dated 3.3.2017 in Petition No. 340/GT/2014 and the difference between the projected and claimed amount is only on account of cost escalation.

24. The Respondents, MPPMCL and CSPDCL have submitted that the additional capital expenditure claimed for Ash related works under Regulation 14(1)(ii) and Regulation 14(3)(iv) of the 2014 Tariff Regulations is applicable for additional capital expenditure upto cut-off date (works deferred for execution) and after cut-off date (deferred works of Ash pond in original scope of work). It has pointed out that in order dated 3.3.2017 in Petition No 340/GT/2014 only Rs.2070.00 lakh was allowed as additional capitalisation for the 2014-19 tariff period towards Ash related works. The Respondents have referred to clause 2(2) of the MoEF&CC notification dated 14.9.1999 which provides as follows:

*“2(2) Every coal or lignite based thermal power plant commissioned subject to environmental clearance conditions stipulating the submission of an action plan for full utilisation of fly ash shall, within a period of nine years from the publication of this notification, phase out the dumping and disposal of fly ash on land in accordance with the plan. Such an action plan shall provide for thirty per cent of the fly ash utilisation, within three years from the publication of this notification with further increase in utilisation by atleast ten per cent points every year progressively for the next six years to enable utilisation of the entire fly ash generated in the power plant atleast by the end of ninth year. Progress in this regard shall be reviewed after five years.”*

25. The Respondents have stated that in term of the above, the thermal power generating stations are mandated to phase out the dumping and disposal of fly ash on land, within a period of nine years, from the publication of the said notification i.e., by September, 2008 and there shall be no dumping and disposal of fly ash on land and therefore, there is no requirement of Ash Dyke raising. They have also submitted that the said clause was in existence even prior to the COD of the generating station. The



Respondents have further submitted that the MOEF&CC notification dated 7.12.2015 has also mandated 100% ash utilization by the generating company and therefore there is no requirement for Ash Dyke raising. The Respondents have contended that while the Petitioner, on one hand, is claiming the recovery of Fly Ash transportation cost, it has on the other hand, been claiming expenditure towards Ash Dyke raising, as a result of which the beneficiaries and consumer have to bear the double financial burden. The Respondents have therefore requested that any additional capital expenditure which has not been approved by the Commission earlier but now claimed by the Petitioner may be disallowed. In response, the Petitioner has clarified that the Commission vide order dated 3.3.2017 in Petition No. 340/GT/2014 had granted liberty to the Petitioner to claim expenses against Ash related works, as per actual additional expenditure incurred at the time of truing up of tariff. The Petitioner has also clarified that the expenditure allowed for ash related works in the said order was based on projected figures, which did not include amounts towards IDC and liabilities etc. The Petitioner has submitted that it has claimed the actual additional capital expenditure against the said works in line with Regulation 8(10) of the 2014 Tariff Regulations. It has further submitted that Ash related works are executed in a phased manner, at intermittent intervals, during the life of the generating station, as and when necessitated, and no time frame can be envisaged or fixed for the same as recognized in the Statement of Objects and Reasons (SOR) to the 2009 Tariff Regulations, which is equally acceptable for any tariff period, including the 2014-19 tariff period. The Petitioner has added that Ash Dyke raising is crucial for continuous and sustainable operation of the generating station and it is essential to have adequate capacity to meet the immediate requirement of disposal of ash.





26. The matter has been considered. It is observed that the Commission vide order dated 3.3.2017 in Petition No. 340/GT/2014 had granted liberty to the Petitioner to approach the Commission with actual expenditure at the time of truing up. It is observed that the claim of the Petitioner towards Ash Dyke Raising is for balance payments in respect of deferred works relating to ash pond or ash handling system. In view of this, the actual additional capital expenditure claimed under Regulation 14(3)(iv) of the 2014 Tariff Regulations is allowed.

*(d) Railway Siding for Ash SILO*

27. Against the projected additional capital expenditure of Rs.720.00 lakh allowed in 2015-16 for Railway Siding for Ash SILO vide order dated 3.3.2017 in Petition No. 340/GT/2014, the Petitioner has claimed additional capital expenditure of Rs.560.63 lakh in 2017-18 under Regulation 14(1)(ii) read with Regulation 54 (Power to relax) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the additional capital expenditure claimed by the Petitioner has already been allowed in order dated 3.3.2017 in Petition No. 340/GT/2014.

28. The matter has been considered. It is observed that the Commission vide its order dated 3.3.2017 in Petition No. 340/GT/2014 had allowed the projected additional capital expenditure as under:

*27. We have examined the matter in view of the submissions of the petitioner and since the additional capital expenditure incurred is under original scope of works and is required for successful operation of the plant and the benefits of the same shall be utilised by the beneficiaries hence we are inclined to allow the same and therefore invoke Regulation 54 of the 2014 Tariff Regulations and relax Regulation 14(1)(ii)."*

29. In view of the above and since the actual additional capital expenditure claimed by the Petitioner is lesser than the additional capital expenditure already admitted by



order dated 3.3.2017, the claim of the Petitioner is allowed in terms of Regulation 14(1)(ii) read with Regulation 54 (Power to relax) of the 2014 Tariff Regulations.

## **B. New Claims**

### *(a) Ash Dyke (Starter)*

30. The Petitioner has claimed actual additional capital expenditure of Rs.85.04 lakh in 2016-17 towards Ash Dyke under Regulation 14(3)(iv) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the expenditure claimed is in respect of the balance payments made to the agency for starter dyke, after settlement of bills.

31. The matter has been considered. Though the Petitioner has claimed the said work/item in Form 9A under already approved additional capital expenditure, it is observed that the additional capitalization for this work has not been considered and is therefore a new claim. However, as the claim of the Petitioner towards Ash Dyke (Starter) is in respect of the balance payments made for deferred work relating to ash pond or ash handling system, the same is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations.

### *(b) Ash Handling System package and Ash Water Recirculation System (AWRS)*

32. The Petitioner has claimed total actual additional capital expenditure of Rs.72.68 lakh (i.e., Rs.18.80 lakh in 2014-15, Rs.6.45 lakh in 2016-17, Rs.21.03 lakh in 2017-18 and Rs.26.40 lakh in 2018-19) towards Ash Handling System package and Rs.3.76 lakh (i.e., Rs.2.26 lakh in 2014-15 and Rs.1.49 lakh in 2015-16) towards Ash Water Recirculation System (AWRS) under Regulation 14(1)(i), Regulations 14(2)(iv) and Regulation 14(3)(iv) read with Regulation 54 (Power to Relax) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that these works



pertain to the original scope of work and the same were completed and capitalized within the cut-off date, but the payments withheld, were released to the vendors after completion of the work. The Petitioner has further submitted that the additional capital expenditure claimed is towards balance payment/capitalization which have been discharged/ adjusted on account of the contract closing process of the different packages. The Petitioner has stated that since the work has already been capitalized within the cut-off date and only the balance withheld payments has been released, the additional capital expenditure claimed by the Petitioner may be allowed as prayed for.

33. The matter has been considered. It is observed that the ash related works are deferred works within the original scope of work and these works are continuous in nature during the entire operational lifetime of the generating station. Moreover, the additional capital expenditure claimed is towards balance payments discharged/ adjusted on account of the closure of contract of different packages. In view of this, the additional capital expenditure claimed by the Petitioner is allowed.

*(c) CCTV*

34. The Petitioner has claimed actual additional capital expenditure of Rs.79.08 lakh (i.e., Rs.77.44 lakh in 2014-15 and Rs.1.64 lakh in 2015-16) for CCTV under Regulation 14(3)(iii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the additional capital expenditure incurred is in compliance to the recommendations of the Central Industrial Security Force (CISF) for installation of CCTV at various locations of the generating station from security point of view.

35. The Respondents, MPPMCL and CSPDCL have submitted that the Petitioner has not furnished proper documentary proof to substantiate its claim for additional



capital expenditure of Rs.91.07 lakh (including un-discharged liability of Rs.13.64 lakh) in 2014-15 towards installation of CCTV. The Respondents have pointed out that while on the one hand, the Petitioner has claimed the work for installation of CCTV based on the advice of CISF, it has, on the other hand, submitted that the said work is covered under the original scope of work of project which has already been capitalized prior to the cut-off date and only the balance amount of Rs.1.64 lakh pertain to contract closing process. The Respondents, have further submitted that CISF, stationed at the generating station for security, cannot be considered as an 'Appropriate Government'/ Agency or a statutory authority, to advise or to direct the Petitioner to install CCTV. Therefore, the Respondents have prayed that the expenditure claimed may not be allowed to be capitalized under Regulation 14(3)(iii) of the 2014 Tariff Regulations and the Petitioner may be directed to meet such expenses from the O&M expenses allowed to the generating station. In response, the Petitioner has clarified that CISF is a Statutory Authority or appropriate Government Agency to pass necessary directions to the Petitioner, as it discharges duties under the Ministry of Home Affairs, GOI. It has also submitted that the additional capital expenditure claimed for Rs.1.64 lakh in 2015-16, pertains to payments released on contract closing process and has been inadvertently claimed under Regulation 14(2)(iv) of the 2014 Tariff Regulations, instead of the applicable Regulation 14(3)(v) read with Regulation 14(3)(iii) of the 2014 Tariff Regulations.

36. The matter has been considered. It is observed that the Petitioner has claimed additional capital expenditure of Rs.77.44 lakh in 2014-15 and Rs.1.64 lakh in 2015-16 i.e., beyond the cut-off date. The Petitioner has submitted that the additional capital expenditure incurred is related to project security as per requirement/ recommendations of CISF, which is a statutory agency. Considering the fact that the



assets/ works are necessary for the safety and security of the generating station in terms of the recommendations of the CISF, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.

(d) Balance New Claims (Main Plant Package, Chimney Package, Fire Detection & Protection System etc.)

37. The actual additional capital expenditure claimed by the Petitioner as balance new claims are as under:

(Rs. in lakh)

Sl. No.	Nature of Work/ Equipment	Regulation(s)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	Main Plant package	14(2)(iv), 14(1)(ii) read with 54	430.96	14.12	0.00	0.00	0.00	445.08
2	Chimney package	14(2)(iv)	39.99	0.00	0.00	4.59	0.00	44.57
3	Fire detection & protection System	14(2)(iv), 14(1)(ii) read with 54	0.97	0.00	3.86	0.00	2.29	7.13
4	CW System Package	14(2)(iv)	22.25	0.00	0.00	0.00	3.41	25.66
5	TG System Package	14(2)(iv), 14(1)(ii) read with 54	2.18	67.50	7.81	(-) 0.95	0.00	76.54
6	Electrical System LT Package	14(2)(iv)	84.62	0.00	0.00	(-) 0.43	0.00	84.19
7	Main Plant Civil Works	14(2)(iv), 14(1)(ii) read with 54	65.94	101.91	61.63	13.55	1.34	244.36
8	CHP package	14(2)(iv), 14(1)(ii) read with 54	0.00	0.82	71.11	0.00	0.00	71.93
9	Offsite Civil Works	14(2)(iv)	0.00	0.00	231.56	0.00	0.00	231.56
10	AC & Ventilation	14(2)(iv)	0.00	0.00	7.69	0.00	(-) 6.70	1.00
11	Switchyard Package	14(2)(iv), 14(1)(ii) read with 54	0.00	0.00	10.24	0.00	0.00	10.24
12	Cabling	14(2)(iv), 14(1)(ii) read with 54	0.00	0.00	0.00	36.64	0.00	36.64
13	Lease Hold land	14(2)(iv)	0.00	(-) 1.57	0.00	0.00	0.00	(-) 1.57
14	Water Supply System	14(2)(iv)	0.00	0.00	(-) 2.31	0.00	0.00	(-) 2.31
15	LP Piping	14(2)(iv)	0.00	0.00	(-) 34.14	0.00	0.00	(-) 34.14
16	Township	14(2)(iv)	0.00	0.00	0.00	(-) 1.72	0.00	(-) 1.72
17	Water Treatment Plant & PT Plant	14(2)(iv)	0.00	0.00	0.00	0.00	(-) 16.65	(-) 16.65
	<b>Sub Total</b>		<b>646.91</b>	<b>182.78</b>	<b>357.44</b>	<b>51.67</b>	<b>(-) 16.31</b>	<b>1222.50</b>

38. In justification for the same, the Petitioner has submitted that these works pertain to original scope of work and were completed and capitalized within the cut-off



date but on account of balance finishing job, the payment withheld has been released to the vendors after completion of the work. The Petitioner has further submitted that the expenditure claimed is balance payment made to vendors after defect rectification/ adjustments against certain packages based on contract closing process of different packages. The Petitioner has, therefore, prayed that since the work has already been capitalized within cut-off date and is being used for service of beneficiaries after being put to use, the balance withheld payments towards settlement of final bill may be allowed under Regulation 14(1)(ii) read with Regulation 54 (Power to Relax) of the 2014 Tariff Regulations.

39. The Respondent, MPPMCL has submitted that the submission of the Petitioner that the additional capital expenditure claimed pertains to balance payments/ adjustments, due to contract closing process is incorrect as the payment against Main Plant Package were made every year during the 2014-19 tariff period and therefore, the work against the same were carried out even after the cut-off date. In response, the Petitioner has clarified that these works pertain to the original scope of work and the same were capitalized within the cut-off date. However, as per contract provisions for packages, balance minor payment/retentions have been released to agencies only after carrying out defect rectification. The Petitioner has clarified that contract closing process is an extensive exercise, which ensures that all the relevant provisions related to the completion of work, as per contract, have been complied with by the agencies, as the agency attended to the defects in the respective years, the same were verified by the Petitioner and on successfully attending the defects, the payments withheld against the same were released.



40. The matter has been considered. It is observed that the Petitioner has claimed Rs.1222.50 lakh during the 2014-19 tariff period (i.e. Rs.646.91 lakh in 2014-15, Rs.182.78 lakh in 2015-16, Rs.357.44 lakh in 2016-17, Rs.51.67 lakh in 2017-18, (-) Rs.16.31 lakh in 2018-19) towards balance new claims as mentioned above. It is observed that the Petitioner has claimed the above said works under Regulation 14(2)(iv) of the 2014 Tariff Regulations, which is applicable for capital expenditure in respect of new generating stations (i.e. stations commissioned on or after 1.4.2014) within the original scope of work after the cut-off date as may be admitted by the Commission, subject to prudence check. The COD of the generating station is 21.3.2011 and therefore the claim of the Petitioner for approval of additional capital expenditure in respect of the said works in terms of Regulation 14(2)(iv) is not applicable or relevant. It is further observed that the Petitioner, in justification of the said claim, has mentioned that these works pertain to original scope of work which were completed and capitalized within the cut-off date, but only the balance withheld payments were released to the vendors. In that event, the Petitioner should have claimed the additional capital expenditure under Regulation 14(3)(v) of the 2014 Tariff Regulations. Since the above expenditure incurred by the Petitioner pertains to original scope of work and payment to the vendors were made after completion of defect liability period against certain packages after reconciliation and closure of contracts, the said additional capital expenditure is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.

### **De-capitalization**

41. The Petitioner has claimed de-capitalization of Rs.881.04 lakh during the 2014-19 tariff period (i.e. Rs.100.38 lakh in 2014-15, Rs.53.89 lakh in 2015-16, Rs.155.77 lakh in 2016-17, Rs.307.75 lakh in 2017-18 and Rs.263.24 lakh in 2018-19) under



Regulation 14(4) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that these assets were de-capitalized as these became unserviceable.

42. The Respondents, MPPMCL and CSPDCL have submitted that the Petitioner has claimed de-capitalization of spares and other items amounting to Rs.100.38 lakh in the very first year of control period without any proper justification, which is not justifiable at such an early stage of operation. The Respondents have requested to disallow the same as the same would burden the beneficiaries on account of replacement of de-capitalised assets with much costlier new assets. In response, the Petitioner has clarified that in order to meet the customers demand and maintain high machine availability at all times, the equipment's were taken under overhaul/maintenance and inspected regularly for wear & tear. It has also submitted that there were several spares including C&I spares with short life span or whose life span could not be predicted. Also, there were several tools and tackles of recurring nature which became unserviceable/damaged due to regular wear and tear, as observed in every generating station. The Petitioner has further submitted that the de-capitalization of capital spares in the respective years has been indicated in Form 9A, thereby reducing the capital cost and hence lowering the tariff of the generating station. The Petitioner, has, therefore requested that as capital spares are admissible separately as part of O&M expenses under Regulation 29(2) of the 2014 Tariff Regulations, the claim of Petitioner against de-capitalization of capital spares may be allowed.

43. The matter has been examined. Regulation 14(4) of the 2014 Tariff Regulations provides that the original value of de-capitalised assets shall be deducted from the





capital cost allowed to the generating station. Accordingly, the de-capitalisation of these assets as claimed by the Petitioner is allowed as under:

(Rs. in lakh)

Head of Work/ Equipment	Year put to use	Original value of the assets capitalized				
		2014-15	2015-16	2016-17	2017-18	2018-19
Spares - Admitted (Claimed as additional capitalisation)	2010-11	11.41	0.00	155.77	307.75	263.24
	2011-12	33.64	0.00	0.00	0.00	0.00
	2012-13	55.33	0.00	0.00	0.00	0.00
Coupling between Gearbox-Booster Pump	2011-12	0.00	2.66	0.00	0.00	0.00
IL Palghat make PNEU Actuator model: VA2R	2011-12	0.00	0.81	0.00	0.00	0.00
PNEU Actuator-VA2D	2011-12	0.00	1.01	0.00	0.00	0.00
HP CV (all items) DRG 01122305000000	2012-13	0.00	49.42	0.00	0.00	0.00
<b>Sub-Total</b>		<b>100.38</b>	<b>53.89</b>	<b>155.77</b>	<b>307.75</b>	<b>263.24</b>

### **Discharges and Un-discharged Liabilities**

44. The un-discharged liabilities claimed by the Petitioner as on 1.4.2014 are Rs.7442.97 lakh, which matches with the records available in the Commission. Accordingly, the same has been considered as un-discharged liabilities as on 1.4.2014. Further, the Petitioner has claimed total un-discharged liability of Rs.890.53 lakh during 2014-19 (i.e. Rs.424.59 lakh in 2014-15, Rs.140.64 lakh in 2015-16, Rs.184.73 lakh in 2016-17, Rs.95.88 lakh in 2017-18 and Rs.44.69 lakh in 2018-19) and the same has been considered for the purpose of tariff.

45. The Petitioner has also claimed total discharge of liabilities amounting to Rs.3494.83 lakh (Rs.1480.13 lakh in 2014-15, Rs.766.68 lakh in 2015-16, Rs.785.17 lakh in 2016-17, Rs.231.22 lakh in 2017-18 and Rs.231.63 lakh in 2018-19) and the same has been considered for the purpose of tariff.

46. Further, the total reversal of liabilities of Rs.531.84 lakh (Rs.352.34 lakh in 2014-15, Rs.29.57 lakh in 2015-16, Rs.6.23 lakh in 2016-17, Rs.38.48 lakh in 2017-18



and Rs.105.22 lakh in 2018-19) has been considered while calculating un-discharged liabilities as on 31.3.2019. Accordingly, the un-discharged liabilities corresponding to the capital cost allowed as on 31.3.2019 works out to Rs.4306.83 lakh as stated under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening liabilities corresponding to allowed capital cost	7442.97	6035.10	5379.49	4772.81	4598.99
Add: Liability additions corresponding to allowed capital cost	424.59	140.64	184.73	95.88	44.69
Less: Discharges of liabilities corresponding to allowed capital cost	1480.13	766.68	785.17	231.22	231.63
Less: Reversal of liabilities corresponding to allowed capital cost	352.34	29.57	6.23	38.48	105.22
<b>Closing liabilities corresponding to allowed capital cost</b>	<b>6035.10</b>	<b>5379.49</b>	<b>4772.81</b>	<b>4598.99</b>	<b>4306.83</b>

### **Reconciliation of Additional Capital Expenditure**

47. The reconciliation of the actual additional capital expenditure for the 2014-19 tariff period with books of accounts are as under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Closing gross block as per audited books of accounts*	518234.07	549218.83	384075.21	327204.36	332652.62
Less: Opening gross block as per audited books of accounts*	494521.36	518234.07	331375.56	384075.21	327204.36
<b>Additional capital expenditure as per audited books of accounts*</b>	<b>23712.71</b>	<b>30984.77</b>	<b>52699.65</b>	<b>(-) 56870.84</b>	<b>5448.26</b>
Less: ACE pertaining to other Stages / Mining Project*	20448.33	27950.50	46086.18	(-) 61595.47	4462.61
<b>Additional capital expenditure as per books of accounts pertaining to</b>	<b>3264.37</b>	<b>3034.26</b>	<b>6613.47</b>	<b>4724.62</b>	<b>985.65</b>



	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Korba-III*</b>					
Less: IND AS adjustments	0.00	0.00	4828.22	3237.12	922.83
<b>Additional capital expenditure pertaining to Korba-III, as per IGAAP</b>	<b>3264.37</b>	<b>3034.26</b>	<b>1785.24</b>	<b>1487.50</b>	<b>62.82</b>
Less: Exclusions	1316.13	1901.84	728.67	400.48	(-) 74.34
<b>Additional capital expenditure claimed for the generating station (on accrual basis)</b>	<b>1948.25</b>	<b>1132.42</b>	<b>1056.57</b>	<b>1087.03</b>	<b>137.16</b>
Less: Un-discharged liabilities included in above	424.59	140.64	184.73	95.88	44.69
<b>Additional capital expenditure claimed for this generating station (on cash basis)</b>	<b>1523.65</b>	<b>991.78</b>	<b>871.84</b>	<b>991.15</b>	<b>92.47</b>
Add: Discharges	1480.13	766.68	785.17	231.22	231.63
<b>Net Additional capital expenditure claimed for this generating station (on cash basis)</b>	<b>3003.78</b>	<b>1758.46</b>	<b>1657.01</b>	<b>1222.37</b>	<b>324.09</b>

\* As per IGAAP for the period 2014-16 and IND AS for the period 2016-19.

## **Exclusions**

48. The admissibility of exclusions claimed by the Petitioner are discussed below:

### **Items not claimed**

#### **(a) Capitalization of Spares**

49. The Petitioner has procured capital spares amounting to Rs.804.47 lakh including un-discharged liability of Rs.16.63 lakh in 2014-15, Rs.640.64 lakh including un-discharged liability of Rs.18.14 lakh in 2015-16, Rs.837.22 lakh including un-discharged liability of Rs.12.04 lakh in 2016-17, Rs.476.39 lakh including un-discharged liability of Rs.30.55 lakh in 2017-18 and Rs.161.37 lakh including un-discharged liability of Rs.49.32 lakh in 2018-19. In justification, the Petitioner has submitted that as capital spares capitalized after the cut-off date are not allowed in



terms of the 2014 Tariff Regulations the same has been kept under exclusions. Since capitalization of spares over and above Initial spares, procured after the cut-off date of the generating station are not allowed for the purpose of tariff, as they form part of O&M expenses as and when consumed, the Petitioner has excluded the said amount. Accordingly, the exclusion claimed by the Petitioner under this head is in order and is allowed.

***(b) Capitalisation of MBOA Items***

50. The Petitioner has procured Miscellaneous Bought out Assets (MBOAs) amounting to Rs.473.91 lakh including un-discharged liability of Rs.8.66 lakh in 2014-15 and Rs.6.75 lakh including un-discharged liability of Rs.0.30 lakh in 2015-16. In justification of the same, the Petitioner has submitted that as capitalization of MBOA procured after the cut-off date of the generating station is not allowed for the purpose of tariff, the Petitioner has excluded the said amount. The exclusion claimed by the Petitioner under this head is in order and is allowed.

***(c) Ultrasonic Flowmeter***

51. The Petitioner has claimed an amount of Rs.11.02 lakh (no un-discharged liability) in 2014-15 towards Ultrasonic Flowmeter. In justification of the same, the Petitioner has submitted that since capitalization of these items is not admissible as per the 2014 Tariff Regulations, the same has been excluded. As the capitalization of these items is not admissible as per the 2014 Tariff Regulations, the same has been excluded. In view of the fact that positive entries corresponding to the disallowed assets were not allowed to be a part of the capital cost for the purpose of tariff, the exclusion (of positive entries) as claimed and effected by the Petitioner is in order and hence allowed.



***(d) Simulator Package***

52. The Petitioner has claimed an amount of Rs.385.48 lakh (including undischarged liability of Rs.75.42 lakh) in 2015-16, Rs.3.25 lakh (including undischarged liability of Rs.2.18 lakh) in 2016-17 and Rs.7.80 lakh (including nil undischarged liability) in 2018-19 towards Simulator Package. In justification of the same, the Petitioner has submitted that this asset/item was not allowed in order dated 3.3.2017 in Petition No. 340/GT/2014 as part of capital cost for the tariff and same was directed to be booked under O&M expenses. Accordingly, the same has been kept under exclusion. As capitalization of these items is not admissible in terms of the 2014 Tariff Regulations, the same has been excluded. In view of the fact that positive entries corresponding to the disallowed assets were not allowed to be a part of the capital cost for the purpose of tariff, the exclusion (of positive entries) as claimed and effected by the Petitioner is in order and hence allowed.

**De-capitalization**

***(a) De-capitalization of Capital Spares (not part of capital cost)***

53. The Petitioner has excluded de-capitalized spares amounting to (-) Rs.99.29 lakh in 2014-15, (-) Rs.179.94 lakh in 2015-16, (-) Rs.0.28 lakh in 2017-18 and (-) Rs.25.62 lakh in 2018-19 for the purpose of tariff. In justification of the same, the Petitioner has submitted that the items do not pertain to the capital cost allowed by the Commission and accordingly, the capitalization of spares has been claimed as exclusion in the present petition. It is further observed that the Petitioner has not mentioned the year of capitalisation of the above spares in support of its claim. However, the Petitioner has certified that these spares were not allowed by the Commission in order dated 31.8.2015 in Petition No. 208/GT/2013 and Petition No.



305/GT/2014. It is observed that by order dated 20.6.2016 in Review Petition No. 26/RP/2015 in Petition No. 208/GT/2013 and Petition No. 305/GT/2014, the initial spares amounting to Rs.99.46 lakh were disallowed. Therefore, it appears that the de-capitalised spares claimed under exclusion (as not part of capital cost) forms part of the spares disallowed in order dated 20.6.2016 in Review Petition No. 26/RP/2015 in Petition No. 208/GT/2013 and Petition No. 305/GT/2014. Since capitalization of above mentioned spares were not allowed, they do not form part of the capital cost for the purpose of tariff. Hence, the exclusion of de-capitalization of the spares as claimed by the Petitioner, is in order and allowed.

***(b) De-capitalization of Miscellaneous Bought out Assets (MBOA) forming part of the capital cost***

54. The Petitioner has claimed de-capitalized MBOA amounting to (-) Rs.13.08 lakh in 2014-15, (-) Rs.9.34 lakh in 2015-16, (-) Rs.92.08 lakh in 2016-17, (-) Rs.21.41 lakh in 2017-18 and (-) Rs.2.14 lakh in 2018-19. The de-capitalization of MBOA includes EDP, WP machines & SATCOM Equipment, Furniture & Fixture, Other Office Equipment's and Hospital Equipment's which were capitalized prior to the cut-off date of the generating station i.e., 31.3.2014. Hence, de-capitalized amount pertains to MBOA which form part of the capital cost of the generating station for the purpose of the tariff. As such, in terms of Regulation 14(4) of the 2014 Tariff Regulations, the de-capitalized amount needs to be deducted for arriving at the capital cost for the purpose of tariff. Accordingly, the exclusion claimed by the Petitioner on account of de-capitalization of MBOA is not in accordance to Regulation 14(4) of the 2014 Tariff Regulations and hence not allowed for the purpose of tariff.

***(c) Loan FERV***

55. The Petitioner has excluded amounts of Rs.511.55 lakh in 2014-15 and Rs.1105.22 lakh in 2015-16 on account of Loan FERV. The Petitioner has submitted



that it is entitled to directly claim ERV on foreign currency loans as per the 2014 Tariff Regulations and therefore, has kept FERV under exclusion. As the Petitioner is required to bill the said amount directly on the beneficiaries, the exclusion of loan ERV is allowed.

**(d) Inter-Unit Transfer**

56. The Petitioner has excluded amounts of (-) Rs.20.12 lakh in 2014-15, (-) Rs.17.38 lakh in 2015-16, (-) Rs.12.63 lakh in 2016-17, (-) Rs.9.18 lakh in 2017-18 and (-) Rs.13.31 lakh in 2018-19 on account of Inter-Unit Transfer. In justification of the same, the Petitioner has submitted that items under inter unit transfer were not considered by the Commission for tariff purpose and hence kept under exclusion. We are of the considered view that both positive and negative entries arising out of inter unit-transfers of temporary nature shall be ignored for the purpose of tariff. In view of above, the exclusion of inter-unit transfer as claimed by the Petitioner is allowed.

**(e) Reversal of Liability**

57. The Petitioner has claimed reversal of liability of (-) Rs.352.34 lakh in 2014-15, (-) Rs.29.57 lakh in 2015-16, (-) Rs.6.23 lakh in 2016-17, (-) Rs.38.48 lakh in 2017-18 and (-) Rs.105.22 lakh in 2018-19 of the same value as un-discharged liability (zero on net basis). The Petitioner has submitted that as tariff allowed is on cash basis, the reversal of liabilities has been kept under exclusion. We agree with the submissions of the Petitioner that reversal of liabilities shall not impact the capital cost considered for the purpose of tariff, determined on cash basis. Accordingly, the exclusion claimed by the Petitioner is in order and allowed.

**(f) De-capitalization of Miscellaneous Bought out Assets (MBOA) not forming part of the capital cost**



58. The Petitioner has claimed exclusion of de-capitalized MBOA amounting to (-) Rs.0.85 lakh in 2016-17, (-) Rs.6.40 lakh in 2017-18 and (-) Rs.97.23 lakh in 2018-19, on the ground that the same do not form part of the allowed capital cost. On scrutiny of Form-9Bi, it is observed that the Petitioner has mentioned that the assets corresponding to de-capitalisation of Rs.97.23 lakh in 2018-19 was originally put to use in 2015-16, however in the remarks column the same has been mentioned as originally claimed under exclusion in 2014-15. On scrutiny of Form-9Bi for the year 2015-16 vis-à-vis Form-9D for the years 2014-15 and 2015-16, this de-capitalisation of Rs.97.23 lakh appears to have been originally put to use in 2014-15 itself. As such, the year of put to use of de-capitalised MBOA of Rs.97.23 lakh has been considered as 2014-15. Also, considering the fact that the de-capitalised MBOA's claimed for exclusion during the period 2016-19 do not form part of the allowed capital cost, the exclusion for the same is allowed for the purpose of tariff.

**(g) Portable Alloy Analyser**

59. The Petitioner has claimed exclusion of Portable alloy analyser for (-) Rs.0.17 lakh in 2017-18 which do not form part of the capital cost. In justification, the Petitioner has submitted that that said item has not been allowed in tariff and therefore, has been claimed under exclusion. It is observed that the claimed item is in the nature of tools and tackles and do not form part of mandatory equipment's of the generating station. Therefore, the asset and item claimed does not form part of the capital cost and thus, the exclusion for de-capitalization of these MBOA items for the said amount is allowed.

**(h) Reclassification**

60. With regard to the expenditure on reclassification, Form-9D as furnished by the Petitioner indicates an expenditure of Rs.14664.02 lakh in 2015-16 towards Main





Plant building/Other building/Plant & Machinery and with corresponding negative entry of the same amount towards Plant & Machinery. As such, after adjustment, the net claim against reclassification is reduced to zero. The Petitioner has further claimed exclusion of similar adjustment pertaining to Land (Rehabilitation & Resettlement) and Plant & Machinery, positive entry of Rs.1000.00 lakh in 2018-19 towards Plant & Machinery and corresponding negative entry of the same amount towards Land (Rehabilitation & Resettlement) in the same year. As such, after adjustment, the net claim against such reclassification in 2018-19 is reduced to zero. Considering the fact that the expenditure claimed above for both years i.e 2015-16 and 2018-19 is an accounting adjustment entry, the exclusion of the same is allowed.

61. Accordingly, the summary of exclusions allowed/ not allowed is as follows:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Exclusions claimed <b>(A)</b>	1316.13	1901.84	728.67	400.48	(-) 74.34
Exclusions allowed <b>(B)</b>	1329.20	1911.18	820.75	421.89	(-) 72.20
<b>Exclusion not Allowed (A-B)</b>	(-) 13.08	(-) 9.34	(-) 92.08	(-) 21.41	(-) 2.14

62. Based on the above discussion, the additional capital expenditure claimed and allowed for the 2014-19 tariff period is summarised as follows:

*(Rs. in lakh)*

Sl. No.	Head of Work/Equipment		2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>A</b>	<b>Additional Capital Expenditure allowed in order dated 3.3.2017 in Petition No. 340/GT/2014</b>							
1	Hydrogen Generation Building	Claimed	0.00	124.69	0.00	0.00	0.00	124.69
		Allowed	0.00	124.69	0.00	0.00	0.00	124.69
2	D-Type Quarters	Claimed	371.06	41.53	0.00	0.00	0.00	412.59
		Allowed	371.06	41.53	0.00	0.00	0.00	412.59
3	Ash Dyke Raising	Claimed	507.56	693.55	578.68	665.56	345.61	2790.96
		Allowed	507.56	693.55	578.68	665.56	345.61	2790.96
4	Railway Siding for Ash SILO	Claimed	0.00	0.00	0.00	560.63	0.00	560.63
		Allowed	0.00	0.00	0.00	560.63	0.00	560.63
	<b>Sub Total (A)</b>	Claimed	878.62	859.76	578.68	1226.19	345.61	3888.87
		Allowed	<b>878.62</b>	<b>859.76</b>	<b>578.68</b>	<b>1226.19</b>	<b>345.61</b>	<b>3888.87</b>
<b>B</b>	<b>New Claims</b>							
5	Ash Dyke (Starter)	Claimed	0.00	0.00	85.04	0.00	0.00	85.04
		Allowed	0.00	0.00	85.04	0.00	0.00	85.04
6	Main Plant package	Claimed	430.96	14.12	0.00	0.00	0.00	445.08
		Allowed	430.96	14.12	0.00	0.00	0.00	445.08
7	Chimney package	Claimed	39.99	0.00	0.00	4.59	0.00	44.57
		Allowed	39.99	0.00	0.00	4.59	0.00	44.57
8	Fire detection & protection	Claimed	0.97	0.00	3.86	0.00	2.29	7.13



Sl. No.	Head of Work/Equipment		2014-15	2015-16	2016-17	2017-18	2018-19	Total
	System	Allowed	0.97	0.00	3.86	0.00	2.29	7.13
9	CW System Package	Claimed	22.25	0.00	0.00	0.00	3.41	25.66
		Allowed	22.25	0.00	0.00	0.00	3.41	25.66
10	TG System Package	Claimed	2.18	67.50	7.81	(-) 0.95	0.00	76.54
		Allowed	2.18	67.50	7.81	(-) 0.95	0.00	76.54
11	Ash Handling System package	Claimed	18.80	0.00	6.45	21.03	26.40	72.68
		Allowed	18.80	0.00	6.45	21.03	26.40	72.68
12	Ash Water Recirculation System (AWRS)	Claimed	2.26	1.49	0.00	0.00	0.00	3.76
		Allowed	2.26	1.49	0.00	0.00	0.00	3.76
13	Electrical System LT Package	Claimed	84.62	0.00	0.00	(-) 0.43	0.00	84.19
		Allowed	84.62	0.00	0.00	(-) 0.43	0.00	84.19
14	Main Plant Civil Works	Claimed	65.94	101.91	61.63	13.55	1.34	244.36
		Allowed	65.94	101.91	61.63	13.55	1.34	244.36
15	CHP package	Claimed	0.00	0.82	71.11	0.00	0.00	71.93
		Allowed	0.00	0.82	71.11	0.00	0.00	71.93
16	CCTV	Claimed	77.44	1.64	0.00	0.00	0.00	79.08
		Allowed	77.44	1.64	0.00	0.00	0.00	79.08
16	Offsite Civil	Claimed	0.00	0.00	231.56	0.00	0.00	231.56
		Allowed	0.00	0.00	231.56	0.00	0.00	231.56
17	AC & Ventilation	Claimed	0.00	0.00	7.69	0.00	(-) 6.70	1.00
		Allowed	0.00	0.00	7.69	0.00	(-) 6.70	1.00
18	Switchyard Package	Claimed	0.00	0.00	10.24	0.00	0.00	10.24
		Allowed	0.00	0.00	10.24	0.00	0.00	10.24
19	Cabling	Claimed	0.00	0.00	0.00	36.64	0.00	36.64
		Allowed	0.00	0.00	0.00	36.64	0.00	36.64
20	Lease Hold land	Claimed	0.00	(-) 1.57	0.00	0.00	0.00	(-) 1.57
		Allowed	0.00	(-) 1.57	0.00	0.00	0.00	(-) 1.57
21	Water Supply System	Claimed	0.00	0.00	(-) 2.31	0.00	0.00	(-) 2.31
		Allowed	0.00	0.00	(-) 2.31	0.00	0.00	(-) 2.31
22	LP Piping	Claimed	0.00	0.00	(-) 34.14	0.00	0.00	(-) 34.14
		Allowed	0.00	0.00	(-) 34.14	0.00	0.00	(-) 34.14
23	Township	Claimed	0.00	0.00	0.00	(-) 1.72	0.00	(-) 1.72
		Allowed	0.00	0.00	0.00	(-) 1.72	0.00	(-) 1.72
24	Water Treatment Plant & PT Plant	Claimed	0.00	0.00	0.00	0.00	(-) 16.65	(-) 16.65
		Allowed	0.00	0.00	0.00	0.00	(-) 16.65	(-) 16.65
	<b>Sub Total (B)</b>	Claimed	745.41	185.91	448.93	72.70	10.09	1463.05
		Allowed	745.41	185.91	448.93	72.70	10.09	1463.05
<b>C</b>	<b>Total Additional Capital Expenditure (C)=(A+B)</b>	Claimed	<b>1624.03</b>	<b>1045.68</b>	<b>1027.61</b>	<b>1298.89</b>	<b>355.70</b>	<b>5351.92</b>
		Allowed	<b>1624.03</b>	<b>1045.68</b>	<b>1027.61</b>	<b>1298.89</b>	<b>355.70</b>	<b>5351.92</b>
<b>D</b>	<b>De-capitalization</b>							
25	De-capitalization of Spares (Part of Capital Cost)	Claimed	100.38	53.89	155.77	307.75	263.24	881.04
		Allowed	100.38	53.89	155.77	307.75	263.24	881.04
	<b>Sub Total (D)</b>	Claimed	<b>100.38</b>	<b>53.89</b>	<b>155.77</b>	<b>307.75</b>	<b>263.24</b>	<b>881.04</b>
		Allowed	<b>100.38</b>	<b>53.89</b>	<b>155.77</b>	<b>307.75</b>	<b>263.24</b>	<b>881.04</b>
<b>E</b>	<b>Liability Discharge</b>							
26	Add. Discharge of Liabilities pertaining to allowed works for prior period	Claimed	1480.13	766.68	785.17	231.22	231.63	3494.83
		Allowed	1480.13	766.68	785.17	231.22	231.63	3494.83
	<b>Total Additional Capital Expenditure</b>	Claimed	<b>3003.78</b>	<b>1758.46</b>	<b>1657.01</b>	<b>1222.37</b>	<b>324.09</b>	<b>7965.71</b>
		Allowed	<b>3003.78</b>	<b>1758.46</b>	<b>1657.01</b>	<b>1222.37</b>	<b>324.09</b>	<b>7965.71</b>
27	<b>Exclusion not allowed</b>		(-) 13.08	(-) 9.34	(-) 92.08	(-) 21.41	(-) 2.14	(-) 138.05
	<b>Net Additional Capitalization allowed excluding Exclusions</b>	Claimed	<b>3003.78</b>	<b>1758.46</b>	<b>1657.01</b>	<b>1222.37</b>	<b>324.09</b>	<b>7965.71</b>
		Allowed	<b>2990.71</b>	<b>1749.12</b>	<b>1564.93</b>	<b>1200.95</b>	<b>321.95</b>	<b>7827.66</b>

### Capital cost allowed for the 2014-19 tariff period



63. Accordingly, the capital cost approved for the 2014-19 tariff period is summarized below:

	<i>(Rs. in lakh)</i>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Capital Cost	250011.40	253002.11	254751.23	256316.16	257517.11
Add: Admitted Additional capital expenditure	2990.71	1749.12	1564.93	1200.95	321.95
<b>Closing Capital Cost</b>	<b>253002.11</b>	<b>254751.23</b>	<b>256316.16</b>	<b>257517.11</b>	<b>257839.06</b>
Average Capital Cost	251506.75	253876.67	255533.69	256916.63	257678.08

### **Debt-Equity Ratio**

64. Regulation 19 of the 2014 Tariff Regulations provides as follows:

*“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that*

- (i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
- (ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- (iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*

**Explanation-***The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

*(2) The generating company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

*(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered:*

*(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.*



(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

65. The gross normative loan and equity amounting to Rs. 177245.23 lakh and Rs. 72766.16 lakh as considered in order dated 3.3.2017 in Petition No. 340/GT/2014 has been considered for the purpose of tariff. Further, the additional capital expenditure admitted as above has been allocated in the debt-equity ratio of 70:30. The details of debt and equity considered for the purpose of tariff are as follows:

**(Rs. in lakh)**

	Capital cost as on 1.4.2014		Additional Capital Expenditure 2014-19		Capital cost as on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt (A)	177245.23	70.89%	5479.36	70.00%	182724.60	70.87%
Equity (B)	72766.16	29.11%	2348.30	30.00%	75114.46	29.13%
<b>Total (C) = (A) + (B)</b>	<b>250011.40</b>	<b>100.00%</b>	<b>7827.66</b>	<b>100.00%</b>	<b>257839.06</b>	<b>100.00%</b>

### **Return on Equity**

66. Regulation 24 of the 2014 Tariff Regulations provides as follows:

*“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.*

*(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:*

*Provided that:*

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:*
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:*
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:*
- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:*



- (v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- (vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometer.”

67. Regulation 25 of the 2014 Tariff Regulations provides as follows:

*“25. Tax on Return on Equity:*

*(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee as the case may be. The actual tax income on other income stream (i.e. income of non-generation or non-transmission business as the case may be) shall not be considered for the calculation of “effective tax rate”.*

*(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:*

*Rate of pre-tax return on equity = Base rate / (1-t) Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business as the case may be and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT) “t” shall be considered as MAT rate including surcharge and cess.*

*Illustration.*

*(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = 15.50/(1-0.2096) = 19.610%*

*(ii) In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:*

*(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.*

*(b) Estimated Advance Tax for the year on above is Rs 240 crore.*

*(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore/Rs 1000 Crore = 24%*

*(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%*

*(3) The generating company or the transmission licensee as the case may be shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty if any arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after trueing up shall be recovered or refunded to beneficiaries or the long-term transmission customers/DICs as the case may be on year to year basis.”*

68. The Petitioner has claimed Return on Equity (ROE) for the 2014-19 tariff period after grossing up the base rate of ROE of 15.50% with the effective tax rates (based



on MAT rates) for each year, as per Regulation 25 of the 2014 Tariff regulations. ROE has been trued-up on the basis of the MAT rate applicable in the respective years and is allowed as under:

	<b>(Rs. in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Normative Equity-Opening	72766.16	73663.38	74188.11	74657.59	75017.88
Add: Addition of Equity due to additional capital expenditure	897.21	524.74	469.48	360.29	96.59
<b>Normative Equity-Closing</b>	<b>73663.38</b>	<b>74188.11</b>	<b>74657.59</b>	<b>75017.88</b>	<b>75114.46</b>
Average Normative Equity	73214.77	73925.74	74422.85	74837.73	75066.17
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%
<b>Return on Equity (Pre-Tax) (annualized)</b>	<b>14357.42</b>	<b>14567.07</b>	<b>14665.02</b>	<b>14746.78</b>	<b>14831.57</b>

### **Interest on Loan**

69. Regulation 26 of the 2014 Tariff Regulations provides as follows:

*“26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*

*(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*

*(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of Decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization of such asset*

*(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered*

*Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered*

*(6) The interest on loan shall be calculated on the normative average loan of the year*



*by applying the weighted average rate of interest.*

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

*(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

*Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”*

70. Interest on loan has been worked out as under:

- (a) Gross normative loan amounting to Rs.177245.23 lakh as considered in order dated 3.3.2017 in Petition No. 340/GT/2014 has been retained as on 1.4.2014;
- (b) Cumulative repayment amounting to Rs.36831.48 lakh as considered in order dated 3.3.2017 in Petition No. 340/GT/2014, has been retained as on 1.4.2014;
- (c) Accordingly, the net normative opening loan as on 1.4.2014 is Rs.140413.75 lakh;
- (d) Addition to normative loan on account of additional capital expenditure approved above has been considered;
- (e) Depreciation allowed has been considered as repayment of normative loan during the respective year of the 2014-19 tariff period. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff;
- (f) The Petitioner has claimed WAROI of 9.3499% in 2014-15, 8.8085% in 2015-16, 8.4882% in 2016-17, 8.0698% in 2017-18 and 7.6195% in 2018-19. In line with the provisions of the regulations stated above, the weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.4.2014, along with subsequent additions during the 2014-19 tariff period, if any, for the generating station. During the tariff period, the Petitioner has refinanced some of the loans like IDFC, LIC-V, LIC-IV, OBC, BOM-III & IV, ICICI-VI etc. and the same along with corresponding additions have been considered for the purpose of tariff. In case of loans carrying floating rate of interest, the details of rate of interest, as furnished by the Petitioner, has been considered for the purpose of tariff.



71. Necessary calculation for interest on loan is as follows:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Gross opening loan	177245.23	179338.73	180563.11	181658.56	182499.23
B	Cumulative repayment of loan upto previous year	36831.48	49839.89	62870.52	75813.85	88774.91
C	<b>Net Loan Opening (A-B)</b>	<b>140413.75</b>	<b>129498.84</b>	<b>117692.59</b>	<b>105844.71</b>	<b>93724.32</b>
D	Addition due to additional capital expenditure	2093.50	1224.38	1095.45	840.67	225.37
E	Repayment of loan during the Period	13023.35	13040.78	13006.24	13070.15	13108.68
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	13030.63	12943.33	12961.06	13005.91
H	<b>Net Loan Closing (C+D- G)</b>	<b>129498.84</b>	<b>117692.59</b>	<b>105844.71</b>	<b>93724.32</b>	<b>80943.78</b>
I	Average Loan [(C+H)÷2]	134956.30	123595.72	111768.65	99784.52	87334.05
J	Weighted Average Rate of Interest of loan	9.2976%	9.4030%	9.2205%	8.8382%	8.6928%
K	<b>Interest on Loan (I x J)</b>	<b>12547.69</b>	<b>11621.68</b>	<b>10305.61</b>	<b>8819.19</b>	<b>7591.75</b>

## Depreciation

72. Regulation 27 of the 2014 Tariff Regulations provides as follows:

*“27. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.*

*Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*

*Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond*





to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.”

73. Cumulative depreciation amounting to Rs.37002.18 lakh as on 1.4.2014, as considered in order dated 3.3.2017 in Petition No. 340/GT/2014 has been retained for the purpose of tariff. Since, as on 1.4.2014, the used life of the generating station is 3.03 years, which is less than 12 years from the effective station COD of 21.3.2011, depreciation shall be calculated by applying the weighted average rate of depreciation (WAROD) for the period 2014-19. WAROD calculated in terms of the Regulation 27 of the 2014 Tariff Regulations has been considered for the calculation of depreciation. Accordingly, depreciation is worked out and allowed as under:

(Rs. in lakh)

SN		2014-15	2015-16	2016-17	2017-18	2018-19
A	Average Capital Cost	251506.75	253876.67	255533.69	256916.63	257678.08
B	Value of freehold land included in 'A'	3172.34	3471.33	3575.67	3681.77	3753.31
C	Aggregate Depreciable	223500.97	225364.80	226762.22	227911.38	228532.30



SN		2014-15	2015-16	2016-17	2017-18	2018-19
	Value [(A-B) x 90%]					
D	Remaining aggregate depreciable value at the beginning of the year [(C)- (Previous year's 'K')]	186498.79	175354.21	163721.00	151926.83	139586.69
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 (WAROD)	5.1781%	5.1367%	5.0898%	5.0873%	5.0872%
H	<b>Depreciation during the year (A x G)</b>	<b>13023.35</b>	<b>13040.78</b>	<b>13006.24</b>	<b>13070.15</b>	<b>13108.68</b>
I	Cumulative depreciation at the end of the year (before adjustment for de-capitalization) [(H) + (Previous year's 'K')]	50025.53	63051.37	76047.46	89054.70	102054.30
J	Depreciation adjustment on account of de-capitalization	14.94	10.15	62.91	109.09	102.77
K	Cumulative depreciation at the end of the year (I-J)	50010.59	63041.22	75984.55	88945.61	101951.52

\*Previous year's 'K' i.e. cumulative depreciation at the end of 2013-14 is Rs 37002.18 lakh.

## **Operation & Maintenance Expenses**

74. Regulation 29(1)(a) of the 2014 Tariff Regulations provides as follows:

“Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

(a) Coal based and lignite fired (including those based on Circulating Fluidised Bed Combustion (CFBC) technology) generating stations, other than the generating stations/units referred to in clauses (b) and (d):

Year	200/210/250 MW Sets	300/330/350 MW Sets	500 MW Sets	600 MW Sets and above
FY 2014-15	23.90	19.95	16.00	14.40
FY 2015-16	25.40	21.21	17.01	15.31
FY 2016-17	27.00	22.54	18.08	16.27
FY 2017-18	28.70	23.96	19.22	17.30
FY 2018-19	30.51	25.47	20.43	18.38



Provided that the norms shall be multiplied by the following factors for arriving at norms of O&M expenses for additional units in respective unit sizes for the units whose COD occurs on or after 1.4.2014 in the same station:

200/210/250 MW	Additional 5th& 6th units	0.90
	Additional 7th& more units	0.85
300/330/350 MW	Additional 4th& 5th units	0.90
	Additional 6th& more units	0.85
500 MW and above	Additional 3rd& 4th units	0.90
	Additional 5th& above units	0.85

75. The O&M expenses claimed by the Petitioner in Form-3A of the petition are as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses (normative) under Regulation 29 (1) of the 2014 Tariff Regulations (A)	8000.00	8505.00	9040.00	9610.00	10215.00
<b>O&amp;M expenses under Regulation 29(2) of the 2014 Tariff Regulations</b>					
Water Charges (B)	1947.31	1969.84	1936.06	1949.14	1950.57
Capital Spares consumed (C)	199.67	233.84	155.77	308.02	288.86
<b>Total O&amp;M expenses claimed [Regulation 29(1) &amp; Regulation 29 (2) of the 2014 Tariff Regulations] (D) = (A+B+C)</b>	<b>10146.98</b>	<b>10708.67</b>	<b>11131.83</b>	<b>11867.17</b>	<b>12454.43</b>
Impact of Pay revision (E)	0.00	17.89	1304.22	1316.47	1486.79
Impact of GST (F)	0.00	0.00	0.00	70.54	104.11
<b>Total O&amp;M expenses claimed (H) = (D+E+F)</b>	<b>10146.98</b>	<b>10726.56</b>	<b>12436.05</b>	<b>13254.18</b>	<b>14045.33</b>

76. The Respondent, MPPMCL has submitted that the Petitioner has claimed O&M expense inclusive of water charges, capital spares consumed, impact of pay revision and impact of GST which is against the provision of Regulation 29(2) of the 2014 Tariff Regulations. The Petitioner has further submitted that water charges may be excluded from O&M expenses for separate recovery and shall not be added to the O&M expenses for recovery of interest on working capital. The Respondent has requested that on account of allowing separate recovery of water charges, the same may be excluded from annual fixed charges. In response, the Petitioner has submitted that it is entitled to claim water charges based on water consumption depending upon the type



of plant, type of cooling water system, etc., in terms of proviso to Regulation 29(2) of the 2014 Tariff Regulations.

77. The Petitioner vide affidavit dated 29.6.2021 has submitted that Regulation 19 of the 2009 Tariff Regulations provides for O&M expense norms to be followed for the 2009-14 tariff period. The proviso to the said Regulation states that O&M expense norms for additional 3<sup>rd</sup> and 4<sup>th</sup> units of 500 MW or above in an existing station, which are commissioned after 1.4.2009, shall be reduced by a factor of 0.9 of the expenses allowed for the 1<sup>st</sup> and 2<sup>nd</sup> unit. The Petitioner has further submitted that Korba STPS Stage-III having an installed capacity of 500 MW was developed as a completely new generating station, without there being any utilization of existing resources of Korba STPS Stage-I & Stage-II. However, the Commission by order dated 3.3.2017 in Petition No. 340/GT/2014 had assumed that the generating station is an additional unit and approved the O&M expenses for this generating station, by multiplying the normative O&M expenses with multiplying factor 0.9 as applicable for additional 3<sup>rd</sup> and 4<sup>th</sup> units of the generating station. The Petitioner has added that the existing auxiliaries of Korba STPS Stage-I & Stage-II like coal handling plant, ash handling plant, switchyard, unit control room, Ash Dyke, compressor house, etc. had all outlived their useful life and the Petitioner was required to develop separate independent facilities for this generating station for which the Board of Directors of the Petitioner Company had issued separate Investment Approval (IA) dated 24.3.2006. Further, the Petitioner has submitted that apart from creation of a separate infrastructure including a 400 kV dedicated Korba-Raipur Transmission line for evacuation of power from this generating station, the Petitioner had to enter into separate agreements with its vendors for procurement of equipment, which were completely different than those procured for Korba STPS Stage-I & Stage-II. The Petitioner has also submitted that



Korba STPS Stage-I & Stage-II were put under commercial operation on 1.6.1990 and as such, the technological obsolescence in the normal course of time over a period of two decades leaves no scope for reduced expenditure on repair and maintenance, that can be derived from Korba STPS Stage-I & Stage-II. The Petitioner vide its affidavits dated 29.6.2021 and 18.8.2021 has submitted that this generating station is not an extension of Korba STPS Stage-I & Stage-II as considered by the Commission in its order dated 3.3.2017 in Petition No. 340/GT/2014 and has requested for revision of O&M expenses for the 2009-14 tariff period and the 2014-19 tariff period.

78. The matter has been considered. It is observed that the Commission in Petition No. 340/GT/2014, before proceeding to determine the tariff of the generating station for the 2014-19 tariff period, had, by order dated 3.3.2017 rectified an inadvertent error in the computation of O&M expenses of this generating station issued vide common order dated 31.8.2015 in Petition No. 208/GT/2013 and Petition No. 305/GT/2014. Accordingly, this generating station, consisting of one unit of 500 MW was considered as an expansion project to the existing Korba STPS Stage-I & Stage-II, also consisting of three units of 500 MW each. Based on this, the O&M expenses of this generating station was determined by multiplying the normative O&M expenses with a multiplication factor of 0.9 in accordance with the proviso to Regulation 19(a) of the 2009 Tariff Regulations. In terms of this, the annual fixed charges of the generating station for the period 2011-14 were revised.

79. By the same order dated 3.3.2017, the Commission determined the tariff of the generating station for the 2014-19 tariff period, after allowing the normative O&M expenses with a multiplication factor of 0.9, by applying the proviso to Regulation 29(1)(a) of the 2014 Tariff Regulations. Against this order dated 3.3.2017, the



Petitioner filed Appeal No.180/2017 before the Appellate Tribunal for Electricity (in short 'APTEL') raising amongst others, the issue of allowable O&M expenses. Since the issue of O & M expenses raised by the Petitioner was common in other pending appeals, including Appeal No. 180/2017, APTEL vide judgment dated 11.1.2022 in Appeal No. 101/2017 and Appeal No. 110/2017) set aside the findings of the Commission on this issue. The relevant portion of the judgment dated 11.1.2022 is extracted below:

*"8.1(a) The Normative O&M charges for 2014-19 control period are determined on the basis of O&M charges incurred during the 2009-2014 control period.*

*Xxx*

*(b) Further, the O&M charges for the past years are collected as consolidated charges for the complete project /generating station irrespective of new /additional units during that period or existing units.*

*"8.2. From the above, it is crystal clear that the Normative O&M charges are determined based on the actual consolidated O&M charges for the past five years for a specific project having similar unit sizes.*

*8.3 Also, the Normative O&M charges are determined for the complete Generating Station including all the units which achieve COD prior to 1.4.2014. The multiplication factor is to be applied for new units which achieve COD after 1.4.2014 and during the control period 2014-19."*

*xxxx*

*8.7 We agree with the submissions made by the Appellant that considering the above COD, only the revised O&M norms for units existing as on 01.04.2014, as laid down in Regulation 29 (1) (a) of the 2014 Tariff Regulations are to be applied in case of the Appellant. As such any other interpretation of the aforesaid regulations is contrary to the plain text and meaning.*

*Xxx*

*8.13 We decline to accept the said contention as the provisions of the Tariff Regulations, 2014 have already been deliberated in the foregoing paras and there is no doubt that the Normative O&M charges are determined by consolidating the actual O&M charges for the past five years (the last control period) thus considering the actual sharing benefits by the additional units for that period and rationalising the expenditure*

*Xxx*

*8.15 We do not find any relevance to the above submission as the benefit of sharing of resources by the additional units have already been factored in the actual O&M charges considered for the past years*

*Xxx*

*8.17 There is no denial that the benefit of sharing of resources by the additional units should be passed on to the consumers, however, once already factored into the actual O&M charges which is the basis for determination of Normative O&M charges for the next control period, such a benefit becomes the integral part of O&M charges.*

*Xxx*



8.25 However, in the Impugned Order, CERC has essentially amended Proviso to Regulation 29 (1) (a) of the Tariff Regulations, 2014 without providing an opportunity to the Appellant to make submissions on this issue of Proviso to Regulation 29 (1)(a) of the Tariff Regulations, 2014. It is apposite to mention that in the entire proceedings no party had even whispered that the Proviso to Regulation 29 (1)(a) ought to be made applicable to units achieving COD Prior to 01.04.2014. Hence, there was no occasion for the Appellant to even respond to such a course being adopted by Central Commission. Even Central Commission at no stage indicated that it is seeking to apply to Proviso to Regulation 29 (1)(a) to Units achieving COD before 01.04.2014. Such a course adopted by Central Commission violates the principle of Natural Justice and for this ground alone the Impugned Order is liable to be set aside

*In light of the above, we are of the considered view that the issues raised in the Batch of Appeals have merit and hence Appeals are allowed. The impugned order dated 21.01.2017 in Petition No. 283/GT/2014 and order dated 06.02.2017 in Petition No. 372/GT/2014 ("Petition 372"), are hereby set aside to the extent of our findings. The matter is remitted back to the Central Commission for passing a reasoned order pursuant to our observations are scrupulously complied with expeditiously and in a time-bound manner."*

80. In line with the above decision/findings of APTEL, the O&M expenses allowable in terms of Regulation 29(1)(a) of the 2014 Tariff Regulations for the 2014-19 tariff period are worked out and allowed as under and are same as claimed by the Petitioner:

<i>(Rs. in lakh)</i>				
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
8000.00	8505.00	9040.00	9610.00	10215.00

### **Water Charges**

81. Regulation 29(2) of the 2014 Tariff Regulations provide as follows:

*"29 (2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:*

*Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition"*

82. The Respondents, MPPMCL and CSPDCL have submitted that as per MOEF&CC Notification dated 7.12.2015, the thermal power generating stations commissioned before 1.1.2017 have to meet specific water consumption up to maximum of 3.5 m<sup>3</sup>/ MW and has computed water charges as shown below:



	2014-15	2015-16	2016-17	2017-18	2018-19
Units generated (MU)	3922	3887	4176	3958	4053
PLF achieved (%)	89.54 %	88.51 %	95.35 %	90.36 %	92.54 %
Water Consumption norm as per MoEF&CC notification (m <sup>3</sup> /MWh)	3.5	3.5	3.5	3.5	3.5
Water consumption as per norm of MoEF&CC Million Cubic meter (MCM)	13.72	13.60	14.61	13.853	14.18
Rate in (Rs./ Cm)	12.25	12.25	12.25	12.25	12.25
<b>Water charges as worked out (Rs. in lakh)</b>	1680.70	1666.0	1789.72	1696.99	1737.05
Water charges claimed by the Petitioner (Rs. in lakh)	1947.31	1969.84	1936.06	1949.14	1950.57

83. The Respondents have submitted the Petitioner has indicated the combined water consumption of Korba STPS Stage-I & Stage-II and Korba STPS Stage-III (this generating station) instead of providing details of the actual water consumption in respect of this generating station separately. The Respondents have requested to allow water charges in terms of the above said notification. In response, the Petitioner has submitted the following:

- (a) It is entitled to claim water charges based on water consumption depending upon the type of plant, type of cooling water system, etc., in terms of proviso to Regulation 29(2) of the 2014 Tariff Regulations.
- (b) Water charges are expenditure of a revenue nature for successful operation of the unit/station, these charges form part of O&M expenses, and accordingly have been claimed as actual O&M expenditure for the purpose of tariff. Water charges depend upon the actual water consumption as well as the contracted water quantity, in line with the Water Agreements, signed with the State Water Resources Department.
- (c) The agreement for water charges, is entered into as per rules/provisions of the respective State Water Board/Irrigation Departments (as the case may be), where the generating station is located. Accordingly, in line with this, the generating station has to sign the agreement for its installed capacity.
- (d) Water is the raw material for any thermal generating plant like fuel and if a generating station is established and having long term PPAs, it has to ensure water and coal corresponding to ex-bus MCR capacity or at least the normative ex-bus capacity of the station, to offer availability for supply of energy to the respective beneficiaries as per their allocation. The arrangement of raw materials is carried out on long term basis, based on





anticipated consumption for the same as per the contracted capacity of the station.

- (e) Water is arranged taking into account the peak requirements of the units in different season and the maximum demand envisaged, so that any loss in generation due to shortage of water during such periods may not be allowed to happen. The water agreement for the generating station including BALCO Captive Power Plant (BCPP) which is owned and operated by M/s Sterlite has been done based on allocation of water quantity on daily basis and the aggregated billing for water consumption is carried out on monthly basis.
- (f) The actual drawl is less than contracted quantity, the minimum payment of water charges is made based on allocation equivalent to 90% of the monthly contracted quantity for Korba STPS Stage-I & Stage-II, Korba STPS Stage-III and BCPP and if the actual drawl exceeds the contracted quantity on monthly basis, the water charges are payable @1.5 times of the applicable rate of water charges.
- (g) As the water agreement was done considering the full capacity of the generating station in view of serving the beneficiaries in a better way by utilizing the best generating station capacity in declaring the schedule, it is inappropriate to calculate the water charges based on PLF of the generating station because the Petitioner is liable to pay the charges as per relevant provisions of the Water Agreement entered with the State Water Board.

84. The Commission vide ROP of the hearing dated 27.7.2021 directed the Petitioner to submit details with regard to the computation of water charges during the 2014-19 tariff period. In compliance to the same, the Petitioner vide affidavit dated 18.8.2021 has submitted the following;

- (a) The contracted quantity for Korba STPS (all Stages) including BCPP was 110 MCM/year, which was inadvertently mentioned in petitions (Petition No. 451/GT/2020 and 395/GT/2020) that the contracted quantity was reduced to 101 MCM/ year from 2016-17 onwards.
- (b) Based on the request of BALCO, BCPP's contracted water quantity was reduced by State Water Body from 18 MCM to 9 MCM, thereby reducing the contracted annual water quantity for Korba STPS including BCPP from 110 MCM to 101 MCM with effect from 1.2.2018 onwards and in support of its claim, letter dated 2.2.2018 received from Hasdeo Barrage Water Resources Department, Korba is submitted.



- (c) The Petitioner had tied up the contracted quantum of water based on generating station peak requirement, on account of various considerations including seasonal peak demand, so that any loss in generation due to shortage of water during such periods may not be allowed to happen.
- (d) The yearly detailed computation of water charges for the 2014-19 tariff period, indicating the contracted quantity of water, actual water consumption, rate of water charges, payment made to State Water Board based on 90% of contracted quantity/actual consumption, etc.
- (e) Water charges for Korba STPS Stage-I & Stage-II and this generating station are derived from water charges pertaining to Korba STPS (all Stages) on pro-rata basis of installed capacity of the respective stations.

85. The consolidated summary sheet indicating water charges for Korba STPS (all Stages) and prorated water charges for Korba STPS Stage-I & Stage-II and this generating station, as submitted by the Petitioner is as follows:

	2014-15	2015-16	2016-17	2017-18	2018-19
Water Allocation/ Contracted Quantity (Korba STPS including BCPP) (MCM)	110	110	110	1.09*	101
Actual water Consumption (Korba STPS including BCPP) (MCM)	82.48	81.22	86.19	75.98	64.97
Actual water Consumption (Korba STPS all Stages) (MCM)	64.59	63.28	69.81	59.53	55.97
Rate of Water Charges (Rs. /Cu.M)	12.25	12.25	12.25	12.25	12.25
Total Water Charges Paid (Korba STPS including BCPP) (Rs. lakh)	12109.65	12248.56	12127.51	11967.11	11135.24
Total Water Charges Paid (Korba STPS) (Rs. lakh)	10126.02	10243.14	10067.49	10135.54	10142.97
Total Water Charges paid for Korba STPS Stage-I & Stage-II (pro-rata on installed capacity) (Rs. lakh)	8178.71	8273.31	8131.44	8186.4	8192.4
Total Water Charges paid for Korba STPS Stage-III (pro-rata on installed capacity) (Rs. lakh)	1947.31	1969.84	1936.06	1949.14	1950.57

86. It is noticed from records that the Petitioner, in response to ROP dated 27.7.2021 has submitted that the contracted annual water quantity for Korba STPS including BCPP ranges from 110 MCM to 101 MCM. Thus, the water allocation /contracted quantity for 2017-18 above shall be considered 109 MCM, instead of 1.09 MCM, which appears to be an inadvertent error.



87. It is observed that the water agreement has been done by the Petitioner, considering the full plant capacity. Also, the Petitioner is liable to pay 90% of the monthly contracted quantity, even if the actual drawl is less than contracted quantity. In view of the above, the water charges as per actuals, in terms of Regulation 29 (2) of the 2014 Tariff Regulations, are allowed as follows:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
1947.31	1969.84	1936.06	1949.14	1950.57

**Capital Spares**

88. The second proviso to Regulation 29(2) of the 2014 Tariff Regulations provides as follows:

*“29(2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:*

*xxxxx*

*Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.”*

89. As per Regulation 29(2) of the 2014 Tariff Regulations, capital spares are admissible separately. The Petitioner has claimed total capital spares for Rs.1186.16 lakh for 2014-19 tariff period (i.e., Rs.199.67 lakh in 2014-15, Rs.233.84 lakh in 2015-16, Rs.155.77 lakh in 2016-17, Rs.308.02 lakh in 2017-18 and Rs.288.86 lakh in 2018-19). The Petitioner has submitted that in order to meet the customers demand and to maintain high machine availability at all times by the generating station, the units/ equipment’s are taken under overhaul/maintenance and inspected regularly for wear and tear. It has stated that during such works, spares parts of equipment’s which had been damaged/ unserviceable are replaced/consumed so that the machines continue to perform at expected efficiency, on a sustained basis. Therefore, the



Petitioner has prayed that capital spares replaced/consumed by the generating station during the 2014-19 tariff period may be allowed.

90. The Commission vide ROP of the hearing dated 27.7.2021, had directed the Petitioner to provide basis for the claim in respect of the capital spares consumed. In response, the Petitioner vide affidavit dated 18.8.2021 has submitted that the Commission has determined the O&M expense norms for the 2014-19 tariff period, based on the actual expenditure incurred for various stations during the period 2008-13. However, the expenditure towards capital spares consumed and water charges incurred were excluded while determining the O&M expense norms for the period 2014-19 and it was decided that the same would be allowed separately, as per O&M expenses, based on actuals, at the time of true-up, subject to prudence check. The relevant para from SOR referred by the Petitioner is as follows:

*“29.43 Further, the Commission has reviewed the norms proposed in the draft Regulations in view of the fact that some of the Central Generating Companies including NTPC and NHPC have booked expenses under the heads “Capital Spares” and “Expenditure of Capital nature as per accounting practice not claimed/disallowed in capital cost”. The Commission, while deriving the norms, had not considered “Expenditure of Capital nature as per accounting practice not claimed/disallowed in capital cost”. After repeated communications from the Commission for submitting the breakup of such expenses incurred, NTPC submitted capital spares data at a very late stage. The Commission prima facie observed that the capital spares data submitted needs detailed scrutiny before being approved. NHPC did not submit the required data in this regard. The Commission has therefore, not included such expenses as a part of O&M expenses. The Commission shall, however, consider the same separately at the time of truing up after prudence check of actual data. The generating stations should submit the details of the year-wise capital spares consumed substantiating that the same has not been funded through either compensatory allowance or special allowance and has not booked such expenses as additional capitalization or as a part of repair and maintenance expenses and consumption of stores and spares as applicable for thermal and hydro generating stations.”*

91. The Petitioner has further submitted that capitalization of spares in books of accounts is guided by the applicable accounting standard on “Fixed assets” or “Plant, Property & Equipment (PPE)”. It is not discretionary on the part of generator, whether to capitalize a spare or not, and is mandated by the accounting framework. The



Petitioner has submitted that during the 2014-19 tariff period spares were capitalized up to 31.3.2015 as per the IGAAP AS-10 and after 1.4.2015 as per IND AS-16. It has referred to paragraph 8 of IND AS 16 which provides as follows:

*“8. Items such as spare parts, stand-by equipment and servicing equipment are recognized in accordance with this Ind AS when they meet the definition of property, plant and equipment. Otherwise, such items are classified as inventory.”*

92. The Petitioner has further submitted that as all spares capitalized after 1.4.2015 were meeting the principles as given in paragraph 8 of IND AS 16 meeting the definition of PPE and were capitalized accordingly. The paragraph 8.2 of IGAAP AS-10 provides as follows:

*“8.2 Stand-by equipment and servicing equipment are normally capitalized. Machinery spares are usually charged to the profit and loss statement as and when consumed. However, if such spares can be used only in connection with an item of fixed asset and their use is expected to be irregular, it may be appropriate to allocate the total cost on a systematic basis over a period not exceeding the useful life of the principal item.”*

93. The Petitioner has also submitted that all the spares capitalized until 31.3.2015 were meeting the criteria as enunciated in paragraph 8.2 of IND AS-10 and their consumption were booked as de-capitalization of capital spares, shown in Form 9Bi of respective years and claimed in Form 17 as ‘capital spares’ consumption as per Regulation 29(2) of the 2014 Tariff Regulations. Therefore, capital spares consumption has not been accounted and claimed under O&M expenses. The Petitioner has further added that, if the same were to be considered as part of O&M expenses, while determining the O&M expense norms, the Petitioner would have been entitled to an additional O&M expense norm of about Rs.0.80 lakh/MW and Rs.3.26 lakh/MW for coal and gas stations respectively for the year 2014-15 and the same would have been escalated on year-on year @ 6.32% as per the 2014 Tariff Regulations. The Petitioner has stated that in such case, the Petitioner would have recovered substantial additional O & M expenses for its coal and gas stations towards



capital spares consumption for the 2014-19 tariff period. However, the Petitioner following prudent O & M practices could reduce the spares consumption and has incurred much less expenditure towards capital spares consumption for the 2014-19 tariff period. The Petitioner has further submitted that the claim for consumption of 'capital spares' in Form-17 has been made considering the consumption of spares and corresponding de-capitalization in the books of accounts., i.e., as they have become unserviceable. The Petitioner has further submitted that it has shown consumption only pertaining to spares which were capitalized as per the prevailing accounting standards/guidelines, whereas, the assets of a revenue nature i.e. of repair and maintenance nature are not being claimed for reimbursement. The Petitioner has further submitted that the base for normative O&M, as provided in the 2014 Tariff Regulations, does not comprise the spares capitalized (irrespective of its value) in the balance sheet, instead it only contains the amount pertaining to revenue spares. It has also submitted that in earlier regulations, the capital spares consumption was part of the normative O&M expenses, whereas, as per Regulation 29(2) of the 2014 Tariff Regulations, capital spares consumption was allowed separately. The Petitioner has submitted that it shall remain deprived of reimbursement of such capital spares, as the same are not being covered under O&M expense norm for the 2014-19 tariff period.

94. The details of the capital spares submitted by the Petitioner in Form 17 is as follows:

(Rs. in lakh)

Year	Capital Spares		
	Part of capital cost	Not part of capital cost	Total Consumed
	(A)	(B)	(A+B)
2014-15	100.38	99.29	199.67
2015-16	53.89	179.94	233.84
2016-17	155.77	0.00	155.77
2017-18	307.75	0.28	308.02
2018-19	263.24	25.62	288.86



95. We have examined the list of the capital spares consumed by the Petitioner. It is evident from the audited statement and Form 9Bi of the respective years, that capital spares claimed comprise of two categories i.e. (i) spares which form part of the capital cost and (ii) spares which do not form part of the capital cost of the project. In respect of capital spares which form part of the capital cost of the project, the Petitioner has been recovering tariff since their procurement and, therefore, the same cannot be allowed as part of additional O&M expenses. Accordingly, only those capital spares, which do not form part of the capital cost of the project, are being considered. However, from the Petitioner's submission it is observed that spares (i.e. ultrasonic flow meter) amounting to Rs.11.02 lakh not forming part of capital cost, are the ones which has been returned back to the vendor by the Petitioner in 2015-16. Accordingly, the spares of Rs.11.02 lakh have not been considered for the purpose of tariff.

96. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardised practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs.1 (one) lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the petition, has been considered for the purpose of tariff. Based on this, the details of the allowed capital spares considered for the 2014-19 tariff period is summarized as follows:

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
A	Capital spares claimed (not part of capital cost)	99.29	179.94	0.00	0.28	25.62
B	Capital spares returned to the vendor	0.00	11.02	0.00	0.00	0.00



		2014-15	2015-16	2016-17	2017-18	2018-19
C	Value of capital spares disallowed (Less than Rs.1 lakh on individual basis)	4.97	1.82	0.00	0.28	0.00
D	Total value of capital spares considered (A-B-C)	94.32	167.10	0.00	0.00	25.62

97. Further, we are of the view that spares do have a salvage value. Accordingly, in line with the practice of considering the salvage value, presumed to be recovered by the Petitioner on sale of other capital assets, on becoming unserviceable, the salvage value of 10% has been deducted from the cost of capital spares considered above, for the 2014-19 tariff period. Therefore, on prudence check of the information furnished by the Petitioner in Form-17 and on applying the said ceiling limit along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as follows:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered (A)	94.32	167.10	0.00	0.00	25.62
Salvage value @ 10% (B)	9.43	16.71	0.00	0.00	2.56
<b>Net value of capital spares allowed (C) = (A)-(B)</b>	84.89	150.39	0.00	0.00	23.06

### **Impact of Goods and Service Tax (GST)**

98. The Petitioner has claimed amount of Rs.70.54 lakh in 2017-18 and Rs.104.11 lakh in 2018-19 on account of impact of GST. The Respondent, MPPMCL has submitted that by enactment of the GST Act, the Central Government has rationalized the tax regime, by subsuming various taxes/cess/duties like excise duty, service tax, VAT, sales tax etc. and have also reduced various tax slabs which has generally resulted in reduction of overall applicable tax rate in the country and therefore the claim of the Petitioner does not appear to be just and proper. A generalized statement that the impact of increase in rate of indirect taxes from 15% to 18% shall not be considered as a proof of additional burden on the Petitioner. Thus, the Respondents





have submitted that the claim against GST, based on mathematical calculation, shall not be allowed as it should be based on difference of the actual indirect taxes paid by the Petitioner and the amount of indirect taxes already covered in the normative O&M expenses. In view of the above, the Respondent has requested that the Petitioner may be directed to submit the item-wise details of the amount of GST paid vis-à-vis the amount which might have been paid considering old tax regime to evaluate the impact of GST and the claims based on assumptions shall be rejected. The Respondent, CSPDCL has submitted that Petitioner has claimed GST to the tune of Rs.1.74 crore under “Change in law” on account of increased expenditure for the O&M activities, without providing documentary proof for such claims. The Respondent, MSEDCL has submitted that the claim of GST will lead to additional burden on the consumers. It has also submitted that the GST claims are applicable only if a service is outsourced, which reflects the lack of expertise within the Company. The Respondent has further submitted that O&M norms are ceiling norms and the generating companies are required to manage within these limits. The Respondent MSEDCL has therefore requested that as O&M expenses have been claimed by the Petitioner under Regulation 29(1) of the 2014 Tariff Regulations, the additional expenditure towards GST may be disallowed.

99. The matter has been considered. It is observed that the Commission while specifying the O&M expense norms for the 2014-19 tariff period had considered taxes to form part of the O&M expense calculations and accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR to the 2014 Tariff Regulations, which is extracted as follows:

*“49.6 With regards to suggestion received on other taxes to be allowed, the Commission while approving the norms of O&M expenses has considered the taxes as part of O&M*



*expenses while working out the norms and therefore the same has already been factored in...”*

100. Further, the escalation rates considered in the O&M expense norms under the 2014 Tariff Regulations is only after accounting for the variations during the past five years of the 2014-19 tariff period, which in our view, takes care of any variation in taxes also. It is pertinent to mention that in case of reduction of taxes or duties; no reimbursement is ordered. In this background, we find no reason to grant additional O&M expenses towards payment of GST.

**Impact of wage revision**

101. The Petitioner has claimed an amount of Rs.4125.37 lakh (Rs.17.89 lakh during 2015-16, Rs.1304.22 lakh during 2016-17, Rs.1316.47 lakh during 2017-18 and Rs.1486.79 lakh during 2018-19) as impact of wage revision of employees of CISF and Kendriya Vidyalaya Staff from 1.1.2016 and employees of the Petitioner posted at the generating station with effect from 1.1.2017. However, it is noticed that the said claim of the Petitioner includes the impact on account of the payment of additional PRP/ ex-gratia to its employee’s consequent upon wage revision. As such, as per consistent methodology adopted by the Commission, the additional PRP/ ex-gratia paid, as a result of wage revision impact, has been excluded from the wage revision impact claimed by the Petitioner. Accordingly, the claim of the Petitioner in respect of wage revision impact stands reduced to Rs.3677.30 lakh with the following year-wise break-up

*(Rs. in lakh)*

	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>Total</b>
Wage revision impact claimed excluding PRP/ ex-gratia	17.89	1304.22	1226.92	1128.27	3677.30

102. The Petitioner vide affidavit dated 29.6.2021 has submitted the following:



- (a) *Comparative table indicating the actual O&M expenses incurred at this generating station versus the normative O&M expenses allowed for the 2014-19 tariff period for the whole generating station (i.e., all Stages of KSTPS);*
- (b) *Actual impact of pay revision duly certified by Auditor, Expenses after comparing salaries wages before and after pay revision; and*
- (c) *Detailed break-up of the actual O&M expenses booked by the Petitioner on gross basis*

103. The Respondent, MPPMCL has submitted that in term of paragraph 33.2 of Statement of Object and Reasons (SOR) to the 2014 Tariff Regulations, the impact of wage revision shall only be considered after seeing the impact of one full year and in case it is found that the O&M expense norms provided under the 2014 Tariff Regulations are inadequate/insufficient to cover all justifiable O&M expenses, for the particular year, including employee expenses, then the balance amount may only be considered for reimbursement. However, in the absence of the complete information provided by the Petitioner, the claim is not justifiable. The Respondent has also prayed that the Commission may disallow the claim of the Petitioner, in the absence of complete details of head-wise, year-wise actual O&M expenses incurred vis-à-vis the normative O&M expenses allowed.

104. The Respondent, CSDPCL has submitted that Commission has determined the norms for O&M charges for the generating sets of different sizes which includes employee expenses as well. It has further submitted that there is no provision in the 2014 Tariff Regulations for any additional O&M charges and thus the claim may be disallowed. The Respondent, MSEDCL has submitted that the Commission in SOR to the 2014 Tariff Regulations has held that the O&M expenses incurred by the central generating stations were broadly classified by the Commission into three heads namely (i) Repair and Maintenance expenses (ii) Administrative & General expenses and (iii) Employee expenses and accordingly, in the draft Tariff Regulations, the



Commission had provided for a normative percentage (40%) of Employee expenses to the total O&M expenses for different type of generating stations. The Respondent has further submitted that the Commission, while deciding the normative O&M expenses for the Petitioner's generating stations for the 2014-19 tariff period had considered the actual expenditure incurred during the period from 2008-09 to 2012-13. The Respondent has requested that the Commission may assess the actual O&M expenses based on audited accounts of all NTPC thermal stations to verify if there is any difference between the audited O&M expenses and the normative O&M expenses of the generating stations and may, allow or disallow the impact of pay revision as claimed by the Petitioner.

105. The Petitioner vide affidavit dated 29.6.2021 has furnished the comparative table indicating the actual O&M expenses incurred vis-a-vis the normative O&M expenses recovered in tariff in respect of Korba STPS (all stages combined) (2600 MW) and for this generating station (500 MW) for the 2014-19 tariff period as under:

		<i>(Rs. In lakh)</i>				
Sl. No.		2014-15	2015-16	2016-17	2017-18	2018-19
1	Actual O&M expenditure for Korba STPS excluding water charges (2600 MW)	53814.62	57633.45	59457.85	58868.26	63723.54
2	Total Normative O&M recovery excluding water charges in tariff for Korba STPS (2600 MW)	45540.00	48409.50	51456.00	54699.00	58144.50
3	Difference (Normative – Actual) for Korba STPS (2600 MW)	(-) 8274.62	(-) 9223.95	(-) 8001.85	(-) 4169.25	(-) 5579.04

106. The Petitioner has also submitted the actual O&M expenses (prorated) to MW ratio in comparison to the normative O&M expenses allowed, as under:



(Rs. in lakh)

Sl. No.		2014-15	2015-16	2016-17	2017-18	2018-19
1	Actual O&M expenditure incurred for Korba STPS Stage-III (500 MW) excluding water charges (Pro rata in the ratio of installed capacity)	10348.97	11083.36	11434.20	11320.82	12254.53
2	Normative O&M recovery in tariff of Korba STPS Stage-III (500 MW) allowed vide order dated 3.3.2017 in Petition No. 340/GT/2014	7200.00	7654.50	8136.00	8649.00	9193.50
3	Difference (Normative – Actual) for Korba STPS Stage-III (500 MW)	(-)3148.96	(-)3428.86	(-)3298.20	(-)2671.82	(-)3061.03

107. The Petitioner has also submitted that O&M norms for the 2014 Tariff Regulations were decided on actual O&M expenses for 2008-09 to 2012-13 period. However, the 3<sup>rd</sup> Pay Revision Committee for CPSU's was not in existence and/ or incorporated while the 2014 Tariff Regulations were being framed by the Commission. The Petitioner has further submitted that the implementation of recommendations of 7<sup>th</sup> Pay Commission and Office Memorandum of Department of Public Enterprises (DPE) were communicated in 2016/2017, whereas the 2014 Tariff Regulations were notified much prior to 3.8.2017. Accordingly, the Petitioner has submitted that the impact thereof, ought to be made pass through in terms of Regulation 54 and 55 of the 2014 Tariff Regulations.

108. We have examined the matter. The Commission, while specifying the O&M expense norms under the 2014 Tariff Regulations, had considered the actual O&M expense data for the period from 2008-09 to 2012-13. However, considering the submissions of the stakeholders, the Commission in the Statement of Object and



Reasons (SOR) to the 2014 Tariff Regulations had observed that the increase in employees cost due to impact of pay revision impact will be examined on a case to case basis balancing the interest of generating stations and the consumers. The relevant extract of SOR is extracted as follows:

*"29.26 Some of the generating stations have suggested that the impact of pay revision should be allowed on the basis of actual share of pay revision instead of normative 40% and one generating company suggested that the same should be considered as 60%. In the draft Regulations, the Commission had provided for a normative percentage of employee cost to total O&M expenses for different type of generating stations with an intention to provide a ceiling limit so that it does not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission would however, like to review the same considering the macroeconomics involved as these norms are also applicable for private generating stations. In order to ensure that such increase in employee expenses on account of pay revision in case of central generating stations and private generating stations are considered appropriately, **the Commission is of the view that it shall be examined on case to case basis, balancing the interest of generating stations and consumers.***

*33.2 The draft Regulations provided for a normative percentage of employee cost to total O&M expenses for generating stations and transmission system with an intention to provide a ceiling limit so that the same should not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission shall examine the increase in employee expenses on case to case basis and shall consider the same if found appropriate, to ensure that overall impact at the macro level is sustainable and thoroughly justified. Accordingly, clause 29(4) proposed in the draft Regulations has been deleted. **The impact of wage revision shall only be given after seeing impact of one full year and if it is found that O&M norms provided under Regulations are inadequate/insufficient to cover all justifiable O&M expenses for the particular year including employee expenses, then balance amount may be considered for reimbursement.***

109. The Petitioner vide affidavit dated 29.6.2021 has furnished the detailed break-up of the actual O&M expenses incurred during the 2014-19 tariff period (including any arrear paid after 31.3.2019 on account of pay revision) for combined Stages (Stage-I, Stage-II and Stage-III) of the generating station tabulated as follows:

(Rs. in lakh)

Sl. No.	Items	2014-15	2015-16	2016-17	2017-18	2018-19
1	Consumption of stores & spares	9045.88	9940.69	8069.70	6360.50	8021.61
2	Repair & Maintenance	6108.77	7864.97	6054.05	7247.50	8496.21
3	Insurance	827.09	711.20	680.28	639.13	619.78
4	Security	2218.71	2386.78	2483.91	2976.80	3172.62
5	<b>Water Charges</b>	<b>10126.02</b>	<b>10243.14</b>	<b>10067.49</b>	<b>10135.54</b>	<b>10142.97</b>
6	<b>Administrative Expenses</b>					
6.1	Rent	12.79	9.11	4.67	0.00	0.00
6.2	Electricity charges	455.21	467.70	748.70	500.11	385.38
6.3	Travelling & Conveyance	835.27	778.30	799.23	739.12	924.56
6.4	Communication Expenses	119.60	144.89	154.50	123.33	252.62
6.5	Advertising	53.58	26.97	47.20	44.13	15.02



Sl. No.	Items	2014-15	2015-16	2016-17	2017-18	2018-19
6.6	Foundation Laying & Inauguration	0.00	0.00	0.00	0.00	0.00
6.7	Donation	0.00	0.00	0.00	0.00	0.00
<b>6.8</b>	Entertainment	55.37	73.48	83.39	106.01	262.61
<b>6.9</b>	Filing fee	114.40	114.40	114.40	113.50	114.40
	<b>Subtotal (Administrative Expenses)</b>	<b>1646.22</b>	<b>1614.85</b>	<b>1952.09</b>	<b>1626.21</b>	<b>1954.58</b>
<b>7</b>	<b>Employee Cost</b>					
7.1.1	Salaries, Wages & Allowances	15247.07	14524.73	16406.32	19002.80	17552.43
7.1.2	Pension	1391.84	1401.20	1341.52	871.57	1048.21
7.1.3	Gratuity	-112.70	-56.73	3438.93	863.15	777.09
7.1.4	Provident Fund	1316.33	1307.63	1343.18	1248.00	1601.68
7.1.5	Leave Encashment	1702.00	1895.72	2366.30	1718.18	2178.69
<b>7.2</b>	<b>Staff welfare expenses</b>					
7.2.1	-Medical expenses on superannuated employees	61.90	53.20	0.00	0.06	0.87
7.2.2	-Medical expenses on regular employees & others	1039.41	1308.35	885.31	1057.35	1173.71
7.2.3	-Uniform/Liveries & safety equipment	298.23	290.71	353.55	216.39	578.22
7.2.4	-Canteen expenses	179.67	242.30	236.99	248.28	305.15
7.2.5	-Other staff welfare expenses	365.22	358.31	541.94	334.45	707.29
	<b>Subtotal (Staff welfare Expenses)</b>	<b>1944.43</b>	<b>2252.87</b>	<b>2017.78</b>	<b>1856.53</b>	<b>2765.24</b>
7.3	Productivity linked Incentive	337.55	304.25	-0.41	-0.10	-0.05
7.4	Expenditure on VRS	451.86	1.48	0.00	0.00	118.27
7.5	Ex-gratia	1614.97	1477.26	1748.89	2640.92	2706.81
7.6	Performance Related Pay (PRP)	0.00	0.00	0.00	0.00	0.00
	<b>Sub Total (Employee Cost)</b>	<b>23893.36</b>	<b>23108.40</b>	<b>28662.52</b>	<b>28201.04</b>	<b>28748.37</b>
8	Loss of Store	0.00	0.00	0.00	0.00	0.00
9	Provisions	200.85	381.71	162.81	702.86	599.39
10	Prior Period Expenses	-8.54	10.63	0.00	0.00	0.00
11	Corporate Office expenses allocation	7191.55	7402.83	7567.85	7527.72	8597.46
12	Others					
12.1	Rates & Taxes	526.09	528.80	813.49	1144.72	1150.66
12.2	Water Cess	72.47	66.46	77.20	18.99	0.00
12.3	Training & recruitment expenses	86.48	172.81	134.41	140.98	83.42
12.4	Tender Expenses	72.14	54.95	84.48	63.82	14.01
12.5	Guest house expenses	70.43	72.66	80.48	88.49	128.91
12.6	Education expenses	237.17	48.07	77.13	87.73	108.24
<b>12.7</b>	Community Development Expenses	457.76	2701.17	1854.93	1214.94	1067.35
<b>12.8</b>	Ash utilization expenses	3.33	-2.75	-5.17	-1.66	-4.86
12.9	Books & Periodicals	2.95	3.04	2.13	1.12	1.90
12.1	Professional Charges	41.80	42.85	61.32	37.15	21.31
12.11	Legal expenses	21.12	13.68	49.84	27.93	28.46
12.12	EDP Hire & other charges	70.58	59.29	49.04	8.84	27.32



Sl. No.	Items	2014-15	2015-16	2016-17	2017-18	2018-19
12.13	Printing & Stationery	47.28	47.76	65.37	39.44	35.51
<b>12.14</b>	<b>RLDC Fee &amp; Charges</b>	<b>156.99</b>	<b>11.21</b>	<b>78.37</b>	<b>64.41</b>	<b>94.40</b>
12.15	Brokerage & Commission	17.46	26.70	167.53	82.31	-25.59
12.16	Bank charges	11.62	49.43	43.47	8.89	2.17
12.17	Claims/advances written off	0.00	0.00	0.00	0.00	0.00
12.18	Hiring of vehicle	0.00	0.00	0.00	0.00	0.00
12.19	Payment to auditors	0.00	0.00	0.00	0.00	0.00
12.20	Miscellaneous Expenses					
	(Break-up of Miscellaneous)					
12.20.1	Horticulture	206.63	216.32	200.64	225.51	395.49
12.20.2	Transport- Vehicle Running expenses	8.78	5.39	8.94	5.82	7.41
12.20.3	Hire charges & Operating expenses -Construction Equipment	0.00	0.00	0.00	0.00	0.00
12.20.4	Tree Plantation expenses	0.00	16.14	0.00	0.00	0.00
12.20.5	R&D expenses	0.00	0.00	0.00	0.00	0.00
12.20.6	Consumption-HSD/LDO-(Ind/Imp)-Other Vehicles	0.00	0.00	0.00	0.00	0.00
12.20.7	Consumption-HSD/LDO-(Ind/Imp)-DG Set	0.00	0.00	0.00	0.00	0.00
12.20.8	Expenditure/ Income from Investment Diff	0.00	0.00	0.00	0.00	0.00
12.20.9	Detailed Project Report expenses-Written off	0.00	0.00	0.00	0.00	0.00
12.20.10	Other Losses Written off	0.00	0.00	0.00	0.00	0.00
<b>12.20.11</b>	<b>Temporary Works Written off</b>					
12.20.12	Loss on sale of Investments	0.00	0.00	0.00	0.00	0.00
12.20.13	Operating expenses of diesel generating sets	0.00	0.00	0.00	0.00	0.00
12.20.14	Furnishing Expenses	0.00	0.00	0.00	0.00	0.00
12.20.15	Subscription to Trade and Other Assoc.	0.00	0.00	0.00	0.00	0.00
12.20.16	Hire Charges - Helicopter/Aircraft	0.00	0.00	0.00	0.00	0.00
12.20.17	Visa & Entry Permit Charges - Overseas	0.00	0.00	0.00	0.00	0.00
12.20.18	FX Monitoring Terminal Expenses	0.00	0.00	0.00	0.00	0.00
12.20.19	Works/Conf.(Excluding train R&D CENPEEP) Earlier Non FBT	0.00	0.00	0.00	0.00	0.00
12.20.20	Workshop/Conference expenses (training R&D CENPEEP) Earlier FBT	0.00	0.00	0.00	0.00	0.00
12.20.21	Hire charges - Office equipment	0.00	0.00	0.00	0.00	0.00
12.20.22	Payment for health club etc.	0.00	0.00	0.00	0.00	0.00
12.20.23	Gifts liable for Fringe Benefit Tax	0.00	0.00	0.00	0.00	0.00
12.20.24	Festival expenses liable	0.00	0.00	0.00	0.00	0.00





Sl. No.	Items	2014-15	2015-16	2016-17	2017-18	2018-19
	Earlier (FBT)					
12.20.25	Miscellaneous Expenses	0.00	0.00	0.00	0.00	0.00
12.20.26	Rounding Off Difference	0.00	0.00	0.00	0.00	0.00
12.20.27	CENPEEP Expenses	0.00	0.00	0.00	0.00	0.00
12.20.28	Regional Power Committee Expenses	0.00	0.00	0.00	0.00	0.00
12.20.29	Other Compensation	644.17	141.40	54.29	415.48	452.18
12.20.30	Capital Expenditure not represented by assets	0.00	0.00	0.00	0.00	0.00
12.20.31	Demurrage Charges (Force Majeure)	0.00	0.00	0.00	0.00	0.00
12.20.32	Workshop/Conference Expenses- Without ITC	0.00	0.00	0.00	0.00	0.00
12.20.33	Miscellaneous expenses transferred to CSR and IEDC	0.00	0.00	0.00	0.00	0.00
	<b>Sub Total (Others)</b>	<b>2755.26</b>	<b>4275.38</b>	<b>3897.89</b>	<b>3674.90</b>	<b>3588.30</b>
<b>13</b>	<b>(Total 1 to 12)</b>	<b>64005.17</b>	<b>67940.60</b>	<b>69598.59</b>	<b>69092.21</b>	<b>73941.29</b>
14	Revenue / Recoveries	(-)64.53	(-)64.00	(-)73.25	(-)88.41	(-)74.78
15	Net Expenses	63940.64	67876.59	69525.35	69003.80	73866.51
16	Capital spares consumed					
	<b>Total O&amp;M cost</b>	<b>63940.64</b>	<b>67876.59</b>	<b>69525.35</b>	<b>69003.80</b>	<b>73866.51</b>

110. The methodology indicated in the SOR above suggests a comparison of the normative O&M expenses with the actual O&M expenses, on a year to year basis.

However, in this respect, the following facts need consideration:

- a) The norms are framed based on the averaging of the actual O&M expenses of past five years to capture the year on year variations in sub-heads of O&M;
- b) Certain cyclic expenditure may occur with a gap of one year or two years and as such adopting a longer duration i.e. five years for framing of norms also captures such expenditure which is not incurred on year to year basis;
- c) When generating companies find that their actual expenditure has gone beyond the normative O&M expenses in a particular year put departmental restrictions and try to bring the expenditure for the next year below the norms.

111. As such, in consideration of above facts, we find it appropriate to compare the normative O&M expenses with the actual O&M expenses for a longer duration so as to capture the variation in the sub-heads. Accordingly, it is decided that for ascertaining whether the O&M expense norms provided under the 2014 Tariff Regulations are inadequate/ insufficient to cover all justifiable O&M expenses including employee expenses, the comparison of the normative O&M expenses and



the actuals O&M expenses incurred shall be made for 2015-19 on a combined basis which is commensurate with the wage revision claim being spread over these four years.

112. The Petitioner has furnished the detailed break-up of the actual O&M expenses incurred during the 2014-19 tariff period for combined stages i.e. Stage-I, II and III of the generating station (2600 MW). It is noticed that the total O&M expenses incurred is more than the normative O&M expenses recovered during each year of the 2014-19 tariff period. The impact of the wage revision could not be factored by the Commission while framing the O&M expenses norms under the 2014-19 Tariff Regulations, since the pay/ wage revision came into effect from 1.1.2016 (CISF & KV employees) and 1.1.2017 (employees of the Petitioner) respectively. As such, in terms of relevant provisions of SOR of the 2014 Tariff Regulations, the approach followed for arriving at the allowable impact of pay revision is given in the subsequent paragraphs.

113. First step is to compare the normative O&M expenses with the actual O&M expenses for the period from 2015-16 to 2018-19, commensurate to the period for which wage revision impact has been claimed. For like to like comparison, the components of O&M expenses like productivity linked incentive, water charges, filing fees, ex-gratia, loss of provisions, prior period expenses, community development, store expenses, ash utilization expenses, RLDC fee & charges and others (without breakup/ details) which were not considered while framing the O&M expenses norms for the 2014-19 tariff period, have been excluded from the yearly actual O&M expenses of the generating station as well as corporate centre. Having brought the normative O&M expenses and actual O&M expenses at same level, if normative O&M expenses for the period 2015-19 are higher than actual O&M expenses (normalized)



for the same period, the impact of wage revision (excluding PRP and ex-gratia) as claimed for the period is not admissible/ allowed as the impact of pay revision gets accommodated within the normative O&M expenses. However, if the normative O&M expenses for the period 2015-19 are less than the actual O&M expenses (normalized) for the same period, the wage revision impact (excluding PRP and ex-gratia) to the extent of under recovery or wage revision impact (excluding PRP and ex-gratia), whichever is lower, is required to be allowed as wage revision impact for the period 2015-19.

114. In this regard, the details as furnished by the Petitioner for actual O&M expenses for Stage-I, Stage-II and Stage-III of the generating station (2600 MW) and wage revision impact (excluding PRP and ex-gratia) for Stage-III 500 MW of the generating station are as follows:

	<i>(Rs. in lakh)</i>				
	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>	<b>Total</b>
Actual O&M expenditure (normalized) for Korba STPS (Combined for stage-I, Stage-II and Stage-III) (A)	50853.83	41925.48	40197.05	43508.06	176484.41
Actual O&M expenditure (normalized) for Korba STPS Stage-III prorated based on capacity (B)	9779.58	10481.37	10049.26	10877.01	41187.23
Normative O&M Expenses for Korba STPS Stage-III (C)	8505.00	9040.00	9610.00	10215.00	37370.00
Under-recovery (D) = [(C) - (B)]	(-)1274.58	(-)1441.37	(-)439.26	(-)662.01	(-)3817.23
Wage revision impact claimed excluding PRP/ ex-gratia (E)	17.89	1304.22	1226.92	1128.27	3677.30

115. As stated, for like to like comparison of the actual O&M expenses and normative O&M expenses, the expenditure against O&M expenses sub-heads as listed at paragraph 109 above, has been excluded from the actual O&M expenses to



arrive at the actual O&M expenses (normalized) for the combined Stage-I and II of the generating station (2000 MW). Accordingly, the following table portrays the comparison of normative O&M expenses versus the actual O&M expenses (normalized) along with wage revision impact claimed by the Petitioner for the generating station (Stage-II 1000 MW) for period 2015-19 (on combined basis) commensurate with the wage revision claim being spread over these four years:

*(Rs. in lakh)*

Sl. No.		2015-16	2016-17	2017-18	2018-19	Total for 2015-19
1	Actual O&M expenditure (normalized) for Korba STPS (Combined for stage-I, Stage-II and Stage-III) (a)	50853.83	41925.48	40197.05	43508.06	176484.41
2	Actual O&M expenditure (normalized) for Korba STPS Stage -III prorated based on capacity (b)	9779.58	10481.37	10049.26	10877.01	41187.23
2	Normative O&M Expenses for Korba STPS Stage -III (c)	8505.00	9040.00	9610.00	10215.00	37370.00
	Under-recovery (d) = [(c)-(b)]	(-)1274.58	(-)1441.37	(-)439.26	(-)662.01	(-)3817.23
3	Wage revision impact claimed excluding PRP/ex-gratia	17.89	1304.22	1226.92	1128.27	3677.30

116. It is observed that for the period 2015-16 to 2018-19, the normative O&M expenses is lesser than the actual O&M expenses (normalized) incurred and the under recovery is to the tune of Rs.3817.23 lakh, which also includes the under recovery of Rs.3677.30 lakh due to wage revision impact. As such, in terms of methodology as discussed above, the wage revision impact (excluding PRP/incentive) of Rs.3677.30 lakh is allowable for this generating station.



117. Accordingly, we, in exercise of the Power under Regulation 54 of the 2014 Tariff Regulations, relax Regulation 29(1) of the 2014 Tariff Regulations allow the reimbursement of the wage revision impact amounting to Rs.3677.30 lakh, as additional O&M expenses for the period 2015-19. The arrear payments on account of the wage revision impact is payable by the beneficiaries in twelve equal monthly installments during 2022-23. Keeping in view the consumer interest, we as a special case, direct that no interest shall be charged by the Petitioner on the arrear payments on the wage revision impact allowed in this order. This arrangement, in our view, will balance the interest of both the Petitioner and the Respondents. Also, considering the fact that the impact of wage revision is being allowed in exercise of the power to relax, the expenses allowed are not made part of the O&M expenses and the consequent annual fixed charges determined in this order.

118. Based on the above discussions, the total annualized O&M expenses allowed in respect of the generating station is summarized below:

*(Rs. in lakh)*

		2014-15	2015-16	2016-17	2017-18	2018-19
Installed Capacity (MW) (A)		500.00	500.00	500.00	500.00	500.00
O&M Expenses under Regulation 29(1) (in Rs. lakh / MW) (B)		16.00	17.01	18.08	19.22	20.43
Total O&M Expenses (in Rs lakh) (C) = [(A)*(B)]	Claimed	8000.00	8505.00	9040.00	9610.00	10215.00
	Approved	8000.00	8505.00	9040.00	9610.00	10215.00
Water Charges (in Rs. lakh) (D)	Claimed	1947.31	1969.84	1936.06	1949.14	1950.57
	Approved	1947.31	1969.84	1936.06	1949.14	1950.57
Capital Spares Consumed (in Rs. lakh) (E)	Claimed	199.67	233.84	155.77	308.02	288.86
	Approved	84.89	150.39	0.00	0.00	23.06
<b>Total O&amp;M Expenses as allowed (including Water Charges and Capital Spares Consumed) (F) = (C+D+E)</b>	Claimed	<b>10146.98</b>	<b>10708.67</b>	<b>11131.83</b>	<b>11867.17</b>	<b>12454.43</b>
	Approved	<b>10032.20</b>	<b>10625.23</b>	<b>10976.06</b>	<b>11559.14</b>	<b>12188.63</b>



		2014-15	2015-16	2016-17	2017-18	2018-19
<b>Additional O&amp;M Expenditure</b>						
Impact of Wage Revision (in Rs. lakh) (G)	Claimed	0.00	17.89	1304.22	1316.47	1486.79
	Approved	0.00	17.89	1304.22	1226.92	1128.27
Impact of GST (in Rs. lakh) (H)	Claimed	0.00	0.00	0.00	70.54	104.11
	Approved	0.00	0.00	0.00	0.00	0.00
Ash Transportation Expenditure (I)	Claimed	0.00	0.00	0.00	0.00	0.00
	Approved	0.00	0.00	0.00	0.00	0.00
<b>Sub Total Additional O&amp;M Expenditure (J) = (F+G+H+I)</b>	Claimed	<b>0.00</b>	<b>17.89</b>	<b>1304.22</b>	<b>1387.01</b>	<b>1590.90</b>
	Approved	<b>0.00</b>	<b>17.89</b>	<b>1304.22</b>	<b>1226.92</b>	<b>1128.27</b>
<b>Total O&amp;M Expenses (in Rs. lakh) (K) = (F+I)</b>	Claimed	<b>10146.98</b>	<b>10726.56</b>	<b>12436.05</b>	<b>13254.18</b>	<b>14045.33</b>
	Approved	<b>10032.20</b>	<b>10643.12</b>	<b>12280.28</b>	<b>12786.06</b>	<b>13316.90</b>

### **Operational Norms**

#### ***(a) Normative Annual Plant Availability Factor***

119. The Normative Annual Plant Availability Factor of 83% for 2014-15 to 2016-17 and 85% for 2017-18 and 2018-19, in accordance with the provisions of Regulation 36 (A) of the 2014 Tariff Regulations as approved in order dated 3.3.2017 in Petition No. 340/GT/2014 has been allowed.

#### ***(b) Auxiliary Energy Consumption***

120. The Auxiliary Energy Consumption (AEC) of 5.75% claimed as per Regulation 36(E)(a)(ii) of the 2014 Tariff Regulations and approved by order dated 3.3.2017 in Petition No. 340/GT/2014 has been allowed.

#### ***(c) Station Heat Rate***

121. The Gross Station Heat Rate of 2390.52 Kcal/ kWh as approved in order dated 3.3.2017 in Petition No. 340/GT/2014 in terms of Regulation 36 (C) of the 2014 Tariff Regulations has been allowed.

### **Interest on Working Capital**

122. Sub-section (a) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as follows:



*“28. Interest on Working Capital:*

*(1) The working capital shall cover:*

*(a) Coal-based/lignite-fired thermal generating stations:*

*(i) Cost of coal or lignite and limestone towards stock if applicable for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*

*(ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;*

*(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor and in case of use of more than one secondary fuel oil cost of fuel oil stock for the main secondary fuel oil;*

*(iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;*

*(v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and*

*(vi) Operation and maintenance expenses for one month.*

*(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this regulation shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.*

*(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof as the case may be is declared under commercial operation whichever is later.*

*(9) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”*

### **Fuel Cost and Energy Charges for Working Capital Calculations**

123. Regulation 28(2) of the 2014 Tariff Regulations provides that the computation of cost of fuel as a part of Interest on Working Capital (IWC) is to be based on the landed price and gross calorific value of the fuel as per actuals, for the three months preceding the first month for which the tariff is to be determined.

124. Regulation 30 (6) of the 2014 Tariff Regulations provides as follows:

*“30. Computation and Payment of Capacity Charge and Energy Charge for Thermal Generating Stations:*



(6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formula:

(a) For coal based and lignite fired stations

$$ECR = \frac{\{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100}{(100 - AUX)}$$

(b) xxxxx

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF=(a) Weighted Average Gross calorific value of coal **as received**, in kCal per kg for coal based stations

(b) Weighted Average Gross calorific value of primary fuel **as received**, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations.

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LC = Normative limestone consumption in kg per kWh.

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

SFC = Normative Specific fuel oil consumption, in ml per kWh.

LPSFi = Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month

125. Therefore, in terms of the above regulations, for determination of the Energy Charges in working capital, the GCV on 'as received' basis is to be considered.

126. Regulation 30 (7) of the 2014 Tariff Regulations provides as follows:

*“(7) The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the forms prescribed at Annexure-I to these regulations:*

*Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels **as received** shall also be provided separately, along with the bills of the respective month:*

*Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The*





*details should be available on its website on monthly basis for a period of three months.”*

127. The Regulations for computation of energy charges were challenged by the Petitioner and other generating stations on the issue of ‘as received’ GCV specified in Regulation 30 of the 2014 Tariff companies through various writ petitions filed before the Hon’ble High Court of Delhi (W.P. No.1641/2014-NTPC v CERC). The Hon’ble Court directed the Commission to decide the place from where the sample of coal should be taken for measurement of GCV of coal on ‘as received’ basis on the request of Petitioners. In terms of the directions of the Hon'ble High Court, the Commission vide order dated 25.1.2016 in Petition No. 283/GT/2014 (approval of tariff of Kahalgaon STPS for the 2014-19 tariff period) decided as follows:

*“58. In view of the above discussion, the issues referred by the Hon’ble High Court of Delhi are decided as under:*

*“(a) There is no basis in the Indian Standards and other documents relied upon by NTPC etc. to support their claim that GCV of coal on as received basis should be measured by taking samples after the crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.*

*(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part1/Section1)-1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in accordance with the procedure prescribed in IS 436(Part1/Section1)-1964 which has been elaborated in the CPRI Report to PSERC.”*

128. The Review Petition No.11/RP/2016 filed by the Petitioner against the aforesaid order dated 25.1.2016 in Petition No. 283/GT/2014 was rejected by the Commission vide order dated 30.6.2016. The Petitioner has also filed Petition No.244/MP/2016 before this Commission inter alia praying for removal of difficulties in view of the issues faced by it in implementing the Commission’s orders dated 25.1.2016 and 30.6.2016 with regard to sampling of coal from loaded wagon top for measurement of GCV. The Commission by order dated 19.9.2018 disposed of the preliminary objections of the respondents therein and held that the petition is maintainable.



Against this order, some of the respondents have filed appeal before the APTEL in Appeal Nos. 291/2018 (GRIDCO v NTPC & ors) and the same is pending adjudication.

129. In Petition No. 340/GT/2014 filed by the Petitioner for determination of tariff of this generating station for the 2014-19 tariff period, the Petitioner had not furnished GCV of coal on 'as billed' and on 'as received' basis for the preceding 3 months i.e. for January 2014, February 2014 and March 2014 as was required for determination of Interest on Working Capital (IWC). Therefore, the Commission vide order dated 3.3.2017 in Petition No.340/GT/2014 had considered GCV of coal on as 'billed basis' and provisionally allowed adjustment for total moisture while allowing the cost of coal towards generation & stock and two months' energy charges in the working capital.

130. The Petitioner, in this petition, has furnished the average GCV of coal as 3669.07 Kcal/kg on "as received" basis for the period from October 2016 to March 2019. As per the Commission's order dated 25.1.2016 in Petition No. 283/GT/2014, the Petitioner in Form-13 F has considered the average GCV of coal on "as received basis" i.e., from wagon top for the period from October 2016 to March 2019 for the purpose of computation of working capital for the 2014-19 tariff period. The Petitioner has further submitted that CEA vide letter dated 17.10.2017 has opined that a margin of 85-100 kCal/kg for pit-head station and a margin of 105-120 kCal/kg for non-pit head station is required to be considered as loss of GCV of coal on "as received" and on "as fired basis respectively. Accordingly, the Petitioner has considered a margin of 100 kCal/kg on average GCV of coal for the period from October 2016 to March 2019 for computation of working capital of the generating station. Accordingly, the cost of fuel component in the working capital of the generating station based on (i) 'as



received' GCV of coal for 30 months from October 2016 to March 2019 with adjustment of 100 kCal/kg towards storage loss, (ii) landed price of coal for preceding three months i.e. January 2014 to March 2014 and (iii) GCV and landed price of Secondary fuel oil procured for the preceding three months i.e. January 2014 to March 2014 for the generating station, the Petitioner has claimed the cost of fuel component in the working capital as follows:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (15 days)	1129.70	1129.70	1129.70	1156.92	1156.92
Cost of Coal towards Generation (30 days)	2259.40	2259.40	2259.40	2313.85	2313.85
Cost of Secondary fuel oil 2 months	131.95	132.31	131.95	135.13	135.13

131. The Petitioner has claimed Energy Charge Rate (ECR) ex-bus of 82.540 paise/kWh for the generating station based on GCV and price of fuel (coal and secondary fuel oil) as indicated above.

132. The Respondent, MPPMCL has submitted that the Petitioner has failed to furnish the information of GCV of primary fuel on as received basis and in the absence of information regarding GCV of primary fuel on as received basis, the Commission decided to compute the GCV in accordance with the formula given in tariff order dated 3.3.2017 in Petition No. 340/GT/2014 and only the Petitioner is liable to bear the burden, if any, of its inaction to comply with the 2014 Tariff Regulations. The Respondent has further submitted that the Petitioner is paying for a GCV of about 4150 kCal/Kg to Coal India Limited (CIL) and loading the same on the beneficiaries. The Respondent has stated that claim of GCV of only 2952-3207 kCal/Kg for calculation of energy charges is highly arbitrary on the part of the Petitioner and the claim of the Petitioner of margin of about 100 kCal/Kg in GCV for calculation of working capital is beyond the scope of the 2014 Tariff Regulations and may be



disallowed. It has also submitted that as no transportation and handling loss is allowed in secondary fuel oil, no margin or transportation and handling losses should be allowed in respect of coal on similar logic also to ensure optimum utilization of resources, efficiency, good performance as mandated in Section 61(c) of Electricity Act, 2003. In response, the Petitioner has clarified that it has provided the monthly GCV on 'as received basis' from October, 2016 to March, 2019 in the petition and average of the same, after applying margin for GCV loss due to storage, etc., has been used for IOWC purposes. It has further submitted that GCV, on 'as received basis' for the months of January, 2014 to March 2014, has also been provided vide additional affidavit dated 29.6.2021. As regards the difference in GCV of coal as billed and GCV as fired, the Petitioner has clarified that both the values are computed based on different parameters and hence cannot be compared.

133. The Respondents, MSEDCL and CSPDCL have submitted that Regulation 28(2) of the 2014 Tariff Regulations provides for the cost of fuel in cases covered under sub-clauses (a) and (b) of Regulation 28(1) of the 2014 Tariff Regulations for consideration of the working capital and shall be based on the gross calorific value of fuel as per actuals for the three months preceding the first month for which tariff is to be determined. The Respondent, MSEDCL has submitted that for calculation of energy charge for coal based and lignite fired stations, the weighted average GCV of coal 'as received' needs to be considered as per Regulation 30(6) of the 2014 Tariff Regulations. The Respondent further submitted that there is no provision to consider GCV of coal after adjusting GCV loss due to storage in the 2014 Tariff Regulations and hence may disallow any such loss in GCV and energy charges calculated thereof. In response, the Petitioner has clarified that it has claimed GCV margin in accordance



with the Central Electricity Authority (CEA) letter dated 17.10.2017. The Petitioner has further clarified that it has made similar claim in Petition No. 244/MP/2016, which is pending adjudication before the Commission. The Petitioner has also submitted that it has filed a separate petition (Petition No. 244/MP/2016) seeking appropriate reliefs due to extreme practical difficulty faced by the Petitioner in implementing Regulation 30(6) of the 2014 Tariff Regulations and directions issued by the Commission in order dated 25.1.2016 and for consequential directions. The Petitioner has also sought liberty to make additional submissions based on the final decision in Petition No. 244/MP/2016.

134. In response to the clarification sought from the Petitioner on the details of GCV on 'as received' basis for the months of January, 2014 to March, 2014, which was uploaded in the website of the Petitioner and shared with the beneficiaries, the Petitioner vide affidavit dated 29.6.2021, has submitted that though the computation of energy charges moved from 'as fired' basis to 'as received' basis, with effect from 1.4.2014, in terms of Regulation 30(6) of the 2014 Tariff Regulations, however, for calculation of IWC under Regulation 28(2) of the 2014 Tariff Regulations, the GCV shall be as per 'actuals' for the three months preceding the first month for which tariff is to be determined. It has further submitted that for the 2014-19 tariff period, Regulation 28(2) of the 2014 Tariff Regulations unequivocally provide that the actual cost and GCV of the preceding three months shall be considered and for these preceding three months (January 2014 to March 2014), by virtue of it falling under the 2009 Tariff Regulations, shall be computed on the basis of 'as fired' GCV. Referring to the judgment of the Hon'ble Supreme Court in PTC India v CERC (2010) 4 SCC 603 and the judgment of APTEL in NEEPCO v TERC (2006) APTEL 148, the Petitioner has submitted that the Commission is bound by the provisions of the Tariff



Regulations and that purposive interpretation ought to be given to the 2014 Tariff Regulations and interest on working capital ought to be computed in terms of Regulation 28 (2) of the 2014 Tariff Regulations, 2014 on actual GCV i.e., ‘as fired’ GCV. The Petitioner, without prejudice to the above submissions, has furnished the details of GCV on ‘as received’ basis for the months of January 2014 to March 2014, in compliance with the directions of the Commission, as follows:

Sl. No.	Month	Weighted Average GCV of coal received (EM basis) (kcal/kg)	Total moisture (TM) (in %)	Equilibrated moisture (EM) (in %)	Weighted Average GCV of coal received (TM basis) (kcal/kg)
		(A)	(B)	(C)	(D)=[(A)*(1-B%)]/[(1-C%)]
1	January 2014	3768	11.70	5.20	3509.65
2	February 2014	3868	11.90	5.30	3598.42
3	March 2014	3289	11.90	4.80	3043.71
	Average				3383.93

135. The submissions have been considered. As stated above, the Petitioner in Form-13 F has considered the average GCV of coal on “as received basis” i.e. from wagon top for the period from October, 2016 to March, 2019 for the purpose of computation of working capital for the 2014-19 tariff period. In addition to the average GCV, it has also considered a margin of 100 kCal/kg for computation of the working capital of the generating station.

136. Regulation 28(2) of the 2014 Tariff Regulations provides that the computation of cost of fuel as a part of IWC is to be based on the landed price and gross calorific value of the fuel, as per actuals, for the three months preceding the first month for which the tariff is to be determined. Thus, calculation of IWC for the 2014-19 tariff period is to be based on such values for the months of January 2014, February 2014



and March 2014. The Petitioner has not been able to furnish these values at the time of determination of tariff for the 2014-19 tariff period in Petition No. 340/GT/2014. In this petition, the Petitioner has proposed that instead of GCV for January 2014, February 2014 and March 2014, the Commission should consider the average values for months of October 2016 to March 2019 since the measurement of 'as received' GCV has been done in accordance with directions of the Commission vide order dated 25.1.2016 in Petition No. 283/GT/2014. In our view, the proposal of the Petitioner to consider the retrospective application of 30 months' (October 2016 to March 2019) average of 'as received' GCV data in place of 'as received' GCV of the preceding three months (January 2014 to March 2014) is not acceptable, keeping in view that the average GCV for 30 months may not be commensurate to the landed cost of coal for the preceding three months to be considered for calculating IWC in terms of Regulation 28(2) of the 2014 Tariff Regulations and that due to efflux of time (gap of 30 month), the quality of coal extracted from the linked mines would have undergone considerable changes. Also, the consideration of loss of GCV of 100 kCal/kg cannot be considered, as the same is not as per provisions of the 2014 Tariff Regulations.

137. It is observed that though the Petitioner has furnished the details of 'as received' GCV for the three months of January 2014 to March 2014 as in table under paragraph 134 above, it has submitted that GCV of fuel is to be considered 'on actuals' for January 2014 to March 2014 and as such, GCV is required to be considered on 'as fired' basis. In other words, the Petitioner has contended that since the period of January 2014 to March 2014 falls in the 2009-14 tariff period for measurement of GCV of coal, Regulation 18(2) read with Regulation 21(6) of the 2009 Tariff Regulations was applicable which mandates that generating company shall



measure GCV on 'as fired' basis (and not on 'as received' basis). This submission of the Petitioner is also not acceptable in view of provisions of Regulation 21(6) of the 2009 Tariff Regulations that was amended on 31.12.2012, by addition of the following provisos.

*"The following provisos shall be added under Clause (6) of Regulation 21 of the Principal Regulations as under, namely:*

*Provided that generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the form 15 of the Part-I of Appendix I to these regulations:*

*Provided further that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels **as received** shall also be provided separately, along with the bills of the respective month:*

*Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months."*

138. Accordingly, in terms of the above amendment to the 2009 Tariff Regulations, the details regarding the weighted average GCV of the fuels on 'as received' basis was also required to be furnished by the Petitioner along with bills of the respective month. Also, bills detailing the parameters of GCV and price of fuel were to be displayed by the Petitioner on its website, on monthly basis.

139. As per SOR to the 2014 Tariff Regulations, we note that the main consideration of the Commission while moving from 'as fired' GCV to 'as received' GCV for the purpose of energy charges under Regulation 30(6) of the 2014 Tariff Regulations for the 2014-19 tariff period was to ensure that GCV losses which might occur within the generating station after receipt of coal are not passed on to the beneficiaries on account of improper handling and storage of coal by the generating companies. As regards the allowable (normative) storage loss within the generating station, CEA had





observed that there is negligible difference between 'as received' GCV and 'as fired' GCV. As such, for the purpose of calculating energy charges, the Commission moved from 'as fired' GCV to 'as received' GCV under Regulation 30(6) of the 2014 Tariff Regulations without allowing any margin between the two measurements of GCV. Thus, 'as received' GCV was made applicable for the purpose of calculating working capital requirements based on the actual GCV of coal for the preceding three months of the first month for which tariff is to be determined in terms of Regulation 28(2) of 2014 Tariff Regulations. In case the submission of the Petitioner that 'as fired' is to be considered 'at actuals' for the preceding three months for purpose of IWC, the same would mean allowing (and passing through) all storage losses which would have occurred during the preceding three months (January 2014 to March 2014) for the 2014-19 tariff period. This, according to us, defeats the very purpose of moving from 'as fired' GCV to 'as received' GCV in the 2014 Tariff Regulations. In this background and keeping in view that in terms of amended Regulation 21(6) of the 2009 Tariff Regulations, the Petitioner is required to share details of the weighted average GCV of the fuel on 'as received' basis, we consider the fuel component and energy charges based on 'as received' GCV of the preceding three months (January 2014 to March 2014) for the purpose of computation of IWC in terms of Regulation 28(2) of the 2014 Tariff Regulations.

140. The Petitioner has calculated GCV of 3669.07 kcal/kg which represents the simple average of GCV of the 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 above, works out to 3379.416 kcal/kg.



141. 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 3379.416 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.

142. Based on the above discussion, the cost of fuel components in working capital is worked out and allowed as follows:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
WC for Coal towards stock (15 days of generation)	1193.10	1193.10	1193.10	1221.85	1221.85
WC for Coal towards generation (30 days of generation)	2386.20	2386.20	2386.20	2443.70	2443.70
WC for Secondary fuel oil (2 months of generation)	131.95	132.31	131.95	135.13	135.13

### **Energy Charge Rate (ECR) for calculating working capital**

143. Regulation 30(6)(a) of the 2014 Tariff Regulations provides for computation and payment of Energy Charge for thermal generating stations:

*"6. Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal place in accordance with the following formula:*

*(a) For coal based and lignite fired stations*

$$ECR = \{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$$

*Where*

*AUX = Normative auxiliary energy consumption in percentage.*

*CVPF = Gross calorific value of primary fuel as received in kCal per kg per litre or per standard cubic metre as applicable.*

*CVSF = Calorific value of secondary fuel in kCal per ml.*

*ECR = Energy charge rate in Rupees per kWh sent out.*

*GHR = Gross station heat rate in kCal per kWh.*

*LC = Normative limestone consumption in kg per kWh.*

*LPL = Weighted average landed price of limestone in Rupees per kg.*

*LPPF = Weighted average landed price of primary fuel in Rupees per kg per litre or per standard cubic metre as applicable during the month.*

*SFC = Normative specific fuel oil consumption in ml/ kWh*

*LPSFi = Weighted average landed price of secondary fuel in Rs/ ml during the month"*



144. The Petitioner has claimed Energy Charge Rate (ECR) ex-bus of 82.540 Paise/kWh for the generating station based on the landed cost of coal during preceding three months, GCV of coal [on 'as received' basis for average of 30 months along with the storage loss of 100 kCal/kg] & GCV and price of Oil procured and burnt for the preceding three months of 2014-19 for the generating station. Since these claims of the Petitioner have not be allowed as discussed above, the allowable Energy Charge Rate (ECR), based on the operational norms as specified under the 2014 Regulations and on weighted average of 'as received' GCV of 3379.416 kcal/kg is worked out as follows:

	<b>Unit</b>	<b>2014-19</b>
Capacity	MW	500
Gross Station Heat Rate	kCal/kWh	2390.517
Auxiliary Energy Consumption	%	5.75
Weighted average GCV of oil	kCal/lit	10112.517
Weighted average Average GCV of Coal for 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	0.870

145. Energy charges for two (2) months as a part of working capital have been calculated on the following basis:

- a) ECR of Rs.0.870/kWh as calculated above (rounded off to three places as per Regulation 30(6) of 2014 Regulations).
- b) Two months ex-bus energy corresponding to installed capacity of 500 MW, normative availability of 83% for 2014-15 to 2016-17 and 85% for 2017-18 and 2018-19, along with AEC of 5.75% which works out as:
  - i) 3426.365 MUs { $500 \times 0.83 \times 24 \times 365 \times 0.9425 / 1000$ } for the years 2014-15, 2016-17;
  - ii) 3435.752 MUs { $500 \times 0.83 \times 24 \times 366 \times 0.9425 / 1000$ } for the year 2015-16 (leap year);
  - iii) 3508.928 MUs { $500 \times 0.85 \times 24 \times 365 \times 0.9425 / 1000$ } for the years 2017-18 and 2018-19.



### **Working Capital for Maintenance Spares**

146. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses. The Petitioner in Form-13B has claimed maintenance spares in the working capital shown in the table as follows:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
1869.40	1975.21	2306.41	2458.64	2604.77

147. The cost of maintenance spares @20% of the O&M expenses, including water charges and cost of capital spares consumed is allowed are as follows:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
2006.44	2125.05	2195.21	2311.83	2437.73

### **Working Capital for Receivables**

148. Receivables equivalent to two (2) months of capacity charge and energy charge has been worked out duly taking into account mode of operation of the generating station on secondary fuel, as follows:

*(Rs.in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months of generation (A)	4968.23	4981.84	4968.23	5087.94	5087.94
Fixed Charges – for two months of generation (B)	8783.65	8769.78	8617.99	8497.42	8420.60
<b>Total (C) = (A+B)</b>	<b>13751.88</b>	<b>13751.62</b>	<b>13586.22</b>	<b>13585.36</b>	<b>13508.54</b>

### **Working Capital for O & M Expenses (one (1) month of O & M Expenses)**

149. O&M expenses for one (1) month claimed by the Petitioner in Form-13B for the purpose of working capital is shown in the table as follows:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
778.91	823.01	961.00	1024.43	1085.32



150. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for O&M expenses for one month for coal-based generating station as a part of working capital. The one-month O&M expenses, as allowed for is as under:

*(Rs. in lakh)*

2014-15	2015-16	2016-17	2017-18	2018-19
836.02	885.44	914.67	963.26	1015.72

151. The difference in the claimed O&M expenses for one (1) month and maintenance spares (tables under paragraph 149 and paragraph 149 of this order respectively) and the O&M expenses for one (1) month and cost of maintenance spares allowed (tables under paragraph 146 and paragraph 147 of this order respectively) as above is due to the fact that, while the Petitioner’s claim is based on the O&M expenses inclusive of the expenses on impact of GST and wage revision, these components have not been included in our calculations towards working capital requirements.

***Rate of interest on working capital***

152. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the rate of interest on working capital has been considered as 13.50% (Bank rate of 10.00% + 350 bps).

153. Accordingly, Interest on working capital has been computed as follows:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Coal towards stock - 15 days (A)	1193.10	1193.10	1193.10	1221.85	1221.85
Working capital for Coal towards generation - 30 days (B)	2386.20	2386.20	2386.20	2443.70	2443.70
Working capital for Secondary Fuel Oil - 2 months (C)	131.95	132.31	131.95	135.13	135.13
Working Capital for O&M expenses - 1 month (D)	836.02	885.44	914.67	963.26	1015.72
Working Capital for Maintenance Spares - 20% of O&M (E)	2006.44	2125.05	2195.21	2311.83	2437.73
Working Capital for Receivables - 2 months (F)	13751.88	13751.62	13586.22	13585.36	13508.54
<b>Total Working Capital</b>	<b>20305.59</b>	<b>20473.72</b>	<b>20407.35</b>	<b>20661.13</b>	<b>20762.67</b>



	2014-15	2015-16	2016-17	2017-18	2018-19
<b>(G) = (A+B+C+D+E+F)</b>					
Rate of Interest (H)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital (I) = (GxH)	<b>2741.25</b>	<b>2763.95</b>	<b>2754.99</b>	<b>2789.25</b>	<b>2802.96</b>

### **Annual Fixed Charges**

154. Based on the above discussion, the annual fixed charges approved for the 2014-19 tariff period in respect of the generating station is summarized as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13023.35	13040.78	13006.24	13070.15	13108.68
Interest on Loan	12547.69	11621.68	10305.61	8819.19	7591.75
Return on Equity	14357.42	14567.07	14665.02	14746.78	14831.57
Interest on Working Capital	2741.25	2763.95	2754.99	2789.25	2802.96
O&M Expenses	10032.20	10625.23	10976.06	11559.14	12188.63
<b>Total</b>	<b>52701.91</b>	<b>52618.71</b>	<b>51707.93</b>	<b>50984.51</b>	<b>50523.59</b>

### **Summary**

155. The total expenses allowed on truing-up, in respect of the generating station for the 2014-19 tariff period are summarized as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	52701.91	52618.71	51707.93	50984.51	50523.59
Wage revision impact	0.00	17.89	1304.22	1226.92	1128.27

156. The difference between the annual fixed charges already recovered by the Petitioner and the annual fixed charges determined by this order shall be adjusted in terms of Regulation 8 (13) of the 2014 Tariff Regulations.

157. Annexure-I enclosed below shall form part of the order.

158. Petition No. 395/GT/2020 is disposed of in terms of the above.

**Sd/-**  
**(Pravas Kumar Singh)**  
**(Member)**

**Sd/-**  
**(Arun Goyal)**  
**(Member)**

**Sd/-**  
**(I. S. Jha)**  
**(Member)**

**Sd/-**  
**(P. K. Pujari)**  
**(Chairperson)**



**Annexure-I**

**Depreciation for the 2014-19 Tariff Period**

**(Rs. in lakh)**

Sl. no.	Name of assets	Depreciation Rate	For 2014-15		2015-16		2016-17		2017-18		2018-19	
			Gross Block as on 01.04.2014	Depreciation Amount	Gross Block as on 01.04.2015	Depreciation Amount	Gross Block as on 01.04.2016	Depreciation Amount	Gross Block as on 01.04.2017	Depreciation Amount	Gross Block as on 01.04.2018	Depreciation Amount
	Freehold Land	0.00%	4354.03	0.00	4354.03	0.00	4352.46	0.00	4354.03	0.00	4354.03	0.00
	Leasehold Land	3.34%	942.68	31.49	942.68	31.49	942.62	31.48	942.68	31.49	942.68	31.49
	Roads, bridges, culverts & helipad	3.34%	63.93	2.14	100.30	3.35	100.30	3.35	227.82	7.61	227.82	7.61
	Main Plant Buildings	3.34%	0.00	0.00	0.00	0.00	10236.34	341.89	10236.34	341.89	10248.21	342.29
	Other Buildings	3.34%	3329.01	111.19	3857.56	128.84	6051.25	202.11	6269.53	209.40	6271.62	209.47
	Temporary erection	100.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Water supply, drainage & sewerage system	5.28%	412.30	21.77	424.93	22.44	424.93	22.44	422.62	22.31	422.62	22.31
	MGR track and signalling system	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Railway siding	5.28%	73.77	3.90	73.77	3.90	73.77	3.90	73.77	3.90	634.40	33.50
	Earth dam reservoir	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Plant and machinery	5.28%	249952.63	13197.50	252087.48	13310.22	242651.20	12811.98	244188.07	12893.13	245140.34	12943.41
	Furniture and fixtures	6.33%	434.03	27.47	521.32	33.00	566.53	35.86	566.11	35.83	563.99	35.70
	Other Office Equipments	6.33%	228.49	14.46	360.46	22.82	356.15	22.54	354.68	22.45	352.59	22.32
	EDP, WP machines & SATCOM equipment	15.00%	287.32	43.10	521.14	78.17	501.55	75.23	400.41	60.06	371.33	55.70
	Vehicles including speedboats	9.50%	31.56	3.00	35.52	3.37	35.52	3.37	35.52	3.37	35.52	3.37
	Construction equipment	5.28%	125.55	6.63	159.35	8.41	159.35	8.41	159.35	8.41	159.36	8.41
	Electrical installations	6.33%	178.68	11.31	215.44	13.64	236.39	14.96	245.30	15.53	243.71	15.43
	Communication equipment	6.33%	39.35	2.49	47.53	3.01	47.64	3.02	47.64	3.02	43.42	2.75
	Hospital equipment	5.28%	199.59	10.54	212.18	11.20	211.89	11.19	209.35	11.05	209.35	11.05
	Laboratory and workshop equipment	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Leased assets - Vehicles	9.50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Software	15.00%	8.03	1.20	11.58	1.74	11.58	1.74	11.57	1.74	10.67	1.60
	Assets Not Owned By company	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Unserviceable/Obsolete assets	6.33%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Spares (IndAs)	5.28%					466.05	24.61	466.05	24.61	466.05	24.61
	<b>Total</b>		<b>260660.95</b>	<b>13488.18</b>	<b>263925.28</b>	<b>13675.59</b>	<b>267425.53</b>	<b>13618.09</b>	<b>269210.86</b>	<b>13695.81</b>	<b>270697.71</b>	<b>13771.02</b>
	<b>Weighted Average Rate of Depreciation</b>		<b>5.1781%</b>		<b>5.1367%</b>		<b>5.0898%</b>		<b>5.0873%</b>		<b>5.0872%</b>	

\*Calculated as per rate of depreciation in Appendix-II of the 2014 Tariff Regulations.

