

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 394/GT/2020**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of Order: 7<sup>th</sup> February, 2023**

**In the matter of**

Petition for truing up of annual fixed charges for the 2014-19 tariff period in respect of Mauda STPS, Stage-II (1320 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,  
Jabalpur 48200

2. Maharashtra State Electricity Distribution Co Ltd.  
Prakashgad, Bandra (East),  
Mumbai 400051

3. Gujarat Urja Vikas Nigam Limited,  
Vidyut Bhavan, Race Course  
Vadodara - 390007

4. Chattisgarh State Power Distribution Company Limited,  
P.O. Sundar Nagar, Danganiya,  
Raipur-492013

5. Government of Goa,  
Electricity Department, Vidyut Bhawan,  
Panaji, Goa



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

7. Electricity Department,  
Administration of Dadra & Nagar Haveli, Silvassa

.....Respondents

**Parties present:**

Shri Venkatesh, Advocate, NTPC  
Shri Siddharth Joshi, Advocate, NTPC  
Ms. Simran Saluja, NTPC  
Shri Sivakumar V Vepakomma, NTPC  
Shri Nitin Gaur, Advocate, MPPMCL  
Shri Anurag Naik, MPPMCL

**ORDER**

This petition has been filed by the Petitioner, NTPC Limited, for truing-up of tariff of Mauda Super Thermal Power Station-II (2 x 660 MW) ( in short 'the generating station'), from the date of commercial operation of Unit-I (1.2.2017) and Unit-II (18.9.2017), based on the actual additional capital expenditure incurred till 31.3.2019, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short 'the 2014 Tariff Regulations'). The generating station with a total capacity of 1320 MW comprises of two units 660 MW each, and the date of commissioning of the units are as under:

Unit-I	1.2.2017
Unit-II	18.9.2017

2. The Commission vide its order dated 5.4.2019 in Petition No. 142/GT/2016 had approved the capital cost and annual fixed charges of the generating station for the period 2014-19, as under:



## Capital Cost allowed

(Rs. in lakh)

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Opening Capital Cost	353660.29	362991.61	629416.42	640017.80
Add: Additional capital expenditure	9331.32	14396.09	10601.38	52762.78
<b>Closing Capital Cost</b>	<b>362991.61</b>	<b>377387.70</b>	<b>640017.80</b>	<b>692780.58</b>
Average Capital Cost	358325.95	370189.66	634717.11	666399.19

## Annual Fixed Charges allowed

(Rs. in lakh)

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Depreciation	18885.56	19570.03	33538.10	35212.16
Interest on Loan	15942.50	15460.64	25916.47	25710.64
Return on Equity	21182.44	21883.76	37521.30	39394.19
Interest on Working Capital	6334.82	6514.77	13284.46	13438.69
O&M Expenses	10982.47	11876.02	23491.45	24917.05
<b>Total</b>	<b>73327.80</b>	<b>75305.23</b>	<b>133751.78</b>	<b>138672.74</b>

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

*“8. Truing up*

*(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, in the present petition, has claimed the following capital cost and annual fixed charges:

## Capital Cost claimed

(Rs. in lakh)

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Capital Cost as on COD of Unit-I	353801.52	-	-	-
Capital Cost as on COD of Unit-II	-	-	627681.13	-



	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Short Term FERV	(-) 1108.67	-	234.75	-
Notional IDC	984.20	-	1524.52	-
Inter Unit Transfer before COD	(-) 16.94	-	(-) 24.18	-
Opening Capital Cost	353660.29	362991.60	629416.42	648496.59
Add: Net Addition during the year / period	9331.32	14396.09	19080.16	31047.68
<b>Closing Capital Cost</b>	<b>362991.60</b>	<b>377387.69</b>	<b>648496.59</b>	<b>679544.26</b>
<b>Average Capital Cost</b>	<b>358325.95</b>	<b>370189.65</b>	<b>638956.51</b>	<b>664020.43</b>

### Annual Fixed Charges claimed

(Rs. in lakh)

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Depreciation	18651.58	19274.29	33453.21	34709.01
Interest on Loan	15998.66	15701.31	26161.34	26414.72
Return on Equity	21182.44	21883.76	37771.91	39359.15
Interest on Working Capital	6608.65	6800.06	13771.45	14079.18
O&M Expenses	11136.02	12407.83	23825.83	25893.65
<b>Total Annual Fixed Charges</b>	<b>73577.35</b>	<b>76067.25</b>	<b>134983.74</b>	<b>140455.71</b>

5. The Respondent, CSPDCL, Respondent MSEDCL and the Respondent MPPMCL have filed their replies vide affidavits dated 14.8.2020, 17.8.2020 and 3.6.2021 respectively. The Petitioner has filed its rejoinder to the said replies vide affidavit dated 5.6.2021, and 3.6.2021 respectively. The Petitioner has submitted certain additional information vide affidavits dated 29.6.2021 and 23.2.2021, after serving copy on the Respondents. Further, the Commission vide ROP of the hearing dated 18.11.2021, directed the Petitioner to submit certain additional information and reserved its order. In compliance to the directions, the Petitioner has filed the additional information vide affidavit dated 23.2.2022, after serving copies on the Respondents. However, as order in the petition could not be issued prior to Chairperson Shri P. K. Pujari demitting office, this Petition was re-listed and heard through virtual hearing on 14.7.2022. The



Commission, after hearing the parties and after permitting the Petitioner to file certain additional information, reserved its order in the petition. In compliance to the direction, the Petitioner has filed the additional information vide affidavit dated 26.7.2022, after serving copies on the Respondents. Based on the submissions of the parties and the documents available on record and after prudence check, we proceed to true-up the tariff of the generating station for the 2014-19 tariff period, as stated in the subsequent paragraphs.

### **Capital Cost**

6. Regulation 9 (3) of the 2014 Tariff Regulations provides as under:

*“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.”*

7. The Commission vide its order dated 5.4.2019 in Petition No. 142/GT/2016 had allowed the opening capital cost of Rs. 353660.29 lakh as on COD of Unit I i.e 1.2.2017. Accordingly, in terms of Regulation 9(3) of the 2014 Tariff Regulations, the closing capital cost of Rs. 353660.29 lakh as on 31.1.2017, has been considered as opening capital cost as on 1.2.2017, for the purpose of tariff.

### **Additional Capital Expenditure**

8. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted upto 1.2.2017 (either



based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period i.e., from 2016-17 (1.2.2017 to 31.3.2017) to 2018-19. Regulation 14 of the 2014 Tariff Regulations, provides as under:

*“14. Additional Capitalization and De-capitalization:*

*(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.*

*(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;

(viii) In case of hydro generating stations any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;

(ix) In case of transmission system any additional expenditure on items such as relays control and instrumentation computer system power line carrier communication DC batteries replacement due to obsolescence of technology replacement of switchyard equipment due to increase of fault level tower strengthening communication equipment emergency restoration system insulators cleaning infrastructure replacement of porcelain insulator with polymer insulators replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

(xi) Provided that any expenditure on acquiring the minor items or the assets including tools and tackles furniture air-conditioners voltage stabilizers refrigerators coolers computers fans washing machines heat convectors mattresses carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

(xii) Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite-based station shall be met out of compensation allowance:

(xiii) Provided also that if any expenditure has been claimed under Renovation and Modernization (R&M) repairs and maintenance under (O&M) expenses and Compensation Allowance same expenditure cannot be claimed under this regulation.”



**Projected additional capital expenditure allowed vide order dated 5.4.2019 in Petition No. 142/GT/2016**

9. The Commission vide its order dated 5.4.2019 in Petition No. 142/GT/2016 has approved additional capital expenditure of Rs. 9331.32 lakh (1.2.2017 to 31.3.2017) and Rs. 14396.09 lakh (1.4.2017 to 17.9.2017) as claimed by the Petitioner, on cash basis, from COD of Unit-I to COD of Unit-II and Rs. 10601.38 lakh for the period from COD of Unit II/Station COD (18.9.2017) to 31.3.2018 and Rs. 52762.78 lakh for 2018-19, on projection basis.

10. The Petitioner, in Form-9A of the petition, has furnished the actual additional capital expenditure incurred for the tariff period starting from 1.2.2017 (COD of Unit I) to 2018-19 on accrual, and on cash basis, which also includes IDC. The additional capital expenditure claimed by the Petitioner (on cash basis) is as under:

<i>(Rs. in lakh)</i>					
	Regulations	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
			2017-18 (1.4.2017 to 17.9.2017)	2017-18 (18.9.2017 to 31.3.2018)	
		Items within the original scope of work as allowed vide order dated 5.4.2019 in Petition No 142/GT/2016	New Claims (part of the original scope of work)		
Air Compressor system	14(1)(ii)	-	-	-	27.73
Air Conditioning	14(1)(ii)	-	123.17	-	50.28
Ash Handling Plant	14(1)(ii)	-	0.64	-	47.83
Boundary Wall	14(1)(ii)	-	0.00	-	-
Capital Spares	14(1)(iii)	631.13	0.04	1176.07	3529.05
Capitalization of MBOAs	14(1)(ii)	-	-	270.76	1069.70
Chimney	14(1)(ii)	-	-	-	908.80
Coal Handling Plant	14(1)(ii)	3507.20	(-) 678.91	-	1786.45
Construction Power	14(1)(ii)	-	0.10	-	-





	Regulations	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19	
		Items within the original scope of work as allowed vide order dated 5.4.2019 in Petition No 142/GT/2016	2017-18 (1.4.2017 to 17.9.2017)	2017-18 (18.9.2017 to 31.3.2018)		New Claims (part of the original scope of work)
Control & Instrumentation (C & I) Package (incl Instrumentation Cables)	14(1)(ii)	-	188.13	-	-	
Cooling Tower	14(1)(ii)	-	148.39	-	201.65	
Cooling Water System	14(1)(ii)	-	189.40	-		
CW Equipment	14(1)(ii)	-	-	224.28	183.59	
DC Battery System	14(1)(ii)	-	-	-	28.69	
DG SET	14(1)(ii)	-	-	-	30.88	
DM PLANT	14(1)(ii)	-	(-) 0.73	-	20.83	
EDP	14(1)(ii)	23.09		-	-	
Electrical Installations	14(1)(ii)			89.79	-	
FERV Gain	14(1)(ii)	(-) 4311.70	2121.58		-	
Fire Detection & Protection System	14(1)(ii)	-	153.49	0.09	2.89	
Furniture and fixtures	14(1)(ii)	16.90	-	-		
Generator Bus Duct	14(1)(ii)	-	238.69	-	39.00	
HT Switch Gear	14(1)(ii)	-	50.92	-	105.33	
HT Switchgear	14(1)(ii)	-	-	-	-	
Laboratory & workshop Equipment	14(1)(ii)	-	0.12	1.03	-	
Leasehold Land	14(1)(ii)	-	-	2160.79	-	
Locomotive	14(1)(iii)	1104.47	-	-	-	
LT Switch Gear	14(1)(ii)	-	329.78	-	-	
LT Transformers Outdoor	14(1)(ii)	-	-	-	359.63	
Main Plant Buildings	14(1)(ii)	-	-	-	3749.90	
Make up water system	14(1)(ii)	-	2.12	-	6.28	
MGR	14(1)(iii)	-	-	-	304.43	



	Regulations	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
			2017-18 (1.4.2017 to 17.9.2017)	2017-18 (18.9.2017 to 31.3.2018)	
		Items within the original scope of work as allowed vide order dated 5.4.2019 in Petition No 142/GT/2016		New Claims (part of the original scope of work)	
Other Buildings	14(1)(ii)	0.00	-	-	112.50
Other Office Equipment's	14(1)(ii)	2.97	0.02	-	
Outdoor transformer	14(1)(ii)	-	12.41	-	
Porta cabin	14(1)(ii)	-	-	-	22.32
Power Transformer	14(1)(ii)	-	1306.74	-	190.33
Power Transformer	14(1)(ii)	-	-	-	
Pre- Treatment Plant	14(1)(iii)	-	227.34	-	917.06
Railway Siding	14(1)(ii)	-	-	-	3588.29
Roads, Bridges, Culverts & Helipads	14(1)(ii)	-	-	466.34	758.41
Station Piping	14(1)(ii)	-	138.67	-	-
Steam Generator	14(1)(ii)	2710.86	2375.75	179.25	887.90
Switch Yard	14(1)(ii)	-	169.46	-	812.94
Tools & Plant	14(1)(ii) & (iii)	10.88	(-)0.92	14.25	501.49
Township	14(1)(ii)	-	-	1282.06	382.48
Transformer	14(1)(ii)	-	-	-	238.13
Turbine Generator	14(1)(ii)	-	3932.75	170.35	113.09
Ventilation System	14(1)(ii)	-	42.98	-	21.45
Water Supply, Drainage & Sewerage	14(1)(ii)	-	-	27.91	249.68
Workshop & Lab Equipment's	14(1)(ii)	8.95	-	-	-
		<b>3704.74</b>	<b>11072.09</b>	<b>6062.96</b>	<b>21249.00</b>

11. It is observed that there is a variation between the additional capital expenditure allowed by order dated 5.4.2019 in Petition No. 142/GT/2016 and those claimed by the Petitioner in the present Petition, on account of (i) difference in the additional capital



expenditure allowed vide order dated 5.4.2019 in Petition No. 142/GT/2016, (which was on projection basis vis-à-vis the actual additional capitalization claimed in this petition) and (ii) new items/assets being claimed in this instant petition along with the IDC. In compliance to the directions vide order dated 5.4.2019, the Petitioner vide affidavit dated 16.7.2021, has furnished the auditor certificate of the additional capital expenditure claimed.

12. In justification of the variations, the Petitioner has submitted that the additional expenditure claimed on cash basis, for the period 2016-17 (1.2.2017 to 31.3.2017) and 2017-18 (1.4.2017 to 17.9.2017) are within the original scope of work, which were allowed by order dated 5.4.2019 in Petition No. 142/GT/2016. As regards the additional capital expenditure claimed for 2017-18 (18.9.2017 to 31.3.2018) and 2018-19, these are new claims, which are within the original scope of work.

13. The Respondents MPPMCL and CSPDCL have submitted that the Petitioner has claimed total Interest During Construction (IDC) of Rs. 5945 lakh, as against the total additional capitalization claimed for the period, which shall not be allowed after the COD of the generating station, since there is no provision for the same under the 2014 Tariff Regulations. In response, the Petitioner has mainly clarified as under:

- (a) Most of the assets claimed under additional capitalization for the period from COD of Unit-I to 31.3.2019 pertain to 'original scope of work'. Most of these works were under "Capital Works in Progress" in the books of accounts during construction phase of Unit(s). The works/packages when capitalized as on COD of Unit/station, as the case may be, the total IDC against these works/packages are apportioned between capitalization & CWIP. Now, as the works/assets are capitalized post COD, the IDC pertaining to the assets/works being under CWIP also gets capitalized for the same.



- (b) Whenever an asset is created, the additional capitalization towards the said asset is funded by both debt and equity. Any asset which is capitalized in books of accounts, includes interest of debt funding incurred during the installation of the said asset. This interest is considered as the part fund invested in the asset, and accordingly, the same is included in the capitalization of the asset.
- (c) As per Regulation 10 of the 2014 Tariff Regulations, during prudence check of the capital cost of the existing projects, the Commission can consider, inter alia, IDC for all works.

14. The submissions have been considered. The COD of the generating station is 18.9.2017 and hence the cut-off date in terms of the 2014 Tariff Regulations is 31.3.2020. The Petitioner has claimed the total additional capital expenditure of Rs. 73885.25 lakh (with undischarged liability of Rs. 3653.54 lakh) from 2016-17 (1.2.2017 to 31.3.2017) till 2018-19, which is within the cut-off date. This also includes the initial spares of Rs. 5336.29 lakh (on cash basis).

**Additional Capital Expenditure claimed for 2016-17 and 2017-18 (upto COD of Unit-II)**

15. As regards the additional capital expenditure claimed for the years 2016-17 (1.2.2017 to 31.3.2017) and 2017-18 (1.4.2017 to 17.9.2017), it is evident from the justification submitted by the Petitioner, that the actual additional capital expenditure claimed are in respect of the balance works under different work packages, which are within the original scope of work and is within the cut-off date of the generating station (31.3.2020). Accordingly, for the period from 1.2.2017 (COD of Unit-I) to 31.3.2017 and from 1.4.2017 to 17.9.2017 (upto to the COD of Unit-II) the claim of the Petitioner for Rs. 1969.15 lakh and Rs. 11072.05 lakh respectively, for additional capitalization, excluding the assets claimed under initial spares, are allowed, on prudence check,



under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The allowance of the initial spares is discussed separately, in this order.

### **Additional Capital Expenditure claimed for 2017-18 (from Station COD) and 2018-19**

16. As regard the assets which are newly claimed by the Petitioner during the years 2017-18 (18.9.2017 to 31.3.2018) and 2018-19, it is evident from the justification submitted by the Petitioner, that the actual additional capital expenditure claimed are within the original scope of work and is within the cut-off date of the generating station (31.3.2020). Accordingly, for the period from 2017-18 (18.9.2017 to 31.3.2018) and 2018-19, the claim of the Petitioner for Rs.4886.89 lakh and Rs. 17218.46 lakh respectively, for additional capitalization, excluding the assets claimed under initial spares, are allowed, on prudence check, under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The admissibility of initial spares @ 4% of the Plant & Machinery cost, as on cutoff date of the generating station, are discussed below.

### **Initial Spares**

17. Regulation 13 of Tariff Regulations 2014 provides as under:

*“13. Initial Spares: Initial spares shall be capitalized as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:*

- (a) Coal-based/lignite-fired thermal generating stations - 4.0%*
- (b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%*

*Provided that:*

*i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:*

*.....*

*iv. for the purpose of computing of initial the cost spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break-up of head wise IDC & IEDC in its tariff application.”*



18. The Petitioner, vide affidavit dated 23.2.2022, has claimed the following initial spares:

Sl. No.	Description	Period of Claim	Amount Claimed/Allowed (Rs in lakh)	Remarks
1	Initial Spares	As on COD of the generating station on 17.9.2017	11529.78	Allowed vide order dated 5.4.2019 in Petition No 142/GT/2016
2		18.9.2017 to 31.3.2018	1176.07	Claimed upto cut-off date in Form 9A of the Petition.
3		2018-19	3529.05	
		<b>Total</b>	<b>16234.90</b>	

19. The matter has been considered. The Commission vide its order dated 5.4.2019 in Petition No. 142/GT/2016, had allowed initial spares for Rs.11529.78 lakh which works out to 2.75% of the Plant & Machinery cost, upto COD (17.9.2017) of Unit II of the generating station. The Petitioner, in this petition, has claimed initial spares for Rs. 4705.12 lakh (on cash basis) i.e. Rs. 1176.07 lakh from 18.9.2017 to 31.3.2018 and Rs. 3529.05 lakh in 2018-19. However, the Petitioner has not considered the discharge of liabilities of Rs. 262.17 lakh (Rs. 82.93 lakh from 18.9.2017 to 31.3.2018 and Rs. 179.25 lakh in 2018-19), towards the initial spares claimed. Accordingly, the initial spares, on accrual basis, for the period from 2017-18 (18.9.2017 to 31.3.2018) to 2018-19, works out to Rs. 4967.30 lakh (Rs. 4705.12 lakh + Rs. 262.17 lakh). Thus, the total value of the admitted initial spares works out to Rs. 16497.08 lakh (Rs. 11529.78 lakh + 4967.30 lakh).

20. Further, on perusal of Form-9A, it is observed that the Petitioner has claimed the additional capital expenditure towards Locomotive and Tools & Plant for Rs. 1104.47 lakh in 2016-17 (1.2.2017 to 31.3.2017) and Rs. 501.49 lakh in 2018-19



under Regulation 14(1)(iii) of the 2014 Tariff Regulations. Regulation 14(1)(iii) provides for procurement of initial capital spares within the original scope of work. Therefore, the additional capital expenditure of Rs. 1104.47 lakh and Rs. 501.49 lakh claimed towards Locomotive and Tools & Plant has been considered as part of the initial spares. Accordingly, total initial spares claimed works out to Rs. 18103.04 lakh (Rs. 16497.08 lakh as the initial spares + Rs. 1104.47 lakh Locomotives + Rs. 501.49 lakh Tools & Plants).

21. For the coal based thermal generating station, Regulation 13(a) of the 2014 Tariff Regulations, provides the ceiling limit of initial spares @4% of the Plant & Machinery cost, upto the cut-off date, excluding IDC, IEDC, Land Cost and cost of civil works. Based on the audited Form-5B submitted by the Petitioner, the total Plant & Machinery cost is Rs. 501681.71 lakh (exclusive of applicable taxes), out of which, total initial spares for Rs. 18103.04 lakh is allowed, which constitutes about 3.61% of the total Plant & Machinery cost. The initial spares allowed as above, is within the ceiling limit of 4% and therefore considered for the purpose of truing-up of tariff.

### **De-capitalization**

22. The Petitioner has claimed decapitalization of Rs. 512.63 lakh [Rs.7.56 lakh in 2017-18(1.4.2017 to 17.9.2017) + Rs.324.25 lakh in 2017-18(18.9.2017 to 31.3.2018) and Rs.180.82 lakh in (2018-19)] under Regulation 14(4) of the 2014 Tariff Regulations.

23. The Respondent, CSPDCL has submitted that there is no justification provided by Petitioner for claiming the decapitalization of Rs. 718 lakh, just after the COD of the Unit-I. The Respondent has further submitted that if the item has become unserviceable



and has accordingly prayed that the Petitioner may be directed to furnish proper justification for the same. In response, the Petitioner has clarified that the de-capitalization has been done due to several unserviceable assets which are no more under the use in accordance with the accounting principles. It has also submitted that the same is to reduce the capital cost of the Project by the amount raised by decapitalization of such unserviceable assets.

24. The matter has been considered. Regulation 14(4) of the 2014 Tariff Regulations, provides that the original value of de-capitalized assets shall be deducted from the capital cost allowed to the generating station. Accordingly, the de-capitalization of the assets as claimed by the Petitioner is allowed.

**Un-discharged liabilities and Discharge of liabilities**

25. The discharge of un-discharge liabilities claimed by the Petitioner are as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19	Total
	2017-18 (1.4.2017 to 17.9.2017)	2017-18 (18.9.2017 to 31.3.2018)		
5626.57	3331.56	13341.46	9979.49	32279.09

26. The discharge of liabilities claimed by the Petitioner for Rs. 5626.57 lakh in 2016-17 (1.2.2017 to 31.3.2017) and Rs. Rs. 3331.56 lakh in 2017-18 (1.4.2017 to 17.9.2017) is same as allowed by the Commission vide order dated 5.4.2019 in Petition No. 142/GT/2016, which was based on the actual capital expenditure. Hence, the same is allowed.

27. Further, the Petitioner has claimed discharge of liabilities from COD of Unit-II for Rs. 13341.46 lakh in 2017-18 (18.9.2017 to 31.3.2018) and Rs. 9979.49 lakh in 2018-





19 based on the actual capital expenditure incurred. After prudence check, the discharge of liabilities is allowed as part of the additional capital expenditure, corresponding to the assets allowed for the period 2017-18 (18.9.2017 to 31.3.2018) to 2018-19, as under:

	<i>(Rs. in lakh)</i>	
	2017-18	2018-19
	18.9.2017	
	-	
	31.3.2018	
Un-discharged liabilities as on 18.9.2017-A	60425.85	47764.94
Addition during the period 2017-18 (18.9.2017 to 31.3.2018) to 2018-19 (corresponding to allowed assets), including ERV Up-dation -B	684.26	635.42
Discharges during the period 2017-18 (18.9.2017 to 31.3.2018) to 2018-19 (corresponding to allowed assets)-C	13341.46	9979.49
Reversal of liabilities out of liabilities added during 2017-18 (18.9.2017 to 31.3.2018) to 2018-19 (corresponding to allowed assets)-D	3.71	100.39
<b>Closing undischarged liabilities E=(A+B-C-D)</b>	<b>47764.94</b>	<b>38320.48</b>

### **Exclusions**

28. The summary of exclusions from books of accounts under different heads for the purpose of tariff are as under:

Head of Work / Equipment	<i>(Rs. in lakh)</i>			
	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Loan ERV	-	-	4026.25	5026.36
Liability Reversal	-	-	(-) 3.71	(-) 100.39
Inter Unit Transfer	0.60	7.24	(-) 8.55	(-) 161.80
<b>Exclusions claimed</b>	<b>0.60</b>	<b>7.24</b>	<b>4013.99</b>	<b>4764.17</b>

### ***Loan ERV***

29. The Petitioner has sought the exclusion of Loan ERV as under:

Head of Work / Equipment	<i>(Rs. in lakh)</i>			
	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Loan ERV	-	-	4026.25	5026.36



30. The Petitioner has submitted that it is required to bill loan ERV directly on to the beneficiaries as per the 2014 Tariff Regulations. Hence, the exclusion of said amount under this head is in order and the same is allowed.

### Inter-Unit Transfer

31. The Petitioner has claimed inter-unit transfer as under:

Head of Work / Equipment	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Inter Unit Transfer	0.60	7.24	(-) 8.55	(-) 161.80

(Rs. In lakh)

32. In justification for the same, the Petitioner has submitted that the Commission has not been considering inter-unit transfers as part of tariff and hence, kept under exclusions. 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.

### Reversal of Liability

33. The Petitioner has claimed exclusion of reversal of liabilities as under:

Head of Work / Equipment	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Liability Reversal	-	-	(-) 3.71	(-)100.39

(Rs. in lakh)

34. In justification, the Petitioner has submitted that since tariff is determined on cash basis, the liability reversal has been kept under exclusion. In view of this, the exclusion of the said amount is allowed.

35. Accordingly, the exclusions claimed and allowed in 2017-18 and 2018-19 are summarized below:



*(Rs. in lakh)*

Head of Work / Equipment	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Exclusions Claimed	0.60	7.24	4013.99	4764.17
Exclusions Allowed	0.60	7.24	4013.99	4764.17
Exclusions not Allowed	-	-	-	-

36. Based on the above discussions, the additional capital expenditure allowed for the generating station is summarized as under:

*(Rs. in lakh)*

Sl. No.	Head of Work /Equipment	2016-17 (1.2.2017 to 31.3.2017)	2017-18 (1.4.2017 to 17.9.2017)	2017-18 (18.9.2017 to 31.3.2018)	2018-19
<b>A</b>	<b>Works under original scope, Change in law etc. eligible for RoE at Normal rate</b>				
1	Capital Spares (Initial Spares)	631.13	0.04	1,176.07	3,529.05
2	Coal Handling Plant	3,507.20	(-) 678.91	-	1,786.45
3	EDP	23.09	-	-	-
4	Furniture & Fixtures	16.90	-	-	-
5	Locomotive	1,104.47	-	-	-
6	Other Buildings	-	-	-	112.50
7	Other Office Equipment's	2.97	0.02	-	-
8	Steam Generator	2,710.86	2,375.75	179.25	887.90
9	Tools & Plants	10.88	(0.92)	14.25	501.49
10	Workshop & Lab Equipment's	8.95	0.12	1.03	-
11	FERV Gain	(-) 4,311.70	2,121.58	-	-
12	Air Conditioning	-	123.17	-	50.28
13	Ash Handling Plant	-	0.64	-	47.83
14	Boundary Wall	-	-	-	-
15	Control & Instrumentation (C&I) Package (incl. of Instrumentation Cables)	-	188.13	-	-
16	Construction Power	-	0.10	-	-
17	Cooling Tower	-	148.39	-	201.65
18	Cooling Water System	-	189.40	-	-
19	Fire Detection Protection System	-	153.49	0.09	2.89
20	Generator Bus Duct	-	238.69	-	39.00
21	HT Switch Gear	-	50.92	-	105.33
22	LT Switch Gear	-	329.78	-	-
23	Make up water system	-	2.12	-	6.28
24	Outdoor Transformer	-	12.41	-	-
25	Power Transformer	-	1,306.74	-	190.33
26	Pre-Treatment Plant	-	227.34	-	917.06



27	Station Piping	-	138.67	-	-
28	Switch Yard	-	169.46	-	812.94
29	Turbine Generator	-	3,932.75	170.35	113.09
30	Ventilation System	-	42.98	-	21.45
31	DM Plant	-	(-) 0.73	-	20.83
32	CW Equipment	-	-	224.28	183.59
33	Leasehold Land	-	-	2,160.79	-
34	Township	-	-	1,282.06	382.48
35	Water Supply, Drainage & Sewerage	-	-	27.91	249.68
36	Roads, Bridges, Culverts & Helipads	-	-	466.34	758.41
37	Electrical Installations	-	-	89.79	-
38	Capitalization of MBOAs	-	-	270.76	1,069.70
39	Works ERV	-	-	0.00	-
40	AIR Compressor system	-	-	-	27.73
41	Chimney	-	-	-	908.80
42	DC Battery System	-	-	-	28.69
43	DG SET	-	-	-	30.88
44	LT Transformers Outdoor	-	-	-	359.63
45	Main Plant Buildings	-	-	-	3,749.90
46	MGR	-	-	-	304.43
47	Porta Cabin	-	-	-	22.32
48	Railway Siding	-	-	-	3,588.29
49	Transformer	-	-	-	238.13
<b>50</b>	<b>Gross Additional Capital Expenditure (A)</b>	<b>3704.74</b>	<b>11072.09</b>	<b>6062.96</b>	<b>21249.00</b>
<b>51</b>	<b>Less: Total Decapitalization (B)</b>	<b>-</b>	<b>(-) 7.56</b>	<b>(-) 324.25</b>	<b>(-) 180.82</b>
<b>52</b>	<b>Add: Discharge of Liabilities (C)</b>	<b>5626.57</b>	<b>3331.56</b>	<b>13341.46</b>	<b>9979.49</b>
<b>53</b>	<b>Total Additional Capital Expenditure D= A-B+C</b>	<b>9331.32</b>	<b>14396.09</b>	<b>19080.16</b>	<b>31047.68</b>



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

37. Accordingly, the capital cost allowed for the 2014-19 tariff period is as under:

	(Rs. in lakh)			
	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Opening Capital Cost	353660.29	362991.61	629416.42	648496.58
Add: Net additional capital expenditure allowed	9331.32	14396.09	19080.16	31047.68
<b>Closing Capital Cost</b>	<b>362991.61</b>	<b>377387.70</b>	<b>648496.58</b>	<b>679544.26</b>
Average Capital Cost	358325.95	370189.65	638956.50	664020.42

## Debt-Equity Ratio

38. Regulation 19 of the 2014 Tariff Regulations provides as under:

*“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 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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

39. The gross normative loan and equity amounting to Rs. 247562.21 lakh and Rs. 106098.09 lakh, respectively as on 1.2.2017, as considered in order dated 5.4.2019 in Petition No.142/GT/2016 has been retained for the purpose of tariff. Further, the additional capital expenditure admitted as above has been allocated in the debt-equity ratio of 70:30. Accordingly, the debt-equity ratio in respect of the generating station, as on 1.2.2017 and 31.3.2019 allowed is as under:

(Rs. in lakh)

Particulars	As on 1.2.2017	%	As on 31.3.2017	%	As on 18.9.2018	%	As on 31.3.2019	%
Debt	247562.21	70.00%	254094.13	70.00%	440591.49	70.00%	475680.98	70.00%
Equity	106098.09	30.00%	108897.49	30.00%	188824.92	30.00%	203863.28	30.00%
<b>Total</b>	<b>353660.30</b>	<b>100.00%</b>	<b>362991.62</b>	<b>100.00%</b>	<b>629416.42</b>	<b>100.00%</b>	<b>679544.25</b>	<b>100.00%</b>

### Return on Equity

40. Regulation 24 of the 2014 Tariff Regulations provides as under:

“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 kilometers.”*

41. Regulation 25 of the 2014 Tariff Regulations provides as under:

*“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.”*

42. The Petitioner has claimed Return on Equity (ROE) for the 2014-19 tariff period after grossing up the base rate of return on equity of 15.50% based on MAT rates for each year, as per Regulation 25 of the 2014 Tariff Regulations. The Respondent MSEDCL has submitted that from the balance sheet submitted by the Petitioner, it is evident that the tax liability as on 31.3.2017 and 31.3.2018 for the station, is zero. It has therefore submitted that the Petitioner has unjustly claimed a higher ROE and the same is to be allowed at an effective rate of 15.50%. The Respondent MPPMCL has submitted that the Petitioner has not furnished the year-wise detail of net income from



sale of electricity and income from other operations etc and the information furnished by the Petitioner shows strange data qua the actual Income Tax. It has further submitted that the applicability of Minimum Alternate Tax (MAT) rate for grossing up of ROE is in contravention of Regulation 25 of the 2014 Tariff Regulations, and therefore, may be disallowed. The Petitioner has clarified that the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts, by the concerned generating company. It has further submitted that:

- (a) It is a corporate entity who is obligated to pay tax and not the generating station in question, therefore as long as Tax liability is imposed upon the generating company and the same is liable to be grossed up in terms of Regulation 25 of the 2014 Tariff Regulations.
- (b) The generating station is not the generating company and neither a corporate legal entity, it is only a division/generating station of the Petitioner and thus the claim for the MAT as per the consolidated financial statement is correct.

43. We have considered the submissions. ROE is trued up on the basis of the MAT rate applicable in the respective years and is accordingly allowed for the generating station as under:

*(Rs. in lakh)*

	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Normative Equity-Opening (A)	106098.09	108897.49	188824.92	194548.97
Addition of Equity due to additional capital expenditure (B)	2799.40	4318.83	5724.05	9314.30
Normative Equity-Closing (C) = (A) + (B)	108897.49	113216.31	194548.97	203863.28
Average Normative Equity (D) = (A+C)/2	107497.79	111056.90	191686.95	199206.12
Return on Equity (Base Rate) (E)	15.500%	15.500%	15.500%	15.500%





Tax Rate for the year (F)	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax) (G) = (E)/(1-F)	19.705%	19.705%	19.705%	19.758%
<b>Return on Equity (Pre-Tax) annualized (H) = (D)*(G)</b>	<b>21182.44</b>	<b>21883.76</b>	<b>37771.91</b>	<b>39359.15</b>

### Interest on Loan

44. Regulation 26 of the 2014 Tariff Regulations provides as under:

*“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 de-capitalization 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 upto 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 re-financing 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 the loan.”*

45. The Petitioner has submitted that some of the loans allocated to this station have been refinanced by taking new loans with lower rate of interest. As per Regulation 8(6) read with Regulation 26 (7) of Tariff Regulations 2014, the benefits of refinancing of loans has to be shared with the beneficiaries in the ration of 2:1 (Beneficiaries: Generator). The same has been applied by adjusting the rate of interest of new loans while computing weighted average rate of interest. The adjustment in rate of interest for new loans has been done as illustrated under:

Rate of interest of existing loan: 8.000% (say)

Rate of interest of new loan for refinancing of existing loan: 6.000% (say)

Rate of interest of new loan considered for computing weighted average rate of interest: 6.667%

46. The Respondent MPPMCL has submitted that the Petitioner has failed to justify the sharing of refinancing benefits between the beneficiaries and generating company. It has further submitted that the rate of interest claimed in the petition is higher than the interest rate allowed vide order dated 5.4.2019 in Petition No. 142/GT/2016. In response, the Petitioner has clarified as under:

- (a) The said issue of sharing of the benefit of refinancing is not the subject matter of the present proceedings. In case the Respondent is aggrieved by Regulation 27 (7) of the 2014 Tariff regulations, it has other avenues available.
- (b) The weighted average interest on loan as considered in Petition No. 142/GT/2016, was based on the projected allocations of loan for all three fiscal years and its comparison with present actual loan portfolio is not correct. Instead, the comparison shall be relevant when it is done based on old loans versus new loans (i.e. loans replacing the old ones).
- (c) Further, the books of accounts of NTPC are prepared and maintained on a company level, which helps NTPC avail loans at lower interest rates which ultimately translates to lower tariffs.



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

- (a) Gross normative loan amounting to Rs. 247562.21 lakh as considered in order dated 5.4.2019 in Petition No. 142/GT/2016 has been retained as on Unit 1 COD i.e. 1.2.2017.
- (b) Addition to normative loan on account of additional capital expenditure approved above has been considered.
- (c) Depreciation allowed has been considered as repayment of normative loan during the respective year from 2016-19 (1.2.2017 to 31.3.2019). Also, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff.
- (d) Weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.2.2017 along with subsequent additions during the 2016-19 (1.2.2017 to 31.3.2019) period, if any. 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.
- (e) The Petitioner has refinanced loans of ICICI Bank V and IDFC Bank III with Corporation Bank IV and SBI XII, respectively In terms of the provisions of Regulation 26(7) and 26(8) of the 2014 Tariff Regulations the beneficiaries and the Petitioner shall mutually share the net savings on accounts of refinancing of loan in the ratio of 2:1. In the event of any dispute regarding sharing of net savings on account of refinancing by any of the parties may approach the Commission for its resolution. However, the beneficiaries shall not withhold any payment on account of the interest claimed by the generating company during the pendency of such dispute.

48. Accordingly, Interest on loan has been calculated and allowed as under:

	<i>(Rs. in lakh)</i>			
	2016-17 (1.2.2017 to 31.3.2017)	2017-18 (1.4.2017 to 17.9.2017)      (18.9.2017 to 31.3.2018)		2018-19
Gross opening loan (A)	247562.21	254094.13	440591.49	453947.60
Cumulative repayment of loan upto previous year (B)	0.00	3015.34	12024.00	29871.12
Net Loan Opening (C) = (A) - (B)	247562.21	251078.79	428567.49	424076.48
Addition due to additional capital expenditure (D)	6531.92	10077.26	13356.11	21733.38
Repayment of loan during the year (E)	3015.34	9008.81	17857.62	34709.23
Less: Repayment adjustment on account of de-capitalization (F)	0.00	0.16	10.49	6.74
Net Repayment (G) = (E) - (F)	3015.34	9008.66	17847.12	34702.49
Net Loan Closing (H) =(C) +(D) -(G)	251078.79	252147.40	424076.48	411107.37
Average Loan (I) = (C+H)/2	249320.50	251613.09	426321.99	417591.93



Weighted Average Rate of Interest of loan (J)	6.4169%	6.2397%	6.1329%	6.3200%
<b>Interest on Loan (K) = (I)*(J)</b>	<b>15998.55</b>	<b>15699.97</b>	<b>26145.84</b>	<b>26391.65</b>

## Depreciation

49. Regulation 27 of the 2014 Tariff Regulations provides as under:

*“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.”*

50. Cumulative depreciation as on 1.2.2017 is 'nil' due to the COD of Unit-I, as considered in order dated 5.4.2019 in Petition No. 142/GT/2016. Since the effective station COD was 18.9.2017, depreciation has been calculated by applying the weighted average rate of depreciation (WAROD) calculated in terms of Regulation 27 of 2014 Tariff Regulations. The calculation of WAROD is enclosed as **Annexure-I** to this order. Accordingly, depreciation has been computed as under:

*(Rs. in lakh)*

	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Average Capital Cost (A)	358325.95	370189.65	638956.50	664020.42
Value of freehold land included in average capital cost (B)	0.00	0.00	0.00	0.00
Aggregated Depreciable Value (C)= (A-B)*90%	322493.35	333170.69	575060.85	597618.37
Remaining aggregate depreciable value at the beginning of the year (D) = (C) – Cumulative depreciation at the end of preceding year	322493.35	330155.34	563036.85	567747.25
No. of completed years at the beginning of the year (E)	0.00	0.16	0.63	1.16
Balance useful life at the beginning of the year (F) = 25 - (E)	25.00	24.84	24.37	23.84



	2016-17	2017-18		2018-19
	(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
Weighted Average Rate of Depreciation (WAROD) (G)	5.2059%	5.2250%	5.2313%	5.2271%
<b>Combined Depreciation during the year/ period (H)</b>	<b>3015.34</b>	<b>9008.81</b>	<b>17857.62</b>	<b>34709.23</b>
Cumulative depreciation at the end of the year (before adjustment for de-capitalization) (I) = (Cumulative depreciation at the end of preceding year + H)	3015.34	12024.16	29881.61	64580.35
Less: Depreciation adjustment on account of de-capitalization (J)	0.00	0.16	10.50	6.74
Cumulative depreciation at the end of the year (K) = (I)- (J)	3015.34	12024.00	29871.12	64573.61

### **Operation & Maintenance Expenses**

51. Regulation 29(1) (a) of the 2014 Tariff Regulations provides for normative O&M expenses norms for the generating station as under:

Unit Size (MW)	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
660	16.27	17.30	17.30	18.38

*(Rs. in lakh /MW)*

52. The O&M expenses claimed by the Petitioner are as under:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
O&M Expenses under Regulation 29(1)	10738.20	11418.00	22836.00	24261.60
Water Charges under Regulation 29(2)	397.82	666.06	666.06	1471.40
Capital Spares	0.00	323.77	323.77	160.65
<b>Total O&amp;M Expenses</b>	<b>11136.02</b>	<b>12407.83</b>	<b>23825.83</b>	<b>25893.65</b>

*(Rs. in lakh)*

53. As the Petitioner has claimed normative O&M expenses in accordance with the Regulation 29(1) of the 2014 Tariff Regulations, the same is allowed.

### **Water Charges**

54. Regulation 29(2) of the 2014 Tariff Regulations provides as under:



*“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:*

*xxx”*

55. The Water charges claimed by the Petitioner for the period 2016-19 in terms of Regulation 29(2) of the 2014 Tariff Regulations is as under:

<i>(Rs. in lakh)</i>			
2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
397.82	666.06	666.06	1471.40

56. The Commission vide its order dated 5.4.2019 in Petition No. 142/GT/2016 had allowed water charges amounting to Rs.2013.19 lakh during the period 2014-19 and had directed the Petitioner to furnish all the actual expenses incurred towards water charges at the time of truing up of the tariff. Accordingly, the details for water charges comprising the contracted quantity, allocation of water, the actual water consumed during 2014-19, the basis of calculation of quantity of consumptive water and computation of water charges have been submitted in Form 3B. In addition, the Petitioner has submitted the following:

- i. Mauda STPS was envisaged to be developed in two stages i.e. Mauda STPS Stage-I(2x500 MW) and Mauda STPS Stage-II(2x660 MW), envisaging the annual water consumption as 100 MCM. In order to have a tie-up of water on long-term basis, the Petitioner applied for water allocation corresponding to 2320 MW to Vidarbha Irrigation Department Corporation (VIDC), Nagpur, Govt. of Maharashtra. It is further submitted that NTPC had envisaged to take water from Goshikhurd Dam on river Wain ganga for meeting the water requirement of Mauda STPS (2x500 MW+2x660MW). Accordingly, an agreement was signed between Vidarbha Irrigation Department Corporation (VIDC), Nagpur, Govt. of Maharashtra on 22.8.2011 for supply of Non- Irrigation water @ Rs 3.2 per cubic meter for drawl of 100 MCM of water for Mauda STPS (2x500 MW+2x660 MW) valid for 6 years the same was renewed on 1.8.2018. It is pertinent to submit that CEA in its “Report on Minimization of Water Requirement in Coal Based Thermal Power Stations”



published in the year 2012, observed that the specific water consumption of thermal generating stations (with Ash Water Re-circulation System) of existing projects as 5m<sup>3</sup>/hr/MW and new projects as 4m<sup>3</sup>/hr/MW.

- ii. MOEF vide Gazette notification dated 7.12.2015 stipulated specific water consumption of 3.5 m<sup>3</sup>/hr/MW, for which NTPC is adopting various measures and other capital addition schemes.
- iii. As per the provisions of the existing water agreement (elaborated in subsequent paragraphs), the yearly water tie-up is being renewed with an estimated quantum derived based on actual consumption experienced during the previous years, thereby minimizing the burden of water charges on beneficiaries.
- iv. As per the terms and condition of the agreement, if actual drawl is less than contracted quantity, the minimum payment of water charges to be made shall be on allocation equivalent to 90 % of the specified contracted quantity and if the actual drawl exceeds 10% of the contracted quantity, the water charges are payable @1.25 times of the applicable water charges. The agreement further provides that due to any unforeseen reasons, NTPC may revise its annual demand and accordingly it shall be charged as per changed demand. In view of the above for 2016-17, 2017-18 and 2018-19 a yearly sub-agreement has been done for the projected quantity of water for Mauda STPS. As per this sub-agreement, the water charges will have two components; charges for yearly agreed drawl quantity as envisaged in the yearly sub agreement and additional royalty at 5% for the difference of yearly agreed quantity and the original contracted quantity (100 MCM). In this regard, the copy of the agreements and notification of water charges and CEA report are submitted by the Petitioner.
- v. The royalty/ commitment charges are to be paid by the Petitioner, as per the terms and conditions of the agreement keeping the ensured long-term tie-up of water for the generating station for supplying the reliable power to the beneficiaries.

57. The Petitioner has claimed total actual water charges for Rs.4246.85 lakh during the period 2016-19 (i.e., Rs.397.82 lakh in 2016-17), Rs.666.06 lakh in 2017-18 (1.4.2017 to 17.9.2017), Rs.666.06 lakh in 2017-18 (18.9.2017 to 31.3.2018) and Rs.1471.40 lakh in 2018-19).

58. The Respondent MSEDCL has submitted that the water charges claimed by the Petitioner are 12.249% higher than the approved water charges and the Petitioner has also not furnished the bills against the said claims. The Respondent CSDPCL has





submitted that the Petitioner has claimed water charges for the Project's full capacity, whereas the Plant Load Factor (PLF) achieved by the Project, is lower as compared to PLF for full capacity. It has also stated that water charges claimed by the Petitioner for the years 2017-18 and 2018-19, are not supported by any documentary evidence, and has been considered by the Petitioner as Rs. 3.20/Cm as prescribed for 2016-17. The Respondent has also pointed out that water charges amounting to Rs. 397.82 lakh for 2016-17 in Form 3A, is at variance with the detailed calculations as provided in Form 3B, for the expenditure of Rs. 65.29 lakh.

59. In response to the above, the Petitioner has submitted that the arrangement of raw material is carried out on long term basis on anticipated consumption for the same as per contracted capacity of the station. It has also submitted that water is arranged in similar way taking into account the peak requirements of the units in different season and the maximum demand envisaged. The Petitioner has further submitted as per the provisions of the existing water agreement, the yearly water tie-up is being renewed with an estimated quantum derived based on actual water consumption experienced during the previous year, thereby minimizing the burden of water charges on beneficiaries. It has stated that the difference is on account that the water charges in Form 3A, have been converted on annual basis, whereas, in Form 3B the values have been indicated on the basis of actual amount on pro-rata basis. The Petitioner has submitted that rate of water charges, is applicable as per the notifications issued from time to time, by the Vidarbha Irrigation Department, Government of Maharashtra, as claimed in the petition, and therefore, the contention of Respondent that the rate of 3.2/m<sup>3</sup> is to be limited, is completely misplaced.



60. We have considered the submissions. It is observed that the applicable rate of water charge is as per the notifications issued from time to time by Vidarbha Irrigation Department, Government of Maharashtra. The Petitioner has also furnished auditor certificate in support of the claim. In view of this, the actual water charges are allowed as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		(Rs. in lakh)
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	2018-19
397.82	666.06	666.06	1471.40

### Capital spares

61. Regulation 29(2) of the 2014 Tariff Regulations provides as under:

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

*xxxx:*

*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.”*

62. As per the second proviso to Regulation 29(2) of the 2014 Tariff Regulations, capital spares are admissible separately. The Petitioner has claimed total actual capital spares for Rs.484.42 lakh during the period 2014-19 (i.e., Rs.323.77 lakh in 2017-18 and Rs.160.65 lakh in 2018-19).

63. The Commission vide ROP of the hearing dated 18.11.2021, directed the Petitioner to furnish the audited statement with respect to the consumption of capital spares, as per Form-17. In response, the Petitioner vide affidavit dated 22.2.2022 has submitted the



auditor certificate in support of capital spares consumed. The details of the capital spares submitted by the Petitioner in Form 9Bi is as under:

*(Rs. in lakh)*

Year	Capital Spares	Capital Spares	Total Capital Spares consumed
	(part of capital cost)	(not part of capital cost)	
	(A)	(B)	(A) + (B)
2016-17	0.00	0.00	0.00
2017-18	323.77	0.00	323.77
2018-19	160.65	0.00	160.65

64. 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 are the spares which form the part of the capital cost of the project for which the Petitioner has been recovering tariff since their procurement and, therefore, the same cannot be allowed as part of additional O&M expenses.

65. Based on the above discussions, the total O&M expenses, including water charges allowed is summarized as under:

*(Rs. in lakh)*

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
O&M Expenses under Regulation 29(1)	10738.20	11418.00	22836.00	24261.60
Water Charges under Regulation 29(2)	397.82	666.06	666.06	1471.40
Capital Spares	0.00	0.00	0.00	0.00
<b>Total O&amp;M Expenses</b>	<b>11136.02</b>	<b>12084.06</b>	<b>23502.06</b>	<b>25733.00</b>

**Additional O&M Expenditure on account of impact of GST**

66. The Petitioner has claimed additional O&M expenses for Rs.182.76 lakh in (1.4.2017 to 17.9.2017), Rs.182.76 lakh in (18.9.2017 to 31.3.2018) and Rs.227.07 lakh in 2018-19 on account of impact of GST.



67. The Respondent, MSEDCL has submitted that though the MOP, GOI letter dated 27.08.2018 provides for consideration of change in duties, levies, cesses and taxes imposed by Central Government, the same does not take into consideration the GST expenses with regard to O&M activities. Further, in terms of the decisions of this Commission in its order dated 19.9.2018 in Petition Nos. 50/MP/2018 and 52/MP/2018 (Prayatna Developers Private Limited vs NTPC & ors), the claim of GST expenses towards O&M expenses, will only be applicable if the service is outsourced. It has contended that the O&M expenses had already claimed by the Petitioner under Regulation 29(1) of the 2014 Tariff Regulations and therefore the additional expenditure on account of GST may be disallowed. The Respondent, MPPMCL has submitted that the Petitioner may be directed to submit the item-wise details of the GST amount paid, considering the old tax regime, to evaluate the impact of GST.

68. The Petitioner has clarified that the promulgation of GST is a 'change in law' event. It has also stated that the issue is no more res-integra and squarely falls within the purview of Regulation 3(9) read with Regulation 14 (3) of the 2014 Tariff Regulations. The Petitioner has pointed out that the said issue has been decided by APTEL vide its judgment dated 14.8.2018 in Appeal No. 111/2017 (GMRWEL v CERC & ors). and the Commission in its order dated 14.3.2018 in Petition No.13/SM/2017. It has further submitted that the MOP, GOI letter dated 27.8.2018 is a general clarification to allow pass-through of change in cost, on account of change in duties, levies, cess and taxes as 'change in law' unless otherwise provided in the PPA.

69. The matter has been considered. While framing the 2014 Tariff Regulations, the variation in taxes and duties have been captured in the normative O&M expenses allowed



and any charge on taxes is not admissible separately. Further, the 2014 Tariff Regulations does not specifically mention any consideration for allowing such taxes separately. Further, the escalation rates considered in the normative 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 may be noted that in case of reduction of taxes or duties, the Petitioner is not required to reimburse any taxes in tariff. Therefore, for any increase in taxes and duties, the Petitioner is not entitled to claim any additional expenses. As such, additional O&M expenses on account of GST are not admissible separately.

### **Impact of wage revision**

70. The Petitioner has claimed an amount of Rs. 5049.79 lakh (Rs. 1706 lakh in 2016-17 (1.2.2017 to 31.3.2017), Rs. 1225.85 lakh in 2017-18 and Rs. 2117.41 lakh in 2018-19) on annualized basis, as impact of wage revision of the Petitioner's employees posted in the generating station w.e.f. 1.1.2017 and wage revision of CISF employees from 1.6.2016. However, it is noticed that the said claim of the Petitioner includes impact on account of the payment of additional PRP/ex-gratia to its employee's consequent wage revision. The Petitioner has submitted, that the Commission, while specifying the 2014 Tariff Regulations, had noted in the Statement of Objects and Reasons (SOR) that the increase in employee expenses on account of pay revision shall be considered appropriately, on a case-to-case basis, balancing the interest of generating stations and consumers. The Petitioner has therefore claimed expenditure of Rs.1706.53 lakh in (1.2.2017 to 31.3.2017), Rs.1225.85 lakh in (1.4.2017 to 17.9.2017), Rs.1225.85 lakh in (18.9.2017 to 31.3.2018) and Rs.2117.41 lakh, on annualized basis in 2018-19, as impact



of wage revision of employees of CISF from 1.1.2016 and the employees of the Petitioner posted in the generating station with effect from 1.1.2017.

71. The Respondent, MPPMCL has submitted that there is no provision in the 2014 Tariff Regulations for grant of any additional O&M expenses and as such the claim of the Petitioner is not acceptable. The Respondent, CSPDCL has submitted that the claim of the Petitioner for additional employee cost is not tenable and Petitioner should bear such expenses from its own profits. In response, the Petitioner has submitted that the increase in salaries and wages form part of the O&M expenses of the project, but the said expenditure was notified, after issuance of the 2014 Tariff Regulations and therefore, was not considered for the purpose of specifying the normative O&M expenses. The Petitioner has further submitted that the implementation of the recommendations of 7th Pay Commission / Office Memorandum dated 3.8.2017, is a subsequent event which has led to wage revision, resulting in the increase in O&M expense for the Petitioner and that factoring-in of the estimated increased salary w.e.f. 1.1.2017 and 1.1.2016 of the employees and the staff of CISF respectively was deferred, at the time when the 2014 Tariff Regulations were notified. Subsequently, during the 2014-19 tariff period the increase in salary and wages were given effect to and therefore, the impact of employee pay revision in the O&M expenses has been claimed. The Petitioner has clarified that the impact of 7<sup>th</sup> Pay Commission, OM dated 3.8.2017 and 3<sup>rd</sup> Pay Revision Committee for CPSU's were not in existence and/ or incorporated while framing of the 2014 Tariff Regulations and the impact thereof, ought to be made a pass through in tariff, in terms of Regulation 54 and Regulation 55 of the 2014 Tariff Regulations.



72. We have examined the submissions and the documents available on record. It is pertinent to mention that for calculating the impact of wage revision, the actual expenditure submitted by the Petitioner has been normalized, as per the consistent methodology adopted by the Commission for formalizing normative O&M expenses. This actual O&M expenses (normalized) is then compared with the normative O&M expenses allowable as per the Tariff Regulations and in case, there is under recovery of expenses due to wage revision impact, based on the aforesaid comparison, then the wage revision impact as claimed by the Petitioner is allowable.

73. It is observed that the Petitioner, as per Form-3A, on annualized basis, has claimed a total expenditure of Rs.6275.64 lakh [Rs.1706.53 lakh in 2016-17 (pro-rated for 365 days), Rs.1225.85 lakh in 2017-18 and Rs.2117.41 lakh in 2018-19] as impact of wage revision of employees of CISF from 1.1.2016 and for employees of the Petitioner posted at the generating station with effect from 1.1.2017. However, the claim on actual basis as per Annexure-C submitted by the Petitioner vide affidavit dated 29.6.2021, amounts to Rs.3605.10 lakh (Rs.261.84 lakh during the period from 1.2.2017 to 31.3.2017 and Rs.1225.85 lakh in 2017-18 and Rs.2117.41 lakh in 2018-19) and the same is dealt, further in this paragraph. It is noticed that the said claim of the Petitioner includes impact on account of the payment of additional PRP/ex-gratia to its employees, consequent upon wage revision. As per consistent methodology adopted by the Commission, the additional PRP/ex-gratia paid as a result of wage revision impact is excluded from the wage revision impact claimed and the same has been excluded from the wage revision impact claimed by the Petitioner in the present case also. Accordingly, the claim of the Petitioner in



respect of the wage revision impact stands reduced to Rs.2945.51 lakh with the following year-wise break up:

<i>(Rs. in lakh)</i>					
	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19	Total
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018		
Wage revision impact claimed excluding PRP/ ex-gratia	261.83	1095.74		1587.94	2945.51

74. With respect to recovery of wage revision impact by a generator, the Statement of Object and Reasons (SOR) to the 2014 Tariff Regulations stipulates as under:

*"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."*

75. The methodology indicated in the above SOR 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 the generators find that their actual expenditure has gone up 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.

76. In consideration of the above facts and as per consistent methodology, we have compared the normative O&M expenses with the actual O&M expenses incurred for the period 2016-19, to capture the variation in the sub-heads due to above mentioned facts. Accordingly, it is decided for ascertaining that 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 from 2016-17(1.2.2017 to 31.3.2017) to 2018-19, on a combined basis, which is commensurate with the wage revision claim being spread over these years.

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

*(a)The actual impact of pay revision certified by Auditor, after comparing the salaries/wages prior to and after revision of pay for the generating station.*

*(b)Detailed break-up of the actual O&M expenses for the generating station as well as corporate center and its allocation to various generating stations.*

78. The Petitioner has furnished the detailed breakup of the actual O&M expenses incurred during the 2014-19 tariff period for the generating station. It is noticed that the total O&M expenses incurred is more that the normative O&M expenses recovered during each year of the 2016-19 tariff period. The impact of wage revision /pay revision could not be factored by the Commission while framing O&M expense norms under the 2014-19 Tariff Regulations, since pay/ wage revision came into effect from 1.1.2016 (for CISF) and 1.1.2017 (for employees of the Petitioner) respectively. As such, in terms of the SOR,



the following approach has been adopted for arriving at the allowable impact of pay revision:

(a) Comparison of the normative O&M expenses with the actual O&M expenses incurred 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 fee, 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 expense norms for the 2014-19 tariff period, have been excluded from the yearly actual O&M expenses. Having done so, if the normative O&M expenses for the period 2015-19 are higher than the actual O&M expenses (normalized) for the said period, then the impact of wage revision (excluding PRP and ex-gratia) as claimed for the said period is not admissible/allowed as the impact of pay revision gets accommodated within the normative O&M expenses. However, in case of generating station if the normative O&M expenses for the period 2017-18 to 2018-19 are lesser 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 2017-18 to 2018-19.

79. In this regard, the wage revision impact claimed by the Petitioner for this generating station and wage revision impact (excluding PRP and ex-gratia) for the generating station is shown as under:

*(Rs. in lakh)*

Year	Wage Revision impact claimed	Wage Revision impact claimed excluding PRP/Ex-gratia
2016-17 (1.2.2017 to 31.3.2017)	261.84	261.83
1.4.2017 to 17.9.2017	1225.85	1095.74
18.9.2017 to 31.3.2018		
2018-19	2117.41	1587.94
<b>Total</b>	<b>3605.10</b>	<b>2945.51</b>

80. As a first step, the expenditure against O&M sub-heads as discussed above, has been excluded from the actual O&M expenses to arrive at the actual O&M expenses



(normalized) for the generating station. Accordingly, the comparison of the normative O&M expenses versus the actual O&M expenses (normalized) along with the wage revision impact claimed by the Petitioner for the generating station for the 2016-19 tariff period is as under:

*(Rs. in lakh)*

		2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19	Total
			1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018		
A	Actual Audited O&M expenses (excluding water Charges)	17596.51	21581.11	36153.45	47250.60	122581.67
B	Actual O&M expenditure (normalized) for Mauda STPS (Combined for stage-I and II) (a)	15533.66	19334.24	32314.71	40103.06	107285.68
C	Actual O&M expenditure (normalized) for Mauda STPS -II prorated based on capacity (b)	0.00	1859.23	16244.09	22817.26	40920.58
D	Normative O&M Expenses for Mauda (pro-rated for the period) STPS -II (c)	0.00	4987.69	13438.49	24261.60	42687.78
E	Under-recovery (b)-(c)	0.00	-3128.46	2805.60	-1444.34	-1767.20
F	Wage revision impact claimed excluding PRP/exgratia	0.00	261.84	1225.85	2117.41	3605.10
G	Wage revision impact allowed excluding PRP/exgratia	0.00	0.00	0.00	0.00	0.00

81. It is observed from the table above that for the years of wage revision impact i.e., 2015-16 to 2018-19, the normative O&M expenses allowed on a combined basis, are more than the actual expenses incurred (including increased wage revision impact) by the Petitioner. As such, the Commission is not inclined to allow the recovery of impact of wage revision through additional O&M expenses, since the normative O&M expenses allowed to the generating station in terms of the Regulations, is sufficient to cater to the requirement of the impact of wage revision.



### **Ash Transportation Expenses**

82. The Petitioner has claimed an amount of Rs.1162.91 lakh on account of Fly Ash Transportation expenses in 2018-19 as additional O&M expenses. The Petitioner has submitted that the notification dated 25.1.2016 of Ministry of Environment, Forest & Climate Change (MOEF&CC), GOI, issued in terms of statutory provisions of Environment (Protection) Act 1986, provides for transportation cost of Fly ash generated at power stations, to be borne by such generating companies. The Petitioner has also stated that it had filed Petition No. 172/MP/2016 before this Commission, seeking reimbursement of the additional expenses incurred towards Fly Ash transportation, directly from the beneficiaries as the same are statutory expenses. Accordingly, the Petitioner has sought reimbursement of the additional expenditure incurred towards fly ash transportation, as under:

	<i>(Rs. in lakh)</i>
	<b>2018-19</b>
Expenditure towards fly ash transportation (A)	1162.91
Revenue Earned from Sale of Fly Ash (B)	0.00
Net Additional O&M expenditure Claimed (C)= (B-A)	1162.91

83. In response to the clarification sought by the Commission, the Petitioner vide affidavit dated 29.6.2021 has clarified that prior to the MOEF&CC Notification dated 25.1.2016, there was no mandate on the transportation of fly ash and the fly ash was being made available to the industries seeking the same at the generating station itself. The obligation to transport the fly ash and also the cost for the same belonged to the users of such fly ash. The petitioner has further submitted the following:

- (a) **Award of fly ash transportation contract through a transparent competitive bidding procedure.**

Petitioner in compliance to order dated 5.11.2018 in Petition No. 172/MP/2016 had submitted the details of expenditure in the petition.



In support of the claim, the Petitioner has submitted the auditor certificate of Ash Transportation expenditure.

(b) **Alternatively, the schedule rates of the respective State Governments, as applicable for transportation of fly ash:**

Petitioner has already submitted the ash transportation expense that were charged to P&L over and above station ash revenue, duly certified by the auditor. The same expense has been claimed by the Petitioner as the additional O&M expense on account of Transportation of Ash in terms of the MOEFCC Notification dated 25.1.2016. The net expense towards ash transportation has been arrived by deducting the revenue earned from sale of fly ash/fly ash products after 25.1.2016.

(c) **Details of the actual additional expenditure incurred on Ash transportation after 25.1.2016, duly certified by auditors:**

The Petitioner has submitted that an audit certificate in respect of the above net expenditure charged to P&L has already been submitted. Expenditure incurred for the entire station has been allocated based on the equated capacity of the stages in the entire station.

(d) **Details of the Revenue generated from sale of fly ash/ fly ash products and the expenditure incurred towards Ash utilization up to 25.1.2016 and from 25.1.2016 to till date, separately:**

The Petitioner has submitted that the award of fly ash transportation contract has been done through MoU entered with NHAJ at Scheduled Rate of State Govt. Copy of MoU with NHAJ and Purchase order of contract awarded has been submitted along with the affidavit dated 29.6.2021 as Annexure D.

(e) **Revenue generated from fly Ash sales maintained in a separate account as per the MoEF notification:**

Petitioner has submitted that the revenue generated from fly ash sales is being maintained in a separate account as per the said MoEF notification.

84. The Respondent, MPPMCL has submitted that the Petitioner has only submitted a certificate indicating the fly Ash transportation expenses and in the absence of any details as required, the Petitioners claim could not be examined for admissibility and prudence check and therefore, liable to be rejected. The Respondent CSDPCL has submitted that



the Petitioner has claimed Ash transportation charges for 2018-19 as Rs 11.62 crore, which is net of Ash transportation charges and amount realised from sale of fly Ash/its products. It is to mention that as per Commission's order dated 5.11.2018, the Petitioner was supposed to invite bids for transportation of Ash or alternatively adopt the rates as per schedule of rates for Ash transportation, as notified by the respective State Government. Accordingly, the rates for Ash transportation have to be indicated by the Petitioner. It has further submitted as per MoEF&CC notification, a separate account for revenue generated from sale of fly Ash/fly Ash products has to be maintained by the Petitioner, but the Petitioner has neither indicated the rates for Ash transportation nor the amount realised towards sale of fly Ash or its products. Accordingly, the Petitioner may be directed to provide the above details. In response, the Petitioner has submitted that it has already furnished Ash transportation charges along with its auditor's certificate and the expenditure in this certificate has been on net basis, which shows that the revenue from fly ash has been adjusted from the transportation expenses being incurred by the Petitioner.

85. The matter has been considered. As regards reimbursement of Ash transportation expenses, the Commission in its order dated 5.11.2018 in Petition No.172/MP/2016, while directing compliance of certain conditions by the Petitioner, had granted liberty to the Petitioner to approach the Commission at the time of truing-up exercise for the 2014-19 tariff period along with all details/information, duly certified by auditor.

86. The MoEF&CC notification dated 25.1.2016 provides as under:

*“10. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based thermal power plant shall be borne by such*



*coal or lignite based thermal power plant and the cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared equally between the user and the coal or lignite based thermal power plant.”*

87. The Petitioner has furnished the auditor certificate and has also submitted the relevant information required in terms of the MoEF&CC notification dated 25.1.2016 (such as quantum of ash transported, locations, the distance at the end user (in km), the applicable awarded rate Rs/ton per km, name of the transporters, etc.) as part of original Petition under Annexure III. In view of this, we allow the said expenditure of Rs. 1162.91 lakh towards fly ash transportation.

### **Operational Norms**

#### **Normative Annual Plant Availability Factor**

88. The Normative Annual Plant Availability Factor of 83% for 2014-15 to 2016-17 and 85% for 2017-18 and 2018-19, is in accordance with the provisions of Regulation 36 (A) of the 2014 Tariff Regulations and is also as approved by order dated 5.4.2019 in Petition No. 142/GT/2016. Hence, the same is allowed for the purpose of tariff.

#### **Auxiliary Energy Consumption**

89. The Normative Auxiliary Energy Consumption of 5.75% for 2016-17 to 2018-19 is as approved by order dated 5.4.2019 in Petition No. 142/GT/2016 and is also in accordance with the provisions of Regulation 36 (E)(a)(ii) of the 2014 Tariff Regulations. Hence, the claim is allowed for the purpose of tariff.

#### **Station Heat Rate**

90. The Gross Station Heat Rate of 2229.13 kCal/kWh as approved by order dated 5.4.2019 in Petition No. 142/GT/2019, is in accordance with Regulation 36 (C) of the 2014 Tariff Regulations and hence allowed for the purpose of tariff.



## **Specific Fuel Oil Consumption**

91. The Specific Fuel Oil Consumption of 0.50 ml/kWh as approved by order dated 5.4.2019 in Petition No. 142/GT/2019, is in accordance with Regulation 36(D)(a) of the 2014 Tariff Regulations and hence allowed for the purpose of tariff.

## **Interest on Working Capital**

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

*“28. Interest on Working Capital: (1) The working capital shall cover:*

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

*Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pithead 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;*

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

*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;*

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

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

*(4) 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 Components and Energy Charges in Working Capital**

93. Regulation 28(2) of the 2014 Tariff Regulations provides that the computation of cost of fuel as part of IWC should be based on the landed price and gross calorific value of the fuel as per actuals, for three months preceding the first month for which the tariff is to be determined. In terms of Regulation 30 (6) of the 2014 Tariff Regulations, for determination of the Energy Charges in working capital, the GCV in 'as received' basis is to be considered. Regulation 30 (7) of the 2014 Regulations provides as under:

*“(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.”*

94. The Petitioner has claimed the cost for fuel component in working capital based on price and “as received basis” GCV of coal procured and burnt for the preceding three months before the COD of Unit-I i.e., November 2016, December 2016 and January 2017 and for the preceding three months before the COD of Unit-II i.e. June 2017, July 2017 and August 2017 and Secondary fuel oil as under:

*(in Rs. lakh)*

	<b>2016-17 (1.2.2017 to 31.3.2017)</b>	<b>2017-18</b>		<b>2018-19</b>
		<b>1.4.2017 to 17.9.2017</b>	<b>18.9.2017 to 31.3.2018</b>	
Cost of Coal for stock (30 days)	8718.38	8928.46	19546.94	19546.94
Cost of Coal for generation (30 days)	8718.38	8928.46	19546.94	19546.94



	<b>2016-17 (1.2.2017 to 31.3.2017)</b>	<b>2017-18</b>		<b>2018-19</b>
		<b>1.4.2017 to 17.9.2017</b>	<b>18.9.2017 to 31.3.2018</b>	
Cost of Secondary fuel oil 2 months	164.18	168.14	342.35	342.35

95. The Petitioner has submitted that Central Electricity Authority (CEA) vide letter dated 17.10.2017 has opined that 85-100 kCal/kg for a pit-head station and a margin of 105-120 kCal/kg for non-pit head station may be considered as a loss of GCV of coal between 'as received' and 'as fired'. Accordingly, the Petitioner has considered 120 kCal/kg margin on the average GCV for the respective months for computing working capital.

96. The Petitioner has further submitted that it has filed 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 its order dated 25.1.2016 in Petition No. 283/GT/2016 and for consequential directions. It has also sought liberty to make additional submissions based on the final decision in Petition No. 244/MP/2016.

97. The matter has been considered. It is observed that the Petitioner has claimed the same GCV on 'as received basis' as approved in order dated 5.4.2019 in Petition No. 142/GT/2016. After verifying the fuel data/information furnished by the Petitioner in Form 13 F, Form 15 and Form 15 A, we have considered the same GCV on 'as received basis' as claimed by the Petitioner in this petition, and as allowed in the order dated 5.4.2019 in Petition No. 142/GT/2016.

98. Accordingly, the cost for fuel components in working capital has been computed considering the actual fuel details (price and GCV) as per Form-15 in the Petition. 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.

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

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Cost of Coal for stock (30 days generation corresponding to NAPAF)	8423.64	8626.62	18818.10	18818.10
Cost of Coal for generation (30 days corresponding to NAPAF)	8423.64	8626.62	18818.10	18818.10
Cost of Secondary fuel oil (2 months generation corresponding to NAPAF)	164.18	168.14	342.35	342.35

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

100. 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”*

101. The Petitioner has claimed Energy Charge Rate (ECR) of 273.387 Paise/kWh based on the weighted average price, GCV of coal & Oil procured and burnt for the preceding three months. ECR as worked out, based on operational norms specified in the 2014 Tariff Regulations and on “as received” GCV of coal for the 3 months i.e., June, 2017 to August 2017, as given under, has been considered for allowing 2 months Energy Charge in Working capital:

	Unit	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
			1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Capacity	MW	660	660	1320	1320
Gross Station Heat Rate	Kcal/kWh	2229.13	2229.13	2229.13	2229.13
Auxiliary Energy Consumption	%	5.75	5.75	5.75	5.75
Weighted average GCV of oil	Kcal/lit	9401.42	9401.42	9428.25	9428.25
Weighted average GCV of Coal	Kcal/kg	3549.54	3549.54	3218.31	3218.31
Weighted average price of oil	Rs./KL	41055.86	41055.86	41797.37	41797.37
Weighted average price of Coal	Rs./MT	3407.99	3407.99	3370.25	3370.25
Rate of energy charge ex-bus	Rs./kWh	2.288	2.288	2.494	2.494

102. Accordingly, considering the fuel cost allowed for COD of Unit-I and Station COD, the Energy Charges allowed in working capital is as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
17246.95	17662.54	38505.57	38505.57

*(Rs. in lakh)*

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

103. The Petitioner in Form-13B has claimed maintenance spares in the working capital shown in the table as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
2568.51	2763.29	5046.89	5880.21

*(Rs. in lakh)*



104. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses as specified in Regulation 29. Accordingly, the maintenance spares @ 20% of O&M expenses, including water charges and cost of capital spares consumed, allowed are as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		(Rs. in lakh)
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	2018-19
2227.20	2416.81	4700.41	5146.60

### **Working Capital for O & M Expenses**

105. O&M expenses for 1 months claimed by the Petitioner in Form-13B for the purpose of working capital as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		(Rs. in lakh)
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	2018-19
1070.21	1151.37	2102.87	2450.09

106. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for O&M expenses for one month for coal-based generating station as part of the working capital. Accordingly, O&M expenses for 1 month for the purpose of working capital are allowed as under:

2016-17 (1.2.2017 to 31.3.2017)	2017-18		(Rs. in lakh)
	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	2018-19
928.00	1007.00	1958.50	2144.42

### **Receivables**

107. Receivables equivalent to two months of capacity charge and energy charges has been worked out duly taking into account mode of operation of the generating station on secondary fuel, as under:



*(Rs. in lakh)*

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Variable Charges- for two months corresponding to NAPAF	17246.95	17662.54	38505.57	38505.57
Fixed Charges- for two months corresponding to NAPAF	12220.74	12591.83	22356.42	23280.33
<b>Total</b>	<b>29467.69</b>	<b>30254.37</b>	<b>60861.99</b>	<b>61785.90</b>

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

108. The Respondent MPPMCL has submitted that the O&M expenses excluding water charges and security expenses, etc. ought to be allowed for the calculation of interest on working capital. It has further submitted that water charges and security expenses may not be included in the tariff for receivable in IWC, as it has been allowed separately. Hence, the amount of grossing up of income tax may be excluded while calculating receivables. The Respondent has also stated that the Commission may revisit the issue of normative rate of interest on working capital, for downward revision of interest rate on working capital using the inherent powers under the Regulation 54 and 55 of the 2014 Tariff Regulations. In response, the Petitioner has submitted that the issues raised by the Respondent do not relate to tariff proceedings. As far as water charges are concerned, the Petitioner has clarified that the expense is of revenue nature, incurred for successful operation of the plant and hence, the same is allowable in tariff, as part of the O&M expenses and IWC shall also be computed including these charges under O&M, as per the settled principle. The Petitioner has also stated that it is required to generate working capital during the course of operation to pay the water charges. Accordingly, the Petitioner has prayed that the contention of the Respondent may be rejected.



109. The matter has been considered. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, SBI Base Rate Plus 350 bps as on 1.4.2016 i.e., 12.80% and SBI Base Rate (9.10%) as on 1.4.2017 Plus 350 Bps i.e., 12.60% have been considered as the rate of interest on working capital. Accordingly, the interest of working capital has been computed and allowed as under:

Sr. No		2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
			1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
A	Working Capital for Cost of coal towards stock (30 days generation corresponding to NAPAF)	8423.64	8626.62	18818.08	18818.08
B	Working Capital for Cost of coal towards Generation (30 days generation corresponding to NAPAF)	8423.64	8626.62	18818.08	18818.08
C	Working capital for Cost of secondary fuel oil (2 months generation corresponding to NAPAF)	164.18	168.14	342.35	342.35
D	Working capital for Maintenance spares (20% of O&M expenses)	2227.20	2416.81	4700.41	5146.60
E	Working capital for Receivables (2 months of sale of electricity at NAPAF)	29467.69	30254.37	60861.99	61785.90
F	Working capital for O&M expenses (1 month of O&M expenses)	928.00	1007.00	1958.50	2144.42
<b>G</b>	<b>Total Working Capital (G= A+B+C+F+E+F)</b>	<b>49634.35</b>	<b>51099.55</b>	<b>105499.41</b>	<b>107055.42</b>
H	Rate of interest	12.80%	12.80%	12.60%	12.60%
<b>I</b>	<b>Interest on working capital (I) = (G X H)</b>	<b>6353.20</b>	<b>6540.74</b>	<b>13292.93</b>	<b>13488.98</b>

### Annual Fixed Charges

110. Based on the above discussions, the annual fixed charges approved for the generating station for the period 2016-19 is summarized as under:



(Rs. in lakh)

	2016-17 (1.2.2017 i.e. COD of Unit-I to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017 i.e. prior to COD of Unit-II	18.9.2017 i.e. Station COD to 31.3.2018	
Depreciation	18654.23	19342.45	33425.79	34709.23
Interest on Loan	15998.55	15699.97	26145.84	26391.65
Return on Equity	21182.44	21883.76	37771.91	39359.15
Interest on Working Capital	6353.20	6540.74	13292.93	13488.98
O&M Expenses	11136.02	12084.06	23502.06	25733.00
<b>Total Annual Fixed Charges allowed</b>	<b>73324.44</b>	<b>75550.98</b>	<b>134138.53</b>	<b>139682.00</b>
Annual Fixed Charges approved vide order dated 5.4.2019 in Petition No. 142/GT/ 2016	<b>73327.80</b>	<b>75305.23</b>	<b>133751.78</b>	<b>138672.74</b>

Note: (1) All figures are on annualized basis. All figures under each head have been rounded. The figure in total column in each year is also rounded. As such, the sum of individual items may not be equal to the arithmetic total of the column.

111. The pro rata fixed charges shall be calculated for number of days as shown under:

	2016-17 (1.2.2017 i.e. COD of Unit-I to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017 i.e. prior to COD of Unit-II	18.9.2017 i.e. Station COD to 31.3.2018	
Number of days in year	365	365	365	365
Number of days for which tariff is to be calculated	59	170	195	365

112. 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.

113. Annexure-I given herein after forms part of this order.

114. Petition No. 394/GT/2020 is disposed of in terms of the above.

(Pravas Kumar Singh)  
Member

(Arun Goyal)  
Member

(I.S. Jha)  
Member





## Annexure-I

### Depreciation for the 2014-19 tariff Period

(Rs. in lakh)

Name of assets	Depreciation Rate	For 2014-15		2015-16		Gross Value as on COD Unit-I 17.09.2017	Depreciation Amount	Gross Value as on 31.03.2018	Depreciation Amount
		Gross Value as on COD Unit-I 31.01.2017	Depreciation Amount	Gross Value as on COD Unit-I 31.03.2017	Depreciation Amount				
Freehold Land	0.00%	-	-	-	-	-	-	-	-
Leasehold Land	3.34%	14,524.75	485.13	14,524.75	485.13	14,524.75	485.13	16,685.54	557.30
Land - Right of use		-	-	-	-	-	-	-	-
Roads, bridges, culverts & helipads	3.34%	1,576.87	52.67	1,576.87	52.67	3,204.24	107.02	3,730.17	124.59
Main Plant Buildings	3.34%	174.89	5.84	174.89	5.84	174.89	5.84	174.89	5.84
Other Buildings	3.34%	599.38	20.02	613.77	20.50	659.63	22.03	1,955.67	65.32
Temporary erection	100.00%	-	-	-	-	-	-	4.29	4.29
Water supply, drainage & sewerage	5.28%	2,474.69	130.66	2,474.69	130.66	2,474.69	130.66	2,790.70	147.35
Railway siding	5.28%	-	-	-	-	-	-	-	-
Earth dam reservoir		-	-	-	-	-	-	-	-
Plant and machinery	5.28%	357,768.14	18,890.16	361,632.24	19,094.18	649,317.25	34,283.95	654,080.64	34,535.46
Furniture and fixtures	6.33%	447.89	28.35	465.37	29.46	580.80	36.76	599.06	37.92
Other Office Equipments	6.33%	110.00	6.96	114.60	7.25	315.72	19.98	403.18	25.52
EDP, WP machines & SATCOM equipment	15.00%	276.46	41.47	296.69	44.50	426.60	63.99	507.99	76.20
Vehicles including speedboats	9.50%	6.86	0.65	6.86	0.65	6.86	0.65	6.86	0.65
Construction equipment	5.28%	86.73	4.58	86.73	4.58	112.29	5.93	141.62	7.48
Electrical installations	5.28%	3,341.76	176.44	3,341.76	176.44	5,542.14	292.63	5,663.94	299.06
Communication equipment	6.33%	28.53	1.81	31.89	2.02	31.97	2.02	54.22	3.43
Hospital equipment	5.28%	26.45	1.40	26.45	1.40	29.23	1.54	29.23	1.54
Laboratory and workshop equipment	5.28%	214.97	11.35	231.79	12.24	370.01	19.54	440.74	23.27
Software	15.00%	19.49	2.92	20.08	3.01	22.05	3.31	26.10	3.92
Capital Spares	5.28%	9,083.52	479.61	9,930.49	524.33	11,711.36	618.36	12,646.58	667.74
<b>Total</b>		<b>390,761.41</b>	<b>20,340.02</b>	<b>395,549.93</b>	<b>20,594.87</b>	<b>689,504.47</b>	<b>36,099.35</b>	<b>699,941.42</b>	<b>36,586.87</b>
<b>Weighted Average Rate of Depreciation</b>		<b>5.2059%</b>		<b>5.2250%</b>		<b>5.2313%</b>		<b>5.2271%</b>	

