CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 253/GT/2020

Coram:

Shri P. K. Pujari, Chairperson
Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member

Date of Order: **14th April, 2022**

In the matter of:

Petition for revision of tariff of Kawas Gas Power Station (656.20 MW) for the 2014-19 tariff period, after the truing up

And

In the matter of:

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

Vs

1. Madhya Pradesh Power Management Company Limited,
   Shakti Bhawan, Vidyut Nagar,
   Jabalpur – 482 008

2. Maharashtra State Electricity Distribution Company Limited,
   Prakashgad, Bandra (East),
   Mumbai – 400 051

3. Gujarat Urja Vikas Nigam Limited,
   Vidyut Bhawan, Race Course,
   Vadodara – 390 007

4. Chhattisgarh State Power Distribution Company Limited,
   P.O. Sundar Nagar, Danganiya,
   Raipur – 492 013

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

6. DNH Power Distribution Corporation Limited,
   UT of Dadra and Nagar Haveli, Silvassa – 396 230

7. Electricity Department,
   Administration of Daman & Diu,
   Daman – 396 210 **…..Respondents**

Parties Present:

Shri Venkatesh, Advocate, NTPC
Shri Ashutosh K. Srivastava, Advocate, NTPC
Shri Suhael Buttan, Advocate, NTPC
Shri Anant Singh Ubeja, Advocate, NTPC
Shri Abhishek Nangia, Advocate, NTPC
Shri Nihal Bhardwaj, Advocate, NTPC
Ms. Simran Saluja, Advocate, NTPC
Shri Jayant Bajaj, Advocate, NTPC
Ms. Mehak Verma, Advocate, NTPC
Shri Jatin Ghuliani, Advocate, NTPC
Shri A.S. Pandey, NTPC
Shri Parimal Piyush, NTPC
Shri Ravindra Khare, MPPMCL

ORDER

This petition has been filed by the Petitioner, NTPC Limited (in short "NTPC"), for revision of tariff of Kawas Gas Power Station (656.20 MW) (hereinafter referred to as "the generating station") for the 2014-19 tariff period, in accordance with Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

Background

2. The generating station with a capacity of 656.20 MW comprises of four Gas Turbine (GT) units of 106 MW each and two Steam Turbine (ST) units of 116.10 MW each. The dates of commercial operation of the different units of the generating station are as under:

Asset	Capacity (MW)	COD
Unit - I (GT-1A)	106.00	1.06.1992
Unit - II (GT-1B)	106.00	1.08.1992
Unit - III (GT-2A)	106.00	1.09.1992
Unit - IV (GT-2B)	106.00	1.11.1992
Unit - V (ST-1) / Generating Station	116.10	1.11.1993
Unit - VI (ST-2)	116.10	1.09.1993

3. The Commission had determined the tariff of the generating station for the 2014-19 tariff period vide its order dated 24.3.2017 in Petition No. 341/GT/2014. The capital cost and the annual fixed charges approved in the said order are as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	174874.41	186940.60	186940.60	186940.60	186940.60
Add: Projected additional capital expenditure	12066.19	0.00	0.00	0.00	0.00
Closing capital cost	**186940.60**	**186940.60**	**186940.60**	**186940.60**	**186940.60**
Average capital cost	180907.51	186940.60	186940.60	186940.60	186940.60

Annual Fixed Charges allowed

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3310.89	3786.36	3784.49	3784.49	3784.49
Interest on Loan	2129.64	2282.09	1956.84	1640.44	1334.88
Return on Equity	16687.86	17125.35	17125.35	17125.35	17125.35
Interest on Working Capital	5627.91	5710.24	5739.61	5784.16	5832.46
O&M Expenses	9955.81	10559.52	11202.59	11885.04	12613.42
Total	**37712.11**	**39463.56**	**39808.88**	**40219.48**	**40690.60**

4. Thereafter, the Commission by its order dated 29.9.2017 in Review Petition No. 21/RP/2017 in Petition No. 346/GT/2014 (truing up of tariff for the 2009-14 tariff period) revised the capital cost and the annual fixed charges of the generating station.

Present Petition

5. 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."*

6. In terms of Regulation 8(1) of the 2014 Tariff Regulations, the Petitioner has filed the present Petition for truing up of tariff of the generating station for the 2014-19 tariff period and has claimed capital cost and annual fixed charges as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	174886.08	186628.51	188345.22	188607.20	188597.13
Add: Additional during the year	17221.68	925.36	146.09	0.45	0.38
Less: De-capitalisation during the year	6514.67	22.48	76.07	54.12	195.81
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	1035.43	813.82	191.97	43.59	2.24
Closing capital cost	**186628.51**	**188345.22**	**188607.20**	**188597.13**	**188403.94**
Average capital cost	180757.30	187486.86	188476.21	188602.17	188500.53

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	5292.19	5021.71	5138.22	5160.64	5174.24
Interest on Loan	2148.63	2240.88	1830.59	1376.37	1147.36
Return on Equity	16679.87	17158.51	17217.00	17224.45	17263.88
Interest on Working Capital	5709.53	5750.57	5853.97	5939.69	6038.20
O&M Expenses	10713.53	11008.89	11437.31	12461.87	13472.83
Sub-total	**40543.75**	**41180.56**	**41477.09**	**42163.01**	**43096.51**
Impact of Pay Revision	0.00	49.00	1158.00	1297.00	1592.00
Impact of GST	0.00	0.00	0.00	93.57	137.81
Total	**40543.75**	**41229.56**	**42635.09**	**43553.58**	**44826.32**

7. The Petitioner vide its affidavit dated 29.6.2021 has revised the impact of wage revision claims as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	49.12	1158.18	1296.61	1591.62

8. The Respondent, Madhya Pradesh Power Management Company Limited (MPPMCL) has filed its reply vide affidavit dated 26.8.2020 and the Petitioner vide affidavit dated 21.12.2020 has filed its rejoinder to the said reply. The Petitioner has also filed additional submissions vide affidavits dated 9.12.2020 and 29.6.2021 with copy to the Respondents. Thereafter, the Petition was heard through video conferencing along with Petition No. 488/GT/2020 (Petition for approval of tariff of the generating station for the 2019-24 tariff period) on 10.8.2021 and the Commission reserved its order in the matter. Based on the submissions of the parties and documents available on record and after prudence check, we proceed for truing up the

tariff of the generating station for the 2014-19 tariff period, in this Petition, as stated in the subsequent paragraphs.

Capital Cost

9. Regulation 9(1) of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check, in accordance with this regulation, shall form the basis of determination of tariff for existing and new projects. Regulation 9(3) of the 2014 Tariff Regulations provides as under:

> *"(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."*

10. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved the annual fixed charges of the generating station for the 2014-19 tariff period considering the opening capital cost of Rs.174874.41 lakh (on cash basis) as on 1.4.2014, based on the closing capital cost of Rs.174874.41 lakh as on 31.3.2014 approved vide order dated 15.3.2017 in Petition No. 346/GT/2014. Thereafter, the Commission, by its order dated 29.9.2017 in Review Petition No. 21/RP/2017 in Petition No. 346/GT/2014, had revised the closing capital cost to Rs.174886.08 lakh (on cash basis) as on 31.3.2014. Accordingly, in terms of Regulation 9(3) of the 2014 Tariff Regulations, the capital cost of Rs.174886.08 lakh, as on 31.3.2014, has been considered as the opening capital cost as on 1.4.2014.

Additional Capital Expenditure

11. Regulations 14(3) 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 obsolesce 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:

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:

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:

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.

(4) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the vale of gross fixed asset and corresponding loan as well as equity shall be deducted from the outstanding loan and the equity respectively in the year such de-capitalisation takes place, duly taking into consideration the year in which it was capitalised."

12. The details of the projected additional capital expenditure allowed for the 2014-19 tariff period by order dated 24.3.2017 in Petition No. 341/GT/2014, is summarized as under:

(Rs. in lakh)

	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Life extension of gas turbine and up gradation of control systems of GTs, WHRBSs and STs	14(3)(vii)	18199.44	0.00	0.00	0.00	0.00	18199.44
Deduction on account of capital		1466.50	0.00	0.00	0.00	0.00	1466.50

	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
spares							
A. Total (R&M)		**16732.94**	**0.00**	**0.00**	**0.00**	**0.00**	**16732.94**
Construction of 16 numbers B-Type and 29 numbers D type Quarters	14(3)(vii)	264.57	0.00	0.00	0.00	0.00	264.57
On line water washing system for Gas Turbine	14(3)(vii)	351.43	0.00	0.00	0.00	0.00	351.43
R O Plant for DM water	14(3)(vii)	349.00	0.00	0.00	0.00	0.00	349.00
Drinking water improvement	14(3)(vii)	54.96	0.00	0.00	0.00	0.00	54.96
A. Total additional capital expenditure		**17752.90**	**0.00**	**0.00**	**0.00**	**0.00**	**17752.90**
De-capitalization on account of Capitalization mentioned above in R&M		(-) 5686.71	-	-	-	-	(-) 5686.71
Total projected additional capital expenditure allowed		**12066.19**	**0.00**	**0.00**	**0.00**	**0.00**	**12066.19**

13. The additional capital expenditure claimed by the Petitioner, in this petition, duly supported by auditor certificate, are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Closing Gross Block as per audited books	217431.13	219335.34	83751.88*	84270.81*	86656.52*
Less: Opening Gross Block as per audited books	214716.53	217431.13	83236.19*	83751.88*	84270.81*
Additional capital expenditure as per audited books	2714.61	1904.21	515.69	518.93	2385.71
Less: Additional capital expenditure pertaining to other Stages	0.00	0.00	0.00	0.00	0.00
Additional capital expenditure for the generating station	2714.61	1904.21	515.69	518.93	2385.71
Less: IND AS Adjustment	0.00	0.00	119.91	112.35	388.70
Additional capital expenditure as per IGAAP for the generating station	2714.61	1904.21	395.77	406.58	1997.02
Less: Exclusions	(-) 8877.89	854.04	310.96	460.25	2192.23
Additional capital expenditure claimed for the generating station (on accrual basis)	**11592.50**	**1050.17**	**84.82**	**(-) 53.66**	**(-) 195.21**
Less: Un-discharged liabilities included above	885.50	147.29	14.80	0.00	0.22
Net Additional capital expenditure claimed for the generating station (on cash basis)	**10707.00**	**902.88**	**70.02**	**(-) 53.66**	**(-) 195.43**
Add: Discharges of liabilities	1035.43	813.82	191.97	43.59	2.24
Net Additional capital expenditure claimed including discharges for the generating station (on cash basis)	**11742.43**	**1716.71**	**261.99**	**(-) 10.07**	**(-) 193.20**

***** *As per IND-AS*

Exclusions

14. The summary of exclusions from books of accounts, as claimed by the Petitioner for the 2014-19 tariff period, on accrual basis, is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalisation of assets on account of R&M	(-) 10966.23	0.00	0.00	0.00	0.00
Loan FERV	908.44	1275.23	(-) 402.08	(-) 34.37	1422.73
Capital spares	2177.24	883.64	706.87	420.73	539.40
Miscellaneous Bought Out Assets	104.18	166.21	75.45	164.03	284.28
Inter-company transfer	0.56	(-) 1.22	(-) 0.53	0.00	0.00
Inter-unit transfer	(-) 365.43	(-) 1003.68	(-) 11.58	4.71	(-) 21.65
Reversal of liabilities	(-) 4.01	(-) 10.37	(-) 0.03	0.00	(-) 0.02
De-capitalisation of Miscellaneous Bought Out Assets (part of capital cost)	(-) 5.41	(-) 4.88	(-) 20.21	(-) 32.01	(-) 9.16
De-capitalisation of Miscellaneous Bought Out Assets (not part of capital cost)	(-) 9.73	(-) 83.83	(-) 36.95	(-) 55.53	(-) 22.52
De-capitalisation of capital spares (not part of capital cost)	(-) 717.50	(-) 367.05	0.00	(-) 7.32	(-) 0.84
Adjustment pertaining to assets already allowed under exclusion	(-) 0.0014	0.00	0.00	0.00	0.00
Total Exclusions claimed	**(-) 8877.89**	**854.04**	**310.96**	**460.25**	**2192.23**

15. We first examine the exclusions claimed by the Petitioner for the 2014-19 tariff period in the subsequent paragraphs.

(a) De-capitalisation of assets on account of R&M works

16. The Petitioner has claimed exclusion of de-capitalisation of Rs.10966.23 lakh (Rs.9557.07 lakh towards R&M of GT-1A, GT-1B, GT-2B and ST-1C and Rs.1409.16 lakh towards R&M of GT-2A and ST-2C) in 2014-15, corresponding to R&M works related to life extension. In justification, the Petitioner has submitted that as against the actual de-capitalisation of Rs.7754.59 lakh during 2012-14, the Commission in its order dated 15.3.2017 in Petition No. 346/GT/2014 had already considered the de-capitalisation of Rs.18720.81 lakhs, on account of R&M works, related to life extension of GT-1A, GT-1B and GT-2B and its control and instrumentation system. The Petitioner has submitted that the methodology of

working out the de-capitalisation amount is in line with Commission's order dated 15.3.2017 in Petition No. 346/GT/2014 and accordingly the exclusion of these de-capitalisation has been claimed.

17. It is noticed from order dated 15.3.2017 in Petition No. 346/GT/2014 that out of the approved de-capitalisation of Rs.24407.53 lakh corresponding to complete R&M package, the Commission had considered de-capitalisation of Rs.18720.82 lakh consisting of Rs.1660.68 lakh (actually de-capitalised in books) in 2012-13 and Rs.17060.14 lakh (Rs.6093.91 lakh actually de-capitalised in books and balance Rs.10966.23 lakh on projections) in 2013-14. However, as against the approved de-capitalisation of Rs.24407.53 lakh, corresponding to complete R&M package, the actual de-capitalisation carried out as per books of accounts of the Petitioner, during the period 2012-15 is Rs.25195.28 lakh (i.e. Rs.1660.68 lakh in 2012-13, Rs.6093.91 lakh in 2013-14 and Rs.17440.69 lakh In 2014-15). Since the total de-capitalisation considered for the purpose of tariff towards R&M up to 31.3.2014 is Rs.18720.82 lakh (inclusive of Rs.10966.23 considered on projection basis in 2013-14), the balance de-capitalisation towards complete R&M of GT and ST to be considered for the purpose of tariff in 2014-15 is Rs.6474.46 lakh (Rs.25195.28 lakh less Rs.18720.82 lakh). Hence, the Petitioner's claim for additional actual de-capitalisation of Rs.10966.23 lakh, as exclusions in 2014-15 is in order and therefore allowed. The reconciliation of the exclusion claimed under this head is as follows:

Sr. No.		**Amount in Rs. Lakh**	
1.	Total Decapitalization against R&M	25195.28	
2.	Year	De-capitalization Considered by Commission	De-capitalization as per books of Account of Petitioner
a.	2012-13	1660.68	1660.68
b.	2013-14	17060.14	6093.91
3.	Total Decapitalization till 31.3.2014	18720.82	7754.59
4.	Balance Decapitalization to be considered by Commission in 2014-15 (A)	6474.46	
5.	Decapitalization in 2014-15 as per books of Petitioner (B)	17440.69	
6.	Difference Claimed as Exclusion (B-A)	10966.23	

(b) Loan FERV

18. The Petitioner has claimed exclusion of loan FERV of Rs.908.44 lakh in 2014-15, Rs.1275.23 lakh in 2015-16, (-) Rs.402.08 lakh in 2016-17, (-) Rs.34.37 lakh in 2017-18 and Rs.1422.73 lakh in 2018-19. In justification of the same, the Petitioner submitted that since it is entitled to claim FERV on foreign currency loans directly from beneficiaries as per extant regulation, the same has been kept under exclusion. As the Petitioner is required to bill the claim for loan FERV directly from the beneficiaries, the claim under this head is allowed.

(c) Capitalisation of capital spares

19. The Petitioner has claimed exclusion of capital spares for Rs.2177.24 lakh in 2014-15, Rs.883.64 lakh in 2015-16, Rs.706.87 lakh in 2016-17, Rs.420.73 lakh in 2017-18 and Rs.539.40 lakh in 2018-19. In justification of the same, the Petitioner has submitted that capital spares which have been capitalized after cut-off date are not allowable as per the 2014 Tariff Regulations and, accordingly, the same has been claimed as exclusions. Since capitalization of spares over and above initial spares procured after the cut-off date of the generating station is not allowed as part of capital cost as per the 2014 Tariff Regulations, the Petitioner's claim for exclusion under this head is allowed.

(d) Capitalisation of Miscellaneous Bought Out Assets (MBOAs)

20. The Petitioner has claimed exclusion of capitalisation of MBOAs amounting to Rs.104.18 lakh in 2014-15, Rs.166.21 lakh in 2015-16, Rs.75.45 lakh in 2016-17, Rs.164.03 lakh in 2017-18 and Rs.284.28 lakh in 2018-19. In justification of the same, the Petitioner has submitted that MBOAs capitalised after the cut-off date are not allowed as per the 2014 Tariff Regulations and, accordingly, the same has been claimed as exclusions. Since capitalization of MBOA's after the cut-off date of the generating station is not allowed as part of capital cost as per the 2014 Tariff Regulations, the Petitioner's claim for exclusion under this head is allowed.

(e) Inter-company transfer of assets

21. The Petitioner has claimed exclusion of Rs.0.56 lakh in 2014-15, (-) Rs.1.22 lakh in

2015-16 and (-) Rs.0.53 lakh in 2016-17 towards inter-company transfer of assets. In justification of the same, the Petitioner has submitted that these inter-company transfers were not part of capital cost and, accordingly, the same has been claimed as exclusions. Since these assets are not part of the allowed capital cost, the Petitioner's claim for exclusion under this head is allowed.

(f) Inter-unit transfer of assets

22. The Petitioner has claimed exclusion of (-) Rs.365.43 lakh in 2014-15, (-) Rs.1003.68 lakh in 2015-16, (-) Rs.11.58 lakh in 2016-17, Rs.4.71 lakh in 2017-18 and (-) Rs.21.65 lakh in 2018-19, on account of inter-unit transfer of assets to/from the generating station. In justification of the same, the Petitioner has submitted that temporary inter-unit transfer of assets is not allowed for purpose of tariff and, accordingly, the same has been kept under exclusion. The Commission in its various orders while dealing with the application for additional capitalization in respect of other generating stations of the petitioner had decided that both positive and negative entries arising out of inter-unit transfers of a temporary nature shall be ignored for the purposes of tariff. In line with the said decision, the exclusion of the said amounts on account of inter-unit transfer is allowed.

(g) Reversal of liabilities

23. The Petitioner has claimed exclusion of reversal of liabilities of (-) Rs.4.01 lakh in 2014-15, (-) Rs.10.37 lakh in 2015-16, (-) Rs.0.03 lakh in 2016-17 and (-) Rs.0.02 lakh in 2018-19. In justification of the same, the Petitioner has submitted that tariff is allowed on cash basis and liabilities do not form part of tariff, the reversal of the same has been kept under exclusion. Since tariff is allowed on cash basis, the exclusion of reversal of undischarged liabilities is allowed for the purpose of tariff.

(h) De-capitalisation of MBOAs (forming part of capital cost)

24. The Petitioner has claimed exclusion of de-capitalisation of MBOA's forming part of admitted capital cost of the generating station amounting to (-) Rs.5.41 lakh in 2014-15, (-) Rs.4.88 lakh in 2015-16, (-) Rs.20.21 lakh in 2016-17, (-) Rs.32.01 lakh in 2017-18 and (-)

Rs.9.16 lakh in 2018-19. In justification of the same, the Petitioner has submitted that as the capitalization of expenditure against these items after the cut-off date is not allowed, the de-capitalization of the same has been claimed as exclusions. Since Regulation 14(4) of the 2014 Tariff Regulations provides that in case of de-capitalization of assets, the original cost of such assets shall be removed from the admitted capital cost of the generating station, the claim of the Petitioner under this head is not allowed.

(i) De-capitalisation of MBOA's (not forming part of capital cost)

25. The Petitioner has claimed exclusion of de-capitalisation of MBOA's not forming part of admitted capital cost of the generating station amounting to (-) Rs.9.73 lakh in 2014-15, (-) Rs.83.83 lakh in 2015-16, (-) Rs.36.95 lakh in 2016-17, (-) Rs.55.53 lakh in 2017-18 and (-) Rs.22.52 lakh in 2018-19. In justification of the same, the Petitioner has submitted that these MBOA's do not form part of the admitted capital cost and is therefore kept under exclusion. Since, these de-capitalized MBOA's do not form part of the admitted capital cost of the generating station, the exclusion claimed under this head is allowed.

(j) De-capitalisation of capital spares (not forming part of capital cost)

26. The Petitioner has claimed exclusion of de-capitalisation of capital spares not forming part of admitted capital cost of the generating station amounting to (-) Rs.717.50 lakh in 2014-15, (-) Rs.367.05 lakh in 2015-16, (-) Rs.7.32 lakh in 2017-18 and (-) Rs.0.84 lakh in 2018-19. In justification of the same, the Petitioner has submitted that these capital spares do not form part of capital cost and accordingly their de-capitalization has been claimed as exclusions. It is observed from the submission of the Petitioner that these capital spares were not allowed in tariff and, hence, do not form part of capital cost. Since these spares do not form part of the admitted capital cost, the exclusion for de-capitalization of these spares for the said amounts is allowed.

(k) Adjustment pertaining to assets already allowed under exclusion

27. The Petitioner has claimed exclusion of (-) Rs.0.0014 lakh in 2014-15 towards minor adjustment in the value of assets not forming part of the admitted capital cost of the generating station. Since the corresponding asset do not form part of the admitted capital cost

of the generating station, the exclusion claimed under this head is allowed.

28. Based on above, the summary of exclusions allowed and disallowed for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalisation of assets on account of R&M	(-) 10966.23	0.00	0.00	0.00	0.00
Loan FERV	908.44	1275.23	(-) 402.08	(-) 34.37	1422.73
Capital spares	2177.24	883.64	706.87	420.73	539.40
Miscellaneous Bought Out Assets	104.18	166.21	75.45	164.03	284.28
Inter-company transfer	0.56	(-) 1.22	(-) 0.53	0.00	0.00
Inter-unit transfer	(-) 365.43	(-) 1003.68	(-) 11.58	4.71	(-) 21.65
Reversal of liabilities	(-) 4.01	(-) 10.37	(-) 0.03	0.00	(-) 0.02
De-capitalisation of Miscellaneous Bought Out Assets (not part of capital cost)	(-) 9.73	(-) 83.83	(-) 36.95	(-) 55.53	(-) 22.52
De-capitalisation of capital spares (not part of capital cost)	(-) 717.50	(-) 367.05	0.00	(-) 7.32	(-) 0.84
Adjustment pertaining to assets already allowed under exclusion	(-) 0.0014	0.00	0.00	0.00	0.00
Total Exclusions allowed	**(-) 8872.48**	**858.92**	**331.16**	**492.25**	**2201.39**
Total Exclusions disallowed	**(-) 5.41**	**(-) 4.88**	**(-) 20.21**	**(-) 32.01**	**(-) 9.16**

Additional Capital Expenditure

29. The Petitioner, in Form-9A, has claimed actual additional capital expenditure as under:

(Rs. in lakh)

Head of Work/ Equipment	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Already allowed works for 2014-19							
R&M of GT-2A	14(3)(vii)	14133.49	0.00	0.09	0.00	0.00	14133.57
R&M of C&I, GT-2A	14(3)(vii)	745.59	0.00	0.00	0.00	0.00	745.59
R&M of C&I, ST-2C	14(3)(vii)	2014.90	0.00	0.00	0.00	0.00	2014.90
Construction of 16 numbers B-type and 29 numbers D-type Quarters	14(3)(vii)	170.63	0.00	0.00	0.00	0.00	170.63
Online Water washing System for GT	14(3)(vii)	0.00	282.59	0.00	0.00	0.00	282.59
RO Plant for DM Water	14(3)(vii)	0.00	232.51	0.00	0.00	0.00	232.51
Drinking Water Improvement	14(3)(vii)	0.00	0.00	43.46	0.45	0.38	44.30
De-capitalisation on account of R&M for GT-2A and ST 2C	14(4)	(-) 6474.46	0.00	0.00	0.00	0.00	(-) 6474.46
De-capitalisation of 16 numbers B-type and	14(3)(vii)	0.00	(-) 4.84	0.00	0.00	0.00	(-) 4.84

Head of Work/ Equipment	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
29 numbers D type Quarters							
Sub-total (A)		**10590.14**	**510.26**	**43.55**	**0.45**	**0.38**	**11144.79**
New Claims							
R&M of C&I, GT-1A	14(3)(vii)	8.17	1.42	0.17	0.00	0.00	9.76
R&M of C&I, GT-1B	14(3)(vii)	8.76	0.00	0.00	0.00	0.00	8.76
R&M of C&I, GT-1B	14(3)(ii)	0.00	1.42	0.00	0.00	0.00	1.42
R&M of C&I, GT-2A	14(3)(vii)	0.00	1.83	0.00	0.00	0.00	1.83
R&M of C&I, GT-2B	14(3)(vii)	8.76	1.71	0.00	0.00	0.00	10.46
R&M of C&I, ST-1C	14(3)(vii)	61.76	42.58	0.00	0.00	0.00	104.34
R&M of C&I, ST-2C	14(3)(vii)	0.00	42.82	0.00	0.00	0.00	42.82
R&M of GT-1A	14(3)(vii)	57.92	0.00	0.00	0.00	0.00	57.92
R&M of GT-1B	14(3)(vii)	4.75	0.00	0.00	0.00	0.00	4.75
R&M of GT-2A	14(3)(vii)	0.00	281.89	0.00	0.00	0.00	281.89
R&M of GT-2B	14(3)(vii)	3.39	0.00	0.00	0.00	0.00	3.39
Arbitration Award	14(3)(i)	3.57	0.00	0.00	0.00	0.00	3.57
Foam Tender	14(3)(iii)	0.00	0.00	67.13	0.00	0.00	67.13
Equalisation & Settlement Tank	14(3)(ii)	0.00	41.43	2.29	0.00	0.00	43.72
Effluent Quality Monitoring System	14(3)(ii)	0.00	0.00	32.95	0.00	0.00	32.95
De-capitalisation of Fire Tender	14(4)	0.00	0.00	(-) 31.57	0.00	0.00	(-) 31.57
Sub-total (B)		**157.07**	**415.10**	**70.97**	**0.00**	**0.00**	**643.15**
De-capitalisation of Spares (part of capital cost)	14(4)	(-) 40.21	(-) 22.48	(-) 42.90	(-) 54.12	(-) 195.81	(-) 355.52
De-capitalisation of Land		0.00	0.00	(-) 1.61	0.00	0.00	(-) 1.61
Sub-total (C)		**(-) 40.21**	**(-) 22.48**	**(-) 44.51**	**(-) 54.12**	**(-) 195.81**	**(-) 357.13**
Total additional capital expenditure (A+B+C)		**10707.00**	**902.88**	**70.02**	**(-) 53.66**	**(-) 195.43**	**11430.80**
Add: Discharge of liabilities	14(3)(vi)	1035.43	813.82	191.97	43.59	2.24	2087.05
Total additional capital expenditure claimed		**11742.43**	**1716.71**	**261.99**	**(-) 10.07**	**(-) 193.20**	**13517.86**

30. We now examine the actual additional capital expenditure claimed by the Petitioner for the 2014-19 tariff period.

(A) Additional capital expenditure towards allowed works

(a) R&M of GT-2A, R&M of Control & Instrumentation (C&I) of GT-2A and R&M of C&I ST-2A

31. The Petitioner has claimed actual additional capital expenditure of Rs.16893.98 lakh on cash basis (Rs.17732.63 lakh on accrual basis *minus* un-discharged liabilities of Rs.838.65 lakh) in 2014-15 towards R&M of GT-2A, R&M of C&I of GT-2A and

R&M of C&I ST-2C, under Regulation 14(3)(vii) of the 2014 Tariff Regulations. Further, the Petitioner has also claimed additional capital expenditure of Rs.283.72 lakh, on cash basis (Rs.321.69 lakh on accrual basis *minus* undischarged liabilities of Rs.37.97 lakh), in 2015-16, towards finalization of the cost of rotor refurbishment and material reconciliation related to R&M of GT-2A and R&M of C&I of GT-2A under the head 'new claims' in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations. The Petitioner has also claimed Rs.0.09 lakh in 2016-17 pertaining to additional cost of transportation paid based on bills submitted by the agency, towards life extension work of GT-2A. In justification of the same, the Petitioner has submitted that the Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had allowed the projected additional capital expenditure of Rs.18199.44 lakh, for works related to life extension works of GT-2A, R&M of C&I of GT-2A and R&M of C&I of ST-2C, in 2014-15. The Petitioner has also submitted that after completion of the said work, it has capitalised Rs.17732.63 lakh (pending payment of un-discharged liabilities of Rs.838.65 lakh) on accrual basis in 2014-15, Rs.321.69 lakh (pending payment of un-discharged liabilities of Rs.37.97 lakh) on accrual basis in 2015-16 and Rs.0.09 lakh (on accrual/cash basis) in 2016-17. The Petitioner has also claimed de-capitalisation of Rs.6474.46 lakh on account of R&M of GT-2A and ST-2C, in 2014-15.

32. The matter has been considered. The additional capital expenditure claimed under this head is in respect of the works already allowed vide order dated 24.3.2017 in Petition No. 341/GT/2014. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved Rs.18199.44 lakh on R&M package towards GT-2A and ST-2C. Against the approved amount of Rs.18199.44 lakh, the amount actually incurred and claimed by the Petitioner on accrual basis is Rs.18054.40 lakh (Rs.17732.63 lakh in 2014-15, Rs.321.69 lakh in 2015-16 and Rs. 0.09 lakh in 2016-

17) only. Accordingly, the actual additional capital expenditure, on cash basis, of Rs.16893.98 lakh in 2014-15, Rs. 283.72 lakh in 2015-16 and Rs.0.09 lakh in 2016-17, is allowed under Regulation 14(3)(vii) of the 2014 Tariff Regulations. Further, the corresponding un-discharged liability of Rs.838.65 lakh in 2014-15 and Rs.37.97 lakh in 2015-16 shall be considered during the year when it is actually discharged by the Petitioner. Further, as stated at paragraph 16 above, the de-capitalisation of Rs.6474.46 lakh is allowed for the purpose of tariff in 2014-15.

(b) Construction of 16nos B-type and 29nos D-type Quarters

33. The Petitioner has claimed actual additional capital expenditure of Rs.170.63 lakh on cash basis (Rs.216.11 lakh on accrual basis *minus* undischarged liabilities of Rs.45.48 lakh) towards Construction of 16 numbers B-type and 29 numbers D-type Quarters in 2014-15, in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the Commission in its order dated 24.3.2017 in Petition No. 341/GT/2014 had allowed the projected additional capital expenditure of Rs.264.57 lakh. The Petitioner also submitted that after completion of the said work, it has capitalised Rs.216.11 lakh (pending payment of un-discharged liabilities of Rs.45.48 lakh) on accrual basis in 2014-15. The Petitioner has also adjusted an amount of (-) Rs.4.84 lakh in 2015-16 on account of adjustment at the time of contract closing.

34. The matter has been considered. The additional capital expenditure claimed under this head is in respect of the works already allowed vide order dated 24.3.2017 in Petition No. 341/GT/2014. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved an additional capitalisation of Rs.264.57 lakh and against this, the amount actually incurred and claimed by the Petitioner on accrual basis is Rs.216.11 lakh only. Accordingly, the actual additional capital expenditure, on

cash basis, of Rs.170.63 lakh is allowed in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations and the corresponding un-discharged liability of Rs.45.48 lakh shall be considered during the year when it is actually discharged by the Petitioner. Further, the adjustment of (-) Rs.4.84 lakh in 2015-16 on contract closing is also allowed for the purpose of tariff.

(c) Online water washing system for Gas Turbine

35. The Petitioner has claimed actual additional capital expenditure of Rs.282.59 lakh on cash basis (Rs.318.74 lakh on accrual basis *minus* undischarged liabilities of Rs.36.15 lakh) in 2015-16 towards Online water washing system for Gas Turbine under Regulation 14(3)(vii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that in order dated 24.3.2017 in Petition No. 341/GT/2014, the projected additional capital expenditure on this count was allowed.

36. The matter has been considered. The additional capital expenditure claimed under this head is in respect of the work already allowed vide order dated 24.3.2017 in Petition No. 341/GT/2014. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved additional capitalisation of Rs.351.43 lakh and against this, the amount actually incurred and claimed by the Petitioner, on accrual basis is Rs.318.74 lakh only. Accordingly, the actual additional capital expenditure, on cash basis, of Rs.282.59 lakh is allowed in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations. The corresponding un-discharged liability of Rs.36.15 lakh shall be considered during the year when it is actually discharged by the Petitioner.

(d) RO Plant for DM Water

37. The Petitioner has claimed actual additional capital expenditure of Rs.232.51 lakh on cash basis (Rs.303.79 lakh on accrual basis *minus* undischarged liabilities of Rs.71.28 lakh) in 2015-16 towards RO Plant for DM Water under Regulation 14(3)(vii)

of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that in order dated 24.3.2017 in Petition No. 341/GT/2014, the projected additional capital expenditure on this count was allowed.

38. The matter has been considered. The additional capital expenditure claimed under this head is in respect of the work already allowed vide order dated 24.3.2017 in Petition No. 341/GT/2014. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved additional capitalisation of Rs.349.00 lakh and against this, the amount actually incurred and claimed by the Petitioner on accrual basis is Rs.303.79 lakh only. Accordingly, the actual additional capital expenditure, on cash basis, of Rs.232.51 lakh is allowed in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations. The corresponding un-discharged liability of Rs.71.28 lakh shall be considered during the year when it is actually discharged by the Petitioner.

(e) Drinking Water Improvement

39. The Petitioner has claimed actual additional capital expenditure of Rs.43.46 lakh on cash basis (Rs.47.31 lakh on accrual basis *minus* undischarged liabilities of Rs.3.85 lakh) in 2016-17, Rs.0.45 lakh on cash/accrual basis in 2017-18 and Rs.0.38 lakh on cash basis (Rs.0.60 lakh on accrual basis *minus* undischarged liabilities of Rs.0.22 lakh) in 2018-19, towards drinking water improvement under Regulation 14(3)(vii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that in order dated 24.3.2017 in Petition No. 341/GT/2014, the projected additional capital expenditure on this count was allowed.

40. The matter has been considered. The additional capital expenditure claimed under this head is in respect of the work already allowed vide order dated 24.3.2017 in Petition No. 341/GT/2014. The Commission vide its order dated 24.3.2017 in Petition No. 341/GT/2014 had approved additional capitalisation of Rs.54.96 lakh, and against

this, the amount actually incurred and claimed by the Petitioner on accrual basis is Rs.48.37 lakh only (Rs.47.31 lakh in 2016-17, Rs.0.45 lakh in 2017-18 and Rs.0.60 lakh in 2018-19). Accordingly, the actual additional capital expenditure, on cash basis, of Rs.43.46 lakh in 2016-17, Rs.0.45 lakh in 2017-18 and Rs.0.38 lakh in 2018-19 is allowed in terms of Regulation 14(3)(vii) of the 2014 Tariff Regulations. Further, the corresponding un-discharged liability of Rs.3.85 lakh in 2016-17 and Rs.0.22 lakh in 2018-19 shall be considered during the year when it is actually discharged by the Petitioner.

(B) Additional capital expenditure towards New Claims

(a) Balance capitalization of R&M works already allowed

41. The Petitioner has claimed actual additional capital expenditure, on cash basis, amounting to Rs.8.17 lakh for R&M of C&I of GT-1A, Rs.8.76 lakh for R&M of C&I of GT-1B, Rs.8.76 lakh for R&M of C&I of GT-2B, Rs.61.76 lakh for R&M of C&I of ST-1C, Rs.57.92 lakh for R&M of GT-1A, Rs.4.75 lakh for R&M of GT-1B and Rs.3.39 lakh for R&M of GT-2B in 2014-15, as balance capitalisation of expenditure necessitated due to material reconciliation for C&I systems, installation of SWAS analyser, common for both Steam Turbines, successful commissioning certificate in respect of commissioned stator vane of GT-1A, change in valuation of refurbishment of rotors and its custom duty variation in case of GT-1B/2B in respect of earlier allowed R&M works in order dated 15.3.2017 in Petition No. 346/GT/2014. The un-discharged liabilities corresponding to Petitioner's claim is Rs. 1.37 lakh (pertaining to R&M of GT-2B).

42. Similarly, the Petitioner has claimed actual additional capital expenditure on accrual/cash basis of Rs.1.42 lakh for R&M of C&I of GT-1A, Rs.1.42 lakh for R&M of C&I of GT-1B, Rs.1.71 lakh for R&M of C&I of GT-2B, Rs.42.58 lakh for R&M of C&I of

ST-1C and Rs.42.82 lakh for R&M of C&I of ST-2C in 2015-16, towards settlement of dues on material reconciliation for the C&I systems, in respect of earlier allowed R&M works in order dated 15.3.2017 in Petition No. 346/GT/2014.

43. The Petitioner has also claimed additional capital expenditure of Rs.0.17 lakh in 2016-17, on accrual/cash basis, against R&M of GT-1A pertaining to IDC for works completed during the prior period, but inadvertently left to be allocated to R&M works.

44. The Respondent, MPPMCL has submitted that though the Petitioner's claim is within the financial limits approved in order dated 24.3.2017 in Petition No.341/GT/2014, but the same is beyond 2014-15 and accordingly the IDC included in the expenditure and claimed during the years 2015-16 and 2016-17, may not be allowed. It has also submitted that the new claims have been made without providing any technical justification, duly supported by documentary evidence like test results carried out by independent agency. The Respondent has also submitted that R&M expenditure should have been claimed under Regulation 15 of the 2014 Tariff Regulations, instead of Regulation 14(3)(vii) of the 2014 Tariff Regulations. In its rejoinder, the Petitioner has clarified that the contention of the Respondent had already been rejected by the Commission in its order dated 24.3.2017 and the same cannot be re-agitated in the present petition.

45. The submissions made by the parties have been considered. the R&M work of three Gas Turbines (GT 1A/1B/2B) along with R&M of C&I system of three GTs and one steam turbine (ST 1C) had been completed during the year 2013-14 and the same had been allowed by the Commission vide order dated 15.3.2017 in Petition No. 346/GT/2014. Though major portion of the work had already been completed in the 2009-14 tariff period, the balance R&M work for remaining GT and ST which was completed during the year 2014-15, was allowed to be capitalised in order dated

24.3.2017 in Petition No.341/GT/2014. Since the additional capital expenditure claimed is in respect of elements related to earlier approved works, spilled over to 2015-16 and which are necessarily required to be implementing during the 2014-19 tariff period for compliance of change in law, for safety & security and efficient operation of the generating station. Accordingly, the contentions of the Respondents are rejected and the additional capital expenditure claimed under this head is allowed.

(b) Arbitration Award

46. The Petitioner has claimed additional capital expenditure of Rs.3.57 lakh in 2014-15 under Regulation 14(3)(i) of the 2014 Tariff Regulations, in respect of an arbitration matter between the Petitioner and M/s. V.U Seemon (contractor) relating to the Construction of boundary wall and fencing. In this case, the Arbitrator had awarded Rs.72.92 lakh in favour of the contractor along with interest of 18% for the period from 16.10.1990 till the date of payment or the date of decree. Aggrieved by the arbitration award, the Petitioner filed appeal before the Hon'ble Delhi High Court, which admitted the appeal, subject to the condition that the Petitioner deposited the amount awarded by the Arbitrator along with interest @ 9%. Thereafter, the Hon'ble Delhi High Court by order dated 13.8.2014 rejected the appeal filed by the Petitioner. Against this order dated 138.2014, the Petitioner filed Special Leave Petition (SLP (c) No. 32358/2014) before the Hon'ble Supreme Court and the Hon'ble Court disposed of the said appeal vide order dated 8.12.2014 granting limited relief to the Petitioner with reduction in the interest rate (on arbitral award amount) from 18% to 12%. The additional capitalisation of Rs.3.57 lakh claimed by the Petitioner pertains to the booking of interest payments for the period when the project was in a construction phase. The Petitioner has enclosed the copy of order of the Hon'ble Supreme Court and has requested to allow the additional capitalisation in terms of Regulation 14(3)(i)

of the 2014 Tariff Regulations.

47. The matter has been considered. Since the Petitioner's claim for additional capitalisation relate to interest payments pertaining to the Arbitration award, which was finally disposed of the order dated 8.12.2014 of the Hon'ble Supreme Court, we allow the same the same under Regulation 14(3)(i) the 2014 Tariff Regulations.

(c) Equalization & Settlement Tank

48. The Petitioner has claimed additional capital expenditure of Rs.41.43 lakh (Rs.43.32 lakh on accrual basis *minus* undischarged liabilities of Rs.1.89 lakh) in 2015-16 and Rs.2.29 lakh on cash/accrual basis in 2016-17 under Regulation 14(3)(ii) of the 2014 Tariff Regulations. The Petitioner has submitted that this work was carried out based on the directions of the Gujarat Pollution Control Board (GPCB) for discharge of effluents, as per the norms specified by GPCB, as per Clause 3.3 of the consent to operate dated 27.7.2015. The Petitioner has also submitted that for compliance of the said norms, it has constructed a settling pit for treatment of effluents generated in the station prior to discharge of the same from the plant. The Petitioner has further submitted that a major portion of the work was capitalised in 2014-15, and the present balance capitalisation, on cash basis, of Rs.41.43 lakh in 2015-16 and Rs.2.29 lakh in 2016-17 has been done after completion of the balance works.

49. Considering the fact that the additional capital expenditure incurred by the Petitioner is for compliance to the directions of GPCB in the consent to operate the generating station, the same is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.

(d) Effluent Quality Monitoring System

50. The Petitioner has claimed additional capital expenditure of Rs.32.95 lakh on cash/accrual basis in 2016-17 under Regulation 14(3)(iii) of the 2014 Tariff

Regulations. In justification the Petitioner submitted that this work was carried out based on the notification dated 5.2.2014 of the Central Pollution Control Board (CPCB) to monitor various effluent parameters such as pH, Total Suspended Solids (TSS), Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) before discharging the effluent water out of plant premises. As the expenditure incurred by the Petitioner. Considering the fact that the additional capital expenditure incurred by the Petitioner, is on account of compliance to the notification of the CPCB, the same is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.

(e) Foam and Fire Tender

51. The Petitioner has claimed additional capital expenditure of Rs.67.13 lakh on cash basis (Rs.78.08 lakh on accrual basis *minus* un-discharged liabilities of Rs.10.95 lakh) in 2016-17, towards replacement of fire tender under Regulation 14(3)(iii) of the 2014 Tariff Regulations. The Petitioner also claimed corresponding de-capitalisation on actual basis of existing fire tender amounting to Rs.31.57 lakh in 2016-17. In justification, the Petitioner has submitted that the 'foam and fire tender' at the generating station were in service from 1988 till 2015-16 and has outlived its useful of 25 years. It has also submitted that on account of non-availability of spares and frequent break down, these fire tenders were requiring frequent maintenance and was leading to its non-availability in the generating station. It has stated that the period of non-availability was creating a safety issue and hence, the Petitioner decided to replace these fire tender with new one.

52. Regulation 14(3)(iii) of the 2014 Tariff Regulations, allows the capitalisation of any additional expenditure incurred on account of need for higher security and safety of the plant, based on advise or direction of the Appropriate Governmental agencies/ statutory authorities responsible for national security/internal security. Since the

Petitioner has not furnished any supporting documents in justification for additional capitalisation in terms of this regulation, we are not inclined to allow the claim of the Petitioner. However, in terms of the provisions of Regulation 14(4) of the 2014 Tariff Regulations, the de-capitalisation of Rs.31.57 lakh of the existing fire tender is allowed.

De-capitalisation of Spares (part of capital cost)

53. The Petitioner has claimed the de-capitalization of spares of (-) Rs.40.21 lakh in 2014-15, (-) Rs.22.48 lakh in 2015-16, (-) Rs.42.90 lakh in 2016-17, (-) Rs.54.12 lakh in 2017-18 and (-) Rs.195.81 lakh in 2018-19, under Regulation 14(4) of the 2014 Tariff Regulations. The Petitioner has submitted that these spares form part of the admitted capital cost and on becoming unserviceable have been de-capitalised. As Regulation 14(4) of the 2014 Tariff Regulations provides that in case of de-capitalization of assets, the original cost of such asset is to be removed from the admitted capital cost of the generating station, the claim of the Petitioner is allowed for the purpose of tariff.

De-capitalisation of Land (part of capital cost)

54. The Petitioner has claimed de-capitalization of land for Rs.1.61 lakh in 2016-17 under Regulation 14(4) of the 2014 Tariff Regulations. The Petitioner has submitted that in accordance with the directions of the National Highway Authority of India (NHAI), it handed over a portion of land of the generating station to NHAI, for widening of National Highway No. 6. Accordingly, the Petitioner de-capitalised the corresponding portion of land cost handed over to NHAI. As Regulation 14(4) of the 2014 Tariff Regulations provides that in case of de-capitalization of assets, the original cost of such asset is to be removed from the admitted capital cost of the generating station, the claim of the Petitioner is allowed for the purpose of tariff.

Discharges of Liabilities

55. The discharges of liabilities claimed by the Petitioner for the 2014-19 tariff period is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1035.43	813.82	191.97	43.59	2.24

56. The summary of un-discharged liabilities, corresponding to admitted capital cost, during the 2014-19 tariff period is as under:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Un-discharged liabilities	*1305.38	1155.45	478.94	290.80	258.16
B	Liabilities corresponding to additional capital expenditure allowed during the year	885.50	147.29	3.85	0.00	0.22
C	Discharges of liabilities out of liabilities as on 1.4.2014	1035.43	246.50	13.46	0.00	0.00
D	Discharges of liabilities out of liabilities added during the year	0.00	567.33	178.51	32.64	2.24
E	Discharges of liabilities during the year (C+D)	1035.43	813.82	191.97	32.64	2.24
F	Reversal of liabilities out of liabilities as on 1.4.2014	0.00	9.98	0.03	0.00	0.00
G	Reversal of liabilities out of liabilities added during the year	0.00	0.00	0.00	0.00	0.00
H	Reversal of liabilities during the year (F+G)	0.00	9.98	0.03	0.00	0.00
I	Closing un-discharged liabilities (A+B-E-H)	**1155.45**	**478.94**	**290.80**	**258.16**	**256.14**

Closing un-discharged liabilities for 2009-14 tariff period.

57. Accordingly, discharges of liabilities of Rs.1035.43 lakh in 2014-15, Rs.813.82 lakh in 2015-16, Rs.191.97 lakh in 2016-17, Rs.32.64 lakh in 2017-18 and Rs.2.24 lakh in 2018-19 is allowed for the purpose of tariff.

58. Accordingly, the additional capital expenditure allowed for the 2014-19 tariff period is summarised as under:

(Rs. in lakh)

Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Already allowed works for 2014-19						
R&M of GT-2A	14133.49	0.00	0.09	0.00	0.00	14133.57
R&M of C&I, GT-2A	745.59	0.00	0.00	0.00	0.00	745.59
R&M of C&I, ST-2C	2014.90	0.00	0.00	0.00	0.00	2014.90
Construction of 16 numbers B-type and 29 numbers D-type Quarters	170.63	0.00	0.00	0.00	0.00	170.63
Online Water washing System for GT	0.00	282.59	0.00	0.00	0.00	282.59

Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
RO Plant for DM Water	0.00	232.51	0.00	0.00	0.00	232.51
Drinking Water Improvement	0.00	0.00	43.46	0.45	0.38	44.30
Decapitalisation on account of R&M for GT-2A and ST 2C	(-) 6474.46	0.00	0.00	0.00	0.00	(-) 6474.46
Adjustment corresponding to 16 numbers B-type and 29 numbers D type Quarters	0.00	(-) 4.84	0.00	0.00	0.00	(-) 4.84
Sub-total (A)	**10590.14**	**510.26**	**43.55**	**0.45**	**0.38**	**11144.79**
New Claims						
R&M of C&I, GT-1A	8.17	1.42	0.17	0.00	0.00	9.76
R&M of C&I, GT-1B	8.76	0.00	0.00	0.00	0.00	8.76
R&M of C&I, GT-1B	0.00	1.42	0.00	0.00	0.00	1.42
R&M of C&I, GT-2A	0.00	1.83	0.00	0.00	0.00	1.83
R&M of C&I, GT-2B	8.76	1.71	0.00	0.00	0.00	10.46
R&M of C&I, ST-1C	61.76	42.58	0.00	0.00	0.00	104.34
R&M of C&I, ST-2C	0.00	42.82	0.00	0.00	0.00	42.82
R&M of GT-1A	57.92	0.00	0.00	0.00	0.00	57.92
R&M of GT-1B	4.75	0.00	0.00	0.00	0.00	4.75
R&M of GT-2A	0.00	281.89	0.00	0.00	0.00	281.89
R&M of GT-2B	3.39	0.00	0.00	0.00	0.00	3.39
Arbitration Award	3.57	0.00	0.00	0.00	0.00	3.57
Foam and Fire Tender	0.00	0.00	0.00	0.00	0.00	0.00
Equalisation & Settlement Tank	0.00	41.43	2.29	0.00	0.00	43.72
Effluent Quality Monitoring System	0.00	0.00	32.95	0.00	0.00	32.95
De-capitalisation of Fire Tender	0.00	0.00	(-) 31.57	0.00	0.00	(-) 31.57
Sub-total (B)	**157.07**	**415.10**	**3.84**	**0.00**	**0.00**	**576.01**
De-capitalization of Spares (part of capital cost)	(-) 40.21	(-) 22.48	(-) 42.90	(-) 54.12	(-) 195.81	(-) 355.52
De-capitalisation of Land	0.00	0.00	(-) 1.61	0.00	0.00	(-) 1.61
Sub-total (C)	(-) 40.21	(-) 22.48	(-) 44.51	(-) 54.12	(-) 195.81	(-) 357.13
Total additional capital expenditure (A+B+C)	**10707.00**	**902.88**	**2.88**	**(-) 53.66**	**(-) 195.43**	**11363.67**
Add: Exclusions Disallowed	(-) 5.41	(-) 4.88	(-) 20.21	(-) 32.01	(-) 9.16	(-) 71.66
Total additional capital expenditure allowed (before discharges of liabilities)	**10701.59**	**898.00**	**(-) 17.33**	**(-) 85.67**	**(-) 204.59**	**11292.01**
Add: Discharge of liabilities	1035.43	813.82	191.97	32.64	2.24	2076.10
Total additional capital expenditure allowed	**11737.02**	**1711.82**	**174.64**	**(-) 53.03**	**(-) 202.35**	**13368.11**

Capital cost allowed for the 2014-19 tariff period

59. Based on above, the capital cost allowed for the purpose of tariff is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	174886.08	186623.10	188334.93	188509.57	188456.54
Add: Additional Capital Expenditure	11737.02	1711.82	174.64	(-) 53.03	(-) 202.35
Closing Capital Cost	**186623.10**	**188334.93**	**188509.57**	**188456.54**	**188254.19**
Average Capital Cost	180754.59	187479.02	188422.25	188483.06	188355.36

Debt-Equity Ratio

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

> *"19.(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 utilisation 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 modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."*

61. Accordingly, the gross normative loan and equity amounting to Rs.91593.78 lakh and Rs.83292.30 lakh respectively as on 31.3.2014 as allowed in order dated 29.9.2017 in Petition No. 21/RP/2017 in Petition No. 346/GT/2014 has been considered as gross normative loan and equity as on 1.4.2014. Further, the additional capital expenditure approved above has been allocated to debt and equity in debt-equity ratio of 70:30. Also, for assets de-capitalised during the 2014-19 tariff period,

the debt-equity ratio of 50:50 has been considered, as these assets were originally allocated to debt and equity, in the ratio of 50:50, in the respective tariff petitions. Accordingly, the details of debt-equity ratio in respect of the generating station, as on 1.4.2014 and as on 31.3.2019 are as follows:

	Capital cost as on 1.4.2014 ***(Rs. in lakh)***	**(%)**	**Additional capital expenditure** ***(Rs. in lakh)***	**(%)**	**De-capitalisation** ***(Rs. in lakh)***	**(%)**	**Total cost as on 31.3.2019** ***(Rs. in lakh)***	**(%)**
Debt	91593.78	52.37	14212.05	70.00	(-) 3467.41	50.00	102338.42	54.36
Equity	83292.30	47.63	6090.88	30.00	(-) 3467.41	50.00	85915.77	45.64
Total	**174886.08**	**100.00**	**20302.93**	**100.00**	**(-) 6934.82**	**100.00**	**188254.19**	**100.00**

Return on Equity

62. 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 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 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 requirement 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 kilometres."

63. 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.

Illustration.
(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = 15.50/(1-0.2096) = 19.610%
(ii) In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:
(a)Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.
(b)Estimated Advance Tax for the year on above is Rs 240 crore.
(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore/Rs 1000 Crore = 24%
(d)Rate of return on equity = 15.50/ (1-0.24) = 20.395%

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

64. The Petitioner has claimed tariff considering the rate of return on equity of 19.611% in 2014-15, 19.706% in 2015-18 and 19.758% in 2018-19. The Petitioner has worked out these rates, after grossing up the base rate of return on equity of 15.50% with MAT rate of 20.961% in 2014-15, 21.342% in 2015-18 and 21.549% in 2018-19. However, after rectifying the rounding off errors, the rate of return on equity

considered for the purpose of tariff works out to 19.610% for 2014-15, 19.705% for 2015-18 and 19.758% for 2018-19. Accordingly, return on equity has been worked out as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity - Opening	83292.30	85509.39	86017.47	86050.60	86017.47
Addition of Equity due to additional capital expenditure (net of de-capitalisation)	2217.09	508.07	33.14	(33.13)	(101.70)
Normative Equity - Closing	85509.39	86017.47	86050.60	86017.47	85915.77
Average Normative Equity	84400.85	85763.43	86034.03	86034.04	85966.62
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax) – annualized	**16551.01**	**16899.68**	**16953.01**	**16953.01**	**16985.28**

Interest on Loan

65. 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 loan."

66. Interest on loan has been computed as under:

i) The gross normative loan amounting to Rs.91593.78 lakh as considered in order dated 29.9.2017 in Petition No. 21/RP/2017 and in Petition No. 346/GT/2014, has been considered as on 1.4.2014.

ii) Cumulative repayment amounting to Rs.65553.54 lakh, as considered in order dated 29.9.2017 in Petition No. 21/RP/2017 in Petition No. 346/GT/2014, has been considered as on 1.4.2014.

iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to Rs.26040.24 lakh.

iv) Addition to normative loan on account of additional capital expenditure (net of de-capitalisation) approved above have been considered.

v) The Petitioner has claimed interest on loan considering weighted average rate of interest (WAROI) of 7.2140% in 2014-15, 7.0856% in 2015-16, 6.7121% in 2016-17, 6.1839% in 2017-18 and 6.7073% in 2018-19. However, considering the details of actual loan portfolio and rate of interest furnished by the Petitioner, duly adjusted for interest capitalised during the respective years the WAROI to be considered for the purpose of tariff works out to 5.4347% in 2014-15, 7.0821% in 2015-16, 6.7117% in 2016-17, 6.1839% in 2017-18 and 6.7073% in 2018-19.

vi) Depreciation allowed has been considered as repayment of normative loan during the respective year of the 2014-19 tariff period. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff.

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan	91593.78	101113.71	102317.46	102458.97	102439.07
Cumulative repayment of loan up to previous year	65553.54	66903.06	71983.77	77136.27	82313.31
Net Loan Opening	26040.24	34210.66	30333.70	25322.70	20125.77

	2014-15	2015-16	2016-17	2017-18	2018-19
Addition due to additional capital expenditure (net of de-capitalization)	9519.93	1203.75	141.51	(19.90)	(-) 100.65
Repayment of loan during the year	4609.56	5094.39	5200.64	5220.10	5214.09
Less: Repayment adjustment on account of de-capitalization	3260.04	13.68	48.14	43.06	102.49
Net Repayment of loan during the year	1349.52	5080.71	5152.50	5177.04	5111.61
Net Loan Closing	34210.66	30333.70	25322.70	20125.77	14913.50
Average Loan	30125.45	32272.18	27828.20	22724.23	17519.63
Weighted Average Rate of Interest of loan	5.4347%	7.0821%	6.7117%	6.1839%	6.7073%
Interest on Loan	**1637.24**	**2285.55**	**1867.73**	**1405.24**	**1175.10**

Depreciation

68. 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 upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission license 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 decapitalized asset during its useful services."

69. The cumulative depreciation amounting to Rs.122317.88 lakh and value of freehold land Rs.734.63 lakh as on 31.3.2014, as considered in order dated 29.9.2017 in Petition No. 21/RP/2017 (in Petition No. 346/GT/2014), has been considered as on 1.4.2014. Accordingly, the balance depreciable value, before providing for depreciation for 2014-15, works out to Rs.39700.09 lakh. The balance useful life of 8.61 years as on 1.4.2014, 9.23 years as on 1.4.2015, 8.23 years as on 1.4.2016, 7.23 years as on 1.4.2017 and 6.23 years as on 1.4.2018, as considered in order dated 24.3.2017 in Petition No. 341/GT/2014, has been retained for the purpose of tariff. Further, proportionate adjustment has been made to the cumulative depreciation, on account of de-capitalization of assets. Necessary calculations in support of depreciation are as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Average capital cost (A)	180754.59	187479.02	188422.25	188483.06	188355.36
Value of freehold land included above (B)	734.63	734.63	733.83	733.02	733.02
Aggregated depreciable Value (C) = [(A-B) x 90%]	162017.97	168069.95	168919.58	168975.03	168860.11
Remaining Aggregate Depreciable value at the beginning of the year	39700.09	47010.58	42790.45	37730.46	32472.95

(D) = (C – 'J' of previous year)					
Balance useful life at the beginning of the year (E)	8.61	9.23	8.23	7.23	6.23
Depreciation during the year (F) = (D/E)	**4609.56**	**5094.39**	**5200.64**	**5220.10**	**5214.09**
Cumulative depreciation at the end of the year, before adjustment of de-capitalisation adjustment (G) = (F + 'I' of previous year)	126927.44	126153.75	131329.77	136464.67	141601.26
Cumulative depreciation adjustment on account of de-capitalisation (H)	5868.08	24.62	85.20	77.51	184.48
Cumulative depreciation, at the end of the year (I) = (G - H)	121059.36	126129.13	131244.57	136387.16	141416.78

Note: Cumulative depreciation as on 31.3.2014 is Rs.122317.88 lakh.

Operation & Maintenance Expenses

70. Regulation 29(1)(c) of the 2014 Tariff Regulations specifies the norms for O&M expenses for Gas Turbine/Combined Cycle generating stations, other than small gas turbine power generating stations as under:

(Rs. in lakh/MW)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
14.67	15.59	16.57	17.61	18.72

71. The Commission in its order dated 24.3.2017 in Petition No. 341/GT/2014 had allowed the following O&M expenses for the generating station:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
O&M expenses allowed under Regulation 29(1)(c)	9626.45	10230.16	10873.23	11555.68	12284.06
Water charges allowed under Regulation 29(2)	329.36	329.36	329.36	329.36	329.36
Total O&M expenses allowed	**9955.81**	**10559.52**	**11202.59**	**11885.04**	**12613.42**

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

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
O&M expenses under Regulation 29(1)(c) of the 2014 Tariff Regulations	9626.45	10230.16	10873.23	11555.68	12284.06
O&M expenses under Regulation 29(2) of the 2014 Tariff Regulations					
- Water charges	329.36	389.20	521.18	844.76	992.12
- Capital spares consumed	757.71	389.53	42.90	61.44	196.65
Sub-total O&M expenses	**10713.53**	**11008.89**	**11437.31**	**12461.87**	**13472.83**
Impact of wage revision	0.00	49.12	1158.18	1296.61	1591.62

Impact of GST	0.00	0.00	0.00	93.57	137.81
Total O&M expenses	**10713.53**	**11058.01**	**12595.49**	**13852.05**	**15202.26**

73. Since, the normative O&M expenses claimed by the Petitioner is in accordance with Regulation 29(1)(c) of the 2014 Tariff Regulations, the Petitioner's claim for the same is allowed.

<u>Water Charges</u>

74. Regulation 29(2) of the 2014 Tariff Regulations provide 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:*
>
> *xxxxx."*

75. The water charges allowed on projected basis, by order dated 24.3.2017 in Petition No. 341/GT/2014 is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
329.36	329.36	329.36	329.36	329.36

76. In terms of the first proviso to Regulation 29(2) of the 2014 Tariff Regulations, water charges are to be allowed based on water consumption, depending upon type of plant, type of cooling water system etc., subject to prudence check. The Petitioner has claimed water charges based on actual water consumption of the generating station as under:

	Units	2014-15	2015-16	2016-17	2017-18	2018-19
Type of cooling tower	-	Natural Draft				
Type of cooling water system	-	Closed Cycle				
Water allocation/ contracted	MCM	2.00	2.80	2.00	2.50	2.80
Actual water consumption	MCM	1.93	2.05	2.50	3.54	3.99
Rate of industrial/drinking water charge	-	17.72/2.15	19.49/2.37	21.44/2.61	23.58/2.85	25.94/3.14
Water charges	Rs.in	**329.36**	**389.20**	**521.18**	**844.76**	**992.12**

	Units	2014-15	2015-16	2016-17	2017-18	2018-19
paid	lakh					

77. The water charges claimed by the Petitioner is based on actual water consumption and is in accordance with the auditor certified financial statements for respective financial years of 2014-19 tariff period. Accordingly, water charges as shown under is allowed for the purpose of tariff:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
329.36	389.20	521.18	844.76	992.12

Capital Spares

78. The last proviso to 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 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".*

79. In terms of the last proviso, capital spares consumed are admissible separately, at the time of truing up of tariff, based on the details furnished by the Petitioner. The capital spares claimed by the Petitioner are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
757.71	389.53	42.90	61.44	196.65

80. We have examined the list of spares furnished by the Petitioner along with the de-capitalisation details furnished in Form-9Bi. The capital spares, which has been consumed by the Petitioner and claimed as above, comprises of two categories as stated below:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Capital spares (part of capital cost)	40.21	22.48	42.90	54.12	195.81
Capital spares	717.50	367.05	0.00	7.32	0.84

(not part of capital cost)					
Total capital spares consumed and claimed	**757.71**	**389.53**	**42.90**	**61.44**	**196.65**

81. In respect of capital spares which forms part of capital cost of the generating station, the Petitioner has been recovering tariff since their procurement and therefore same cannot be allowed as part of additional O&M expenses. Accordingly, only those capital spares which do not form part of the capital cost of the generating station are only being considered in the present Petition. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardized practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs.1.00 lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the Petition, has been considered for the purpose of tariff. Based on this, the details of capital spares consumption allowed for the 2014-19 tariff period is summarized as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Total capital spares consumed claimed	757.71	389.53	42.90	61.44	196.65
Less: Capital spares (part of capital cost)	40.21	22.48	42.90	54.12	195.81
Total capital spares consumed (not part of capital cost)	**717.50**	**367.05**	**0.00**	**7.32**	**0.84**
Less: Value of capital spares below Rs.1.00 lakh disallowed on individual basis	9.84	6.74	0.00	2.08	0.84
Net total value of capital spares considered	**707.66**	**360.32**	**0.00**	**5.25**	**0.00**

82. Further, we are of the view that spares do have salvage value. Accordingly, in line with the practice of considering salvage value, presumed to be recovered by the Petitioner on sale of other capital assets, on becoming unserviceable, the salvage

value of 10% has been deducted from the cost of capital spares considered above for 2014-19 tariff period. Therefore, on prudence check of the information furnished by the Petitioner in Form-17 and on applying the said ceiling limit along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered	707.66	360.32	0.00	5.25	0.00
Less: Salvage value @ 10%	70.77	36.03	0.00	0.52	0.00
Net capital spares allowed	**636.89**	**324.28**	**0.00**	**4.72**	**0.00**

83. Accordingly, the total O&M expenses allowed to the generating station in terms of Regulation 29 of the 2014 Tariff Regulations are as under:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
Normative O&M expenses under Regulation 29(1)(c) of the 2014 Tariff Regulations	Claimed	9626.45	10230.16	10873.23	11555.68	12284.06
	Allowed	**9626.45**	**10230.16**	**10873.23**	**11555.68**	**12284.06**
Water charges under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	329.36	389.20	521.18	844.76	992.12
	Allowed	**329.36**	**389.20**	**521.18**	**844.76**	**992.12**
Capital spares under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	757.71	389.53	42.90	61.44	196.65
	Allowed	**636.89**	**324.28**	**0.00**	**4.72**	**0.00**
Total O&M expenses under Regulation 29 of the 2014 Tariff Regulations	Claimed	10713.53	11008.89	11437.31	12461.87	13472.83
	Allowed	**10592.71**	**10943.64**	**11394.42**	**12405.16**	**13276.18**

Additional O&M Expenses on account of Goods and Service Tax

84. The Petitioner has claimed additional O&M expenses of Rs.93.57 lakh in 2017-18 and Rs.137.81 lakh in 2018-19 on account of payment of Goods and Service Tax (GST). It is observed that the Commission while specifying the O&M expense norms for the 2014-19 tariff period had considered taxes to form part of the O&M expense calculations and had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) issued with the 2014 Tariff Regulations, which is extracted hereunder:

"49.6 With regards to suggestion received on other taxes to be allowed, the Commission while approving the norms of O&M expenses has considered the taxes as part of O&M expenses while working out the norms and therefore the same has already been factored in..."

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

Additional O&M Expenses on account of impact of Wage Revision

86. The Petitioner has submitted that the Commission while specifying the 2014 Tariff Regulations applicable for the 2014-19 tariff period, had taken note in SOR to the said regulations that any increase in the employee expenses, on account of pay revision shall be considered appropriately, on case to case basis, balancing the interest of generating stations and consumers. The Petitioner has, therefore, claimed additional O&M expenses of Rs.49.12 lakh in 2015-16, Rs.1158.18 lakh of in 2016-17, Rs.1296.61 lakh in 2017-18 and Rs.1591.62 lakh in 2018-19 towards 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. In this regard the Petitioner vide affidavit dated 29.6.2021 has submitted the following:

(a) Detailed break-up of the actual O&M expenses booked by the Petitioner for the 2014-19 tariff period for Kawas GPS.

(b) Detailed break-up of actual O&M expense of the Corporate Centre and its allocation to various generating stations, for the 2014-19 tariff period.

(c) Break-up of claimed wage revision impact on employee cost, expenses on corporate centre and on salaries of CISF employee of the generating station for the 2014-19 tariff period.

87. We have examined the submissions and the documents available on record. As stated, the Petitioner has claimed total amount of Rs.4095.53 lakh (Rs.49.12 lakh in 2015-16, Rs.1158.18 lakh of in 2016-17, Rs.1296.61 lakh in 2017-18 and Rs.1591.62 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, it is noticed that the said claim of the Petitioner includes the impact on account of the payment of additional PRP/ex-gratia to its employees, consequent upon wage revision, of Rs.79.87 lakh in 2017-18 and Rs.315.06 lakh in 2018-19. As such, as per consistent methodology adopted by the Commission of excluding PRP/ex-gratia from actual O&M expenses of past data for finalization of O&M norms for various tariff settings, the additional PRP/ex-gratia, paid as a result of wage revision impact has been excluded from the wage revision impact claimed by the Petitioner, in the present case. Accordingly, the claim of the Petitioner in respect of wage revision impact stand reduced to Rs.3700.60 lakh with the following year-wise break up.

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
Wage revision impact claimed (excluding PRP/ex-gratia)	0.00	49.12	1158.18	1216.74	1276.56	3700.60

88. The Commission while specifying the O&M expense norms under the 2014 Tariff Regulations had considered the actual O&M expense data for the period from 2008-09 to 2012-13. However, considering the submissions of the stakeholders, the Commission, in the SOR to the 2014 Tariff Regulations, had observed that the increase in employees cost due to impact of pay revision impact, will be examined on a case to case basis, balancing the interest of generating stations and the consumers. The relevant extract of the SOR is extracted 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 macro economics 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."

89. The methodology indicated in SOR quoted above suggests a comparison of the normative O&M expenses with the actual O&M expenses, on year to year basis. However, in this respect the following facts needs consideration:

(a) The norms are framed based on the averaging of the actual O&M expense of past five years to capture the year on year variations in sub-heads of O&M;

(b) Certain cyclic expenditure may occur with a gap of one year or two years and as such adopting a longer duration i.e. five years for framing of norms also captures such expenditure which is not incurred on year to year basis;

(c) When generating companies find that their actual expenditure has gone beyond the normative O&M expenses in a particular year put departmental restrictions and try to bring the expenditure for the next year below the norms.

90. In consideration of above facts, we find it appropriate to compare the normative O&M expenses with the actual O&M expenses for a longer duration so as to capture the variation in the sub-heads. Accordingly, it is decided that for ascertaining 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 for 2015-19 on a combined basis, which is commensurate with the wage revision claim being spread over these four years.

91. 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 for generating station is more that the normative O&M expenses recovered during each year of the 2014-19 tariff period. The impact of wage revision/ pay revision could not be factored by the Commission while framing the O&M expense norms under the 2014-19 Tariff Regulations since the pay/ wage revision came into effect from 1.1.2016 (CISF & KV employees) and 1.1.2017 (employees of the Petitioner) respectively. As such, in terms of SOR to the 2014 Tariff Regulations, 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, if the normative O&M expenses for the period 2015-19 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 2015-19.

92. The details as furnished by the Petitioner for actual O&M expenses incurred for Stage-I, Stage-II, Stage-III and Stage-IV (4260 MW) for the period from 1.4.2014 to 30.10.2015 and for Stage-I to Stage-V (4760 MW) for the period from 31.10.2015 to 31.3.2019, and the wage revision impact (excluding PRP and ex-gratia) for the generating station (Stage-I 1260 MW) are as under:

(Rs. in lakh)

Year	Actual O&M expenses for the generating station, excluding water charges & capital spares	Wage revision impact claimed for the generating station
2014-15	10481.19	0.00
2015-16	9818.04	49.12
2016-17	10506.62	1158.18
2017-18	11783.13	1296.61
2018-19	12129.01	1591.62
Total		**4095.53**

93. As a first step, the expenditure against sub-heads of O&M expenses as indicated in paragraph 91 above have been excluded from the actual O&M expenses incurred 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 period 2015-19 is as follows:

(Rs. in lakh)

	2015-16	2016-17	2017-18	2018-19	Total
Actual O&M expenses (normalized) for the generating station (a)	9386.46	9813.42	10859.88	11068.08	**41127.85**
Normative O&M expenses for the generating station as per Regulation 29(1) of the 2014 Tariff Regulations (b)	10230.16	10873.23	11555.68	12284.06	**44943.14**
Under/(Excess) recovery for the generating station (c)=[(a)-(b)]	**(-) 843.70**	**(-) 1059.81**	**(-) 695.80**	**(-) 1215.98**	**(-) 3815.29**
Wage revision impact claimed (excluding PRP/ex-gratia)	49.12	1158.18	1216.74	1276.56	**3700.60**

94. It is observed that for wage revision impact during the period 2015-19, the normative O&M expenses is in excess of the actual O&M expenses (normalized) and the excess recovery is to the tune of Rs.3815.29 lakh, which exceeds the wage revision impact claimed (excluding PRP/ex-gratia) by the Petitioner amounting to Rs.3700.60 lakh. As such, in terms of methodology described above, the wage revision impact (excluding PRP/ex-gratia) is not allowed for this generating station.

95. Based on above discussions, the additional O&M expenses allowed for the generating station for the 2014-19 tariff period is summarised below:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
Impact of wage revision	Claimed	0.00	49.12	1158.18	1296.61	1591.62
	Allowed	0.00	0.00	0.00	0.00	0.00
Impact of GST	Claimed	0.00	0.00	0.00	93.57	137.81
	Allowed	0.00	0.00	0.00	0.00	0.00

Operational Norms

96. The operational norms in respect of the generating station claimed by the Petitioner are as under:

Normative Annual Plant Availability Factor (NAPAF)	85.00%
Gross Station Heat Rate (kCal/kWh)	2050.00
Auxiliary Power Consumption %	2.5%

97. The operational norms for the generating station claimed by the Petitioner are in terms of the Regulation 36 of the 2014 Tariff Regulations and hence the same are allowed.

Interest on Working Capital

98. Regulation 28 of the 2014 Tariff Regulations provides as under:

"28. Interest on Working Capital:
(1) The working capital shall cover
(b) Open-cycle Gas Turbine/Combined Cycle thermal generating stations
(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Maintenance spares @ 30% of operation and maintenance expense specified in regulation 29; and

(iii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel";

(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(v) Operation and maintenance expenses for one month."

Fuel Cost and Energy Charges for working capital

99. The fuel cost for 30 days, liquid fuel stock for 15 days and energy charges for 2 months allowed for the 2014-19 tariff period by order dated 24.3.2017 in Petition No. 341/GT/2014 are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost for 30 days	10528.82	10557.67	10528.82	10528.82	10528.82
Liquid Fuel stock for 15 days	0.00	0.00	0.00	0.00	0.00
Energy charges for two months	21057.64	21115.33	21057.64	21057.64	21057.64

100. The fuel cost for 30 days, liquid fuel stock for 15 days and energy charges for 2 months claimed by the Petitioner are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost for 30 days	10380.11	10380.11	10380.11	10380.11	10380.11
Liquid Fuel stock for 15 days	0.00	0.00	0.00	0.00	0.00
Energy charges for two months	21048.56	21106.23	21048.56	21048.56	21048.56

101. The Petitioner's claim for the fuel cost and energy charges are based on the Gross Calorific Value (GCV) and price of the APM gas, Non APM gas, LNG and Naphtha, as adopted in order dated 24.3.2017 in Petition No. 341/GT/2014, except for minor rounding off difference, in case of weighted average price of APM gas and Naptha. The weighted average price of APM gas and Naptha, as considered in order dated 24.3.2017 in Petition No. 341/GT/2014, was Rs.11833.20 per 1000 SCM and Rs.27431.89 per KL, respectively. However, the Petitioner, in this petition, has considered the weighted average price of APM gas and Naptha as Rs.11833.19 per 1000 SCM and Rs.27431.93 per KL, respectively for working out fuel cost and energy

charges claim for the 2014-19 tariff period which has been considered for the purpose of tariff.

102. In view of above, the fuel cost for 30 days, liquid fuel stock for 15 days and energy charges for 2 months are allowed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost for 30 days	10382.84	10382.84	10382.84	10382.84	10382.84
Liquid Fuel stock for 15 days	0.00	0.00	0.00	0.00	0.00
Energy charges for two months	21056.50	21114.19	21056.50	21056.50	21056.50

Working capital for Maintenance Spares

103. Regulation 28(1)(b)(iii) of the 2014 Tariff Regulations provides for Maintenance spares @ 30% of the O&M expenses. Accordingly, maintenance spares have been worked out and allowed as follows:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3177.81	3283.09	3418.33	3721.55	3982.85

Working capital for Receivables

104. Regulation 28(1)(b)(iv) of the 2014 Tariff Regulations provides for Receivables for two months. Accordingly, the Receivable component for working capital is allowed as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fixed Charges (two months)	6510.31	6827.23	6862.71	6968.42	7089.86
Energy Charges (two months)	21056.50	21114.19	21056.50	21056.50	21056.50
Total	**27566.81**	**27941.42**	**27919.20**	**28024.92**	**28146.35**

Working capital for O & M Expenses

105. Regulation 28(1)(b)(v) of the 2014 Tariff Regulations provides for O&M Expenses for one (1) month. Accordingly, the O&M Expenses for working capital is allowed as follows:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
882.73	911.97	949.53	1033.76	1106.35

Rate of interest on working capital

106. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the Bank rate of 13.50% as on 1.4.2014, tariff has been considered.

107. Accordingly, Interest on Working Capital has been allowed as follows:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Working capital for Fuel cost for 30 days	10382.84	10382.84	10382.84	10382.84	10382.84
Working capital for Liquid Fuel Stock	0.00	0.00	0.00	0.00	0.00
Working capital for O & M expenses (1 month)	882.73	911.97	949.53	1033.76	1106.35
Working capital for Maintenance Spares	3177.81	3283.09	3418.33	3721.55	3982.85
Working capital for Receivables	27566.81	27941.42	27919.20	28024.92	28146.35
Total Working Capital	**42010.19**	**42519.32**	**42669.91**	**43163.07**	**43618.40**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working capital	**5671.38**	**5740.11**	**5760.44**	**5827.01**	**5888.48**

Annual Fixed Charges

108. Based on the above, the annual fixed charges approved for the generating station for the 2014-19 tariff period are summarised as follows:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	4609.56	5094.39	5200.64	5220.10	5214.09
Interest on Loan	1637.24	2285.55	1867.73	1405.24	1175.10
Return on Equity	16551.01	16899.68	16953.01	16953.01	16985.28
Interest on Working Capital	5671.38	5740.11	5760.44	5827.01	5888.48
O&M Expenses	10592.71	10943.64	11394.42	12405.16	13276.18
Total annual fixed charges approved	**39061.89**	**40963.37**	**41176.24**	**41810.52**	**42539.14**
Total annual fixed charges approved in order dated 24.3.2017 in Petition No. 341/GT/2014	37712.11	39463.56	39808.88	40219.48	40690.60

109. The difference between the annual fixed charges already recovered by the Petitioner in terms of order dated 24.32017 in Petition No. 341/GT/2014 and the annual fixed charges determined by this order, as above, shall be adjusted in terms of the relevant clauses of Regulation 8 of the 2014 Tariff Regulations.

110. This order disposes of Petition No. 253/GT/2020.

Sd/-	***Sd/-***	***Sd/-***	***Sd/-***
(Pravas Kumar Singh)	**(Arun Goyal)**	**(I.S Jha)**	**(P.K. Pujari)**
Member	**Member**	**Member**	**Chairperson**