

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.563/GT/2020

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member**

Date of Order: 24th April, 2024

In the matter of:

Petition for revision of tariff of Kudgi Super Thermal Power Station Station-I (2400 MW) for the period from COD of Unit-I i.e., from 31.7.2017 to 31.3.2019, after truing up exercise.

And

In the matter of

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

....**Petitioner**

Vs

1. AP Eastern Power Distribution Company Limited,
Corporate Office, P&T Colony, Seethammadhara,
Visakhapatnam-530013
2. AP Southern Power Distribution Company Limited,
Corporate Office, Back Side, Srinivasa Kalyana Mandapam,
Tiruchhanur Road, Kesavayana Gunta,
Tirupathi – 517 503 (AP)
3. Telangana State Northern Power Distribution Company Limited,
H.No. 2-5-31/2, Vidyut Bhavan, Nakkalagutta, Hanamkonda,
Warangal – 506 001 (AP)
4. Telangana State Southern Power Distribution Company Limited,
Mint Compound, Corporate Office,
Hyderabad-500063
5. Tamil Nadu Generation & Distribution Corporation Limited,
144, Anna Salai, Chennai- 600002
6. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle, Bangalore-560 001, Karnataka



7. Mangalore Electricity Supply Company Limited Corporate Office,
MESCOM Bhavan, First floor, Kavoor Cross Road,
Bijai, Mangalore- 575004
8. Chamundeshwari Electricity Supply Company Limited,
Corporate Office No. 29, Vijayanagar 2nd Stage,
Hinkal, Mysore- 570017
9. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga- 585102
10. Hubli Electricity Supply Company Limited,
Corporate Office, Navanagar, PB Road,
Hubli- 580025
11. Kerala State Electricity Board Limited
Vaidyuthi Bhavanam, Pattom
Thiruvananthapuram- 695004

.....Respondents

Parties present

Shri Venkatesh, Advocate, NTPC
Shri Nihal Bhardwaj, Advocate, NTPC
Shri Kartikay Trivedi, Advocate, NTPC
Shri Ashutosh K. Srivastava, Advocate, NTPC
Shri Rudraksh Bhushan, NTPC
Shri S. Vallinayagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Shri I. Sudhakar, TANGEDCO
Ms. Bhabna Das, Advocate, BESCO
Shri N. Sai Kaushal, Advocate, BESCO

ORDER

The Petitioner, NTPC, has filed this Petition for approval of the tariff of Kudgi Super Thermal Power Station (3 x 800 MW) (in short, "the generating station/Project") after the truing-up exercise, based on the COD of Unit-I (31.7.2017) till 31.3.2019, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short, "the 2014 Tariff Regulations").

Background

2. The generating station, located in the Bijapur district of the State of Karnataka, comprises three units of 800 MW each. The Investment Approval (IA) of the project was



accorded by the Board of the Petitioner Company in its 376th meeting held on 28.12.2011, subject to the Environmental Clearance (EC) of the MOE&F, GOI. The said approval was granted at an estimated cost of Rs.15166.19 crore, including Interest During Construction (IDC) & Financing Cost (FC) of Rs.2487.67 crore, and Working Capital Margin (WCM) of Rs.445.77 crore as on the 4th quarter of 2011 Price Level and the corresponding indicative estimated completed cost of Rs.16934.65 crore, including IDC & FC of Rs.2654.84 crore and WCM of Rs.460.06 crore.

3. The tariff of the generating station for the period from COD of Unit-I, i.e., from 31.7.2017 to 31.3.2019, was determined by the Commission vide order dated 8.1.2020 in Petition No.199/GT/2017. Accordingly, the capital cost and the annual fixed charges allowed in the said order dated 8.1.2020 are as under:

Capital Cost allowed

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 to 30.12.2017	31.12.2017 to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 to 31.3.2019
Opening Capital Cost	583175.52	949481.51	968219.32	1319469.48
Add: Additional capital expenditure	36657.69	18737.81	45073.60	45225.00
Closing Capital Cost	619833.22	968219.32	1013292.92	1364694.48
Average Capital Cost	601504.37	958850.41	990756.12	1342081.98

Annual Fixed Charges allowed

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 to 30.12.2017	31.12.2017 to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 to 31.3.2019
Depreciation	29556.51	47650.72	49578.75	67817.57
Interest on Loan	26488.27	43412.52	43458.53	58553.78
Return on Equity	33684.19	50557.69	52380.51	79550.57
Interest on Working Capital	10815.13	21215.47	21390.51	32530.91
O&M Expenses	14843.29	28683.29	30299.43	45003.43
Total	115387.40	191519.69	197107.73	283456.26

4. Aggrieved by the aforesaid order dated 8.1.2020, the Petitioner had filed a Review Petition (Petition No.8/RP/2020) before this Commission on various issues, and the



Commission vide its order dated 9.2.2021 had disposed of the said Review Petition disallowing certain prayers. However, with regard to the calculation errors in respect of IDC/IEDC, notional loan and rate of interest on loan, etc., the Commission, in the said order dated 9.2.2021, decided as follows:

“17. We have examined the submissions and the documents available on record. The calculations pertaining to IDC/IEDC and notional IDC has been rechecked and no discrepancy in the calculations have been noticed, as stated by the Petitioner in this review petition. Also, based on the scrutiny of the IDC allocation sheet as furnished by the Petitioner in the main petition, it was observed that FERV amounting to Rs.3572.84 lakh treated as borrowing cost has already been considered in the IDC calculations and accordingly, the claim of the Petitioner was disallowed subject to truing-up exercise. As regards interest rate calculation with respect to foreign loans and the rate of interest of SBI-VIII loans considered in order dated 8.1.2020, the Petitioner has not pointed out to any inconsistency with reference to the loan agreement. It is pertinent to mention that the calculation of Weighted Average Rate of Interest (WAROI) had been worked out in order dated 8.1.2020 based on the annual rate of interest furnished by the Petitioner in Form-8 of the main petition. However, considering the fact that the tariff determined by Commission’s order dated 8.1.2020 in Petition No.199/GT/2017 in respect of this generating station is subject to truing-up and the discrepancies/errors pointed out by the Petitioner are in the nature of clerical/ arithmetical errors, we deem it fit to consider these issues at the time of truing-up exercise, subject to the Petitioner furnishing the detailed calculations/ computations along with proper linkages to the documents already furnished on record and pointing out the discrepancies/errors as submitted in this petition. Accordingly, the Petitioner is granted liberty to furnish the aforesaid information/ details at the time of truing-up of tariff. The prayer of the Petitioner is disposed of accordingly.”

5. Accordingly, in terms of the above order, the Petitioner has filed the detailed calculations/computations along with proper linkages, pointing out the discrepancies/errors pertaining to the disallowance of FERV amounting to Rs.3572.84 lakh charged to revenue and the interest rate calculations, with respect to the foreign loans and SBI-VIII loan.

Present Petition

6. 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.”



7. In terms of the above regulations, the Petitioner sought a truing-up of the tariff of the generating station for the period 2014-19. Though the Petitioner, vide affidavit dated 30.6.2020, has revised its claim for the period 2014-19, it has not furnished the tariff forms in 'Appendix-I'. In view of this, the excel files submitted vide the said affidavit, which contain the revised tariff forms, have been considered in this order. Accordingly, the capital cost and the annual fixed charges claimed by the Petitioner are as under:

Capital cost claimed

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Capital Cost as on COD	584165.44	950478.17	971919.29	1306897.44
Contingency	6.92	6.92		46.76
ERV charged to revenue	(-)1752.99	(-)1984.09		15024.71
Inter-Unit Transfer out before COD	2157.28	2157.28		2157.28
Notional IDC	763.08	987.45		1120.23
Unamortized Finance Charges	615.86	1535.75		1633.19
Opening Capital Cost	585955.59	953181.48	971919.29	1326879.61
Add: Addition during the year/period & Liability Discharge	36657.69	18737.81	45073.60	65492.96
Closing Capital Cost	622613.28	971919.29	1016992.89	1392372.57
Average Capital Cost	604284.44	962550.39	994456.09	1359626.09

Annual Fixed Charges claimed

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Depreciation	29693.33	47834.90	49763.58	68704.63
Interest on Loan	26610.25	43578.16	43618.85	57512.99
Return on Equity	33840.90	50755.84	52579.29	80590.48
Interest on Working Capital	11206.72	21943.29	22231.75	33783.61
O&M Expenses	17132.46	30972.46	34548.43	51198.82
Total	118483.66	195084.65	202741.90	291790.51

8. Respondent No. 5 (TANGEDCO), Respondent No. 11 (KSEBL), and Respondent No. 6 (BESCOM) have filed their replies vide affidavits dated 21.12.2020, 21.5.2021, and 19.8.2021 respectively, and the Petitioner vide affidavits dated 23.3.2021,



21.7.2021 and 22.3.2023 respectively, has filed its rejoinders to the said replies. The Petition was thereafter heard on 16.2.2023, and the Commission, after hearing the parties, reserved its order in the Petition, subject to the Petitioner filing certain additional information and after serving copies on the Respondents. The Petitioner has filed the additional information vide affidavit dated 22.3.2023. Since the order in the present Petition could not be issued prior to one Member of this Commission, who formed part of the Coram demitting office, this Petition was relisted and heard on 6.2.2024. During the hearing, the learned counsel for the Petitioner submitted that the pleadings and arguments in the present Petition have been completed, and the Commission may reserve its order in the petition. He, however, pointed out that pursuant to the APTEL judgment dated 14.8.2023 in Appeal No. 152 of 2016, declaring the expenses claimed towards Railway augmentation works for some of the projects as mandatory, the Petitioner has filed the said IA No.81/2023 (in Petition No.29/GT/2021) for claiming the same for this generating station, and the same may be considered by the Commission; while disposing of the petition. The learned counsel added that in case any clarification/ additional information is required, the Petitioner would furnish the same. The Commission, after hearing the parties, reserved its order in the Petition, subject to the Petitioner filing certain additional information and after serving copies on the Respondents. The Petitioner has filed the additional information vide affidavit dated 8.3.2024. Accordingly, based on the submissions of the parties and documents available on record, and after a prudence check, we proceeded with the truing up of the tariff of the generating station for the period 2014-19, as stated in the subsequent paragraphs.

Commissioning schedule

9. The Commission, vide its order dated 8.1.2020 in Petition 199/GT/2017, had allowed the time overrun (against the actual time overrun) for Unit-I, Unit-II, and Unit-III and the scheduled COD (reset) for the purpose of computation of IDC due to time



overrun, summarized as under:

	SCOD, as per IA	Actual COD	Time overrun considering SCOD (in days)	Time Overrun allowed (in days)	SCOD (reset) for IDC and IEDC computation
Unit-I	25.05.2016	31.07.2017	432	269	18.2.2017
Unit-II	25.11.2016	31.12.2017	401	287	8.9.2017
Unit-III	25.05.2017	15.09.2018	478	183	24.11.2017

10. The COD of the generating station is 15.9.2018, and therefore, in terms of the 2014 Tariff Regulations, the cut-off date of the generating station is 31.3.2021. The Petitioner, in its additional submissions, vide affidavit dated 19.6.2021, has prayed for the extension of the cut-off date from 31.3.2021 to 31.3.2023 and, in justification of the same, has submitted that the capitalization of Rs.419.12 crore, pertaining to certain balance works (i.e. SG & offsite civil works, CHP, AHP & AWRS, TG area Chimney civil works, Ash Dyke package, Fire Detection and Protection System Package and Labour wages increase) which are under the original scope of work for the generating station, has spilled over beyond the cut-off date and the delay on this count has been attributed to uncontrollable factors as well as due to the impact of COVID-19.

11. We have considered the submissions. It is noticed that the issue of extension of the cut-off date was prayed for by the Petitioner in Review Petition No. 8/RP/2020, and the Commission, vide its order dated 9.2.2021, had rejected the said prayer. However, the Petitioner in the present Petition has again raised the said prayer on the grounds of uncontrollable factors and the impact of the COVID-19 pandemic. It is pertinent to mention that the MOP, GOI vide letter dated 25.3.2020, had recognized that power generation is an essential service for securing the smooth and uninterrupted power flow across and within the States and that the operation of Inter-State generating stations is critical for maintaining the power supply. Accordingly, the activities pertaining to generation, transmission and distribution were exempted from the nationwide lockdown



imposed to restrict the spreading of COVID-19. The imposition of lockdown was a nationwide phenomenon, and the Commission, in its various orders filed by different generators, had not allowed any relaxation owing to the impact of COVID-19. In this background, we are not inclined to extend the cut-off date of the generating station. However, considering the fact that the works claimed by the Petitioner are within the original scope of work, we, in the exercise of the powers under Regulation 54 of the 2014 Tariff Regulations, are inclined to consider the additional capitalization of the expenditure for works within the original scope of work, subject to the Petitioner incurring such expenditures and capitalizing the same by 2022-23. Accordingly, the Petitioner shall furnish proper justification and certification that these works are within the original scope of work and the same will be dealt with in terms of the relevant provisions of the 2019 Tariff Regulations.

Capital Cost

12. Regulation 9(2) of the 2014 Tariff Regulations provides as under:

“The Capital cost of a new project shall include the following:

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans

(i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalized Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;

(f) Expenditure on account of additional capitalization and de-capitalization determined in accordance with Regulation 14 of these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

13. Considering the capital cost approved in an order dated 8.1.2020, the revision in capital cost claimed by the Petitioner for the period 2014-19 is as under:



(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Capital Cost allowed in an order dated 8.1.2020 as on respective CODs based on the Auditor's certified capital cost	583175.52	949481.51	-	1319469.48
Add: Expenditure towards contingency disallowed in an order dated 8.1.2020	6.92	6.92	-	46.76
Add: Un-amortized finance cost disallowed in an order dated 8.1.2020	615.86	1535.75	-	1633.19
Add: FERV treated as borrowing cost charged to revenue disallowed in an order dated 8.1.2020	0.00	0.00	-	3572.90
Add: Inter-unit transfer out of assets disallowed in an order dated 8.1.2020	2157.28	2157.28	-	2157.28
Opening capital cost	585955.59	953181.48	971919.29	1326879.61
Add: Additional capital expenditure	36657.69	18737.81	45073.60	65492.96
Closing capital cost	622613.28	971919.29	1016992.89	1392372.57
Average capital cost	604284.44	962550.39	994456.09	1359626.09

Initial Spares

14. Regulation 13 of the 2014 Tariff Regulations provides as under:

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

(i) Coal-based/lignite-fired thermal generating stations - 4.0%

(j) Gas Turbine/Combined Cycle thermal generating stations - 4.0%

Provided that:

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

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

15. The Petitioner, in Petition No. 199/GT/2017, had not furnished the details of the initial spares included in the respective packages. Accordingly, the Commission, vide its order dated 8.1.2020, had directed the Petitioner to furnish the total amount of initial spares, after bifurcation of the amounts for the different packages, at the time of truing-



up of the tariff of the generating station. The Petitioner, vide affidavit dated 30.6.2020, provided the details of initial spares and that the capitalized amount of initial spares, as on 31.3.2019, is Rs 24115.25 lakh. The Petitioner has, however, not provided the details of initial spares as on the cut-off date of the generating station (31.3.2021). Accordingly, we consider the initial spares as on 31.3.2019. Though the Petitioner has not furnished Form-5B for the generating station, considering the Plant and Equipment cost up to the cutoff date of the generating station, as provided by the Petitioner in Petition No.199/GT/2017, the initial spares of Rs.24115.25 lakh, as on 31.3.2019, is 2.68% of the Plant and Equipment cost, which is within the specified limit of 4% in terms of the 2014 Tariff Regulations. Accordingly, the capitalized amount of initial spares claimed by the Petitioner for Rs 24115.25 lakh is allowed.

Infirm power

16. Regulation 18 of the 2014 Tariff Regulations, provides as under:

*“18. Sale of Infirm Power: **Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts** in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof:*

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly.”

17. Vide order dated 8.1.2020 in Petition No.199/GT/2017, the Petitioner was directed to furnish the details of the infirm power injected into the grid by Units-I to III till COD, and the revenue earned from the sale of infirm power (excluding the fuel cost) along with the details of the fuel used from synchronization till COD, at the time of truing-up of tariff of the generating station. In compliance with the same, the Petitioner, vide affidavit dated 30.6.2020, has submitted the details as under:

		<i>(Rs. in lakh)</i>						
S. No	Item	Unit-I		Unit-II		Unit-III		Total
		Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	Coal (MT)	112345.00	6383.86	63509.00	3580.50	50084.00	2396.22	12360.57
2	LDO (KL)	22397.60	9063.53	18698.08	8196.96	6761.80	2705.09	19965.58
3	RLDC Fees and Chemicals & Consumables	-	645.18	-	38.04	-	32.53	715.75



S. No	Item	Unit-I		Unit-II		Unit-III		Total
		Quantity	Amount	Quantity	Amount	Quantity	Amount	
4	Less: Sale of power		(-)138.07	-	(-)84.63	-	235.79	13.10
5	Net Pre-commissioning Expenses		16230.63	-	11900.13		4898.05	33028.81

18. The Respondent BESCO has submitted that the Petitioner has not factored in the capital cost, the amount received from the Deviation Settlement Mechanism (DSM) pool as provided in the report of the Southern Regional Power Committee (SRPC) amounting to Rs.1856.00 lakh for Unit-I, Rs.1271.00 lakh for Unit-II and Rs.975.00 lakh for Unit-III totaling Rs.4102.00 lakh. In response, the Petitioner has submitted that the amount is both payable and receivable from the DSM account, and therefore, the amount of Rs.4102 lakh received cannot be adjusted with the capital cost.

19. The matter has been considered. Regulation 18 of the 2014 Tariff Regulations provides that the amount recovered from the Regional deviation settlement account shall be adjusted in the capital cost. The Petitioner has submitted that an amount of Rs.13.10 lakh received from the sale of power has been adjusted in the capital cost. In our view, the amount in any regional DSM pool cannot be viewed as surplus money available, as DSM is a deterrent mechanism where the charges are paid for maintaining grid security. Also, as there is drawl as well as injection of power and the amount claimed is after adjusting the charges from the DSM pool, we consider the amount of Rs.13.10 lakh adjusted in the capital cost on account of the sale of infirm power by the Petitioner.

Liquidated Damages (LD)

20. The Commission, vide its order dated 8.1.2020 in Petition No.199/GT/2017, had directed the Petitioner to submit the details of the LD, if any, recovered, till the COD of the generating station at the time of truing-up of the tariff of the generating station. In response, the Petitioner, vide its affidavit dated 30.6.2020, submitted that no LD has been recovered till the station COD of the generating station.



Sale of Fly Ash/Ash Products

21. The Respondents have submitted that the revenue from the sale of fly ash and fly ash products to the tune of Rs.1337.27 lakh in 2018-19 and Rs.48.11 lakh in 2017-18 have neither been adjusted by the Petitioner in the capital cost nor have they been allowed as a credit to the beneficiaries. The Petitioner, vide its rejoinder dated 22.3.2023, has submitted a copy of the MOEF notification and submitted that the revenue generated from the sale of the fly ash silo has been transferred to the fly ash utilization reserve fund in accordance with the MOEF notification dated 3.11.2009.

22. The matter has been considered. The Petitioner has not claimed any adjustment on account of the sale of fly ash utilization. In terms of the MOEF notification dated 3.11.2009, the amount collected from the sale of fly ash should be kept in a separate account head and shall be utilized only for the development of infrastructure or facilities, promotion or facilitation activities of fly ash until 100% of fly ash utilization level is achieved. On perusal of Note No. 37, serial no(s) 14 and 15 in the audited balance sheet attached vide affidavit dated 30.6.2020, it is observed that the revenue generated from the sale of the fly ash silo has been transferred to fly ash utilization reserve fund, as per the MOEF notification. Accordingly, the treatment of the revenue from the sale of Fly Ash/Ash Products as done by the Petitioner is in order.

23. We now proceed to examine the Petitioner's capital cost claim on various CODs as under:

i) Capital cost already allowed in the order dated 8.1.2020:

24. The capital cost for Rs.583175.52 lakh, Rs.949481.51 lakh, and Rs.1319469.48 lakh allowed as on the COD of Unit-I, Unit-II, and Unit-III/ the generating station, respectively, vide order dated 8.1.2020 in Petition No. 199/GT/2017 is retained for the purpose of tariff.



ii) Expenditure towards contingency disallowed in the order dated 8.1.2020:

25. The Commission vide its order dated 8.1.2020 had disallowed the expenditure towards Contingency for Rs.6.92 lakh, as on the COD of Unit-I and Unit-II and Rs.46.76 lakh, as on COD of Unit-III/ the generating station, on the ground that the 2014 Tariff Regulations do not provide for admissibility of any expenditure towards contingency.

26. However, in the present Petition, the Petitioner has submitted that some of the capital spares procured were claimed towards the contingency expenditure. The Petitioner has also submitted the breakup of these spares under different packages vide affidavit dated 30.6.2020. Since the 2014 Tariff Regulations do not provide for the admissibility of any expenditure towards Contingency, the Petitioner's claim under this head is disallowed.

iii) Un-amortized finance cost disallowed in the order dated 8.1.2020:

27. The Commission vide its order dated 8.1.2020 had disallowed the un-amortized finance cost for Rs.616.00 lakh, Rs.1536.00 lakh and Rs.1633.00 lakh, as on COD of Unit-I, Unit-II, and Unit-III/ the generating station respectively, on the ground that these expenses are pertaining to IND-AS adjustments and should have formed part of Auditor's certified gross block as per IGAAP. Accordingly, no further adjustment to the capital cost based on IGAAP, in the nature of un-amortized finance cost pertaining to IND-AS, was allowed for the purpose of tariff.

28. In the present Petition, the Petitioner has submitted that in the erstwhile IGAAP, loan issue expenses paid upfront were accounted for as and when incurred, and the same was used to be claimed as a part of the during the construction period. Under Ind-AS, the upfront expenditure pertaining to bond issue expenses is to be amortized over the tenure of the loan, resulting in part capitalization as IDC till the construction period. Since the actual cash expenditure is to be included in the capital cost, the



Petitioner may be allowed to include the unamortized part of bond issue expenses up to 14.9.2018 for Rs.16.33 crore in the capital cost. The same has been considered for the computation of the tariff.

29. Respondent No. 6, BESCO, has stated that the Commission had expressly disallowed these claims in its order dated 8.1.2020, which has attained finality. The respondent has further stated that no justification has been provided by the Petitioner to claim these amounts, and hence, they cannot be included in the capital cost.

30. The matter has been considered. The Petitioner's justification that this claim is due to IND-AS adjustment was considered in an order dated 8.1.2020 also, wherein the said expenditure was disallowed as it was considered that Rs.1633.00 lakh pertaining to un-amortized bond issue expenses due to IND-AS adjustments, already forms part of auditors certified cash capital cost as per IGAAP (on a cash basis), therefore, any further adjustment to the same on account of IND-AS adjustment is unjustifiable. This, was, however, subject to truing up. The issue was not raised by the Petitioner in 8/RP/2020 filed in an order dated 8.1.2020. In the present Petition, no additional information/ justification has been provided, which indicates that this amount did not form part of IND-AS adjustments in the Auditor-certified (cash) capital cost. Accordingly, the Petitioner's claim under this head is disallowed.

iv) *FERV treated as borrowing cost and charged to revenue disallowed in the order dated 8.1.2020*

31. The Commission, vide its order dated 8.1.2020, had disallowed the FERV treated as a borrowing cost and charged to revenue amounting to Rs.3572.84 lakh, as on the COD of Unit- III/ the generating station, on the ground that the same formed part of the auditor certified capital cost as on the COD of Unit-III. However, on scrutiny of the details of FERV and IDC statements, it is observed that this amount does not form part of the capital cost claimed by the Petitioner and was inadvertently disallowed in the



order dated 8.1.2020. Accordingly, as per consistent methodology adopted by the Commission of allowing FERV charged to revenue up to the COD as part of the capital cost, the amount disallowed earlier in an order dated 8.1.2020 for Rs.3572.84 lakh is allowed under this head.

v) **Inter-unit transfer out of asset disallowed in the order dated 8.1.2020:**

32. The Commission vide its order dated 8.1.2020, had disallowed the inter-unit transfer out of assets amounting to Rs.2157.00 lakh each, as on the COD of Unit-I, Unit-II, and Unit- III/ the generating station, on the ground that Petitioner has not furnished any details in respect thereof and with a direction to submit the same at the time of truing-up of tariff. In the present Petition, the Petitioner has furnished the details of the inter-unit transfer of these assets. Accordingly, the amount of Rs.2157.00 lakh disallowed vide order dated 8.1.2020 was allowed for the purpose of tariff.

33. In view of the above, the revised capital cost considered as on COD of Unit-I, Unit-II, and Unit-III/ the generating station works out to Rs.585332.52 lakh, Rs.951638.51 lakh and Rs1325199.32 lakh, respectively.

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Opening capital cost considered vide order dated 8.1.2020 in Petition No. 199/GT/2017	583175.52	949481.50	968219.31	1319469.47
Add: Inter-unit transfer out of assets disallowed in order dated 8.1.2020, now allowed	2157.00	2157.00	2157.00	2157.00
Add: FERV treated as borrowing cost charged to revenue disallowed in order dated 8.1.2020	0.00	0.00	0.00	3572.84
Allowed opening capital cost as per this Order	585332.52	951638.51	970376.32	1325199.32



Additional Capital Expenditure

34. Regulations 14 of the 2014 Tariff Regulations provides as under:

“14. Additional Capitalization and De-capitalization:

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

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

(ii) Works deferred for execution;

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

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

vi) *Change in law or compliance of any existing law:*

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

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

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

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

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

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

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

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

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

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

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

(v) Any liability for works executed prior to the cut-off date, after prudence



check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

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

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

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

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

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

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.

In case of de-capitalization 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-capitalization 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-capitalization takes place, duly taking into consideration the year in which it was capitalized.”

35. The Commission, in its order dated 8.1.2020, had allowed the additional capital expenditure of Rs.36657.69 lakh from 31.7.2017 (COD of Unit- I) to 30.12.2017, Rs.18737.81 lakh from 31.12.2017 (COD of Unit- II) to 31.3.2018 and Rs.45073.60 lakh from 1.4.2018 to 14.9.2018 (COD of Unit-III), based on the auditor certified capital cost and projected additional capital expenditure of Rs.45225.00 lakh for the period from 15.9.2018 (COD of Unit- III) to 31.3.2019. In the present Petition, the Petitioner has claimed additional capital expenditure for the period 2014-19 as under:

(Rs. In lakh)

2017-18		2018-19	
31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
36657.69	18737.81	45073.60	65492.96

Actual Additional Capital Expenditure for the period 2017-19

36. As stated, the COD of the generating station is 15.9.2018, and the cut-off date of the generating station is 31.3.2021. As the relevant details of Form-5B have not been furnished by the Petitioner, the additional capitalization claims have been dealt with based on the information furnished in Form-9A and Form 18. The claims of the Petitioner for actual additional capital expenditure for the period 2017-19, are examined year-wise, based on the submissions of the parties and the documents available on record, and on prudence check, as under:

2017-18

37. The Petitioner has claimed the total additional capital expenditure of Rs.55395.50 lakh for the period 2017-18 (Rs.36657.69 lakh from 31.7.2017 to 30.12.2017, Rs.18737.81 lakh from 31.12.2017 to 31.3.2018) and the same was approved by the Commission in order dated 8.1.2020 in Petition No.199/GT/2017. The Petitioner, in the present Petition, has not furnished Form 9A for 2017-18. Considering the fact that the



said expenditure allowed by order dated 8.1.2020 was on a cash basis, which was actually incurred by the Petitioner and within the original scope of work, we consider and allow the additional capital expenditure of Rs.55395.50 lakh in 2017-18 for the purpose of tariff.

2018-19

38. The additional capital expenditures claimed by the Petitioner, on a cash basis, vide Form-9A, are as under:

<i>(Rs in lakh)</i>								
S. No	Head of Work /Equipment	Additional Capital Expenditures claimed (actual / projected)						Regulation
		Accrual basis	Ind AS Adj.	Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2	3	3A	3B=3+3A	4	5 (=3B-4)	6	7
1	Additional Capital Expenditure claimed							
a)	Preliminary Investigation & Site Development	1013.12	-	1013.12	235.31	777.82	15.33	14(1) (ii)
b)	Steam Generator Island (Incl. ESP)	3892.31		3892.31	693.71	3198.60	214.81	
c)	Turbine Generator Island	265.14		265.14	19.61	245.53	17.73	
d)	Coal Handling Plant	1126.52		1126.52	318.16	808.36	0.55	
e)	Switch Yard Package	58.17		58.17		58.17	7.94	
f)	Control & Instrumentation (C & I) Package	367.47		367.47	186.53	180.95		
g)	Main plant/Adm. Building	68.91		68.91	5.15	63.76	3.19	
h)	CW system	26.46		26.46		26.46	2.78	
i)	Cooling Towers	294.80		294.80	57.50	237.30	10.56	
j)	Ash disposal area development	2156.94		2156.94	427.63	1729.31	51.17	
k)	Temp. construction & enabling works	503.08		503.08	41.67	461.40		
l)	Township & Colony	5900.72		5900.72	879.91	5020.80	393.49	
m)	Fire Fighting System	120.51		120.51	50.00	70.51	14.13	
n)	Drains & Sewerage System – Plant/Township	880.37		880.37	185.87	694.50	25.26	
o)	Makeup Water System	111.05		111.05	0.05	111.01		
p)	Water Treatment Plant	120.97		120.97	11.28	109.69	0.94	
2	Arbitration/ litigation related	2136.94		2136.94	2136.94			
3	Contractor FERV	2419.70		2419.70	1828.65	591.05	44.03	
4	Safety/ Security related works/ Items	8.01		8.01	0.00	8.01		



5	Capitalization of spares	1724.59		1724.59	359.61	1364.98		14 (1) (iii)
6	Capitalization of MBOA	2486.94	0.00	2486.94	375.57	2111.37	74.62	
7	Decapitalization other than Decapitalization of spares: Part of Capital Cost	-20.07	-10.24	-30.32	-	-30.32	-	
8	Decapitalization of spares	-198.18	0.00	-198.18		-198.18		
	TOTAL	25464.48	-10.24	25454.24	7813.14	17641.10	876.53	
9	Discharges of liabilities	-	-	-	-	47851.85	-	14(1) (i)
	Additional capital expenditure claimed					65492.96		

39. The Commission, vide its order dated 8.1.2020, had allowed the total additional capital expenditure of Rs.90298.60 lakh for 2018-19 (i.e. Rs.45073.60 lakh for the period 1.4.2018 to 14.9.2018 and Rs.45225.00 lakh for the period 15.9.2018 to 31.3.2019). The Petitioner in the present Petition has claimed the total additional capital expenditure of Rs.65492.96 lakh in 2018-19, including the discharge of liabilities for Rs.47851.85 lakh. The additional capitalization in 2018-19, claimed by the Petitioner are for the works namely BoP Mechanical, BoP Electrical, Civil works related to Firefighting System, Sewerage and Drainage System, C&I Package, Temporary constructions etc., Turbine generator island, Steam generator island, power station switchyard, Capitalization of spares, capitalization of MBOA and Miscellaneous works within the original scope of work and the Petitioner has claimed the said expenditure in terms of Regulation 14(i)(ii) of the 2014 Tariff Regulations. The Petitioner has provided the reconciliation statement in Annexure-A of the amended Petition. It is observed that the Petitioner has claimed an amount of Rs.13794.17 lakh towards works like Preliminary investigation and site development, SG and TG island, Coal Handling Plant, Switchyard package, C&I package, Main Plant/ Admin Building, CW system, cooling towers, Ash disposal area development, temporary construction and enabling works, township and colony, firefighting system, drain and sewerage system for both plant and township, makeup water system and water treatment plant. As the works are within the original scope and within the cut-off date (31.3.2021), the



Petitioner's claim is allowed.

Litigation and Arbitration Expenditure

40. The Petitioner has claimed the additional capital expenditure of Rs 2136.94 lakh on accrual basis, in 2018-19, under Regulation 14(1)(iv) of the 2014 Tariff Regulations, towards Arbitration/litigation matters. However, the Petitioner has not claimed any expense, on a cash basis, and the same forms part of the undischarged liabilities. The Petitioner has not provided the final outcome of arbitration or litigation matters pending with the different parties. Since, the said claims are on an accrual basis, we are not inclined to consider the additional capital expenditure of Rs.2136.94 lakh claimed on an accrual basis for the purpose of tariff. However, the Petitioner may raise claims during 2019-24 based on final outcome of arbitration or litigation matters.

Contractor FERV

41. The Petitioner has claimed the contractor FERV amounting to Rs.2419.70 lakh, in 2018-19, out of which Rs.591.05 lakh, was on a cash basis. This has been claimed by the Petitioner as deferred works for execution, within the original scope of work. Since the Petitioner has claimed the Contractor FERV for the works executed within the cut-off date and is within the original scope of work, the same is allowed.

Capitalization of Spares

42. The Petitioner has claimed the additional capital expenditure of Rs.1724.59 lakh on an accrual basis, and Rs.1364.98 lakh on a cash basis during the period from 15.9.2018 to 31.3.2019, towards capitalization of spares under Regulation 14(1)(iii) of the 2014 Tariff Regulations. The initial spares allowed to the generating station as on 31.3.2019 is Rs.24115.25 lakh, which is 2.68% of the Plant & Equipment cost. Since the Petitioner has claimed Rs.1364.98 lakh, on a cash basis, for capitalization of spares under Regulation 14(1)(iii), the total initial spares works out to Rs.25480.23 lakh, which is 2.83% of the Plant and Equipment cost and falls within the ceiling limit



of 4% of the Plant & equipment cost. Hence, the same is allowed.

MBOA

43. The Petitioner has claimed additional capital expenditure of Rs.2496.94 lakh, on accrual basis and Rs.2111.37 lakh on a cash basis, including IDC of Rs.74.62 lakh. The Petitioner has however, not provided the details of the MBOA items. In terms of the reconciliation statement provided in Annexure A, the claims for MBOA items for Rs.2111.37 lakh is allowed.

Decapitalization of Spares

44. The Petitioner has claimed the decapitalization of spares for Rs 198.18 lakh and Rs 30.32 lakh for items, other than spares. The decapitalization claimed by the Petitioner is allowed.

Discharges and undischarged liabilities

45. The Petitioner has claimed the discharge of liabilities for Rs.47851.85 lakh as additional capital expenditure during the period from 15.9.2018 to 31.3.2019 for the purpose of tariff and the same is allowed. Further, the balance un-discharged liabilities corresponding to admitted capital cost, as on 31.3.2019, works out as Rs.73542.62 lakh (Rs.75679.56 lakh - Rs.2136.94 lakh).

Exclusions

46. The Petitioner claimed the exclusion of capitalization on account of the following items for the period 2018-19 vide Form-9D as under:

(Rs in lakh)

S. No.	Head of Work / Equipment	Additional capital expenditure claimed under exclusion					
		Accrual basis as per Note 2	Ind AS adjustment	Accrual as per IGAAP	Undischarged Liability included in col. 3	Cash basis	IDC included in col. 3
(1)	(2)	(3)	3A	3B=3+3A	(4)	(5=3B-4)	(6)
Total Items not claimed							
1	Loan FERV	-9889.49		-9889.49		-9889.49	
2	IUT	-150.44		-150.45		-150.45	



3	Reversal of liability						
3(a)	Coal Handling Plant	-348.65		-348.65	-348.65		
3(b)	Cooler-Water	-0.01		-0.01	-0.01		
3(c)	ESP	-53.51		-53.51	-53.51		
3(d)	Geyser	-0.12		-0.12	-0.12		
3(e)	Heat Ventilation & Air Conditioning System	-0.02		-0.02	-0.02		
3(f)	Laserjet Multifunction Printer	-0.02		-0.02	-0.02		
3(g)	Motorola Base/Fixed Vhf Set	-0.01		-0.01	-0.01		
3(h)	Round Table GH 103	-0.01		-0.01	-0.01		
3(i)	Steam Generator	-155.18		-155.18	-155.18		
3(j)	Stores Building	-0.91		-0.91	-0.91		
3(k)	Transit Camp	-3.78		-3.78	-3.78		
3(l)	Turbine Generator	-1335.72		-1335.72	-1335.72		
3(m)	Walkie Talkie	-0.04		-0.04	-0.04		
3(n)	Wireless Transrecvr Mobile for Vehicle	-0.01		-0.01	-0.01		
3(o)	WM-STN: COMPL UNIT automatic weather station	-0.36		-0.36	-0.36		
	Total	-1898.36		-1898.36	-1898.36		
4	Hybrid (Solar PV + Wind) system	2786.02		2786.02	324.26	2461.76	363.45
	Total (Exclusion)	-11050.65	-495.84	-9152.29	-3472.47	-7578.18	363.45

Loan FERV

47. The Petitioner has claimed the exclusion of Loan FERV for Rs. 9889.49 lakh during the period 2014-19. In justification for the same, the Petitioner has submitted that since the Petitioner is entitled to directly claim FERV on foreign currency loans as per the 2014 Tariff Regulations, the same has been kept under exclusion. As the Petitioner is entitled to bill the loan FERV claim directly from the beneficiaries, the Petitioner's claim is allowed under exclusion.

Inter-Unit Transfer

48. The Petitioner has excluded the amount of Rs.150.45 lakh in 2018-19 towards the Inter-unit transfer of the assets. The Petitioner has submitted that the items/assets under inter-unit transfer are not being considered by the Commission for the purpose of tariff and, hence, kept under exclusion. The Commission has consistently allowed the



exclusion of both positive and negative entries arising out of inter unit-transfers of assets of a temporary nature for the purpose of tariff. In view of the above, the exclusion of inter-unit transfer as claimed by the Petitioner is allowed.

Reversal of liability

49. The Petitioner has claimed the exclusion towards the reversal of liabilities amounting to Rs.1898.36 lakh in 2018-19. In justification for the same, the Petitioner has submitted that as per practice, the liabilities are excluded for the purpose of tariff and hence, the reversal of liabilities has been considered as exclusions. Since the reversal of liabilities shall not impact the capital cost considered for the purpose of tariff determined on a cash basis, the exclusion of reversal of liabilities is allowed.

Hybrid (Solar PV+ Wind) system

50. The Petitioner has claimed an amount of Rs.2461.76 lakh towards Hybrid (Solar PV + Wind) System under exclusion. Since the Petitioner has not incurred the said expenditure as part of the capital cost for the purpose of tariff, the same is allowed under exclusion.

51. In view of the above, the net additional capital expenditure allowed to the generating station for the period 2014-19 is as under:

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Additional capital expenditure allowed #	36657.69	18737.81	45073.60	65492.96
Add: Exclusions disallowed	0.00	0.00	0.00	0.00
Net additional capital expenditure allowed	36657.69	18737.81	45073.60	65492.96

including discharges for Rs.47851.85 lakh and the net of de-capitalization of Rs.228.49 lakh.



Capital Cost for the period 2017-19

52. Based on the above, the capital cost allowed for the generating station for the period 2014-19 is as under:

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Opening capital cost	585332.52	951638.51	970376.32	1325199.32
Net additional capital expenditure allowed	36657.69	18737.81	45073.60	65492.96
Closing capital cost	621990.22	970376.32	1015449.92	1390692.28
Average capital cost	603661.37	961007.41	992913.12	1357945.80

(Rs. in lakh)

Debt-Equity Ratio

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

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

- where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- 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.”*

54. The Commission, vide its order dated 8.1.2020, had considered the debt-equity ratio of 71.58:28.42, 73.24:26.76, and 70:30 for the purpose of tariff, as on the COD of Unit-I, Unit-II, and Unit-III, respectively. Further, for the additional capital expenditure during the period from COD of Unit-I to COD of Unit-II and COD of Unit-II to COD of Unit-III, the debt-equity ratio of 71.58:28.42 and 73.24:26.76 and for the projected additional capital expenditure allowed from COD of Unit-III to 31.3.2019, the debt-equity ratio of 70:30 was considered for the purpose of tariff. The debt-equity ratio, as allowed in an order dated 8.1.2020, has been retained for the purpose of tariff.

Return on Equity



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

“24. Return on Equity:

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

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

Provided that:

i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”

56. 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.”

57. The Petitioner has claimed the Return on Equity (ROE) considering the base rate



of 15.5% and the effective tax rate of 21.3416% (MAT Rate @ 18.5% plus surcharge @ 12% plus Education Cess @ 3%) and 21.5488% (MAT Rate @ 18.5% plus surcharge @ 12% plus Education Cess @ 4%) for the period from COD of Unit-I till 31.3.2018 and in 2018-19, respectively. The same is in order and has been considered for the purpose of tariff. Accordingly, ROE has been worked out and allowed as under:

	2017-18		(Rs. in lakh) 2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Normative Equity – Opening	166346.46	254643.12	259657.06	397559.80
Add: Addition of Equity due to additional capital expenditure	10417.80	5013.94	12060.97	19647.89
Normative Equity – Closing	176764.26	259657.06	271718.03	417207.68
Average Normative Equity	171555.36	257150.09	265687.55	407383.74
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for the respective year/period	21.342%	21.342%	21.549%	21.549%
Rate of Return on Equity (Pre-tax)	19.705%	19.705%	19.758%	19.758%
Return on Equity (annualised)	33804.98	50671.43	52494.55	80490.88
Return on Equity (pro-rata)	14170.31	12633.15	24018.05	43663.55

Interest on Loan

58. 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-capitalisation of such asset.

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

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

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

Provided further that if the generating station or the transmission system, as the



case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

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

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing. (9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

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

59. Interest on the loan has been worked out as under:

i) Gross normative loan corresponding to the admissible capital cost works out to Rs.418986.06 lakh as on COD of Unit-I, Rs.696995.38 lakh as on COD of Unit-II, and Rs.927639.53 lakh as on COD of Unit-III/ the generating station.

ii) The net opening loan (normative) as on COD of Unit-I is same as the gross normative loan, the cumulative repayment of normative loan up to the previous year/period being nil.

iii) Depreciation allowed has been considered as (normative) repayments for respective periods.

iv) The average net loan has been calculated as the average of opening and closing.

v) Based on the opening given in the order dated 9.2.2021 in Petition No. 8/RP/2020 regarding interest rate calculation the weighted average rate of interest has been computed considering the details of the actual loan portfolio as submitted by the Petitioner.

60. The necessary calculation for interest on the loan is as under:

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Gross normative loan (A)	418986.06	696995.38	710719.26	927639.53
Cumulative repayment of loan up to the previous year/period (B)	0.00	12433.87	24423.45	47152.62
Net normative loan – Opening (C = A-B)	418986.06	684561.51	686295.81	880486.91



	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Addition due to additional capitalization (D)	26239.89	13723.88	33012.63	45845.07
Repayment of loan during the year/ period (E)	12433.87	11989.58	22729.16	37223.56
Net normative loan – Closing (F = C+D-E)	432792.08	686295.81	696579.27	889108.42
Average normative loan [G = (C+F)/2]	425889.07	685428.66	691437.54	884797.66
Weighted Average Rate of Interest (H)	6.3709%	6.4148%	6.4458%	6.4906%
Interest on Loan (I = G x H) – (annualised)	27132.97	43968.88	44568.63	57428.35
Interest on Loan (J) - pro-rata	11373.55	10962.11	20391.67	31152.91

Depreciation

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

(1) *Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof. Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

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

(3) *The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

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

(4) *Land other than the land held under lease and the land for reservoir in case of*



hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

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

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

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

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

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

62. The Commission, vide its order dated 8.1.2020, had allowed depreciation considering the weighted average rate of depreciation (WAROD) of 4.9138%, 4.9696%, 5.0041% and 5.0532% for the period from the COD of Unit-I till COD of Unit-II, from COD of Unit-II till 31.3.2018, from 1.4.2018 till COD of Unit-III and from the COD of Unit-III till 1.3.2019, respectively. After rectifying the minor linkage errors, the WAROD worked out are 4.9138%, 5.0041%, 5.0032%, and 5.0532% for the period from the COD of Unit-I till the COD of Unit-II, from the COD of Unit-II till 31.3.2018, from 1.4.2018 till the COD of Unit-III and from the COD of Unit-III till 31.3.2019, respectively. Accordingly, depreciation has been calculated as under:

	<i>(Rs. in lakh)</i>			
	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Average capital cost (A)	603661.37	961007.41	992913.12	1357945.80
Value of freehold land included above (B)	32712.72	32712.72	32712.72	32712.72
Depreciable value [C = (A-B) x 90%]	513853.78	835465.23	864180.36	1192709.77
Remaining depreciable value at the beginning of the year/period [D= C – Previous year/ periods 'I']	513853.78	823031.35	839756.91	1145557.16
Remaining useful life from effective COD (4.2.2018) at the	25.00	25.00	24.84	24.39



	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
beginning of the period (E)				
Weighted Average Rate of Depreciation (WAROD) (F)	4.9138%	5.0041%	5.0032%	5.0532%
Depreciation for the year – (annualized) (G = A x F)	29662.50	48090.09	49677.51	68619.19
Depreciation for the period – pro-rata (H)	12433.87	11989.58	22729.16	37223.56
Cumulative depreciation at the end of the year (I = H + Previous year/ periods 'I')	12433.87	24423.45	47152.62	84376.18

Operation & Maintenance Expenses

63. Regulation 29(1) (a) of the 2014 Tariff Regulations provides for the following O&M expense norms for coal-based generating stations of 600 MW sets and above:

(Rs. in lakh/MW)

2017-18	2018-19
17.30	18.38

64. The Petitioner has claimed the O&M expenses, vide affidavit dated 30.6.2020, which are the same, as approved by order dated 8.1.2020. The O&M expenses claimed by the Petitioner are in line with Regulation 29(1) (a) of the 2014 Tariff Regulations and hence allowed as under:

(Rs. in lakh)

2017-18		2018-19	
31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
13840.00	27680.00	29408.00	44112.00

Water Charges

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

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

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

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.”

66. In terms of the above regulations, water charges are to be allowed based on the water consumption, depending upon the type of plant, type of cooling water system etc., subject to prudence check of the details furnished by the Petitioner. Based on the submissions of the Petitioner in Petition No. 199/GT/2017, the Commission, vide its order dated 8.1.2020 had allowed the water charges as follows, subject to true-up:

	<i>(Rs. in lakh)</i>			
	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Water Charges claimed in Petition No. 199/GT/ 2017	1003.29	1003.29	891.43	891.43
Water Charges allowed	1003.29	1003.29	891.43	891.43

67. The Petitioner, in the present Petition, has furnished the relevant documents indicating the changes in the water rates by the Government of Karnataka, including the recovery of dues from the effective date of notification, i.e., 12.10.2018. The Petitioner has also submitted the record of the invoices raised towards water charges vide affidavit dated 30.6.2020. The Petitioner in Form-3B, in addition to the water charges, has claimed power charges amounting to Rs. 654.43 lakh in 2017-18 and Rs. 948.13 lakh in 2018-19.

68. Considering the discrepancy in the water charges claimed, the Commission had directed the Petitioner to furnish additional information regarding the water charges claimed. In response, the Petitioner vide affidavit dated 8.3.2024 has revised the claim as detailed below:

ITEM	Units	2017-18 (31.7.2017 - 30.12.2017)	2017-18 (31.12.2017 - 31.3.2018)	2018-19 (1.4.2018 - 14.9.2018)	2018-19 (15.9.2018 - 31.3.2019)
Water Allocation/Contracted	TMC	5.2	5.2	5.2	5.2
Actual water Consumption	TMC	0.3185	0.1894	0.2390	0.6014



ITEM	Units	2017-18 (31.7.2017 - 30.12.2017)	2017-18 (31.12.2017 - 31.3.2018)	2018-19 (1.4.2018 - 14.9.2018)	2018-19 (15.9.2018 - 31.3.2019)
Rate of Water Charges	Rs. lakh (Per TMC)	32	32	32	32 & 3000**
Other charges/Fees, if paid as part of Water Charges					
Water Charges	Rs. lakh	10.19	6.06	7.65	1660.01
Power Charges	Rs. lakh	410.36	244.07	433.80	514.33
Total Charges Paid	Rs. lakh	420.55	250.13	441.45	2174.34
Total Charges Paid (Annualised)	Rs. lakh	1003.28	1003.28	964.85	4008.25

The Govt. of Karnataka issued a gazette notification vide ref. no HD 173PoSaE2018, Bengaluru dated 12.10.2018 revising the rates of water drawl. The revised rates come into effect from 18.10.2018. Earlier rate was Rs.32,00,000/- per TMC (i.e., Rs.3,200/- per McFt) and the revised rate is Rs.30,00,00,000/- per TMC (i.e., Rs.3,00,000/- per McFt).

M/s KBJNL has brought this issue to the notice of NTPC in the month of April'19. Request letter attached for your reference. Upon receipt of the request letter, NTPC has paid the revised water charges of 2018-19 drawl in 2 installments in 2019-20. The same are reflected in Books of Accounts of 2019-20.

** The rate of water from 15.09.2018 to 17.10.2018 is taken to be Rs 32 lakh per TMC while that from 18.10.2018 to 31.03.2019 is Rs 3000 lakh per TMC.

69. From the perusal of the details as submitted by the Petitioner, it is observed that the rate of water was revised from Rs. 3200 per Mcft to Rs. 3 lakh per Mcft w.e.f. 18.10.2018. Considering actual water consumption of 0.3185 TMC for the period from 31.7.2017 to 30.12.2017 and 0.1894 TMC of water for the period from 31.12.2017 to 31.3.2018 @ Rs.32 lakh per TMC, the total water charges paid and claimed by the Petitioner is Rs.16.25 lakh for the period from 31.7.2017 to 31.3.2018. For the period 2018-19, the Petitioner has claimed an amount of Rs.1660.01 lakh for water charges. The actual water consumption for the period from 1.4.2018 to 14.9.2018 is 0.2390 TMC @ Rs.32 lakh per TMC, and the actual water consumption for the period 15.9.2018 to 31.3.2019 is 0.6014 TMC @ Rs.32 lakh per TMC for the period 15.9.2018 to 17.10.2018 and @ Rs 3000 lakh per TMC for the period 18.10.2018 to 31.3.2019.

70. As regards the detailed breakup of the outstanding amount of Rs.1,49,63,750 towards water charges for the period 18.10.2018 to 31.10.2018, the Petitioner has submitted that the total cumulative meter reading is 1427649 m³ or 50.41695 Mcft. The Petitioner had already paid an amount of Rs 1.61 lakh (i.e. 50.41695 x 3200) towards



Water charges @ Rs.3200 per mcft for the said period. However, the water charges were revised w.e.f. 18.10.2018, and accordingly, the total water charges for the said period is Rs.151.25 lakh (i.e., 50.41695 x 300000). Accordingly, KBJNL, vide its letter dated 31.8.2019, had raised the bill for the differential amount to be paid by the Petitioner for the period from 18.10.2018 to 31.10.2018 for Rs 149.64 lakh (i.e. 151.25 - 1.61). For water charges for the period from 1.11.2018 to 31.3.2019, the Petitioner has submitted that KBJNL, vide its letter dated 6.6.2019, has intimated the Petitioner to make the differential payment of Rs.1491.13 lakh for the said period. The amount has been claimed based on the total water consumed for the said period of 502.40 mcft and the total amount paid by the Petitioner to KBJN for the period from 1.11.2018 to 31.3.2019 is Rs 16.08 lakh (i.e., 502.40x3200). Subsequent to the water charges being revised, the amount to be paid is Rs 1507.20 lakh (i.e. 502.40 x 300000), and accordingly, the differential amount is Rs1491.13 lakh (i.e., 1507.20 – 16.08).

71. However, the total water charges, including power charges claimed by the Petitioner for the years 2017-18 and 2018-19, are Rs.670.69 lakh and Rs.2615.79 lakh, respectively. The above charges also include the power charges for Rs.654.53 lakh and Rs.948.14 lakh respectively, for the period 2017-18 and 2018-19. It could be seen from the details furnished by the Petitioner that the total water charges claimed consists of the Power charges as well as Water charges. The generating stations regulated by this Commission are located in the different States, and the rate of water charges and policies for water allocation are different in various states. To negate the anomaly arising out of this situation, the Commission, in its regulations, has permitted the water charges separately. Further, the normative auxiliary consumption norms are in due consideration of historical power consumption, furnished for the various generating stations for the past five-year period and the same includes the ower charges for pumping water as well. Accordingly, the water charges to be allowed are



for the contracted quantum and the actual water consumption for the generating station only, and the power charges are not to be allowed separately in the water charges. The Government of Karnataka, vide its notification dated 18.9.2018, had increased the water charges (if drawn from Canal, Tank-reservoir, etc. for industrial use) to Rs.3 lakh per Mcft. These rules were called Karnataka Irrigation (Levy of water rates) (Amendment) Rules, 2018. Subsequently, KBJNL, vide its letter dated 27.4.2019 informed the Petitioner with regard to the revision of water charges. Further, the differential amount due to the revision of water charges w.e.f. 18.10.2018, has been claimed by KBJNL, vide its letters dated 6.6.2019 and 31.8.2019. and the Petitioner vide demand draft dated 12.6.2019 and letter dated 14.10.2019, intimated KBJNL with regard to the payment of the differential amount.

72. From the above deliberations, it is observed that due to the revision of water charges with effect from 18.10.2018, the bill for the year 2018-19 has been raised by KBJNL in 2019-20, and the same was paid by the Petitioner in 2019-20. Further, the Government of Karnataka, vide its letter dated 29.11.2019, has revised the rate of water charges from Rs 3.00 lakh per Mcft to Rs 2.00 lakh per Mcft, effective from 28.5.2018. The Petitioner has submitted that the adjustment on the account of downward revision of water charges will be passed on to the beneficiaries, after the receipt of final reconciled bills towards new water charges. The differential amount towards water charges has been paid in 2019-20, and the same is reflected in the balance sheet for 2019-20. Accordingly, we are of the view that the working capital cost for the period 2018-19 for the differential amount, due to the revision of water charges, cannot be allowed to the Petitioner in 2018-19. However, the amount provided in the balance sheet for 2019-20 relates to the period 2019-24 and shall be dealt with in terms of the provisions of the 2019 Tariff Regulations. Further, the Petitioner vide affidavit dated 8.3.2024 has submitted that out of the Rs.16.78 lakh paid in 2017-18,



only Rs.16.25 lakh has been claimed as water charges. Similarly, for 2018-19, out of Rs.26.89 lakh paid, only Rs.26.23 lakh has been claimed. This is on account of the fact that the Petitioner has deducted the water charges towards the pre-commissioning activities. Accordingly, the actual water charges allowed to the generating station are as under:

(Rs. in lakh)		
	2017-18	2018-19
Total Water Charges (period)	16.25	26.23
Total Water Charges (annualised)	16.72	34.44

Capital Spares

73. Regulation 29(2) of the 2014 Tariff Regulations provides as follows:

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

xxxx:

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

74. As per the second proviso to Regulation 29(2) of the 2014 Tariff Regulations, capital spares are admissible separately. The break-up of capital spares vide Form 17 is as under:

(Rs. in lakh)		
S. No	Details of Capital Spares & Expenses	
1	Steam Generator Unit-I	157.23
2	Turbine Generator Unit-I	32.06
3	Coal Handling Plant	0.78
4	Ash Handling System & Ash Water Re-circulation System	7.70
5	LT Switchgear - Unit I	0.13
6	Power Transformers - Unit I	0.28
	Total	198.18

75. The Petitioner, in form 17, claimed the capitalization of spares of Rs 198.18 lakh as capital spares and submitted that same is not forming part of the capital cost and also not claimed as additional capitalization. However, in Form-9B(i), the Petitioner submitted that it has claimed the same under additional capital expenditure, forming



part of the capital cost.

76. We have examined the list of the capital spares consumed by the Petitioner. It is evident from the Form 9Bi of the respective years that capital spares claimed comprise two categories, i.e., (i) spares that form part of the capital cost and (ii) spares that do not form part of the capital cost of the project. In respect of capital spares which form part of the capital cost of the project, the Petitioner has been recovering tariff since their procurement and, therefore, the same cannot be allowed as part of additional O&M expense. Accordingly, the claim of the Petitioner is not allowed as the same is forming part of the capital cost.

Additional O&M Expenses

Impact of GST

77. The Petitioner has claimed additional O&M expenses for Rs.163.89 lakh in 2017-18 and Rs.335.23 lakh in 2018-19 due to the impact of the implementation of GST. The Respondent BESCO has submitted that the claims of Petitioner have not been substantiated by the auditor's certificate and that similar claims have been disallowed by the Commission in various other orders. It is observed that the Commission, while specifying the O&M expense norms for the period 2014-19, had considered taxes to form part of the O&M expense calculations and, accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (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...”

78. Further, the escalation rates considered in the O&M expense norms are only after accounting for the variations during the past five years, which, in our view, takes care of any variation in taxes also. It is pertinent to mention that in case of reduction of taxes or duties; no reimbursement is ordered. In this background, we find no reason to grant



additional O&M expenses towards payment of GST.

Impact of Wage Revision

79. The Petitioner has submitted that the Commission, while specifying the 2014 Tariff Regulations applicable for the 2014-19 tariff period, had taken note of the SOR to the said regulations that any increase in the employee expenses, on account of pay revision shall be considered appropriately, on a case-to-case basis, balancing the interest of generating stations and the consumers. The Petitioner has, therefore, claimed the additional O&M expenses (annualized) as under:

(Rs. in lakh)

Wage revision claimed	2017-18		2018-19	
	31.7.2017 (COD Unit I to 30.12.2017	31.12.2017 (COD Unit II) to 31.3.2018	31.7.2017 (COD Unit I to 30.12.2017	31.12.2017 (COD Unit II) to 31.3.2018
	1528.56		3913.77	

80. The Petitioner has claimed the additional O&M expenses for Rs.1528.56 lakh in 2017-18 and Rs.3913.77 lakh in 2018-19, towards the impact of wage revision, vide Form 3A. The Petitioner has submitted that the impact of wage revision has been furnished component-wise for one quarter (1.1.2017 to 31.3.2017) in 2016-17 and for the years 2017-18 and 2018-19. The impact of wage revision to CISF has affected the O&M cost of the generating station w.e.f. 1.1.2016 and has actually been reimbursed by the Petitioner and the same has been calculated and claimed as O&M expenses. Further, the Petitioner has stated that the impact of the Pay Commission on the O&M expenses relating to employees in common offices have been apportioned between the generating stations in terms of their installed capacity.

81. The Petitioner has submitted the details of the impact of wage revision along with auditor's certificate vide affidavit dated 30.6.2020 vide Annexure A, as under:



(Rs. in lakh)

Period		NTPC Employee	CISF Staff	Total
31.7.2017-31.3.2018	Pre-Revised	5998.87	649.91	6648.79
	Post Revision	7374.39	802.96	8177.34
	Wage revision impact	1375.52	153.05	1528.26
1.4.2018-31.3.2019	Pre-Revised	9199.49	983.03	10182.52
	Post Revision	12881.76	1214.54	14096.30
	Wage revision impact	3682.27	231.50	3913.78
Total Impact during the period	Pre-Revised	15198.36	1632.94	16831.30
	Post Revision	20256.15	2017.5	22273.65
	Wage revision impact	5057.79	384.56	5442.33

82. In compliance with the directions, vide ROP of the hearing dated 16.2.2023, the Petitioner, vide its affidavit 22.3.2023, has submitted the details of the normative O&M expenses and the actual O&M expenses, excluding water charges and capital spares as under:

(Rs. in Lakh)

	2017-18	2018-19	Total
Actual O&M expenditure for Kudgi STPS (excluding water charges)	13462.11	33741.40	47203.51
Normative O&M of Kudgi Stage -I allowed by the Commission vide order dated 8.1.2020 in Petition 199/GT/2017 (excluding water charges)	12686.67	37372.67	50059.34

83. In this regard, the Petitioner,, vide affidavit dated 30.6.2020, has submitted the following:

- (a) Detailed break-up of the actual O&M expenses booked by the Petitioner for the period 2014-19.
- (b) Detailed break-up of the actual O&M expense of the Corporate Centre and its allocation to various operating stations for the period 2014-19..
- (c) Break-up of the wage revision impact on employee cost, expenses on corporate center and on salaries of CISF of the generating station for the period 2014-19.

84. We have examined the submissions. It is noticed that the Petitioner has furnished the actual O & M data for the period from the COD of Unit-I till 31.3.2019. The actual



O&M expenses from the COD of Unit-I (31.7.2017) to 31.3.2018 is Rs.13462.11 lakh as against the normative O&M expenses of Rs.12686.67 lakh and thereby a deficit of Rs.775.44 lakh. During the year 2018-19, the actual O&M expenses (excluding water charges) are Rs.33741.40 lakh as against the normative O&M expenses of Rs.37372.67 lakh. The Petitioner has shown a surplus of Rs.3631.27 lakh in 2017-18. In this regard, it is noticed that the Commission while specifying the O&M expense norms under the 2014 Tariff Regulations, had considered the actual O&M expenses 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' costs due to the impact of pay revision , 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."

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



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

- a) The norms are framed based on the averaging of the actual O&M expense of the past five years to capture the year-on-year variations in sub-heads of O&M;
- b) Certain cyclic expenditures 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 a year-to-year basis;
- c) When generating companies find that their actual expenditures have gone beyond the normative O&M expenses in a particular year, they put departmental restrictions in place and try to bring the expenditures for the next year below the norms.

86. In consideration of the 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 actual O&M expenses incurred shall be made for 2017-19 (COD of Unit-I to 31.3.2019) on a combined basis, which is commensurate with the wage revision claim being spread over these three years. In order to substantiate the wage revision impact, the Petitioner has furnished the detailed breakup of the actual O&M expenses incurred during the period 2014-19, vide Annexure A of the affidavit dated 30.6.2020. The impact of wage revision/pay revision could not be factored in 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) 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.

87. Comparison of the normative O&M expenses with the actual O&M expenses incurred for the period from 2017-18 to 2018-19, commensurate to the period for which



wage revision impact has been claimed after the COD of the units. For a like-to-like comparison, the components of O&M expenses like productivity linked incentive, water charges, filing fees, ex-gratia, loss of provisions, prior period expenses, community development store expenses, ash utilization expenses, RLDC fee & charges, and other Miscellaneous expenses (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 2017-19 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 2017-19 are less than the actual O&M expenses (normalized) for the same period, the wage revision impact (excluding PRP and ex-gratia) to the extent of under-recovery or wage revision impact (excluding PRP and Ex-gratia), whichever is lower, is required to be allowed as wage revision impact for the period 2017-19.

88. The COD of Unit-I, Unit-II, and Unit-III are 31.7.2017, 31.12.2017, and 15.9.2018, respectively. Accordingly, it has been decided to assess the inadequacy of O & M expenses by considering the normalized O & M expenses with the O & M expense norms allowed. The Petitioner has additionally claimed Rs.243.68 lakh and Rs.987.51 lakh towards ex-gratia components for 2017-18 and 2018-19 while claiming the wage revision impact. It is noticed that the said claim of the Petitioner includes impact on account of the payment of additional PRP/ex-gratia to its employees consequent upon wage revision amounting to Rs. 243.68 lakh and Rs.987.51 lakh for 2017-18 and 2018-19 respectively. As such, as per consistent methodology adopted by the Commission, the additional PRP/ ex-gratia paid, as a result of wage revision impact, has been



excluded from the wage revision impact claimed by the Petitioner in the present case. However, on perusal of the auditor certificate, it is observed that there is a difference in the claims of the Petitioner in respect of the amount claimed in the Petition and the auditor certificate enclosed. Therefore, we are inclined to consider the amount furnished in the auditor certificate as under:

Period	NTPC Employee	CISF and KV Staff	Wage Revision Impact Claimed	Wage Revision Impact (after deducting PRP/ex-gratia)
31.7.2017 - 31.3.2018	1070.08	1528.56	2598.64	2354.96
1.4.2018 - 31.3.2019	2839.32	3913.77	6753.09	5765.58
Total Impact of Wage revision	3909.40	5442.33	9351.73	8120.54

89. As stated, for a like-to-like comparison of the actual O&M expenses and normative O&M expenses, the expenditure against O&M expenses sub-heads, as discussed above, has been excluded from the actual O&M expenses to arrive at the actual O&M expenses (normalized) for the instant generating station. Accordingly, the following table portrays the comparison of 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 2017-19 (on a combined basis) commensurate with the wage revision claim being spread over these three years:

	<i>(Rs. in lakh)</i>		
	2017-18	2018-19	Total
Actual O&M expenditure for generating station(a)	14132.80	34740.28	48873.08
Actual O&M expenses (normalized) (b)	9599.88	27836.74	37436.62
Normative O&M as per Regulation 29 (c)	12702.47	37384.42	50086.89
Under-recovery/Excess recovery (d= b-c)	(-)3102.59	(-)9547.68	(-)12650.27
Wage revision impact allowed as per above methodology	0.00	0.00	0.00

90. It is observed that for the period 2017-19, the normative O&M expenses are more



than the actual O&M expenses (normalised) incurred, and there is no under-recovery, of amounts on this count. As such, in terms of methodology, as discussed above, the wage revision impact (excluding PRP/incentive) is not allowable for the generating station.

91. Accordingly, the O&M expenses approved are as under:

	<i>(Rs in lakh)</i>			
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Normative Operation & Maintenance Expenses	13840.00	27680.00	29408.00	44112.00
Water Charges	24.31	24.31	16.72	34.44
Capital Spares consumed	0.00	0.00	0.00	0.00
Security Expenses	0.00	0.00	0.00	0.00
Additional O&M Expenses				
Impact of Pay Revision	0.00	0.00	0.00	0.00
Impact of GST	0.00	0.00	0.00	0.00
Total Operation & Maintenance Expenses*	13864.31	27704.31	29424.72	44146.44

*The figures shown are annualized. However, the actual tariff would be given on a pro-rata basis.

Operational Norms

92. The operational norms in respect of the generating station, i.e., normative annual plant availability factor, gross station heat rate, specific fuel oil consumption, and auxiliary power consumption, are discussed as under:

Normative Annual Plant Availability Factor

93. In terms of Regulation 36(A)(a) of the 2014 Tariff Regulations, the Commission vide its order dated 8.1.2020 in Petition No. 199/GT/2017 had allowed the Normative Annual Plant Availability Factor (NAPAF) of 85% for the period 2017-18 and 2018-19. The same is in line with the operational norms specified under the 2014 Tariff Regulations, and hence allowed.

Gross Station Heat Rate

94. In terms of Regulation 36(C)(b)(i) of the 2014 Tariff Regulations, the Gross Station Heat Rate (GSHR) of 2210.66 kCal/kWh is considered for the purpose of revision of



the tariff.

Specific Oil Consumption

95. In terms of Regulation 36(D)(a) of the 2014 Tariff Regulations, the secondary fuel oil consumption of 0.50 ml/kWh as allowed vide order dated 8.1.2020 in Petition No. 199/GT/2017 is considered.

Auxiliary Power Consumption (APC)

96. In terms of Regulation 36(E)(a)(i) of the 2014 Tariff Regulations, the auxiliary power consumption of 5.75% as allowed vide order dated 8.1.2020, is considered for the purpose of tariff. However, the changes in norms, as claimed by the Petitioner for additional APC on account of the installation of the FGD system, will be considered as and when the FGD is installed for ECS.

Interest on Working Capital

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

“28 (1) The working capital shall cover:

Coal-based/lignite-fired thermal generating stations

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

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

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

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

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

Operation and maintenance expenses for one month.

xxx

(3) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this regulation shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period. (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof as



the case may be is declared under commercial operation whichever is later. (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

Fuel Cost and Energy Charges in Working Capital

98. Regulation 28(2) of the 2014 Tariff Regulations provides that the computation of the cost of fuel as part of Interest on Working Capital (IWC) is to be based on the landed price and GCV of fuel as per actuals for the three months preceding the first month for which the tariff is to be determined. Regulation 30(6)(a) of the 2014 Tariff Regulations provides as under:

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

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

(a) For gas based and liquid fuel based stations $ECR = \frac{GHR \times LPPF \times 100}{\{CVPF \times (100 - AUX)\}}$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Weighted Average Gross calorific value of primary fuel as received, in Kcal per kg, per litre or per standard cubic metre, as applicable.

ECR = Energy charge rate, in Rupees per KWh sent

out. GHR = Gross station heat rate, in KCal per KWh.

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

99. In terms of the above regulation, the determination of the Energy charges in working capital is to be considered. Regulation 30(7) of the 2014 Tariff Regulations provides as under:

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

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

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



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

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

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

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

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



Nos. 291/2018 (GRIDCO v NTPC & others), and the same is pending adjudication.

102. In Petition No. 327/GT/2014 filed by the Petitioner for the determination of tariff of this generating station for the period 2014-19, the Petitioner had furnished GCV of coal on an 'as billed' and not on an 'as received' basis for the preceding 3 months, i.e., for January 2014, February 2014 and March 2014 that were required for the determination of Interest on Working Capital (IWC). Therefore, the Commission, vide its order dated 6.2.2017 in Petition No.327/GT/2014, had considered GCV of coal on an 'as billed' basis and provisionally allowed adjustment for total moisture while allowing the cost of coal towards generation & stock and two months' energy charges in the working capital. As per the Commission's order dated 25.1.2016 in Petition No. 283/GT/2014, the Petitioner in Form-13 F has considered the average GCV of coal on an "as received basis" i.e. from wagon top for the purpose of computation of working capital for the period 2017-19. The Petitioner has submitted the month-wise GCV an 'as received' for the generating station vide Annexure-C, as directed by the Commission vide order dated 28.8.2019 in Petition No. 115/MP/2018. Further, the Petitioner has filed Petition No. 244/MP/2016 seeking one grade adjustment in GCV 'as received'. In this regard, CEA vide letter dated 17.10.2017 has opined that 85-100 kcal/kg for a pit-head station and a margin of 105-120 kcal/kg for non-pit head station may be considered as a loss of GCV of coal between "as received" and "as fired". Without prejudice to the claim of the Petitioner in Petition No. 244/MP/2016, in line with the above CEA recommendations, the Petitioner has considered 120 kcal/kg margin on the GCV 'as received' of respective period for computing the working capital.

103. The cost of fuel component in the working capital of the generating station based on (i) an 'as received' GCV of coal for 30 days with adjustment of 120 kCal/kg towards storage loss, (ii) landed price of coal for preceding three months and (iii) GCV and



landed price of Secondary fuel oil procured for the preceding three months for the generating station, the cost of fuel component as claimed by the Petitioner, vide Form 13F, in the working capital, is as under:

	2017-18		2018-19	
	31.7.2017 to 30.12.2017	31.12.2017 to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 to 31.3.2019
Cost of coal towards stock (30 days)	15863.66	32788.70	32788.70	52730.24
Cost of coal towards generation (30 days)	15863.66	32788.70	32788.70	52730.24
Cost of Secondary fuel oil 2 months	222.72	398.94	398.94	695.50

104. The Petitioner has also claimed the Energy Charge Rate (ECR) ex-bus, of 346.160 paise/kWh from the COD of Unit-I till 30.12.2017 and 334.852 paise/kWh from 31.12.2017 to 14.9.2018 and 383.382 from the COD of Unit-III to 31.3.2019 for the generating station, based on the GCV and price of fuel (coal and secondary fuel oil). The Respondent TANGEDCO has submitted that the claim of Petitioner is arbitrary, illegitimate, and against the Regulations and the Commission may disallow the same. The Petitioner has submitted that it has, for the period 2014-19, considered the coal details as per actuals of the three months preceding April, 2014 for the computation of calculation of Interest on working capital as per Regulation 28(2) of the 2014 Tariff Regulations.

105. The submissions have been considered. The Petitioner, in Form-13F, has considered the average GCV of coal on an "as received basis" i.e. from wagon top, for the purpose of computation of working capital for the period 2017-19. In addition to the average GCV, it has also considered a margin of 120 kCal/kg for the computation of the working capital of the generating station. Regulation 28(2) of the 2014 Tariff Regulations, provides that the computation of the cost of fuel as a part of IWC is to be based on the landed price and gross calorific value of the fuel, as per actuals, for the



three months preceding the first month for which the tariff is to be determined. Also, the consideration of loss of GCV of 120 kCal/kg cannot be considered, as the same is not as per provisions of the 2014 Tariff Regulations. As per the SOR to the 2014 Tariff Regulations, we note that the main consideration of the Commission while moving from 'as fired' GCV to 'as received' GCV for the purpose of energy charges under Regulation 30(6) of the 2014 Tariff Regulations for the period 2014-19, was to ensure that the GCV losses which might occur within the generating station after receipt of coal, are not passed on to the beneficiaries, on account of improper handling and storage of coal by the generating companies. As regards the allowable (normative) storage loss within the generating station, CEA had observed that there is a negligible difference between 'as received' GCV and 'as fired' GCV. As such, for the purpose of calculating energy charges, the Commission moved from 'as fired' GCV to 'as received' GCV under Regulation 30(6) of the 2014 Tariff Regulations without allowing any margin between the two measurements of GCV. Thus, 'as received' GCV was made applicable for the purpose of calculating working capital requirements based on the actual GCV of coal for the preceding three months of the first month for which tariff is to be determined in terms of Regulation 28(2) of 2014 Tariff Regulations. This, according to us, defeats the very purpose of moving from 'as fired' GCV to 'as received' GCV in the 2014 Tariff Regulations. Accordingly, the claim of Petitioner is disallowed.

106. The Commission, vide its order dated 8.1.2020, had observed the following:

"147. The Petitioner in Form-15 has claimed the details of LDO with respect to the fuel computation of energy charges. The Commission vide ROP of the hearing dated 14.5.2019 had sought clarification from the Petitioner regarding consumption of LDO and details of HFO for computation of fuel components and energy charges. In response, the Petitioner has submitted that the LDO system has been commissioned for all the Units of the project as per the scheme. The Petitioner has also submitted that the LDO is being fired using HFO pressurizing pumps since the commissioning of the system and usage of HFO system will be phased out in the Petitioner Company. Accordingly, HFO is not being used in the project and LDO is fired in the boiler. Hence, LDO is considered for computation of fuel component in energy charges.

150. It is pertinent to mention that the cost of coal towards stock and generation



allowed during the years 2017-18 and 2018-19 is less than the cost claimed by the Petitioner. This is due the fact that while the claim of the Petitioner is based on quantity and price of coal supplied during previous three months plus the quantity and price of opening stock for the prior periods, the cost allowed in this order for the years 2017-18 & 2018-19 is based on quantity and price of coal supplied during previous three months only as per the provisions of the 2014 Tariff Regulations. Further, the cost of secondary fuel oil for 2 months allowed during the year 2017- 18 and 2018-19 is more than the claim of the Petitioner. In this regard, it is observed that Petitioner has claimed secondary fuel oil for 60 days instead of 2 months. However, the cost of secondary fuel oil for 2 months as computed in this order is considered in terms of the provisions of the 2014 Tariff Regulations.”

107. It is observed from the above that the Commission had approved the cost for fuel components in working capital at 85% NAPAF based on the “as received” GCV of coal & price of coal procured along with secondary fuel oil for the preceding three months of COD of each unit of the generating station. Accordingly, the cost for the fuel component for the purpose of tariff computation considered is as under:

	2017-18		2018-19	
	31.7.2017 to 30.12.2017	31.12.2017 to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 to 31.3.2019
Cost of coal towards stock (30 days)	14,864.85	31,664.59	31,664.59	50,962.43
Cost of coal towards generation (30 days)	14,864.85	31,664.59	31,664.59	50,962.43
Cost of Secondary fuel oil 2 months	222.34	398.95	398.95	695.50

108. The Petitioner has submitted the details of coal and oil in Form 15, vide affidavit dated 7.1.2020. On perusal of the details submitted by the Petitioner, it is observed that the Petitioner, with respect to Unit-I of the generating station, has considered the opening stock of coal for the months of April 2017, May 2017, and June 2017 and has not furnished the details of the amount of coal supplied during these months. With regard to this, the Commission has gone through the earlier submissions of the Petitioner submitted in Petition No. 199/GT/2017. It is observed that the Petitioner, in the said Petition, had submitted the details of the coal supplied during March 2017, April 2017 and May 2017. Accordingly, the same is considered in this order for the computation of the ECR component of Unit-I and accounts for the variation in ECR



allowed for Unit-I in Petition No.199/GT/2017. Further, with respect to Unit-II and Unit-III, the details of the coal and oil are in line with the above discussions. The Commission, in terms of the 2014 Tariff Regulations, has computed the ECR on the basis of the operational norms and on an “as received” GCV of coal for the preceding three months of the COD of the respective units of the generating station as under:

S No.	Units	2017-18		2018-19		
		31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019	
1	Capacity	MW	800	1600	1600	2400
2	Weighted average Gross Station Heat Rate	Kcal/kWh	2210.66	2210.66	2210.66	2210.66
3	Weighted average Auxiliary Energy Consumption	%	5.75	5.75	5.75	5.75
4	Weighted average GCV of oil	Kcal/lit	10760.00	9556.26	9556.26	9248.56
5	Weighted average GCV of Coal (as received)	Kcal/kg	4119.52	3500.38	3500.38	3579.51
6	Weighted average price of oil	Rs/KL	44790.40	40183.87	40183.87	46702.62
7	Weighted average price of Coal	Rs/MT	5671.55	5131.40	5131.40	5629.88
8	Rate of Energy Charge ex-bus	Rs/kWh	3.245	3.452	3.452	3.706

109. Accordingly, the energy charges for 2 months on the basis of “as received” GCV of coal for the purpose of interest on working capital are worked out as under:

(Rs. in lakh)

2017-18		2018-19	
31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
30363.92	64601.69	64601.69	104032.68

Maintenance Spares

110. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for the maintenance spares @ 20% of the O&M expenses. As specified under Regulation 29(2) of the 2014 Tariff Regulations, the maintenance spares @20% of the O&M expenses, including water charges allowed are as under:



2017-18		2018-19	
31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
2,772.86	5,540.86	5,884.94	8,829.29

Receivables

111. Receivables equivalent to two months of capacity charge and energy charges, have been worked out and allowed as under:

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Variable Charges - for two months	30363.92	64601.69	64601.69	104032.68
Fixed Charges – for two months	19162.33	31936.21	32922.27	47196.76
Total	49526.25	96537.91	97523.97	151229.44

O & M Expenses (1 month)

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

2017-18		2018-19	
31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
1155.36	2308.69	2452.06	3678.87

Rate of interest on working capital

113. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:

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

114. In terms of the above regulation, the bank rate of 12.60% (i.e. SBI base rate of 9.10% as on 1.4.2017 plus 350 bps) and 12.20% (i.e. SBI base rate of 8.70% as on



1.4.2018 plus 350 bps) for the period from the COD of Unit-I to the COD of the generating station and from the COD of the generating station till 31.3.2019, has been considered for the purpose of calculating interest on the working capital. Accordingly, interest on the working capital has been computed as under:

	<i>(Rs. in lakh)</i>			
	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Working capital for Coal towards stock - 30 days (A)	14864.85	31664.59	31664.59	50962.43
Working capital for Coal towards generation - 30 days (B)	14864.85	31664.59	31664.59	50962.43
Working capital for Secondary Fuel Oil - 2 months (C)	222.34	398.95	398.95	695.50
Working Capital for Maintenance Spares - 20% of O&M (D)	2772.86	5540.86	5884.94	8829.29
Working Capital for Receivables - 2 months (E)	49526.25	96537.91	97523.97	151229.44
Working Capital for O&M expenses - 1 month (F)	1155.36	2308.69	2452.06	3678.87
Total Working Capital (G = A+B+C+D+E+F)	83406.52	168115.59	169589.10	266357.96
Rate of interest (H)	12.60%	12.60%	12.60%	12.20%
Interest on working capital – annualized (I = G x H)	10509.22	21182.56	21368.23	32495.67
Interest on working capital – pro-rata (J)	4405.24	5281.13	9776.70	17627.79

Annual Fixed Charges for the period 2017-19

115. Based on the above, the annual fixed charges approved for the generating station for the period 2014-19 period are summarized below:

	<i>(Rs. in lakh)</i>			
	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Depreciation	29662.50	48090.09	49677.51	68619.19
Interest on Loan	27132.97	43968.88	44568.63	57428.35
Return on Equity	33804.98	50671.43	52494.55	80490.88
Interest on Working Capital	10509.22	21182.56	21368.23	32495.67
O&M Expenses	13864.31	27704.31	29424.72	44146.44
Total	114974.00	191617.27	197533.63	283180.53

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



Month-to-Month Energy Charges

116. The Petitioner shall compute and claim the Energy Charges, on a month-to-month basis from the beneficiaries, based on the formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations.

Summary

117. The annual fixed charges allowed in the order dated 8.1.2020 and in this order, for the period 2014-19 are summarized below:

(Rs. in lakh)

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Annual fixed charges allowed in the order dated 8.1.2020	115387.40	191519.69	197107.73	283456.26
Annual fixed charges allowed in this order	114974.00	191617.27	197533.63	283180.53

118. The pro rata fixed charges shall be calculated using the bases as shown below:

	2017-18		2018-19	
	31.7.2017 (COD of Unit-I) to 30.12.2017	31.12.2017 (COD of Unit-II) to 31.3.2018	1.4.2018 to 14.9.2018	15.9.2018 (COD of Unit-III) to 31.3.2019
Days in year	365	365	365	365
No. of days for which tariff is to be calculated	153	91	167	198

119. Petition No. 563/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(Jishnu Barua)
Chairperson