CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 486/GT/2020

Coram:

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

Date of Order: **21st April, 2022**

In the matter of:

Petition for approval of tariff of Korba STPS Stage-I & Stage-II (2100 MW) for the period from 1.4.2019 to 31.3.2024.

And

In the matter of:

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

Vs

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

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

3. Gujarat Urja Vikas Nigam Limited,
   Vidyut Bhavan, Race Course,
   Vadodara - 390 007

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

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

6. DNH Power Distribution Corporation Limited,
UT of DNH,
Silvassa – 396 230

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

Parties present:

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

ORDER

This petition has been filed by the Petitioner, NTPC limited for approval of tariff of Korba STPS Stage-I & Stage-II (2100 MW) (hereinafter referred to as 'the generating station') for the 2019-24 tariff period, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations')

2. The generating station with a capacity of 2100 MW comprises of three units of 200 MW each and three units of 500 MW each. The dates of commercial operation of the different units of the generating station are as follows:

	Capacity (MW)	Actual COD
Unit-I	200	1.8.1983
Unit-II	200	1.1.1984
Unit-III	200	1.6.1984
Unit-IV	500	1.3.1988
Unit-V	500	1.4.1989
Unit-VI	500	1.6.1990

3. The Commission vide its order dated 16.04.2022 in Petition No. 451/GT/2020 had approved the tariff of the generating station for the 2014-19 tariff period, after

truing-up exercise, based on the actual additional capital expenditure incurred for the generating station for the 2014-19 tariff period. Accordingly, the capital cost and the annual fixed charges approved by the said order dated 16.04.2022 are as follows:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	178071.97	176223.93	170128.49	168528.75	165835.40
Add: Additional Capital Expenditure allowed	(-)1848.04	(-)6095.44	(-)1599.74	(-)2693.35	(-)756.05
Closing Capital Cost	176223.93	170128.49	168528.75	165835.40	165079.35
Average Capital Cost	177147.95	173176.21	169328.62	167182.08	165457.38

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	90.70	0.00	406.88	0.00	196.11
Interest on Loan	38.63	45.44	40.42	23.40	17.99
Return on Equity	16984.49	16665.71	16265.06	16039.67	15911.69
O&M Expenses	47761.04	51650.07	51466.17	54441.10	57261.81
Interest on Working Capital	8409.53	8650.08	8630.56	8922.12	9098.87
Compensation Allowance	500.00	500.00	0.00	0.00	0.00
Special allowance	11056.83	11758.94	16747.00	17810.43	18941.40
Total	**84841.23**	**89270.24**	**93556.10**	**97236.72**	**101427.86**

4. The annual fixed charges claimed by the Petitioner for the 2019-24 tariff period are as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0.00	0.00	326.43	0.00	0.00
Interest on Loan	1.63	23.92	32.93	19.60	19.65
Return on Equity	10035.72	10057.69	10079.67	10079.67	10079.67
O&M Expenses	64672.32	66942.92	69290.15	71732.50	74237.45
Interest on Working Capital	9085.49	9202.37	9324.51	9440.86	9561.74
Special allowance	19950.00	19950.00	19950.00	19950.00	19950.00
Total	**103745.15**	**106176.90**	**109003.68**	**111222.62**	**113848.50**

5. Reply to the Petition has been filed by the Respondent MSEDCL, Respondent CSPDCL and Respondent MPPMCL vide their affidavits dated 16.6.2021, 28.6.2021 and 29.6.2021 respectively. The Petitioner has filed its rejoinder affidavits to the said replies on 30.6.2021 and 21.7.2021 respectively. The Petitioner has also filed certain additional information on 29.6.2021 and 21.7.2021 respectively. The Commission,

after hearing the parties, through video conferencing, on 27.7.2021, directed the Petitioner to file certain additional information, and reserved its order in the matter. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner, in this petition, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

6. Clause (1), Clause (3) and Clause (5) of Regulation 19 of the 2019 Tariff Regulations provide as under:

> *"19. Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*
>
> *(3) The Capital cost of an existing project shall include the following:*
>
> *(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
> *(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
> *(c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
> *(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
> *(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
> *(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
>
> *(5) The following shall be excluded from the capital cost of the existing and new projects:*
>
> *(a) The assets forming part of the project, but not in use, as declared in the tariff petition;*
> *(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*
>
> *Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;*

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.

(c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*

(d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*

(e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*

7. The Petitioner has claimed capital cost of Rs.178108.78 lakh as on 1.4.2019. However, the closing capital cost of Rs.165079.35 lakh as on 31.3.2019, as approved by the Commission vide order dated 16.04.2022 in Petition No. 451/GT/2020 has been considered as the opening capital cost as on 1.4.2019, for the purpose of determination of tariff for the 2019-24 tariff period, in accordance with the 2019 Tariff Regulations.

Additional Capital Expenditure

8. Regulations 26(1) of the 2019 Tariff Regulations provides as under:

"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 beyond the original scope, may be admitted by the Commission, subject to prudence check:

(a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;
(b) Change in law or compliance of any existing law;
(c) Force Majeure events;
(d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;
(e) Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis: "

9. Regulation 28 of the 2019 Tariff Regulations provides as under:

28. Special Allowance for Coal-based/Lignite fired Thermal Generating station
(1) In case of coal-based/lignite fired thermal generating stations, the generating company, instead of availing renovation and modernization (R&M) may opt to avail a 'special allowance' in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful life of the generating station or a unit thereof and in

such an event, upward revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the Special Allowance shall be included in the annual fixed cost:"

Ash *Handling System (wet and dry ash evacuation)*

10. The Petitioner in Form-9, has claimed total projected additional capital expenditure of Rs 780.00 lakh towards Ash Handling System (wet and dry ash evacuation), in 2020-21 in terms of Regulation 26(1) (b) read with Regulation 26(1)(e) of the 2019 Tariff Regulations. In justification, the Petitioner has submitted that presently, fly ash evacuation system of the units of Stage-I and Stage-II are operating on slurry system (wet). The Petitioner has also submitted that MOEF&CC notification dated 25.1.2016 mandates 100% ash utilization generated from the power plant. In view of the statutory guidelines, the wet system is required to be modified and converted into dry evacuation system, for handling and transportation purpose. As the additional capital expenditure claimed is in compliance of the said notification, the Petitioner has prayed to allow the same under change in law/compliance with the existing law.

11. The Respondent, MPPMCL has submitted that there is no provision for considering the additional capitalization beyond the useful life of the plant. The Respondent has also submitted that the Petitioner should be directed to carry out the proposed expenditure for Rs.780 lakh for ash handling system from the Special Allowance allowable to the generating station. The Respondent, CSPDCL has submitted that the generating station has completed the useful life of 25 years, and therefore, any additional capital expenditure can be permitted only under Regulation 27 of the 2019 Tariff Regulations, by filing a separate petition after consent of the beneficiaries. In response, the Petitioner has submitted that Special Allowance is confined and limited to extension of useful life, whereas the additional expenditure on

account of ‘ash handling system’ to install dry ash evacuation system, for facilitating handling and transportation of ash, is to comply with the MOEF&CC notification dated 25.1.2016 and is covered under Regulation 26 (1)(b) read with Regulation 26 (1)(e) of the 2019 Tariff Regulations. The Petitioner has also submitted that Regulation 26 (1)(b) and Regulation 26 (1)(e) of the 2019 Tariff Regulations do not restrict the application of change in law either during the useful life of the generating station or after the Renovation & Modernization and accordingly, if anything is to be incurred by way of additional capital expenditure on account of change in law at any time, the same is admissible as additional capitalization. The Petitioner has further submitted that Special Allowance has been provided under the 2019 Tariff Regulations to meet the need-based Renovation & Modernization of the generating station, to operate it on sustained basis and not for meeting the expenditure arising on account of unprecedented or unanticipated reasons like ‘change in law’, ‘environmental compliance’ etc.

12. The matter has been considered. The Petitioner has claimed additional capitalization towards Ash handling system based on the MoEFCC notification dated 25.1.2016 which makes it mandatory for generating companies to ensure 100% ash utilisation. The said notification specifies distances and categories of consumers for which ash transportation expenses are to be claimed as revenue expenses. We observe that the MoEF&CC notification dated 25.1.2016 mandates only 100% ash utilisation. It does not stipulate any processing or treatment of fly ash before its disposal or utilisation. Hence, the proposal of the Petitioner for modifying and converting the wet evacuation system into dry evacuation system for handling and transportation purpose does not flow from the MoEF&CC notification dated 25.1.2016. Accordingly, we are of the view that the additional capital expenditure pertaining to the

proposed ash handling system is not covered under Regulation 26(1) (b) of the 2019 Tariff Regulations. In view of the above, the additional capitalization of Rs.780 lakh for Ash handling system (wet and dry ash evacuation) is not allowed.

Capital cost allowed for the 2019-24 Tariff Period

13. Based on the above, the capital cost approved for the generating station for the 2019-24 Tariff Period is summarized as under:

(Rs in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	165079.35	165079.35	165079.35	165079.35	165079.35
Add: Additional Capital Expenditure allowed	-	-	-	-	-
Closing Capital Cost	**165079.35**	**165079.35**	**165079.35**	**165079.35**	**165079.35**
Average Capital Cost	165079.35	165079.35	165079.35	165079.35	165079.35

Debt-Equity Ratio

14. Regulation 18 of the 2019 Tariff Regulations provides as under:

"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

(2)The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt:

equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."

15. The details of the debt and equity in respect of the generating station is as follows:

	Capital Cost as on 1.4.2019 *(Rs. in lakh)*	**%**	**Additional Capital Expenditure 2019-24 *(Rs. in lakh)***	**Capital Cost as on 31.3.2024 *(Rs. in lakh)***	**%**
Debt	84736.88	51.33%	0.00	84736.88	51.33%
Equity	80342.48	48.67%	0.00	80342.48	48.67%
Total	**165079.35**	**100.00%**	**0.00**	**165079.35**	**100.00%**

16. As the generating station has completed its useful life as on 31.3.2016, the equity component in excess of 30% of the capital cost has not been considered in accordance with the first proviso to Regulation 18(3) of 2019 Tariff Regulations. Accordingly, the equity component, for the purpose of computation of tariff for the 2019-24 tariff period, is restricted to 30% of the capital cost i.e. 49523.81 lakh.

Return on Equity

17. Regulations 30 and of the 2019 Tariff Regulations provides as under:

"30. Return on Equity:

(1) Return on equity shall be computed in rupee terms, on the equity base determined

in accordance with Regulation 18 of these regulations.

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system

Provided further that:

i. *In case of a new project, the rate of return on equity shall be reduced by 1.00% 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) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*

ii. *in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*

iii. *in case of a thermal generating station, with effect from 1.4.2020:*

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019."

"31. Tax on Return on Equity. (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 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 paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

Rate of pre-tax return on equity = Base rate / (1-t)

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

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
(b) Estimated Advance Tax for the year on above is Rs 240 crore;
(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the Tariff Period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

18. The Respondent, MPPMCL has submitted that the claim of the Petitioner should be allowed only to the extent of 10% of additional capital expenditure considering the fact that the plant has been fully depreciated and the Petitioner has already recovered 90% of its capital expenditure from beneficiaries. The Respondent, MSEDCL has submitted that the Petitioner's claim of effective tax rate of 17.4720% during the 2019-24 tariff period is premature for the computation of Return on Equity, given that the tax liability of this generating station is 'Nil' as on 31.3.2014 upto 31.3.2018. The Respondent has submitted that only an effective tax rate of 15.50% should be allowed subject to truing-up, based on actual tax paid. In response, the Petitioner has submitted that the tax leviable on Return on Equity (ROE) is claimed by Petitioner in terms of Regulation 31(2) of the 2019 Tariff Regulations. Therefore, the

claim of the Petitioner is in terms of the 2019-24 Tariff Regulations. It has further submitted that the base rate of ROE as allowed 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 respect of the financial year, in line with the relevant provisions of the Finance Act by the concerned generating company. The Petitioner has submitted that:

(a) Petitioner is a corporate legal entity obligated to pay tax and not the generating station. Therefore, as long as the tax liability is imposed upon the generating company, i.e., NTPC, the same is liable to be grossed up as per the Tariff Regulations;

(b) Stage-I and Stage-II is neither a generating company nor a corporate legal entity, but only a division / generating station of Petitioner. Therefore, in accordance with the provision of the Tariff Regulations, the Petitioner was justified and correct to claim Minimum Alternate Tax (“MAT”) based on its consolidated financial statement, since MAT is paid by Company as a whole. Therefore, the aforesaid consideration of this generating station being an entity taxable under the Income Tax Act for the purpose of payment of MAT is completely erroneous and without merit.

19. The Petitioner has further submitted that deferred tax liability signifies that a company may, in future, pay more income tax, because of a transaction in the present. Hence, the deferred tax liability for the period up to 31st March 2009, is tax liability on the items generated before 31st March 2009, but not paid to the income tax authorities. Since the same was not paid to the income tax authorities, it was not recovered from the beneficiaries, thereby leading to lower outflow on account of tax expense for the beneficiaries.

20. We accept the submissions of the Petitioner. For grossing up of ROE during the 2019-24 tariff period, the Petitioner has applied the MAT rate of 17.472% and the same is allowed. This is, however, subject to revision, if any, at the time of truing up of tariff. Accordingly, ROE has been worked out and allowed as follows:

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Equity-Opening	A	80342.48	80342.48	80342.48	80342.48	80342.48
Less: Adjustment to equity in terms of first proviso to Regulation 18(3) of the 2019 Tariff Regulations	B	30818.67	30818.67	30818.67	30818.67	30818.67
Normative Equity-Opening	C=[A-B]	49523.81	49523.81	49523.81	49523.81	49523.81
Addition of Equity due to additional capital expenditure	D	0.00	0.00	0.00	0.00	0.00
Normative Equity-Closing	E=[C+D]	49523.81	49523.81	49523.81	49523.81	49523.81
Average Normative Equity	F=Average (C,E)	49523.81	49523.81	49523.81	49523.81	49523.81
Return on Equity (Base Rate)	G	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for the year	H	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax)	I=[G/(1-H)]	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre Tax) annualized	**J=(F*I)**	**9301.56**	**9301.56**	**9301.56**	**9301.56**	**9301.56**

Interest on Loan

21. Regulation 32 of the 2019 Tariff Regulations provides as under:

"32. Interest on loan capital:

(1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the Tariff Period 2019-24 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 changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."

22. Interest on loan has been computed as under:

a. Gross normative loan amounting to Rs. 84736.88 lakh as on 31.3.2019 as considered in order dated 16.04.2022 in Petition No. 451/GT/2020 has been considered as on 1.4.2019;

b. Cumulative repayment amounting to Rs. 84600.50 lakh as on 31.3.2019 as considered in order dated16.04.2022 in Petition No. 451/GT/2020 has been considered as on 1.4.2019;

c. Accordingly, the net normative opening loan considered as on 1.4.2019, is Rs. 136.38 lakh.

d. The weighted average rate of interest on loan, as claimed by the Petitioner has been considered;

e. The repayments for the respective years of the 2019-24 tariff period, has been considered equal to the depreciation allowed for that year;

f. Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

23. Interest on loan has been worked out as follows:

(Rs. in lakh)

		2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross opening loan	A	84736.88	84736.88	84736.88	84736.88	84736.88
Cumulative repayment of loan up to previous year	B	84600.50	84736.88	84736.88	84736.88	84736.88
Net Loan Opening	C=(A-B)	136.38	0.00	0.00	0.00	0.00
Addition due to additional capital expenditure	D	0.00	0.00	0.00	0.00	0.00
Repayment of loan during the year	E	136.38	0.00	0.00	0.00	0.00
Less: Repayment adjustment on account of de-capitalization	F	0.00	0.00	0.00	0.00	0.00
Net Repayment of loan during the year	G=E-F	136.38	0.00	0.00	0.00	0.00
Net Loan Closing	H=(C+D-G)	0.00	0.00	0.00	0.00	0.00
Average Loan	I=Average (C,H)	68.19	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest of loan	J	8.1468%	8.1645%	8.1765%	8.1817%	8.2029%

		2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Loan	**K=(I*J)**	**5.56**	**0.00**	**0.00**	**0.00**	**0.00**

Depreciation

24. Regulation 33 of the 2019 Tariff Regulations provides as under:

"33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. 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:

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 a 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 the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

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

Provided also 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 unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or 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-I 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 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 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 five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(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."

25. Depreciation has been worked out considering the admitted capital cost of Rs.165079.35 lakh as on 1.4.2019 and the cumulative depreciation of Rs.147488.06 lakh as on 31.3.2019, as considered in order dated 16.04.2022 in Petition No. 451/GT/2020. As the balance useful life of asset is 'nil', the balance depreciable value of assets has been considered as the annualised depreciation for the 2019-24 tariff period. Accordingly, depreciation allowed for the generating station is as follows:

(Rs. in lakh)

		2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Average Capital Cost	A	165079.35	165079.35	165079.35	165079.35	165079.35
Value of freehold land	B	824.10	824.10	824.10	824.10	824.10
Aggregated Depreciable Value	C=[(A-B)*90%]	147829.73	147829.73	147829.73	147829.73	147829.73
Remaining Aggregate Depreciable value at the beginning of the year	D=[(C)-(Cumulative Depreciation of Previous year)]	341.67	0.00	0.00	0.00	0.00
Balance useful life at the beginning of the year	E	0.00	0.00	0.00	0.00	0.00
Depreciation (annualized)	F=D	341.67	0.00	0.00	0.00	0.00
Cumulative depreciation (at the end of the period)	G=[(Cumulative Depreciation of Previous year) + (F)]	147829.73	147829.73	147829.73	147829.73	147829.73

Special Allowance

26. In terms of Regulation 28 of 2019 Tariff Regulations, the Special Allowance claimed by the Petitioner is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
19950.00	19950.00	19950.00	19950.00	19950.00

27. As per Regulation 28 of 2019 Tariff Regulations, the Special Allowance for this generating station has been worked out and allowed as under: -

(Rs. in lakh)

Unit No.	Capacity (MW)	Date of COD	Year of completion of useful life of 25 years	Special Allowance as per Regulation 28				
				2019-20	2020-21	2021-22	2022-23	2023-24
1	200	1-Aug-83	2008-09	1900.00	1900.00	1900.00	1900.00	1900.00
2	200	1-Jan-84	2008-09	1900.00	1900.00	1900.00	1900.00	1900.00
3	200	1-Jun-84	2009-10	1900.00	1900.00	1900.00	1900.00	1900.00
4	500	1-Mar-88	2012-13	4750.00	4750.00	4750.00	4750.00	4750.00
5	500	1-Apr-89	2013-14	4750.00	4750.00	4750.00	4750.00	4750.00
6	500	1-Jun-90	2015-16	4750.00	4750.00	4750.00	4750.00	4750.00
Year wise total				**19950.00**	**19950.00**	**19950.00**	**19950.00**	**19950.00**

Operation & Maintenance Expenses

28. Regulation 35(1)(1) of the 2019 Tariff Regulations provides the year-wise O&M expense norms for the generating station as under:

(Rs. In lakh/MW)

Unit Size (MW)	2019-20	2020-21	2021-22	2022-23	2023-24
200	32.96	34.12	35.31	36.56	37.84
500	22.51	23.30	24.12	24.97	25.84

29. Proviso to the Regulation 35(1)(1) of the 2019 Tariff Regulations states as under:

> *"Provided that where the date of commercial operation of any additional unit(s)of a generating station after first four units occurs on or after 1.4.2019, the O&M expenses of such additional unit(s) shall be admissible at 90% of the operation and maintenance expenses as specified above;"*

30. The generating station has 3 units of 200 MW capacity in Stage-I and 3 units of 500 MW capacity in Stage-II and all these units have achieved COD prior to the period

2009-14. Accordingly, the multiplication factor has not been considered while determining the O&M expenses for generating station for the 2019-24 tariff period. Consequently, the normative O&M expenses claimed by the Petitioner in terms of the above regulations are allowed as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
53541.00	55422.00	57366.00	59391.00	61464.00

Water Charges, Security Charges and Capital Spares

31. Regulation 35(6) of the 2019 Tariff Regulations provides for the following:

"The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

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

Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;

Provided also 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 as per Regulation 17 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 or Special Allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization."

Water Charges

32. The water charges claimed by the Petitioner for the 2019-24 tariff period in terms of the first proviso to Regulation 35(6) of the 2019 Tariff Regulations are as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
8479.13	8775.90	9083.06	9400.97	9730.00

33. The Petitioner has furnished details in respect of water charges namely the

type of cooling water system, water consumption, rate of water charges as applicable for the year 2018-19 as follows:

Description	Remarks
Type of Plant	Coal based thermal Power Plant
Type of cooling water system	Closed circuit cooling system
Consumption of Water (All stage)	55.97 MCM
Rate of Water charges	Rs 12.25 per Cubic Meter
Total water charges (2018-19)	Rs 8192.40 lakh

34. The Petitioner has escalated water charges for 2018-19 at the rate of 3.5% per year and has accordingly projected water charges for the 2019-24 tariff period. The Petitioner has also submitted that the claim for water charges is subject to retrospective adjustment, based on actuals, at the time of truing up of tariff for the 2019-24 tariff period. The Petitioner has also submitted that the actual water charges for 2019-20 and 2020-21 are as under:

(Rs. in lakh)

Sl. No.		2018-19	2019-20	2020-21
1	Actual Water Charges Paid for Korba STPS (all stages)	10142.97	10170.76	10142.97
2	Actual Water Charges for Korba - I & Korba - II	8192.40	8214.84	8192.40

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

Item	2019-20	2020-21
Units generated in MU	16016	17012
Water Consumption norm as per MoEF notification (in m3/MWh)	3.5	3.5
Water consumption worked out as per norm of MoEF notification in Million Cubic meter (MCM)	56.06	59.54
Rate in Rs / Cm (as claimed by the Petitioner)	12.25	12.25
Water charges to be allowed (Rs in crore)	68.67	72.94

36. The Respondent has also submitted that the claim in the petition is exceeding by about 25% over the allowable normative water charges. Accordingly, the

Respondent has prayed that the excessive claim of the Petitioner may be rejected and allow water charges computed above for the two years and also to allow Rs.6867.35 lakh for the balance period (2021-24). The Respondent, MSEDCL has submitted that in terms of Regulation 35(1)(6) of the 2019 Tariff Regulations, the expenses incurred towards water charges shall be allowed separately only after prudence check on water consumption. The Respondent has also submitted that no valid justification has been provided by the Petitioner for escalation of 3.5% every year, over the water charges for 2018-19. The Respondent, CSPDCL has submitted that as per MOEF&CC Notification dated 7.12.2015, the thermal power generating stations commissioned before 1.1.2017, have to meet specific water consumption up to maximum of 3.5 m^3/MW and further computed the water charges for the 2014-19 tariff period. The Respondent, therefore, requested that the water consumption of 52.13 MCM for 2018-19 and the corresponding water charges of Rs 6385.00 lakh may be considered as water charges for the 2019-24 tariff period, subject to adjustment as per actual generation. Further, the Respondent submitted that there is no provision of escalation of water charges @ 3.5% in the Regulations, hence the same may be denied.

37. In response, the Petitioner has submitted that in compliance to Regulation 35(1)(6) of the 2019 Tariff Regulations, the details in respect of water charges such as type of cooling water system, rate of water charges has already been furnished in the Petition. It has also submitted that water charges are of the nature of O&M expenses and are recurring in nature and therefore escalation of 3.5% per annum has been considered. The Petitioner has however submitted that the details of actual water charges for the relevant years will be submitted by the Petitioner, at the time of truing up of tariff and are subject to retrospective adjustments. It has further submitted that the calculations indicated by the Respondent are based on the actual generation of

the generating station that varies month on month, based on the seasonal variations and demand of various beneficiaries. The Petitioner has stated that it has to arrange for water corresponding to the maximum availability of the station i.e., at the MCR/ Installed capacity.

38. We have considered the matter. In our view, the first proviso to Regulation 35(6) of the 2019 Tariff Regulations provides the methodology for allowing water charges based on prudence check. Accordingly, based on the details furnished by the Petitioner, we consider the actual water charges for 2019-20 and 2020-21. In respect of the projected water charges for 2021-22 to 2023-24, we have considered the same actual water charges of Rs.8192.40 lakh of 2020-21 without any escalation. However, the Petitioner is directed to submit the actual bills along with other relevant details as per Regulation 35(1)(6) of the 2019 Tariff Regulations at the time of truing-up of tariff. Based on this, the water charges allowed are as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
8214.84	8192.40	8192.40	8192.40	8192.40

Security Expenses

39. The Petitioner has claimed the following security expenses, on projection basis, for the 2019-24 tariff period in terms of the second proviso to Regulation 35(6) of the 2019 Tariff Regulations.

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
2652.19	2745.01	2841.09	2940.53	3043.45

40. The Petitioner has escalated security expenses for 2018-19 at the rate of 3.5% per year and has accordingly claimed security expenses for the 2019-24 tariff period. The Petitioner has also submitted that the security expenses charges for 2019-20 and

2020-21 are as under:

(Rs. in lakh)

Sl. No.		2018-19	2019-20	2020-21
1	Actual security expenses Paid for Korba STPS (all stages)	3172.62	3655.95	3762.37
2	Actual security expenses for Korba -I & Korba - II	2562.50	2952.88	3038.84

41. The Respondents, MPPMCL and CSPDCL have submitted that the Petitioner should be directed to submit details of security expenses covering cadre-wise total number of personals as mandated in second proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations. The Respondents have submitted that the Commission may prescribe norms for maximum allowable security expenses corresponding to per MW installed capacity, to check and control the claims raised against Security expenses. In response, the Petitioner has submitted that the security expenses claimed are on estimated basis based on the actual security expenses incurred by it for 2018-19.

42. We have considered the matter. In view of the submissions of the Petitioner, we, on prudence check, allow the actual security expenses incurred by the Petitioner for 2019-20 and 2020-21. In respect of the projected security expenses for 2021-22 to 2023-24, we have considered the actual security expenses of Rs.3038.84 lakh of 2020-21 without any escalation, with a direction to the Petitioner to furnish, the actual bills with other relevant details in terms of Regulation 35(1)(6) of the 2019 Tariff Regulations, at the time for truing-up of tariff. The security expenses allowed are as follows:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
2952.88	3038.84	3038.84	3038.84	3038.84

Capital Spares

43. As regards capital spares consumed, the Petitioner has submitted that the same shall be claimed at the time of truing up of tariff, in terms of the last proviso to

Regulation 35(6) of the 2019 Tariff Regulations, based on actual consumption of capital spares during the 2019-24 tariff period. In view of this, the Petitioner is allowed to claim actual capital spares consumed during the 2019-24 tariff period, at the time of truing-up of tariff, along with proper justification for the same.

44. Accordingly, the total O&M expenses allowed for the 2019-24 tariff period is summarised as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses allowed under Regulation 35(1)(1)	53541.00	55422.00	57366.00	59391.00	61464.00
O&M expenses allowed under Regulation 35(6)					
Water Charges	8214.84	8192.40	8192.40	8192.40	8192.40
Security Expenses	2952.88	3038.84	3038.84	3038.84	3038.84
Total O&M expenses allowed	**64708.72**	**66653.24**	**68597.24**	**70622.24**	**72695.24**

Fly Ash Transportation charges

45. The Petitioner has submitted that fly ash transportation charges will be claimed at the time of truing up of tariff, based on the actual expenses incurred. It is however noticed that the Petitioner has filed Petition No. 205/MP/2021 with regard to reimbursement of fly ash transportation charges in respect of its generating stations and has raised issues with regard to the higher liability of the Respondents therein on account of interest burden and cash flow issues faced by the Petitioner. Some of the Respondents therein (including TANGEDCO) have raised issues on 'maintainability' of Petition No. 205/MP/2021 and the Commission, after hearing the parties on 12.10.2021, has issued notices for hearing on maintainability of that petition. Therefore, the reimbursement of fly ash transportation charges will be governed by decision of the Commission in Petition No. 205/MP/2021.

Operational Norms

46. The operational norms claimed and allowed in accordance with the provisions

of Regulation 49 of the 2019 Tariff Regulations, for the 2019-24 Tariff Period is as under:

	Claimed	Allowed
Normative Annual Plant Availability Factor (NAPAF) %	85.00	85.00
Gross Station Heat Rate (kcal/kwh)	2401.43	2401.43
Auxiliary Power Consumption %	7.04	7.04

Interest on Working Capital

47. Regulation 34(1)(a) of the 2019 Tariff Regulations provide as under:

"34. Interest on Working Capital: (1) The working capital shall cover:
(a)For Coal-based/lignite-fired thermal generating stations:
(i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 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) Advance payment for 30 days towards cost of coal or lignite and limestone 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 including water charges and security expenses;
(v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and
(vi) Operation and maintenance expenses, including water charges and security expenses for one month. "

48. Clause (3) and (4) of Regulation 34 of the 2019 Tariff Regulations provides as under:

"(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the Tariff Period 2019-24 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:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the Tariff Period 2019-24.

(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."

49. Regulation 3(7) of the 2019 Tariff Regulations defines Bank Rate as under***:***

> ***"****In these regulations, unless the context otherwise requires: -*
> *Bank Rate' means the one-year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"*

a) Fuel Cost and Cost of Liquid stock for Working Capital

50. The Petitioner has claimed the following fuel components as part of working capital, based on the price and GCV of coal as received and secondary fuel oil for the preceding three months from October 2018 to December 2018, as under:

(Rs. in lakh)

<table>
<tr><th></th><th>2019-20</th><th>2020-21</th><th>2021-22</th><th>2022-23</th><th>2023-24</th></tr>
<tr><td>Cost of coal stock for 10 days</td><td rowspan="2">21604.54</td><td rowspan="2">21604.54</td><td rowspan="2">21604.54</td><td rowspan="2">21604.54</td><td rowspan="2">21604.54</td></tr>
<tr><td>Cost of coal for generation for 30 days</td></tr>
<tr><td>Cost of secondary fuel oil for 2 months</td><td>496.09</td><td>494.74</td><td>494.74</td><td>494.74</td><td>496.09</td></tr>
</table>

51. The Respondent, MSEDCL has submitted that in terms of the 2019 Tariff Regulations, details of source wise fuel for computation of energy charges of the preceding three months from COD or from 1.4.2019 are to be considered. The Petitioner, however, has considered details of fuel for the months of October, 2018 November, 2018 and December 2018. The Respondent has also submitted that the Petitioner has already filed petition for approval of additional capital expenditure on account of installation of Emission Control System wherein, it has claimed higher Gross Station Heat Rate (GSHR) and Auxiliary Power Consumption (APC). Therefore, the effect of GSHR and APC should be considered in totality for approval. In response, the Petitioner has submitted that it has calculated energy charges as per Regulation 34(2) of the 2019 Tariff Regulations, for the purpose of calculating Interest on Working Capital (IWC). It has also submitted that the Petitioner has considered fuel details for October, 2018 November, 2018 and December 2018 i.e. third quarter of the 2018-19 (preceding financial year to 2019-20) for computation of energy charge, for

the purpose of determining IWC, in line with the Regulation 34(2) of the 2019 Tariff Regulations. As regards Gross Station Heat Rate (GSHR) and Auxiliary Power Consumption (APC), the Petitioner has submitted that it had prayed for grant of additional GSHR and additional APC, over and above the normative parameters, on account of implementation of Emission Control System (ECS) in Petition No. 338/MP/2020 for this generating station and the Commission vide its order dated 28.4.2021 in Petition No. 338/MP/2020 (and other similar petitions) had granted liberty for the same, to be considered on case-to-case basis after implementation of ECS.

52. We have considered the matter. The fuel components, based on the price and GCV of coal as received, and secondary fuel oil for the preceding three months from October, 2018 to December 2018, as submitted by the Petitioner in Form-15 for the 2019-24 tariff period has been considered. As per Regulation 34(1)(a)(i), Regulation 34(1)(a)(ii) and Regulation 34(1)(a)(iii) of the 2019 Tariff Regulations, coal cost for 30 days, the cost of coal stock for 10 days and cost of secondary fuel oil for 2 months, are allowed as part of working capital as follows:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Cost of coal stock for 10 days	5254.46	5254.46	5254.46	5254.46	5254.46
Cost of coal for generation for 30 days	15763.37	15763.37	15763.37	15763.37	15763.37
Cost of secondary fuel oil for 2 months	496.09	494.74	494.74	494.74	496.09

53. In the present petition, the computation of working capital is based on the GCV and fuel cost furnished for third quarter of the yare 2018-19. However, Regulation 34 (C) (2) provides that 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 fuel cost (taking into account normative transit and handling losses, in terms of Regulation 39 of these

regulations) by the generating station and gross calorific value of the fuel, as per actual weighted average for the third quarter of preceding financial year, in case of each financial year for which tariff is to be determined. Therefore, in terms of above provisions, the fuel cost computed above is subject to the truing-up, based on the actual data to be furnished by Petitioner, for each year, at the time of truing-up of tariff.

b) Energy Charge Rate (ECR) for Working Capital

54. The Petitioner has claimed Energy Charge Rate (ECR) of Rs.1.377/kWh based on the weighted average price and GCV of coal as received, during the preceding three months i.e., October 2018, November 2018 and December 2018 as follows:

Parameters	Unit	2019-24
Landed Fuel Cost (Domestic coal)	Rs./Ton	1748.82
(%) of Fuel Quantity	(%)	100
Energy Charge Rate Secondary fuel-ex-bus	**Rs./kWh**	**0.019**
Energy Charge Rate Primary fuel-ex-bus	**Rs./kWh**	**1.377**

55. Based on the operational norms, the price and GCV of the generating station during the preceding three months i.e., October 2018, November 2018 and December 2018, the ECR, for the purpose of working capital, has been worked out and allowed for the 2019-24 Tariff Period as follows:

(Rs. per kWh)

	2019-24 (Claimed)	**2019-24 (Allowed)**
Energy Charge Rate Secondary fuel-(ex-bus)	0.019	0.020
Energy Charge Rate Primary fuel-(ex-bus)	1.377	1.319

c) Energy Charges for 45 days for Working Capital

56. Energy charges for 45 days, on the basis of weighted average GCV and weighted average cost, for the purpose of interest on working capital, has been worked out as follows:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
24015.02	24015.02	24015.02	24015.02	24015.02

d) Working Capital for Maintenance spares

57. The Petitioner has claimed the following maintenance spares in the working capital:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
12934.46	13388.58	13858.03	14346.50	14847.49

58. Maintenance spares for the purpose of interest on working capital in accordance with Regulation 34(1)(b)(iii) of the 2019 Tariff Regulations, has been worked out as follows:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
12941.74	13330.65	13719.45	14124.45	14539.05

e) Working Capital for Receivables

59. Receivables equivalent to 45 days of capacity charge and energy charges (based on primary fuel only) for the purpose of working capital has been worked out and allowed as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Variable Charges (45 days)	24015.02	24015.02	24015.02	24015.02	24015.02
Fixed Charges (45 days)	10240.20	10401.96	10581.91	10842.37	11078.27
Total	**34255.22**	**34416.98**	**34596.93**	**34857.39**	**35093.29**

f) Working Capital for O & M Expenses

60. The O&M expenses for 1 (one) month claimed by the Petitioner for the purpose of working capital is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
5389.36	5578.58	5774.18	5977.71	6186.45

61. The O&M expenses for 1 (one) month allowed for the purpose of working capital is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
5392.39	5554.44	5716.44	5885.19	6057.94

g) Rate of Interest for on Working Capital

62. In accordance with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital considered on projection basis, for the 2019-24 Tariff Period is 12.05% (i.e. 1year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for the 2019-24 Tariff Period, is being determined during the year 2022-23, the SBI MCLR as on 1.4.2020 (7.75%) and as on 1.4.2021 (7.00%) is also available, which is lower in comparison of the same, as on 1.4.2019 (8.55%). Since, the rate of interest on working capital is subject to revision at the time of truing-up of tariff, based on the bank rate as on 1st April of each financial year, we find it prudent to allow the rate of interest as on 1.4.2020 and 1.4.2021, for the subsequent financial years. Accordingly, the rate of interest for the year 2019-20 is 12.05%, 2020-21 is 11.25% and for the subsequent years the rate of interest of 10.50% has been considered (i.e., 1year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points, 1-year SBI MCLR of 7.75% as on 1.4.2020 + 350 basis points and 1-year SBI MCLR of 7.00% as on 1.4.2021 + 350 basis points).

63. Accordingly, Interest on working capital is allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for coal cost stock in 10 days	5254.46	5254.46	5254.46	5254.46	5254.46
Working capital for coal cost expenses 30 days (generation)	15763.37	15763.37	15763.37	15763.37	15763.37
Working capital for cost of secondary oil for 2 months	496.09	494.74	494.74	494.74	496.09
Working capital for O & M expenses 1 month	5392.39	5554.44	5716.44	5885.19	6057.94
Working capital for Maintenance Spares (20% of O&M expenses)	12941.74	13330.65	13719.45	14124.45	14539.05
Working capital for Receivables for 45 days	34255.22	34416.98	34596.93	34857.39	35093.29
Total Working Capital	**74103.28**	**74814.63**	**75545.38**	**76379.59**	**77204.20**
Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
Total Interest on Working capital	**8929.45**	**8416.65**	**7932.27**	**8019.86**	**8106.44**

Annual Fixed Charges allowed

64. Based on the above discussion, the annual fixed charges allowed for the generating station is summarised as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	341.67	0.00	0.00	0.00	0.00
Interest on Loan	5.56	0.00	0.00	0.00	0.00
Return on Equity	9301.56	9301.56	9301.56	9301.56	9301.56
O&M Expenses	64708.72	66653.24	68597.24	70622.24	72695.24
Interest on Working Capital	8929.45	8416.65	7932.27	8019.86	8106.44
Special Allowance	19950.00	19950.00	19950.00	19950.00	19950.00
Total	**103236.95**	**104321.45**	**105781.07**	**107893.66**	**110053.24**

65. The annual fixed charges determined as above are subject to truing-up in terms of Regulation 13 of the 2019 Tariff Regulations.

Application filing fees and Publication expenses

66. The Petitioner has sought reimbursement of fees paid by it for filing the tariff petition and publication expenses. The Petitioner shall be entitled for reimbursement of the tariff petition filing fees along with the publication expenses incurred in connection with the present petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

67. Petition No. 486/GT/2020 is disposed of in terms of the above.

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