

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 397/GT/2020

Coram:

Shri I.S. Jha, Member

Shri Arun Goyal, Member

Shri Pravas Kumar Singh, Member

Date of Order: 28th April, 2023

IN THE MATTER OF

Petition for approval of tariff of Khandong Hydro Electric Plant (50 MW) for the period 2019-24.

AND

IN THE MATTER OF

North Eastern Electric Power Corporation Limited
Corporate Office: Brookland Compound
Lower New Colony,
Shillong-793003

.... Petitioner

Vs

1. Assam Power Distribution Company Limited,
"Bijulee Bhawan" Paltanbazar
Guwahati-781001, Assam
2. Meghalaya Power Distribution Corporation Limited,
Lumjinshai, Short Round Road
Shillong-799001, Meghalaya
3. Tripura State Electricity Corporation Limited,
Bidyut Bhavan, North Banamalipur
Agartala-799001, Tripura
4. Power & Electricity Department,
Government of Mizoram, New Secretariat Complex
Kawlpetha, Aizwal-796001
5. Manipur State Power Distribution Company Limited,
3rd Floor, New Directorate Building, Near 2nd M.R. Gate
Imphal-Dimapur Road, Imphal-795001, Manipur



6. Department of Power
Vidyut Bhawan, Government of Arunachal Pradesh
Itanagar-791111
7. Department of Power,
Government of Nagaland
Electricity House, AG Colony
Kohima-797001
8. North Eastern Regional Power Committee,
NERPC Complex, Dong Parmaw
Lapalang, Shillong-793006
9. North Eastern Regional Load Despatch Centre,
Dongtiah, Lower Nongrah
Lapalang, Shillong-793006

.....Respondents

Parties Present:

Shri Devapriya Choudhury, NEEPCO
Shri Sushanta Deka, NEEPCO
Shri Munin Choudhary, NEEPCO
Ms. Bornali Deori, NEEPCO
Ms. Elizabeth Pyrbot, NEEPCO
Shri Ripunjoy Bhuyan, NEEPCO

ORDER

This petition has been filed by the Petitioner, North Eastern Electric Power Corporation Limited, for approval of tariff of Khandong Hydro Electric Project (2 x 25 MW) (in short 'the generating station') for the period 2019-24, in terms of the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations'). The generating station comprises of two units of 25 MW and the date of commercial operation (COD) of the units of the generating station are as under:

Units	COD
Unit-I	7.3.1984
Unit-II	4.5.1984

2. Petition No. 42/GT/2015 was filed by the Petitioner for approval of tariff of the generating station for the period 2014-19 and the Commission vide its order dated 13.1.2016 had approved the capital cost and the annual fixed charges. Subsequently,



the Petitioner had filed Petition No. 371/GT/2019, for truing up of tariff of the generating station, for the period 2014-19 and the Commission vide its order dated 28.4.2023 in Petition No. 371/GT/2019, had approved the cost and the annual fixed charges of the generating station as under:

Capital Cost

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	12,438.28	13,857.94	14,306.79	14,673.05	14,746.29
Net additional capital expenditure allowed	1,419.66	448.85	366.26	73.24	90.37
Closing Capital Cost	13,857.94	14,306.79	14,673.05	14,746.29	14,836.67
Average Capital Cost	13,148.11	14,082.37	14,489.92	14,709.67	14,791.48

Annual Fixed Charges

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	593.32	671.00	666.89	657.55	559.33
Interest on Loan	21.52	29.20	7.68	0.00	0.00
Return on Equity	1313.15	1471.09	1694.86	1538.63	1429.03
O&M Expenses	1233.87	1317.89	1405.45	1498.82	1598.41
Interest on Working Capital	112.54	122.78	132.18	133.35	134.07
Total	3274.41	3611.96	3907.06	3828.36	3720.84

Present Petition

3. The Petitioner has filed the present petition for approval of tariff of the generating station for the period 2019-24, in terms of the provisions of the 2019 Tariff Regulations. Accordingly, the capital cost and annual fixed cost claimed by the Petitioner are as under:

Capital Cost claimed

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	16386.99	16386.99	16386.99	16386.99	16386.99
Add: Addition during the year/period	-	-	-	-	-
Less: De-capitalization during the year/ period	-	-	-	-	-
Less: Reversal during the year/ period	-	-	-	-	-
Add: Discharges during the year/ period	-	-	-	-	-
Closing Capital Cost	16386.99	16386.99	16386.99	16386.99	16386.99
Average Capital Cost	16386.99	16386.99	16386.99	16386.99	16386.99



Annual Fixed Charges claimed

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	47.39	47.39	47.39	47.39	47.39
Interest on Loan	-	-	-	-	-
Return on Equity	1,467.23	1,467.23	1,467.23	1,467.23	1,467.23
Interest on Working Capital	122.29	121.13	125.85	130.80	135.98
O&M Expenses	2,261.12	2,368.90	2,481.81	2,600.11	2,724.04
Total	3,898.03	4,004.65	4,122.28	4,245.53	4,374.64

4. The matter was heard along with Petition No. 371/GT/2019 (tariff of the generating station for the period 2014-19) and the Commission, after directing the Petitioner to submit certain additional information, reserved order in the petitions. In response, the Petitioner has filed the additional information on 13.5.2022, after serving copies on the Respondents. None of the Respondents have filed replies in the matter. Petition No. 371/GT/2019 has been disposed of separately by order dated 28.4.2023. Taking into consideration the submissions of the parties and the documents available on record, we proceed to determine the tariff of the generating station for the period 2019-24, after prudence check, as stated in the subsequent paragraphs.

Capital Cost

5. Regulation 19(3) of the 2019 Tariff Regulations provides as under:

- “(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 tried 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.”

6. The Petitioner has claimed annual fixed charges, based on the opening capital cost of Rs. 16386.99 lakh, as on 1.4.2019. However, the Commission, in its order dated 28.4.2023 in Petition No. 371/GT/2019, had approved the closing capital cost of Rs. 14836.67 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the closing capital cost of Rs.14836.67 lakh, has been considered as the opening capital cost, as on 1.4.2019.

Additional Capital Expenditure

7. Since the Petitioner has not claimed any additional capital expenditure, including de-capitalization for the period 2019-24, in this petition, no additional capital expenditure has been considered.

Capital Cost

8. Accordingly, the capital cost allowed for the purpose of tariff for the period 2019-24 is as under:

	<i>(Rs.in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	14836.67	14836.67	14836.67	14836.67	14836.67
Add: Projected additional capital expenditure allowed	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost	14836.67	14836.67	14836.67	14836.67	14836.67
Average Capital Cost	14836.67	14836.67	14836.67	14836.67	14836.67

Debt Equity Ratio

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

“(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.”

10. The closing debt equity ratio of 54.12:45.88, as on 31.3.2019, has been considered as the opening debt: equity ratio as on 1.4.2019. No additional capital expenditure and de-capitalization has been claimed by the Petitioner. Accordingly, the details of debt-equity ratio in respect of the generating station as on 1.4.2019 and 31.3.2024 are as under:



(Rs. in lakh)

Asset	As on 1.4.2019		Net Additional Capitalization during 2019-24				As on 31.3.2024	
			Additional Capital Expenditure		De-capitalization			
	Amount	%	Amount	%	Amount	%	Amount	%
Debt	8,029.53	54.12	0.00	70.00	0.00	70.00	8,029.53	54.12
Equity	6,807.14	45.88	0.00	30.00	0.00	30.00	6,807.14	45.88
Total	14,836.67	100.00	0.00	100.00	0.00	100.00	14,836.67	100.00

Return on Equity

11. Regulation 30 of the 2019 Tariff Regulations provides as under:

“(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 stations, transmission system including communication system and run of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, 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”

12. Regulation 31 of the 2019 Tariff Regulations provides as under:

“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 the generating company or the 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 the 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 transmission customers, as the case may be, on year to year basis."

13. For grossing up of Return on Equity (ROE) for the period 2019-24, 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 under:



	(Rs.in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity- Opening (a)	6807.14	6807.14	6807.14	6807.14	6807.14
Addition of Equity due to additional capital expenditure (b)	0.00	0.00	0.00	0.00	0.00
Normative Equity- Closing (c)=(a)+(b)	6807.14	6807.14	6807.14	6807.14	6807.14
Average Normative Equity (d)=(a+c)/2	6807.14	6807.14	6807.14	6807.14	6807.14
Return on Equity (Base Rate) (e)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate (f)	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-tax) (g)	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity (Pre-tax) – (annualized) (h)=(d)*(g)	1,360.95	1,360.95	1,360.95	1,360.95	1,360.95

Interest on loan

14. The actual loan of the project has already been repaid. Since no additional capital expenditure has been claimed/considered for the period 2019-24, there is no normative loan addition during the said period. Hence, interest on loan during the period 2019-24, for the generating station is “Nil”.

Depreciation

15. 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.

16. Accumulated depreciation as on 31.3.2019, has been considered as Rs. 11112.91 lakh for the period up to 31.3.2019. The depreciation on additional capitalization as allowed for the period 2014-19, has been considered separately by allowing depreciation at the rate of 5.28%. However, for the original gross block depreciable value as on 1.4.2014, depreciation has been allowed in the manner as in order dated 28.4.2023 in Petition No.371/GT/2019. Accordingly, depreciation has been computed as under:



	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation on the original Gross Block (i.e. without considering the additional capitalisation)					
Opening Capital Cost (a)	12438.28	12438.28	12438.28	12438.28	12438.28
Closing Capital Cost (b)	12438.28	12438.28	12438.28	12438.28	12438.28
Average Capital Cost (c)=(a+b) /2	12438.28	12438.28	12438.28	12438.28	12438.28
Land Value (d)	176.00	176.00	176.00	176.00	176.00
Depreciable value (e)=(c-d) * 0.9	11036.05	11036.05	11036.05	11036.05	11036.05
Balance life(f)	5.09	4.09	3.09	2.09	1.09
Remaining Depreciable value (g)= (e-p1 at the end of the previous year)	399.93	321.39	242.84	164.29	85.75
Depreciation during the period(h)=(g)/(f)	78.55	78.55	78.55	78.55	78.55
Cumulative depreciation (p1) = (Cumulative dep.at the end of the previous year +h)	10,714.66	10,793.21	10,871.76	10,950.30	11,028.85
Depreciation on additional capitalisation					
Opening value (i)	2398.39	2398.39	2398.39	2398.39	2398.39
Additional Capitalization during the year (j)	0.00	0.00	0.00	0.00	0.00
Closing Value (k=i+j)	2398.39	2398.39	2398.39	2398.39	2398.39
Average (l=(i+k)/2)	2398.39	2398.39	2398.39	2398.39	2398.39
Rate of Depreciation (m)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciation on the additional capitalisation (n)	126.63	126.63	126.63	126.63	126.63
Total Depreciation for the period (o=h+n)	205.18	205.18	205.18	205.18	205.18
Cumulative depreciation (p2) = (Cumulative dep.at the end of the previous year+n)	603.43	730.06	856.70	983.33	1109.97
Net Cumulative Depreciation (Total) (q) = (p1+p2)	11,318.09	11,523.27	11,728.45	11,933.64	12,138.82

*Cumulative Depreciation as on 31.3.2019 is Rs. 11112.91 lakh (Rs.10636.12 lakh + Rs.476.79 lakh)

Operation & Maintenance Expenses

17. Regulation 35(2)(a) of the 2019 Tariff Regulations provides for O&M expense norms for hydro generating stations, which have been operational for three or more years as on 1.4.2019, as under:

(Rs.in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
2,261.12	2,368.90	2,481.81	2,600.11	2,724.04

18. The Petitioner has claimed normative O&M expenses in terms of the said regulations, and hence, the same is allowed.



Security Expenses and Capital Spares

19. As regards Security expenses and Capital spares, the Petitioner has submitted the same shall be claimed at the time of truing up of tariff. Accordingly, the Security expenses and Capital spares, shall be considered, based on the actual expenses incurred, at the time of truing-up of tariff of the generating station.

Interest on Working Capital

20. Regulation 34(1)(c) of the 2019 Tariff Regulation provides as under:

“34. Interest on Working Capital:

(1) The working capital shall cover:

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.

21. Regulation 34(3) and 34(4) of the 2019 Tariff Regulation provide as under:

(3) Rate of interest on working capital shall be on normative basis and shall be considered as 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 as 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.”

Receivables for working capital

22. Receivables equivalent to 45 days of annual fixed cost are worked out and allowed as under:

<i>(Rs.in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
485.57	499.74	513.20	528.34	542.69



Maintenance Spares for working capital

23. Maintenance spares @ 15% of O&M expenses is worked out and allowed as under:

<i>(Rs.in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
339.17	355.34	372.27	390.02	408.61

O&M expenses for working capital

24. O&M expenses for one month are allowed as under:

<i>(Rs.in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
188.43	197.41	206.82	216.68	227.00

Rate of Interest on working capital

25. In terms of Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital shall be considered as 12.05% (i.e. One-year SBI MCLR of 8.55% as on 1.4.2019 plus 350 bps) for the period 2019-24. Further, the aforesaid rate of interest is subject to truing up, based on one-year SBI MCLR as on 1st April of the respective years of the period 2019-24. The tariff of the generating station is being determined in the year 2023-24 and one-year SBI MCLR as on 1.4.2020 (i.e. 7.75%), 1.4.2021 (i.e. 7%) and 1.4.2022 (i.e. 7%) is available. Hence, in order to safeguard against additional interest burden due to excess/ under recovery of tariff, we deem it prudent to consider the rate of interest on working capital for the year 2019-20 as 12.05%, for 2020-21 as 11.25% (i.e. one year SBI MCLR of 7.75% as on 1.4.2020 plus 350 bps) for 2021-22 as 10.50% (i.e. one year SBI MCLR of 7.00% as on 1.4.2021 plus 350 bps) and for the period 2022-24 as 10.50% (i.e. one year SBI MCLR of 7% as on 1.4.2022 plus 350 bps). Accordingly, interest on working capital is computed as under:

<i>(Rs.in lakh)</i>					
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Receivables	485.57	499.74	513.20	528.34	542.69



(45 days)					
Working Capital for Maintenance spares (15% of O&M Expenses)	339.17	355.34	372.27	390.02	408.61
Working Capital for O&M expenses	188.43	197.41	206.82	216.68	227.00
Total Working Capital	1013.17	1052.48	1092.29	1135.03	1178.30
Rate of interest on working capital (%)	12.050	11.250	10.500	10.500	10.500
Interest on Working Capital	122.09	118.40	114.69	119.18	123.72

Annual Fixed Charges for the period 2019-24

26. Accordingly, the annual fixed charges approved for the generating station for the period 2019-24 is summarized as under:

	<i>(Rs.in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	205.18	205.18	205.18	205.18	205.18
Interest on Loan	-	-	-	-	-
Return on Equity	1360.95	1360.95	1360.95	1360.95	1360.95
Interest on Working Capital	122.09	118.40	114.69	119.18	123.72
O&M Expenses	2261.12	2368.90	2481.81	2600.11	2724.04
Total	3949.34	4053.44	4162.63	4285.42	4413.89

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.

27. The annual fixed charges approved as above is subject to truing up, in terms of Regulation 13 of the 2019 Tariff Regulations.

Normative Annual Plant Availability Factor (NAPAF)

28. Regulation 50(A)(4) of the 2019 Tariff Regulations provides for the Normative Annual Plant Availability Factor (NAPAF) for hydro generating stations already in operation. Accordingly, in terms of the said regulation, NAPAF of 67% has been considered for this generating station.

Design Energy

29. The Commission in its order dated 13.1.2016 in Petition No. 42/GT/2015, had considered the annual Design Energy (DE) of 227.61 million units for this generating station. This DE has been considered for this generating station for the period 2019-24 as per month-wise details as under:



Months	Design Energy (MU)
April	10.08
May	37.21
June	36.00
July	37.20
August	37.20
September	36.00
October	33.23
November	10.03
December	10.42
January	10.42
February	9.40
March	10.42
Total	227.61

Application filing fee and publication expenses

30. The Petitioner has sought reimbursement of fees paid by it for filing the petition and for publication expenses and has submitted that the reimbursement of the same are in accordance in terms of the Regulation 70(1) of the 2019 Tariff Regulations. In view of the above, the Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the filing of this petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

31. Similarly, RLDC Fees & charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2015, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2019 Tariff Regulations.

Summary

32. The annual fixed charges claimed and allowed for the period 2019-24 for the generating station, is summarized below:



(Rs.in lakh)

Annual Fixed Charges	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed	3898.03	4004.65	4122.28	4245.53	4374.64
Allowed	3949.34	4053.44	4162.63	4285.42	4413.89

33. Petition No. 397/GT/2020 is disposed in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member

