

Decapitalization

20. The Petitioner has claimed de-capitalization (as per Form 'De-cap details') for assets/works such as Replacement of Generator Transformer Fire hydrant system, Replacement of CO₂ firefighting with modern technology, New higher capacity UAT and associated panels etc., which are summarized as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
8.00	129.00	398.00	89.00	69.00

21. As regards de-capitalization, Regulation 26(2) of the 2019 Tariff Regulations states as under:

“In case of de-capitalization of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalization takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized..”

22. It is observed that the Petitioner has claimed the projected decapitalization on 'Assumed Deletion' value of old assets and the same is dealt below.

Assumed Deletions

23. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff provided that the capitalization of the said asset is followed by the de-capitalization of the original value of the old asset. However, in certain cases, where the de-capitalization is proposed to be affected during the future years to the year of capitalization of the new asset, the de-capitalization of the old asset for the purpose of tariff, is shifted to the very same year in which the



capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as "Assumed Deletion".

24. On scrutiny of the assumed deletions claimed by the Petitioner and considering the vintage of the plant, the de-capitalized value furnished by the Petitioner appears to be on lower side. It is to be noted that the gross value of the assets de-capitalized under 'assumed deletions' as considered by the Petitioner based on WPI and the capitalized value of new asset, is not acceptable. Therefore, the methodology of arriving at the fair value of the de-capitalized asset, i.e. escalation rate of 5% per annum from the COD has been considered in order to arrive at the gross value of old asset in comparison to the cost of new asset. In the present petition, the year of COD of the generating station is 2004-05. We have considered the value of asset under consideration as on COD as 100 and escalated it @5% till the year during which additional capital expenditure is claimed against replacement of the same. The amount claimed for additional capital expenditure against the asset is multiplied by the derived ratio from above two values i.e. value in year of COD divided by value in capitalized year.

25. Further, the Petitioner has claimed assets/ works on replacement basis such as Treatment of Underwater parts, cladding, coating / tiling etc. Replacement of Generator Transformer Fire Hydrant System, Procurement of 410 KVA excitation Transformer, Replacement of CO2 firefighting with modern Technology, Replacement of Shaft Seal with SS material, New Higher capacity UAT and associated panels, Procurement of One 14 Ton Hydra Crane, Up-gradation of dewatering & Drainage System, etc., which are allowed on projection basis and the Petitioner has claimed these assets on replacement basis, but the



de-capitalized value of the old assets has not been furnished. Further, decapitalization for assets/works has not been considered for additional capital expenditure, which are not allowed. Accordingly, the de-capitalized value of the assets/ works has been calculated in terms of the above-mentioned methodology as in paragraph 24 above. Accordingly, the 'assumed deletions' claimed and allowed for the purpose of tariff are detailed as under:

Year of Claim	Asset/work	Amount Claimed	(Rs. in lakh) Assumed Deletion	
			Claimed	Allowed
2019-20	Replacement of Generator Transformer Fire Hydrant System	3.50	1.00	1.60
2019-20	Procurement of 410KVA excitation Transformer	25.00	7.00	11.45
2020-21	Replacement of CO2 firefighting with modern Technology	50.00	15.00	21.81
2020-21	New Higher capacity UAT and associated panels	50.00	15.00	21.81
2020-21	Procurement of One 14 Ton Hydra Crane	19.50	0.00	8.51
2020-21	Up-gradation of dewatering & Drainage System	25.00	0.00	10.91
2020-21	Replacement of Generator Circuit Breaker and Station Supply Transformer Circuit Breaker, related bay equipment's like CT, isolators, hardware's, conductors, Las, insulators etc.	50.00	15.00	21.81
2020-21	Replacement of Neutral CT and Lightning Arrestor of Generator Transformer	10.00	1.00	4.36
2020-21	Replacement of 100/25 T capacity EOT crane aux hoist rope & other accessories	20.00	0.00	8.73
2020-21	Procurement of New DG set with higher capacity	50.00	50.00	21.81
2020-21	New 24 Volt Battery Bank with Charger for Control System Supply	15.00	0.00	6.54
2021-22	Replacement of All static Relays with Numerical Relays and laying of OFC for Line Differential Protection	100.00	0.00	41.55
2021-22	Condition Monitoring of Transformers and Generators	100.00	0.00	41.55
2021-22	Pro-control System upgradation including governor & DVR	1000.00	295.00	415.52
2021-22	Up-gradation of SCADA/ HMI system with modern Technology including automation and AGC as per CERC guidelines and NLDC requirement	100.00	0.00	41.55
2022-23	Renovation of 100/25 T capacity EOT crane with modern Technology	50.00	0.00	19.79
2023-24	New HS lubricating Oil system & brake-jack	15.00	4.00	5.65



Year of Claim	Asset/work	Amount Claimed	Assumed Deletion	
			Claimed	Allowed
	system			
2023-24	Replacement/ Up gradation of 220 V battery Charger	20.00	6.00	7.54

26. Based on above, the decapitalizations on replacement basis for assets allowed for the 2019-24 tariff period are as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24	Total
13.06	126.31	540.18	19.79	13.19	712.52

Capital Cost allowed for the 2019-24 tariff period

27. As stated, the closing capital cost as on 31.3.2019 is Rs.9218.50 lakh, as allowed by the Commission vide order dated 25.3.2022 in Petition No. 372/GT/2019 during truing up exercise for the 2014-19 period. The same has been considered as cost as on 1.4.2019. Accordingly, the capital cost considered for the purpose of tariff for the 2019-24 period is as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital cost	9218.50	9233.94	9417.13	10296.96	10327.17
Add: Addition during the year/ period	28.50	309.50	1420.00	50.00	35.00
Less: Decapitalization considered under Assumed Deletions	13.06	126.31	540.18	19.79	13.19
Closing Capital cost	9233.94	9417.13	10296.96	10327.17	10348.98
Average capital cost	9226.22	9325.54	9857.04	10312.06	10338.07

Debt-Equity Ratio

28. Regulation 18 of the 2019 Tariff Regulations provides as follows:

“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.”

29. The gross normative loan and equity amounting to Rs.6452.95 lakh and Rs.2765.54 lakh, respectively, on 31.3.2019 as considered in order dated 25.3.2022 in Petition No. 372/GT/2019, have been considered as the opening normative loan and equity as on 1.4.2019. Further, in terms of above regulations, the normative debt equity ratio of 70:30 has been considered for admitted additional capital expenditure.

The opening and closing debt and equity for the 2019-24 tariff period is as under:

Asset	As on 1.4.2019		Net Additional Capitalization during 2019-24		As on 31.3.2024	
	Amount	%	Amount	%	Amount	%
Debt	6452.95	70.00%	791.34	70.00%	7244.29	70.00%
Equity	2765.54	30.00%	339.14	30.00%	3104.69	30.00%
Total	9218.50	100.00%	1130.48	100.00%	10348.98	100.00

Return on Equity

30. 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.

31. 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:*

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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 trueing up, shall be recovered or refunded to beneficiaries or the long-term transmission customers, as the case may be, on year to year basis."*

32. For grossing up of ROE during the 2019-24 tariff period, the Petitioner has applied the MAT rate of 17.472% for the year 2019-20. The same has been allowed, subject to trueing-up. Accordingly, ROE has been worked out and allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Notional Equity(A)	2765.54	2770.18	2819.13	3083.08	3092.14
Addition due to additional capitalization(B)	4.63	48.96	263.95	9.06	6.54
Closing Notional Equity (C) = [(A + B)]	2770.18	2819.13	3083.08	3092.14	3098.69
Average Equity(D) = [(A+C)/2]	2767.86	2794.66	2951.11	3087.61	3095.42
Return on Equity (Base Rate) (E)	16.500%	17.47%	17.47%	17.47%	17.47%
Tax rate for the year(F)	17.472%	16.50%	16.50%	16.50%	16.50%
Rate of Return on Equity (G)	19.993%	19.99%	19.99%	19.99%	19.99%
Return on Equity (H) = [(D x G)]	553.38	558.74	590.01	617.31	618.87

33. As regards ROE for the 2019-24 tariff period, in respect of additional capitalization after cut-off date and beyond the original scope, excluding the additional capitalization



due to change in law, the same has been computed at the weighted average rate of interest on loan portfolio of the generating station. Accordingly, ROE has been worked out and allowed as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Notional equity (A)	0.00	0.00	6.00	6.00	6.00
Addition due to Additional Capitalization (after cut of date) (B)	0.00	6.00	0.00	0.00	0.00
Repayment of Equity (balance of depreciation after repayment of loan) (C)	0.00	0.00	0.00	0.00	0.00
Closing Equity (D) = (A +B–C)	0.00	6.00	6.00	6.00	6.00
Average Equity (E) = [(A+D)/2]	0.00	3.00	6.00	6.00	6.00
Weighted average rate of interest on actual loan portfolio (F)	7.94%	7.94%	7.94%	7.94%	7.94%
Return on Equity (G) = (E x F)	0.00	0.24	0.48	0.48	0.48

Interest on loan

34. Regulation 32 of the 2019 Tariff Regulations provide 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.”

35. The salient features of computation of interest on loan are summarized as follows:

a) The gross normative loan amounting to Rs.6452.95 lakh has been considered as on 1.4.2019.

b) Cumulative repayment amounting to Rs.5994.97 lakh as on 31.3.2019 as considered by order dated 25.3.2022 in Petition No.372/GT/2019 has been considered as on 1.4.2019.

c) The repayment for the year of the 2019-24 tariff period has been considered equal to the depreciation allowed for that year.

d) Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest as claimed by the Petitioner.

36. Accordingly, Interest on loan has been worked out as follows:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross opening loan (A)	6452.95	6463.76	6592.00	7207.88	7229.02
Cumulative repayment of loan up to previous year (B)	5994.97	6078.72	6109.93	5971.89	6110.65
Net Loan Opening (C)=[(A)-(B)]	457.98	385.05	482.07	1235.99	1118.38
Repayment during the year (D)	92.07	96.09	119.38	149.26	150.85
Cumulative repayment adjustment on a/c of de-capitalization (E)	8.32	64.88	257.43	10.50	7.19
Net Repayment (F)=[(D)-(E)]	83.75	31.21	(-)138.04	138.76	143.66
Addition due to additional capital expenditure (G)	10.81	128.23	615.88	21.15	15.27



	2019-20	2020-21	2021-22	2022-23	2023-24
Net Loan Closing (H)= (C+G-F)	385.05	482.07	1235.99	1118.38	989.98
Average Loan(I)=[(C+H)/2]	421.52	433.56	859.03	1177.18	1054.18
Weighted Average Rate of Interest of loan (J)	7.94%	7.94%	7.94%	7.94%	7.94%
Interest on Loan (K)=(I*J)	33.47	34.42	68.21	93.47	83.70

Depreciation

37. Regulation 33 of the 2019 Tariff Regulations provides that:

“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.”

38. Cumulative depreciation amounting to Rs.5972.45 lakh as on 31.3.2019 as allowed during truing up exercise for the 2014-19 tariff period, has been considered for the purpose of tariff. In terms of the 2014 Tariff Regulations, the useful life of the hydro generating station is 35 years. The expired life of the generating station till 31.3.2019 is 14.68 years and the balance useful life of the generating station, as on 31.3.2019, is 20.32 years. However, in contrast to the 2014 Tariff Regulations, the 2019 Tariff Regulations stipulates the useful life of the hydro generating station as 40 years. Accordingly, the balance useful life of the generating station as on 1.4.2019 has been considered at 25.32 years, in line with the 2019 Tariff Regulations. It is to be noted that the COD of the generating station is 26.7.2004. Since the generating station has completed 12 years of commercial operation during the year 2016-17, as such, to



calculate depreciation in the 2019-24 tariff period, the depreciable value has been spread over the balance useful life of the generating station. Accordingly, depreciation has been worked out and allowed as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross block (A)	9218.50	9233.94	9417.13	10296.96	10327.17
Net Additional capital expenditure (B)	15.44	183.19	879.82	30.21	21.81
Closing gross block (C)=(A+B)	9233.94	9417.13	10296.96	10327.17	10348.98
Average gross block (D)=[(A+C)/2]	9226.22	9325.54	9857.04	10312.06	10338.07
Depreciable Value (E)=(D*90%)	8303.60	8392.98	8871.34	9280.86	9304.27
Remaining Depreciable Value at the beginning of the year (F)=(E - Cumulative Depreciation at 'L' at the end of previous year)	2331.15	2336.79	2783.93	3331.49	3216.14
Rate of Depreciation (G) = [(I)/(D)*100]	0.998%	1.030%	1.211%	1.447%	1.459%
Balance useful life (H)	25.32	24.32	23.32	22.32	21.32
Depreciation (I)=(F/H)	92.07	96.09	119.38	149.26	150.85
Cumulative Depreciation at the end of the year (J)=(I + Cumulative Depreciation at 'L' at the end of previous year)	6064.52	6152.28	6206.79	6098.63	6238.98
Less: Depreciation adjustment on account of de-capitalization (K)	8.32	64.88	257.43	10.50	7.19
Cumulative Depreciation at the end of the year (L)	6056.20	6087.41	5949.37	6088.13	6231.79

O&M Expenses

39. Regulation 35(2)(a) of the 2019 Tariff Regulations provides for O&M expenses for this generating station as under:

“34(3) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2019:

(Rs. in lakh)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-
Kopili-II	1,130.56	1,184.45	1,240.90	1,300.05	1,362.02

Note: The impact in respect of revision of minimum wage and GST, if any, will be considered at the time of determination of tariff.”

40. The Petitioner has submitted that the O&M expenses for the 2019-24 tariff period has



been claimed in terms of Regulation 35(2)(a) of the 2019 Tariff Regulations. Accordingly, the Petitioner's claim for normative O&M expenses, in terms of the above regulation is allowed.

Security Expenses

41. The Petitioner has submitted that Security expenses in terms of Regulation 35(2)(c) of 2019 Tariff Regulations shall be claimed at the time of truing up of tariff. Hence, the same has not been considered in this order.

Interest on working capital

42. Sub-section (c) of clause (1) of Regulation 34 of the 2019 Tariff Regulations provides as follows:

*“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 expense including security expenses; and
(iii) Operation and maintenance expenses including security expenses for one month”*

43. As regards the rate of interest on working capital, Regulation 34 (3) of the 2019 Tariff Regulations provides as follows:

“34(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 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.”

Working Capital for Maintenance Spares

44. Maintenance spares have been worked out on the basis of 15% of O&M expenses



as follows:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
169.58	177.67	186.14	195.01	204.30

Working Capital for Receivables

45. Receivable component of the working capital has been worked out on the basis of 45 days of fixed cost as follows:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
229.79	238.17	255.98	273.84	280.17

Working capital O&M expenses

46. O&M expenses for one month, including security expenses, allowed for the purpose of working capital is as follows:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
94.21	98.70	103.41	108.34	113.50

47. 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. 1-year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for 2019-24 tariff period is being determined during the year 2021-22, 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. 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).

48. Accordingly, Interest on working capital is allowed as follows:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for O & M expenses (1 month)	94.21	98.70	103.41	108.34	113.50
Working capital for Maintenance Spares	169.58	177.67	186.14	195.01	204.30
Working capital for Receivables	229.79	238.17	255.98	273.84	280.17
Total Working Capital	493.59	514.54	545.52	577.19	597.97
Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
Total Interest on Working capital	59.48	57.89	57.28	60.60	62.79

Annual Fixed Charges

49. Based on the above, the annual fixed charges approved for the 2019-24 tariff period in respect of the generating station are summarized as follows:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	92.07	96.09	119.38	149.26	150.85
Interest on Loan	33.47	34.42	68.21	93.47	83.70
Return on Equity	553.38	558.97	590.49	617.78	619.34
O&M Expenses	59.48	57.89	57.28	60.60	62.79
Interest on Working Capital	1130.56	1184.45	1240.90	1300.05	1362.02
Total	1868.95	1931.82	2076.26	2221.17	2278.71

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



Normative Annual Plant Availability Factor (NAPAF)

51. Clause (4) of Regulation 50(A) of the 2019 Tariff Regulations provides for the NAPAF for hydro generating stations already in operation. Accordingly, NAPAF of 69% has been considered for this generating station.

Design Energy

52. The Commission in its order dated 25.3.2022 in Petition No.372/GT/2019 had approved the annual Design Energy (DE) of 86.30 Million units (MUs) for the period 2014-19 in respect of this generating station. As such, the approved DE of 86.30 Mus has been considered for this generating station for 2019-24 tariff period as per month-wise details as under:

Month	Design Energy (MUs)
April	0.72
May	14.88
June	17.28
July	18.60
August	18.60
September	15.95
October	0.27
November	0.00
December	0.00
January	0.00
February	0.00
March	0.00
Total	86.30

Application Fee and Publication Expenses

53. The Petitioner has sought the reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the 2019-24 tariff period. The Petitioner has, submitted that reimbursement towards filing fees and publication expenses 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 present petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Summary

54. The summary of the annual fixed charges claimed in the present petition and the annual fixed charges allowed for the 2019-24 tariff period, are summarized below:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual fixed charges claimed	1873.71	1957.97	2122.00	2265.72	2342.18
Annual fixed charges allowed in this order	1868.95	1931.82	2076.26	2221.17	2278.71

55. Petition No.235/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(P. K. Pujari)
Chairperson

