CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 632/GT/2020

Coram:
Shri I.S. Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member

Date of Order: 14th October 2023

In the matter of:

Petition for truing-up of tariff in respect of Teesta Low Dam Hydroelectric Power Station-III (132 MW) for the period 2014-19.

AND

In the matter of:

NHPC Limited,
NHPC Office Complex, Sector-33,
Faridabad (Haryana)- 121003 **…Petitioner**

Vs

West Bengal State Electricity Distribution Company Limited,
Vidyut Bhawan, 8th Floor, Block DJ,
Sector-II, Salt Lake, Kolkata,
West Bengal - 700091 **…Respondent**

Parties Present:

Shri Rajiv Shankar Dwivedi, Advocate, NHPC
Shri Mohd. Faruque, NHPC
Shri Piyush Kumar, NHPC

ORDER

This Petition has been filed by the Petitioner, NHPC Limited for truing-up of tariff of Teesta Low Dam Hydroelectric Power Station-III (132 MW) (in short "the generating station") for the period from 2014-19, in terms of Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short "the 2014 Tariff Regulations"). The generating station, with an installed capacity of 132 MW, and comprising of four units of 33 MW capacity, is located in

West Bengal and supplies power only to the Respondent. The COD of the units of the generating station are as under:

Units	COD
I/ Generating Station	19.5.2013
II	1.4.2013
III	1.4.2013
IV	1.5.2013

2. The annual fixed charges of the generating station for the period 2014-19 was approved vide Commission's order dated 9.1.2020 in Petition No.320/GT/2018, based on the capital cost of Rs. 182918.57 lakh as on 1.4.2014, as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	182918.57	186230.76	188465.55	191137.86	191605.87
Admitted additional capitalization	3312.19	2234.79	2672.31	468.01	2663.89
Closing Capital Cost	**186230.76**	**188465.55**	**191137.86**	**191605.87**	**194269.75**

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	11559.54	11733.24	11886.90	11985.24	12083.31
Interest on Loan	11603.62	10579.11	9302.87	7197.56	6390.60
Depreciation	9332.98	9482.81	9594.00	9673.10	9754.19
Interest on Working Capital	969.79	968.38	960.80	933.18	936.59
O&M Expenses	4014.90	4281.49	4565.78	4868.95	5192.55
Total	**37480.84**	**37045.03**	**36310.35**	**34658.02**	**34356.93**

<u>O&M expenses for the period 2013-14</u>

3. Before we proceed for truing-up the tariff of the generating station for the period 2014-19, we take note of the error in the computation of the O&M expenses in respect of the generating station for the year 2013-14. In this regard, the Petitioner has submitted that the Commission vide its order dated 31.12.2019 in Petition No. 280/ GT/2018 (truing-up of tariff of the generating station for the period 2013-14) had considered the capital cost of Rs 1829.19 crore as on 31.3.2014, instead of the capital cost as on cut-off date (i.e. 31.3.2016), while calculating the O&M expenses for the

period 2013-14, as the original project cost as on 31.3.2016, was not available. The Petitioner has also stated that the calculated O&M expenses were considered for computing the annual fixed charges for the period 2013-14 in order dated 31.12.2019. It has further submitted that the Commission in its order dated 9.1.2020 in Petition No. 320/GT/2018, had calculated the O&M expenses for the first year i.e. 2013-14 by allowing the capital cost of Rs 1884.66 crore, as on cut-off date i.e. 31.3.2016. The Petitioner has however submitted that the Commission has not revised the O&M expenses, interest on working capital and annual fixed charges for the period 2013-14, as allowed in the order dated 31.12.2019 in Petition No. 280/GT/2018 in line with O&M expenses allowed in order dated 9.1.2020 in Petition No. 320/GT/2018. The Petitioner, in the present petition, has stated that it has computed the revised annual fixed charges for the period 2013-14 by calculating the O&M expenses considering the capital cost as on cut-off date i.e. Rs. 188465.54 lakh. Accordingly, the details of annual fixed charges allowed vide order dated 31.12.2019 and the annual fixed charges computed and claimed by the Petitioner in the present petition, is summarized below:

(Rs. in lakh)

	1.4.2013 to 30.4.2013	**1.5.2013 to 18.5.2013**	**19.5.2013 to 31.3.2014**
AFC allowed vide order dated 31.12.2019	**1494.65**	**1346.89**	**32360.11**
	AFC claimed in present petition		
Depreciation	371.47	335.28	7948.19
Interest on Loan	481.87	432.84	10602.40
Return on Equity	458.50	413.82	9843.88
Interest on Working Capital	37.86	34.11	815.26
O & M Expenses	154.72	139.25	3269.80
Total	**1504.43**	**1355.30**	**32479.52**

4. The Petitioner has further submitted that the difference between the annual fixed charges claimed in the present petition and those allowed in order dated 31.12.2019

may be allowed to be recovered / refunded from / to the beneficiaries as per provisions of Regulation 6 of the 2009 Tariff Regulations.

5. We have considered the matter. It is noticed that the Commission in its order dated 31.12.2019 in Petition No. 280/GT/2018, while allowing O&M expenses had observed the following:

> *'However, considering the fact that the original project cost (cut-off date cost) is not available in this petition, the capital cost as on COD of the units and the closing capital cost as on 31.3.2014, excluding proportionate R&R cost, have been considered for the purpose of calculating the allowable O&M expenses*.

6. It is noticed that the Commission while approving the O&M expenses for the period 2014-19, had considered the capital cost allowed as on the cut-off date, but the O&M expenses for the period (2013-14) were however, not revised. Accordingly, the inadvertent error on this count, is rectified and the same is revised in this order as under:

(Rs. in lakh)

Sl. No.		**1.4.2013 to 30.4.2013**	**1.5.2013 to 18.5.2013**	**19.5.2013 to 31.3.2014**
		2 units (prorate)	**3 units (prorate)**	**4 units/ complete generating station**
1	Total capital expenditure upto the cut-off date	94232.77	141349.15	188465.54
2	Less R&R Expenses	110.02	165.0225	220.03
3	Capital cost considered for O&M expenses (excluding R&R expenses)	94122.75	141184.13	188245.51
4	Annualized O&M expenses for 2013-14 @ 2% of Capital Cost for O&M expenses	1882.46	2823.68	3764.91
5	No. of Days	30	18	317
	Average O&M expenses for 2013-14 at 2013-14 price level	154.72	139.25	3269.80

Interest on working capital

7. Based on the above, the interest on working capital for the period 2013-14 is worked out and allowed as under:

(Rs. in lakh)

	1.4.2013 to 30.4.2013	1.5.2013 to 18.5.2013	19.5.2013 to 31.3.2014
Working capital for Maintenance Spares (15% of operation and maintenance expense)	23.21	20.89	490.47
Working capital for O&M Expenses (one month of O&M Expenses)	12.89	11.60	272.48
Working capital for Receivables (two months of fixed cost)	250.74	225.88	5413.26
Total working capital	**286.84**	**258.37**	**6176.21**
Rate of Working Capital (%)	13.20%	13.20%	13.20%
Interest on Working Capital	**37.86**	**34.11**	**815.26**

Annual Fixed Charges for the period 2013-14

8. Accordingly, the annual fixed charges approved for the generating station for the period 2013-14 is summarized as under:

(Rs. in lakh)

	1.4.2013 to 30.4.2013	1.5.2013 to 18.5.2013	19.5.2013 to 31.3.2014
Return on Equity	458.50	413.82	9843.88
Interest on Loan	481.88	432.84	10602.40
Depreciation	371.47	335.28	7948.19
Interest on Working Capital	37.86	34.11	815.26
O & M Expenses	154.72	139.25	3269.80
Total AFC allowed	**1504.44**	**1355.30**	**32479.53**
AFC allowed vide order dated 31.12.2019	**1494.65**	**1346.89**	**32360.11**

9. The difference between the annual fixed charges allowed as above, and those allowed in the order dated 31.12.2019 may be allowed to be recovered / refunded from / to the beneficiaries as per provisions of Regulation 6 of the 2009 Tariff Regulations.

Truing up of tariff for 2014-19

10. Regulation 8(1) of the 2014 Tariff Regulations provides as under:

"8. Truing up

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up:

Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17."

11. Accordingly, in terms of the above regulations, the Petitioner has claimed the capital cost and annual fixed charges vide affidavit dated 22.9.2020 for the period 2014-19, as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	182918.57	186230.75	188465.53	191137.84	191605.86
Add: Additional during the year	3613.32	1764.77	1876.44	357.41	1412.09
Less: De-capitalisation during the year	3136.01	339.61	5.61	25.82	3.06
Add: Discharges during the year	2834.87	809.63	801.48	136.42	133.67
Closing capital cost	**186230.75**	**188465.53**	**191137.84**	**191605.86**	**193148.56**

**Capital cost as admitted in order dated 9.1.2020 in Petition No. 320/GT/2018*

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	11677.46	11881.48	11942.22	12121.60	12233.18
Interest on Loan	11603.58	10598.98	9294.55	7197.19	6346.08
Depreciation	9332.98	9482.81	9594.00	9673.10	10112.96
Interest on Working Capital	972.50	972.25	961.89	936.31	947.27
O&M Expenses	4014.90	4281.49	4565.78	4868.95	5192.25
Total	**37601.42**	**37217.01**	**36358.44**	**34797.15**	**34831.74**

12. The Commission vide ROP of the hearing dated 20.9.2022 had directed the Petitioner to file certain additional information. In compliance, the Petitioner has filed the additional information vide affidavit dated 14.10.2022, with a copy to the Respondent. Thereafter, the Petition was heard on 6.12.2022 and the matter was reserved for orders. The Respondent has neither filed its reply nor was represented during the hearing of this petition despite notice. Based on the submissions of the Petitioner and documents available on record and after prudence check, we proceed for truing up the tariff of the generating station for the period 2014-19, in this Petition, as stated in the subsequent paragraphs.

Capital Cost

13. Regulation 9(3) of the 2014 Tariff Regulations provides as under:

"9. Capital Cost:
(3) The Capital cost of an existing project shall include the following:
(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."

14. As stated, the Commission vide its order dated 9.1.2020 in Petition No. 320/GT/2018 had approved the opening capital cost of Rs. 182918.57 lakh, as on 1.4.2014. Accordingly, the Petitioner, in this petition, has claimed the opening capital cost of Rs. 182918.57 lakh, as on 1.4.2014, and the same has been considered as the opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the period 2014-19.

Additional Capital Expenditure

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

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

(i) Undischarged liabilities recognized to be payable at a future date;
(ii) Works deferred for execution;
(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
(v) Change in law or compliance of any existing law:

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

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

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
(ii) Change in law or compliance of any existing law;
(iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and
(iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such

withholding of payment and release of such payments etc.

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

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

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

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

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

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

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

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

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

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

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

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal / lignite-based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and

Compensation Allowance, same expenditure cannot be claimed under this regulation.

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

16. The Petitioner has claimed the following additional capital expenditure during the period 2014-19:

(Rs. in lakh)

S. No.		2014-15	2015-16	2016-17	2017-18	2018-19
A.	Addition during the year / period	3613.32	1764.77	1876.44	357.41	1412.09
B.	Less: De-capitalisation during the year / period (including assumed deletion)	3136.01	339.61	5.61	25.82	3.06
C.	Add: Discharges during the year / period	2834.87	809.63	801.48	136.42	133.67
D.	**Net Addition (A-B+C)**	**3312.18**	**2234.79**	**2672.31**	**468.01**	**1542.70**

17. The Commission in its order dated 9.1.2020 in Petition 320/GT/2018, had determined the capital cost and annual fixed charges for the period 2014-19, on the basis of the actual capital expenditure, based on the audited accounts for the period 2014-18 and on projection basis, for the year 2018-19. The Petitioner has requested to consider the additional capital expenditure for the period 2014-18 as allowed in order dated 9.1.2020.

18. The Commission vide ROP of the hearing dated 20.9.2022, had directed the Petitioner to furnish documentary evidence in support of the claim for certain additional capital expenditure allowed vide order dated 9.1.2020. In compliance thereto, the Petitioner vide affidavit dated 29.6.2021 has furnished the relevant details. On perusal of the same, it is noticed that most of the expenditure allowed was for safety and security related assets/works of the generating station. It is noticed that the Petitioner has also provided relevant documents and reasons for the same which are in order. Accordingly, we consider the additional capital expenditure claimed by the Petitioner

for the period 2014-18, which was allowed in Commission's order dated 9.1.2020 based on actuals. However, we deal with the additional capital expenditure claimed for the period 2018-19 in the following paragraphs.

19. The additional capital expenditure claimed on actual basis, for the period 2018-19 is as under:

(Rs. in lakh)

	Amount claimed
Additional Capitalization Expenditure allowed by Commission (a)	1002.82
Additional Capitalization Expenditure based on actual site requirement (b)	409.27
Discharge of liabilities (c)	133.67
Total (d)=(a)+(b)+(c)	**1545.76**

20. The Petitioner has claimed total additional capital expenditure of Rs.1545.76 lakh, on cash/actual basis, in 2018-19, which includes an expenditure of Rs.1002.82 lakh, in respect of assets/works which were allowed in order dated 9.1.2020; The additional capital expenditure based on actual site requirement for Rs. 409.27 lakh and expenditure of Rs. 133.67 lakh towards discharge of liabilities.

21. The Petitioner has submitted that there is variation in the additional capital expenditure allowed vide order dated 9.1.2020 and the actual additional capital expenditure incurred by the Petitioner in 2018-19. The Petitioner has submitted that some of the additional capital expenditure (including corresponding deletions) allowed has not been incurred/not to be incurred, and is therefore being surrendered in this Petition. The Petitioner has further submitted that there are certain additional capital expenditures which were not projected earlier, but were incurred by the Petitioner due to site specific requirements, which were essential for successful and efficient plant operation. It has further stated that such additional capitalization needs to be included as part of the capital base for the purpose of tariff.

Assets /Works allowed by the Commission in order dated 9.1.2020

22. The Petitioner has claimed additional capital expenditure for Rs. 1002.82 lakh, in 2018-19, towards works/assets which were allowed in order dated 9.1.2020, such as balance work of construction of road at left bank of barrage to belly bridge, Railing in the draft tube gate area, Balance work of Lot- 3 HM work, Raising of existing protection wall on right bank of reservoir from EL 209.50M to 210.50M D/s of new Teesta bridge, CC cladding over wire crates protection at right bank of river from RD 250 to 550, capitalisation of Runner Hub including transportation and insurance, supply, erection, testing and commissioning of 33/11 KV,2x2 MVA substation including erection of 11KV line and purchase of CCTV camera and including initial spares of Rs. 768.15 lakh. Considering the fact that the additional capital expenditure of Rs. 1002.82 lakh, includes works/assets under original scope/RCE of the project and safety related expenses which have been claimed after the cut-off date, and allowed in order dated 9.1.2020, the same is approved in this order.

23. The Petitioner has also claimed additional capital expenditure for Rs. 409.27 lakh, towards items not projected earlier, but incurred due to site specific requirements in 2018-19, which is examined below:

(Rs. in lakh)

Sl. No.	Details of the claim	Regulation	Amount claimed	Justification of the Petitioner	Remarks on admissibility	Amount allowed
B	**Additional Capitalization expenditure based on actual site requirement**					
1.	Capitalisation of impact of Wage Revision pertaining to Construction Period	14(2)(i)	388.49	Arrear of 4% increment to below Board Level Executive w.e.f. 1.1.1997 was paid in pursuance of the order of MoP no 11/6/2006-DO(NHPC) dated 4.4.2006. expenses on pay anomaly	The Commission vide its order dated 28.1.2023 in Petition No. 343/ MP/2019 had considered the impact of pay revision of its employees for the period from 1.1.2007 to	0.00

				upto COD i.e, 18.5.2013 is being capitalised.	31.3.2019. In view of this, the additional capital expenditure claimed is **not allowed**.	
2.	Disputed Entry Tax Paid on Capital goods capitalised during previous period	14(2)(i)	14.11	Within original scope of work under Revised Cost Estimate.	The claims of the Petitioner is for balance payments of the works within the original scope of work. Accordingly, the additional capital expenditure claimed *(@sl. no. 2 and 3)* are **allowed**.	14.11
3.	Balance Payment for Installation of Digital Governor Spares	14(2)	3.60	Initial Spares purchased within ceiling limit as specified in CERC Tariff Regulation'2009. The item is covered under Revised cost estimate. Major amount was claimed in FY 2016-17 & balance payment for the installation of item is claimed in 2018-19.		3.60
4	Cyberoom CR50ING UTM Appliance - Networking System	14(3)(viii)	1.47	Essentially required for safety and security purpose.Earlier there was no firewall installed at TLD III Power Station. Hence in order to protect the Networking system and to avoid any cyber-attacks, it was necessary to install Cyberroam Firewall.	In terms of Regulation 14(3)(iii) of the 2014 Tariff Regulations, the expenditure towards safety and security is as advised or directed by Appropriate Government agencies of statutory authorities responsible for national security/ internal security, is permissible. However, the Petitioner has not furnished any documents in support of the claim. It is further noticed that the claim of the Petitioner is in the nature of minor assets and hence,	0.00

					the same is **not allowed**, in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations.	
5	Cross Trainer - Make: Viva Model: Kh-265	14(3)(viii)	0.31	For maintaining health and physical fitness of employees working in Power Station, treadmill and cross trainer were purchased & installed.	Since the claims of the Petitioner *(@ sl. no. 5 and 6)* are the nature of minor assets, the same is **not allowed**, in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations.	0.00
6.	Treadmill, Make: Viva Model: X-5		1.28			0.00
	Sub Total		**409.27**			**17.71**

24. Based on the above, the total additional capital expenditure of Rs. 1020.53 lakh (Rs. 1002.82 + Rs. 17.71) is allowed in 2018-19.

Discharge of liabilities

25. The Petitioner has claimed the following discharge of liabilities during the period 2014 –19:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2834.87	809.63	801.48	136.48	133.67

26. The undischarged liabilities for the period 2014-19, corresponding to the assets/works allowed, has been considered with their respective discharges made by the Petitioner on prudence check. Accordingly, the summary of discharge of liabilities as allowed is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening liabilities corresponding to allowed capital cost	14680.31	11930.28	11894.47	11131.10	11143.03
Add: Liability additions corresponding to allowed capital cost (Form 9A)	84.84	773.82	38.11	148.35	387.37
Less: Discharges of liabilities corresponding to allowed capital cost	2834.87	809.63	801.48	136.42	133.67

	2014-15	2015-16	2016-17	2017-18	2018-19
Less: Reversal of liabilities corresponding to allowed capital cost	0.00	0.00	0.00	0.00	16.63
Closing liabilities corresponding to allowed capital cost	11930.28	11894.47	11131.10	11143.03	11380.10*

**The Closing balance of undischarged liabilities as on 31.3.2019 is Rs.11380.10 lakhs*

27. In view of above, total additional capitalization allowed during the period 2014-19 is as under:

(Rs. in lakh)

S. No.		2014-15	2015-16	2016-17	2017-18	2018-19
A.	Addition during the year / period	3613.32	1764.77	1876.44	357.41	1020.53
B.	Add: Discharges during the year / period	2834.87	809.63	801.48	136.42	133.67
C.	**Net Addition (A+B)**	**6448.19**	**2574.4**	**2677.92**	**493.83**	**1154.20**

De-capitalization

28. As regards de-capitalization, Regulation 14(4) of the 2014 Tariff Regulations, provides as under:

> *"In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the 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-capitalisation takes place, duly taking into consideration the year in which it was capitalised."*

29. The Petitioner has claimed de-capitalization for old assets being unusable/unserviceable taken to obsolete, etc., for the period 2014-18, the same is allowed by the order dated 9.1.2020 and therefore is considered in this order. For the year 2018-19, the de-capitalization claimed by the Petitioner for Rs. 3.06 lakh, for assets which are not in use is allowed in terms of the above Regulation. Accordingly, the de-capitalisation considered for the purpose of tariff is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3136.01	339.61	5.61	25.82	3.06

30. Based on the above, the net additional capital expenditure allowed for the period 2014-19, is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure allowed (a)	6448.19	2574.4	2677.92	493.83	1154.20
Decapitalization allowed (b)	3136.01	339.61	5.61	25.82	3.06
Net Additional Capital expenditure allowed c = (a)-(b)	**3312.18**	**2234.79**	**2672.31**	**468.01**	**1151.14**

Capital cost for the period 2014-19

31. Accordingly, the capital cost approved for the period 2014-19 is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost (a)	182918.57	186230.75	188465.54	191137.85	191605.86
Net additional capital expenditure allowed during the year/ period (b)	3312.18	2234.79	2672.31	468.01	1151.14
Closing Capital Cost (a)+(b)	**186230.75**	**188465.54**	**191137.85**	**191605.86**	**192757.00**

Debt-Equity Ratio

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

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

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

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

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

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

(2) The generating company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the 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 1.4.2014,

debt;equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

33. Gross normative loan and equity amounting to Rs. 128043.00 lakh and Rs. 54875.57 lakh, respectively, as on 31.3.2014, as considered in order dated 9.1.2020, has been considered as the normative loan and equity as on 1.4.2014. The debt: equity ratio considered is 70:30, in terms of Regulation 19 of the 2014 Tariff Regulations, for the purpose of additional capitalization. De-capitalization of assets has been deducted from the corresponding loan as well as equity, taking into consideration the debt-equity ratio, applied in the year in which it was capitalized, as per Regulation 19 (4) of 2014 Tariff Regulations. The opening and closing debt and equity is as under:

(Rs in lakh)

	As on 1.4.2014		**Additional Capitalization**		**De-capitalization**		**As on 31.3.2019**	
	Amount	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**
Debt	128043.00	70.00%	9343.98	70.00%	2457.08	70.00%	134929.90	70.00%
Equity	54875.57	30.00%	4004.56	30.00%	1053.03	30.00%	57827.10	30.00%
Total	**182918.57**	**100.00%**	**13348.54**	**100.00%**	**3510.11**	**100.00%**	**192757.00**	**100.00%**

Return on Equity

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

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

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

Provided that:

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

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

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

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

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

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

35. Regulation 25 of the 2014 Tariff Regulations provides as under:

"Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate"

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

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

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

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

beneficiaries or the long-term transmission customers/DICs as the case may be on year to year basis."

36. Accordingly, the base rate of Return on Equity (ROE) has been grossed up, based on the MAT rate of the Petitioner, for the period 2014-19. Hence, in terms of the above regulations, ROE has been computed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity (A)	54875.57	55869.22	56539.66	57341.35	57481.76
Addition of Equity due to additional capital expenditure (B)	993.65	670.44	801.69	140.40	345.34
Normative Equity- Closing (C) =(A) + (B)	55869.22	56539.66	57341.35	57481.76	57827.10
Average Equity (D)=(A+C)/2	55372.40	56204.44	56940.51	57411.56	57654.43
Base Rate (%) (E)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate (%) (F)	20.961%	21.342%	21.342%	21.342%	21.549%
Effective ROE Rate (%) (G)	20.876%	20.977%	20.977%	20.977%	21.032%
Return on Equity (H)= (G)*(D)	**11559.54**	**11790.01**	**11944.41**	**12043.22**	**12125.88**

Interest on Loan

37. Regulation 26 of the 2014 Tariff Regulations provides as under:

"26. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of Decapitalization 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 up to the date of de-capitalization of such asset

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

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered

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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest

and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute: Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

38. Interest on loan has been computed as under:

i) The gross normative loan amounting to Rs. 128043.00 lakh as on 1.4.2014, as considered in order dated 9.1.2020 in Petition No. 320/GT/2018, has been considered as on 1.4.2014.

ii) Cumulative repayment amounting to Rs. 8654.94 lakh as on 1.4.2014, as considered in order dated 9.1.2020, has been considered as on 1.4.2014.

iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to Rs. 119388.06 lakh.

iv) Addition to normative loan on account of additional capital expenditure approved above have been considered.

v) The Petitioner has claimed interest on loan considering weighted average rate of interest (WAROI) of 10.013% in 2014-15, 9.776% in 2015-16, 9.240% in 2016-17, 7.818% in 2017-18 and 7.658% in 2018-19. The same has been considered for tariff.

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

39. Accordingly, interest on loan has been worked out as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross opening loan (A)	128043.00	130361.52	131925.88	133796.50	134124.11
Cumulative repayment of loan upto previous year (B)	8654.94	17763.49	27205.54	36798.59	46466.08
Net Loan Opening C= (A-B)	119388.06	112598.03	104720.33	96997.90	87658.03
Addition due to additional capital expenditure (D)	2318.52	1564.35	1870.62	327.61	805.80
Repayment of loan during the year (E)	9332.98	9482.81	9594.00	9673.10	9715.95
Less: Repayment adjustment on account of de-capitalization (F)	224.43	40.76	0.95	5.62	0.82

	2014-15	2015-16	2016-17	2017-18	2018-19
Net Repayment of loan during the year (G=E-F)	9108.55	9442.05	9593.05	9667.48	9715.13
Net Loan Closing (H= C+D-G)	112598.03	104720.33	96997.90	87658.03	78748.69
Average Loan (I= (C+H)/2)	115993.05	108659.18	100859.12	92327.97	83203.36
Weighted Average Rate of Interest of loan (J)	10.013%	9.776%	9.240%	7.818%	7.658%
Interest on Loan (K= I*J)	**11614.82**	**10622.92**	**9319.10**	**7218.21**	**6371.63**

Depreciation

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

> *"27. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.*
>
> *Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*
>
> *(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*
>
> *(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*
>
> *Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*
> *Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.*
>
> *(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*
>
> *(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:*
>
> *Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.
(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

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

41. The COD of the generating station is 19.5.2013 and the generating station has not completed 12 years of operation, as on 1.4.2014. Accordingly, depreciation has been computed as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Gross block (A)	182918.57	186230.75	188465.54	191137.85	191605.86
Net Additional capital expenditure during 2014-19 (B)	3312.18	2234.79	2672.31	468.01	1151.14
Closing gross block (C=A+B)	186230.75	188465.54	191137.85	191605.86	192757.00
Average gross block (D)=(A+C)/2	184574.66	187348.14	189801.69	191371.86	192181.43
Value of Free Hold Land	0.00	0.00	0.00	0.00	0.00
Depreciable Value (E= (D-Land value) *90%))	166117.19	168613.33	170821.52	172234.67	172963.29
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'L' at the end of previous year)	157462.25	150849.84	143615.98	135436.08	126497.21
Rate of Depreciation (G)	5.056%	5.062%	5.055%	5.055%	5.056%
Balance useful Life (H)	34.13	33.13	32.13	31.13	30.13
Depreciation (I=D*G)	**9332.98**	**9482.81**	**9594.00**	**9673.10**	**9715.95**
Cumulative Depreciation at the end of the year (J=I+ Cum Dep at 'L' at the end of previous year)	17987.92	27246.30	36799.54	46471.69	56182.02
Less: Depreciation adjustment on account of de-capitalization (K)	224.43	40.76	0.95	5.62	0.82
Cumulative Depreciation at the end of the year (L)	17763.49	27205.54	36798.59	46466.08	56181.21

**Cumulative Depreciation as on 31.3.2014 is Rs.8654.94 lakh*

Operation & Maintenance Expenses

42. Regulation 29(3)(c) of the 2014 Tariff Regulations, provides as under:

"29. Operation and Maintenance Expenses:
(3) Hydro Generating Station
(c) In case of the hydro generating stations, which have not been in commercial operation for a period of three years as on 1.4.2014, operation and maintenance

expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of commercial operation. Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @6.04% per annum up to the year 2013- 14 and then averaged to arrive at the O&M expenses at 2013-14 price level. It shall be thereafter escalated @ 6.64% per annum to arrive at operation and maintenance expenses in respective year of the tariff period."

43. The Petitioner has submitted that the O&M expenses allowed by order dated 9.1.2020 has been considered for the period 2014-19 as under:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
4014.90	4281.49	4565.78	4868.95	5192.25

44. As stated, the capital cost of Rs.188465.55 lakh allowed as on cut-off date and Rehabilitation & Resettlement (R&R) cost of Rs.220.03 lakh upto the cut-off date is considered for calculating the O&M expenses for the period 2014-19. Accordingly, the O&M expenses allowed as per the said regulations for the first year of the generating station is as under:

(Rs. in lakh)

Total capital expenditure up to cut-off date	188465.54
R & R Expenditure	220.03
Capital cost considered for O&M expenses (excluding R&R expenses)	188245.51
O&M Expenses @2% p.a. for first year i.e. 2013-14	3764.91
O&M Expenses for 2013-14 (escalated by 6.04% of above)	N.A.
Average O&M expenses for 2013-14 at 2013-14 price level	3764.91

45. The above average O&M expenses of Rs. 3764.91 lakh for 2013-14 is escalated @ 6.64% per annum to arrive at the O&M expenses in the respective years of the period 2014-19. Accordingly, O & M expenses is worked out and allowed as under:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
4014.90	4281.49	4565.78	4868.95	5192.25

<u>Additional O&M Expenses</u>

Impact of wage revision

46. The Petitioner has submitted that it has filed Petition No. 229/MP/2019 claiming the recovery of impact of wage revision of its employees, deputed employees of KV

staff/ DAV and Central Industrial Security Force (CISF) in respect of this generating station for the period from 1.1.2016 to 31.3.2019. It is observed that the additional O&M claimed in respect of the generating station during the period from 1.1.2016 to 31.3.2019. It is noticed that the Commission vide its order dated 25.12.2022 in Petition No. 229/MP/2019 had disposed of the prayers of the Petitioner in the said petition. Accordingly, the claims of the Petitioner, under this head, in this petition, has not been considered and will be guided by our decision in order dated 25.12.2022.

Goods & Services Tax

47. The Petitioner has also claimed reimbursement of additional tax paid due to implementation of GST in respect of generating station as additional O&M expenses and for this purpose, it has requested for relaxation of the provisions of Regulation 29(3) in exercise of the powers vested under Regulation 54 and Regulation 55 of the 2014 Tariff Regulations. The Petitioner has further submitted that the implementation of GST is a “Change in law‟ event and the impact of the same should be passed through in tariff. As such, the tax paid in O&M expenditure of plants (service portion) is claimed over and above the O&M expenses of the respective power stations. The Petitioner has also submitted that vide order dated 22.8.2019 in Petition No. 133/MP/2019, the Petitioner was granted liberty to raise the claim for reimbursement of additional tax on O&M expenses due to implementation of GST Act, 2017 along with the truing up petition for the period 2014-19. The additional impact of GST in 2017-18 (1.7.2017 to 31.3.2018) and 2018-19 as submitted by the Petitioner, duly certified by statutory auditors, are as under:

(in Rs.)

2017-18	**2018-19 (1.4.18 to 31.12.18)**	**2018-19 (1.1.19 to 31.3.19)**	**Total**
5922912	6503597	2715994	**15142503**

48. The matter has been considered. It is observed that the Commission while specifying the O&M expense norms for the period 2014-19 had considered taxes to form part of the O&M expense calculations and, accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) to the 2014 Tariff Regulations, which is extracted hereunder:

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

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

Interest on Working Capital

50. Sub-section (c) of Clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

> *"28. Interest on Working Capital: (1) The working capital shall cover*
>
> *(c) Hydro generating station including pumped storage Hydro Electric generating Station and transmission system including communication system:*
> *(i) Receivables equivalent to two months of fixed cost;*
> *(ii) Maintenance spares @ 15% of operation and maintenance expense specified in regulation 29; and*
> *(iii) Operation and maintenance expenses for one month."*

Working Capital for Receivables

51. The Receivable component of working capital has been worked out based on two months of fixed cost as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
6248.71	6191.32	6064.30	5789.75	5723.66

Working Capital for Maintenance Spares

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

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
602.24	642.22	684.87	730.34	778.84

Working capital for O&M Expenses

53. O&M expenses for one month for the purpose of working capital are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
334.58	356.79	380.48	405.75	432.69

Rate of Interest on Working Capital

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

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

55. Accordingly, interest on working capital is worked out and allowed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Maintenance Spares (15% of operation and maintenance expense)	602.24	642.22	684.87	730.34	778.84
Working capital for O&M Expenses (one month of O&M Expenses)	334.58	356.79	380.48	405.75	432.69
Working capital for Receivables (two months of fixed cost)	6248.71	6191.32	6064.30	5789.75	5723.66
Total working capital	**7185.52**	**7190.33**	**7129.65**	**6925.83**	**6935.18**
Rate of Working Capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**970.05**	**970.70**	**962.50**	**934.99**	**936.25**

Annual Fixed Charges for the period 2014-19

56. Based on the above, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	9332.98	9482.81	9594.00	9673.10	9715.95
Interest on Loan	11614.82	10622.92	9319.10	7218.21	6371.63
Return on Equity	11559.54	11790.01	11944.41	12043.22	12125.88
Interest on Working Capital	970.05	970.70	962.50	934.99	936.25
O&M Expenses	4014.90	4281.49	4565.78	4868.95	5192.25
Total	**37492.29**	**37147.92**	**36385.79**	**34738.47**	**34341.95**

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.

Truing up of tariff based on the actual Auxiliary Energy Consumption (AUX) for 2014-19

57. As per Regulation 8(6) of CERC Tariff Regulations, 2014, the financial gains on account of actual auxiliary energy consumption being less than the normative auxiliary energy consumption is to be shared in the ratio of 60:40 between the generating station & beneficiaries. The details of actual auxiliary energy consumption for the period 2014-19 as submitted by the Petitioner is below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Auxiliary Consumption	1.0%	1.0%	1.0%	1.0%	1.0%
Actual Auxiliary Consumption	1.8%	1.6%	1.6%	1.6%	1.5%
Saleable Design Energy (MU)	582.27	582.27	582.27	582.27	582.27
Saleable Schedule Energy (MU)	377.66	491.23	532.64	370.30	548.38

58. It is clear from the above that during the period 2014-19, the actual auxiliary energy consumption is more than the normative auxiliary energy consumption and the saleable schedule generation is also less than the saleable design energy. Hence, there is no gain on account of auxiliary energy consumption during the period 2014-19. Accordingly, no sharing is required in terms of Regulation 8(6) of the 2014 Tariff Regulations. However, the normative auxiliary consumption of 1% is allowed for the generating station.

Normative Annual Plant Availability Factor (NAPAF)

59. Clause (4) of Regulation 37 of the 2014 Tariff Regulations provides for NAPAF of 85% for the generating station. Accordingly, NAPAF of 85% is considered for this generating station.

Design Energy (DE)

60. The Commission in order dated 3.7.2014 in Petition No.322/GT/2018 had considered the annual DE of 533.53 million units for this generating station. Accordingly, the same has been considered for this generating station for the period 2014-19 as per month-wise details as under:

Month	10 Daily	Design Energy (MUs)
April	I	6.91
	II	8.73
	III	14.46
May	I	10.37
	II	10.59
	III	20.15
June	I	19.03
	II	29.04
	III	28.76
July	I	30.10
	II	30.10
	III	33.11
August	I	30.10
	II	30.10
	III	33.11
September	I	28.37
	II	20.60
	III	25.50
October	I	22.54
	II	23.69
	III	24.55
November	I	13.03
	II	7.27
	III	6.20
December	I	8.78
	II	8.09
	III	6.35
January	I	8.13
	II	7.52
	III	7.92

February	I	6.06
	II	6.01
	III	4.70
March	I	7.36
	II	7.72
	III	9.02
Total		**594.07**

61. The difference between the annual fixed charges already recovered by the Petitioner in terms of the order dated 9.1.2020 in Petition No. 320/GT/2018 and the annual fixed charges determined by this order shall be adjusted in terms of Regulation 8 (13) of the 2014 Tariff Regulations.

Summary

62. The annual fixed charges claimed and those allowed in this order is summarized below:

(Rs. in lakh)

AFC	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	37601.42	37217.01	36358.44	34797.15	34831.74
Allowed	**37492.29**	**37147.92**	**36385.79**	**34738.47**	**34341.95**

63. Petition No. 632/GT/2020 is disposed of in terms of the above.

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