CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 702/GT/2020

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

Date of Order: 13th April, 2022

IN THE MATTER OF

Petition under Regulation 66 and Regulation 77 of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 for approval of tariff in deviation from norms specified by Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 in respect of Teesta Low Dam Hydroelectric Power Station (TLDP-III) (132 MW).

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 **…Respondents**

Parties Present:

Shri Rajiv Shankar Dwivedi, Advocate, NHPC
Shri Ajay Shrivas, NHPC
Ms. Anushree Bardhan, Advocate, WBSEDCL
Shri Ravi Nair, Advocate, WBSEDCL
Shri Sudipta Mukhopadhyay, Advocate, WBSEDCL

ORDER

This petition has been filed by the Petitioner, NHPC Limited (hereinafter referred to as NHPC) seeking the following reliefs:

> *"1. To approve tariff in deviation from norms specified in CERC (Terms and Conditions of Tariff) Regulations, 2019 in respect of TLDP-III Power Station as mentioned in para 12 and 20.*
>
> *2. To allow raising of energy bills as single part tariff based on ex-bus generation as per Tariff mentioned at para-12 for the energy generated upto Design Energy and energy generated beyond Design Energy as well.*
>
> *3. Hon'ble Commission is requested to exercise its power to remove difficulty to approve Tariff in deviation from norms for the period beyond the control period of CERC Regulations, 2019 i.e. from 01.04.2019 to 18.05.2053 (useful life of the power plant) and to exempt the petitioner from filing of truing up petition as mentioned in para-24.*

Background

2. TLDP-III Power Station (hereinafter referred to as the 'generating station') owned by the Petitioner, NHPC is located in the State of West Bengal. The generating station is a run-of-the-river project, with pondage for 3 hours peaking, with provision of 10% overloading on continuous basis. Ministry of Power, Govt. of India, vide letter dated 30.10.2003 had accorded Investment Approval (IA) for setting up of the generating station, at the total estimated cost of Rs.76892.00 lakh, including IDC of Rs.6041.00 lakh, based on December 2002 price level. As per administrative approval, the generating station was scheduled to be commissioned within 4 years and 5 months from the date of IA i.e., by 31.3.2007. The units of the generating station have been declared under commercial operation as under:

Units	Actual COD
Unit 2	1.4.2013
Unit 3	1.4.2013
Unit 4	1.5.2013
Unit 1/ Generating Station	19.5.2013

3. MOP, GoI has allocated 100% power to the Respondent, WBSEDCL vide its letter dated 20.12.2012 and subsequently, Power Purchase Agreement (PPA) was signed between the Respondent WBSEDCL and the Petitioner on 12.3.2013, for a period of 5 years from COD of the first unit of the project i.e. up to 31.3.2018.

4. Petition No. 115/GT/2013 was filed by the Petitioner for approval of annual fixed charges of the generating station for the period from 1.4.2013 to 31.3.2014 based on the capital cost of Rs.192580 lakh as on 1.4.2013 (expected COD of the generating station). However, the Commission after considering the deduction of un-discharged liabilities, the report on capital cost by the Designated Independent Agency (M/s Tata Consulting Engineers) and the capital cost of Rs.90386.58 lakh for two units (01.04.2013 to 30.4.2013), Rs.135579.87 lakh for three units (01.05.2013 to 18.5.2013) and Rs.180773.16 lakh for four units (19.5.2013 to 31.3.2014) by order dated 22.1.2015 determined the annual fixed charges of the generating station.

5. Aggrieved by the said order, the Petitioner filed Review Petition (Petition No. 5/RP/2015) on certain issues and the Commission by order dated 18.9.2015 disposed of the same by directing that the error in the calculation of interest on loan and O&M expenses shall be considered at the time of truing-up of tariff of the generating station. Against the said orders dated 22.1.2015 and 18.9.2015, the Respondent, WBSEDCL filed appeals (Appeal No. 212/2015 and Appeal No. 282/2015) before the Appellate Tribunal for Electricity (Tribunal). During the pendency of these appeals, the Petitioner had filed Petition No.193/GT/ 2015 for revision of the annual fixed charges of the generating station for the period 2013-14 in terms of the 2009 Tariff Regulations and Petition No. 248/GT/2014 for determination of tariff of the generating station for the period 2014-19 in accordance

with the provisions of the 2014 Tariff Regulations. Both the tariff petitions filed by the Petitioner were clubbed and disposed of by the Commission by a common order dated 6.2.2017. Thereafter, vide communication dated 3.7.2018, the Petitioner was advised to file tariff petitions in respect of their generating stations, by enclosing (i) Board approval of the actual cost of the Company and (ii) at least one of the documents namely (a) the DIA report or (b) cost approved by CEA/PIB or (c) cost approved by CCEA. Subsequently, the Tribunal, placing reliance of the aforesaid communication dated 3.7.2018 and the submissions of the parties therein, disposed of the above-mentioned appeals filed by the Respondent WBSEDCL by its order dated 24.10.2018. Thereafter, the Petitioner filed Petition No. 320/GT/2018, for determination of tariff of the generating station for the 2014-19 tariff period and the Commission vide its order dated 9.1.2020 had approved the capital cost and annual fixed charges as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Capital Cost	182918.57	186230.75	188465.54	191137.85	191605.86
Net additional capital expenditure allowed	3312.18	2234.79	2672.31	468.01	2663.89
Closing Capital Cost	**186230.75**	**188465.54**	**191137.85**	**191605.86**	**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	5192.25
Total	**37480.84**	**37045.03**	**36310.35**	**34658.02**	**34356.93**

6. Based on the design energy of 594.07 MU approved by the Commission vide its order dated 9.1.2020 in Petition No. 320/ GT/ 2018 and keeping in view the provision for Auxiliary Consumption of 1.0% and Local Area Development Fund

(LADF) of 1%, the saleable energy from the generating station works out as 582.25 MU. Considering the annual fixed charges approved by the Commission vide its order dated 9.1.2020 in Petition No. 320/ GT/ 2018, the composite tariff was worked out as under:

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
AFC (Rs. in Lakh)	37480.84	37045.03	36310.35	34658.02	34356.93
Design Energy in MU	594.07	594.07	594.07	594.07	594.07
Auxiliary Consumption (%)	1.00%	1.00%	1.00%	1.00%	1.00%
LADF (%)	1.00%	1.00%	1.00%	1.00%	1.00%
Saleable Energy in MU	582.25	582.25	582.25	582.25	582.25
Composite Tariff (Rs. / Unit)	**6.44**	**6.36**	**6.24**	**5.95**	**5.90**

Present Petition

7. In the above background, the present petition has been filed by the Petitioner vide affidavit dated 26.10.2020 with the following submissions:

(a) The Respondent has been raising objections on the high tariff of the generating station from time to time and persistently expressing their unwillingness to extend the PPA beyond March 2018.

(b) The Respondent vide letter dated 6.6.2019 offered an alternative tariff model seeking a starting tariff of Rs.4.48 per unit for the period 2019-20 and a tariff of Rs.5.37 per unit, based on project cost of Rs.1392.95 crore only, with a time over run limited to 33 months, as agreed by the State Government of West Bengal. Though exhaustive discussions and correspondence took place between the Petitioner and the Respondent for extending the PPA, but no fruitful result for extending PPA beyond 31.3.2018, on existing terms and conditions came up. Further, the Respondent served a notice on 16.12.2019, intimating that if the Petitioner does not agree to its proposal within 30 days, then the PPA shall stand terminated without any further notice.

(c) Accordingly, a joint meeting between the Petitioner and the Respondent was held at Kolkata on 9th and 10th January 2020 and thereafter, the date of termination of scheduling of power was extended to 31.1.2020 by the Respondent. Further, a detailed meeting was held on 6th and 7th February 2020 in order to negotiate the tariff and to ensure unhindered sale of power/scheduling from the generating station. After detailed discussion between the Respondent and the Petitioner, a consensus was arrived for a tariff of Rs.4.48 per unit for 2019-20 period and levelized tariff of Rs 5.41 per unit for balance useful life of the generating station.

(d) As per the minutes of the meeting (MOM) dated 6th and 7th February 2020, Respondent shall pay single part tariff on actual ex-bus energy with effect from 2019-20 for the balance useful life of the generating station. Accordingly, the year wise agreed tariff are as under:

Year	***Tariff agreed with Respondent WBSEDCL (deviated norms) (Rs/unit)***
2019-20	*4.48*
2020-21	*4.75*
2021-22	*5.03*
2022-23	*5.30*
2023-24	*5.57*
2024-25	*5.59*
2025-26	*5.60*
2026-27	*5.62*
2027-28	*5.63*
2028-29	*5.65*
2029-30	*5.66*
2030-31	*5.68*
2031-32	*5.69*
2032-33	*5.71*
2033-34	*5.72*
2034-35	*5.74*
2035-36	*5.75*
2036-37	*5.77*
2037-38	*5.78*
2038-39	*5.80*
2039-40	*5.81*
2040-41	*5.83*
2041-42	*5.84*
2042-43	*5.86*
2043-44	*5.87*
2044-45	*5.89*
2045-46	*5.90*
2046-47	*5.92*
2047-48	*5.93*
2048-49	*5.95*
2049-50	*5.96*
2050-51	*5.98*
2051-52	*5.99*
2052-53	*6.01*

(e) The levelised tariff based on the above year-wise tariff and the then applicable discount factor of 10.36% (prevalent during 1.10.2019 to 31.3.2020) works out to Rs.5.41/unit, whereas the levellised tariff, on the basis of regulations/norms with a capital cost of Rs.1942.70 crore (as allowed by Commission as on 31.3.2019) works out as Rs.5.92/unit.

(f) As per Regulation 30(2) of the 2019 Tariff Regulations, Return on Equity (ROE) is computed at the base rate of 16.50% for storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage.

(g) As TLDP-III is a run-of river generating station with pondage, ROE has to be calculated @ 16.50%, which has been reduced to @10.68% as a deviation from the 2019 Tariff Regulations, in order to arrive at the levelised tariff of Rs.5.41/unit as agreed with Respondent WBSEDCL. The calculated tariff as per deviation in norms, has been then modified to arrive at the tariff of Rs.4.48/kWh for FY 2019-20 and has been then escalated @ Rs.0.273/kWh up to 2023-24 and Rs.0.015/kWh from 2024-25 to 2052-53 to arrive at the same levelised tariff of Rs 5.41/kWh (Annex-III). The abstract of tariff as per norms and as per the deviated norms are as under:

	Tariff as per CERC norms	**Modified tariff as per deviated norms**
Tariff for FY 2019-20	Rs 6.29/kWh	Rs 4.48/kWh
Levelised Tariff	Rs 5.92/kWh	Rs 5.41/kWh

(h) The alternate tariff model in respect of the generating station with deviation in norms as specified under the 2019 Tariff Regulations has been approved by the Board of Directors of the Petitioner Company in its 433rd Board Meeting held on 14.3.2020. The copy of Minutes of 433rd Board Meeting is annexed as Annex-IV to the petition. Further, WBSEDCL vide e-mail dated 9.5.2020 informed the Petitioner that Board of Directors of the Respondent WBSEDCL had accorded approval for extension, renewal or replacement of the PPA dated 12.3.2003 of the generating station, on the tariff and terms mutually agreed between the Respondent WBSEDCL and the Petitioner vide MOM dated 7.2.2020.

(i) After the approval, PPA has been signed between the Petitioner and the Respondent on 14.9.2020, with extension of already signed PPA, with the same terms and conditions as contained in PPA dated 12.3.2003 and with revised/ amended terms and conditions from 1.4.2019 till balance useful life of the plant i.e. up to 18.5.2053. The copy of signed PPA between the Petitioner and Respondent has been submitted and place at Annexure-V of the petition. The salient features of the PPA for the period 1.4.2019 to 18.5.2053 are as under:

a) The tariff for each financial year shall be as mentioned above, irrespective of any other provisions of the existing Tariff Regulations as well as regulatory changes in subsequent Tariff Regulations, 2024 and onwards.

b) No additional capitalization, arbitration cost etc. shall be considered by Respondent WBSEDCL. Similarly, sharing of gains mentioned in Chapter 14 of the 2019 Tariff Regulations and subsequent changes in future Tariff Regulations shall also not be applicable;

c) The impact of any variation in existing statutory levies or introduction of any new statutory levies shall be taken in to effect.

d) Petitioner shall be paid for 'generation ex-bus' in respect of the generating station at the tariff mentioned above and shall be billed on monthly scheduled energy (Bill for M^{th} month of the N^{th} year = 'Nth year tariff' x 'Schedule energy in Mth month') and will not be based on Availability Based Tariff Mechanism as specified in the Regulations.

e) The generating station shall be treated as 'must run' power station and any reduction in schedule approved by SLDC (backing down of station) in comparison to the schedule given by the Petitioner shall be considered as deemed generation and shall be paid at the tariff as agreed. However, less generation due to hydrology shall not be considered by WBSEDCL.

f) WBSEDCL shall not pay Incentive for achievement of higher PAF over NAPAF

8. Accordingly, the present petition has been filed by the Petitioner seeking approval of the Commission to charge lower tariff for the period from 1.4.2019 till 18.5.2053 (i.e. up to useful life of the plant) in deviation of the provisions of the 2019 Tariff Regulations in terms of Regulation 66 read with Regulation 77 of the 2019 Tariff Regulations.

Analysis and Decision

9. Regulations 66 of the 2019 Tariff Regulations provides as under:

> *"66. Deviation from ceiling tariff:*
>
> *(1) The tariff determined in these regulations shall be a ceiling tariff. The generating company or the transmission licensee and the beneficiaries or the long-term customer, as the case may be, may mutually agree to charge a lower tariff.*
>
> *(2) The generating company or the transmission licensee, may opt to charge a lower tariff for a period not exceeding the validity of these regulations on agreeing to deviation from operational parameters, reduction in operation and maintenance expenses, reduced return on equity and incentive specified in these regulations.*
>
> *(3) If the generating company or the transmission licensee opts to charge a lower tariff for a period not exceeding the validity of these regulations on account of lower depreciation based on the requirement of repayment in such case, the unrecovered depreciation on account of reduction of depreciation by the generating company or the transmission licensee during useful life shall be allowed to be recovered after the useful life in these regulations.*
>
> *(4) The deviation from the ceiling tariff specified by the Commission, shall come into effect from the date agreed to by the generating company or the transmission licensee and the beneficiaries or the long-term customer, as the case may be.*
>
> *(5) The generating company and the beneficiaries of a generating station or the transmission licensee and the long term customer of transmission system shall be required to approach the Commission for charging lower tariff in accordance with clauses (1) to (3) above. The details of the accounts and the tariff actually charged under clauses (1) to (3) shall be submitted at the time of true up."*

10. Thus, in terms of Regulation 66(5) of the 2019 Tariff Regulations, the generating company (as in the present case) is required to approach the Commission for charging mutually agreed lower tariff, for a period not exceeding the validity of the said regulations, in deviation from norms, as mentioned in clauses (2) and (3) of the said regulation. It also provides that the deviation from ceiling tariff shall come into effect from the date agreed to by the generating company and the details of the accounts and tariff actually charged are required to be submitted at the time of truing up.

11. The Petitioner has submitted that the Commission is vested with the power to remove difficulty in giving effect to the objective of regulations under Regulation 77 of the 2019 Tariff Regulations. Accordingly, the Petitioner has prayed that the

Commission may approve tariff in deviation from norms specified in the 2019 Tariff Regulations, in respect of the generating station for the period from 1.4.2019 to 18.5.2053 (i.e. up to useful life of the plant) and to exempt the Petitioner from filing of the true-up petition at the end of control period, as fixed single part tariff, for each financial year, as agreed by both parties and there is nothing to be trued up.

12. Regulation 77 of the 2019 Tariff Regulations provides as under:

> *"77. Power to Remove Difficulty: If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by order, make such provision not inconsistent with the provisions of the Act or provisions of other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations*."

13. Thus, the above quoted provisions in the 2019 Tariff Regulations provide that in case of giving effect to the regulations, the Commission by order make such provisions not inconsistent with the Act or Regulations, as may be considered necessary. So, the primary consideration is the difficulty in "giving effect to the provisions of the regulations" and if such difficulty is encountered, then the Commission in exercise of its power of removing difficulty can provide the missing link to make the regulations workable, without doing violence to the express provisions of Regulation 66 of the 2019 Tariff Regulations.

14. The Hon‟ble Supreme Court in M.U. Sinai Vs Union of India {(1975) 2 SCR 640} has laid down as under:

> *"The existence or arising of a difficulty is the sine qua non for the exercise of power. If this condition precedent is not satisfied as an objective fact, the power under this clause cannot be invoked at all. Again, the "difficulty" contemplated by the clause must be a difficulty arising in giving effect to the provisions of the Act and not a difficulty arising aliunde, or an extraneous difficulty. Further, the Central Government can exercise the power under the clause only to the extent it is necessary for applying or giving effect to the Act etc., and no further. It may slightly tinker with the Act to round off angularities, and smoothen the joints or remove minor obscurities to make it workable, but it cannot change, disfigure or do violence to the basic structure and primary features of the Act. In no case, can it, under the guise of removing a difficulty change the scheme and essential provisions of the Act".*

As per the above judgement, the difficulty must arise in giving effect to the provisions of the Act, and not any extraneous difficulty which would justify the exercise of power to remove difficulty. Further, the power of removal of difficulty cannot be exercised to change the scheme and essential provisions of the Act.

15. In the present case, the charging of lower tariff, which has been mutually agreed between the Petitioner and the Respondent vide MOM dated 7.2.2020 read with PPA dated 14.9.2020 is for a period from 1.4.2019 till 18.5.2053, which is in deviation of the express provision in Regulation 66(2) and Regulation 66(3) of the 2019 Tariff Regulations. These provisions enable the parties to charge lower tariff only for a period not exceeding the validity of the regulations i.e up to 31.3.2024. In our view, the power to remove difficulty can be exercised only to round off the angularities or minor obscurities to make the regulations workable and cannot be used to change the basic structure of the regulations. Since there is no difficulty in giving effect to the provisions of the Regulations with regard to the Petitioner charging lower tariff till the validity of the regulations, the prayer of the Petitioner to approve the tariff in deviation from norms for the period beyond the validity of the regulations (i.e 31.3.2024) is not acceptable. However, the Petitioner is at liberty to approach the Commission seeking approval of the Commission to charge the mutually agreed tariff beyond 31.3.2024, at the time of truing up of tariff along with the tariff petition in terms of the applicable tariff regulations, for the next tariff period.

16. In order to examine whether the mutually agreed tariff in terms of Regulation 66 of the 2019 Tariff Regulations for 2019-24 is lesser than the tariff to be determined in terms of the 2019 Tariff Regulations, we compute the tariff of the

generating station for the period 2019-24 in accordance with the provisions of the 2019 Tariff Regulations, as discussed in the subsequent paragraphs.

Capital Cost as on 1.4.2019

17. The annual fixed charges considered by the Petitioner is based on the closing capital cost of Rs.194269.75 lakh, as on 31.3.2019 as approved by the Commission vide order dated 9.1.2020 in Petition No. 320/GT/2018. The Petitioner has considered the same capital cost while computing the levelised tariff. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the closing capital cost of Rs.194269.75 lakh has been considered as the opening capital cost as on 1.4.2019.

Additional Capital Expenditure

18. No additional capital expenditure has been considered for the period 2019-24.

Capital cost for 2019-24 tariff period

19. Based on the above, the capital cost considered for the purpose of tariff for the 2019-24 period is as under:

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	194269.75	194269.75	194269.75	194269.75	194269.75
Add: Projected additional capital expenditure allowed	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost	194269.75	194269.75	194269.75	194269.75	194269.75
Average Capital Cost	194269.75	194269.75	194269.75	194269.75	194269.75

Debt Equity Ratio

20. The gross loan and equity amounting to Rs.135988.83 lakh and Rs.58280.93 lakh, respectively as on 31.3.2019, in the ratio 70:30, was considered in order dated 9.1.2020 in Petition No. 320/GT/2018.

Return on Equity

21. In terms of Regulation 30 and Regulation 31 of the 2019 Tariff Regulations, Return on Equity (ROE) has been calculated considering the base rate of ROE of

16.5% and MAT rate of 17.472%. Hence, the rate of ROE considered for the 2019-24 tariff period works out as 19.993%. Accordingly, ROE has been worked out as under:

(Rs.*in lakh)*

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity (a)	58280.93	58280.93	58280.93	58280.93	58280.93
Addition of Equity due to additional capital expenditure (net of de-capitalisation) (b)	0.00	0.00	0.00	0.00	0.00
Closing Equity (c)=[(a)+(b)]	58280.93	58280.93	58280.93	58280.93	58280.93
Average Equity (d)=[(a)+(c)/2]	58280.93	58280.93	58280.93	58280.93	58280.93
Base Rate (%) (e)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate (%) (f)	17.472%	17.472%	17.472%	17.472%	17.472%
Effective ROE Rate (%) (g)=[(e)/(1-f)]	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity (h)=[(d)*(g)]	**11652.11**	**11652.11**	**11652.11**	**11652.11**	**11652.11**

Interest on loan

22. In terms of Regulation 32 of the 2019 Tariff Regulations, Interest on loan has been worked out as under:

(i) The gross normative loan amounting to Rs.135988.83 lakh has been considered as on 1.4.2019;

(ii) Cumulative repayment amounting to Rs.56492.02 lakh as on 31.3.2019 as considered in order dated 9.1.2020 in Petition No. 320/GT/2018 has been considered as on 1.4.2019;

(iii) Accordingly, the net normative opening loan as on 1.4.2019 works out to Rs.79496.81 lakh.

(iv) Depreciation allowed has been considered as repayment of normative loan during the respective year of the period 2019-24;

(v) The interest rate has been calculated by applying the weighted average rate of interest (WAROI) of 7.659% as considered in Order dated 9.1.2020 in Petition No. 320/GT/2018 for 2019-24 tariff period;

23. Necessary calculations for interest on loan are as under:

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Loan – Opening (a)	135988.83	135988.83	135988.83	135988.83	135988.83
Cumulative repayment of loan up to previous year/ period (b)	56492.02	66314.30	76136.58	85958.86	95781.13
Net Loan – Opening (c)=[(a)-(b)]	79496.81	69674.53	59852.25	50029.97	40207.69
Addition of loan due to additional capital expenditure (d)	0.00	0.00	0.00	0.00	0.00
Repayment of loan during the year/ period (e)	9821.52	9821.52	9821.52	9821.52	9821.52
Net Loan – Closing (f)=[(c)+(d)-(e)]	**69675.28**	**59853.76**	**50032.23**	**40210.71**	**30389.18**
Average Loan (g)=[(c)+(f)]/2	74586.04	64764.52	54942.99	45121.47	35299.94
WAROI (h)	7.66%	7.66%	7.66%	7.66%	7.66%
Interest on Loan (i)=[(g)*(h)]	**5712.38**	**4960.17**	**4207.96**	**3455.75**	**2703.54**

Depreciation

24. Cumulative depreciation amounting to Rs.56137.92 lakh, as on 31.3.2019, as considered in order dated 9.1.2020 in Petition No. 320/GT/2018 has been considered, as on 1.4.2019. The balance useful life as on 1.4.2019, works out to 34.13 years from station COD. The depreciation has been calculated considering the weighted average rate of depreciation (WAROD) of 5.06% for the year 2019-24 tariff period. Accordingly, in terms of Regulation 33 of the 2019 Tariff Regulations, depreciation has been calculated as shown under:

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (a)	194269.75	194269.75	194269.75	194269.75	194269.75
Closing Capital Cost (b)	194269.75	194269.75	194269.75	194269.75	194269.75
Average Capital Cost (c)=[(a)+(b)]/2	194269.75	194269.75	194269.75	194269.75	194269.75
Rate of Depreciation (%) (e)	5.06%	5.06%	5.06%	5.06%	5.06%
Depreciable Value (f)=[90%*(c)]	174842.78	174842.78	174842.78	174842.78	174842.78
Balance life (g)	34.13	33.13	32.13	31.13	30.13
Cumulative depreciation beginning (h)	56137.92	65959.44	75780.97	85602.49	95424.02
Remaining Depreciable Value (i) = [(f)-(h)]	118704.86	108883.33	99061.81	89240.28	79418.76
Depreciation during the period (j)=[(e)*(c)]	**9821.52**	**9821.52**	**9821.52**	**9821.52**	**9821.52**
Cumulative depreciation (k)=[(h)+(j)]	65959.44	75780.97	85602.49	95424.02	105245.54
Less: Adjustment on account of de-capitalisation (l)	0.00	0.00	0.00	0.00	0.00
Net Cumulative Depreciation (m)=(k-l)	**65959.44**	**75780.97**	**85602.49**	**95424.02**	**105245.54**

Operation & Maintenance Expenses

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

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
7539.76	7899.14	8275.66	8670.12	9083.39

26. The additional expenses on account of impact of wage revision as well as R&R expenses has not been considered.

Interest on Working Capital

27. In terms of Regulation 34(1)(c) of the 2019 Tariff Regulations, working capital and interest on working capital has been worked out as under:

(a) Maintenance Spares for working capital

28. Maintenance spares for working capital has been worked out on the basis of 15% of O&M expenses and allowed as under:

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1130.96	1184.87	1241.35	1300.52	1362.51

(b) Receivables for working capital

29. Receivable for working capital have been worked out on the basis of 45 days of fixed cost and allowed as under:

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
4360.23	4318.29	4266.74	4223.26	4170.62

(c) O&M Expenses for working capital

30. O&M expenses for working capital has been worked out on the basis of one month of O&M expenses including security expenses and allowed as under:

(Rs.in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
628.31	658.26	689.64	722.51	756.95

31. In terms of Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital shall be considered as 12.05% (i.e. One-year SBI MCLR of 8.55% as on 1.4.2019 *plus* 350 bps) for the tariff period 2019-24. In order to safeguard against additional interest burden due to excess/ under recovery of tariff, we deem it prudent to consider the rate of interest on working capital for the year 2019-20 as 12.05%, for 2020-21 as 11.25% (i.e. One year SBI MCLR of 7.75% as on 1.4.2020 *plus* 350 bps) and for the period 2021-24 as 10.50% (i.e. One year SBI MCLR of 7% as on 1.4.2021 *plus* 350 bps), subject to truing up.

32. Accordingly, interest on working capital is computed as under:

(Rs. in Lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Receivables (45 days)	628.31	658.26	689.64	722.51	756.95
Working Capital for Maintenance spares (15% of O&M Expenses)	1130.96	1184.87	1241.35	1300.52	1362.51
Working Capital for O&M expenses (one month O&M expenses)	4360.23	4318.29	4266.74	4223.26	4170.62
Total Working Capital	**6119.50**	**6161.42**	**6197.73**	**6246.29**	**6290.07**
Rate of interest on working capital (%)	12.050	11.250	10.500	10.500	10.500
Interest on Working Capital	**737.40**	**693.16**	**650.76**	**655.86**	**660.46**

Annual Fixed Charges

33. Accordingly, the annual fixed charges worked out for the generating station for the 2019-24 tariff period are as under:

(Rs.in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9821.52	9821.52	9821.52	9821.52	9821.52
Interest on Loan	5712.38	4960.17	4207.96	3455.75	2703.54
Return on Equity	11652.11	11652.11	11652.11	11652.11	11652.11
Interest on Working Capital	737.40	693.16	650.76	655.86	660.46
O&M Expenses	7539.76	7899.14	8275.66	8670.12	9083.39
Total	**35463.17**	**35026.10**	**34608.01**	**34255.36**	**33921.02**

Composite Tariff

34. The Design Energy (DE) of the generating station is 594.07 MU and keeping in view the provision of normative auxiliary losses (1.0%) as per Regulation 50(4)(C) of the 2019 Tariff Regulations and Local Area Development Fund of 1%, the saleable energy works out to be 582.25 MU. Based on the annual fixed charges and saleable energy of the generating station, the per unit tariff worked out for the 2019-24 tariff period, as compared to the mutually agreed tariff by the parties for the period 2019-24, are as under:

	2019-20	2020-21	2021-22	2022-23	2023-24
Annual fixed charges *(Rs. in lakh)*	35463.17	35026.10	34608.01	34255.36	33921.02
Saleable Design Energy (in Mus)	582.25	582.25	582.25	582.25	582.25
Per unit rate (Rs / kWh) as per norms	**6.09**	**6.02**	**5.94**	**5.88**	**5.83**
Mutually agreed Tariff as per MOU (Rs / kWh)	**4.48**	**4.75**	**5.03**	**5.30**	**5.57**

35. It is therefore evident from the above, that the mutually agreed tariff to be charged by the Petitioner in terms of the MOM dated 7.2.2020 for the period 2019-24, is lower than the tariff determined in terms of the provisions of the 2019 Tariff Regulations. In view of this, we accord approval to the tariff mutually agreed by the parties, for the period 2019-24, as stated below:

(Rs / kWh)

2019-20	2020-21	2021-22	2022-23	2023-24
4.48	4.75	5.03	5.30	5.57

36. The prayer of the Petitioner seeking exemption from filing of the truing up petition in terms of Regulation 66(5) of the 2019 Tariff Regulations, is also not accepted in line with the decision in paragraph 15 above.

37. Petition No. 702/GT/2020 is disposed in terms of the above.

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