CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 18/GT/2021

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

Date of Order: 27th November, 2023

IN THE MATTER OF

Petition for truing-up of tariff for the period 2014-19 and for determination of tariff for the period 2019-24 in respect of Uri-II Hydroelectric Project (240 MW).

AND

IN THE MATTER OF

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

Vs

1. Punjab State Power Corporation Limited,
   The Mall, Near Kali Badi Mandir,
   Patiala- 147001

2. Haryana Power Purchase Center,
   Shakti Bhawan, Sector 6
   Panchkula 134109

3. Uttar Pradesh Power Corporation Limited,
   Shakti Bhawan, 14 Ashik Marg,
   Lucknow– 226001

4. Engineering Department, 1st Floor,
   UT Secretariat, Sector 9-D,
   Chandigarh - 160009

5. BSES Rajdhani Power Limited,
   BSES Bhawan, Nehru Place,
   New Delhi – 110019.

6. BSES Yamuna Power Limited,
   Shakti Kiran building,
   Karkardooma,
   Delhi – 110072

7. Tata Power Delhi Distribution Limited,
   33 kV Sub-Station Building,
   Hudson Lane, Kingsway Camp
   New Delhi – 110009

8. Uttaranchal Power Corporation Limited
   Urja Bhawan, Kumar House,
   Dehradun– 248001

9. Jaipur Vidyut Vitaran Nigam Limited
   Vidyut Bhawan, Janpath,
   Jaipur– 302005

10. Ajmer Vidyut Vitaran Nigam Limited
    Old Powerhouse, Hatthi Bhatta,
    Jaipur Road,
    Ajmer– 305001

11. Jodhpur Vidyut Vitaran Nigam Limited
    New Powerhouse, Industrial Area,
    Jodhpur– 342003 (Rajasthan)

12. Power Development Department,
    New Secretariat,
    Jammu – 180001 **…Respondents**

Parties Present:

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

<u>ORDER</u>

This Petition has been filed by the Petitioner, NHPC Limited for truing-up of tariff of Uri- II Hydroelectric Project (4 x 60 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”) and for determination of tariff of the generating station for the period from 2019-24, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short "the 2019 Tariff Regulations").

2. The generating station having installed capacity of 240 MW, which comprises of four units of 60 MW capacity each, has been declared under commercial operation with effect from 1.3.2014. The dates of commercial operation of each unit/ station are as under:

Unit no.	Date of Commercial operation
Unit -I	11.10.2013
Unit -II	1.12.2013
Unit -III	11.10.2013
Unit -IV/generating station	1.3.2014

3. The Petitioner had filed Petition No. 308/GT/2018 for determination of tariff of the generating station for the period 2014-19 and the Commission vide its order dated 5.2.2020 in Petition No. 308/GT/2018 has approved the annual fixed charges of the generating station based on the capital cost of Rs. 217506.67 lakh as on 1.4.2014. Accordingly, the capital cost and the annual fixed charges of the generating station approved vide order dated 5.2.2020, for the period 2014-19 is as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	217506.67	218150.84	224172.93	226868.05	228285.47
Admitted additional capitalization	644.17	6022.09	2695.12	1417.42	6250.73
Closing capital cost	**218150.84**	**224172.93**	**226868.05**	**228285.47**	**234536.20**

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	12814.87	13010.95	13267.37	13388.34	13613.90
Interest on Loan	13596.47	12659.29	11452.01	9255.84	8389.86
Depreciation	11128.78	11274.88	11499.86	11617.79	11804.52

	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	1130.95	1134.98	1137.17	1112.26	1123.31
O&M Expenses	4830.64	5151.40	5493.45	5858.22	6247.20
Total	**43501.72**	**43231.49**	**42849.85**	**41232.45**	**41178.79**

Present Petition

3. 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."

4. 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)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (4 Units)	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	107093.28	161008	217118.99	217506.67	218150.84	224172.93	226868.05	228285.47
Net additional capitalization claimed	0.00	0.00	387.68	644.17	6022.08	2695.11	1417.42	2419.91
Closing capital cost	**107093.28**	**161008.00**	**217506.67**	**218150.84**	**224172.93**	**226868.05**	**228285.47**	**230705.38**

Annual Fixed Charges claimed

(Rs. in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (4 Units)	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	880.32	2335.59	1085.81	12946.22	13176.16	13329.61	13541.27	13709.14
Interest on Loan	1036.91	2707.28	1255.52	13596.47	12662.93	11453.49	9255.84	8008.93
Depreciation	764.66	2028.57	942.91	11128.78	11274.88	11499.86	11617.79	11706.82
Interest on Working Capital	77.41	204.29	94.65	1133.95	1138.83	1138.60	1115.75	1114.45
O&M expenses	316.43	837.62	384.68	4830.09	5150.81	5492.82	5857.55	6246.49
Total	**3075.73**	**8113.35**	**3763.56**	**43635.51**	**43403.61**	**42914.38**	**41388.20**	**40785.81**

4. The Respondent, UPPCL, RUVNL on behalf of Rajasthan Discoms, TPDDL and BRPL have filed their replies vide affidavits dated 15.2.2021, 11.2.2021, 26.8.2021 and 29.8.2022 respectively and the Petitioner has filed rejoinders dated 29.6.2021 (UPPCL), 29.6.2021 (RUVNL), 1.10.2021 (TPDDL) and 3.10.2022 (BRPL), to the above replies. The Petition was heard on 20.9.2022. However, due to paucity of time, the matter could not be taken up for hearing and the Commission after directing the Petitioner to submit additional information adjourned the hearing. Thereafter, the matter was heard on 6.12.2022 and the Commission after directing the Petitioner to file certain additional information, reserved its order in the matter. The Petitioner, has submitted the additional information sought by the Commission vide its affidavits dated 12.10.2022 and 27.1.2023, with a copy to the Respondents. Based on the submissions of the parties and documents available on record and after prudence check, we proceed for truing up of tariff for the generating station for the period 2014-19 along with determination of tariff for the period 2019-24, in this Petition, as stated in the subsequent paragraphs.

Capital Cost

5. 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."*

6. The Commission vide its order dated 5.2.2020 in Petition No. 308/GT/2018 had approved the opening capital cost of Rs. 217506.67 lakh as on 1.4.2014. The Petitioner, in this Petition has also claimed opening capital cost of Rs. 217506.67 lakh

as on 1.4.2014. Accordingly, the same has been considered as the opening capital cost as on 1.4.2014, for the purpose of determination of tariff for the period 2014-19.

Additional Capital Expenditure

7. 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."

8. The additional capital expenditure claimed by the Petitioner for the period 2014-19 is as under:

(Rs. in lakh)

S. No		11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)	2014-15	2015-16	2016-17	2017-18	2018-19
A	Addition during the year / period	0.00	0.00	145.83	2677.23	5562.55	1880.29	905.86	2371.46
B	Less: De-capitalisation during the year / period (including assumed deletion)	0.00	0.00	0.00	6810.35	6.90	2.23	0.18	0.00
C	Add: Discharges during the year / period	0.00	0.00	241.85	4777.29	466.43	817.05	511.74	48.45
D	**Net Addition (A-B+C)**	0.00	0.00	387.68	644.17	6022.08	2695.11	1417.42	2419.91

9. The Commission in order dated 5.2.2020 in petition no. 308/GT/2020 had determined annual fixed charges for the period 2014-19 based on the audited capital cost for the period 2014-18 on actual basis and on projection basis for the period 2018-19. The Petitioner has requested to consider the additional capital expenditure for the period 2014-15 to 2017-18 as allowed in order dated 5.2.2020. It is noticed that in order dated 5.2.2020 certain additional capital expenditure was allowed with a direction to furnish the relevant documents in support of the claim, in compliance to the same the Petitioner vide affidavit dated 22.9.2020 has furnished the said details. On perusal of the same, it is noticed that most of the expenditure allowed was for safety and security related assets/works. The Petitioner has provided relevant documents and reasons for the same which is in order. Accordingly, we consider the additional capital expenditure claimed by the Petitioner for the period 2014-18 as allowed in order dated 5.2.2020, based on actuals and deal additional capital expenditure for the period 2018-19 in the following paragraphs.

10. The additional capital expenditure claimed on actual basis by the Petitioner for the year 2018-19 is as under:

(Rs. in lakh)

Additional Capital Expenditure allowed in order dated 5.2.2020 **(a)**	1656.07=1462.96+193.11
Additional Capital Expenditure based on actual site requirement **(b)**	715.39
Discharge of liabilities **(c)**	48.45
Total **(d)=(a)+(b)+(c)**	2419.91

11. The Petitioner has submitted that there is a variation in additional capital expenditure allowed vide order dated 5.2.2020 and actual additional capital expenditure incurred by the generating station in 2018-19. It has further submitted that some of the additional capital expenditure (including corresponding deletion) allowed has not been incurred/not to be incurred and therefore it is now being surrendered in this Petition. The Petitioner has also submitted that there are certain additional capital expenditures which were not projected earlier, however the same were incurred by the generating station due to site specific requirements which are essential for successful and efficient plant operation, such additional capitalization needs to be included as part of capital base for the purpose of tariff. The Petitioner has claimed total additional capital expenditure of Rs. 2371.46 lakh on cash/actual basis during 2018-19 which includes an expenditure of Rs. 1656.07 lakh in respect of assets/works, allowed in order dated 5.2.2020, expenditure based on actual site requirement of Rs. 715.39 lakh and expenditure of Rs. 48.45 lakh for discharge of liabilities.

(a) Assets/Works allowed vide order dated 5.2.2020

12. The petitioner has claimed additional capital expenditure of Rs. 1656.07 lakh during 2018-19 which includes an amount of Rs. 193.11 lakh for works/assets which were allowed vide order dated 5.2.2020 during 2018-19 and an amount of Rs. 1462.96 lakh for works/assets allowed vide order dated 5.2.2020 during 2014-18. The claims include works/assets such as, false ceiling at DTGH, fencing along NH-1 from MAT

portal to pothead yard, raising of boundary wall at Salamabad, pavement concrete at Surge shaft road, construction of side protection work in left side of D/s of Jhelam river area to SFT outfall, side protection, WBM and concrete pavement road from NH-1A to dam site at left bank along power channel, wall cladding in powerhouse, construction of CISF accommodations/quarter guard/Bunkers at Nowpora & Salamabad, raising boundary wall and barbed wire fencing at Nowpora, plunge pool right bank protection, construction of CISF barrack at surge shaft/ Salamabad, XBIS/ Portable baggage scanner, spares of generator transformer etc.

13. Considering the fact that the above additional capital expenditure of Rs.1656.07 lakh are part of works/assets under original scope of the project and items capitalized during the year which were allowed during the period 2014-19 in order dated 5.2.2020, hence, the same is **allowed** in this order.

(b) Items not projected earlier but incurred due to site specific requirements:

(Rs. in lakh)

Sl. No.	Details of the claim	Amount Claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
(b)	**Additional Capital Expenditure based on actual site requirement**				
1.	Providing concrete cladding above Dam Top along right bank	52.21	Uri-II Power Station experienced heavy rains/ thunderstorms in the vicinity of project area, which made the slopes more vulnerable/prone to slides. During those heavy rains, Dam site's Right Bank has experienced extensive damages to Right Bank of Dam due to sliding mass. Therefore, protection measures have to be taken up to stabilize the slope, so that Dam Top along right bank and adjoining area are fully protected from the falling rock mass. For the overall safety of hill slope the work was required to be taken up. (The work has been completed on 30/04/2018)	The expenditure claimed were not allowed by the commission in order dated 5.2.2020. Accordingly, the same are not allowed in this order.	0.00
2.	Protection opposite bank of SFT	32.28	The two important components of Uri-II power station viz SFT outlet structure and surplus escape structure are situated on the left bank		0.00

			of river Jhelum. The power generation is in full swing in Uri-II power station and both the components play a vital role during rainy season and flushing of silt whenever required. However, during operation of SFT, flow of water directly hits the opposite bank and erodes the slope of the right bank. It has been observed that erosion of right bank is continuously increasing day by day and in future it may be dangerous. At the time when gate of dam are opened and SFT is operational, the flow of water is dangerous causing heavy erosion due to continuous erosion of slope of right bank, opposite of SFT, it may create danger for the road and houses which situated above the right bank. Therefore, the work was necessary. The work has been completed on 17/02/2018.		
3.	Capitalisation for 4% Arrear	572.62	Pay arrear to the below Board Level Executives w.e.f 01-01-2007 was paid in pursuance of the regularisation of the pay Scales as per the order of MOP F.No. 2/1/2014–H.I(Pt) dated 29.01.2019. Out of total arrear released a sum of Rs.576.62 lakhs pertaining to before COD period of project. Hence the same amount has been capitalised as per accounting policy of NHPC and INDAS requirements. Supporting documents for 2018-19 placed at Annexure - IV & V.	It is noted that the Petitioner has filed Petition No. 343/MP/2019 seeking recovery of the impact of pay/ wage revision of its employees for the period from 1.1.2007 to 31.3.2019 and the Commission vide its order dated 28.1.2023 had considered the impact of pay revision of its employees for the period from 1.1.2007 to 31.3.2019. In view of this,	0.00

				the additional capital expenditure claimed is not allowed.	
4.	Energy Efficient Solar Power System	58.28	As per the direction and the commitment being made by the MoP on behalf of PSU to install Solar Roof top and Land based Solar System under National Solar Mission, the work was executed. Ref. F. No. 16/70/2014-Admin.III, dated :22.04.2016.	Considering the nature of the asset claimed, the same is not essential for successful & efficient operation of the plant. Moreover, the Petitioner has also not justified as to how the asset contributes to the successful & efficient operation of the plant. Hence, the expenditure is not allowed.	0.00
	Sub Total	**715.39**			**0.00**

14. Therefore, total additional capital expenditure (additions) of Rs. 1656.07 lakh is allowed during 2018-19.

Discharge of liabilities

15. The Petitioner has claimed the following discharge of liabilities:

(Rs. in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
4777.29	466.43	817.05	511.74	48.45

16. The un-discharged 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 discharge of liabilities allowed during the period 2014-19 is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening liabilities corresponding to allowed capital cost	8924.12	4439.81	6061.67	10208.41	9725.48
Add: Liability additions corresponding to allowed capital cost (Form 9A)	292.98	2088.30	4963.79	28.81	424.99
Less: Discharges of liabilities corresponding to allowed capital cost	4777.29	466.43	817.05	511.74	48.45
Less: Reversal of liabilities corresponding to allowed capital cost	0.00	0.00	0.00	0.00	1.77
Closing liabilities corresponding to allowed capital cost	4439.81	6061.67	10208.41	9725.48	10100.26

The Closing balance of undischarged liabilities as on 31.3.2019 is Rs.10100.26 lakhs

17. In view of the above, total additional capital expenditure allowed during the period 2014-19 is as under:

S. No.		11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)	2014-15*	2015-16*	2016-17*	2017-18*	2018-19
A.	Addition allowed during the year / period	0.00	0.00	145.83	2677.23	5562.55	1880.29	905.86	1656.07
B.	Add: Discharges during the year / period	0.00	0.00	241.85	4777.29	466.43	817.05	511.74	48.45
C.	**Net Addition (A+B)**	0.00	0.00	387.68	7454.52	6028.98	2697.34	1417.60	1704.52

De-capitalization

18. 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."

19. The Petitioner has claimed de-capitalization during the period 2014-19 for old assets being unusable/unserviceable taken to obsolete, etc., as under:

(Rs. in lakh)

S. No.		11.10.2013 to 30.11.2013 (2 Units)	1.12.2013 to 28.2.2014 (3 Units)	1.3.2014 to 31.3.2014 (all 4 Units)	2014-15*	2015-16*	2016-17*	2017-18*	2018-19
A.	De-capitalisation during the year / period	-	-	-	6810.35	6.90	2.23	0.18	-

20. The above de-capitalization claimed by the Petitioner for the period 2014-18 is already allowed in order dated 5.2.2020. Therefore, the same is considered in this order also. With regard to 2018-19, the Petitioner has not claimed any de-capitalization and the same is allowed.

Additional capital expenditure allowed (Net) for the period 2014-19

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

(Rs. in lakh)

S. No.		**11.10.2013 to 30.11.2013 (2 Units)**	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**	**2014-15***	**2015-16***	**2016-17***	**2017-18***	**2018-19**
A.	Additional capital expenditure (additions) allowed **(a)**	0.00	0.00	387.68	7454.52	6028.98	2697.34	1417.60	1704.52
B.	De- capitalization considered **(b)**	0.00	0.00	0.00	6810.35	6.90	2.23	0.18	0.00
C.	Additional capital expenditure allowed (Net) **(c)=(a)-(b)**	0.00	0.00	387.68	644.17	6022.08	2695.11	1417.42	1704.52

Capital cost allowed

22. Accordingly, the capital cost allowed for the period 2014-19 is as under:

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening capital cost	217506.67	218150.84	224172.93	226868.06	228285.48
Add: ACE	644.17	6022.09	2695.12	1417.42	1704.52
Closing capital cost	218150.84	224172.93	226868.06	228285.48	229990.00
Average capital cost	217828.75	221161.89	225520.50	227576.77	229137.74

Debt Equity Ratio

23. 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."

24. Gross normative loan and equity amounting to Rs.152254.67 lakh and Rs.65252.00 lakh, respectively, as on 31.3.2014, as trued-up in order dated 5.2.2020 in Petition No. 279/GT/2018, has been considered as the normative loan and equity as on 1.4.2014. The debt equity ratio has been considered as 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	152254.67	70.00%	13512.09	70.00%	4773.76	70.00%	160993.00	70.00%
Equity	65252.00	30.00%	5790.90	30.00%	2045.90	30.00%	68997.00	30.00%
Total	**217506.67**	**100.00%**	**19302.99**	**100.00%**	**6819.66**	**100.00%**	**229990.00**	**100.00%**

Return on Equity

25. 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."

26. 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."

27. The base rate of Return on Equity (ROE) has been grossed up, based on the MAT rate, 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)	65252.00	65445.25	67251.88	68060.42	68485.64
Addition of Equity due to additional capital expenditure (B)	193.25	1806.63	808.54	425.23	511.36
Equity- Closing (C) =(A) + (B)	65445.25	67251.88	68060.42	68485.64	68997.00
Average Equity (D)=(A+C)/2	65348.63	66348.57	67656.15	68273.03	68741.32
Base Rate (%) (E)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate (%) (F)	20.961%	21.342%	21.342%	21.342%	21.549%
Effective ROE Rate (%) (G)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (H)= (G)*(D) (Pro-rata Basis)	**12814.87**	**13073.98**	**13331.64**	**13453.20**	**13581.91**

Interest on Loan

28. 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."

29. The Interest on loan has been computed as under:

i) The opening gross normative loan as on 1.4.2014 has been arrived at in accordance with Regulation 26 of the 2014 Tariff Regulations;

ii) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project;

iii) The repayment for the year of the period 2014-19 has been considered equal to the depreciation allowed for that year.

iv) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

30. 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)	152254.67	152705.59	156921.05	158807.64	159799.83
Cumulative repayment of loan up to previous year (B)	3736.14	14567.00	25842.63	37348.76	48962.08
Net Loan Opening C= (A-B)	148518.53	138138.59	131078.42	121458.88	110837.75
Addition due to additional capital expenditure (D)	450.92	4215.47	1886.59	992.20	1193.16
Repayment of loan during the year (E)	11116.98	11276.27	11506.44	11613.36	11678.81
Less: Repayment adjustment on account of de-capitalization (F)	286.12	0.63	0.31	0.03	0.00
Net Repayment of loan during the year (G=E-F)	10830.86	11275.64	11506.13	11613.32	11678.81
Net Loan Closing (H= C+D-G)	138138.59	131078.42	121458.88	110837.75	100352.10
Average Loan (I= (C+H)/2)	143328.56	134608.51	126268.65	116148.32	105594.93
Weighted Average Rate of Interest of loan (J)	9.496%	9.428%	9.092%	7.989%	7.589%
Interest on Loan (K= I*J)	**13610.62**	**12690.98**	**11480.22**	**9279.26**	**8013.40**

Depreciation

31. 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."

32. The COD of the generating station is 1.3.2014. 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)	217506.67	218150.84	224172.93	226868.06	228285.48
Net Additional capital expenditure during 2014-19 (B)	644.17	6022.09	2695.12	1417.42	1704.52
Closing gross block (C=A+B)	218150.84	224172.93	226868.06	228285.48	229990.00
Average gross block (D)=(A+C)/2	217828.75	221161.89	225520.50	227576.77	229137.74
Value of Free Hold Land	0.00	0.00	0.00	0.00	0.00
Depreciable Value (E= (D-Land value) *90%))	196045.88	199045.70	202968.45	204819.09	206223.96

	2014-15	2015-16	2016-17	2017-18	2018-19
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'L' at the end of previous year)	192309.74	184478.70	177125.81	167470.33	157261.88
Rate of Depreciation (G)	5.104%	5.099%	5.102%	5.103%	5.097%
Balance useful Life (H)	34.92	33.92	32.92	31.92	30.92
Depreciation (I=D*G)	11116.98	11276.27	11506.44	11613.36	11678.81
Cumulative Depreciation at the end of the year (J=I+ Cum Dep at 'L' at the end of previous year)	14853.12	25843.26	37349.07	48962.12	60640.89
Less: Depreciation adjustment on account of de-capitalization (K)	286.12	0.63	0.31	0.03	0.00
Cumulative Depreciation at the end of the year (L)	14567.00	25842.63	37348.76	48962.08	60640.89

**Cumulative Depreciation as on 31.3.2014 is Rs.3736.14 lakh*

Operation & Maintenance Expenses

33. 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."*

34. The Petitioner has submitted that the O&M expenses allowed vide order dated 5.2.2020 in Petition No. 308/GT/2018, based on the capital cost of Rs. 226868.05 lakh as on cut-off date i.e. 31.3.2017 has been considered for the period 2014-19 as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4830.64	5151.40	5493.45	5858.22	6247.20

35. The Petitioner has further submitted that as per the direction of the Commission at Paragraph 80 of order dated 5.2.2020 in Petition no. 308/GT/2018, the updated Rehabilitation & Resettlement (R&R) cost up to cut-off date i.e. 31.3.2017 is Rs.

400.90 lakh and based on this revised R&R expenditure, the O&M expenses have been re-calculated in the present petition.

36. The Petitioner has also stated that O&M expenses for the first year (2013-14) has been calculated based on updated R&R cost up to cut-off date (i.e. 31.3.2017) and has been escalated at the rate of 6.64% for calculation of O&M expenses for the period 2014-19. The revised O&M expenses for the period 2014-19 is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4830.09	5150.81	5492.82	5857.55	6246.49

37. The Petitioner has further submitted that it had also filed Petition No. 279/GT/2018 for revision of tariff for the generating station for the period from 11.10.2013 to 31.3.2014 and the same was disposed of vide order dated 5.2.2020. the Petitioner has stated that O&M expenses allowed in the order dated 5.2.2020 in Petition No. 279/GT/2018, was based on capital cost as on 31.3.2014 in place of the actual capital cost as on cut-off date. Aggrieved by this decision in order dated 5.2.2020 in Petition No. 279/GT/2018, the Petitioner had filed a Review Petition No. 11/RP/2020, requesting for revising the O&M expenses based on actual capital cost up to cut-off date. Subsequently, vide order dated 10.7.2020 in Review Petition No. 11/RP/2020, the Commission in paragraph 15 of the order dated 10.7.2020, granted liberty to the Petitioner to revise the O&M expenses for the year 2013-14, at the time of truing up of tariff for the period 2014-19. Accordingly, the Petitioner has submitted the O&M expenses for the period 2013-14, as under:

(Rs. in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**
Capital cost as on cut-off date* (prorate for unit CODs) **(a)**	113434.03	170151.04	226868.05*

Less: R&R expenses (* prorate for unit COD) **(b)**	200.45*	300.68*	400.90
Capital cost considered for purpose of O&M expenses **(c)=(a)-(b)**	113233.58	169850.36	226467.15
Annualized O&M expenses @ 2% of above **(c)**	2264.67	3397.01	4529.34
Number of days **(d)**	51	90	31
O&M Expenses for above period =**(c)*(d)/365**	316.43	837.62	384.62

38. The matter has been examined. As regards O&M expenses for the period 2013-14, liberty was granted to the Petitioner in order dated 10.7.2020 in Petition No. 11/RP/2020 to approach the Commission at the time of truing up of tariff for the period 2014-19 and therefore in line with this decision, considering the revised R&R cost of Rs.400.90 lakh as claimed by the Petitioner, we allow the following O&M expenses for the period 2013-14, based on capital cost allowed as on cut-off date as under:

(Rs. in lakh)

	11.10.2013 to 30.11.2013 (2 Units)	**1.12.2013 to 28.2.2014 (3 Units)**	**1.3.2014 to 31.3.2014 (all 4 Units)**
O&M Expenses allowed for the period 2013-14	316.43	837.62	384.62

39. Accordingly, O&M expenses for the year 2013-14 is as under:

(Rs. in lakh)

Sl. No		**11.10.2013 to 30.11.2013**	**1.12.2013 to 28.2.2014**	**1.3.2014 to 31.3.2014**
1	Total Capital Expenditure up to cut-off date	113434.03	170151.04	226868.06
2	Less R&R Expenses	200.45	300.68	400.90
3	Capital cost considered for O&M Expenses (excluding R&R expenses)	113233.58	169850.37	226467.16
4	Annualized O&M Expenses for 2013-14 @ 2% of Capital Cost for O&M Expenses	2264.67	3397.01	4529.34
5	No. of Days	51	90	31
	O&M Expenses for 2013-14	**316.43**	**837.62**	**384.68**

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

(Rs. in lakh)

	11.10.2013 to 30.11.2013	1.12.2013 to 28.2.2014	1.3.2014 to 31.3.2014
Working capital for Maintenance Spares	47.47	125.64	57.70
Working capital for O&M Expenses	26.37	69.80	32.06
Working capital for Receivables	512.62	1352.20	627.25
Total working capital	**586.45**	**1547.65**	**717.01**
Rate of Working Capital (%)	13.20%	13.20%	13.20%
Interest on Working Capital	**77.41**	**204.29**	**94.65**

Annual Fixed Charges for 2013-14

41. The annual fixed charges approved for the generating station for 2013-14 is summarized as under:

(Rs. in lakh)

	11.10.2013 to 30.11.2013	1.12.2013 to 28.2.2014	1.3.2014 to 31.3.2014
Return on Equity	880.32	2335.59	1085.81
Interest on Loan	1036.88	2707.16	1255.48
Depreciation	764.66	2028.57	942.91
Interest on Working Capital	77.41	204.29	94.65
O & M Expenses	316.43	837.62	384.68
Total	**3075.70**	**8113.22**	**3763.52**

42. With regard to O&M expenses for the period 2014-19, we have considered the capital cost of Rs. 226868.05 lakh, as on cut-off date i.e. 31.3.2017 and the R&R cost of Rs. 400.90 lakh, for the calculation of O&M expenses. Accordingly, revised O&M expenses allowed for the period 2014-19, as per sub-clause (c) of clause (3) of Regulation 29 of the 2014 Tariff Regulations is as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
4830.09	5150.81	5492.82	5857.55	6246.49

Additional O&M Expenses

Impact of wage revision

43. The Petitioner has submitted that it has filed Petition No. 227/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 noticed that the Commission vide its order dated 30.12.2022 in Petition No. 227/MP/2019 had disposed of the prayers of the Petitioner in the said Petition. Accordingly, the claims of the Petitioner, under this head, has not been considered and will be guided by our decision in order dated 30.12.2022.

Goods & Services Tax

44. The Petitioner, has also claimed reimbursement of additional tax paid due to implementation of GST, in respect of the 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. Further, it has submitted that the implementation of GST is a “Change in law" event and the impact of the same should be pass through in tariff therefore 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 submitted that it had filed Petition No.133/MP/2019, which was disposed of vide order dated 22.8.2019, granting liberty to the Petitioner 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 Petitioner has submitted the additional impact of GST in 2017-18 (1.7.2017 to 31.3.2018) and 2018-19, duly certified by statutory auditors, are as under:

(in Rs.)

Additional Impact of GST on O&M Expenses			
2017-18	**2018-19 (1.4.2018 to 31.12.2018)**	**2018-19 (1.1.2019 to 31.3.2019)**	**Total**
32212169	31027873	13952420	77192462

45. We have examined the matter. It is evident from the submissions of the Petitioner and the documents on record, that in terms of the provisions of J&K General Sales Tax Act, 1962 and the Rules framed thereunder, security services were not falling in the definition of 'goods' or 'services', as defined in Section 2(h) of the said Act and therefore, the same were not eligible to any tax i.e. WCT under J&K General Sales Tax Act, 1962 or Service Tax in the State of J&K in pre-GST Regime. However, with the introduction of GST in J&K w.e.f. 8.7.2017, Security services are being subjected to GST @18%. It can, therefore, be concluded that due to the implementation of GST on security services, the Petitioner has been obligated to pay GST on security services for this generating station. In this background, the details of GST, duly certified by the Auditor and claimed by the Petitioner is allowed as under:

(Rs. in lakh)

Additional Impact of GST on O&M Expenses				
	2017-18	**2018-19 (1.4.2018 to 31.12.2018)**	**2018-19 (1.1.2019 to 31.3.2019)**	**Total**
Total Impact of GST	322.12	310.28	139.52	771.92
Impact of GST allowed on Security Services	**234.72**	**235.84**	**66.77**	**537.33**

Interest on Working Capital

46. 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

47. 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
7250.59	7221.53	7158.42	6927.54	6825.15

Working Capital for Maintenance Spares

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

2014-15	2015-16	2016-17	2017-18	2018-19
724.51	772.62	823.92	913.84	982.36

Working capital for O&M Expenses

49. 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
402.51	429.23	457.74	507.69	545.76

Rate of Interest on Working Capital

50. 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."*

51. In terms of above regulations, interest of working capital is worked out 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)	724.51	772.62	823.92	913.84	982.36
Working capital for O&M Expenses (one month of O&M Expenses)	402.51	429.23	457.74	507.69	545.76
Working capital for Receivables (two months of fixed cost)	7250.59	7221.53	7158.42	6927.54	6825.15
Total working capital	**8377.61**	**8423.39**	**8440.08**	**8349.06**	**8353.27**
Rate of Working Capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**1130.98**	**1137.16**	**1139.41**	**1127.12**	**1127.69**

Annual Fixed Charges approved for the period 2014-19

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11116.98	11276.27	11506.44	11613.36	11678.81
Interest on Loan	13610.62	12690.98	11480.22	9279.26	8013.40
Return on Equity	12814.87	13073.98	13331.64	13453.20	13581.91
Interest on Working Capital	1130.98	1137.16	1139.41	1127.12	1127.69
O&M Expenses	4830.09	5150.81	5492.82	6092.27	6549.10
Total	**43503.53**	**43329.20**	**42950.54**	**41565.21**	**40950.91**

Note: All figures under each head have been rounded. (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.

53. The difference between the annual fixed charges already recovered by the Petitioner and the annual fixed charges determined by this order, shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

<u>Truing up of tariff based on actual Auxiliary Energy Consumption (AUX) for 2014-19:</u>

54. As per Regulation 8(6) of the 2014 Tariff Regulations, the financial gain 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 generating station and beneficiaries. The details of actual auxiliary energy consumption for period 2014-19 is submitted by the Petitioner as below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Auxiliary Consumption	1.2%	1.2%	1.2%	1.2%	1.2%
Actual Auxiliary Consumption	0.8%	0.7%	0.8%	0.9%	0.7%
Saleable Design Energy (MU)	965.94	965.94	965.94	965.94	965.94
Saleable Schedule Energy (MU)	1008.87	1011.03	1248.53	1015.20	1334.51

55. It is clear from above that, during the period 2014-19, the actual auxiliary energy consumption is less than the normative auxiliary energy consumption and sealable

schedule generation is also more than saleable design energy. Hence, there is gain on account of auxiliary energy consumption during 2014-19. Accordingly, the Petitioner is required to the share of the benefits in terms of Regulation 8(6) of the 2014 Tariff Regulations. However, normative auxiliary consumption of 1.2% is allowed for the generating station for the period 2014-19.

Normative Annual Plant Availability Factor (NAPAF)

56. In terms of Regulation 37(4) of 2014 Tariff Regulations, NAPAF of 55% has been considered for the generating station for the period 2014-19.

Design Energy

57. CEA approved Design Energy of 1123.77 MU has been considered in order dated 5.2.2020 in Petition No. 308/GT/2018. Accordingly, the same has been considered for the generating station and the details as per month-wise are mentioned as under:

Month		Design Energy (MUs)
April	I	54.72
	II	54.72
	III	54.72
May	I	54.72
	II	54.72
	III	60.19
June	I	33.92
	II	30.65
	III	39.96
July	I	30.51
	II	27.77
	III	34.32
August	I	40.77
	II	30.88
	III	30.98
September	I	21.25
	II	20.72
	III	20.88
October	I	14.92

	II	13.43
	III	13.26
November	I	23.00
	II	17.58
	III	14.94
December	I	12.87
	II	13.48
	III	14.77
January	I	11.57
	II	20.67
	III	21.24
February	I	17.13
	II	23.65
	III	38.94
March	I	41.02
	II	54.71
	III	60.19
Total		**1123.77**

DETERMINATION OF TARIFF FOR THE PERIOD 2019-24

58. The Petitioner, in this petition, has also sought determination of tariff of the generating station for the period 2019-24, in terms of the provisions of the 2019 Tariff Regulations. Accordingly, the revised capital cost and the annual fixed charges claimed by the Petitioner for the period 2019-24 is as under:

Capital Cost claimed

(Rs.in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Capital Cost	230705.38	232407.21	234010.91	234362.60	236243.48
Add: Addition during the year / period	1533.07	848.06	247.92	1880.88	2437.59
Less: De-capitalization during the year / period	-	10.81	-	-	-
Add: Discharges during the year / period	168.76	766.46	103.76	-	-
Closing Capital Cost	**232407.21**	**234010.91**	**234362.60**	**236243.48**	**238681.07**
Average Capital Cost	**231556.29**	**233209.06**	**234186.76**	**235303.04**	**237462.28**

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Depreciation	11792.34	11876.51	11926.30	11987.23	12101.26
Interest on Loan	7696.88	6877.67	6106.08	5075.91	4066.07
Return on Equity	13045.93	13137.31	13191.95	13256.16	13379.17
Interest on working capital	929.13	939.86	951.22	959.96	971.80

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	8485.47	8889.98	9313.77	9757.77	10222.94
Total	**41949.75**	**41721.33**	**41489.33**	**41037.03**	**40741.25**

59. In line with the provisions of Regulation 9(2), 10(1) and 12 of the 2019 Tariff Regulations, the tariff petition is to be submitted for the period 2019-24 along with the truing up petition for the period 2014-19. The relevant extract of regulation 9(2) & 12 of 2019 Tariff Regulations is reproduced as under:

> ***"9 Application for determination of tariff***
> *xxxx.*
> *(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along with the true up petition for the period 2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014."*
>
> ***12. Truing up of tariff for the period 2014-19***
> ***xxxx***
> *The tariff of the generating stations and the transmission systems for the period 2014-19 shall be trued up in accordance with the provisions of Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 along with the tariff petition for the period 2019-24. The capital cost admitted as on 31.3.2019 based on the truing up shall form the basis of the opening capital cost as on 1.4.2019 for the tariff determination for the period 2019-24."*

60. Further, as per Regulation 10(1) of 2019 Tariff Regulations, the Petitioner is supposed to file petition as per relevant tariff forms (enclosed with the Tariff Regulations as Annexure-I) containing details of projected additional capital expenditure for the period 2019-24.

Capital Cost

61. Clause (1) of Regulation 19 of the 2019 Tariff Regulations, provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new

projects. However, capital cost for an existing project is governed as per clause (3) of Regulation 19 of the 2019 Tariff Regulations, which provides as under:

> *"The Capital cost of an existing project shall include the following:*
>
> *(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
>
> *(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
>
> *(c) Capital expenditure on account of renovation and modernization as admitted by this Commission in accordance with these regulations;*
>
> *(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
>
> *(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
>
> *(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries…."*

62. The opening capital cost claimed by the Petitioner, as on 1.4.2019, is Rs. 230705.38 lakh. However, the Commission in this order, while truing up the tariff of the generating station for the period 2014-19, has allowed the closing capital cost of Rs. 229990.00 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19 of the 2019 Tariff Regulations, the capital cost of Rs. 229990.00 lakh, as on 31.3.2019, has been considered as the opening capital cost as on 1.4.2019, for the purpose of determination of tariff for the period 2019-24.

Additional Capital Expenditure

63. Clause (2) of Regulation 9 of the 2019 Tariff Regulations provides that the application for determination of tariff shall be on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the period 2019-24 along with the true up for the period 2014-19 in accordance with the 2014 Tariff Regulations. Relevant

clauses of Regulation 25 and Regulation 26 of the 2019 Tariff Regulations, provide as under:

"25. Additional Capitalization within the original scope and after the cut-off date:

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

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

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

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

(g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

26. Additional Capitalization beyond the original scope

(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

(a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;

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

(c) Force Majeure events;

(d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;

(e) Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:

Provided also that if any expenditure has been claimed under Renovation and

Modernization (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;

(f) Usage of water from sewage treatment plant in thermal generating station.

(2) 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 with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized."

64. The Petitioner vide affidavit dated 27.1.2023 has claimed the additional capital expenditure for the period 2019-24, as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Add : Addition during the year / period	1533.07	848.06	247.92	1880.88	2437.59
Less : De-capitalisation during the year / period	-	10.81	-	-	-
Add : Discharges during the year / period	168.76	766.46	103.76	-	-
Net Additional capital expenditure claimed	**1701.83**	**1603.71**	**351.68**	**1880.88**	**2437.59**

65. The Petitioner has claimed actual additional capital expenditure (additions), excluding discharge of liabilities, for the period from 2019-20 to 2020-21 as under:

66. With regard to the claim of the Petitioner during the period 2019-24, under Regulation 25(1)(f) of the 2019 Tariff Regulations, it is noticed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project including initial spares, which are spilled over expenditures, in respect of works which were allowed during the period 2014-19, vide order dated 22.7.2016 in Petition No. 250/GT/2014.

67. Further, from the claim of the Petitioner, it is observed that during 2021-22, 2022-23 and 2023-24, the Petitioner has also claimed expenditure pertaining to catch area treatment plan, fisheries development, landscaping and restoration of quarries and construction areas, solid waste management and Lot:2- Hydro Mechanical (HM)

works. In justification for the same, the Petitioner has submitted that 'these assets/works are part of RCE which already has been submitted. As per order dated 22.7.2016 in Petition No. 250/GT/2014, the same will be considered after submission of RCE by the Petitioner. In this regard, it is to mention that, the Commission in its order dated 5.2.2020 in Petition No. 308/GT/2018 (truing-up petition for the period 2009-14 for the generating station) had observed as under:

> *"17. We have examined the submissions of the parties along with the observations and recommendations of the Standing Committee on Time and Cost Overrun and recommendations of PIB. The provisions of Regulation 7 of the 2009 Tariff Regulations and the guidelines for vetting of capital cost issued by the Commission provide that the Commission may consider the capital cost as vetted by the DIA, while determining the tariff of the hydro generating companies. It is noticed that DIA, while recommending that the delay of 46 months was not attributable to the Petitioner, had vetted the capital cost of ₹214685 lakh, as against the claim of the Petitioner for ₹217956 lakh (in Petition No. 156/GT/2013). However, the Commission in its order dated 4.2.2016 had condoned the delay of 49 months, (after condoning the delay of 3 months on account of overtopping of bund at TRT outlet Nalla, in addition to the delay recommended by the DIA) and had allowed the completion cost of ₹239536.70 lakh including normative IDC of ₹12590.40 lakh, subject to approval of RCE by MOP, GOI. However, it is noticed that the RCE i.e. completion cost of ₹229002 lakh as submitted by the Petitioner has been examined in detail and vetted by the MOP, GOI through its nodal agency i.e., CEA in association with CWC and thereafter, the RCE of ₹229002 lakh has been approved by MOP, GOI. Since the RCE has been approved after a detailed review by competent technical bodies, we are inclined to consider the recommendations of the Standing Committee that the time overrun of 50 months and 2 days in commissioning of the project and the Cost overrun on account of the same were beyond the control of any agency or person and no individual can be held responsible for the same. Moreover, the time period of 27 days taken by the Petitioner from the date of commissioning till COD of the generating station is considered reasonable. It is also observed that PIB in its meeting dated 9.3.2017 has recommended the RCE of the Project for ₹229002 lakh crore including IDC, FC & ERV of ₹38631 lakh. Accordingly, the same is allowed for the purpose of tariff, subject to actual cash expenditure. In the event of approval of RCE by CCEA/ MOP, GOI, the same shall be brought to the notice of the Commission."*

68. Further, Commission in its order dated 5.2.2020 had also considered the above RCE and allowed the additional capital expenditure for the period 2014-19. In view of this, the expenditure is allowed for the purpose of tariff, subject to actual cash expenditure incurred. In the event of approval of RCE by CCEA/ MOP, GOI, the same shall be brought to the notice of the Commission. Though the claim of the Petitioner

does not fall under Regulation 25(1)(f) of the 2019 Tariff Regulations, considering the fact that the additional expenditure claimed is in respect of the assets/ works within the original scope of works/assets, including initial spares and the same have been admitted by the Commission in order dated 22.7.2016 and form part of RCE considered by the Commission and claimed after the cut-off date, we consider the expenditure under Regulation 76 read with Regulation 24(1)(b) of the 2019 Tariff Regulations under the balance expenditure within the original scope/RCE works. The additional capital expenditure claimed year wise by the Petitioner, is examined in the subsequent paragraphs.

2019-20

69. The projected additional capital expenditure(additions) claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(f) (Items already approved by the Commission during 2014-19 tariff period) **(a)**	**1439.88**
Items claimed under Regulation 25(2)(c) **(b)**	0.00
Items claimed under Regulation 26(1)(d) **(c)**	93.19
Sub-total (d)=(a)+(b)+(c)	**1533.07**
Discharge of liabilities **(e)**	168.76
Total (d) +(e)	**1701.83**

(a) Items claimed under Regulation 25(1)(f) of the 2019 Tariff Regulations

70. The Petitioner has claimed additional capital expenditure of Rs.1439.88 lakh in 2019-20 towards assets/works such as of the nature of spill over add-cap in respect of assets/ works such as Dam-Other Miscellaneous works, Fencing along MAT road and security post and gate at MAT area, protection of DTGH /MAT area, suspended ceiling in Transformer Hall, etc.

71. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spill over expenditure in respect of works which were allowed during the period 2014-19 vide order dated 22.7.2016 in Petition No. 250/GT/2014. As discussed at paragraphs 67 to 70 above, the expenditure claimed is allowed.

(b) Items claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations

72. The Petitioner has claimed additional capital expenditure of Rs.93.19 lakh, in 2019-20 towards 'Fencing along open channel'. We notice that the Petitioner has claimed additional capital expenditure under the head pertaining to safety of the plant. The Petitioner has also furnished the necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed are allowed under Regulation 26(1)(d) of the 2019 tariff Regulations.

73. In view of the above, the total additional capital expenditure is allowed under original scope and other than original scope of work is Rs. 1439.88 lakh and Rs. 93.19 lakh respectively in 2019-20.

2020-21

74. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(f) (Items already approved by the Commission during 2014-19 tariff period) **(a)**	**808.51**
Items claimed under Regulation 25(2)(c) **(b)**	11.07
Items claimed under Regulation 26(1)(d) **(c)**	28.48
Sub-total (d)=(a)+(b)+(c)	**848.06**
Discharge of liabilities **(e)**	766.46
Total (d) +(e)	**1614.52**

(a) Items claimed under Regulation 25(1)(f) of the 2019 Tariff Regulations

75. The Petitioner has claimed additional capital expenditure of Rs.808.51 lakh in 2020-21 towards assets/works such as providing wearing coat over existing internal WBM roads at Nowpora/Salamabad, purchase of furniture and fixtures for offices, guest house and field hostel / residential / non-residential building, drilling of bore well no. 2 in Nowpora complex, Log boom for the Reservoir, recreation facility, spares for control and protection system including relays, landscaping and beautification at portal, Land scaping and beautification of the area around surge shaft, Dam-Architectural works, residential building D-Type, shotcrete work on right bank below EL 1300 at Dam axis, construction of CISF accommodations/quarter guard/Bunkers at Nowpora and Salamabad, etc.

76. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spilled over expenditure in respect of works which were allowed during the period 2014-19 vide order dated 22.7.2016 in Petition No. 250/GT/2014. As discussed at paragraphs 67 to 70 above, the expenditure claimed is allowed.

(b) Items claimed under Regulation 25(2)(c) of the 2019 Tariff Regulations

77. The Petitioner has claimed any additional capital expenditure of Rs.11.07 lakh towards replacement of two Maruti Gypsy/ M&M Bolero/Troop carrier. In justification for the sane, the Petitioner has stated that the replacement of old & used vehicles is to be done as per sanctioned strength of O&M equipment for the period 2017-22 for the generating station for CISF to ensure security & safety of the generating station. The Petitioner has further submitted that the production of Maruti Gypsy has been stopped w.e.f. April-2019 and the spares are also stopped

by the manufacturers. Accordingly, the Petitioner has proposed one no. Bolerao and one no. Troop carrier in place of 2 nos. Maruti Gypsy and the Petitioner has also stated that it has decapitalized old replaced vehicles.

78. It is observed that the expenditure claimed does not fall under Regulation 25(2)(c) of the 2019 Tariff Regulations. Further, the expenditure incurred is in the nature of O&M expenses. Accordingly, the claim of the Petitioner is not allowed.

(c) Items claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations

79. The Petitioner has claimed additional capital expenditure of Rs.24.48 lakh, in 2020-21 towards assets/works such as construction/ raising/ upgradation of security post/ morcha/ duty post at various locations of the generating station, boundary wall from NH1A to intake to Dachi bridge, construction of LMG post & raising of height of boundary wall and security post at Dam post and Fencing along open channel.

80. We notice that the Petitioner has claimed additional capital expenditure under the head pertaining to safety of the plant. The Petitioner has also furnished necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed are allowed under Regulation 26(1)(d) of the 2019 tariff Regulations.

81. In view of the above, the total additional capital expenditure allowed under original scope and other than original scope of work is Rs. 808.51 lakh and Rs. 28.48 lakh respectively in 2020-21.

2021-22

82. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

Items claimed under Regulation 25(1)(f) (Items already approved by the Commission during the period 2014-19) **(a)**	**245.45**
Items claimed under Regulation 25(2)(c) **(b)**	0.00
Items claimed under Regulation 26(1)(d) **(c)**	2.47
Sub-total (d)=(a)+(b)+(c)	**247.92**
Discharge of liabilities **(e)**	103.76
Total (d) + (e)	**351.68**

(a) Items claimed under Regulation 25(1)(f) of the 2019 Tariff Regulations

83. The Petitioner has claimed additional capital expenditure of Rs.245.45 lakh in 2021-22 towards assets/works such as, Quality control laboratory/equipment's, civil maintenance office at powerhouse, construction of quarter guard for CISF, Recreation facility protection of DTGH /MAT area, expansion of EPABX systems at Nowpora colony/power house and other telephone accessories, TRT outlet - Rock paving along the formation slope of nallah, catch area treatment plan, purchase of furniture and fixtures for offices, guest house and field hostel/ residential/ non-residential building., Blade server 4 Nos. with Rack, etc.

84. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spilled over expenditure in respect of works which were allowed during the period 2014-19 vide order dated 22.7.2016 in Petition No. 250/GT/2014. As discussed at paragraphs 68 to 71 above, the expenditure claimed is allowed.

(b) Items claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations

85. The Petitioner has claimed additional capital expenditure of Rs.2.47 lakh, in 2021-22 towards two nos. bullet proof vehicle. We notice that the Petitioner has claimed the additional capital expenditure under the head pertaining to safety of the plant. The Petitioner has also furnished necessary documents to substantiate its claim.

Further, it is observed that, the Petitioner has indicated total amount of Rs. 66.09 lakh in Form 9 A, however, the amount claimed as per Form 9 A and Form 1(ii) is Rs. 2.47 lakh. Accordingly, the projected additional capital expenditure of Rs. 2.47 lakh is allowed under Regulation 26(1)(d) of the 2019 tariff Regulations. With regard to other expenditure, if incurred, Petitioner may submit the same at the time of truing-up.

86. In view of the above, the total additional capital expenditure allowed under original scope and other than original scope of work is Rs. 245.45 lakh and Rs. 2.47 lakh respectively in 2021-22.

2022-23

87. The projected additional capital expenditure claimed by the Petitioner are as under:

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(f) (Items already approved by the Commission during 2014-19) …….**(a)**	1820.88
Items claimed under Regulation 25(2)(c)…….**(b)**	0.00
Items claimed under Regulation 26(1)(d)…… **(c)**	60.00
Sub-total **(d)=(a)+(b)+(c)**	1880.88
Discharge of liabilities **(e)**	0.00
Total **(d) +(e)**	1880.88

(a) Items claimed under Regulation 25(1)(f) of the 2019 Tariff Regulations

88. The Petitioner has claimed additional capital expenditure of Rs.1820.88 lakh in 2022-23 towards assets/works such as, Dam-Architectural Works, Dam-Other Miscellaneous works, Right Bank protection work above 1300 EL, Steel ribs and backfill concrete in poor reach of MAT, Fisheries Development, Security & Surveillance system for Power House, Computers/Laptops, Online UPS , Networking Items,, OFC Fibre cable & Equipment , Miscellaneous Software - Auto CAD / Windows Server /User Licenses /MS Office /Antivirus etc.

89. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spill over expenditure in respect of works which were allowed during the period 2014-19 vide order dated 22.7.2016 in Petition No. 250/GT/2014. As discussed at paragraphs 67 to 71 above, the expenditure claimed is allowed.

(b) Items claimed under Regulation 26(1)(d) of the 2019 Tariff Regulations

90. The Petitioner has claimed additional capital expenditure of Rs.60.00 lakh, in 2022-23 towards High Mast Lights. We notice that the Petitioner has claimed the additional capital expenditure under the head pertaining to safety of the plant. The Petitioner has also furnished necessary documents to substantiate its claim. Further, it is observed that, the Petitioner has indicated total amount of Rs. 156.50 lakh in Form 9 A, however, the amount claimed as per Form 9 A and Form 1(ii) is Rs. 60.00 lakh. Accordingly, the projected additional capital expenditure of Rs. 60.00 lakh is allowed under Regulation 26(1)(d) of the 2019 Tariff Regulations. With regard to other expenditure, if incurred, Petitioner may submit the same at the time of truing-up of tariff.

91. In view of the above, the total additional capital expenditure allowed under original scope and other than original scope of work is Rs. 1820.88 lakh and Rs. 60.00 lakh respectively in 2022-23.

<u>2023-24</u>

(Rs. in lakh)

	Amount
Items claimed under Regulation 25(1)(f) (Items already approved by the Commission during 2014-19) **(a)**	**2437.59**
Items claimed under Regulation 25(2)(c) **(b)**	0.00
Items claimed under Regulation 26(1)(d) **(c)**	0.00
Sub-total (d)=(a)+(b)+(c)	**2437.59**

Discharge of liabilities **(e)**	0.00
Total (d) +(e)	**2437.59**

(a) Items claimed under Regulation 25(1)(f) of the 2019 Tariff Regulations

92. The Petitioner has claimed additional capital expenditure of Rs.2437.59 lakh in 2023-24 towards assets/works such as, Dam-Other Miscellaneous works, Right Bank protection work above 1300 EL, Fisheries Development, TRT Adit - Invert Lining, Residential Building A-Type, Auditorium/hall, Road at right bank from Bandi for Dachhi, Internal Electrification of Permanent Buildings- Residential A-Type, Spares for Main Inlet Valve & By-pass assembly including spares for power pack , Spares for drainage & dewatering system and flood dewatering pumps with accessories , Spares for firefighting system, Brake assembly of Electromagnetic and thruster brakes, Fisheries Development, Landscaping and restoration of quarries and construction areas, Solid Waste Management , Lot:2- HM Works, Security & Surveillance system for Power House, etc.

93. It is observed that the Petitioner has claimed the additional capital expenditure in respect of assets/ works within the original scope of work of the project, which are spilled over expenditure in respect of works which were allowed during the period 2014-19 vide order dated 22.7.2016 in Petition No. 250/GT/2014. As discussed in paragraphs 67 to 71 above, the expenditure claimed is allowed.

94. In view of the above, the total additional capital expenditure allowed under original scope and other than original scope of work is Rs. 2437.59 lakh and Rs. 0.00 lakh respectively in 2023-24.

De-capitalization

95. The Petitioner has claimed the following de-capitalization, as per Form 9Bi, as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
0.00	10.81	0.00	0.00	0.00

96. It is noticed that the Petitioner has decapitalized old vehicles during 2020-21 on replacement with new vehicle. As discussed above, during 2020-21, capitalization of new vehicle has not been allowed. Accordingly, the corresponding decapitalization has also been not allowed. As such, no decapitalization has been considered for the purpose of tariff during the period 2019-24.

Discharge of liabilities

97. The closing undischarged liabilities, as on 31.3.2019, is Rs.10100.26 lakh. It has been observed that there is mismatch of liabilities claimed by the Petitioner in Form 1 (I), Form 9A and Form 16. Therefore, the Petitioner is directed to submit the reconciliation for the same at the time of truing up of tariff. The Petitioner has claimed discharge of liabilities of Rs. 168.76 lakh in 2019-20, Rs. 766.46 lakh in 2020-21 & Rs. 103.76 lakh in 2021-22. Accordingly, the discharge of liabilities of Rs. 168.76 lakh in 2019-20, Rs. 766.46 lakh in 2020-21 & Rs. 103.76 lakh in 2021-22 is allowed, subject to truing up.

Additional capital expenditure allowed (Net) for the period 2019-24

98. In view of the above, the net additional capital expenditure allowed for the period 2019-24 is as under:

(Rs. in lakh)

Sl. No.		2019-20	2020-21	2021-22	2022-23	2023-24
A.	Addition during the year / period	1533.07	836.99	247.92	1880.88	2437.59
B.	Less: De-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
C.	Add: Discharges during the year / period	168.76	766.46	103.76	0.00	0.00
D.	**Net Additional capital expenditure (A-B+C)**	**1701.83**	**1603.45**	**351.68**	**1880.88**	**2437.59**

Capital cost approved for the period 2019-24

99. Based on above the allowed net additional capital expenditure and considering the capital cost of Rs. 230074.41 lakh as on 1.4.2019, as allowed in this order, the capital cost allowed for the generating station for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	229990.00	231691.83	233295.28	233646.96	235527.84
Net Additional capital expenditure allowed during the year/ period	1701.83	1603.45	351.68	1880.88	2437.59
Closing Capital Cost	**231691.83**	**233295.28**	**233646.96**	**235527.84**	**237965.43**

Debt-Equity Ratio

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

> *"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*
>
> *Provided that:*
> *i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
> *ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
> *iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*
>
> *Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*
>
> *(2) The generating company or the transmission licensee, as the case may be, shall*

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

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

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

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

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

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

101. In terms of the above regulations, the debt equity ratio, is considered as 70:30, 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. Accordingly, the details of debt-equity ratio in respect of the generating station as on 1.4.2019 and as on 31.3.2024 are as under:

(Rs. in lakh)

	As on 1.4.2019		**Additional Capitalization**		**De-capitalization**		**As on 31.3.2024**	
	Amount	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**
Debt	160993.00	70.00%	5582.80	70.00%	0.00	70.00%	166575.80	70.00%
Equity	68997.00	30.00%	2392.63	30.00%	0.00	30.00%	71389.63	30.00%
Total	**229990.00**	**100.00%**	**7975.43**	**100.00%**	**0.00**	**100.00%**	**237965.43**	**100.00%**

Return on Equity

102. Regulations 30 and 31 of the 2019 tariff Regulations provide as under:

"30. Return on Equity

(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:

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

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;
iii. in case of a thermal generating station, with effect from 1.4.2020:
a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

31. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:
Rate of pre-tax return on equity = Base rate / (1-t)
Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the

corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.
Illustration-
(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess: Rate of return on equity = 15.50/(1-0.2155) = 19.758%
(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:
(a) Estimated Gross Income from generation or transmission business for 2019-20 is Rs. 1,000 Crore;
(b) Estimated Advance Tax for the year on above is Rs. 240 Crore;

(c) Effective Tax Rate for the year 2019-20 = Rs. 240 Crore/Rs. 1000 Crore = 24%;
(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%.
(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

103. Return on Equity (ROE) for the existing asset base and the additional capital expenditure allowed, in this order for asset/works within the original scope of work, has been calculated by grossing up the base RoE at MAT rate of 17.472% as submitted by the Petitioner. Further, based on the additional capital expenditure which are beyond the original scope and allowed in this order, ROE has been calculated considering the weighted average rate of interest claimed by the Petitioner. Accordingly, ROE has been worked out and allowed as under:

ROE at Normal Rate

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity (A)	68997.00	69479.59	69952.08	70056.85	70603.11
Total addition due to Capitalization (B)	482.59	472.49	104.76	546.26	731.28
Closing Equity (C) =(A)+(B)	69479.59	69952.08	70056.85	70603.11	71334.39
Average Equity (D)=(A+C)/2	69238.30	69715.84	70004.46	70329.98	70968.75
Base rate (%) (E)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax rate (%) (F)	17.472%	17.472%	17.472%	17.472%	17.472%
Effective ROE rate (%) (G) =E/(1-F)	18.782%	18.782%	18.782%	18.782%	18.782%

	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity within the original scope of work (H)=(D)*(G)	**13004.34**	**13094.03**	**13148.24**	**13209.38**	**13329.35**
Return on Equity at WAROI					
Opening Equity (A)	0.00	27.96	36.50	37.24	55.24
Addition due to Capitalization beyond scope of work (B)	27.96	8.54	0.74	18.00	0.00
Closing Equity (C)=(A)+(B)	27.96	36.50	37.24	55.24	55.24
Average Equity (D)=(A+C)/2	13.98	32.23	36.87	46.24	55.24
Base rate (%) (E)	8.083%	8.134%	8.326%	8.159%	7.859%
Effective Tax rate (%) (F)	17.472%	17.472%	17.472%	17.472%	17.472%
Effective ROE rate (%) (G) =E/(1-F)	9.794%	9.856%	10.089%	9.886%	9.523%
Return on Equity within the original scope of work (H)=(D)*(G)	**1.37**	**3.18**	**3.72**	**4.57**	**5.26**

Total ROE allowed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity at Normal Rate (A)	13004.34	13094.03	13148.24	13209.38	13329.35
Return on Equity at WAROI (B)	1.37	3.18	3.72	4.57	5.26
Total Return on Equity allowed (C= A+B)	**13005.71**	**13097.21**	**13151.96**	**13213.95**	**13334.61**

Interest on Loan

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

"32. Interest on loan capital:

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of 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-capitalisation of such asset.

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

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;
Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

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

105. Interest on loan has been computed as under:

i) The gross normative loan amounting to Rs.160993.00 lakh as on 31.3.2019, as considered in the truing up section of this order has been considered as opening gross normative loan as on 1.4.2019.

ii) Cumulative repayment amounting to Rs.60640.89 lakh as on 31.3.2019, as considered in truing up section of this order has been considered as on 1.4.2019.

iii) Accordingly, the net normative opening loan as on 1.4.2019 works out to Rs.100352.10 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 8.083% in 2019-20, 8.134% in 2020-21, 8.326% in 2021-22, 8.159% in 2022-23 and 7.859% in 2023-24. The same have been considered for tariff subject to truing up.

vi) Depreciation allowed has been considered as repayment of normative loan during the respective year of the period 2019-24. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff.

106. Interest on loan has been worked out as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross opening loan (A)	160993.00	162184.28	163306.69	163552.87	164869.49
Cumulative repayment of loan upto previous year (B)	60640.89	72396.81	84236.88	96126.74	108073.45
Net Loan Opening (C=A-B)	100352.10	89787.47	79069.81	67426.13	56796.04
Addition due to additional capital expenditure (D)	1191.28	1122.41	246.18	1316.62	1706.31
Repayment of loan during the year (E)	11755.91	11840.07	11889.86	11946.71	12056.67
Less: Repayment adjustment on account of de-capitalization (F)	0.00	0.00	0.00	0.00	0.00
Net Repayment of loan during the year (G=E-F)	11755.91	11840.07	11889.86	11946.71	12056.67
Net Loan Closing (H = C+D-G)	89787.47	79069.81	67426.13	56796.04	46445.68
Average Loan (I= (C+H)/2)	95069.79	84428.64	73247.97	62111.09	51620.86
Weighted Average Rate of Interest of loan (J)	8.083%	8.134%	8.326%	8.159%	7.859%
Interest on Loan (K= I*J)	**7684.02**	**6867.68**	**6098.88**	**5067.43**	**4056.84**

Depreciation

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

“33. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of

useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

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

108. The COD of the generating station is 1.3.2014. Therefore, the generating station has not completed 12 years of operation, as on 1.4.2019, the weighted average rate of depreciation (WAROD) of 5.093% as claimed by the Petitioner has been considered subject to truing-up of tariff. In terms of the 2014 Tariff Regulations, the useful life of a hydro generating station was 35 years. However, the 2019 Tariff Regulations stipulates that the useful life of a hydro generating station is 40 years. Accordingly, the balance useful life of the generating station as on 1.4.2019, has been considered as 34.92 years, in line with the 2019 Tariff Regulations. Accordingly, depreciation has been computed as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Gross block (A)	229990.00	231691.83	233295.28	233646.96	235527.84
Net Additional capital expenditure during 2019-24 (B)	1701.83	1603.45	351.68	1880.88	2437.59
Closing gross block (C=A+B)	231691.83	233295.28	233646.96	235527.84	237965.43
Average gross block (D)=(A+C)/2	230840.91	232493.55	233471.12	234587.40	236746.64
Land Value	0.00	0.00	0.00	0.00	0.00
Depreciable Value [E= (D-Land Value) *90%)]	207756.82	209244.20	210124.01	211128.66	213071.97
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'L' at the end of previous year)	147115.93	136847.39	125887.13	115001.92	104998.52
Rate of Depreciation (G)	5.093%	5.093%	5.093%	5.093%	5.093%
Balance useful Life (H)	34.92	33.92	32.92	31.92	30.92
Depreciation (I=D*G) (F/H for 2023-24)	11755.91	11840.07	11889.86	11946.71	12056.67
Cumulative Depreciation at the end of the year (J=I+ Cum Dep at 'K' at the end of previous year*)	72396.81	84236.88	96126.74	108073.45	120130.12
Adjustment on account of decapitalization (K)	0.00	0.00	0.00	0.00	0.00

	2019-20	2020-21	2021-22	2022-23	2023-24
Cumulative Depreciation at the end of the year (L=J-K)	72396.81	84236.88	96126.74	108073.45	120130.12

**The cumulative depreciation as on 31.3.2019 is Rs.60640.89 lakhs.*

Operation & Maintenance Expenses

109. The Petitioner has claimed the following additional O&M expenses:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expense allowed as regulation 35(2)(a) of 2019 Tariff Regulations **(a)**	7058.82	7395.28	7747.78	8117.08	8503.99
Additional O&M expenses due to 3rd Pay Revision Commission **(b)**	948.10	993.33	1040.71	1090.35	1142.36
Additional O&M expenses due to Goods and Service Tax (GST) **(c)**	471.26	493.74	517.29	541.96	567.82
Additional O&M Expenses due to pay revision of KV Staff **(d)**	7.28	7.63	8.00	8.38	8.78
Total O&M Expenses claimed (a+b+c+d)	**8485.47**	**8889.98**	**9313.77**	**9757.77**	**10222.94**
Security Expenses (estimated)	2087.06	2186.62	2290.92	2400.19	2514.68

110. Regulation 35(2)(a) of the 2019 Tariff Regulations provides as under:

"(2) Hydro Generating Station: (a) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2019:

(Rs. in lakh)

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Uri II	*7058.82*	*7395.28*	*7747.78*	*8117.08*	*8503.99*

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

111. The generating station is in operation for more than 3 years, as on 1.4.2019. As the normative O&M expenses claimed by the Petitioner above, is in terms of Regulation 35(2)(a) of the 2019 Tariff Regulations, the same is allowed.

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

Impact of wage revision (due to 3rd Pay Revision Commission)

112. The Petitioner has claimed following additional O&M under this head:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
948.10	993.33	1040.71	1090.35	1142.36

113. It is noticed that the Petitioner has claimed the additional O&M expenses during 2019-20 based on impact of pay revision of Petitioners staff in 2018-19 for Rs. 904.94 lakh. In this regard, it is pertinent to mention that Petition No. 227/MP/2019 was filed by the Petitioner seeking recovery of the additional O&M expenses for the instant generating station due to impact of wage/ pay revision for the period 2014-19 and the Commission vide order dated 30.12.2022 had considered an amount of Rs. 904.94 lakh as impact of wage revision during 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% the above amount allowed in 2018-19) works out to Rs. 948.10 lakh. Accordingly, the claim of the Petitioner for Rs 948.10 lakh in 2019-20 is considered and is thereafter escalated @4.77% per annum during the further years of the period 2019-24 is allowed as additional O&M expenses due to pay revision of the Petitioner's staff is as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
948.10	993.33	1040.71	1090.35	1142.36

Impact of pay revision of KV staff

114. As regards the claim of Petitioner towards the impact of pay revision of KV staff, it is pertinent to mention that the Commission in its order dated 30.12.2022 in Petition No. 227/MP/2019 (as stated above) had considered an amount of Rs. 7.35 lakh as impact of wage revision of KV staff in 2018-19. As such, the impact of wage revision in 2019- 20 (after escalating @ 4.77% on the above allowed amount in 2018- 19) works out to Rs. 7.70 lakh. Accordingly, the claim of the Petitioner for Rs 7.28 lakh in 2019-20, is considered (being lower) and the same is thereafter escalated @4.77% per annum for the relevant years of the period 2019-24, and is accordingly allowed as additional O&M expenses due to pay revision of KV staff subject to true up as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
7.28	7.63	8.00	8.38	8.78

Goods & Service Tax

115. The Petitioner has claimed impact of GST for the period 2019-24 on the basis of the actual impact of GST in 2018-19. The Petitioner has submitted the total GST amount of Rs.771.92 lakh for the period from 1.7.2017 to 31.3.2019, based on actual audited accounts for 21 months (Rs.322.12 lakh in 2017-18 and Rs.449.80 lakh in 2018-19). On scrutiny of the details, it is noticed that the claim of Petitioner also includes impact of GST on security expenses, as under:

S. No.	Year	Security Services	Operational Services	Total
1	2017-18	234.72	87.40	**322.12**
2	2018-19 (till Dec.18)	235.84	74.44	**310.28**
3	2018-19 (1.1.19 to 31.3.19)	66.77	72.76	**139.52**
	Total	**537.33**	**234.60**	**771.92**

116. As per Regulation 35(2)(d) of the 2019 Tariff Regulations, Security expenses shall be allowed separately, after prudence check. Hence, excluding the security service expenses of Rs.537.33 lakh (as above), the amount of Rs.234.60 lakh, as shown in the table above, for the period from 1.7.2017 to 31.3.2019, has been normalized and an amount of Rs.140.45 lakh has been worked out for 2019-20 (after escalating the GST amount of Rs.134.06 lakh pertaining to operational services for 2018-19 by 4.77%). For the remaining period of 2020-24, GST impact has been worked out by escalating the GST base value of Rs.140.45 lakh, as on 2019-20, by 4.77% for each year, as per note to Regulation 35(2)(a) of the 2019 Tariff Regulations. Accordingly, the impact of GST is allowed as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
140.45	147.15	154.17	161.52	169.23

Security Expenses

117. Regulation 35(2)(c) of 2019 Tarff Regulations provides as under:

> *"(c) The Security Expenses and Capital Spares for hydro generating stations shall be allowed separately after prudence check:*
> *Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.*

118. The estimated security expenses claimed by the Petitioner for the period 2019-24 based on security requirement of the generating station is as under:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
2087.06	2186.62	2290.92	2400.19	2514.68

119. The Petitioner has claimed actual security expenses of Rs. 1992.04 lakh in 2018-19 and has escalated the same at the rate of 4.77%. Considering the security requirements of the generating station, we allow the projected security expenses as claimed by the Petitioner above, for the period 2019-24. The Petitioner is however, directed to submit the actual security expenses incurred, duly audited, at the time of truing up of tariff.

120. Accordingly, the O & M expenses allowed for the generating station are as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
O&M expense allowed as regulation 35(2)(a) of 2019 Tariff Regulations **(a)**	7058.82	7395.28	7747.78	8117.08	8503.99
Additional O&M expenses due to 3rd Pay Revision Commission…. **(b)**	948.10	993.33	1040.71	1090.35	1142.36
Additional O&M expenses due to Goods and Service Tax (GST) **(c)**	140.45	147.15	154.17	161.52	169.23
Additional O&M Expenses due to pay revision of KV Staff… **(d)**	7.28	7.63	8.00	8.38	8.78
Total O&M Expenses claimed **(e=a+b+c+d)**	8154.65	8543.38	8950.65	9377.33	9824.35
Security Expenses (estimated) **(f)**	2087.06	2186.62	2290.92	2400.19	2514.68
Total additional O&M Expenses (g=e+f)	**10241.71**	**10730.00**	**11241.56**	**11777.52**	**12339.03**

Interest on Working Capital

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

> *"34. Interest on Working Capital: (1) The working capital shall cover*
>
> *(c) For Hydro generating station (Including Pumped Storage Hydro Generating Station) and transmission system:*
>
> *(i) Receivables equivalent to 45 days of annual fixed cost;*
>
> *(ii) Maintenance spares @ 15% of operation and maintenance expense including security expenses; and*
>
> *(iii) Operation and maintenance expenses including security expenses for one month"*

122. Regulation 34(3) of the 2019 Tariff Regulations provides as under:

> *"34(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later." Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24."*

Receivables for Working Capital

123. The Receivable component of working capital has been worked out based on 45 days of fixed cost as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
5363.31	5353.01	5328.14	5282.73	5242.61

Maintenance Spares for Working Capital

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1536.26	1609.50	1686.23	1766.63	1850.85

O&M Expenses for Working Capital

125. O&M expenses for 1 month for the purpose of working capital are as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
853.48	894.17	936.80	981.46	1028.25

Rate of Interest on Working Capital

126. In accordance with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital considered on projection basis, for the period 2019-24 is 12.05% (i.e., 1-year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for the period 2019-24, is being determined during 2021-22, SBI MCLR as on 1.4.2020 (7.75%) and as on 1.4.2021 (7.00%) is also available which is lower in comparison to the same, as on 1.4.2019 (8.55%). Since the rate of interest on working capital is subject to revision at the time of truing-up of tariff, based on the bank rate as on 1st April of each financial year, we find it prudent to allow the rate of interest as on 1.4.2020 and 1.4.2021, for the subsequent financial years. Accordingly, the rate of interest for the year 2019-20 is 12.05%, 2020-21 is 11.25% and for the subsequent years the rate of interest of 10.50% has been considered (i.e., 1-year SBI MCLR of 7.75% as on 1.4.2020 + 350 basis points and 1-year SBI MCLR of 7.00% as on 1.4.2021 + 350 basis points). Accordingly, Interest on working capital is allowed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for O&M expenses (one month)	853.48	894.17	936.80	981.46	1028.25
Working capital for Maintenance Spares	1536.26	1609.50	1686.23	1766.63	1850.85
Working capital for Receivables	5363.31	5353.01	5328.14	5282.73	5242.61
Total Working capital	**7753.04**	**7856.67**	**7951.17**	**8030.82**	**8121.72**
Rate of interest (%)	12.05%	11.25%	10.50%	10.50%	10.50%
Interest on Working capital for	**934.24**	**883.88**	**834.87**	**843.24**	**852.78**

<u>Annual Fixed Charges for the period 2019-24</u>

127. Based on the above, the annual fixed charges approved for the generating station for the period 2019-24, are summarized as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	11755.91	11840.07	11889.86	11946.71	12056.67

Interest on loan	7684.02	6867.68	6098.88	5067.43	4056.84
Return on Equity	13005.71	13097.21	13151.96	13213.95	13334.61
Interest on Working capital	934.24	883.88	834.87	843.24	852.78
O&M Expenses	7058.82	7395.28	7747.78	8117.08	8503.99
Additional O&M expenses	3182.89	3334.72	3493.78	3660.44	3835.04
Total	**43621.59**	**43418.83**	**43217.14**	**42848.84**	**42639.93**

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.

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

Normative Annual Plant Availability Factor (NAPAF)

129. The Petitioner has claimed NAPAF of 70% in terms of Regulation 50(A)(4) of the 2019 Tariff Regulations, which provides as under.

> *50. Norms of Operation for Hydro Generating Stations: The norms of operation as given hereunder shall apply to hydro generating station:*
> *(A) Normative Annual Plant Availability Factor (NAPAF): (1) The following normative annual plant availability factor (NAPAF) shall apply to hydro generating station:*
> *(a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability not affected by silt: 90%.*
> *(b) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF.*
> *(c) Pondage type plants where plant availability is significantly affected by silt: 85%. Runof-river generating stations: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant. …..*

Station	***Type of Plant***	***Plant Capacity No. of Units x MW***	***NAPAF (%)***
Uri-II	*ROR*	*4X60*	*70%*

130. Accordingly, NAPAF of 70% as claimed by the Petitioner is allowed.

Design Energy (DE)

131. The Commission in this order has allowed the annual Design Energy (DE) of 1123.77 MUs (as approved by CEA) for the period 2014-19 in respect of this generating station. Accordingly, this DE i.e. 1123.77 MUs has been considered for

this generating station for the period 2019-24, as per month-wise details as under:

Month		Design Energy (MUs)
April	I	54.72
	II	54.72
	III	54.72
May	I	54.72
	II	54.72
	III	60.19
June	I	33.92
	II	30.65
	III	39.96
July	I	30.51
	II	27.77
	III	34.32
August	I	40.77
	II	30.88
	III	30.98
September	I	21.25
	II	20.72
	III	20.88
October	I	14.92
	II	13.43
	III	13.26
November	I	23.00
	II	17.58
	III	14.94
December	I	12.87
	II	13.48
	III	14.77
January	I	11.57
	II	20.67
	III	21.24
February	I	17.13
	II	23.65
	III	38.94
March	I	41.02
	II	54.71
	III	60.19
Total		**1123.77**

Application Fee and Publication Expenses

132. The Petitioner has sought the reimbursement of fees paid by it for filing the tariff petition and for publication expenses in respect of the Petition. The Petitioner shall

be entitled for the reimbursement of filing fees and publication expenses in connection with the present petition, directly from the beneficiaries, on pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations,

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

134. Petition No. 18/GT/2021 is disposed of in terms of the above.

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