CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

<u>Petition No. 96/GT/2020</u>

Coram:
Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member

Date of Order: 31st March, 2024

IN THE MATTER OF

Petition for revision of tariff for the period 2014-19 and determination of tariff for the period 2019-24 in respect of Parbati-III Hydroelectric Power Station (520 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 - 147 001 (Punjab)

2. Haryana Power Purchase Centre,
   Shakti Bhawan, Sector – 6,
   Panchkula-134 109 (Haryana).

3. BSES Rajdhani Power Limited,
   BSES Bhawan, Nehru Place,
   New Delhi-110 019.

4. BSES Yamuna Power Limited,
   Shakti Kiran Building,
   Karkardooma, Delhi- 110 072

5. Tata Power Delhi Distribution Limited
   33 kV Sub-Station Building,
   Hudson Lane, Kingsway Camp,
   New Delhi-110 009.

6. Power Development Department,
   New Secretariat,
   Jammu- 180 001 (J&K)

7. Uttar Pradesh Power Corporation Limited,
   Shakti Bhavan, 14, Ashok Marg,
   Lucknow - 226 001 (Uttar Pradesh).

8. Ajmer Vidyut Vitaran Nigam Limited,
   Old Powerhouse, Hatthi Bhatta,
   Jaipur Road, Ajmer - 305 001 (Rajasthan)

9. Jaipur Vidyut Vitaran Nigam Limited,
   Vidyut Bhawan, Janpath, Jaipur - 302 005

10. Jodhpur Vidyut Vitaran Nigam Limited,
    New Power House, Industrial Area,
    Jodhpur - 342 003 (Rajasthan).

11. Uttaranchal Power Corporation Limited,
    Urja Bhawan, Kanwali Road,
    Dehradun – 248 001 (Uttarakhand).

12. Engineering Deptt., 1st Floor,
    UT Secretariat, Sector 9-D,
    Chandigarh – 160 009.

13. Himachal Pradesh State Electricity Board,
    Vidyut Bhawan, Kumar House,
    Shimla - 171 004 (Himachal Pradesh). **…Respondents**

<u>Parties Present:</u>

Shri Rishabh Jain, Advocate, NHPC
Shri Rajiv Shankar Dwivedi, Advocate, NHPC
Shri Ajay Shrivas, NHPC
Shri Mohd. Faruque, NHPC
Shri Jitendra Jha, NHPC
Shri Mohit Mudgal, Advocate, BYPL/BRPL
Shri Sachin Dubey, Advocate, BYPL/BRPL
Shri Mohit Jain, Advocate, BYPL/BRPL
Ms. Tulika Bhatnagar, Advocate, BYPL/BRPL
Ms. Jaya, Advocate, BYPL
Ms. Swapna Seshadri, Advocate, PSPCL
Ms. Aishwarya Subramani, Advocate, PSPCL

ORDER

This Petition has been filed by the Petitioner, NHPC Limited, for the truing-up of tariff of Parbati-III hydroelectric power station (520 MW) (in short, "the generating station") for the period 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 the determination of tariff of the generating station for the period 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"). The generating station, situated in the State of Himachal Pradesh, is a pondage type scheme, providing peaking support to the grid when operated in tandem with the upstream Parbati HE Project, Stage-II. The project was sanctioned by the Government of India in November 2005 at a cost of Rs. 230456 lakh at May 2005 price level. Thereafter, on 9.10.2018, the MOP, GOI conveyed to the Petitioner the approval of Revised Cost Estimate (RCE) for Rs. 253975 lakh, including IDC and FC of Rs. 43072 lakh. The generating station comprises four units of 130 MW each, and the date of commercial operation (COD) of the units are as under:

Units	COD
I & II	24.3.2014
III	30.3.2014
IV	6.6.2014

2. The Petitioner had filed Petition No. 6/GT/2017 for determination of annual fixed charges of the generating station for the period 2014-19 and the Commission vide its

order dated 23.4.2019, had approved the capital cost and the annual fixed charges for the period 2014-19, as under :

Capital Cost allowed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Opening Capital Cost	187147.46	253863.16	256818.45	261273.77	268973.32	269008.32
Admitted additional capitalization	0.00	2955.30	4455.32	7699.55	35.00	0.00
Closing Capital Cost	**187147.46**	**256818.45**	**261273.77**	**268973.32**	**269008.32**	**269008.32**

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Return on Equity	2119.35	13099.87	16223.54	16604.16	16846.36	16847.45
Interest on Loan	2284.09	13532.80	15613.78	14556.98	13351.53	11735.83
Depreciation	1696.06	10400.73	12844.17	13062.30	13252.84	13253.70
Interest on Working Capital	187.00	1155.93	1423.56	1439.25	1449.44	1442.13
O&M Expenses	843.59	5493.82	7151.82	7626.70	8133.11	8673.15
Total	**7130.10**	**43683.15**	**53256.87**	**53289.39**	**53033.28**	**51952.26**

4. The Petitioner vide affidavit dated 28.10.2019 has filed the present Petition for truing up of tariff of the generating station for the period 2014-19 and has claimed the capital cost and annual fixed charges vide affidavit dated 5.8.2021 as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Opening capital cost	187147.46	253863.16	256818.45	261273.77	265579.70	268077.26
Add: Additional during the year	0.00	2150.85	2027.44	3239.07	2253.33	2000.61
Less: De-capitalisation during the year	0.00	1728.63	84.67	110.03	22.48	0.12
Add: Discharges during the year	0.00	2533.08	2512.54	1176.88	266.71	340.98

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Closing capital cost	**187147.46**	**256818.45**	**261273.77**	**265579.70**	**268077.26**	**270418.73**
Average capital cost	**187147.46**	**255340.81**	**259046.11**	**263426.73**	**266828.48**	**269248.00**

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Depreciation	1696.06	10400.73	12844.17	12978.70	13062.12	13168.56
Interest on Loan	2284.09	13532.80	15389.92	14075.38	11698.82	10597.10
Return on Equity	2140.98	13233.53	16428.70	16574.55	16901.45	17121.75
Interest on Working Capital	187.50	1159.00	1423.13	1425.56	1408.28	1420.27
O&M Expenses	843.59	5493.82	7151.82	7626.70	8133.11	8673.15
Total	**7130.19**	**43819.89**	**53237.74**	**52680.88**	**51203.78**	**50980.82**

5. The Respondents UPPCL, RUVNL, PSPCL, BYPL and BRPL have filed their replies vide affidavits dated 3.10.2020, 18.11.2020, 28.6.2021, 9.7.2021 and 10.7.2021, respectively. The Petitioner has filed its rejoinder to the said replies on 29.6.2021 (UPPCL), 29.6.2021 (RUVNL), 9.7.2021 (PSPCL), 6.8.2021 (BYPL) and 13.8.2021 (BRPL). The Petitioner has also submitted additional information vide affidavits dated 30.6.2021, 5.8.2021 and 9.7.2021 after serving copy to the Respondents. The Petition was heard through video conferencing on 14.7.2022 and the Commission, after directing the Petitioner to file certain additional information, reserved its order in the matter. In response, the Petitioner has filed the additional information on 28.7.2022, with a copy to the Respondents. However, since the order in the Petition could not be issued prior to one Member of this Commission, who heard the matter, demitting office, this Petition was relisted and heard on 6.2.2024. The Commission after directing the Petitioner to file certain additional information, reserved its order in the matter. In response, the Petitioner has filed the additional information on 27.2.2024 with a copy to the Respondents. Based on the submissions of the parties

and documents available on record and after prudence check, we proceed to truing up the tariff of the generating station for the period 2014-19 along with the determination of tariff for the period 2019-24, as stated in the subsequent paragraphs.

Truing up of tariff for the period 2014-19

Capital Cost

6. 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."*

7. The Commission vide its order dated 23.4.2019 in Petition No. 6/GT/2017 had approved the opening capital cost of Rs. 187147.46 lakh as on 1.4.2014 and Rs.253863.16 lakh as on COD of generating station, i.e. 6.6.2014. The Petitioner in this petition has also claimed an opening capital cost of Rs. 187147.46 lakh as on 1.4.2014 & Rs.253863.16 lakh as on 6.6.2014. Accordingly, the capital cost of Rs. 187147.46 lakh and Rs.253863.16 lakh have been considered as the opening capital cost as on 1.4.2014 & 6.6.2014 (COD of the generating station), respectively, for the purpose of truing-up of tariff for the period 2014-19.

Additional Capital Expenditure

8. 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."

9. The projected additional capital expenditure allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017 for the period 2014-19 is summarized as under:

(Rs. In lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	1.4.2014 to 5.6.2014	**6.4.2014 to 31.3.2015**				
Total additional capital expenditure (A)	0.00	4683.93	4539.98	7699.55	35.00	0.00
De-capitalization (B)	0.00	1728.63	84.67	0.00	0.00	0.00
Total projected additional capital expenditure allowed (C=A-B)	**0.00**	**2955.30**	**4455.32**	**7699.55**	**35.00**	**0.00**

10. The year-wise claim of the Petitioner for additional capital expenditure, under various heads, is examined below:

(Rs. In lakh)

Sl. No		2014-15		2015-16	2016-17	2017-18	2018-19
		1.4.2014 to 5.6.2014	6.4.2014 to 31.3.2015				
1	**Additions being claimed for tariff purpose**						
A	**Within original scope of work**						
	Regulation 14(1)(ii)	-	-	-	2642.90	-	-
	Regulation 14(1)(ii) & 14(1)(iv)	-	-	-	575.46	-	-
	Regulation 14(2)	-	-	-	-	1740.79	820.34
	Sub- total (A)	-	-	-	**3218.36**	**1740.79**	**820.34**
B	**Beyond original scope of works**						
	Regulation 14(3)(i)	-	-	-	-	410.2	1180.27
	Regulation 14(3)(viii)	-	-	-	20.71	102.34	-
	Sub-total (B)	-	-	-	**20.71**	**512.54**	**1180.27**
C	**Total Additions (C=A+B)**	**-**	**2150.85**	**2027.44**	**3239.07**	**2253.33**	**2000.61**
D	**Deletion**						
	Assumed deletions	-	-	-	-	12.35	-
	Decapitalization	-	1728.63	84.67	110.03	10.13	0.12
	Sub-total (D)	-	-	-	**110.03**	**22.48**	**0.12**
E	Discharge of undischarged Liabilities	-	2533.08	2512.54	1176.88	266.71	340.98
F	**Net additions claimed (F=C-D+E)**	**-**	**2955.30**	**4455.32**	**4305.93**	**2497.56**	**2341.48**
2	**Additional capitalization not to be claimed**						
	Additions in Exclusions	-	-	-	105.57	254.59	-
	Deletions	-	-	-	144.36	354.03	51.30
	Total Exclusions claimed	-	-	-	**(-) 38.78**	**(-) 99.44**	**(-) 51.30**

11. The Petitioner has submitted that the Commission's order dated 23.4.2019 in Petition No. 6/GT/2017 was based on the actual expenditure incurred for the period 2014-16 and therefore, the Petitioner has not approached the Commission for interim truing up for the year 2016-17. The Petitioner has further submitted that there is a variation in the projected additional capital expenditure for the period 2016-19 and the actual additional capital expenditure incurred during the period 2016-19. The Petitioner has also submitted that some of the additional capital expenditure (including corresponding deletion) allowed has not been incurred/not to be incurred and,

therefore, the same is being surrendered in this Petition. The Petitioner has further stated that there are certain additional capital expenditures which were not projected earlier but were incurred by the generating station due to site-specific requirements, which were essential for successful and efficient plant operation, and. therefore. these expenditures have been included as part of the capital base for the purpose of tariff.

12. The Petitioner has also submitted that as per clause (13) of Regulation 3 of the 2014 Tariff Regulations, the cut-off date of the generating station is 31.3.2017, and some of the expenditures within the original scope, which were projected and allowed during the period 2014-19, has spilled over beyond the cut-off date, due to some unavoidable circumstances like the delay due to claims of compensation to project affected families, delay in works to be done by the forest department on a deposit basis, delay in the tendering process and less participation in bid due to remote location of the project, which resulted in the generating station not being able to incur certain additional capital expenditure incurred during 2016-19. The Petitioner has therefore submitted that these expenditures, which were essentially required for the efficient and successful operation of the generating station, may be allowed. The Petitioner has clarified that it has claimed these expenditures in the subsequent years under Regulation 14(2) of the 2014 Tariff Regulations, which is for capital expenditure of items within the original scope, but after the cut-off date, as no specific sub-clause was available under the said Regulation, for claiming deferred works within the original scope, but after the cut-off date. The Petitioner has stated that the generating station has also purchased capital spares amounting to Rs. 842.59 lakh and Rs. 135.46 lakh during the years 2017-18 and 2018-19, respectively.

13. It is noticed that vide Commission's order dated 23.4.2019 in Petition No. 6/GT/2017, the additional capital expenditure claimed by the Petitioner was restricted for the assets/works which are within the original scope of the project up to the Revised Cost Estimate (RCE) of Rs. 253975 lakh. Vide ROP of the hearing dated 14.7.2022, the Petitioner was directed to furnish the details regarding the approval of the competent authority for the additional expenditure claimed beyond the approved RCE dated 9.10.2018, along with the breakup of the original approved RCE, duly reconciled with the additional capital expenditure claimed within the original scope of work. In response, the Petitioner vide its affidavit dated 28.7.2022 has submitted as under:

i) Competent authority for approving all the additional capital expenditure in NHPC is its Board of Directors. All capital items, including the spill over works of original scope which were capitalized in books of account for the period 2014-19, were purchased and capitalized after approval of budget by Board of Directors of NHPC. Copies of audited books of accounts for the period 2014-15 and 2015-16 have already been submitted in Petition No. 6/GT/2017 and Commission has considered the same in order dated 23.4.2019 in Petition No. 6/GT/2017. Audited books of accounts for the period 2016-17, 2017-18 and 2018-19 have been submitted. Copy of letter conveying the approval of budget for incurring the capital expenditure during 2016-17, 2017-18 and 2018-19 by NHPC Board of Directors is also furnished.

ii) For the additional capital expenditure claimed which includes the spill over works of original scope during the period 2019-24, competent authority for approving the additional capital expenditure is Board of Directors of NHPC. Approval of Board of Directors for additional capital expenditures for the period 2019-24 has been submitted.

iii) RCE amounting to Rs. 2611.85 crore duly recommended by NHPC Board of Directors was submitted to MOP for approval. The RCE amounting to Rs. 2611.85 crore includes actual expenditure amounting to Rs. 2433.27 crore (as on COD i.e., 6.6.2014) and Rs. 178.58 crore for balance works of original scope.

iv) CEA on 29.4.2017 appraised RCE amounting to Rs. 2611.82 crore, which is same as the amount claimed in submitted RCE to Ministry of Power (MOP) by NHPC. MOP approved the RCE of Rs. 2539.75 crore against the submitted RCE of Rs. 2611.85 crore MOP for first time while approving RCE of Hydro Projects adopted the concept of sun set date, which is basically the cut-off date as per prevailing Tariff Regulations. MOP, later on, has incorporated the definition of sunset date in its guidelines for RCE. The concept of sunset date has been adopted by MOP to close the process of approval of RCE, so that no further RCE is required. However, it is to mention here that the definition of sun set date in the process of approval of RCE does not prohibit the petitioner from executing the balance works of original scope, anywhere in the approved RCE. The cost approved by MOP through RCE is the actual expenditure up to cut-off date (i.e. 31.3.2017). The reconciliation with Balance Sheet is as under:

	Amount (in Cr)
Balance Sheet Cost as per books of accounts as on 31.03.2017 (Cut-off date/sun set date)	2520.78
Capital cost considered in approved RCE as on as on 31.03.2017 (Cut-off date/sun set date) after adjusting de-capitalization	RCE: 2539.75
	De-Cap: -19.23
	Net: 2520.52

v) Thus, it is clear from above that in the approved RCE, the cost approved is as per the Balance Sheet, however, the same does not restrict the Petitioner to carry out the balance works of original scope. In view of above, Commission is requested to consider the balance works within original scope beyond cut-off date as these works are necessary for efficient and successful operation of the power station. Moreover, Regulation 25 of CERC Tariff Regulations, 2019 also allows the generating station to complete the balance works of original scope after the cut-off date. It is also clarified here that petitioner is not claiming O&M Expenses on the Add Cap allowed within original scope capitalized after cut-off date.

14. Thereafter, vide ROP of the hearing dated 6.2.2024, the Petitioner was directed to furnish the following additional information:

a) The Petitioner shall clarify the reason with regard to additional capital expenditure of original scope claimed beyond the approved RCE dated 9.10.2018.

b) Clarification as to whether the Petitioner has approached the MOP, GOI for approval of RCE for spilled over works. If yes, the details along with documentary proof.

15. In compliance with the above, the Petitioner vide affidavit dated 27.2.2024 has submitted as under:

i) RCE of the generating station amounting to Rs. 2611.85 Cr was submitted to MOP, GOI after recommendation of Board of Directors of NHPC. In this RCE, completion cost for entire original scope of work is included. MOP/GoI examined this RCE at completion level through CEA. CEA examined the civil aspect of the generating station through CWC. Thus, RCE was examined by the competent and technical body i.e. CEA/CWC for entire technical work/constructed structures and it has been established that cost deviation is not due to any design changes. After analysis of RCE, comprising of already incurred expenditure and anticipated balance expenditure at completion level of generating station, CEA forwarded the above RCE to MOP for further necessary action.

ii) Though anticipated balance expenditure for works "within original scope of works" was submitted to MOP by CEA, MOP/GOI has approved the RCE amounting to Rs. 2539.75 Cr against submitted cost of Rs. 2611.85 crore MOP has restricted the RCE on balance sheet cost as on sunset date / cut-off date i.e. March' 2017. It is pertinent to mention that CEA/CWC has approved the balance work being the part of original scope of work. Further, MOP, while conveying RCE approval has not disallowed the ongoing balance work (original scope of work) included in the RCE for completion of the project. As such approved RCE cost is not true reflection of balance works in original scope of works. Since majority of balance works was initiated by the power station after COD, being these works a part of original scope of works and could not be completed upto cut-off date i.e. March'2017 due to site conditions and accordingly included in RCE submitted by NHPC. Total claim of such balance work under original scope of work beyond approved RCE is Rs. 49.30 crore. Pertinent to mention that the balance work is necessary for successful and efficient operation of the plant and already approved by CEA during analysis of RCE.

iii) Detailed cost break-up of Rs. 49.30 crore claimed beyond the approved RCE is as under:

(Rs. in Crore)

Sl. No.		**Amount**
1.	RCE amount approved by NHPC Board and submitted to MoP for approval	2611.85
2.	RCE amount appraised by CEA	2611.85
3.	RCE amount approved by MOP	2539.75
4.	Capital cost approved as on COD (excluding NIDC but including liability) in Petition No. 6/GT/2017 dated 23.4.2019	2433.27
5.	Balance work within original scope of work with reference to RCE submitted by NHPC and concurred by CEA (1-3)	178.58
6.	Add cap within original scope of work upto 2015-16 & allowed by Commission vide order dated 23.4.2019 in Petition No. 6/GT/2017 and considered by NHPC in present petition	66.29
7.	Balance amount left beyond 2015-16 with reference to RCE submitted by NHPC (5-6)	112.29
8.	Claimed amount under original scope of work during 2016-17 to 2019-20	100.25
9.	Spill over beyond approved RCE by MoP {(3)-(4+6+8)}	60.06
10.	Initial spare included in balance work for 2016-17 to 2019-20 i.e. at Sl.No 8. above & detailed below	10.76
11.	**Net Spill over beyond approved RCE (9-10)**	**49.30**

iv) The Petitioner has already submitted reconciliation of the RCE amount with the additional capital expenditure within the original scope.

v) Initial spare included in the original scope of work, executed from 2016-17 to 2019-20:

(Rs. in lakh)

Sl. No.	Period	Claimed amount under Original Scope of work (a= b + c)	Initial Spare (b) {included in (a)}	Balance Work (c) {included in (a)}
1.	2016-17	4329.28	0	4329.28
2.	2017-18	2414.32	842.59	1571.73
3.	2018-19	2117.83	211.98	1905.85
4.	2019-20	1163.67	21.10	1142.57
Total		10025.10	1075.67	8949.43

vi) The initial spares mentioned above (Rs. 10.76 cr) are the part of initial spare amounting to Rs.13.89 cr allowed during 2016-17 and within the celling limit defined under Regulation 8 of the 2009 Tariff Regulations applicable for the generating station. As detailed, the capitalization of initial spares, has been delayed due to the poor response of bidders during the tendering process.

vii) In view of above, works amounting to Rs. 49.30 cr only is beyond the RCE amount approved by MOP. The Petitioner has requested to allow this expenditure for the works already approved by CEA and appraised to MOP. Moreover, Regulation 14(2) of the 2014 Tariff Regulations as well as Regulation 25 of the 2019 Tariff Regulations allow the generating station to complete the balance works of original scope after the cut-off date and the same is not linked to the approved RCE cost in any provision under the 2014 and the 2019 Tariff Regulations.

viii) The Commission is requested to allow such spill over expenditure under "Power to Relax" (i.e. Regulation 54 of 2014 Tariff Regulations & Regulation 76 of 2019 Tariff Regulations), since balance work is necessary for efficient and successful operation of the plant."

16. As regards the clarification as to whether the Petitioner had approached the MOP, GOI for approval of the RCE for spilled-over works, the Petitioner has submitted as under:

"*The petitioner had approached MoP, GoI for approval of completion cost of Parbati-III power station by incorporating the expenses for entire work covered under "original scope of work". MoP has approved the RCE for the amount incurred for execution of original scope of work upto cut-off date i.e. 31.3.2017. As the anticipated balance expenditure at completion of power station has already been approved by CEA and not objected by MoP, GoI, the Petitioner executed such ongoing work under additional capitalization as per Regulation 14(2) of 2014 Tariff Regulations as well as Regulation 25 of 2019 Tariff Regulations, which allow the petitioner to complete the balance works of original scope after the cut-off date.*

It is to mention that after approval of RCE, the Petitioner has not approached MoP, GoI for spilled over works. "

17. The Petitioner has submitted that due to various reasons, which were beyond its control, the Petitioner could not execute all the works during the period 2014-19, for which additional capital expenditure was allowed vide order dated 23.4.2019. Consequent upon this, the Petitioner has submitted that the balance works/supplies were still in progress/process and are being undertaken. Accordingly, the Petitioner had submitted that the works which were executed after the original cut-off date (31.3.2017) up to 31.3.2019 and anticipated to be executed during the period 2019-24 have been claimed by the Petitioner in the present petition.

18. As regards the spilt over additional capital expenditure works beyond the cut-off date, it is noticed that these assets/works were already admitted and were part of the original scope of works/RCE. Also, as regards the additional capital expenditure claimed beyond the approved RCE of Rs. 2539.75 crore, it is observed that on the recommendation made by the Petitioner's Board of Directors, RCE amounting to Rs. 2611.85 crore was submitted to the MOP, GOI for approval. The RCE amounting to Rs. 2611.85 crore includes the actual expenditure amounting to Rs. 2433.27 crore (as on COD i.e., 6.6.2014) and Rs. 178.58 crore for the balance works within the original scope. Further, CEA, on 29.4.2017, approved the RCE amounting to Rs. 2611.82 crore, which is the same as claimed in the RCE submitted to the MOP, GOI by the Petitioner. However, MOP had approved the RCE of Rs. 2539.75 crore, as against the RCE of Rs. 2611.85 crore submitted, which is the actual additional capital expenditure incurred as on the cut-off date. The Petitioner has also furnished the reconciliation of RCE with the additional capital expenditure within the original scope. On perusal of the submission of the Petitioner, it is noticed that the RCE approved by

the MOP GOI, is the capital expenditure as on the cut-off date and does not include the additional capital expenditure claimed beyond the approved RCE, which are part of the original scope of work and considered by CEA. Considering the above, the claim of the Petitioner for assets/works within the original scope of work, but after cut-off date and beyond the RCE approved by MOP, GOI, is allowed.

2014-15 and 2015-16

19. The Petitioner has submitted that the additional capital expenditure claimed in Petition No. 6/GT/2017 for the period 2014-16 were based on the actual books of accounts, and therefore, the same may be considered as the admitted capital cost for the period 2014-16. Since the actual additional capital expenditure incurred for the period 2014-16 had already been approved vide order dated 23.4.2019, the same is allowed for the period 2014-16, as under:

(Rs. in lakh)

	2014-15		2015-16
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015	
Addition during the year / period	0.00	2150.85	2027.44
Less: De-capitalization during the year /period	0.00	1728.63	84.67
Add: Discharges during the year / period	0.00	2532.37*	2512.54
Additional capital expenditure allowed	**0.00**	**2954.59**	**4455.32**

**Petitioner has claimed reversal of Rs 0.71 lakh in the present petition.*

2016-19

Works/assets within the original scope

20. The actual additional capital expenditure claimed by the Petitioner, on cash basis, within the original scope of works for the period 2016-19, is as under:

(Rs. in lakh)

Within the original scope of works		Regulation	2016-17	Regulation	2017-18	2018-19
1	Compensation for land including enhanced compensation including solatium, interest and legal charges	14(1) (ii) & 14(1)(iv)	575.46	14 (2)	410.20	413.27
2	Compensation for Damage to House/ Buildings for Project Affected Families (PAFs)	14(1)(ii)	7.62		0.00	0.00
3	Environment & Ecology		13.85		12.32	37.77
4	Building		478.39		38.84	247.75
5	Plants & Equipment		83.92		9.16	0.00
6	Roads, Bridges and Other Works		1241.15		10.24	14.52
7	Miscellaneous		90.98		111.42	208.19
8	Civil Works		296.33		196.42	92.71
9	HM Works		0.00		504.35	17.23
10	E & M Works		430.64		46.30	0.00
11	Initial Spare		0.00		811.73	202.18
	Total		**3218.36**		**2150.99**	**1233.62**

A. Land

21. The Petitioner has claimed additional capital expenditure of Rs. 575.46 lakh and Rs. 7.62 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations towards "Compensation for land including enhanced compensation including solatium, interest and legal charges" and "Compensation for Damage to House/ Buildings for Project Affected Families (PAFs)" respectively. The Petitioner has further claimed additional capital expenditure of Rs. 410.20 lakh in 2017-18 and Rs. 413.27 lakh in 2018-19 under Regulation 14(2) of 2014 Tariff Regulations towards "Compensation for land including enhanced compensation including solatium, interest and legal charges". In justification for the same, with regard to "Compensation for land including enhanced compensation including solatium, interest and legal charges" the Petitioner has submitted that the same is within the original scope of works. The Petitioner has further submitted that in Petition No. 6/GT/2017, it had projected an expenditure of Rs. 150.00 lakh under this head, but most of the landowners approached the Court for

enhancement of the land cost, which was awarded to the parties during the years 2016-17, 2017-18 and 2018-19 and there are still some court orders that are awaited for releasing the compensation. The Petitioner has also submitted that the money has been deposited in the Court, so that the interest amount in these compensations can be saved, and therefore the expenditure shall be capitalized after receiving of award. The Petitioner has also clarified that the increase in the expenditure is only due to the enhancement of land compensation as per orders of the Court. The Petitioner has furnished the documentary evidence related to the Court cases and has also substantiated that the expenditure incurred is within the limit of the RCE. Accordingly, on prudence check, the claim of the Petitioner for additional expenditure for works/assets within the original scope of project, on this count, is allowed.

B. Environment & Ecology

22. The Petitioner has claimed additional capital expenditure of Rs. 13.85 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations and Rs. 12.32 lakh and Rs. 37.77 lakh in 2017-18 and 2018-19 respectively under Regulation 14(2) of the 2014 Tariff Regulations, towards Environment and ecology. Some of the sub-heads under this head include Reservoir rim treatment, Landscape and restoration plan & Compensatory Afforestation, Muck disposal plan & Green belt development payment towards the Local Area Development Fund and 2nd utilization of the dumping site. The Petitioner has submitted that these works got delayed due to slow progress of works by the Forest Department. Since the additional capital expenditure of Rs. 63.94 lakh incurred and claimed is within the admitted completion cost of the project, as on the cut-off date i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019

in Petition No. 6/GT/2017, the claim of the Petitioner for works/assets within the original scope of project, on this count, is allowed.

C. Buildings

23. The Petitioner has claimed additional capital expenditure of Rs. 478.39 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations and Rs. 38.84 lakh and Rs. 247.75 lakh in 2017-18 and 2018-19, respectively under Regulation 14(2) of the 2014 Tariff Regulations, towards Buildings. Some of the sub-heads under this head include the Construction of CISF check posts, Construction of store shed for generating plant spare, construction of township and electrical store rooms at Sapangini, construction of non-executive field hostel at Sapangini, internal boundary wall and gate around D-special and D-type quarters at Sapangini township, balance construction of A-type quarters, landscaping work and boundary wall in area adjacent to old Behali, development of green belt, landscaping and beautification work at Sapangini township, hiring of consultancy services & performing acoustic treatment sound proofing at auditorium in admin building behali etc. Since the total additional capital expenditure of Rs. 764.98 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the claim of the Petitioner, is allowed.

D. Plant and Equipment

24. The Petitioner has claimed additional capital expenditure of Rs. 83.92 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations, and Rs. 9.16 lakh and Rs. 0.00 lakh, in 2017-18 and 2018-19, respectively, under Regulation 14(2) of

the 2014 Tariff Regulations, towards Plant & Equipment. Some of the sub-heads under this head includes the Purchasing of submersible pump for dam, Purchase of wheel dozer, Purchase of fire tender (2 nos.), Purchase of truck 25 MT capacity, Purchase of ambulance, Purchase of scissor platform mounted truck etc. Since the total additional capital expenditure of Rs. 93.08 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date i.e., Rs. 11972.81 lakh, as allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017. Accordingly, the additional capital expenditure for works/assets within the original scope of project, as above, is allowed.

E. Roads, Bridges and Other Works

25. The Petitioner has claimed additional capital expenditure of Rs. 1241.15 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations, and Rs. 10.24 lakh and Rs. 14.52 lakh in 2017-18 and 2018-19, respectively under Regulation 14(2) of the 2014 Tariff Regulations, on account of road, bridges and other works. Some of the sub-heads under this head includes the Construction of internal road, drain and edge wall in Sapangini township, providing wire crates on left bank below the alternate road at upstream of dam site, Protection work of surge shaft road, protection of existing Sainj by-pass road by way of providing wire crate, wearing course, premix carpeting and cement concrete pavement of SAINJ-bye pass road for Parbati-III power station, etc. Since the total additional capital expenditure of Rs. 1265.91 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the additional expenditure for works/assets within the original scope of project, as above, is allowed.

F. Miscellaneous

26. The Petitioner has claimed the additional capital expenditure of Rs. 90.98 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations, and Rs. 111.42 lakh and Rs. 208.19 lakh in 2017-18 and 2018-19, respectively under Regulation 14(2) of the 2014 Tariff Regulations, towards Miscellaneous expenses. Some of the sub-heads under this head includes amount deposited against construction of 33/11KVA sub-station for providing regional power supply at power-house (civil works), hill side protection work at Behali to protect 33KVA sub-station and existing store, construction of chain link fencing work with barbed wire, installation of survey pillars at dam area for PPS -III etc. Since the total additional capital expenditure of Rs. 410.59 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the claim of the Petitioner, within the original scope of project, as above, is allowed.

G. Civil Works

27. The Petitioner has claimed additional capital expenditure of Rs. 296.33 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations, Rs. 196.42 lakh and Rs. 92.71 lakh in 2017-18 and 2018-19, respectively under Regulation 14(2) of the 2014 Tariff Regulations, towards Civil works. Some of the sub-heads under this head include cut and cover work of pot yard near power house, hiring of architect for power house, MAT and MAT portal, providing & fixing of balance flooring & wall tiling work under architectural works of power house & control building of Parbati-III Power station, painting of control building, power house and transformer cavern, diamond

core drilling with hilti dd-350 machine in power house of Parbati-III power station, side drain from GOC SFT at dam (risk cost L&T), invert concrete in MAT & power house to transformer cavern etc. Since the total additional capital expenditure of Rs. 585.46 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date, i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the claim of the Petitioner within the original scope of project, as above, is allowed.

H. HM Works

28. The Petitioner has claimed additional capital expenditure of Rs. 0.00 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations, and Rs. 504.35 lakh and Rs. 17.23 lakh in 2017-18 and 2018-19, respectively under Regulation 14(2) of the 2014 Tariff Regulations, towards HM works. Some of the sub-heads under this head include the supply & installation of a trash rack cleaning machine along with a hydraulic grappler, balance supply, and erection. transportation, escalation, entry tax, CST/VAT at spillway radial gate, and stop log gates. aquatic life discharge pipes, atomization of the dam control room and DG set and their spare parts, etc. Since the total additional capital expenditure of Rs. 521.58 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date, i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the claim of the Petitioner, as above, is allowed.

I. E & M Works

29. The Petitioner has claimed additional capital expenditure of Rs.430.64 lakh in 2016-17 under Regulation 14(1)(ii) of the 2014 Tariff Regulations and Rs.46.30 lakh

and Rs. 0.00 lakh in 2017-18 and 2018-19 respectively under Regulation 14(2) of the 2014 Tariff Regulations towards E&M works. Some of the sub-heads under this head include 53 MVA, single phase GSU transformers, cooling water system, 415V switchgear and auxiliary transformer, balance works of LOT-4- electromechanical – power-house, etc. Since the total additional capital expenditure of Rs.476.94 lakh claimed is within the balance limit of the admitted completion cost of the project as on the cut-off date, i.e., Rs. 11972.81 lakh, and had been allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, the claim of the Petitioner, as above, is allowed.

J. Initial Spares

30. The Petitioner vide affidavit dated 30.10.2019 has claimed initial spares for Rs. 2215.00 lakh as on the COD, and the Plant & Machinery cost is stated as Rs. 56006.83 lakh. Thus, the initial spares claimed works out to 3.95% of the Plant & Machinery cost. The Petitioner has, vide affidavit dated 9.7.2021, further claimed initial spares for Rs. 811.73 lakh in 2017-18 and Rs. 202.18 lakh in 2018-19 under Regulation 14(2) of the 2014 Tariff Regulations.

31. Regulation 13(c) of the 2014 Tariff Regulations, provides as under:

> "*13. Initial Spares: Initial spares shall be capitalized as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:*
>
> *(a) Coal-based/lignite-fired thermal generating stations - 4.0%*
> *(b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%*
> *(c) Hydro generating stations including pumped storage hydro generating station—4.0%*
> *Provided that:*
> *i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:*
> *xxxx*
> *iv. for the purpose of computing of initial the cost spares, plant and machinery*

cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break-up of head wise IDC &IEDC in its tariff application."

32. As per the above regulation, the limit of allowable initial spares works out as Rs. 2240.24 lakh, which is 4% of Rs. 56006.83 lakh (P&M cost). Therefore, the total initial spares of Rs. 2215.00 lakh claimed, as on COD of the generating station, is allowed.

33. It is also noticed that the Petitioner claimed initial spares after the COD of the generating station and up to the cut-off date for Rs. 811.73 lakh in 2017-18 and Rs. 202.18 lakh in 2018-19, thereby totaling Rs.1013.36 lakh. The Plant & Machinery cost for the project has been considered as per the original scope of work allowed on the cut-off date, i.e. Rs.61517.98 lakh and the 4% of the initial spares, considered as per Regulation 13(2) of the 2014 Tariff Regulations, is Rs.2460.72 lakh. Therefore, the initial spares for Rs.245.72 lakh (Rs.2460.72 lakh – Rs.2215.00 lakh) in 2017-18 and 'nil' in 2018-19, are allowed.

Works/assets beyond the original scope of project

34. The Petitioner has claimed certain assets/items beyond the original scope of works; these claims are examined as under:

2016-17

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner/Respondents	Remarks on admissibility	Amount Allowed
Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items allowed in order dated 23.4.2019 in Petition No. 6/GT/2017					

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner/Respondents	Remarks on admissibility	Amount Allowed
1	Providing & fixing walkway platform & railings around Stoplog storage grooves, railing around Diversion cum Spillway Tunnels, ladders for DT gates & platform connecting the two bays of DT for Parbati-III Power Station.	11.74	The Petitioner submitted that the walkway platform and railings around HM structures was essentially required to have access to these structures and safety of the manpower working on equipment.	The additional capital expenditure was allowed in 2016-17, vide order dated 23.4.2019 in Petition No. 6/GT/2017. Accordingly, the additional capital expenditure claimed by the Petitioner, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	11.74
2	Purchase of CCTV	8.05	The Petitioner submitted that the Commission has allowed amount Rs.3.00 lakh during 2016-17 for installation of CCTV cameras. As per recommendation of CISF additional CCTV cameras are installed for total financial implication of Rs. 8.05 lakh for round the clock watch and ward of all the vital installations of the Power station.	The additional capital expenditure was allowed in 2016-17, vide order dated 23.4.2019 in Petition No. 6/GT/2017. The Petitioner has also furnished the relevant documentary evidence in support of the same. Accordingly, the additional capital expenditure claimed by the Petitioner, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	8.05
	Sub-total (A)	**19.78**			**19.78**
Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items additionally claimed as per actual site requirements					
3	Balance Payments of Protection of left bank & removal of boulder in front of TRT Outfall	0.93	The Petitioner submitted that, the protection work was carried out at TRT outfall for safety of the outfall structure. A boulder existed right in front of the outfall which might have hindered the outflow of water from outfall during running of power plant, the work was executed to smooth water outflow from TRT.	Based on the justification submitted by the Petitioner and considering the fact that the asset is required for the successful and efficient operation of the plant, the claim is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	0.93
	Sub-Total (B)	**0.93**			**0.93**
	Total (A+B)	**20.71**			**20.71**

2017-18

(Rs.in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner/Respondents	Remarks on admissibility	Amount Allowed
Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items allowed in order dated 23.4.2019 in Petition No. 6/GT/2017					
1	Purchase of pump	5.26	The Petitioner submitted that the expenditure amounting to Rs. 15 lakh allowed during 2017-18. for augmentation of pumping at different locations / floors in power house	The additional capital expenditure was allowed in 2017-18, vide order dated 23.4.2019 in Petition No. 6/GT/2017. Accordingly, the additional capital expenditure claimed by the Petitioner, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	5.26
2	Replacement of video wall for SCADA system	13.63	The Petitioner submitted that, presently, DLP based video walls are installed in power house control room, which is an outdated technology. The running life of the lamps is less and the lamps are very costly. As such, the maintenance cost of the existing video walls is quite high. Considering the technological advancement and in view of high maintenance cost of the existing screens, it is proposed to purchase video walls of the latest technology.	The additional capital expenditure was allowed in 2017-18, vide order dated 23.4.2019 in Petition No. 6/GT/2017. Accordingly, the additional capital expenditure claimed by the Petitioner, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner has submitted that the old asset has been actually deleted from books in 2017-18 and considered under "Assumed Deletions for the purpose of tariff. The same is in order. The original value of old asset has been considered under "Assumed Deletions".	13.63
3	Construction of cement cladding wall on both side of MAT at PH	54.10	The Petitioner submitted that Expenditure amounting to Rs. 90 lakh was allowed by during 2016-17 (refer page no. no 15). Due to poor response from bidders tendering process got delay and	The additional capital expenditure was allowed in 2017-18, vide order dated 23.4.2019 in Petition No. 6/GT/2017.	54.10

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner/Respondents	Remarks on admissibility	Amount Allowed
			the work is actually completed in 2017-18. The actual expenditure came out to be Rs. 62.24 Lakh based on tendering process against admitted cost amounting to Rs. 90 lakh.	Accordingly, the additional capital expenditure claimed by the Petitioner, is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
	Sub-total (A)	**72.99**			**72.99**
Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items additionally claimed as per actual site requirements					
4	Purchase of pallet truck	1.46	The Petitioner submitted that, this is required for shifting / handling of heavy items and material at different floors in power house	Based on the justification submitted by the Petitioner and considering the fact that the asset is required for the successful and efficient operation of plant, the claim is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	1.46
5	Replacement of two nos. Shaft Sleeve	17.96	The Petitioner submitted that Shaft Sleeve is an important Under water component of Turbine, which remains submerged in the water all the time. The shaft Sleeve wearing is due to high silt content in the river water during monsoon season results in damage/ failure and requires replacement. Replacement of old item is indicated in Form-9B(i) during 2018-19 (refer item no. A34) same value is considered as assumed deletion value during 2017-18.	Based on justification of the Petitioner and considering the fact that the asset will facilitate for the successful and efficient operation of plant, the claims (*in sl nos 5 & 6*) are **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner has submitted that old asset has been actually deleted from books in 2018-19 and considered under "Assumed Deletions for the purpose of tariff. The same is in order. The original value of old asset has been considered under "Assumed Deletions".	17.96
6	Replacement of 336KV, metal oxide type, surge arrestor	2.19	The Petitioner submitted that, 336 KV Metal Oxide Surge Arrestor was installed in the main line circuit. Old surge arrestor failure/damaged due to heavy and uneven surges in the transmission line. Replacement of old item is indicated in Form-9B(i) during 2018-19 (refer item no. A35) same value is considered as assumed deletion value during 2017-18		2.19
7	Purchase of Car	7.73	The Petitioner submitted that; Parbati-III Power Station have all	Considering the fact that the expenditure	0.00

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner/Respondents	Remarks on admissibility	Amount Allowed
			inspection vehicles on hired basis. No departmental vehicle was available at Power Station for safe movement of staff in case of any emergency or strike by the Vehicle Unions. Accordingly, an inspection vehicle was purchased which was essentially required for safe movement of staff in case of any emergency.	claimed is in the nature of O&M expenses, the claim of the Petitioner is **not allowed** in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. The corresponding decapitalization is also not allowed.	
	Sub-Total (B)	**29.35**			**21.62**
	Total (A+B)	**102.34**			**94.61**

2018-19

35. The Petitioner has claimed additional capital expenditure for Rs. 767.00 lakh for works beyond the original scope towards the 'capitalisation of 4% arrears up to COD and depreciation thereon as intimated through the closing entry for December'18". The Petitioner has submitted that the pay arrears to Board Level executives w.e.f 1.1.2007 were paid in pursuance to the regularisation of their pay scales, as per the order of MOP dated 29.1.2019. The Petitioner has further submitted that out of the total arrear amounts released, a sum of Rs.767 lakh, pertaining to the Construction period prior to the COD of the project, has been capitalised and allocated to major heads as per the accounting policy of the Petitioner and IND-AS requirements.

36. The Respondent UPPCL has submitted that the Commission may take a comprehensive look into the entire implication of the 7th Pay revision (applicable for CISF and KV employees), keeping the normative O&M expenses in view and any revision of such normative amounts, shall require detail scrutiny of each element of O&M expenses. The Respondent has further submitted that only after due prudence the quantum of such incremental amount in IEDC can be decided and in the absence

of any detailed information, such as the number of such employees, provisioning, etc., the claim of the Petitioner for capitalisation of IEDC for Rs. 767 lakh may be rejected. In response, the Petitioner has submitted that the Respondent has mixed up two different matters, i.e., payment of pay regularization arrears w.e.f. 1.1.1997 and impact of wage revision arrears of 7th pay revision/ 3rd PRC. The Petitioner has clarified that the payment of the arrear amount was made in 2018-19, and the claim corresponds to the impact of pay regularization arrears w.e.f. 1.1.1997, for which the arrear amount has been calculated w.e.f. 1.1.2007 to 31.3.2019. The Petitioner has also submitted that as the generating station was under construction till 6.6.2014, the arrear for Rs. 767 lakh, pertaining to the Construction period, has been capitalized as IEDC in the books of accounts in 2018-19. The Petitioner has further stated that for the arrear amount of Rs. 544 lakh for the period from 7.6.2014 till 31.3.2019, i.e. the period pertaining to the operation and maintenance period of the project, a separate Petition No. 343/MP/2019, has been filed.

37. The matter has been considered. It is noticed that the claims of the Petitioner are in respect of the revision/arrear of payments of the executives posted in the generating station during the construction period from 1.1.2007 to 31.3.2019. It is noticed that the Petitioner had filed Petition No. 343/MP/2019, seeking the recovery of the impact of pay/ wage revision of its employees for the period from 1.1.2007 to 31.3.2019, including the construction period. Since the impact of pay revision of its employees for the period from 1.1.2007 to 31.3.2019 and the claim of the Petitioner in the present petition has been dealt with and considered in an order dated 28.1.2023 in the said

petition, the additional capital expenditure claimed by the Petitioner, on this count, is not allowed.

Discharge of liabilities

38. The Petitioner has claimed the discharge of liabilities during the period 2014-19, as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening undischarged liabilities	5990.66	3835.55	3445.16	3373.74	3369.50
Liabilities corresponding to additional capital expenditure allowed	377.96	2122.15	1111.39	265.81	140.22
Discharges of liabilities	2532.37	2512.54	1176.88	266.71	340.98
Reversal of liabilities	0.71	0.00	5.93	3.33	34.42
Closing undischarged liabilities	**3835.55**	**3445.16**	**3373.74**	**3369.50**	**3134.33**

39. The discharged and undischarged liabilities have been considered corresponding to the additional capitalization allowed as above. Accordingly, the summary of the discharge of liabilities allowed is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening undischarged liabilities	5990.66	3835.55	3445.16	3373.59	3339.19
Liabilities corresponding to additional capital expenditure allowed during the year	377.96	2122.15	1111.25	235.14	107.41
Discharges of liabilities during the year	2532.37	2512.54	1176.88	266.25	330.08
Reversal of liabilities	0.71	0.00	5.93	3.29	34.42
Closing undischarged liabilities	**3835.55**	**3445.16**	**3373.59**	**3339.19**	**3082.11**

Exclusions (additions/deletions incurred, capitalized in books of accounts but not to be claimed for tariff purpose) as per reconciliation with books of account

40. The year-wise expenditure on 'exclusions' claimed by the Petitioner, in Forms 9D and 9B(I), are as under:

(Rs. in lakh)

Sl No.		2016-17	2017-18	2018-19
A	Exclusions in additions	105.57	254.59	0.00
B	Exclusions in Deletions	144.36	354.03	51.30
C	**Net Exclusions claimed (A-B)**	**(-)38.78**	**(-)99.44**	**(-)51.30**

Exclusions in Additions (capitalized in books but not to be considered for tariff purpose)

41. The Petitioner has submitted that the expenditure, as stated in the table above, has been incurred on procurement/ replacement of minor assets and inter-head unit transfers. Accordingly, the Petitioner has put these additions under the exclusion category. As such, the exclusion of such positive entries is allowed and has no impact on the tariff. Hence, the exclusions in additions for 2016-17 and 2017-18, as above, are in order and are allowed.

Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)

42. The Petitioner has de-capitalized amounts in the books of accounts pertaining to minor assets such as computers, office equipment, furniture, fixed assets of minor value, etc., as these are not in use on account of their becoming unserviceable/ obsolete. On prudence check, in terms of the 2014 Tariff Regulations, it is noticed that the recovery of additional expenditure on minor assets, tools and tackles beyond the cut-off date is neither allowed to be capitalized nor is permissible under the O&M expenses and the expenditure on capital spares, are not allowed to be capitalized after the cut-off date, while the recovery of expenditure on capital spares is allowed through O&M expenses, on consumption. Accordingly, the claim of the Petitioner for exclusion of negative entries arising out of the de-capitalization of capital spares is justifiable as the decapitalized spares are the ones which were not considered in the capital base for the purpose of tariff in the year of capitalization, as claimed in Form-9D. Accordingly, the exclusions/ignoring of negative entries arising out of the

decapitalization of minor assets, tools & tackles and capital spares for the purpose of tariff for the period 2016-19, as claimed above, are allowed.

De-capitalization

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

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

44. The Petitioner has claimed total de-capitalization in respect of assets such as items deleted from BOQ, risk and cost recovery JGJV, etc., as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	1.4.2014 to 5.6.2014	**6.4.2014 to 31.3.2015**				
Decapitalization as per books	0.00	(-)1728.63	(-)84.67	(-)110.03	(-)10.13	(-)0.12
Assumed Deletions	0.00	0.00	0.00	0.00	(-)12.35	0.00
Total Decapitalization claimed	0.00	(-)1728.63	(-)84.67	(-)110.03	(-)22.48	(-) 0.12

45. The Petitioner has claimed the above decapitalizations against the replacement of new assets/works and for assets/works which are not in use. The de-capitalization as per books claimed by the Petitioner, which has been dealt with in the relevant paragraphs relating to the claims for additional capital expenditure, has been considered and allowed in terms of the provisions of Regulation 14(3) of the 2014 Tariff Regulations. Accordingly, the decapitalization from books of accounts allowed towards old assets are as under:

(Rs. in lakh)

2014-15		2015-16	2016-17	2017-18	2018-19
1.4.2014 to 5.6.2014	**6.4.2014 to 31.3.2015**				
0.00	(-)1728.63	(-)84.67	(-)110.03	(-)10.13	(-)0.12

Assumed Deletion

46. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is to be allowed for the purpose of tariff, provided that the capitalization of the said asset is followed by the de-capitalization of the original value of the old asset. However, in certain cases, where decapitalization is affected in books during the following years, to the year of capitalization of a new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization, is termed as "Assumed Deletion". Further, in the absence of the gross value of the asset being de-capitalized, the same is calculated by de-escalating the gross value of the new asset @ 5% per annum till the year of capitalization of the old asset.

47. It is observed that the Petitioner while claiming certain additional capital expenditure during the period 2016-19, has not provided the gross value of old assets for some of the items which are being replaced. Further, it is noticed that for some items, the Petitioner has indicated the gross value of old assets in the actual year of decapitalization and the same is claimed under Assumed Deletions during the year in which new additional capitalization is claimed against replacement. The same has been verified and found to be in order. We have considered the assumed deletions

amount for these assets as claimed by the Petitioner. Accordingly, the decapitalization value of the old asset claimed and allowed for the purpose of the tariff is as under.

(Rs. in lakh)

Sl. No		Assumed Deletions for old asset claimed	Assumed Deletions for old asset allowed
	2017-18		
1	Turbine accessories due retrieved 2 nos. irreparable shaft sleeves	10.71	10.71
2	Switch gear due to retrieved 1 no. irreparable surge arrestor	1.64	1.64
	Sub-total	**12.35**	**12.35**

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

(Rs. in lakh)

		2014-15		2015-16	2016-17	2017-18	2018-19
		1.4.2014 to 5.6.2014	6.4.2014 to 31.3.2015				
A	Additions allowed	0.00	2150.85	2027.44	3239.07	1679.59	1031.44
B	Decapitalization considered as per books	0.00	1728.63	84.67	110.03	10.13	0.12
C	Assumed Deletions allowed	0.00	0.00	0.00	0.00	12.35	0.00
D	Discharge of Liabilities	0.00	2532.37	2512.54	1176.88	266.25	330.08
E	**Net Additional Capital expenditure allowed (F=A-B-C+D)**	**0.00**	**2954.59**	**4455.31**	**4305.93**	**1923.37**	**1361.40**

Capital cost allowed for the period 2014-19

49. 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
	1.4.2014 to 5.6.2014	6.4.2014 to 31.3.2015				
Opening capital cost (a)	187147.46	253863.16	256817.75	261273.06	265578.99	267502.36
Net additional capital expenditure allowed during the year/ period (b)	0.00	2954.59	4455.31	4305.93	1923.37	1361.40
Closing Capital Cost (a)+(b)	**187147.46**	**256817.75**	**261273.06**	**265578.99**	**267502.36**	**268863.76**

Debt Equity Ratio

50. 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."*

51. Gross normative loan and equity amounting to Rs. 131003.22 lakh and Rs. 56144.24 lakh, respectively, as on 31.3.2014, as considered in order dated 23.4.2019

in Petition No. 6/GT/2017, have been considered as the normative loan and equity as on 1.4.2014. The debt-equity ratio was 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 are as under:

(Rs in lakh)

	As on 1.4.2014		As on COD		Additional Capitalization		De-capitalization		As on 31.3.2019	
	Amount	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**	**Amount**	**(in %)**
Debt	131003.22	70.00%	177704.21	70.00%	11862.56	70.00%	1362.14	70.00%	188204.63	70.00%
Equity	56144.24	30.00%	76158.95	30.00%	5083.96	30.00%	583.78	30.00%	80659.13	30.00%
Total	**187147.46**	**100.00%**	**253863.16**	**100.00%**	**16946.52**	**100.00%**	**1945.92**	**100.00%**	**268863.76**	**100.00%**

Return on Equity

52. 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."

53. 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."

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

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Opening Equity (A)	56144.24	76158.95	77045.33	78381.92	79673.70	80250.71
Addition of Equity due to additional capital expenditure (B)	0.00	886.38	1336.59	1291.78	577.01	408.42
Normative Equity- Closing (C) =(A) + (B)	56144.24	77045.33	78381.92	79673.70	80250.71	80659.13
Average Equity (D)=(A+C)/2	56144.24	76602.14	77713.62	79027.81	79962.20	80454.92
Base Rate (%) (E)	16.500%	16.500%	16.500%	16.500%	16.500%	16.500%
Tax Rate (%) (F)	20.961%	20.961%	21.342%	21.342%	21.342%	21.549%
ROE Rate (%) (G)	20.876%	20.876%	20.977%	20.977%	20.977%	21.032%
Return on Equity (H)= (G)*(D)	**2119.35**	**13099.86**	**16301.99**	**16577.66**	**16773.67**	**16921.28**

Interest on Loan

55. 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."

56. The Petitioner has submitted that in order to reduce the rate of interest on the loan, it has undertaken re-financing of the loan, in terms of clause (7) of Regulation 26 of 2014 Tariff Regulations. It has also submitted that in terms of the said regulation, the benefit of re-financing is to be shared between the generating company and beneficiaries in the ratio of 1:2. The Petitioner has also stated that the refinancing charges are to be passed on to the beneficiaries on actual basis. In view of the submissions of the Petitioner, the benefit of re-financing of loan shall be shared between the generating company and beneficiaries in the ratio of 1:2 as per clause (7) of Regulation 26 of 2014 Tariff Regulations. In case of any dispute, the parties are at liberty to make an application in accordance with clause (9) of Regulation 26 of the 2014 Tariff Regulations.

57. Accordingly, Interest on the loan has been computed as under:

i) The gross normative loan amounting to Rs.131003.22 lakh, as on 1.4.2014, and Rs. 177704.21 lakh, as on 6.6.2014, as considered in an order dated 23.4.2019 in Petition No. 6/GT/2017, has been considered as on 1.4.2014 and 6.6.2014 respectively.

ii) Cumulative repayment amounting to Rs.154.03 lakh and Rs.1850.09 lakh, as on 1.4.2014 and COD(6.6.2014), respectively has been considered.

iii) Accordingly, the net normative opening loan as on 1.4.2014 and 6.6.2014 works out to Rs.130849.19 lakh and Rs.175854.12 lakh respectively.

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

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

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

58. Interest on the loan has been worked out as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Gross opening loan (A)	131003.22	177704.21	179772.43	182891.14	185905.29	187251.65
Cumulative repayment of loan upto previous year (B)	154.03	1850.09	12188.47	24985.54	37909.16	50947.47
Net Loan Opening (C)=(A)-(B)	130849.19	175854.12	167583.96	157905.60	147996.13	136304.18
Net Addition due to additional capital expenditure (D)	0.00	2068.22	3118.72	3014.15	1346.36	952.98
Repayment during the year (E)	1696.06	10385.90	12803.15	12936.75	13042.06	13102.94
Cumulative repayment adjustment on a/c of de-capitalization (F)	0.00	47.52	6.08	13.13	3.75	0.02
Net Repayment (G)=(E)-(F)	1696.06	10338.38	12797.07	12923.62	13038.31	13102.92
Net Loan Closing (H)=(C+D-G)	129153.13	167583.96	157905.60	147996.13	136304.18	124154.24
Average Loan(I)=(C+H)/2	130001.16	171719.04	162744.78	152950.87	142150.16	130229.21
Weighted Average Rate of Interest of loan (J)	9.717%	9.622%	9.461%	9.211%	8.228%	8.105%
Interest on Loan (K=I*J)	**2284.09**	**13535.23**	**15398.00**	**14087.95**	**11696.76**	**10554.60**

Depreciation

59. 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."

60. The COD of the generating station is 6.6.2014. The generating station has not completed 12 years of operation during the period 2014-19. Accordingly, depreciation has been computed as under:

(Rs. in lakh)

	2014-15		**2015-16**	**2016-17**	**2017-18**	**2018-19**
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Opening gross block (A)	187147.46	253863.16	256817.75	261273.06	265578.99	267502.36
Net Additional Expenditure (B)	0.00	2954.59	4455.31	4305.93	1923.37	1361.40
Closing gross block (C=A+B)	187147.46	256817.75	261273.06	265578.99	267502.36	268863.76
Average gross block (D)=(A+C)/2	187147.46	255340.45	259045.41	263426.03	266540.67	268183.06
Freehold land		5870.84	6925.44	8261.62	9085.33	9556.91
Depreciable Value (E= (D *90%))	168432.71	224522.65	226907.97	229647.96	231709.81	232763.54
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'L' at the end of previous year)	168278.68	222672.56	214719.50	204662.42	193800.65	181816.06
Rate of Depreciation (G)	5.012%	4.965%	4.942%	4.911%	4.893%	4.886%
Balance useful Life (H)	35.00	35.00	34.18	33.18	32.18	31.18
Depreciation (I=D*G)	**1696.06**	**10385.90**	**12803.15**	**12936.75**	**13042.06**	**13102.94**
Cumulative Depreciation at the end of the year (J=I+ Cum Dep at 'L' at the end of previous year)	1850.09	12235.99	24991.62	37922.29	50951.22	64050.42
Less: Depreciation adjustment on account of de-capitalization (K)	0.00	47.52	6.08	13.13	3.75	0.02

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Cumulative Depreciation at the end of the year (L)	**1850.09**	**12188.47**	**24985.54**	**37909.16**	**50947.47**	**64050.39**

**Cumulative Depreciation as on 31.3.2014 is Rs.154.03 lakh.*

Operation & Maintenance Expenses

61. Regulation 29(3)(d) of the 2014 Tariff Regulations provides as under:

> *"d. In case of the hydro generating stations declared under commercial operation on or after 1.4.2014, operation and maintenance expenses shall be fixed at 4% and 2.50% of the original project cost (excluding cost of rehabilitation & resettlement works) for first year of commercial operation for stations less than 200 MW projects and for stations more than 200 MW respectively and shall be subject to annual escalation of 6.64% per annum for the subsequent years."*

62. The O&M expenses allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017, is as under:

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Capital cost considered as on COD of Units/station (a) **(As Claimed)**	187147.46	268973.32	-	-	-	-
Less: pro-rata R&R expenses (b)	534.83	713.11	-	-	-	-
Capital cost for the purpose of O&M (c) =(a)-(b)	186612.63	268260.21	-	-	-	-
Annualized O&M (2.5% of (c)	4665.32	6706.51	-	-	-	-
No. of days	66.00	299.00	-	-	-	-
Pro-rata O&M expenses for the no. of days	843.59	5493.82	7151.82	7626.70	8133.11	8673.15

63. It is observed that the Commission, in its order dated 23.4.2019, had considered the capital cost of Rs. 268973.32 lakh, as on the cut-off date, i.e. 31.3.2017. Since the actual cost of Rs.265578.99 lakh, as on the cut-off date (31.3.2017), has been allowed

in this order, the O&M expenses allowed in an order dated 23.4.2019 in Petition No. 6/GT/2017 is revised and allowed as under:

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Capital cost considered as on cut-off date(a)	199184.24	265578.99	-	-	-	-
Less: Pro-rata R&R expenses (b)	534.83	713.11	-	-	-	-
Capital cost for the purpose of O&M (c) =(a)-(b)	198649.41	264865.88	-	-	-	-
Annualized O&M (2.5% of (c)	4966.24	6621.65	-	-	-	-
No. of days	66.00	299.00	-	-	-	-
Pro-rata O&M expenses for the no. of days	**898.00**	**5424.31**	**7061.32**	**7530.20**	**8030.20**	**8563.41**

Additional O&M expenses

Goods & Services Tax

64. The Petitioner has also claimed reimbursement of additional tax paid due to the 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 the exercise of the powers vested under Regulation 54 (Power to Relax) and Regulation 55 (Power to Remove Difficulty) of the 2014 Tariff Regulations. The Petitioner has further submitted that the implementation of GST is a "Change in law" event, and the impact of the same should be passed through in tariff. As such, the tax paid in O&M expenditure of plants (service portion) is claimed over and above the O&M expenses of the respective power stations. The Petitioner has submitted that it had filed Petition No. 133/MP/2019, which was disposed of by the Commission vide its 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 additional impact of GST in 2017-18 (1.7.2017 to 31.3.2018) and 2018-19, as submitted by the Petitioner, duly certified by statutory auditors, are as under:

(Rs. in lakh)

Additional Impact of GST on O&M Expenses			
2017-18	**2018-19**		**Total**
	1.4.2018 to 31.12.2018	**1.1.2019 To 31.3.2019**	
72.45	88.33	25.76	186.55

65. The matter has been considered. It is observed that the Commission, while specifying the O&M expense norms for the period 2016-19, had considered taxes to form part of the O&M expense calculations and, accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) to the 2014 Tariff Regulations, which is extracted hereunder:

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

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

Impact of Wage Revision

67. The Petitioner has submitted that it has filed Petition No. 238/MP/2019 claiming the recovery of the impact of wage revision of its employees, deputed employees of

KV staff/ DAV and Central Industrial Security Force (CISF) in respect of this generating station for the period from 1.1.2016 to 31.3.2019. It is observed that the Commission, vide its order dated 30.12.2022 in Petition No. 238/MP/2019, had disposed of the prayers of the Petitioner in the said Petition. Accordingly, the claims of the Petitioner, under this head, have not been considered and will be guided by our decision in the said order dated 30.12.2022.

Interest on Working Capital

68. 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

69. 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
1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
1197.92	7266.18	8829.82	8758.70	8490.31	8424.89

Working Capital for Maintenance Spares

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

(Rs. in lakh)

2014-15		2015-16	2016-17	2017-18	2018-19
1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
134.70	813.65	1059.20	1129.53	1204.53	1284.51

Working capital for O&M Expenses

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

(Rs. in lakh)

2014-15		2015-16	2016-17	2017-18	2018-19
1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
74.83	452.03	588.44	627.52	669.18	713.62

Rate of Interest on Working Capital

72. 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."

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

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Working capital for O&M Expenses (one month of O&M Expenses)	74.83	452.03	588.44	627.52	669.18	713.62
Working capital for Maintenance Spares (15% of operation and maintenance expenses)	134.70	813.65	1059.20	1129.53	1204.53	1284.51
Working capital for Receivables (two months of fixed cost)	1197.92	7266.18	8829.82	8758.70	8490.31	8424.89
Total working capital	**1407.45**	**8531.85**	**10477.46**	**10515.74**	**10364.02**	**10423.02**
Rate of Working Capital (%)	13.500%	13.500%	13.500%	13.500%	13.500%	13.500%

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Interest on Working Capital	**190.01**	**1151.80**	**1414.46**	**1419.63**	**1399.14**	**1407.11**

Annual Fixed Charges for the period 2014-19

74. 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
	1.4.2014 to 5.6.2014	**6.6.2014 to 31.3.2015**				
Depreciation	1696.06	10385.90	12803.15	12936.75	13042.06	13102.94
Interest on Loan	2284.09	13535.23	15398.00	14087.95	11696.76	10554.60
Return on Equity	2119.35	13099.86	16301.99	16577.66	16773.67	16921.28
Interest on Working Capital	190.01	1151.80	1414.46	1419.63	1399.14	1407.11
O&M Expenses	898.00	5424.31	7061.32	7530.20	8030.20	8563.41
Total	**7187.52**	**43597.09**	**52978.92**	**52552.19**	**50941.84**	**50549.34**

Note: 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.

Normative Annual Plant Availability Factor (NAPAF)

75. The Petitioner has claimed NAPAF of 68%, as approved vide order dated 23.4.2019. The Respondent, PSPCL, has submitted that the NAPAF for the generating station is fixed at 68% till the time Parbati-II HEP was commissioned. The Respondent has further submitted that Parbati-II HEP is yet to be commissioned as on the date of the filing of the reply, and therefore, till the time the commissioning of Parbati-II HEP is achieved, there cannot be any deviation from the findings of the Commission in Petition Nos. 228/GT/2013, 7/GT/2017, and 6/GT/2017 qua NAPAF. The Respondent has further submitted that the Commission had noted that both Parbati-III HEP and Parbati-II HEP were part of the same scheme and had to be commissioned in tandem, but in the absence of the commissioning of Parbati-II HEP, the Commission decided

that no incentive was to be allowed to Parbati-III HEP, on account of a higher PAF and this principle has attained finality. The Respondent has further submitted that in this background, it is constrained to point out the erroneous methodology adopted by the Petitioner for computation of the capacity charges in the provisional and supplementary (for AFC revisions) energy bills raised by it, as the methodology so adopted, is in direct contravention to the orders of the Commission.

76. The Respondent PSPCL has further submitted that the methodology adopted by the Petitioner for computing the monthly capacity charges is erroneous for the following:

a) **Incorrectly taking into account PAFM at actuals for computing monthly capacity charges for certain months instead of capping the same at 68%:** The Petitioner has calculated the monthly capacity charges in the energy bills by considering the PAFM for April to October for 2014-19 on actual basis without taking into account the capping of PAFM by the Commission to 68%. By taking into account PAFM on actuals, NHPC is incorrectly raising the quantum of monthly capacity charges. NHPC, thus, while computing the capacity charges ought to cap the PAFM to 68% during months where it exceeds the same. By not capping the PAFM to 68 %, NHPC has incorrectly inflated the numerator forming part of the formula for calculating the capacity charges as per Regulation 31 and Regulation 44 of the Tariff Regulations, 2014 and Tariff Regulations, 2019, respectively.

b) **Incorrectly cumulating the PAFM for calculating the capacity charges for the month of March during 2014-19, 2019-20 and 2020-21:** Further, NHPC has, cumulated the PAFM while calculating the capacity charges for the month of March for 2014-19, 2019-20 and 2020-21. The absurd rationale given by NHPC is that the same is done in order to compare the Actual PAF with NAPAF for billing of capacity charges for the year end month of March. This reasoning being given by NHPC is absurd inasmuch the same cannot be the intention of the Commission when the entire reasoning was not to incentivize NHPC. Further, it is submitted that NHPC computation is in direct contravention to the formulae laid down to calculate the capacity charges by way of the Tariff Regulations, 2014 and Tariff Regulations, 2019. It is pertinent to mention that the owing to the incorrect methodology being applied by NHPC, the same has resulted in an excess billing of Rs. 684.17 lakh (Approx.) corresponding to the true up period of 2014-19 period and Rs. 778.94 lakh (Approx.) corresponding to 2019 onwards as on date of filing of the present reply which ought to be reimbursed by NHPC in the forthcoming bills along with interest.

77. In response, the Petitioner has submitted that the Commission has considered the claim of capacity charges for PAFM of more than 68% in the months from April to October and in the remaining months as per actuals, and at the year-end has cumulated the PAF for calculation of NAPAF. Petitioner has stated that if actual PAFM (monthly) is more than 68% in certain months, then the Petitioner is billing capacity charges for 68% PAFM only and capacity charges at the year-end for March, is being billed, after considering the cumulative PAF, and capping the same to 68%. The Petitioner has further clarified that if it does not cumulate the PAF at the year-end (March) provisional billing, then it will not be able to claim the capacity charges as considered/allowed by the Commission in Annexure-I of the order dated 25.6.2014 in Petition No. 228/GT/2013, for computation of NAPAF i.e. up to 68%. The Petitioner has further submitted that it has calculated the capacity charges in the monthly bills, strictly in accordance with the Regulation 31 and Regulation 44 of 2014 and 2019 Tariff Regulations. The Petitioner has stated that the Commission has fixed the NAPAF of the generating station as 68% on an annual basis (being Normative Annual Plant Availability Factor) and not on a monthly basis, and therefore, to compare the actual PAF with NAPAF, the Petitioner has to cumulate the actual PAF annually for billing of the capacity charges for year-end month i.e. March. In the monthly bills, the Petitioner has submitted that it has already capped actual PAF up to 68% and has not claimed any incentive and Regulation 31 (1)/44(l) of the 2014 and 2019 Tariff Regulations says that, the fixed cost of a hydro generating station shall be computed on an annual basis, based on the norms specified under these regulations, and shall be recovered on a monthly basis, under capacity charge (inclusive of incentive). As

per this clause, Petitioner has computed the capacity charges on an annual basis, but recovered (not computed) on a monthly basis. From start of each financial year, the Petitioner has stated that it is recovering the capacity charges on a monthly basis, after capping PAFM to 68% and therefore, at the year end, it has to compute the capacity charges on an annual basis, in accordance with the formula given in these Tariff Regulations. Accordingly, the Petitioner has prayed that the contentions of Respondent that the Petitioner has adopted an erroneous methodology is wrong and denied on the ground that the Respondent has never raised any disputes regarding the billing done by the same methodology during the periods 2009-14 and 2014-18.

78. The matter has been considered. As stated, the Commission has notified the NAPAF of 68% for the generating station under Regulation 37(4) of the 2014 Tariff Regulations after extensive stakeholder consultations and the data on record. In this background, the above submissions of the Respondent PSPCL, if accepted, would amount to a review of the said norms, which is not permissible in the tariff determination proceedings. Further, the Petitioner, in its submission dated 27.2.2024, has submitted that the actual annual PAF achieved by the power station during the period 2014-19 is less than the NAPAF of 68% as determined by the Commission during the entire period. It is also noticed from the submissions of the Petitioner that it has not claimed any incentive since the actual PAF was below the NAPAF of 68%. Accordingly, the NAPAF of 68% as claimed by the Petitioner and as worked out vide order dated 25.6.2014 in Petition No. 228/GT/2013, is allowed. However, the calculation of incentive on capacity charges shall be considered for NAPAF above 90%, on an annual basis.

Auxiliary Energy Consumption

79. The Petitioner has submitted that there is no gain on account of the auxiliary energy consumption during the period 2014-19, and the details of actual auxiliary energy consumption are as under:

Parameters	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 (%)	0.6%	0.7%	0.7%	0.5%	0.6%
Saleable Design Energy (MU)	1687.57	1687.57	1687.57	1687.57	1687.57
Saleable Schedule Energy (MU)	562.83	548.23	579.74	605.28	524.72

80. As per Regulation 8(6) of the 2014 Tariff Regulations and its subsequent amendment thereof, the financial gain on account of the actual auxiliary energy consumption being less than the normative auxiliary energy consumption is to be shared in the ratio of 60:40 between the generating station and the beneficiaries, subject to the condition that the saleable scheduled generation is more than the saleable design energy. As the actual auxiliary consumption is less than the normative aux consumption, and the saleable scheduled generation is less than the saleable design energy, there is no gain/sharing of benefits on account of the auxiliary consumption. Accordingly, there is no gains to be shared with the beneficiaries.

Design Energy

81. The annual Design Energy (DE) of 1963.29 MU for the period 2014-19 has been considered in an order dated 23.4.2019 in Petition No. 6/GT/2017. Accordingly, the same has also been considered and allowed for the generating station, and the details as per month-wise are mentioned as under:

Month		Design Energy (MUs)
April	I	28.88
	II	30.65
	III	43.86
May	I	55.76
	II	61.43
	III	71.39
June	I	71.65
	II	104.65
	III	89.52
July	I	118.56
	II	118.56
	III	130.42
August	I	118.56
	II	118.56
	III	130.42
September	I	111.01
	II	81.86
	III	57.43
October	I	41.14
	II	33.31
	III	31.63
November	I	25.39
	II	23.62
	III	22.81
December	I	19.83
	II	19.14
	III	21.68
January	I	19.18
	II	18.70
	III	20.87
February	I	18.60
	II	18.51
	III	16.92
March	I	19.73
	II	22.04
	III	27.02
Total		**1963.29**

Summary

82. The annual fixed charges allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017 and the annual fixed charges allowed in this order (after truing-up) for the period 2014-19 for the generating station are summarized as under:

(Rs. in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 5.6.2014	6.6.2014 to 31.3.2015				
Annual fixed charges allowed vide order dated 23.4.2019 in Petition No. 6/GT/2017	7130.10	43683.15	53256.87	53289.39	53033.28	51952.26
Annual fixed charges allowed in this order	**7187.52**	**43597.09**	**52978.92**	**52552.19**	**50941.84**	**50549.34**

83. The difference between the annual fixed charges recovered by the Petitioner in terms of the order dated 23.4.2019 in Petition No. 6/GT/2017 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.

DETERMINATION OF TARIFF FOR THE PERIOD 2019-24

84. As stated, the Petitioner, in this petition, has also sought the determination of the tariff of the generating station for the period 2019-24, in terms of the provisions of the 2019 Tariff Regulations. The annual fixed charges claimed by the Petitioner vide affidavit dated 5.8.2021 for the period 2019-24 are as under:

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13235.14	13274.67	13277.70	13277.70	13277.70
Interest on Loan	9685.07	8661.52	7625.91	6435.17	5034.85
Return on Equity	16262.96	16308.57	16310.68	16310.68	16310.68
O&M Expenses	970.05	973.38	976.14	977.34	976.25
Interest on Working Capital	7793.23	8164.75	8553.96	8961.73	9388.95
Total	**47946.45**	**47382.88**	**46744.39**	**45962.61**	**44988.42**

Capital Cost

85. Clause (1) of Regulation 19 of the 2019 Tariff Regulations provides that the capital costs as determined by the Commission after prudence checks in accordance with this regulation, shall form the basis of the 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…."*

86. The Petitioner, vide its affidavit dated 5.8.2021, has revised the claim for capital cost as under:

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Capital Cost	270418.73	271914.19	272038.41	272038.41	272038.41
B	Addition during the year / Period	1250.62	103.88	0.00	0.00	0.00
C	De-capitalisation during the year/period	0.94	8.05	0.00	0.00	0.00
D	Discharges during the year	245.78	28.38	0.00	0.00	0.00
E	Closing Capital Cost (A+B-C+D)	**271914.19**	**272038.41**	**272038.41**	**272038.41**	**272038.41**

87. The Commission in this order, has allowed the closing capital cost of Rs.268863.76 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19 of the 2019 Tariff Regulations, the capital cost of Rs.268863.76 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

88. 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.

89. Regulation 25(1) of the 2019 Tariff Regulations provides 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.

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

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.

91. The Petitioner has submitted that the projected additional capital expenditure has been claimed under the various provisions of Regulation 25 and Regulation 26 of the

2019 Tariff Regulations, wherein some of the admitted capital works have spilled over from the period 2014-19. Further, the Petitioner, vide affidavit dated 30.6.2021, has submitted revised tariff filing forms for the additional capital expenditure claimed for the period 2019-24. Based on this, the additional capital expenditure claimed by the Petitioner vide affidavit dated 30.6.2021 is detailed below:

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
1250.62	103.88	0.00	0.00	0.00

<u>2019-20</u>

(Rs. in lakh)

Sl. No.	**Regulation**		**2019-20**
(a)	25(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:	1163.67
(b)	25(2)(c)	Additional capitalization within the original scope and after the cut-off date, replacement of such asset or equipment is necessary on account of obsolescence of technology	1.23
(d)	26(1)(d)	Additional capitalization beyond the original scope. 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	85.72
	Total additional capital expenditure claimed		**1250.62**

(Rs. in lakh)

S. No	**Details of the claim**	**Amount claimed**	**Justification submitted by the Petitioner**	**Remarks on admissibility**	**Amount Allowed**
Regulation 25(1) of the 2019 Tariff Regulations					
1	Balance Works of A-Type Quarters &AIREF Engineering Pvt. Ltd.: Construction of A - Type quarters at Sapangini.	208.62	The Petitioner submitted that the additional capitalisation is within the original scope of work. Due to poor participation from bidders as well as poor performance of contractor, item could not be capitalized during the tariff petition period 2014-19. This item is required for providing residential facility to the employees posted at remote locations. The work is likely to be completed in 2019-20.	Considering the fact that the expenditure claimed are for assets/works which are part of original scope of works and were also admitted during the period 2014-19, the claim of the Petitioner *(@ sl. No. 1 to 18)* are allowed under Regulation 25(1) of the 2019 Tariff Regulations.	208.62
2	Construction of Fire station	45.00			45.00
3	Development of E&M Store area	47.00	The Petitioner submitted that the additional capitalisation is within		47.00

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			original scope of work. Due to poor participation from bidders, item could not be capitalized during the tariff petition period 2014-19. E&M Store is required for proper, safe storage of power station equipment's. Work is likely to be completed in 2019-20.		
4	Additional capitalisation of Construction of non-executive field Hostels	6.00	The Petitioner submitted that the additional capitalisation is within original scope of work. This item was capitalised in 2018-19, However additional Capitalisation is required due to GST Impact for the work executed in post GST Regime period.		6.00
5	Additional capitalisation of Protection work at Old Behali for 33/11 KV Sub-Station and existing stores of Parbati-III Power Station	2.36			2.36
6	Construction of first floor on Dam Control Room	17.52	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor performance of contractor the item could not be capitalized during the tariff petition period 2014-19. The work completed in April-2019 due to very slow progress of work.		17.52
7	Construction of CISF Barrack at Sallah near audit-1 for Parbati-III Power station	107.83			107.83
8	Construction of boundary wall/ fencing around proposed CISF area at Sallah for Parbati-III PS	37.81	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor participation from bidders, item could not be capitalized during the tariff period 2014-19. This item is required for providing security to the CISF complexes at Parbati-III Power station. Work is likely to be completed in 2019-20		37.81
9	Construction of CISF Mess and Dining Hall at Sallah near Adit-1 for Parbati-III Power Station	38.70	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor participation from bidders, item could not be capitalized during the tariff period 2014-19. This item is required for providing mess and dining facility to the CISF Posted at Parbati-III Power station for security. Work is likely to be completed in 2019-20.		38.70
10	Acoustical treatment of Auditorium around Admin building at Behali	116.94	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor participation from bidders, item could not be capitalized during the		116.94

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			tariff petition period 2014-19. The civil works and other electrical works completed in 2018-19. However, seating arrangement is likely to be completed in July, 2019. The work/ items to be capitalised in 2019-20.		
11	Construction of balance work of one no. D-Type special, two block(Four Quarter) of D type and external boundary wall including Security cabin and main gate for Sapangin Township for Parbati-III PS	17.60	The Petitioner submitted that the additional capitalisation is within original scope of work. This item was capitalised in 2017-18, However additional capitalisation is required due to GST Impact for the work executed in post GST regime period.		17.60
12	Additional capitalisation of Construction of Internal boundary wall and gate around D-Spl and D type quarters at Sapangini township for PHEP-III PS	5.95			5.95
13	Supply, installation and Commissioning of electric fired inclinator with provision of covered shed at spangani Town ship complex of parbati-III Power station.	10.50	The Petitioner submitted that the works is within the original scope. Due to poor participation from bidders as well as poor performance of the contractor, item could not be capitalized during the tariff petition period 2014-19. The work completed. This item is statutory compliance of Pollution Control Board for safe disposal of solid waste.		10.50
14	Providing potable water supply line from pump station to Pothead yard, MAT Portal and Power House of Parbati-III Power station. And Drilling / lowering of deep bore well and installation & energisation of pumping machinery for Power House, Dam and Township Complex.	24.17	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor participation from bidders as well as poor performance of contractor, item could not be capitalized during the tariff period 2014-19. This item is required for providing drinking water facility to the employees and CISF posted at Power House, Pothead yard and Dam. The work is likely to be completed in 2019-20		24.17
15	Development of Park at Sapangani Township for Parbati-III Power Station	5.00	The Petitioner submitted that the additional capitalisation is within original scope of work. Due to poor participation from bidders as well as		5.00

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
16	Construction of boundry wall/ fencing near old Behali area	20.00	poor performance on contractor, item could not be capitalized during the tariff period 2014-19. The work is to be completed/capitalised in 2019-20.		20.00
17	Construction of 33/11 KV substation on Deposit Basis from HPSEB for Regional Supply to power Station	420.75			420.75
18	Balance Works of Landscaping and beautification works at Dam	10.82			10.82
19	Purchase of Induction Motors	3.50		Since these items are in the nature of spares, the capitalization of same is not allowed after the cut-off date. However, the Petitioner is at liberty to claim the same as additional O&M expenses, on actual consumption basis.	0.00
20	Purchase of Gear Box for HM Components	17.60			0.00
	Sub-total (A)	**1163.67**			**1142.57**
Regulation 25(2)(c) of the 2019 Tariff Regulations					
19	Purchase of LED/Video Wall for scada system of Dam (Replacement)	1.23	The Petitioner submitted that, presently, DLP based video walls are installed in Dam control room, which is an outdated technology. The running life of the lamps is less and the lamps are very costly. As such, the maintenance cost of the existing video walls is quite high. Considering the technological advancement and in view of high maintenance cost of the existing screens, it is proposed to purchase video walls /LED of the latest technology. Replacement value of old item is indicated	Considering the submissions of the Petitioner and keeping in view that the expenditure is on account of replacement of asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations. The gross value of old asset/work has been considered under 'Assumed Deletions'.	1.23
B	**Sub-total (B)**	**1.23**			**1.23**
Regulation 26(1)(d) of the 2019 Tariff Regulations					
1	Construction of MAT portal extension and gate structure for Parbati- III Power Station.	27.72	The Petitioner submitted that, falling of rocks encountered in entrance of power house which causes risk to the life of employees, CISF and other persons working in the power house area. hence as per direction	These assets/items are required for the security and safety of the generating station. Further, the Petitioner has also furnished the	27.72

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			of design wing, the portal is required to be extended to safeguard the life of employees working at power house.	documentary evidence in support of its claim. Accordingly, the claim of the Petitioner *(@ sl. No. 1 to 3)* is **allowed** under Regulation 26(1)(d) of the 2019 Tariff Regulations.	
2	Supply, fabrication, erection of main gate, barricades for workshop area and barricade of generating unit	23.00	The work of erection of the main gate was required to be carried out for maintaining the temperature in the machine hall area and protection of Generator and other electrical equipment's from dust and for safety and security of generator equipment. The work of barricading/ fencing of Workshop area was required to be carried out for enclosing the area of rotating equipment's to ensure safety. Work have been done in compliance to Clause No. 14 - Dust and Fume of chapter III- Health and Clause no. 21 - Fencing of machinery of chapter - IV - safety of Factories Act 1948. Required documents enclosed for the reference		23.00
3	Purchase of security gadgets for CISF	35.00	Required for providing security gadgets to CISF for better safety and Security of the Power station as per the regular advisories from IB, MoP, MoH, CISF. Copy of recommendation/ request received from CISF for purchasing of necessary security gadgets for safety and security of the Power station is attached.		35.00
	Sub-total (C)	**85.72**			**85.72**
	Total (A+B+C)	**1250.62**			**1229.52**

92. Accordingly, the total additional capital expenditure of Rs 1229.52 lakh (Rs 1143.80 lakh + Rs.85.72 lakh) is allowed under the original scope and other than the original scope of work for 2019-20.

<u>2020-21</u>

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
Regulation 26(1)(d) of the 2019 Tariff Regulations					
1	Water Supply System for Dam Control Room & Surge Shaft of	4.32	There was no provision of water supply for drinking purpose at dam site and Surge shaft site. Provision of drinking water is essential. At dam	The expenditure claimed by the Petitioner is not cover ed under the provisions	0.00

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	Parbati-III Power station.		site: arrangement for collection of water at Dam Gallery, pumping of the same up to dam top and filtration of the water for drinking purpose has been made. Actual expenditure came out to be Rs. 1.22 Lakh. At Surge Shaft Site: arrangement for collection of water from natural source in a tank, provision of pump motor set for pumping the water to an overhead tank and required piping for providing drinking water. Estimated Financial implication will be Rs. 3.10 lakh. As such total Expenditure on this account shall be Rs. 4.32 lakh. At present there is no provision of water supply for drinking purpose in Dam. As per the Factory act 1948, proper facility for drinking shall be provided.	of the regulation claimed (which is for safety and security of the generating station). Accordingly, the claim is **not allowed**.	
2	Security and Surveillance System	45.00	The security requirements were reviewed and the concerned security agencies like CISF, IB have been strongly advising for the installation of a centralized surveillance system. Copy recommendation of CISF is attached as Appendix-III. The requirement of an IP based centralized CCTV system is for the surveillance of the Power Station area. This system is a primary security requirement for a round the clock vigil in and around the areas of the Power Station. This will not only enhance the safety but will also aid the CISF in maintaining a tight vigil with lesser man power. The regular advisories from IB, MoP, MoH, CISF strongly mandate that the system be in place as early as possible. Various guidelines has been received from security committee. In this context, already CCTV camera has been installed at various location of Power Station. Present cameras need to be upgraded with setup of central control room having large screen display along with storage like NAS having more than 90 days. Item wise cost break up (Copy of estimate amounting to Rs. 18.63 for Upgradation of ANALOG cameras to IP based CCTV	The assets/items claimed by the Petitioner *(@sl nos. 2 to 4*) are required for the safe and successful operation of the plant and is based on the recommendation of the security agencies. Accordingly, the projected additional capital expenditure claimed is **allowed** under Regulation 26 (1)(d) of the 2019 Tariff Regulations.	45.00

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			cameras and Copy of PR amounting to Rs. 24.34 Lakh for Integration of CCTV for Centralized surveillance) is enclosed as Appendix-IV for the reference. It is intimated that total 57 ANALOG type CCTV cameras along with accessories are replaced by IP based cameras. Please refer item no. 1&2 of Form-9B(i) for de-capitalisation value of old cameras.		
3	Construction of Watch Tower/ Morcha for CISF at Behali/Dam etc	15.00	Required for better safety and Security purpose i.e., as per requirement of CISF of the Power station as per the regular advisories from IB, MoP, MoH, CISF. Recommendation of CISF is attached		15.00
4	Construction of Kote Centre/Quarter Guard for CISF	39.56	Construction of Kote centre/quarter guard is proposed for safe and secure storage of CISF ammunition. Recommendation of CISF (letter dated 21.6.2018 is enclosed		39.56
	Sub-total (A)	**103.88**			**99.56**
	Total (A)	**103.88**			**99.56**

93. In view of the above, the total additional capital expenditure allowed under other than original scope of work is Rs.99.56 lakh for 2020-21.

De-capitalization

94. The Petitioner has claimed projected de-capitalization, as per Form 9Bi, as under:

(Rs. in lakh)

2019-20	2020-21
(-)0.94	(-)8.05

95. Since these assets are not in use, the de-capitalization as claimed by the Petitioner is allowed, in respect of the additional capital expenditure allowed.

Discharge of liabilities

96. The closing balance of undischarged liabilities as on 31.3.2019 is Rs.3082.11 lakh. The discharged and the undischarged liabilities have been considered

corresponding to the admitted additional capital expenditure for the period 2019-24. Accordingly, the summary of discharge of liabilities allowed are as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening undischarged liabilities	3082.11	2823.49	2801.83	2801.83	2801.83
Liabilities corresponding to additional capital expenditure allowed during the year	0.00	0.00	0.00	0.00	0.00
Discharges of liabilities during the year	233.91	21.66	0.00	0.00	0.00
Reversal of liabilities	24.71	0.00	0.00	0.00	0.00
Closing undischarged liabilities	**2823.49**	**2801.83**	**2801.83**	**2801.83**	**2801.83**

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

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Additional capital expenditure allowed (a)	1229.52	99.56	0.00	0.00	0.00
Less: De-capitalisation considered (b)	0.94	8.05	0.00	0.00	0.00
Discharge of liabilities (c)	233.91	21.66	0.00	0.00	0.00
Net additional capital expenditure allowed (c)=(a)-(b)+(c)	**1462.49**	**113.17**	**0.00**	**0.00**	**0.00**

Capital cost allowed for the period 2019-24

98. Accordingly, the capital cost allowed for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	268863.76	270326.25	270439.42	270439.42	270439.42
Net Additional capital expenditure allowed during the year/ period	1462.49	113.17	0.00	0.00	0.00
Closing Capital Cost	**270326.25**	**270439.42**	**270439.42**	**270439.42**	**270439.42**

Debt-Equity Ratio

99. 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."

100. In terms of the above regulations, the debt equity ratio in the admitted additional capital expenditure is 70:30, after adjustment of un-discharged liability, 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	188204.63	70.00%	1109.25	70.00%	6.29	70.00%	189307.60	70.00%
Equity	80659.13	30.00%	475.39	30.00%	2.69	30.00%	81131.83	30.00%
Total	**268863.76**	**100.00%**	**1584.65**	**100.00%**	**8.98**	**100.00%**	**270439.42**	**100.00%**

Return on Equity

101. 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."

102. Return on Equity (ROE) for the existing asset base and the additional capital expenditure allowed in this order, for the assets/works within the original scope of work, has been calculated by grossing up the base ROE, at the MAT rate of 17.472%, as submitted by the Petitioner. Further, based on the admitted additional capital expenditure which are beyond the original scope, ROE has been calculated, considering the weighted average rate of interest of the relevant year, grossed up at MAT rate of 17.472%. 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
Normative Equity- Opening **(A)**	80659.13	81072.16	81076.24	81076.24	81076.24
Addition of Equity due to additional capital expenditure **(B)**	413.03	4.08	0.00	0.00	0.00
Normative Equity – Closing **(C=A+B)**	81072.16	81076.24	81076.24	81076.24	81076.24
Average Normative Equity **D=(A+C)/2**	80865.64	81074.20	81076.24	81076.24	81076.24
Return on Equity (Base Rate) **(E)**	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate **(F)**	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-tax) **(G) = (E)/(1-F)**	19.993%	19.993%	19.993%	19.993%	19.993%
Return on Equity (Pre-tax) - (annualized) (H) =(D)x(G)	**16167.47**	**16209.17**	**16209.57**	**16209.57**	**16209.57**

ROE at WAROI

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity- Opening **(A)**	0.00	25.72	55.58	55.58	55.58
Addition of Equity due to additional capital expenditure **(B)**	25.72	29.87	0.00	0.00	0.00
Normative Equity – Closing **(C=A+B)**	25.72	55.58	55.58	55.58	55.58
Average Normative Equity **D=(A+C)/2**	12.86	40.65	55.58	55.58	55.58
Return on Equity (Base Rate) **(E)**	8.146%	8.155%	8.202%	8.075%	7.581%
Effective Tax Rate **(F)**	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-tax) **(G) = (E)/(1-F)**	9.871%	9.882%	9.939%	9.784%	9.185%
Return on Equity (Pre-tax) - (annualized) **(H) =(D)x(G)**	**1.27**	**4.02**	**5.52**	**5.44**	**5.11**

Total ROE allowed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity at Normal Rate (A)	16167.47	16209.17	16209.57	16209.57	16209.57
Return on Equity at WAROI (B)	1.27	4.02	5.52	5.44	5.11
Total Return on Equity allowed (C= A+B)	**16168.74**	**16213.18**	**16215.10**	**16215.01**	**16214.68**

Interest on Loan

103. 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."

104. Interest on loan has been computed as under:

i) The gross normative loan amounting to Rs.188204.63 lakh, as on 31.3.2019, as considered in this order, has been considered as opening gross normative loan as on 1.4.2019.

ii) Cumulative repayment amounting to Rs.64050.39 lakh, as on 31.3.2019, as considered in 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.124154.24 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 8.146% in 2019-20, 8.155% in 2020-21, 8.202% in 2021-22, 8.075% in 2022-23 and 7.581% in 2023-24. The same has been considered for tariff.

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

105. 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)	188204.63	189228.37	189307.60	189307.60	189307.60
Cumulative repayment of loan Up to previous year (B)	64050.39	77208.58	90402.98	103602.64	116802.29
Net Loan Opening (C=A-B)	124154.24	112019.79	98904.61	85704.96	72505.31
Addition due to additional capitalexpenditure (D)	1023.74	79.22	0.00	0.00	0.00
Repayment of loan during the year (E)	13158.44	13196.89	13199.65	13199.65	13199.65
Less: Repayment adjustment onaccount of de-capitalization (F)	0.25	2.49	0.00	0.00	0.00
Net Repayment of loan during the year (G=E-F)	13158.19	13194.40	13199.65	13199.65	13199.65
Net Loan Closing (H = C+D-G)	112019.79	98904.61	85704.96	72505.31	59305.65
Average Loan (I= (C+H)/2)	118087.02	105462.20	92304.79	79105.13	65905.48
Weighted Average Rate of Interest of loan (J)	8.146%	8.155%	8.202%	8.075%	7.581%
Interest on Loan (K= I*J)	**9619.34**	**8600.86**	**7571.08**	**6387.49**	**4996.01**

Depreciation

106. 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."

107. Accordingly, the cumulative depreciation amounting to Rs.64050.39 lakh, as on 31.3.2019, has been considered for the purpose of tariff. The COD of the generating station is 6.6.2014. The generating station has not completed 12 years of operation during the period 2019-24. In terms of the 2014 Tariff Regulations, the useful life of a hydro generating station was 35 years. However, the 2019 Tariff Regulations stipulate 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 35.18 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)	268863.76	270326.25	270439.42	270439.42	270439.42
Net Additional Expenditure (B)	1462.49	113.17	0.00	0.00	0.00
Closing gross block (C=A+B)	270326.25	270439.42	270439.42	270439.42	270439.42
Average gross block D=(A+C)/2	269595.00	270382.84	270439.42	270439.42	270439.42
Land Value	9798.69	9798.69	9798.69	9798.69	9798.69
Depreciable Value (E) = (D-Land Value)*90%	233816.68	234525.73	234576.66	234576.66	234576.66
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'K' at the end of previous year)	169766.29	157317.15	144173.68	130974.02	117774.37
Rate of Depreciation (G)	4.881%	4.881%	4.881%	4.881%	4.881%
Balance useful Life (H)	35.18	34.18	33.18	32.18	31.18
Depreciation (I=D*G)	**13158.44**	**13196.89**	**13199.65**	**13199.65**	**13199.65**
Cumulative Depreciation at the end of the year (J=I+ Cum Dep at 'K' at the end of previous year)	77208.83	90405.48	103602.64	116802.29	130001.94
Adjustment on account of decapitalization (L)	0.25	2.49	0.00	0.00	0.00
Cumulative Depreciation at the end of the year (J=K-L)	77208.58	90402.98	103602.64	116802.29	130001.94

Operation & Maintenance Expenses

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses as per Regulation 35(2)(a) (A)	6618.29	6933.76	7264.26	7610.51	7973.27
Additional O&M expenses due to 7th Pay Commission wage revision- 3rd PRC applicable to CPSUs (B)	1055.40	1105.75	1158.49	1213.75	1271.65
Impact of Goods & Service Tax (D)	119.54	125.24	131.21	137.47	144.03
Total O&M Expenses claimed (A+B+C+D+E)	7793.23	8164.75	8553.96	8961.73	9388.95
Security Expenses (E)	1022.10	1070.86	1121.94	1175.45	1231.52

Normative O&M expenses

109. 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:

	2019-20	***2022-21***	***2021-22***	***2022-23***	***2023-24***
Parbati III	*6618.29*	*6933.76*	*7264.26*	*7610.51*	*7973.27*

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.

xxxxxx"

110. As the Normative O&M expenses claimed by the Petitioner as above, are in terms of Regulation 35(2)(a) of the 2019 Tariff Regulations, the same are allowed.

Additional O&M Expenses

Impact of wage revision

111. The Petitioner has claimed additional O&M expenses on account of the impact of wage/ pay revision and GST as under:

(Rs. in lakh)

Period	2019-20	2020-21	2021-22	2022-23	2023-24
Additional O&M expenses due to 7th Pay Commission wage revision- 3rd PRC applicable to CPSUs (a)	1055.40	1105.75	1158.49	1213.75	1271.65

Period	2019-20	2020-21	2021-22	2022-23	2023-24
Impact of Goods & Service Tax (c)	119.54	125.24	131.21	137.47	144.03
Security Expenses (d)	1022.10	1070.86	1121.94	1175.45	1231.52
Total O&M Expenses claimed (a+b+c+d)	**2197.04**	**2301.85**	**2411.64**	**2526.67**	**2647.2**

Impact of pay revision of NHPC staff

112. The Petitioner has claimed an amount of Rs. 1055.40 lakh in 2019-20 as additional O&M expenses, based on the impact of pay revision of Petitioners' staff in 2018-19, escalated with 4.77%. It is pertinent to mention that in Petition No. 238/ MP/ 2019 filed by the Petitioner, seeking recovery of the additional O&M expenses for the generating station due to the impact of wage/ pay revision for the period 2014-19, the Commission vide its order dated 30.12.2022, had allowed an amount of Rs. 1007.35 lakh, as the impact of wage revision in 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% the amount allowed in 2018-19) works out to Rs. 1055.40 lakh. Accordingly, the claim of the Petitioner for Rs. 1055.40 lakh in 2019-20 is considered and is thereafter escalated @4.77% per annum during the relevant years of the period 2019-24 and allowed as additional O&M expenses due to pay revision of the Petitioner's staff as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1055.40	1105.75	1158.49	1213.75	1271.65

Goods & Service Tax

113. The Respondent, BRPL, has submitted that the Petitioner is seeking the grant of GST without examining whether the amount provided in the norm-based tariff is adequate or not therefore, any proposal which has a bearing on the norms can be accepted only if the Petitioner proves that the norms are inadequate to meet the additional expenditure on account of GST. Further the Respondent has pointed out

that the details provided by the Petitioner show that the GST has been claimed by the Petitioner under the Security Services and the operational services. In response, the Petitioner has submitted that subsequent to the applicability of GST w.e.f. 1.7.2017 (in the state of J&K w.e.f. 8.7.2017), there has been an additional impact on account of GST on the O&M Expenses, which were fixed by the commission for the period 2014-19. The Petitioner has also submitted that since this is an additional expenditure on account of change in Law, i.e., introduction of GST, the Petitioner was unable to meet this expenditure from already allowed O&M Expenses.

114. The matter has been considered. It is noticed that the Petitioner has claimed the impact of a total GST amount of Rs. 186.55 lakh for the period from 1.7.2017 to 31.3.2019, based on the actual audited accounts for 21 months (Rs. 72.45 lakh in 2017-18 and Rs. 114.09 lakh in 2018-19). On scrutiny of the details, it is noticed that the claim of Petitioner also includes the impact of GST on security expenses, as summarized below:

(Rs.in lakh)

S. No.	**Year**	**Security Services**	**Operational Services**	**Total**
1	2017-18	21.13	51.32	72.45
2	2018-19 (till Dec.18)	19.63	68.70	88.33
3	2018-19 (1.1.19 to 31.03.19)	6.93	18.83	25.76
	Total	**47.70**	**138.85**	**186.55**

115. As per Regulation 35(2)(d) of the 2019 Tariff Regulations, Security expenses shall be allowed separately after prudence check. Hence, excluding the security expenses, this works out to Rs. 138.85 lakh, as shown in the above table, for the period from 1.7.2017 to 31.3.2019. This has been normalized and an amount of Rs.83.13 lakh has been worked out for 2019-20 (after escalating above amount of Rs.79.34 lakh @ 4.77%). Accordingly, the base value of 2019-20 has been escalated

@4.77%, and the GST impact has been worked out and allowed for the period 2020-24, as per note under Regulation 35(2)(a) of the 2019 Tariff Regulations as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
83.13	87.09	91.25	95.60	100.16

Capital Spares

116. As regards capital spares, the Petitioner has submitted that the same will be claimed at the time of the truing-up of tariff based on the actual expenses incurred. In view of this, the capital spares have not been considered in this order.

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, based on the security requirement of the generating station, are as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1022.10	1070.86	1121.94	1175.45	1231.52

119. The Petitioner claimed actual security expenses of Rs. 975.57 lakh in 2018-19 and escalated the same at the rate of 4.77%. Considering the security requirements of the generating station, we allow the projected security expenses claimed by the Petitioner as 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.

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

(Rs. in lakh)

Allowed	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses (a)	6618.29	6933.76	7264.26	7610.51	7973.27
Additional O&M expenses due to 7th Pay Commission wage Revision- 3rd PRC applicable to CPSUs (b)	1055.40	1105.75	1158.49	1213.75	1271.65
GST (d)	83.13	87.09	91.25	95.60	100.16
Total expenses excluding Security expenses (e=a+b+c+d)	**7756.82**	**8126.60**	**8514.00**	**8919.86**	**9345.08**
Security Expenses (f)	1022.10	1070.86	1121.94	1175.45	1231.52
Total additional O&M Expenses (g=e+f)	**8778.93**	**9197.46**	**9635.94**	**10095.31**	**10576.60**

Interest on Working Capital

120. 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"*

121. 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."*

Working Capital for Receivables

122. The Receivable component of working capital has been worked out based on 45 Days of Annual fixed cost as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
5986.93	5932.26	5852.76	5763.70	5650.97

Working Capital for Maintenance Spares

123. 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
1316.84	1379.62	1445.39	1514.30	1586.49

Working capital for O&M Expenses

124. 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
731.58	766.45	802.99	841.28	881.38

Rate of interest on working capital

125. The Petitioner has claimed a rate of interest on working capital @12.05% for each year. The Respondent has submitted that the interest rate should be linked to the bank rate. The matter has been considered, and in line with the Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital is considered as 12.05% (i.e. 1 year SBI MCLR of 8.55% as on 1.4.2019 + 350 bps) for the year 2019-20, 11.25% (i.e. 1 year SBI MCLR of 7.75% as on 1.4.2020 + 350 bps) for the year 2020-21,10.50% (i.e. 1 year SBI MCLR of 7.00% as on 1.4.2021 + 350 bps) for the year 2021-22, 10.50% (i.e. 1 year SBI MCLR of 7.00% as on 1.4.2022 + 350 bps) for the period 2022-23 and 12.00% (i.e. 1 year SBI MCLR of 8.50% as on 1.4.2023 + 350 bps for the period 2023-24). Accordingly, Interest on working capital has been computed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for O&M expenses (one month)	731.58	766.45	802.99	841.28	881.38

	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for Maintenance Spares @ 15% of operation and maintenance expense including security expenses	1316.84	1379.62	1445.39	1514.30	1586.49
Working capital for Receivables equivalent to 45 days of annual fixed cost	5986.93	5932.26	5852.76	5763.70	5650.97
Total Working capital	8035.35	8078.33	8101.14	8119.27	8118.84
Rate of interest (%)	12.050%	11.250%	10.500%	10.500%	12.000%
Interest on Working capital	**968.26**	**908.81**	**850.62**	**852.52**	**974.26**

Annual Fixed Charges approved for the period 2019-24

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13158.44	13196.89	13199.65	13199.65	13199.65
Interest on loan	9619.34	8600.86	7571.08	6387.49	4996.01
Return on Equity	16168.74	16213.18	16215.10	16215.01	16214.68
Interest on Working capital	968.26	908.81	850.62	852.52	974.26
O&M Expenses	6618.29	6933.76	7264.26	7610.51	7973.27
Additional O&M expenses	2160.64	2263.70	2371.68	2484.80	2603.33
Total	**48693.70**	**48117.20**	**47472.38**	**46750.00**	**45961.20**

127. 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)

128. The Petitioner has claimed NAPAF of 43% in terms of Regulation 50(A)(4) of the 2019 Tariff Regulations.

> *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%. Run-of-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 (%)*
Parbati-III	*Pondage*	*4x130*	*43%*

129. The Commission has notified the NAPAF of the generating station as 43% under Regulation 50(A)(4) of the 2019 Tariff Regulations. Accordingly, the NAPAF of 43% is allowed. However, the calculation of incentive on capacity charges shall be considered for NAPAF above 90%, on an annual basis.

Design Energy (DE)

130. The Commission in this order for the period 2014-19 has considered the annual Design Energy (DE) of 1963.29 MU, for the generating station. The same has been considered for the period 2019-24 as per month-wise details as under:

Month		**Design Energy (MUs)**
April	I	28.88
	II	30.65
	III	43.86
May	I	55.76
	II	61.43
	III	71.39
June	I	71.65
	II	104.65
	III	89.52
July	I	118.56
	II	118.56
	III	130.42
August	I	118.56
	II	118.56
	III	130.42
September	I	111.01
	II	81.86
	III	57.43

Month		Design Energy (MUs)
October	I	41.14
	II	33.31
	III	31.63
November	I	25.39
	II	23.62
	III	22.81
December	I	19.83
	II	19.14
	III	21.68
January	I	19.18
	II	18.70
	III	20.87
February	I	18.60
	II	18.51
	III	16.92
March	I	19.73
	II	22.04
	III	27.02
Total		**1963.29**

Application Fee and Publication Expenses

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

132. 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.

Summary

133. Accordingly, the summary of the annual fixed charges claimed and allowed for the period 2019-24, is as under:

(Rs. in lakh)

Annual Fixed Charges*	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed	48968.55	48453.73	47866.32	47138.06	46219.94
Allowed	48693.70	48117.20	47472.38	46750.00	45961.20

**Including security charges*

134. Petition No. 96/GT/2020 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-
(Pravas Kumar Singh)	**(Arun Goyal)**	**(Jishnu Barua)**
Member	**Member**	**Chairperson**