

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 298/GT/2020

Coram:

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

Date of Order: 19th January, 2024

IN THE MATTER OF

Petition for truing-up of tariff for the period 2014-19 and determination of tariff for the period 2019-24 in respect of Teesta-V hydroelectric Project (510 MW).

AND

IN THE MATTER OF

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

....Petitioner

Vs

1. West Bengal State Electricity Distribution Company Limited
Bidyt Bhawan (8th Floor), Block-DJ, Sector-II,
Salt Lake, Kolkata – 700 091
2. Damodar Valley Corporation,
DVC Towers, VIP Road,
Kolkata – 700 054
3. Jharkhand State Electricity Board,
Doranda, Ranchi Jharkhand- 834 002
4. North Bihar Power Distribution Company Limited
Vidyut Bhawan, Bailey Road, Patna – 800 021
5. South Bihar Power Distribution Company Limited
Vidyut Bhawan, Bailey Road, Patna – 800 021
6. Department of Power,
Government of Sikkim, Kazi Road,
Gangtok-737101



7. GRIDCO,
4th Floor, Janpath,
Bhuvaneshwar-751022

.....Respondents

Parties Present:

Shri Sachin Datta, Senior Advocate, NHPC
Shri Rajiv Shankar Dvivedi, Advocate, NHPC
Shri Ajay Shrivastava, NHPC
Shri Piyush Kumar, NHPC
Shri Prasant Kumar Das, GRIDCO
Shri Mahfooz Alam, GRIDCO
Shri Navin Prakash, Advocate, BSPHCL

ORDER

This Petition has been filed by the Petitioner, NHPC Limited for true-up of tariff in respect of Teesta-V Hydroelectric Project (510 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 determination of tariff of the generating station for the period 2019-24 in terms of the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short “the 2019 Tariff Regulations”). The generating station with a total capacity of 510 MW, comprises of 3 units of 170 MW each, which was declared under commercial operation on 10.4.2008.

2. The Petitioner had filed Petition No. 234/GT/2014 for true-up of tariff of the generating station for the period 2009-14 and for determination of annual fixed charges of the generating station for the period 2014-19 and the Commission vide its order dated 16.8.2016 approved the capital cost and 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
Opening Capital Cost	273234.70	275085.50	275987.40	277628.82	277648.84
Admitted additional capitalization	1850.80	901.90	1641.42	20.02	5.58
Closing Capital Cost	275085.50	275987.40	277628.82	277648.84	277654.42

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	23473.29	23559.49	23639.13	23691.16	23691.96
Interest on Loan	4132.23	3549.26	2952.45	2364.96	1827.48
Depreciation	14091.83	14162.57	14227.94	14270.64	14271.29
Interest on Working Capital	1418.15	1438.80	1460.88	1484.17	1508.77
O&M Expenses	8297.32	8848.59	9436.50	10063.46	10732.07
Total	51412.83	51558.71	51716.90	51874.39	52031.58

Present petition

4. In terms of Regulation 8(1) of the 2014 Tariff Regulations, the Petitioner vide affidavit dated 30.10.2019 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 as under:

Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	273234.70	274647.51	276454.28	277144.06	277351.55
Add: Additional during the year	94.19	228.35	353.33	161.19	980.70
Less: De-capitalisation during the year	25.24	162.91	26.16	9.51	0.97
Add: Discharges during the year	1343.86	1741.33	362.62	55.81	20.96
Closing capital cost	274647.51	276454.28	277144.06	277351.55	278352.25
Average capital cost	273941.10	275550.89	276799.17	277247.81	277851.90

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	14055.92	14086.16	14147.21	14175.68	14203.79
Interest on Loan	4211.70	3570.13	2971.61	2300.55	1752.83
Return on Equity	23698.94	23858.34	23748.41	23936.49	24069.00
Interest on Working Capital	1424.35	1444.40	1462.12	1486.15	1514.18
O&M Expenses	8297.32	8848.59	9436.50	10063.46	10732.07
Total	51688.23	51807.63	51771.85	51962.33	52271.86



5. The Petitioner vide affidavit dated 15.7.2021 revised tariff filing forms viz Forms 9A, 9B(i), 16 and 1(i) for the period 2014-19 and has served copies on the Respondents. The Respondent GRIDCO has filed its reply vide affidavit dated 29.7.2021 and the Petitioner has filed its rejoinder to the said reply vide affidavit dated 22.11.2021. This Petition was heard through video conferencing on 31.3.2022, 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 vide affidavit dated 1.6.2022, after serving copy to the Respondents. The Respondent GRIDCO has also filed its written submissions vide affidavit dated 11.4.2022. Based on the submissions of the parties and documents available on record and after prudence check, we proceed for truing up the tariff of the generating station for the period 2014-19 along with 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 16.8.2016 in Petition No. 234/GT/2014 had approved the closing capital cost of Rs. 273234.70 lakh, as on 31.3.2014. The Petitioner, has claimed the opening capital cost of Rs. 273234.70 lakh, as on



1.4.2014. Accordingly, the capital cost of Rs. 273234.70 lakh, as on 31.3.2014, has been considered as the opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the period 2014-19.

8. The Petitioner has further submitted that the Commission vide its Orders dated 23.1.2014 and 16.8.2016, had disallowed certain additional capital expenditure, which were claimed during the period 2009-14. The Petitioner has further submitted that the additional capital expenditure was disallowed as the same was recurring in nature and could be met under the O&M expenses. The Petitioner has also submitted details of the disallowed expenditure attached as Annexure-XI as under:

<i>(Rs. in lakh)</i>	
Year of Capitalization	Actual expenditure claimed
2009-10	73.62
2010-11	922.06
2011-12	1145.50
2012-13	34.42
2013-14	261.79
Total	2437.39

9. The Petitioner has submitted that the above works/expenditures are of capital nature and they have been incurred for the first time. The Petitioner has also submitted that as per accounting principle, if any work/expenditure of capital nature is incurred for the first time, the same has to be booked under capital head in the books of accounts. Also, during the life of these works, any repair/service is required, the same will be booked under O&M expenses. The Petitioner has stated that as the expenditure has been capitalized under 'capital head' in the books of accounts during the period 2009-14, it may not be possible to claim these expenditures under O&M expenses, since it is also not permitted as per Accounting Standards. The Petitioner has also pointed out that these expenses were neither allowed under additional capitalization during the period 2009-14 nor were they



factored in while fixing the O&M expense norms for the period 2014-19, which in turn factored in to a huge loss amounting to Rs. 2437.39 lakh. The Petitioner has therefore requested to allow the additional capital expenditure amounting Rs. 2437.39 lakh for the period 2009-14, in the truing up exercise for the period 2009-14 and further allow such additional capital expenditures in the opening capital cost as on 1.4.2014 for the period 2014-19, for computation of annual fixed charges and tariff.

10. The matter has been considered. It is noticed that the Commission has dealt with a similar matter vide order dated 9.5.2022 in Petition No. 146/GT/2020 in respect of Dulhasti Power Station (390 MW), as under:

“The matter has been considered. It is evident from Commission’s order dated 30.8.2016 in Petition No.231/GT/2014 that the additional capitalization incurred by the Petitioner on account of treatment of sinking zone and hill slope stabilization was not allowed on the ground that the same is of recurring nature and is required to be met from the O&M expenses allowed to the generating station. In the said order, liberty was granted to the Petitioner to claim the said expenditure at the time of truing up of tariff, only to the extent that the Petitioner was not able to meet the same from the O&M expenses allowed to the generating station. The Petitioner has submitted that as per accounting principle, if any work/expenditure of capital nature is incurred for the first time, the same has to be booked under capital head of books of accounts and since these expenditures had already been capitalized under capital head in books of accounts during the years 2012-13 and 2013-14, it was not possible to claim this expenditure under O&M expenses. It is evident from the submissions, that the Petitioner has not been able to justify/establish with reasons, as to why it could not meet the additional expenditure from the normative O&M expenses allowed to the generating station during the said period. In view of this, the additional expenditure claimed by the Petitioner is not allowed.”

11. The Commission vide its order dated 9.5.2022 had observed that while approving the tariff for the period 2014-19 vide order dated 30.8.2016 in Petition No. 231/ GT/ 2014, it had granted liberty to the Petitioner to claim additional expenses as O&M expenses by providing justification at the time of truing up of tariff. However, in the present petition, no such directives are issued by the Commission while



approving the tariff of the generating station vide order dated 16.8.2016 in Petition No. 234/GT/2014.

12. The Respondent GRIDCO has submitted that the Petitioner had accepted the above decision of the Commission, since it did not challenge the decision of the Commission in order dated 16.8.2016, and therefore it is final and binding. The Respondent has also stated that the 2014 Tariff Regulations do not allow the capital expenditures, while truing up of tariff for the period 2014-19, which was disallowed by the Commission in truing up for the period 2009-14.

13. The matter has been considered. It is found that the Petitioner has not furnished any justification for the expenditure of Rs 2437.39 lakh claimed as additional O&M expenses for the periods when the said expenses were incurred. The Petitioner has not been able to justify/establish with reasons, as to why it could not meet the additional expenditure from the normative O&M expenses allowed to the generating station, during the said period. In view of this, the additional expenditure claimed by the Petitioner is not allowed.

Additional Capital Expenditure

14. 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 obsolescence 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."

15. The projected additional capital expenditure allowed vide order dated 16.8.2016 in Petition No. 234/GT/2014 for the period 2014-19, is summarized below:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Admitted additional capital expenditure on gross basis (A)	200.00	342.90	102.00	38.00	23.00
De-capitalization considered (B)	0.00	6.59	23.57	17.98	17.42
Discharge of liabilities (C)	1650.80	565.59	1562.99	0.00	0.00
Total projected additional capital expenditure allowed (D=A-B+C)	1850.80	901.90	1641.42	20.02	5.58

16. The year-wise claim of the Petitioner, for additional capital expenditure, under various heads, is as under:

		(Rs. in lakh)				
Sl. No		2014-15	2015-16	2016-17	2017-18	2018-19
A	Additions being claimed for purpose of tariff					
I	Capitalization claimed against admitted items					
	Claims under Regulation 14(3)(iii)	86.31	20.57	220.52	0.18	92.46
	Claims under Regulation 14(3)(viii)	-	7.29	15.98	-	-
li	Claims not projected / allowed but incurred on actual basis due to site requirements					
	Claims under Regulation	-	81.74	4.28	-	775.10



	14(3)(i)					
	Claims under Regulation 14(3)(iii)	3.24	17.12	42.33	77.91	24.32
	Claims under Regulation 14(3)(v)	-	28.27	-	-	-
	Claims under Regulation 14(3)(viii)	4.63	73.36	70.23	83.09	88.79
	Sub-total (A)	94.19	228.35	353.33	161.19	980.70
B	Deletions					
I	Assumed Deletion	-	14.96	22.96	9.51	-
II	Decapitalization	25.24	147.95	3.20	-	0.97
	Sub-total (B)	25.24	162.91	26.16	9.51	0.97
C	Discharge of undischarged Liabilities (C)	1343.86	1741.33	28.39	55.81	20.96
D	Reversal of undischarged Liabilities (D)	-	-	-	-	-
E	Net additions claimed (E=A-B+C-D)	1412.81	1806.77	355.56	207.49	1000.69
	Additional capitalization not to be claimed					
	Additions claimed in Exclusions (F)	327.18	1017.21	327.19	293.36	3588.01
	Deletions claimed in Exclusions (G)	4957.70	148.46	58.62	78.65	8.47
	Total (H= F-G)	(-)4630.51	868.76	268.57	214.71	3579.54

17. The Respondent GRIDCO has submitted that prudence check is not meant to be limited to the prudence check of the cost, but more importantly, it is required to assess whether such additional costs were necessary. In response, the Petitioner has submitted that the additional capital expenditure claimed under Regulation 14(3) of the 2014 Tariff Regulations are admitted and allowed only after prudence check.

18. The matter has been considered. The Petitioner, has submitted that the expenditure for assets/works claimed as additional capital expenditure for the period 2014-19 were executed/procured as per the Policy and Procedure of the Petitioner's Company. It has also enclosed the certificate in this regard from the competent authority and the Auditor's certificate with respect to the liability flow statement shown in Form-16 for the period 2014-19. The Petitioner has also submitted documentary evidence against additional capital expenditure claimed vide additional affidavit dated 15.7.2021. Accordingly, the additional capital expenditure has been examined and dealt in the subsequent paragraphs.

2014-15



19. The details of the additional capital expenditure claimed under Regulation 14 of the 2014 Tariff Regulations are examined below:

<i>(Rs. in lakh)</i>			
Sl. No.	Regulation		2014-15
(a)	14(3)(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	89.56
(b)	14(3)(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 powerhouse 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.	4.63
Total additional capital expenditure claimed			94.19

<i>(Rs. in lakh)</i>					
S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 14(3)(iii) of the 2014 Tariff Regulations - Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					
1	Providing and fixing security fencing boundary around Left and Right bank executive colony at PH site, Balutar	86.31	The Petitioner in justification has submitted that "Subsequent to the release of order by Ministry of Power, Govt. of India, bearing no. C-30019/32/2001-V&S dated 09.01.2008 by the Home Department, Govt. of Sikkim had declared the right bank executive colony, guest house, hospital as category "B" prohibited area having local settlements adjacent to this. As the area is not protected properly by fencing, it is allowing throughfare of the local people as-well-as the labours of the adjacent downstream project. Hence, providing and fixing of security fencing is required. The proposal is to construct boundary wall at Right bank and left bank of colony in phase wise manner. The construction cost of boundary is approximately Rs. 20000 per meter including	It is noticed that the additional capital expenditure claimed for the asset/ work was allowed in 2014-15. Accordingly, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	86.31



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>protection work.</p> <p>Capitalisation of Security Fencing done in phased manner:</p> <p>(i) Rs 86.31 lacs FY 2014-15 SL No. 1(a) (ii) Rs 20.57 in FY 2015-16 SL No.2 (iii)Rs 88.24 lacs, Rs 81.32 lacs Rs 77.65 Lacs in FY 2016-17 SI No. 1(i), 1(iii) & 1(iv) respectively (iv)Rs 0.18 lacs in FY 2017-18 SI No, 3 (v) Rs 112.76 Lacs in FY 2018-19 SI No.1.Hon'ble CERC has allowed expenditure of these items in phased manner amounting to Rs 200 lakhs in FY 2014-15, Rs 225 lakhs in 2015-16 and 75 lakhs in 2016-17. Project has incurred these expenses in 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 with major expenses in 2016-17 amounting to Rs 247.21 lakhs and 2018-19 amounting to Rs 112.76 lakhs.</p> <p>(i) The proposal for "C/o security fencing from 66/11KV switchyard to firefighting tank at left Bank, Balutar" was cancelled on 08.02.2016 & 27.06.2016. Finally, the work was awarded on 04.08.2017 amounting to Rs. 142.24 Lacs with completion period of 10 months i.e.,08.06.2018. However, during execution, the work was also delayed due to non-availability of NOC from Sikkim Forest Department and finally, work was completed on 29.03.2019 amounting to Rs.113.25 lacs.</p> <p>(ii) The work of "Construction of Boundary Wall from switchyard to KV school at left Bank Balutar" was awarded for an amount of Rs. 87.71 Lacs on 10.12.2013 with completion period of 05 months and the work was completed on 12.04.2014 having final amount of Rs. 86.31 Lacs (completed within contract period).</p>		
	Sub-total (A)	86.31			86.31
B. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items additionally claimed as per actual					



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
site requirement for smooth and efficient operation of plant					
1	Electric Siren Single Phase, 220/250 V, Range-2KM (3 Nos)	0.79	Siren systems at various locations in downstream area of Teesta Dam have been installed for alert the habitant of downstream people as per statutory guidelines issued by Sikkim Govt. Memo. No. 709/ADC(E)/DCE, dated:20.06.2014 issued by ADM(E), East Sikkim is attached as Appendix-A (Refer to point no. 5)	Considering the fact that the expenditure claimed are for assets required for safe operation of the plant, the additional capital expenditure claimed (@sl. no. 1&2) are allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	0.79
2	Electric Siren, Single Phase 220/230V, Range -5KM (6 Nos)	2.44	Siren systems at various locations in downstream area of Teesta Dam have been installed for alert the habitant of downstream people as per statutory guidelines issued by Sikkim Govt. Memo. No. 709/ADC(E)/DCE, dated: 20.06.2014 issued by ADM(E), East Sikkim is attached as Appendix-A (Refer to point no. 5)		2.44
3	20 Nos. Portable search light with rechargeable battery 12 V SMF battery and input 220 VOLT, AC Single phase security purpose	0.01	For security reasons, the portable search lights are required on every check post/watch tower where IRBn Security personnel are deployed for night patrolling duty. Accordingly Searchlight's were purchased for the use of security.	The additional capital expenditure claimed is not allowed being minor asset as per first proviso to Regulation 14(3) of the 2014 Tariff Regulations.	0.00
	Sub-total (B)	3.24			3.23
C. Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items additionally claimed as per actual site requirement					
1	Submersible Pump 50 HP	4.63	Incident of flooding of Vital Installation of the Hydro Power Station are happening every year in the country. Risk of flooding of Powerhouse and Dam Galleries is very high in case of underground Power House. seepage in Dam Galleries is much more as was anticipated at the time of construction. In case of failure of original dewatering pumps, availability of spare pumps are necessary to handle any emergency situation which may arise due to flooding. Submersible pumps were purchased to handle any	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	4.63



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			emergency situation as standby pump in case of failure of installed pumps.		
	Sub-Total (C)	4.63			4.63
	Total (A+B+C)	94.19			94.17

20. Based on the above, the total additional capital expenditure of Rs. 94.17 lakh (86.31+ 3.23+4.63) is allowed in 2014-15.

2015-16

21. The details of the additional capital expenditure claimed under Regulation 14 of the 2014 Tariff Regulations are examined below:

<i>(Rs. in lakh)</i>			
Sl. No.	Regulation		Amount
(a)	14(3)(i)	Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law	81.74
(b)	14(3)(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	37.69
(b)	14(3)(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.	28.27
(b)	14(3)(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 powerhouse 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.	80.65
	Total additional capital expenditure claimed		228.35



(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 14(3)(i) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	Provision for contingent liability of M/s Gammon India limited	81.74	The Petitioner in Justification has furnished that Provision has been created on the basis of report of Committee of Directors for contingent liability of M/s Gammon India Limited. Further, the award of Arbitral Tribunal in the matter of M/s Gammon India Ltd. has been pronounced on 1.6.2016 and corrected Award dated: 27.7.2016 amounting to Rs 51.63 Cr. principal and Rs 48.56 Cr. interest thus totalling to Rs. 100.19 Cr. The provision has been created as per IND AS 37 Note: Rs 81.47 lakh is the TDS amount which has been deducted by NHPC.	The Petitioner in justification has submitted that based on the report of Committee of directors for settlement of claims of M/s Gammon India Limited, provision as per IND AS 37 was created for Rs.40.87 crore in 2015-16. Against this, the Petitioner has deposited TDS amounting to Rs.81.74 lakh to tax department and the same is claimed as additional capital expenditure in 2015-16. As actual payment against this provision was not made, the balance amount of Rs.40.05 crore (Rs.40.87 Cr. – Rs.0.82 Cr.) was kept under undischarged liability. The Petitioner has also furnished the proof of payment in respect of Tax deducted at source. Accordingly, the undischarged liability of Rs. 4005.26 lakh, on accrual basis, is allowed and the same is considered at the time of actual discharge. However the additional capital expenditure of Rs 81.74 lakh claimed on account of tax deducted at source is allowed under Regulation 14(3)(i) of the 2014 Tariff Regulations.	81.74
	Sub-Total (A)	81.74			81.74
B. Regulation 14(3)(iii) of the 2014 Tariff Regulations - Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					
1	Providing and fixing security fencing boundary around Left and Right bank executive colony at PH site, Balutar"	20.57	"Subsequent to the release of order by Ministry of Power, Govt. of India, bearing no. C-30019/32/2001-V&S dated 09.01.2008 by the Home department, Govt. of Sikkim had declared the right bank executive colony, guest	It is noticed that the additional capital expenditure claimed for the asset/work was allowed in 2014-15. Accordingly, the additional capital expenditure claimed is	20.57



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>house, hospital as category "B" prohibited area having local settlements adjacent to this. As the area is not protected properly by fencing, it is allowing throughfare of the local people as-well-as the labours of the adjacent downstream project. Hence, providing and fixing of security fencing is required. The proposal is to construct boundary wall at Right bank and left bank of colony in phase wise manner. The construction cost of boundary is approximately Rs. 20000 per meter including protection work.</p> <p>Capitalisation of Security Fencing done in phased manner:</p> <p>(i) Rs 86.31 lacs fy 2014-15 SL No. 1(a) (ii) Rs 20.57 in FY 2015-16 SL No.2 (iii)Rs 88.24 lacs, Rs 81.32 lacs Rs 77.65 Lacs in FY 2016-17 SI No. 1(i),1(iii),1(iii) & 1(iv) respectively (iv)Rs 0.18 lacs in FY 2017-18 SI No. 3(v) Rs 112.76 Lacs in FY 2018-19 SI No.1.Hon'ble CERC has allowed expenditure of these items in phased manner amounting to Rs 200 lakhs in FY 2014-15, Rs 225 lakhs in 2015-16 and 75 lakhs in 2016-17. Project has incurred these expenses in 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 with major expenses in 2016-17 amounting to Rs 247.21 lakhs and 2018-19 amounting to Rs 112.76 lakhs.</p> <p>(i) The proposal for "C/o security fencing from 66/11KV switchyard to firefighting tank at left Bank, Balutar" was cancelled on 08.02.2016 & 27.06.2016. Finally, the work was awarded on 04.08.2017 amounting to Rs. 142.24</p>	allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>Lacs with completion period of 10 months i.e.08.06.2018. However, during execution, the work was also delayed due to non-availability of NOC from Sikkim Forest Department and finally, work was completed on 29.03.2019 amounting to Rs.113.25 lacs.</p> <p>(ii) The work of ""C/o of boundary wall with watch Tower at right bank, Balutar"" was awarded on 28.12.2015 amounting to Rs. 88.45 Lacs with completion period of 05 months. However, the work was delayed by the Contractor and finally got completed on 15.01.2017 with completion amount of Rs. 88.65 Lacs. The claimed work was executed in the right bank colony, Balutar of the Power station."</p>		
	Sub Total (B)	20.57			20.57

C. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement

1	Providing single PH. LT POWER supply to security barrack near Adit iv	1.77	Earlier there was no proper power supply at Adit-4. The reliable power supply was necessary for Safety and security of vital installation as well as for security personnel deputed at Adit-4. Therefore the purchase was made to provide the electricity supply to the Security Barrack for the use of IRBn Security Guard deployed in the security of the Power Station.	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred are for the safety and security of the generating station, the additional capital expenditure <i>claimed</i> (@sl. nos. 1&2) are allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	1.77
2	IP based PTZ camera with 1/4 CCD sensor with necessary mounting accessories and hardware, BOSCH VG5-7	10.41	As per the security requirement, these cameras are installed different important locations of power house to protect the Power House from theft, or any types mishappening to the equipment(s) as well as persons.		10.41
3	Communication server/ NVR with internal storage 6 TB AND other accessories (MATRIX-	2.05	As per security requirement, the recording data needs to be stored at least for 90 days period which may be used by investigation agencies in case of any untoward	Considering the fact that the expenditure claimed is in the nature of minor items, this additional capital expenditure claimed is not allowed in	0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	SATATYA NVR 24P)		incident.	terms of the Regulation 14(3)(iii) of the 2014 Tariff Regulations	
4	Portable Gen Set Up To 2100 VA (Make: Honda, Model: EX2400)	0.72	DG Sets are one of the emergency handlings equipment's for restoration of supply of vital installations in case of adverse climatic conditions. During the monsoon season, most of the time the approach roads of dam / vital locations get washed away as a result in case of failure of state power supply & problem in Existing DG Sets, it is very difficult to provide necessary supply to the important equipment(s). Also, being the portable one, it is very useful to provide supply in interior areas of power station and also used by security personnel at the time of requirement during night hours. It is directly related to the safety & security of the power station. There are three nos. check posts at Adit-2, Adit-3, Adit-5, where the power has been taken from the State Energy and Power Department which is not the reliable source especially during Monsson season. For the watch and ward of these Adits, three nos. portable dg sets of small capacity were purchased to provide power supply at night for the convenience of security guards deputed at these Adits.	Considering the fact that the expenditure claimed are in the nature of minor items, the additional capital expenditure claimed (@sl. nos. 4&5) are not allowed .	0.00
5	Portable Gen Set Up To 3000 VA (Make: Honda, Model: EU30is) (2Nos)	2.17			0.00
	Sub Total (C)	17.12			12.18
D. Regulation 14(3)(v) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	Supply, transportation and installation of Off and On Shore Equipment(s) including mandatory spares for HM Equipment To M/s TREL	20.87	"This expenditure pertains to original scope of work of Lot-TT-5. Release of Final Bill of M/s TREL for HM Work Lot-TT5 which was capitalised (work done but not paid) at the time of COD but payment was released during FY 2015-16.Final and full	The Petitioner has claimed the said expenses under Regulation 14(3)(v) of the 2014 Tariff Regulations, which is corresponding to liability for works executed prior to the cut-off date. The Petitioner	20.87



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
2	Supply, transportation and installation of Off and On Shore Equipment(s) including mandatory spares for HM Equipment To M/s TREL	6.02	payment was made by the power station on 31.03.2016 & 28.07.2016 vide. MB no. TSV/1151 at page no. 165 & 166-167 (Copy attached as Appendix C) against the revised contract value of Change Order dtd: 30.01.2015, contract value INR 594130615/- + EURO 606305.16 + JPY 807840 [Contract-I (Supply) + Contract-II (Transportation + Installation)].	has submitted that the said work was capitalized at the time of COD however, the final payment was made during 2015-16. Additionally, the Petitioner has submitted that there is a change in scope of work and the payments were made on account of changed scope of work. On 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, the additional capital expenditure claimed is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations.	6.02
3	Supply, transportation and installation of Off and On Shore Equipment(s) including mandatory spares for HM Equipment To M/s TREL.	1.38	As recorded in the above MB at Page no. 144, Delay for payment is presumed on the basis of change order issued date NH/TSV/CE(I/C)/2015/450 dtd: 30.01.2015 (copy attached as Appendix D). No Demand Certificate for final payment (supplies & services) provided by the contractor is attached along with the other supporting documents towards final bill payment. (Appendix E) Whereas exclusively appointment of Arbitrator on the claim of M/s Texmaco Rail & Engineering Ltd. for price escalation beyond 20% ceiling against NHPC Ltd. is under process."		1.38
Sub-Total (D)		28.27			28.27

E. Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items allowed in order dated 23.1.2014 in Petition No 27/GT/2013: Pumps amounting to Rs 10 lakh for 2013-14, allowed by the Commission

1	Submersible pump 16HP make: MODY model G-706T (2 Nos)	2.43	Being the underground power house, continuous seepage occurred inside the powerhouse. Frequent dewatering of the seepage water is required to avoid the flood like situation. The originally installed pumps are very old. Being very old, spare parts are also not available in the market. Frequent breakdown occurred in these pumps. These pumps were not	It is observed that the assets were already allowed by the Commission in 2013-14. However, the same were capitalized and claimed in 2015-16. Considering the fact that the assets will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed (@sl. nos. 1 to 4) are allowed	2.43
2	Submersible pump 10HP Make: MODY model NC-10M	0.85			0.85
3	Submersible pump 15 HP Make: DARLING MODEL J-1503 (2 Nos)	2.28			2.28



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
4	Submersible pump 3 HP Make: DARLING MODEL J-33L(3 Nos)	1.73	reliable during the monsoon period. Hence additional pumps are required to avoid any flood situation. All these pumps were purchased to avoid any flood like situation in APS top, Turbine pit, etc.	under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	1.73
Sub-total (E)		7.29			7.29
F. Regulation 14(3)(viii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement for smooth and efficient					
1	Construction of SIKKIM style gate & security post at zero point at dam site	20.02	Due to heavy rain, big boulder with heavy muck fall on the Sikkim style gate cum security check post, resulted totally damaged the asset. Accordingly, the old assets amounting to Rs 10.29 lacs was decapitalised during the FY 2014-15. As per policy/report no insurance reimbursement was received from the insurance agency. As per policy/report no insurance reimbursement was received from the insurance agency.	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the safety of the plant which will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	20.02
2	500 KVA Step Up Cast Resin Indoor Transformer, (415/11KV)	13.32	"The existing step-Up Transformer 500 KVA of DG-2 got failed in 2012. DG sets are being very important to supply the backup power to the auxiliary system of Power House in case of power failure. Hence, in order to restore original scheme and to utilize DG Power, one 500 KVA cast resin type Transformer was procured. 1. The transformer was commissioned in the year 2007-2008 at the time of setting up of Teesta-V Power Project. Transformer failed because of Insulation failure due to ageing of transformer. 2. After occurrence of failure of transformer of DG Set no. 2, one no. transformer was taken from Electrical Maintenance Division to meet out the requirement which was returned after installation of Dry type 500 kVA step-up transformer."	Considering the fact that the additional capital expenditure incurred is for the safety of the plant which will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The gross value of asset is consider under 'Assumed Deletions'.	13.32
3	Float cum Boost	11.97	Existing battery bank was old	Considering the fact that	11.97



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	Charger with DVR with 220V, 560AH, VRLA Type, Battery Bank		& covered its useful life. Hence to provide reliable DC supply to HT & LT panel, PLCC system of Radial gate & emergency lighting system for dam, this item was procured on replacement basis. Battery Bank is need to be replaced as and when it does provide satisfactory backup power as required in the event of failure of AC Input source/ Battery Charger, regardless of the years completed by the Battery Bank. However normally a battery bank works satisfactory only for the period of 5-6 years. Whereas Battery Bank which was replaced in year 2015-16 had completed 7 years from the date of initial commissioning of the project.	the additional capital expenditure incurred is for the safety of the plant which will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The gross value of asset is consider under 'Assumed Deletions'.	
4	Videoscope instrument along with all accessories, make- IT Concept (IRIS 46-60 DVR Video scope)	0.12	This instrument is very essential to view the unreachable portions of the Transformer, GIS & under water components without complete dismantling the components. This feature of the instruments reduces the outage time & also increases the performance of the Equipments. Due to necessity , this instrument was procured to increase the efficiency of the power station & also to reduce the down time of machines.	Since these assets is in the nature of tools and tackles, the expenditure is not allowed , in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations	0.00
5	Construction of CW drain from zero point to Irb barrack at left bank	20.64	During the rainy reason, huge discharge came through the nallah. Being kutchha nallah, the water get spread in a larger portion resulting in loosening of soil and vegetation. In order to protect the hill slope adjacent to the colony and office building at left bank, the drain water was channelised. Hence a catch water drain was constructed to serve the purpose.	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the safety of the plant which will facilitate the security and efficient operation of the plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	20.64
6	KSB MAKE	0.87	The originally installed	Considering the fact that	0.87



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	MODEL BPD 302/9,20 HP,2900 RPM,415 VAC, Vertical Borewell Submersible Pump (2 Nos)		pumps were very old. Being very old and spare parts are not available in the market. These pumps have been repaired several times and were not reliable for regular supply of water. Hence these pumps are required for smooth operation of water supply system at Teesta-V colony.	this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Gross value of asset is consider under 'Assumed Deletions'.	
7	Monoblock Pump set, HEAD-66mtr, Discharge-18LPS, SHAFT power- 22KW/30HP, size 100X100 (2 Nos)	1.88			1.88
8	Submersible Pump 50 HP, MODY G1006T	4.53	Earlier the dewatering pumps available at dam gallery were not capable to handle dewatering the seepage water. The installed pumps were very old & frequent breakdown occurred. To avoid the flood like situation, an additional dewatering pumps of 50HP capacity were installed as standby pump to be used in Emergency situations to avoid flooding of Power House	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	4.53
	Sub-Total (F)	73.36			73.24
	Total	228.35			223.29

22. Based on the above, the total additional capital expenditure of Rs. 223.29 lakh (81.74 +20.57 +12.18 +28.27 +7.29 +73.24) is allowed in 2015-16.

2016-17

23. The details of the additional capital expenditure claimed under Regulation 14 of the 2014 Tariff Regulations are examined below:

(Rs. in lakh)			
Sl. No.	Regulation		2016-17
(a)	14(3)(ii)	Change in law or compliance of any existing law	4.28
(b)	14(3)(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	262.84



Sl. No.	Regulation		2016-17
		security/internal security	
(c)	14(3)(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 powerhouse 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;	86.21
	Total additional capital expenditure claimed		353.33

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 14(3)(ii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	Construction of Bio pit at Hospital and construction fencing around incinerator room at Left Bank, Balutar	4.28	As per the Biomedical waste Disposal Norms of Govt of Sikkim, the wastes that are generated at the Hospital needs to be buried in deep pit. The existing pit is already filled with bio medical waste. Hence, a new pit was constructed to meet the requirement. Bio-medical Waste Management Rules, 2016 published by Govt. of India."	Since the norms issued by the Sikkim Government are required to be complied by the Petitioner, the additional capital expenditure claimed is allowed under Regulation 14 (3)(ii) of the 2014 Tariff Regulations.	4.28
	Sub-Total (A)	4.28			4.28
B. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					
1	Construction of boundary wall with watch tower at Right bank, Balutar	54.00	"Subsequent to the release of order by Ministry of Power, Govt. of India, bearing no. C-30019/32/2001-V&S dated 09.01.2008 by the home department, Govt. of Sikkim had declared the right bank executive colony, guest house, hospital as category "B" prohibited area having local settlements adjacent to this. As the area is not protected properly by fencing, it is allowing throughfare of the local people as-well-as the labours of the adjacent downstream project. Hence, providing and fixing of security fencing is required. The proposal is to	The additional capital expenditure is necessary for safety of power plant. Accordingly, the additional capital expenditure claimed (@sl. nos. 1 to 4) are allowed for additional capital expenditure under Regulation 14(3) (iii) of the 2014 Tariff Regulations from Serial no 1 to 4.	54.00
2	Construction of boundary fencing from RD 920 m to RD 1983 m at Right Bank, Balutar.	81.32			81.32
3	Construction of boundary wall from KV school to Home guard Barrack at Left Bank.	62.68			62.68



			<p>construct boundary wall at Right bank and left bank of colony in phase wise manner. The construction cost of boundary is approximately Rs. 20000 per meter including protection work.</p> <p>Capitalisation of Security Fencing done in phased manner:</p> <p>(i) Rs 86.31 lakh in FY 2014-15 SL No. 1(a)</p> <p>(ii) Rs 20.57 in FY 2015-16 SL No.2</p> <p>(iii)Rs 88.24 lacs, Rs 81.32 lacs Rs 77.65 Lacs in FY 2016-17 SI No. 1(i),1(iii),1(iii) & 1(iv) respectively</p> <p>(iv)Rs 0.18 lacs in FY 2017-18 SI No, 3</p> <p>(v) Rs 112.76 Lacs in FY 2018-19 SI No.1.Reason for Delay</p> <p>Hon'ble CERC has allowed expenditure of these items in phased manner amounting to Rs 200 lakhs in FY 2014-15, Rs 225 lakhs in 2015-16 and 75 lakhs in 2016-17. Project has incurred these expenses in 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 with major expenses in 2016-17 amounting to Rs 247.21 lakhs and 2018-19 amounting to Rs 112.76 lakhs.</p> <p>(i) The proposal for "C/o security fencing from 66/11KV switchyard to firefighting tank at left Bank, Balutar" was cancelled on 08.02.2016 & 27.06.2016. Finally, the work was awarded on 04.08.2017 amounting to Rs. 142.24 Lacs with completion period of 10 months i.e.08.06.2018. However, during execution, the work was also delayed due to non-availability of NOC from Sikkim Forest Department and finally, work was completed on 29.03.2019 amounting to Rs.113.25 lacs.</p> <p>(li) The work of C/o of</p>	
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			<p>boundary wall with watch Tower at right bank, Balutar was awarded on 28.12.2015 amounting to Rs. 88.45 Lacs with completion period of 05 months. However, the work was delayed by the Contractor and finally got completed on 15.01.2017 with completion amount of Rs. 88.65 Lacs.</p> <p>(iii) The work of "Construction of boundary fencing from RD 920 m to RD 1983 m at Right Bank, Balutar." was awarded on 20.03.2015 amounting to Rs. 75.43 Lacs with completion period of 03 months. However, the work was delayed mainly by the Contractor and got completed on 31.05.2016 with completion amount of Rs. 81.32 lacs.</p> <p>(iv) The work of "Construction of boundary wall from KV school to Home guard Barrack at Left Bank" was awarded on 16.02.2015 amounting to Rs. 77.63 Lacs with completion period of 05 months. However, the work was completed on 31.05.2016 with completion amount of Rs. 77.65 Lacs. The work was delayed on the part of contractor. "</p>		
4	Construction of IRBn Barrack at Left Bank (first floor)	22.52	<p>"Item was allowed by Hon'ble CERC in FY 2015-16. Refer Item no. I (3) of Form 9A of 2015-16. Reason for Delay in Capitalization. The work of "Construction of IRBn barrack (first floor) at Left bank, Balutar" was awarded on 31.10.2015 amounting to Rs. 20.68 lakh with completion period of 05 months. However, the work was completed on 20.05.2016 with completion amount of Rs. 19.04 lakh and the work was delayed mainly on the part of Contractor."</p>		22.52
	Sub-Total (B)	220.52			220.52
C. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	Siren- Inverter/	0.92	"Siren systems at various	Considering the fact that	0.92



	UPS for Siren System and provision for other PH Items		locations in downstream area of Teesta Dam to warn the people in case of rise in inflow of the river have been installed as per statutory guidelines issued by Sikkim Govt. Inverter/UPS has been purchased to provide power backup for operation of Sirens. Refer Sl. No. 4 (2) (iii) i.e. Audible Devices of Sikkim Govt. Gazette No. 26/Home/2015 dated: 22.06.2015. (Appendix I)"	asset is required for safe operation of the plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	
2	Purchase of 1 no Electrically Operated Pump.	2.10	One no of Electrically Operated Pump for filling of Fire Tenders and installed at newly constructed Fire station at Teesta-V power Station, Balutar. The electrically installed pump is for normal use for filling of Fire Tanks.	Considering the fact that these assets are required for safe operation of the plant, the additional capital expenditure claimed (sl. no. 2&3) are allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	2.10
3	Purchase of 1 no Diesel Operated Pump.	2.47	One no of Diesel Operated Pump for filling of Fire Tenders in the case of Emergency and installed at newly constructed Fire station at Teesta-V power Station, Balutar. Diesel operated pump is kept for emergency/ backup when there is power failure or when electrically operated pumps are not functioning.		2.47
4	Purchase of CCTV camera for VIP GH	2.82	"In order to meet out security requirements of Power Station, it was felt by Power Station to install CCTV Surveillance system at the vulnerable points and important installations like Guest House, Colonies, and Power House etc. to monitor the movements of visitors/ dignitaries. As such, for sake of security reasons, the CCTV surveillance system was installed in Guest House(s) of Power Station in the year 2016-17. IB report of 2015 recommends: Technical and manual surveillance inside perimeter area should be conducted regularly."	Considering the fact that assets is not directly related to plant security, the additional capital expenditure claimed is not allowed .	0.00



5	800 AMP LT distribution panel with 03 NOS 800 A ACBS 06 NOS 250 A MCCBS and 05 no. 125 A MCCBS (2 Nos.)	14.03	Earlier, the distribution of power supply was made through pragmatic way by using of Switch Fuse Units with porcelain kit kat fuses. The distribution panels are used in all the important residential / non-residential installations to make the supply for any site from any other source and the safety of the working personnel is also ensured. Since in the distribution panels ACBs / MCCBs are provided, hence, on the event of occurrence of any fault, these switchgear devices provide better protection option compared to the Switch Fuse Units. Thus, the incident of fire due to short circuit can be minimised where LT distribution panels are used. The O&M gross block of old SFU is negligible.	Considering the fact that the additional capital expenditure incurred is for the safety and security of the generating station, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	14.03
6	Providing & laying streetlamp pole from entrance gate to exit gate of Samdong colony	19.99	Samdong colony at the Dam site was constructed about 20 years back. Now, the operating staff of the Dam are residing in the colony. There was no provision of street lights inside the colony. As a result, security staffs could not provide proper watch and ward of the colony. Moreover, the resident of the colony also faces difficulties while movement in the colony. The Samdong area is under the vicinity of dense vegetation & high mountains. Proper illumination is very essential for safety & security. Hence street lamps are installed keeping in view the security aspect. Intelligence Agency (IB) also pointed out for adequate lighting arrangement at power station in their report. Relevant page no.7, point no. 16 (ix) of IB report for 2012 is attached. (Appendix-F)	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the safety and security of the generating station, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations	19.99
Sub-Total (C)		42.33			39.51
D. Regulation 14(3)(viii) of the 2014 Tariff Regulations Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					



1	Telephone Exchange for Office building and Colony (Telex Machines)	15.98	An amount of Rs 12.0 lakh was approved by CERC under projected add cap for the FY 2016-17. Against this expenditure of Rs 16 lacs has been incurred in 2016-17. This expenditure has been incurred against the replacement of existing old telephone exchange whose original value is Rs 22.96 lakh. Net decapitalisation amount $(22.96-16)=(-6.96)$ lakh.	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant and the asset is already admitted works by the Commission, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization of old asset/work has been considered under assumed deletion.	15.98
Sub-total (D)		15.98			15.98
E. Regulation 14(3)(viii) of the 2014 Tariff Regulations-Items additionally claimed as per actual site requirement					
1	Purchase of 1 no. Bus against replacement of old bus.	17.38	Purchased one number bus against replacement as the old bus no SK 01B/0161 has completed its useful life in terms of years as well as in Kms. The said vehicle is of Model Feb,2001 : The vehicle covered 218738 Km and 12 Years when the vehicle was grounded (Appendix-H) against stipulated life of 200000 Kms and 8 Years.	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The gross value of the old asset has been considered under 'Decapitalization'	17.38
2	Supply of 1 no. Water Fire Tender for Teesta-V PS	31.13	Only one no. Fire tender was available in power station since commissioning. Since the project is located in Hilly Terrain and distance between Power house and Dam is 30 KM Approx. In order to avoid any unforeseen events and as per safety requirement, at least 2 nos Fire Tenders should be available at site to mitigate any emergency situation. Therefore, additional one no. fire tender has been purchased in FY 2016-17. IOM from Safety Division has been attached as Appendix-J wherein it has been advised to have 02 nos fire tender at site.	Considering the fact that asset is required for safe operation of the plant which will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	31.13
3	Vertical Borewell Submersible Pump ,20 HP, (4	1.70	Existing installed pumps of water supply system are very old & frequent breakdown	Since the additional capital expenditure incurred does not directly	0.00



	Nos)		occurred. Due to frequent repair, the suction & delivery capacity of the pumps got reduced & deteriorated day by day. In absence of healthy pumps, the water supply is disturbed most of the time. Hence requirement of these new pumps were aroused to keep the water supply system Healthy.	relate to the operation of the plant, the additional capital expenditure claimed (@sl. Nos. 3 to 6) are not allowed .	
4	Mono Block Centrifugal Pump Motor Set, 30 HP (3 Nos)	2.58			0.00
5	4 No(s) Oxygen Concentrator	1.90	Power Station is located in remote area. Hence adequate medical facility is not available nearby areas. To provide essential medical facility for the employees & their family residing in colony, this instrument is very essential by the Power station Hospital.		0.00
6	Fully-automated biochemistry analyser - Make: Meril Merilyser, Model: Autoquant100	7.98			0.00
7	Industrial type fume & dust extractor - Make: SKS, Model: SKS/DE/01 (4 Nos.)	7.56	Power House of Teesta-V Power Station is a confined place where proper environment is required to be maintained. Due to carrying out maintenance / repair works, by way of welding, smoke of the same spread out inside the underground power house. This smoke not only reduce the efficiency of the working staff at site but affect the health of the working / other staff posted in the power house. In order to minimise such health hazards and to enhance the efficiency of the working staff, these fume & dust extractor were purchased.	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	7.56
	Sub Total (E)	70.23			56.07

(Rs. in lakh)		
Details of the claim	Amount claimed	Amount allowed
Total (A+B+C+DE)	353.33	336.36

24. Based on the above, the total additional capital expenditure of Rs. 336.36 lakh (4.28+220.52+39.51+15.98+56.07) is allowed in 2016-17.

2017-18



25. The details of the additional capital expenditure claimed under Regulation 14 of the 2014 Tariff Regulations are examined below:

(Rs. in lakh)			
Sl. No.	Regulation		2017-18
(a)	14(3)(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.	78.09
(b)	14(3)(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 powerhouse 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;	83.09
Total additional capital expenditure claimed			161.19

(Rs. in lakh)					
S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 14(3)(iii) of the 2014 Tariff Regulations - Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					
1	Construction of boundary wall with watch tower at Right bank, Balutar	0.18	"Subsequent to the release of order by Ministry of Power, Govt. of India, bearing no. C-30019/32/2001-V&S dated 09.01.2008 by the Home department, Govt. of Sikkim had declared the right bank executive colony, guest house, hospital as category "B" prohibited area having local settlements adjacent to this. As the area is not protected properly by fencing, it is allowing throughfare of the local people as-well-as the labours of the adjacent downstream project. Hence, providing and fixing of security fencing is required. The proposal is to construct boundary wall at Right bank and left bank of colony in phase wise manner. The construction cost of boundary is approximately Rs. 20000 per meter including	Considering the fact that the expenditure claimed is the balance work for admitted asset, the additional capital expenditure claimed is allowed under Regulation 14 (3)(iii) of the 2014 Tariff Regulations.	0.18



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>protection work. Capitalisation of Security Fencing done in phased manner: (i) Rs 86.31 lacs fy 2014-15 SL No. 1(a) (ii) Rs 20.57 in FY 2015-16 SL No.2 (iii)Rs 88.24 lacs, Rs 81.32 lacs Rs 77.65 Lacs in FY 2016-17 SI No. 1(i),1(iii),1(iii) & 1(iv) respectively (iv)Rs 0.18 lacs in FY 2017-18 SI No, 3 (v) Rs 112.76 Lacs in FY 2018-19 SI No.1</p> <p>Hon'ble CERC has allowed expenditure of these items in phased manner amounting to Rs 200 lakhs in FY 2014-15, Rs 225 lakhs in 2015-16 and 75 lakhs in 2016-17. Project has incurred these expenses in 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 with major expenses in 2016-17 amounting to Rs 247.21 lakhs and 2018-19 amounting to Rs 112.76 lakhs. (i) The proposal for "C/o security fencing from 66/11KV switchyard to firefighting tank at left Bank, Balutar" was cancelled on 08.02.2016 & 27.06.2016. Finally, the work was awarded on 04.08.2017 amounting to Rs. 142.24 Lacs with completion period of 10 months i.e.08.06.2018. However, during execution, the work was also delayed due to non-availability of NOC from Sikkim Forest Department and finally, work was completed on 29.03.2019 amounting to Rs.113.25 lacs."</p>		
	Sub-total (A)	0.18			0.18
B. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
1	Horizontal double mounting SIREN single phase, Range (KM)-3.25, MAKE: JEEKAYMODEL :JAD-350 (3 Nos)	1.50	Siren, Inverter/UPS of GSM based alarm system to alert the local population for advance water release are being maintained at different locations at river banks from Dikchu up to Rangpo. Further it is to certify that these sirens have been purchased for different locations than already purchased in FY 2014-15.	Considering the fact that the expenditure claimed are for assets required for safe operation of the plant, the additional capital expenditure claimed (@sl. nos. 1 to 3) are allowed	1.50
2	Purchase of High mast and telescopic type light for security purpose at Balutar & Dam	15.88	Earlier Temporary lightening arrangement were not sufficient for proper illumination. For which High mast light and telescopic lights were required in some critical locations of Balutar and DAM for security and safety purpose. The PS & Dam lies under the vicinity of dense vegetation & high mountains. Proper illumination is very essential for safety & security of PH & Dam from trespassing & from wild animals. Hence 4 nos of High Mast lights are installed at critical locations of Power Station keeping in view the security aspect. Intelligence Agency (IB) also pointed out for adequate lighting arrangement at power station in their report. Relevant page no.7 points no.16 (iv) of IB report for 2012 is attached. (Appendix-F)	under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	15.88
3	Construction of fire station at left bank bauter	60.53	Previously, there is no fire station at Teesta-V power station to handle the emergency situation during fire broke out. In view of recent incident of major fire broke out at URI-II power station on 20.11.2014, IB has opined in its report that power projects carries high fire risk and in house fire station are prerequisite to deal with such exigencies. Considering the advice of MHA/MOP, the Safety division, Corporate office vide IOM No.-NH/SEFTY/FT/2015 dated 11.02.2015 has directed to establish a well-equipped fire		60.53



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			station in all NHPC power station/ projects to deal with any emergency situation. The work completed and capitalised in 2017-18. Total Expenditure incurred amounting to Rs 61.80 Lacs. The IOM of Safety Division has been attached as Appendix J		
	Sub-Total (B)	77.91			77.91
C. Regulation 14(3)(viii) of the 2014 Tariff Regulations - Items additionally claimed as per actual site requirement					
4	1 No. 50 HP Submersible Dewatering Pump for dam site.	18.89	Existing pumps installed at dam site for dewatering purpose are working round the clock since commissioning and efficiency of the same is reduced due to continuous use and are the lifeline of dam galleries for inspection and monitoring of the of dam. Now the problems is arising in the healthiness of dewatering pumps. New pump was purchased against the replacement of one pump in FY 2017-18 of the same technical specifications.	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	18.89
5	SEMI automatic urine analyser - ERBA - TRANSASIA LAURA SMART	1.98	Power Station is located in remote area. To provide essential medical facility for the employees & their family residing in colony , this instrument is very essential for pathological analysis & diagnosis of disease at power station Hospital.	Since the additional capital expenditure incurred does not directly relate to the operation of the plant, the claim of the Petitioner is not allowed .	0.00
6	Water storage /detention Tank at Left Bank, Baluter	57.84	At present, there is a water treatment plant which consist of an aeration tank, pressure filter and RO system for purification of water. The capacity of the aeration tank is approx. 90, 000 Lite. Daily requirement of water for Right Bank & Left bank Residential colony, Guest House, Club, Administrative Building, IRBs Jawans, School etc are being catered from this present system. The tank is not sufficient to meet the daily requirement. Due to insufficient capacity of tank and non-availability of	Since the additional capital expenditure incurred does not directly relate to the operation of the plant, the claim of the Petitioner is not allowed .	0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			detention chamber/tank, the water is directly feeds to pressure/ RO filter from the aeration tank. As the water carries high iron content and other suspended particles, the pressure and RO filter are being choked frequently which leads to decreasing the efficiency/ effectiveness of the entire water supply system. Moreover, the storage capacity of the water supply system is not sufficient to handle any emergency/ unwanted situation. Accordingly, a RCC water tank cum detention chamber (Size - 18 M (L) X 10 M (B) X 3.40 M (H)) has been constructed for smooth, uninterrupted and efficient operation of the water supply system.		
7	Construction of toilet for the security personal at zero point at Dam site	2.31	Check post at zero point has been established for security purpose. Toilet has been constructed for the use of security personnel posted at the said check post. Check post at zero point existed since commissioning of the Power station. The earlier check post was damaged due to landslide and was again reconstructed in March 2016. No toilet facility existed at the said check post and the security personnel were relieving themselves in the open. Keeping in view the necessity, a toilet near security check post at zero point was constructed in April 2017 for the security personnel.	As the expenditure claimed is in the nature of O&M expenses, the claim is not allowed .	0.00
8	Web based AWS (Sensors, Data Logger and Mounting Accessories) - Lawrence & Mayo Model: AWS-WB-001	2.07	This is required for collection of weather data and by which Reservoir Management can be done effectively. Web Based Automatic Weather Station was installed in June 2017 for collection of hydro-meteorological data(s) viz, wind speed, wind direction, rainfall, air temperature, atmospheric pressure, solar	Considering the fact that asset is required to plan generation as per Grid safety and schedule power and optimise the generation, and the asset is required for successful operation of the	2.07



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			radiation etc. Hydro-meteorological data is the preliminary requirement for optimum planning as well as execution of any water resources project and subsequent operations. Hence, a proper and organised scheme for collection of the required hydro-meteorological data/information such as precipitation, run off, water quality and other climatic parameters is essential to be maintained at all projects/power stations. Since, it is the requirement of all the projects/power stations, the said web based automatic weather station was installed and the data(s) acquired from the AWS are sent to Design & Engg Division, Corporate office on monthly basis.	plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
	Sub-Total (C)	83.09			20.96
	Total (A+B+C)	161.19			99.05

26. Based on the above, the total additional capital expenditure of Rs. 99.05 lakh (0.18+77.91+20.96) is allowed in 2017-18.

2018-19

27. The Petitioner has claimed additional capital expenditure on accrual basis under proviso of 14(2)(i) of the 2014 Tariff Regulations for the amount of Rs. 1251.93 lakh, for items including Main Generating plant & Equipment, Cooling Water System, EHV Switchgear System, Control, metering & protection system and Auxiliary and Ancillary System. The Petitioner has further submitted that the custom department raised difference of custom duty levied against import of spare parts, pertaining to construction period up to 2008, over and above the allowable limit of 10% of the main equipment value under contract no. NH/CONT. (E&M)/Lot 6.1/TEESTA-V/579/2001/I (Lot-6 Electrical & Mechanical Works Contract of Teesta-V H.E.



Project) awarded to M/s Mitsui & Co. Japan and the custom department, Kolkata, raised a demand of Custom Duty of Rs. 1251.93 lakh. The Petitioner has also submitted that it has justified its claim vide demand letter of Custom Department F.No. S37C(Misc) 05/2004 A (6), dated 30.4.2019 along with the copy of payment proof and the principal amount was paid on 14.8.2019, but the interest part of Rs. 21.61 crore, is kept under contingent liability from 2019-20.

28. The matter has been considered. It is observed that the Petitioner has paid custom duty vide demand draft dated 12.8.2019 for Rs 1251.93 lakh, as demanded by the Custom department. Further, the amount pertains to custom duty on import of spare parts pertaining to the construction period and part of original scope of work and the Petitioner has created provisions/liabilities against the same in 2018-19. In view of this, the claim is allowed on accrual basis as a part of undischarged liabilities which has been discharged by the Petitioner during 2019-20.

29. The details of the additional capital expenditure claimed under Regulation 14 of the 2014 Tariff Regulations are examined below:

<i>(Rs. in lakh)</i>			
Sl. No.	Regulation		2018-19
(a)	14(3)(i)	Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law (for existing station)	775.10
(b)	14(3)(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.	116.78
(c)	14(3)(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 powerhouse 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.	88.79



Sl. No.	Regulation	2018-19
	Total additional capital expenditure claimed	980.70

2018-19

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 14(3)(i) of the 2014 Tariff Regulations - Items additionally claimed as per actual site requirement					
1	Compensation for house land standing properties at Lum Sangtok Lwer Dzngu and Tankek block of North Sikkim	679.78	"Court of District Magistrate, North Sikkim has directed to pay the land compensation amounting to Rs.6.79 Crs. for houses, land and standing properties on account of displacement of affected persons of Lum, Sangtok, Block Lower Dzongu & Tanteek Block, North Sikkim due to Teesta-V Reservoir. Accordingly, the payment was released. 1. Relevant documents is attached as Appendix L. 2. The compensation was paid to the affected persons on account of damages to the houses and land properties due to Teesta-V reservoir."	The directives of the Magistrate court are covered in the claim of the Petitioner which is in compliance to the order dated 29.3.2018 of Court of the District Magistrate, North Sikkim. Accordingly, this claim is allowed under Regulation 14 (3)(i) of the 2014 Tariff Regulations.	679.78
2	Civil works for underground power house, surge & pressure shafts, part head race tunnel	4.52	As per the direction of Hon'ble High Court, NHPC has implemented the revised pay scale w.e.f 2007 Accordingly NHPC has to pay out arrear payment to its executives in pursuance of the order of MOP no. 11/6/2006-DO(NHPC) dated 4.4.2006. Arrear payment in respect of executives posted in the Project during construction period till the date of COD has been calculated by Finance division amounting to Rs 95.33 lakhs. The impact due to pay revision/arrear payment has been capitalised as IEDC during the construction period as per accounting policy of NHPC and IND AS requirement.	The claim of the Petitioner is in respect of revision/arrear of payments of the executives posted in the instant Project during construction period from 1.1.2007 to 31.3.2019. The Petitioner has submitted that payment for this revision has been capitalised as IEDC during the construction period of the project.	0.00
3	Civil works for Coffor Dams with deep jet grouted cut off wall, Concrete Dam, Desilting Chambers,	23.76		The matter has been examined. It is noticed that the Petitioner had filed Petition No. 343/MP/2019 seeking recovery of the impact of pay/	0.00
4	Civil works for Head Race Tunnel including Adits - 2, 3 & 4 etc.	56.97			0.00
5	All Civil works relating to Tailrace Channels at underground Powerhouse Building Site	0.54			0.00
6	All Civil works relating to 3 Nos.	0.61			0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	Tailrace Tunnels at underground Powerhouse Building Site			wage revision of its employees for the period from 1.1.2007 to 31.3.2019 including under the Construction period and the Commission vide its order dated 28.1.2023 had considered the impact of pay revision of its employees for the period from 1.1.2007 to 31.3.2019. The claim of the Petitioner in the instant station has also been dealt in above order dated 28.1.2023. In view of this, the additional capital expenditure claimed is not allowed in this order.	
7	Main generating equipment consist of through flow type inlet valve, Toshiba turbine, governing system	8.92			0.00
	Sub-Total (A)	775.10			679.78
B. Regulation 14(3)(iii) of the 2014 Tariff Regulations - Items allowed in order dated 16.8.2016 in Petition No. 234/GT/2014					
1	Boundary wall fencing from Switchyard to zero point at Left bank, Balutar.	92.46	The Petitioner has submitted that subsequent to the release of order by Ministry of Power, Govt. of India, bearing no. C-30019/32/2001-V&S dated 09.01.2008 by the Home department, Govt. of Sikkim had declared the right bank executive colony, guest house, hospital as category "B" prohibited area having local settlements adjacent to this. As the area is not protected properly by fencing, it is allowing throughfare of the local people as-well-as the labours of the adjacent downstream project. Hence, providing and fixing of security fencing is required. The proposal is to construct boundary wall at Right bank and left bank of colony in phase wise	The Commission had in its order dated 16.8.2016 allowed the Construction of Boundary wall for Rs 500 lakh for execution of the work in a phase wise manner. The work amounting to Rs 142 lakh was awarded in July 2017 and the work was completed and capitalised in 2018-19. The Petitioner has also submitted that the proposal for "c/o security fencing from 66/11KV switchyard	92.46



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>manner. The construction cost of boundary is approximately Rs. 20000 per meter including protection work.</p> <p>Capitalisation of Security Fencing done in phased manner:</p> <p>(i) Rs 86.31 lacs fy 2014-15 SL No. 1(a)</p> <p>(ii) Rs 20.57 in FY 2015-16 SL No.2</p> <p>(iii)Rs 88.24 lacs, Rs 81.32 lacs Rs 77.65 Lacs in FY 2016-17 SI No. 1(i),1(iii),1(iii) & 1(iv) respectively</p> <p>(iv)Rs 0.18 lacs in FY 2017-18 SI No, 3</p> <p>(v) Rs 112.76 Lacs in FY 2018-19 SI No.1</p>	<p>to firefighting tank at left Bank, Balutar" was cancelled on 8.2.2016 and 27.6.2016. Finally, the work was awarded on 4.8.2017 for Rs. 142.24 lakh with a completion period of 10 months i.e., 8.6.2018. However, during the execution, the work was also delayed due to non-availability of NOC from Sikkim Forest Department and finally, the work was completed on 29.3.2019 for Rs.113.25 lakh.</p> <p>In view of the above and considering the fact the expenditure claimed is for admitted works/assets the expenditure claimed is allowed under Regulation 14(3)(iii) of 2014 Tariff Regulations.</p>	
	Sub-Total (B)	92.46			92.46
C. Regulation 14(3)(iii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	Construction of cement concrete pavement from helipad to solid waste treatment plant and security watch tower	6.80	The approach road from helipad to security watch tower are kaccha roads. As a result, the vehicles carrying security personnel & night patrol duty are facing lot of difficulties specially in the monsoon period due to stagnation of water and growth of jungle/grass in both side of approach road. So construction of CC approach road/ pavement are very much essential for safe movement of security & patrolling vehicles during the monsoon period.	It is observed that the claim for the asset is in the nature of O&M expenses. Accordingly, the additional capital expenditure claimed is not allowed .	0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
2	Supply & installation of OFC inside the NHPC colony	15.18	IB has recommended to install CCTV important locations to monitor the movement of guests. For security reason as per the guideline of local administration, CCTV cameras were installed at important establishment of Power station. In order to establish effective communication link between different establishment of the Power Station OFC laid inside the Power Station premises. Relevant page no.8 point no. 16 (x) of IB report for 2012 is attached as Appendix F.	Considering the fact that the asset is required for safe operation of the plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	15.18
3	Set of CCTV camera with accessories at Officer Club	1.60	IB has recommended to install CCTV important locations to monitor the movement of guests. For security reason as per the guideline of local administration, CCTV cameras are installed at Officers club area to record the movement of the visitors. Relevant page no.8 point no. 16 (x) of IB report for 2012 is attached as Appendix F.	Considering the fact that these assets are not directly related to plant security, the additional capital expenditures claimed (@sl. nos. 3&4) are not allowed .	0.00
4	DIVAR network 5000 Recorder make: BOSCH model: DIVAR 5000	0.74	As per the direction of IB, the CCTV footage needs to be kept for certain period to meet the future requirement. Hence the network recorder was purchased to keep the record CCTV Footage. Relevant page no.8-point no. 16 (x) of IB report for 2012 is attached as Appendix F		0.00
5	Construction of fire station at left bank, Balutar	0.0044	Previously, there is no fire station at Teesta-V power station to handle the emergency situation during fire broke out. In view of recent incident of major fire broke out at URI-II power station on 20.11.2014, IB has opined in its report that power projects carry high fire risk and in house fire station are pre requisite to deal with such exigencies. Considering the advice of MHA/MOP, the Safety division, Corporate office vide IOM No.-NH/SEFTY/FT/2015 dated 11.2.2015 has directed to establish a well-equipped fire station in all NHPC power station/ projects to deal with any emergency situation. The work	Considering the fact that the asset is required for safe operation of the plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			completed and capitalised in 2017-18. Balance amount capitalised during the current FY 2018-19. The amount of Rs. 443/- was capitalised after reconciliation and adjustment		
	Sub-Total (C)	24.32			15.18
D. Regulation 14(3)(viii) of the 2014 Tariff Regulations- Items additionally claimed as per actual site requirement					
1	200 KVA DG set with access. & accostic encl., engine Make-Cummins	14.44	The Petitioner has submitted that DG Sets are one of the emergency handling equipments for restoration of supply of vital installations in case of adverse climatic conditions. To provide backup power at dam there are 2 nos DG sets of 500 KVA each, one is installed at dam top and other one at 500 mtr away near to SFT Gates. Due to monsoon season, approach roads of dam also gets washed away as a result, transportation of HSD upto dam site may not be possible. For such purpose one portable DG Set of 200 KVA was purchased by the Power station which can be used at any site when other options of power supply could not be available. Power Station has installed one DG Set of 200 KVA at Samdong which is near to dam as transportation of HSD can be made at that point to provide alternate option of back up power for dam in case of any eventuality for regulation of water regulating system which is directly related to the safety & security of the dam and dam colony. Moreover being the portable DG Set , this DG set can be shifted anywhere in the power station in case of any emergency to provide backup power.	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	14.44
2	Digital TDMA (2 slots) based digital hand-held radio Model XIR P6620 (50 Nos)	10.78	Handsets are purchased against the replacement of old handsets (as these handsets have stopped working) which were already decapitalised in 2014-15 amounting to Rs 7.22 lacs .	Considering the fact that this asset/work will facilitate the successful and efficient operation of plant, the additional capital	10.78



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
				expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner decapitalised amount of Rs 7.22 lakh in 2014-15.	
3	Roof Top 2 X 50 KWP Grid Connected PV power plant with all accessories	63.57	"As per the guideline of Ministry of Power dated 12.4.2016 Roof Top Grid Connected Solar PV installed, to promote the generation from the renewable energy. 1. Letter No. 16/78/2014-Adm-III, Dated: 12.04.2016 of Ministry of Power, GoI. (Appendix M). 2. Its total capacity is 100kWp, Energy generated till 31 March,2021 is 2.8 lakh units since commissioning (i.e., May 2018). 3. No grant or subsidy received from MNRE for funding the scheme."	It is noticed that this asset has been created for generating green energy through solar power and is not directly connected to hydro plant for safe and successful operations. Accordingly, the additional capital expenditure claimed is not allowed . However, the energy generated by the solar plant can be used / sold by the Petitioner.	0.00
	Sub-Total (D)	88.79			25.22
	Total (A+B+C+D)	980.70			812.65

30. Based on the above, the total additional capital expenditure of Rs. 812.65 lakh (679.78+92.46+15.18+25.22) is allowed in 2018-19.

De-capitalization

31. 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."



32. The Petitioner has claimed de-capitalization against assets such as centrifugal pump, pumps, vehicles, dewatering pumps, submersible pumps, battery chargers etc. The de-capitalization claimed are as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Decapitalization as per books	25.24	147.95	3.20	0.00	0.97
Assumed Deletions	0.00	14.96	22.96	9.51	0.00
Total	25.24	162.91	26.16	9.51	0.97

33. Based on the submissions of the Petitioner, the decapitalization of certain items allowed as replacement of additional capital expenditure during the period 2014-19 has been allowed. These include items like Telephone Exchange for Office building and Colony, Centrifugal pump, Submersible pump, sewage water pump, dewatering pumps, Multiple Blood Analyzer, Tata tippers, battery bank, resin cast transformer, Tata trucks, Sikkim style gate and communication equipment etc. The Petitioner has claimed the 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, has been dealt with in the relevant paragraphs relating to the claims for additional capital expenditure, which have been considered and allowed for the respective years of the period 2014-19, in terms of the provisions of Regulation 14(3) of the 2014 Tariff Regulations. As discussed above, the Commission has disallowed additional capital expenditure on account of resin cast transformer which is burnt within 4 years of asset put into use and medical devices which is not related to operation of plant and the corresponding de-capitalization is also not allowed during 2014-19. Accordingly, the allowed decapitalization from books of accounts towards old assets are as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
	25.24	147.95	1.48	0.00	0.97



Assumed Deletion

34. 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 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 decapitalization which is not a book entry in the year of capitalization is termed as “Assumed Deletion”. Further, in absence of the gross value of the asset as per books being decapitalized, the same is calculated by de-escalating the gross value of new asset @ 5% per annum till the year of capitalization of the old asset.

35. It is observed that the Petitioner, while claiming certain additional capital expenditure during 2014-19, has not provided the gross value of old assets as per books for some of the items which are being replaced. The Petitioner has indicated the decapitalized value of these assets under ‘Assumed Deletion’ based on indexation method. However, we have considered the consistent methodology adopted by the Commission as explained in above paragraph. Accordingly, based on above methodology, the decapitalization value of old asset has been worked out as under:

Sl. No	Asset	(Rs. in lakh)	
		Assumed Deletions for old asset Claimed	Assumed Deletions for old asset Allowed
	2014-15	-	-
	Total of 2014-15	Nil	Nil



Sl. No	Asset	Assumed Deletions for old asset Claimed	Assumed Deletions for old asset Allowed
	2015-16		
1	500 KVA STEP UP CAST Resin indoor transformer, (415V/11KV)	7.18	9.02
2	220V, 100AMPS, Float Cum Boost Charger with DVR with 220V, 560AH, VRLA type, Battery Bank	7.78	9.76
	Total for 2015-16	14.96	18.78
	2016-17		
1	Telephone Exchange for Office building and Colony	22.96	22.96
	Total 2016-17	22.96	22.96
	2017-18		
1	1 No. 50 HP Submersible Dewatering Pump for dam site.	9.51	11.60
	Total for 2017-18	9.51	11.60
	2018-19	-	-
		Nil	Nil

Discharge of liabilities

36. The Petitioner has claimed the following discharge of liabilities during the period 2014–19, stated as under:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19	37.
A	Opening Liability	3425.82	2083.05	4380.88	4401.70	4366.85	The discharge has been charged
B	Add: Liabilities corresponding to additional capital expenditure allowed	1.09	4039.16	49.22	20.96	1279.32	
C	Discharge of Liabilities	1343.86	1741.33	28.39	55.81	20.96	
D	Reversal of Liabilities	0.00	0.00	0.00	0.00	0.00	
E	Closing Liability	2083.05	4380.88	4401.70	4366.85	5625.22	

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

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening undischarged liabilities	3425.82	2081.96	4366.89	4401.70	4347.16
B	Liabilities corresponding to	0.00	4026.26	49.22	1.27	1279.32



		2014-15	2015-16	2016-17	2017-18	2018-19
	additional capital expenditure allowed during the year					
C	Discharges of liabilities during the year	1343.86	1741.33	14.41	55.81	1.27
D	Reversal of liabilities	0.00	0.00	0.00	0.00	0.00
E	Closing undischarged liabilities (A+B-C-D)	2081.96	4366.89	4401.70	4347.16	5625.22

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

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

<i>(Rs. in lakh)</i>						
Sl. No.		2014-15	2015-16	2016-17	2017-18	2018-19
A	Exclusions in additions	327.18	1017.21	327.19	293.36	3588.01
B	Exclusions in Deletions	(-)4957.70	(-)148.46	(-)58.62	(-)78.65	(-)8.47
C	Net Exclusions claimed (A-B)	(-)4630.52	868.75	268.57	214.71	3579.54

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

39. The Petitioner has submitted that the expenditure, as stated in the table above, is incurred on procurement/ replacement of minor assets and capital spares, which are not allowed for the purpose of tariff, after the cut-off date of the generating station, in terms of the 2014 Tariff Regulations. The Petitioner has, accordingly, put these additions under exclusion category. As such, the exclusion of such positive entries is allowed and has no impact on tariff. Hence, the same is in order and allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
327.18	1017.21	327.19	293.36	3588.01

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



40. The Petitioner has de-capitalized amounts in books of accounts pertaining to minor assets such as computers, mobile phone, office equipment, furniture, ladders, fixed assets of minor value less than Rs. 5000 etc., tools and tackles and the capital spares as these are not in use on account of their becoming unserviceable/obsolete. On prudence check, it is noticed that, in terms of the 2014 Tariff Regulations 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 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 by the in Form-9D. I Accordingly, the exclusions/ignoring of negative entries arising out of decapitalization of minor assets, tools & Tackles and capital spares for the purpose of tariff has been allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
(-)4957.70	(-)148.46	(-)58.62	(-)78.65	(-)8.47

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

<i>(Rs. in lakh)</i>						
		2014-15	2015-16	2016-17	2017-18	2018-19
A	Additions allowed	94.17	223.28	336.35	99.06	812.65
B	Decapitalization allowed	25.24	147.95	1.48	0.00	0.97
C	Assume Deletion allowed	0.00	18.78	22.96	11.60	0.00
D	Discharge of Liabilities	1343.86	1741.33	14.41	55.81	1.27
E	Exclusions not allowed	0.00	0.00	0.00	0.00	0.00
F	Net Additional Capitalization allowed (F=A-B-C+D+E)	1412.79	1797.88	326.32	143.27	812.96



Capital cost allowed for the period 2014-19

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

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost (a)	273234.70	274647.49	276445.38	276771.70	276914.97
Net additional capital expenditure allowed during the year/ period (b)	1412.79	1797.88	326.32	143.27	812.96
Closing Capital Cost (a)+(b)	274647.49	276445.38	276771.70	276914.97	277727.93

Debt Equity Ratio

43. 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.”

44. Gross normative loan and equity amounting to Rs. 161070.79 lakh and Rs. 112163.91 lakh, respectively, as on 31.3.2014, as considered in order dated 16.8.2016 in Petition No.234/GT/2014, has been considered as the normative loan and equity as on 1.4.2014. The debt: equity ratio considered is 70:30, in terms of Regulation 19 of the 2014 Tariff Regulations, for the purpose of additional capitalization. De-capitalization of assets has been deducted from the corresponding loan as well as equity, taking into consideration the debt equity ratio, applied in the year in which it was capitalized, as per Regulation 19 (4) of 2014 Tariff Regulations. The opening and closing debt and equity is as under:

	As on 1.4.2014		Additional Capitalization		De-capitalization		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)	Amount	(in %)	Amount	(in %)
Gross Debt	161070.79	58.95	3305.54	70.00	150.51	65.73	164225.82	59.13
Gross Equity	112163.91	41.05	1416.66	30.00	78.46	34.27	113502.11	40.87
Total	273234.70	100.00	4722.19	100.00	228.97	100.00	277727.93	100.00

Return on Equity

45. 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.”

46. 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.”



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

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity (A)	112163.91	112585.27	113121.44	113216.56	113258.23
Addition of Equity due to additional capital expenditure (B)	421.36	536.17	95.12	41.66	243.89
Normative Equity- Closing (D) =(A) + (B) - (C)	112585.27	113121.44	113216.56	113258.23	113502.11
Average Equity (E)=(A+D)/2	112374.59	112853.36	113169.00	113237.39	113380.17
Base Rate (%) (F)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax Rate (%) (G)	20.961%	21.342%	21.342%	21.342%	21.549%
Effective ROE Rate (%) (H)	20.876%	20.977%	20.977%	20.977%	21.032%
Return on Equity (I)= (E)*(H)	23459.32	23673.25	23739.46	23753.81	23846.12

Interest on Loan

48. 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.”

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

- (i) The opening gross normative loan amounting to Rs.161070.79 lakh, as on 1.4.2014, as considered in order dated 16.8.2016 in Petition No. 234/GT/2014, has been considered as on 1.4.2014.
- (ii) Cumulative repayment amounting to Rs. 69472.03 lakh, as on 1.4.2014, as considered in order dated 16.8.2016 has been considered as on 1.4.2014.
- (iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to Rs. 91598.76 lakh.
- (iv) Addition to normative loan on account of additional capital expenditure approved above have been considered.
- (v) Depreciation allowed has been considered as repayment of normative loan during the respective year of the 2014-19 tariff period. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff.
- (vi) Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest as claimed by the Petitioner.

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

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan (A)	161070.79	162062.22	163323.94	163555.14	163656.75
Cumulative repayment of loan upto previous year (B)	69472.03	83492.99	97516.77	111644.81	125790.90
Net Loan Opening (C=A-B)	91598.76	78569.23	65807.17	51910.33	37865.85
Addition due to additional capital	991.43	1261.71	231.20	101.61	569.07



	2014-15	2015-16	2016-17	2017-18	2018-19
expenditure (D)					
Repayment of loan during the year (E)	14028.62	14082.51	14137.87	14151.33	14152.12
Less: Repayment adjustment on account of de-capitalization (F)	7.65	58.73	9.82	5.25	0.49
Net Repayment of loan during the year (G=E-F)	14020.97	14023.77	14128.05	14146.08	14151.63
Net Loan Closing (H = C+D-G)	78569.23	65807.17	51910.33	37865.85	24283.29
Average Loan (I= (C+H)/2)	85084.00	72188.20	58858.75	44888.09	31074.57
Weighted Average Rate of Interest of loan (J)	4.951%	4.950%	5.057%	5.109%	5.607%
Interest on Loan (K= I*J)	4212.63	3573.45	2976.63	2293.26	1742.21

Depreciation

51. 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 licensee, 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."

52. The COD of the generating station is 10.4.2008. The generating station has not completed 12 years of operation as on 1.4.2014. Accordingly, depreciation has been computed as under:

(Rs. in

lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block (A)	273234.70	274647.49	276445.38	276771.70	276914.97
Net Additional capital expenditure during 2014-19 (B)	1412.79	1797.89	326.32	143.27	812.96
Closing gross block (C=A+B)	274647.49	276445.38	276771.70	276914.97	277727.93
Average gross block (D)=(A+C)/2	273941.10	275546.44	276608.54	276843.34	277321.45
Value of Free Hold Land	2343.19	2506.58	2669.97	2669.97	3326.20
Land under Reservoir	229.08	229.08	229.08	229.08	229.08
Depreciable Value (E= (D - Freehold land excluding Land under Reservoir) *90%))	244644.29	245942.05	246750.89	246962.20	246801.90
Remaining Depreciable Value at the beginning of the year (F=E- Cum Dep at 'L' at the end of previous year)	168607.99	155884.78	142669.85	128753.12	114446.73
Balance useful Life (H)	29.03	28.03	27.03	26.03	25.03
Rate of Depreciation (G)	5.121%	5.111%	5.111%	5.112%	5.103%
Depreciation (I=D*G)	14028.62	14082.51	14137.87	14151.33	14152.12
Cumulative Depreciation at the end of the year (J=I+ *Cum Dep at 'L' at the end of previous year)	90064.92	104139.77	118218.91	132360.42	146507.29



	2014-15	2015-16	2016-17	2017-18	2018-19
Less: Depreciation adjustment on account of de-capitalization (K)	7.65	58.73	9.82	5.25	0.49
Cumulative Depreciation at the end of the year (L)	90057.27	104081.04	118209.09	132355.17	146506.80

**Cumulative Depreciation as on 31.3.2014 is Rs.76036.30 lakh.*

Operation & Maintenance Expenses

53. The generating station is in operation for three or more years as on 1.4.2014.

As regards O&M expenses, Regulation 29(3)(a) of the 2014 Tariff Regulations, provides as under:

(Rs. in

lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
8297.32	8848.59	9436.50	10063.46	10732.07

54. The above O&M expenses were allowed by the Commission vide order dated 16.8.2016 in Petition No. 234/GT/2014. As the Petitioner has claimed O&M expenses for the period 2014-19 in terms of Regulation 29(3)(a) of the 2014 Tariff Regulations as above, the same is allowed.

Additional O&M expenses

Capital Spares

55. The last proviso to Regulation 29(2) of the 2014 Tariff Regulations provides as under:

“Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization”.

56. In terms of the above proviso, capital spares consumed are admissible separately, at the time of truing up of tariff, based on the details furnished by the Petitioner. The capital spares claimed by the Petitioner are as under:



	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Capital spares (not part of capital cost)	130.63	137.61	45.00	26.80	0.00
Capital spares (part of capital cost)	0.00	0.00	0.00	0.00	0.00

57. The Respondent, GRIDCO has submitted that there is no provision to capitalize the capital spares in respect of hydro power stations in the 2014 Tariff Regulations, and accordingly the claim of the Petitioner is without any basis. In response, the Petitioner has submitted that, capital spares which have been purchased and have been put to use are kept under Form 9(D) which is addition under exclusion category, and thus the cost of purchase of capital spares does not form the part of capital cost for computation of tariff, as these capital spares are claimed as separate reimbursement, when these spares are being put to use.

58. The matter has been considered. We have examined the list of spares furnished by the Petitioner. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardized practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs.1.00 lakh, on prudence check of the details furnished by the Petitioner in Annexure V of the Petition, has been considered for the purpose of tariff. Based on this, the details of capital spares consumption allowed for the period 2014-19 before adjusting the salvage value of old spare is summarized as under:



	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total capital spares consumed claimed	130.63	137.61	45.00	26.80	0.00
Less: Value of capital spares below Rs.1.00 lakh disallowed on individual basis	0.00	0.00	0.00	0.00	0.00
Net total value of capital spares considered	130.63	137.61	45.00	26.80	0.00

59. Further, we are of the view that spares do have salvage value. Accordingly, in line with the practice of considering salvage value, presumed to be recovered by the Petitioner on sale of other capital assets, on becoming unserviceable, the salvage value of 10% has been deducted from the cost of capital spares considered above for the period 2014-19. Therefore, on prudence check of the information furnished by the Petitioner and on applying the said ceiling limit along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2017-18
Net total value of capital spares considered	130.63	137.61	45.00	26.80	0.00
Less: Salvage value @ 10%	13.06	13.76	4.50	2.68	0.00
Net capital spares allowed	117.57	123.85	40.50	24.12	0.00

Interest charges on account of arbitration

60. The Petitioner has claimed that an amount of Rs. 16.62 crore (interest portion on account of Supreme court order) were charged to revenue (profit and loss account) for 2016-17 in the books of account of the generating station based on accounting policy of the Corporation. It has stated that the above amount pertains to interest paid to M/s Jai Prakash Associates Ltd. for cement variation case of major Packages i.e. LOT-TT-2 and LOT-TT-3 and as per the judgment dated 4.7.2016 of the Hon'ble Supreme Court of India in SLP No. 2039397/2014. The Petitioner has



submitted that the amount be allowed as additional capital expenditure in terms of the Commission's order in Petition No. 310/GT/2018.

61. The Petitioner has also claimed interest amount, which form part of arbitral award (booked under P&L account) for capitalization and for the purpose of computation of tariff under the provisions of Regulation 14 of 2014 Tariff Regulations related to 'Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law' also exist under in respect of additional capitalization.

62. The Respondent GRIDCO, has submitted that the Petitioner has not justified its decision in withholding the payment of the above contractor towards cement variation for which the said issue went to the Court of Law and finally ending up in favour of the contractor, resulting in accrued interest of Rs. 16.62 crore, which is now claimed by the Petitioner to be recovered from the beneficiaries and ultimately from the consumers. The Respondent has further submitted that the Commission may take a prudent decision on the above claim.

63. The matter has been considered. The Petitioner in support of its claim has provided detailed calculations. It is also found that vide order dated 16.8.2016 in Petition No. 234/GT/2014, the Commission had allowed additional expenditure as under:

Item No. of Order for 2013-14	Assets/works	(Rs. in lakh)
		Amount Approved



21	Cement VariationLOTT TT-4 (The Petitioner has submitted that the Arbitration award waschallenged by NHPC inDistrict court and later in High Court, which was dismissed by High court of Punjab & Chandigarh on 6.2.2014.)	438.16
22	Extension of Insurance & PBG beyond contract period & excess interest recovered on mobilization and machinery advance beyond contract period and deform reinforcing bars grade FE-500 beyond 25% limit (Lott TT-4) (The petitioner has submitted that Arbitration award in favour of M/s JAL has been challenged in court by NHPC on the ground that the claim is non-tenable. The matter is subjudice in the District Court of Faridabad and provision has been made for capitalization.)	341.36
23	Cement variationconcrete works (LOTT TT-2)	245.05
24	Cement variationconcrete works (LOTT TT-2)	571.78
	Total	1596.35

64. In the present case, the additional capital expenditure is allowed for the amount of Rs 1596.35 lakh, in 2013-14 which was due to arbitration/court order. Regulation 14(3)(i) of the 2014 Tariff Regulations provides that the additional capital expenditure incurred for existing generating station in respect of “Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law”. In this case, the principal amount of Rs.1596.35 lakh, has been allowed as additional capitalization. However, the Commission is of the view that the interest amount on Rs. 1662 lakh, instead of being capitalized, shall be allowed as a **one-time reimbursement** as additional O&M expenses in line with the order dated 30.11.2022 in Petition No.145/GT/2020. Further, the interest amount on Rs.1662 lakh allowed as above, shall not be made part of the annual fixed charges determined in this order.

Impact of wage revision

65. The Petitioner has submitted that it has filed Petition No. 231/MP/2019 claiming the recovery of impact of wage revision of its employees, deputed employees of KV staff/ DAV and IRBn and Home Guard staff in respect of this generating station for the period from 1.1.2016 to 31.3.2019. It is observed that the additional O&M



expenses claimed in respect of the generating station during the period 1.1.2016 to 31.3.2019, has been dealt with and disposed of vide common order dated 10.11.2022 in Petition Nos. 234/MP/2019 & batch cases. Hence, the same has not been considered in this order.

Goods & Services Tax

66. The Petitioner has also claimed reimbursement of additional tax paid due to implementation of GST in respect of generating station as additional O&M expenses and for this purpose, it has requested for relaxation of the provisions of Regulation 29(3) in exercise of the powers vested under Regulation 54 (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 also 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 (1.4.2018 to 31.12.2018)	2018-19 (1.1.2019 to 31.3.2019)	Total
5226644	11116545	4334119	20677308



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

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

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

Interest on Working Capital

69. 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

70. 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
8590.03	8624.77	8632.48	8628.09	8663.35

Working Capital for Maintenance Spares

71. 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
1262.23	1345.87	1421.55	1513.14	1609.81

Working capital for O&M Expenses

72. 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
701.24	747.70	789.75	840.63	894.34

Rate of Interest on Working Capital

73. 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.”

74. Accordingly, Interest on working capital is worked out as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for O&M Expenses (one month of O&M Expenses)	701.24	747.70	789.75	840.63	894.34
Working capital for Maintenance Spares (15% of operation and maintenance expense)	1262.23	1345.87	1421.55	1513.14	1609.81
Working capital for Receivables (two months of fixed cost)	8590.03	8624.77	8632.48	8628.09	8663.35
Total working capital	10553.50	10718.34	10843.78	10981.86	11167.50
Rate of Working Capital (%)	13.500%	13.500%	13.500%	13.500%	13.500%
Interest on Working Capital	1424.72	1446.98	1463.91	1482.55	1507.61



Annual Fixed Charges for the period 2014-19

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

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	14028.62	14082.51	14137.87	14151.33	14152.12
Interest on Loan	4212.63	3573.45	2976.63	2293.26	1742.21
Return on Equity	23459.32	23673.25	23739.46	23753.81	23846.12
O&M Expenses	8414.89	8972.44	9477.00	10087.58	10732.07
Interest on Working Capital	1424.72	1446.98	1463.91	1482.55	1507.61
Total	51540.18	51748.62	51794.87	51768.53	51980.13

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.

Normative Annual Plant Availability Factor

76. Clause (4) of Regulation 37 of the 2014 Tariff Regulations provides for the Normative Annual Plant Availability Factor (NAPAF) for hydro generating stations already in operation of 85% for this generating station. Accordingly, the same is considered for this order.

Auxiliary Energy Consumption

77. As per Regulation 8(6) of the 2014 Tariff Regulations and its subsequent amendment thereof, the financial gain on account of actual auxiliary energy consumption being less than the normative auxiliary energy consumption is to be shared in the ratio of 60:40 between generating station and the beneficiaries. It is observed that the Petitioner has submitted the details of yearly gain shared with the beneficiaries along with the annual energy bills vide affidavit dated 30.10.2019.

78. The Petitioner further submitted that in line with the first amendment to the 2014 Tariff Regulations, in 2015, the financial gain on account of Auxiliary



Consumption has been shared with all the beneficiary Discoms. Accordingly, the same is in order and allowed as under:

	<i>(Rs in lakh)</i>			
	2015-16	2016-17	2017-18	2018-19
Net Gain	40.48	64.21	86.36	62.15
Gain retained with generating station - 60%	24.29	38.53	51.81	37.29
Gain shared with beneficiaries - 40%	16.19	25.69	34.54	24.86

Design Energy

79. CEA approved annual Design Energy (DE) of 2572.70 MU has been considered in order dated 16.8.2016 in Petition No. 234/GT/2014. Accordingly, the same has also been considered for the generating station and the details as per month-wise are mentioned as under:

Month	Design Energy (MU)
April	160.13
May	226.23
June	314.28
July	360.47
August	360.47
September	348.84
October	284.31
November	172.48
December	119.08
January	77.07
February	63.35
March	85.99
	2572.70

Summary

80. The annual fixed charges allowed vide order dated 16.8.2016 in Petition No. 234/GT/2014 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:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19



Annual fixed charges allowed vide order dated 16.8.2016, in Petition No. 234/GT/2014	51412.83	51558.71	51716.90	51874.39	52031.58
Annual fixed charges allowed in this order	51540.18	51748.62	51794.87	51768.53	51980.13

81. The difference between the annual fixed charges recovered by the Petitioner in terms of order dated 16.8.2016 in Petition No. 234/GT/2014 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

82. The Petitioner, in this petition, has also sought the determination of tariff of the generating station for the period 2019-24, in terms of the provisions of the 2019 Tariff Regulations. Accordingly, the annual fixed charges claimed by the Petitioner 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	14219.28	14362.81	2861.88	2876.91	2894.29
Interest on Loan	1362.56	412.03	0.00	0.00	0.00
Return on Equity	22770.81	22937.10	23079.44	23104.08	23116.42
Interest on Working Capital	1209.78	1229.70	1080.82	1114.03	1148.66
O&M Expenses	13810.70	14469.05	15158.78	15881.40	16638.45
Total	53373.13	53410.68	42180.92	42976.42	43797.82

Capital Cost

83. Clause (1) of Regulation 19 of the 2019 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects. However, capital cost for an existing project is governed as per clause (3) of Regulation 19 of the 2019 Tariff Regulations, which provides as under:

“The Capital cost of an existing project shall include the following:

(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;



(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;

(c) Capital expenditure on account of renovation and modernization as admitted by this Commission in accordance with these regulations;

(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and

(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries....”

84. The Petitioner vide its affidavit dated 15.7.2021, has revised its claimed capital cost as under:

(Rs. in lakh)						
		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Capital Cost	278018.02	279337.80	279414.65	279696.34	280252.98
B	Addition during the year / Period	52.51	108.97	315.67	951.00	66.00
C	De-capitalisation during the year/period	12.06	32.11	40.40	394.36	13.46
D	Discharges during the year	1279.32	0.00	6.41	0.00	0.00
E	Closing Capital Cost (A+B-C+D)	279337.80	279414.65	279696.34	280252.98	280305.52

85. The Commission in this order, has allowed the closing capital cost of Rs. 277727.93 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19 of the 2019 Tariff Regulations, the capital cost of Rs. 277727.93 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

86. 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.

87. Regulation 24(1) of the 2019 Tariff Regulations provides as under:

“24. Additional Capitalisation within the original scope and upto the cut-off date

(1) The additional capital expenditure in respect of a 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:

(a) Undischarged liabilities recognized to be payable at a future date;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

(d) 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;

(e) Change in law or compliance of any existing law; and

(f) Force Majeure events:

Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

(2) The generating company or the transmission licensee, as the case may be shall submit 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.”

88. 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.

89. Regulation 26 of the 2019 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.

90. The Petitioner has submitted that the projected additional capital expenditure has been claimed under various provisions of Regulation 24, Regulation 25 and Regulation 26 of the 2019 Tariff Regulations, wherein, some of the admitted capital



expenditure works have been spilled over from the period 2014-19. Further, the Petitioner vide affidavit dated 15.7.2021, has revised the claim for additional capital expenditure for the period 2019-24. Based on this, the details of additional capital expenditure claimed by the Petitioner vide affidavit dated 15.7.2021 are as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
52.51	108.97	345.67	951.00	66.00

2019-20

<i>(Rs. in lakh)</i>			
Sl. No.	Regulation		2019-20
(a)	25(2)(a)	Additional capitalization within the original scope and after the cut-off date, in case of replacement of assets deployed. 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.	12.33
(b)	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	40.18
Total additional capital expenditure claimed			52.51

<i>(Rs. in lakh)</i>					
S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 25(2)(a) of the 2019 Tariff Regulations					
1	Purchase of 1 no Ambulance on replacement basis	12.33	"CERC vide order dated 16.8.2016 (Item no I (1) 2017-18) has allowed purchase of 2 no(s) Ambulances on replacement basis. Teesta-V power station is located in remote area. There are two Ambulances available at site. However, these ambulances have crossed useful life. Due to this frequent breakdown also occurred. In order to provide essential medical services to the employee and people residing nearby areas of Power station location, proposal was kept for purchase of two no(s) of Ambulance on replacement basis. Out of these SO for purchase of one no of Ambulance has already been placed. Provision for purchase of 2nd no ambulance has	It is noticed that the additional capital expenditure claimed for this asset was allowed in 2017-18. Accordingly, the additional capital expenditure claimed is allowed under Regulation 25 (2)(a). The gross value of old asset/work has been considered under 'Decapitalization'.	12.33



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>been kept in FY 2021-22. Replacement Value refer item at Sl. No 1 of form 9B(i) 2019-20.</p> <p>Reason for delay in purchase PR was initiated in Sep,17 for replacement of one no. Ambulance after completion of its useful life but due to lack of sufficient bids the tender was cancelled. The file was again initiated through GeM. (Copy of Note sheet attached as Appendix R) against useful life of 150000 Km and 6 years and new Ambulance was purchased in 2019 with cost of Rs. 11.21 Lakh (Copy of S.O is attached as Appendix S)</p> <p>Reason for increase in Cost of vehicle due to enhancement of vehicle price from time to time by the manufacturers."</p>		
	Sub Total (A)	12.33			12.33
B. Regulation 26(1)(d) of the 2019 Tariff Regulations					
1.	Firefighting system in DG set at GIS.	15.18	<p>"Reason for Delay: This proposal was earlier approved by CERC as projected Add. Cap. Refer item at Sl. No I(1) of Form 9A of FY 2015-16. However due to technical problem the execution of this proposal was got delayed and awarded in the FY 2018-19. The work is under progress and likely to be capitalised in 2019-20. Hence it is proposed to keep this item in present Tariff Period. Supporting Document: DG sets are critical equipments for smooth operation of the power house. As no automatic fire protection was provided for these equipments, it was proposed to install automatic water sprinkler type fire protection system for DG sets. The same was required for minimizing the damages to the equipment in case of occurrence of fire and also required to provide protection to the neighbouring equipments. The same is also recommended in National Fire</p>	It is noticed that the additional capital expenditure claimed for the asset was allowed in 2015-16 vide order dated 16.8.2020. Accordingly, the additional capital expenditure claimed is allowed under regulation 26 (1)(d) of the 2019 Tariff Regulations. The Petitioner is however directed to submit relevant documents at the time of truing up.	15.18



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			Protection Association (NFPA) guidelines 850-26 (clause 7.9.1.2) & 851-16 (clause 7.11.2). The copy of the relevant pages of NFPA is attached (Appendix T)."		
2	Supply, Installation & Commissioning of Web based Level & Discharge Monitoring System	25.00	Dam Safety Inspection team in its various report from time to time has suggested for installation of AWL near Mangan so that inflow at Dam can be predicted in advance, so that timely action can be taken to avoid any flood like situation and safety of peoples living in downstream area. Hence the proposal has been kept to install this for safety point. Earlier, Power Station gets the data(s) from upstream projects viz., Teesta-Urja and from the G&D sites maintained by Teesta-IV HE Project and also from Sneha Kinetic Project located at Dikchu. The copy of recommendation from Dam Safety Team is enclosed as Appendix U.	The asset/item claimed by the Petitioner is required for the safe and successful operation of the plant. Accordingly, the projected additional capital expenditure claimed is allowed under regulation 26 (1)(d) of the 2019 Tariff Regulations.	25.00
	Sub Total (B)	40.18			40.18
	Grand Total (A+B)	52.51			52.51

91. In view of the above, the total additional capital expenditure allowed under Regulations 25(2)(a) and 26(1)(d) is Rs. 52.51 lakh (i.e Rs.12.33 lakh + Rs. 40.18 lakh).

2020-21

			(Rs. in lakh)
Sl. No.	Regulation		2020-21
(a)	25(2)(a)	Additional capitalization within the original scope and after the cut-off date, in case of replacement of assets deployed. 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.	37.22
(b)	26(1)(b)	Additional capitalization beyond the original scope. Change in law or compliance of any existing law	25.00
(c)	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	46.75



Sl. No.	Regulation	2020-21
	statutory authorities responsible for national or internal security	
	Total additional capital expenditure claimed	108.97

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 25(2)(a) of the 2019 Tariff Regulations					
1	Purchase of mini truck (TATA 407)	10.47	"CERC vide order dated 16.8.2016 (Item no I(4) 2015-16) has allowed purchase of Mini Truck Tata 407 on replacement basis. Reason for Delay: The vehicle has completed its useful life in terms of year but not completed in terms of running Kilometres till FY 2019-20. Hence this proposal got matured in 2020-21. This vehicle has already completed its useful life as per NHPC disposal policy. Reason for Increase in Cost: Due to change in emission norms and enhancement of price by the manufacturers, the purchase cost of vehicle increased"	Considering the fact that the expenditure claimed during 2020-21 is towards the replacement of old items, which form part of the original scope of works, the claim of the Petitioner (@sl. nos. 1&2) are allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The gross value of old asset/work has been considered under 'De-capitalization'	10.47
2	Purchase of 3 Nos Buses	26.75	"CERC vide order dated 16.8.2016 (Item no I(6) 2015-16) has allowed purchase of 3 Nos of buses on replacement basis . Reason for Delay: Proposal was kept in Projected Add. Cap for the FY 2015-16 but could not be purchased as all these buses had completed its useful life in terms of year but not completed in terms of running Kilometres. The proposal for purchase of three no of buses was shifted to FY 2018-19 in the anticipation of completion of life in terms of Kilometres. But till the end of 2018-19 these vehicles could not cover the desire Kilometre. Hence the same has been purchased in FY 2020-21. Reason for Increase in Cost All the three buses procured is of BS-VI model. Due to change in emission norms and enhancement of vehicle price time to time by the manufacturers purchase cost of vehicle increased"		26.75
	Sub Total (A)	37.22			37.22
B. Regulation 26(1)(b) of the 2019 Tariff Regulations					



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
1	Control Metering & Protection System purchase of RTU.	25.00	<p>"CERC vide Notification dated 15.5.2017 directed that ""Provision of compatible equipment along with appropriate interface for un-interrupted communication with the concerned control centres and for successful integration with the communication system provided by CTU or STU for data communication."" is the responsibility of the Generator. After deliberation in the 1st & 2nd Committee Meetings on RTU replacement held on 09.06.17 & 04.08.17 at ERLDC, Kolkata respectively, the committee framed a "Report on Replacement of old RTU in ER for Reporting of RTU/SAS to Back-up Control Centre" and submitted to ERPC on 23.08.2017. As per the report of RTU replacement Committee, NHPC Teesta-V Power Station has also to replace the existing RTU to meet out the following requirements:</p> <ol style="list-style-type: none"> 1. Dual reporting of RTU to both main and back up control centers of ERLDC/NLDC. 2. Migration of reporting protocol from IEC 101 to 104. Earlier the RTU were installed by PowerGrid. Hence no replacement cost is available with Teesta-V power Station. <p>Report on RTU replacement is attached as Appendix V. Refer Clause no. 5 on Page No. 9 of report. "</p>	The Petitioner has claimed this additional capital expenditure under Regulation 26(1)(b) of the 2019 Tariff Regulations. The Petitioner has also submitted that the report on RTU replacement is attached as Appendix V to substantiate its claim. Accordingly, the projected additional capital expenditure claimed is allowed under Regulation 26(1)(b) of the 2019 Tariff Regulations. Since the Petitioner has not submitted the gross value of old asset, the same is considered under 'Assumed Deletion'.	25.00
	Sub-total (B)	25.00			25.00
C. Regulation 26(1)(d) of the 2019 Tariff Regulations					
1	Purchase of Truck Mounted Hydraulic Ladder	19.80	"Due to site requirement proposal for the purchase of this item has been kept. Supply order for this equipment has been placed. The said equipment is required for ensuring safety of workmen working at height & also the said equipment can be used for handling of hydraulic hose reels outside of a building in case of occurrence of any fire incidents.	The Petitioner has furnished the necessary documents to substantiate its claims. Further, the Petitioner has also furnished the safety audit for school as the basis for installation of smoke detector in school and central store. Accordingly, the projected additional capital expenditure claimed (@sl nos. 1 & 2) are	19.80



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			For maintenance street lights/ 11KV supply line of scattered township area for the smooth functioning of power station vis-à-vis to ensure the safety of working person. The said equipment can be used for handling of hydraulic hose reels outside of a building in case of occurrence of any fire incidents."	allowed under Regulation 26(1)(d) of the 2019 Tariff Regulations.	
2	Supply and Installation of smoke detector system in School Building and Central Store.	26.95	Safety Audit team suggested for installation of smoke sensor/ Detector in school building to avoid the fire hazards. Relevant document attached as Appendix W.		26.95
	Sub-total (C)	46.75			46.75
	Total (A+B+C)	108.97			108.97

92. In view of the above, the total additional capital expenditure allowed under Regulation 25(2)(a), 26(1)(b), 26(1)(d) is Rs. 108.97 lakh (Rs.37.22 lakh + Rs.25.00 + Rs. 46.75 lakh).

2021-22

<i>(Rs. in lakh)</i>			
Sl. No.	Regulation		2021-22
(a)	25(2)(a)	Additional capitalization within the original scope and after the cut-off date, in case of replacement of assets deployed. 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.	93.72
(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	20.00
(c)	26(1)(b)	Additional capitalization beyond the original scope. Change in law or compliance of any existing law	120.00
(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	111.95
	Total additional capital expenditure claimed		345.67

(Rs. in lakh)



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 25(2)(a) of the 2019 Tariff Regulations					
1	Purchase of 1 no Ambulance on replacement basis	13.00	"CERC had allowed vide order dated 16.8.2016 (Item no I(1) 2017-18) to purchase 2 no(s) Ambulances on replacement basis. Refer item at sl. no 1 of form 9B(i) FY 2021-22 Reason for Delay and Increase in cost: PR has been initiated for purchase of Ambulance against 2nd Ambulance. It was delayed due to non-completion of scheduled life in terms 150000 Km. Cost of vehicle increased due to enhancement of vehicle price from time to time by the manufacturers. Procurement is under process. "	It is noticed that the expenditure claimed is primarily towards the replacement of old item, which form part of the original scope of works. Accordingly, the claims (@sl nos. 1 to 3) are allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The gross value of old asset/work has been considered under 'De-capitalization'	13.00
2	Purchase of pick & carry crane 12 ton on replacement basis.	17.00	"CERC vide order dated 16.8.2016 (Item no I(5) 2015-16) has allowed purchase of Pick & Carry Crane on replacement basis. Refer item at sl. no 2 of form 9B(i) FY 2021-22 Reason for Delay and Increase in cost: But due to practical site problem and not adequate response from the suitable bidder the proposal was not executed even up to 2018-19. Hence this proposal is now kept in FY 2021-22. This equipment has already covered its useful life as per NHPC disposal policy. Due to increase in cost by the manufacturers, the purchase cost of Crane increased."		17.00
3	Purchase of 5 MVA Transformer on replacement basis	63.72	"Two Nos of 5 MVA transformer are installed at 66/11 KV Sub-Station, Ballutar for feeding power to the vital establishment like Dam site, Power House, Dung Dung , Ballutar & Samdong Colony etc. Out of these two transformers, one transformer (Sl. No. 01 SJ 026/02) became faulty. The said transformer was manufactured in the year 2002. On dated 26.05.2014, the transformer tripped on REF and Buchholz relay. On inspection by OEM, M/s Kirlosker Electric, it was found that copper winding		63.72



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			has melted. U-phase winding was found to be inclined towards the core. Repair estimate was given by OEM M/s Kirlosker Electric as Rs. 34.25 lakhs seem to be uneconomical. LOA for new transformer has been placed with amount 63.72 lakhs. Refer Item at sl. no 3 of Form 9B(i) for FY 2021-22"		
	Sub-total (A)	93.72			93.72
B. Regulation 25(2)(c) of the 2019 Tariff Regulations					
1	Purchase of 50 HP submersible pump for Dam gallery	20.00	Existing pumps installed at dam site for dewatering purpose are very old and frequent break down occurred. Spare parts are not easily available in the market. Proposal has been kept to purchase 1 No. of Flight make Dewatering Pump of 50 HP capacity for dam site. Replacement Value refer item at Sl. No 2 of form 9B(i) 2019-20	Keeping in view that the expenditure is on account of replacement of asset/works 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 'De-capitalization'.	20.00
	Sub-total (B)	20.00			20.00
C. Regulation 26(1)(b) of the 2019 Tariff Regulations					
1	Sewerage Treatment Plant at NHPC colony, Teesta-V Power Station Balutar	100.00	At present sewage is being collected in septic tank and final disposal of sewage is being done through soak pits in ground/earth which is objectionable. Keeping in view of environmental aspects, contamination of earth & underground water is strictly prohibited. Final disposal of sewage water should be in acceptable form i.e. it should be fit for pisciculture for irrigation purpose. This Sewerage treatment plant is to be installed first time in Power station. Also, as per action plan of Ministry (Appendix-Y), the sewage generated from colonies and other establishments are necessarily to be treated to specified extent before discharging to surfaces water sources. So, keeping in view of this as per available elevation of different buildings STP's shall be required at various locations. The Amount for installation of STPs has been spread over two	From the submissions of the Petitioner, it is been observed that the proposed works are not related to the operation of the plant and therefore, do not qualify under change in law. Accordingly, the claim is not allowed .	0.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			years, FY 2021-22 and FY 2022-23.		
2	Canteen Building at Dam Site	20.00	As per the provisions of Factories Act, 1948 that in every factory for the welfare of workers, a canteen have to maintain by the occupier for the use of workers. It is to mention that a large no of Contract employees of different contractors as well as regular employees are performing duty at dam site round the clock. No separate canteen facility is available for them at Dam site. Hence this proposal has been kept for welfare of the workers. Earlier canteen was functioning in temporary structure. No instruction has been received from External agency. It was felt by the management to provide good canteen for welfare of workforce as per the provisions of Factories Act, 1948.	The Petitioner has claimed the additional capital expenditure of the asset under Regulation 26(1)(b) of the 2019 Tariff Regulations. The Petitioner has also furnished the necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed is allowed under Regulation 26(1) (b) of the 2019 Tariff Regulations.	20.00
	Sub-total (C)	120.00			20.00
D. Regulation 26(1)(d) of the 2019 Tariff Regulations					
1	Installation of Smoke sensor/ Detector-Admin Building, Hospital	25.00	External Fire safety Audit team has pointed out for installation of smoke sensor/ Detector in Admin building as well as hospital area to avoid the fire hazards. Hence this proposal has been kept in FY 2019-20. Refer page no.12 of Appendix W	The Petitioner has claimed the additional capital expenditure of these assets under Regulation 26(1)(d) of the 2019 Tariff Regulations. The Petitioner has also furnished the necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed (@s/ nos. 1 & 2) are allowed under Regulation 26(1) (d) of the 2019 Tariff Regulations.	25.00
2	CCTV installation for Power house and NHPC Balutar colony.	75.00	"During the security audit by intelligence Bureau (IB), the IB recommended for installation of CCTV camera at various sensitive installations like of Power House, Surge shaft area, Dam area, around colonies, filtration plant, storage tanks 66 KV substation and all security outposts and entrance gates in order to keep watch on the movement of trespassers and to keep record for future requirements. Hence as per the recommendation of IB, this proposal for installation of CCTV has been kept in this Tariff Period. The Amount for the work to be executed for Installation of CCTV for Power House and		75.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			NHPC Balutar Colony has been spread over three years, FY 2020-21, FY 2021-22 and FY 2022-23. Work is completed on May 2021. CCTV equipment Installed at Powerhouse, Dam, HRT, SFT, Switchyard, Workshop, Zero Point, Left bank Colony road side, Right bank bridge, Dungdung etc. Copy of relevant pages of IB report is attached as Appendix X"		
3	Automatic External Defibrillator (AED) (5 nos)	4.45	Power station is located in remote area. In order to provide immediate medical service in case of Heart Attack, this instrument is very much essential. Due to hilly location & distancer between Dam & Power House is approx. 25 km. Hence total 5 Nos of such machine is required to provide lifesaving facility to their employee & their families resided in Power station colony and also to help the locals living nearby area.	Since the expenditure on the assets/items claimed are in the nature of O&M expenses, the claims of the Petitioner (@sl. No. 3&4) are not allowed .	0.00
4	Haematology Analyzer	5.50			0.00
5	Installation of Boom Barriers (4 Nos)	2.00	Power Station is located in remote area. Hence adequate medical facility is not available nearby areas. To provide essential medical facility for safety of the employees & their family residing in colony, this instrument is very much essential by the Power station Hospital.	The Petitioner has claimed the additional capital expenditure of this asset under Regulation 26(1)(d) of the 2019 Tariff Regulations. The Petitioner has also furnished the necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed is allowed under Regulation 26(1)(d) of the 2019 Tariff Regulations.	2.00
	Sub-total (D)	111.95			102.00
	Total (A+B+C+D)	345.67			235.72

93. In view of the above, the total additional capital expenditure allowed under Regulation 25(2)(a), 25(2)(c), 26(1)(b), 26(1)(d) is Rs 235.72 lakh (i.e Rs.93.72 lakh, + Rs.20.00 lakh + Rs.20.00 lakh + Rs.102.00 lakh respectively).



2022-23*(Rs. in lakh)*

Sl. No.	Regulation		2021-22
(a)	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	831.00
(b)	25(2)(d)	Additional capitalization within the original scope and after the cut-off date. The replacement of such asset or equipment has otherwise been allowed by the Commission	15.00
(c)	26(1)(b)	Additional capitalization beyond the original scope. Change in law or compliance of any existing law	100.00
(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	5.00
Total additional capital expenditure claimed			951.00

(Rs. in lakh)

S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
A. Regulation 25(2)(c) of the 2019 Tariff Regulations					
1	Upgradation of SCADA system	800.00	"The present SCADA System was supplied and commissioned by Toshiba, Japan in the year 2008. The hardware and software supplied by Toshiba as a part of SCADA System is obsolete now and no Technical Support is available at present. Additionally, Power Station is facing other operational problems as listed below: 1. Operational Problems: The operator workstations are getting hang frequently. The same may happen during starting / stopping of the units or during any other critical activity. The system needs frequent restarts and thus hampering the operational activity. Also, some of the basic functions such as Automatic Report Generation etc. are not working, due to some corrupted software functions. For rectifying the above issues, we need to replace the existing software / hardware with the latest available systems.	Considering the submissions of the Petitioner and keeping in view that the expenditure claimed are on account of replacement of asset /works due to obsolescence of technology, the claims of the Petitioner (@sl. nos. 1&2) are allowed under Regulation 25(2)(c) of the 2019 Tariff Regulations. The de-capitalization of old asset/work has been considered under 'gross value'. The Petitioner is also directed to submit complete scheme details, work orders and audited expenditure in terms	800.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			<p>2. Installation of NAS for Long-Term Data Storage: At present, the historic data is stored in the local hard disk of the operator workstations, which has got limited storage capacity. The present storage capacity is for 10 days only. After that the data gets overwritten. As such, we need to transfer the data to external media (external HDD) in every 10 days. Also, for retrieval of the data, we need to search for the respective file in the external media and transfer the file to the Workstation hard disk. Possibility of losing of valuable data exists during long term storage of data in external portable media. As such, it is proposed to install Network Attached Storage Systems (NAS) for long term data storage, for safe and reliable data storage. Long-term storage of data is essential in view of the fact that the data need to be produced to external entities such as RLDCs, CES, CERC etc. as and when sought by them.</p> <p>3. Requirement of Historian Software for Data Storage & Retrieval: After installation of NAS, as mentioned above, Historian software will also be required for automatic archiving of data into NAS and retrieving of data from NAS, as and when required.</p> <p>4. Replacement of Windows XP-based Services: The present software supplied by Toshiba is based on Windows XP. However, no security patches are available for Windows XP and are thus vulnerable to security threats, even if the same is not connected to external LAN. The replacement of XP-based services is a topic of discussion in the cyber security forums.</p> <p>5. Replacement of Obsolete Hardware Components: With replacement of the obsolete</p>	of scheme and work order at the time of true up of tariff.	



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			hardware components (the present configuration is Pentium 4 CPU, 2.6 GHz 512 MB RAM), we can switch over to latest, fast & reliable operator workstations for the Power Station. SCADA System shall be put in use in during Annual Maintenance of FY 2022-23. Complete System will be put to use as a whole. Refer item at Sl. No 1 of Form 9B(i) of FY 2022-23. Further as per Cyber Security Audit certain updation has been proposed in the already installed SCADA System. The report has been attached as Appendix-Z"		
2	Purchase of One no of Fire Tender	31.00	"CERC vide order dated 16.8.2016 (Item no I(2) 2017-18) has allowed purchase of One no of Fire Tender on replacement basis. Refer item at Sl. No 1 of Form 9B(i) of FY 2022-23 Reason for Delay: The vehicle has completed its useful life in terms of year but not completed in terms of running Kilometres till FY 2021-22. Hence this proposal got matured in FY 2020-21. This vehicle has already completed its useful life as per NHPC disposal policy and many times it is not performing up to mark. Hence, it has been proposed to purchase one new fire tender in replacement of old one. Reason for Increase in Cost: Due to inflation and change in models as well as emission norms , the vehicle price enhanced time to time by the manufacturers, the projected cost has been increased."		31.00
	Sub-total (A)	831.00			831.00
B. Regulation 25(2)(d) of the 2019 Tariff Regulations					
1	Purchase of 1 no. of Truck	15.00	"CERC vide order dated 16.8.2016 (Item no I(5) 2015-16) has allowed purchase of Mini Truck Tata 407 on replacement basis. Refer Item at Sl. No 1 of Form 9B(i) of FY 2022-23 Reason for Delay: The vehicle has completed its useful life in terms of year but	The claim of the Petitioner is towards the balance payment of the said works. Accordingly, the claim is allowed under Regulation 25 (2)(d) of the 2019 Tariff Regulations.	15.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			not completed in terms of running Kilometres till FY 2021-22. Hence this proposal got matured in FY 2020-21. This vehicle has already completed its useful life as per NHPC disposal policy. Reason for Increase in Cost: Due to inflation and change in models as well as emission norms, the vehicle price enhanced time to time by the manufacturers. Accordingly, The purchase cost of vehicle has been increased."	However, the Petitioner is directed to provide reason for the higher claim at the time of truing-up of tariff.	
	Sub-total (B)	15.00			15.00
C. Regulation 26(1)(b) of the 2019 Tariff Regulations					
1	Sewerage Treatment Plant at NHPC colony, Teesta-V Power Station Balutar	100.00	At present sewage is being collected in septic tank and final disposal of sewage is being done through soak pits in ground/earth which is objectionable. Keeping in view of environmental aspects, contamination of earth & underground water is strictly prohibited. Final disposal of sewage water should be in acceptable form i.e. it should be fit for pisciculture for irrigation purpose. This Sewerage treatment plant is to be installed first time in Power station. Also, as per guidelines of IMS requirement, the sewage generated from colonies and other establishments are necessarily to be treated to specified extent before discharging to surfaces water sources. So, keeping in view of this as per available elevation of different buildings STP's shall be required at various locations. The Amount for installation of STPs has been spread over two years, FY 2021-22 and FY 2022-23.	From the submissions of the Petitioner, it is observed that the proposed works are not related to operation of the plant and therefore, do not qualify under change in law. Accordingly, the claim of the Petitioner is not allowed . Further the Petitioner shall clarify as to whether the Sewerage Treatment Plant has been installed at the Power house or in the colony/ other areas, at the time of truing-up of tariff.	0.00
	Sub-total (C)	100.00			0.00
D. Regulation 26(1)(d) of the 2019 Tariff Regulations					
1	CCTV installation for Power house	5.00	During the security audit by intelligence Buerau (IB), the IB	The Petitioner has furnished the	5.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	and NHPC Balutar colony.		recommended for installation of CCTV camera at various sensitive installations like of Power House, Surge shaft area, Dam area ,around colonies, filtration plant, storage tanks 66 KV substation and all security outposts and entrance gates in order to keep watch on the movement of trespassers and to keep record for future requirements. Hence as per the recommendation of IB, this proposal for installation of CCTV has been kept in this Tariff Period. The Amount for the work to be executed for Installation of CCTV for Power House and NHPC Balutar Colony has been spread over three years FY 2021-22 and FY 2022-23. Copy of relevant pages of IB report is attached as Appendix X.	necessary documents to substantiate its claim. Accordingly, the projected additional capital expenditure claimed is allowed under Regulation 26(1)(d) of the 2019 Tariff Regulations.	
	Sub-total (D)	5.00			5.00
	Total (A+B+C+D)	951.00			851.00

94. In view of the above, the total additional capital expenditure allowed under Regulation 25(2)(a), 25(2)(c), 25(2)(d), 26(1)(b), 26(1)(d) is Rs. 851.00 lakh (i.e Rs.831.00 lakh+ Rs.15.00 lakh+ Rs. 0.00 + Rs. 5.00 lakh respectively)

2023-24

			(Rs. in lakh)
Sl. No.	Regulation		2023-24
(a)	25(2)(a)	Additional capitalization within the original scope and after the cut-off date, in case of replacement of assets deployed. 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.	50.00
(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	16.00
	Total additional capital expenditure claimed		66.00

						(Rs. in lakh)
S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed	
A. Regulation 25(2)(a) of the 2019 Tariff Regulations						
1	Replacement of DG Sets 500 KVA at	25.00	"Existing DG sets at dam site is very old. Frequent breakdown has been	It is noticed that this expenditure has been claimed primarily	25.00	



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
	Dam Top		<p>occurred. As the model is very old, spare parts are also not available. In order to keep continuous supply in Dam area, it is proposed to purchase a new DG set in replacement of existing one.</p> <p>As per NHPC Disposal policy, the life of Dg set has already completed the useful life that is 15 years and running hours i.e. 25000 hrs. The said dg is in service since 2002 has completed 18 years of life. Actual running hours of the said dg is 52000 hours.</p> <p>Disposal Manual is attached (refer page no.51). (Appendix AA)</p> <p>Equipments details are per CEP Division is attached. (Appendix AB).</p> <p>Replacement refer item no 1 of form 9B(i) 2023-24"</p>	<p>towards the replacement of the old items, which form part of the original scope of works. Accordingly, the claims of the Petitioner (@sl. nos 1&2) are allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The gross value of old asset/work has been considered under 'De-capitalization'</p>	
2	JCB Backhoe Loader	25.00	<p>"Teesta-V Power Station is located hilly terrain in new Himalayan range. Its Dam, Power House, surge shaft and other installations are situated in various valley like locations, where frequent landslides are occurred. Manual clearing of debris is not practically feasible and also unsafe for workers. So, for clearing the road, one Loader is essentially required at site. This ensures that movement of manpower and materials is not interrupted and Power generation activities are carried out smoothly.</p> <p>Existing loader whose acquisition year is</p>		25.00



S. No	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
			17.02.2002 has completed its life. Frequent breakdown occurred in this equipment. Since loader is very useful for various works at Power Station, hence it is proposed to purchase a new loader in replacement of the existing one. "		
	Sub-total (A)	50.00			50.00
B. Regulation 25(2)(c) of the 2019 Tariff Regulations					
1	Purchase of Server	16.00	"Domain Controller and Additional Domain Controller both Servers were purchased in the year 2016. The cost of the server is amounting to Rs 15.74 lakh. As per IT Policy, new server to be replaced after 6 years. Hence this proposal has been kept on replacement basis. NHPC's Disposal Policy for IT hard ware is attached. Refer to Annexure A, Page No. 10-11. (Appendix AC 2019-24) New features will be as per latest available technology."	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 de-capitalization of old asset/work has been considered under 'De-capitalization'	16.00
	Sub-total (B)	16.00			16.00
	Total (A+B)	66.00			66.00

95. In view of the above, the total additional capital expenditure allowed under Regulation 25(2)(a), 25(2)(c) is Rs 66.00 lakh (i.e Rs 50.00 lakh + Rs 16.00 lakh).

96. The summary of the additional capital expenditure allowed is as under:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
52.51	108.97	235.72	851.00	66.00



De-capitalization

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

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
12.06	32.11	40.40	394.36	13.46

98. It is noticed that the Petitioner has claimed projected decapitalization for assets like Ambulance, 90 HP submersible pump, 5 MVA transformer, buses, trucks, SCADA DG sets 500 KVA etc. The same has been considered for the purpose of tariff. However, the Petitioner is directed to furnish the gross value of old replaced asset as per books at the time of truing up for the period 2019-24.

99. The Petitioner has claimed projected expenditure of Rs.63.72 lakh under Regulation 25 (2) (a) of the 2019 Tariff Regulations, towards the Procurement of 5 MVA Transformer, on replacement basis in 2021-22. However, it is observed that the Petitioner has claimed projected decapitalization for 5 MVA transformer asset twice in 2020-21 and 2021-22 of (-) Rs 29.36 lakh, in its revised affidavit. Therefore, we consider it prudent to disallow the projected decapitalization of the asset in 2020-21 as the Petitioner has claimed the same, in 2021-22, and allow the same in 2021-22. Accordingly, the decapitalization allowed is as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
12.06	2.76	40.40	394.36	13.46

Assumed Deletion

100. The Petitioner has claimed additional capital expenditure for Control Metering & Protection System purchase of RTU during 2020-21 on replacement basis. However, the Petitioner has not provided the gross value of old asset. In absence of the same, 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 the instant case, in absence of the original value of the asset being decapitalized, the same i.e. assumed deletion value is calculated by de-escalating the original value of new asset @ 5% per annum till the year of capitalization of the old asset.

101. Accordingly, based on above methodology, the projected decapitalization value of old asset has been worked out as shown below:

(Rs. in lakh)			
		Assumed Deletions for old asset Claimed	Assumed Deletions for old asset Allowed
2020-21			
1	Control Metering & Protection System purchase of RTU.	0.00	13.26

102. The total decapitalization considered under 'Assumed Deletions' is as under:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
0.00	13.26	0.00	0.00	0.00

Discharge of liabilities

103. The closing balance of undischarged liabilities as on 31.3.2019 is Rs. 5625.22 lakh. The Petitioner has claimed discharge of liabilities of Rs. 1279.32 lakh, in 2019-20 and Rs 6.41 lakh in 2021-22 and the same is allowed. Therefore, the closing balance of undischarged liabilities as on 31.3.2024, is Rs. 4339.49 lakh. Accordingly, the summary of discharge of liabilities allowed is as under:

(Rs. in lakh)						
		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening undischarged liabilities	5625.22	4345.89	4345.89	4339.49	4339.49
B	Liabilities corresponding to additional capital expenditure allowed during the year	0.00	0.00	0.00	0.00	0.00



		2019-20	2020-21	2021-22	2022-23	2023-24
C	Discharges of liabilities during the year	1279.32	0.00	6.41	0.00	0.00
E	Closing undischarged liabilities (A+B-C)	4345.89	4345.89	4339.49	4339.49	4339.49

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

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

	2019-20	2020-21	2021-22	2022-23	2023-24
	<i>(Rs. in lakh)</i>				
Additional capital expenditure allowed (a)	52.51	108.97	235.72	851.00	66.00
Less: De-capitalisation considered including assumed deletion (b)	12.06	2.76	40.40	394.36	13.46
Less: De-capitalisation considered under assumed deletion (c)	0.00	13.26	0.00	0.00	0.00
Discharge of liabilities (d)	1279.32	0.00	6.41	0.00	0.00
Net additional capital expenditure allowed (d)=(a)-(b)-(c)+(d)	1319.77	92.96	201.73	456.64	52.54

Capital cost approved for the period 2019-24

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

	2019-20	2020-21	2021-22	2022-23	2023-24
	<i>(Rs. in lakh)</i>				
Opening Capital Cost	277727.93	279047.70	279140.66	279342.39	279799.03
Net Additional capital expenditure allowed during the year/ period	1319.77	92.96	201.73	456.64	52.54
Closing Capital Cost	279047.70	279140.66	279342.39	279799.03	279851.57

Debt-Equity Ratio

106. 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.”

107. 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:

	As on 1.4.2019		Additional Capitalization		De-capitalization		As on 31.3.2024	
	Amount	(in %)	Amount	(in %)	Amount	(in %)	Amount	(in %)
Debt	164225.82	59.13	1819.95	70.00	281.54	59.11	165764.23	59.23
Equity	113502.11	40.87	779.98	30.00	194.75	40.89	114087.34	40.77
Total	277727.93	100.00	2599.93	100.00	476.29	100.00	279851.57	100.00



Return on Equity

108. 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 true up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

109. The Return on Equity (ROE) for the existing asset base and the additional capital expenditure allowed, in this order for asset/works within the original scope of work, has been calculated by grossing up the base ROE at MAT rate of 17.472% as submitted by the Petitioner. Further, based on the additional capital expenditure which are beyond the original scope, excluding the additional capitalization due to change in law, ROE has been calculated considering the weighted average rate of interest claimed by the Petitioner 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)	113502.11	113885.99	113898.03	113924.25	114014.93
Addition of Equity due to additional capital expenditure (B)	383.88	12.04	26.22	90.68	14.23
Normative Equity – Closing (C=A+B)	113885.99	113898.03	113924.25	114014.93	114029.16
Average Normative Equity D=(A+C)/2	113694.05	113892.01	113911.14	113969.59	114022.05
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)	22730.85	22770.43	22774.25	22785.94	22796.43

ROE at WAROI*(Rs. in lakh)*

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity- Opening (A)	-	12.05	26.08	56.68	58.18
Addition of Equity due to additional capital expenditure (B)	12.05	14.03	30.60	1.50	-
Normative Equity – Closing (C=A+B)	12.05	26.08	56.68	58.18	58.18
Average Normative Equity D=(A+C)/2	6.03	19.07	41.38	57.43	58.18
Return on Equity (Base Rate) (E)	7.627%	7.347%	9.126%	9.212%	9.355%
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)	9.242%	8.902%	11.058%	11.163%	11.336%
Return on Equity (Pre-tax) - (annualized) (H) =(D)x(G)	0.56	1.70	4.58	6.41	6.60

Total ROE allowed*(Rs. in lakh)*

	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity at Normal Rate (A)	22730.85	22770.43	22774.25	22785.94	22796.43
Return on Equity at WAROI (B)	0.56	1.70	4.58	6.41	6.60
Total Return on Equity allowed (C= A+B)	22731.41	22772.13	22778.83	22792.35	22803.02

Interest on Loan

110. 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.”

111. Interest on loan has been computed as under:

- i) The gross normative loan amounting to Rs. 164225.82 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. 139942.53 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. 24283.29 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 7.627% in 2019-20, 7.347% in 2020-21, 9.126% in 2021-22, 9.212% in 2022-23 and 9.355% 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.



112. 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)	164225.82	165149.66	165216.55	165361.46	165725.92
Cumulative repayment of loan Up to previous year (B)	139942.53	154120.00	165216.55	165361.46	165725.92
Net Loan Opening (C=A-B)	24283.29	11029.66	0.00	0.00	0.00
Addition due to additional capitalexpenditure (D)	923.84	66.89	144.91	364.47	38.31
Repayment of loan during the year (E)	14184.12	11106.18	170.41	616.68	47.03
Less: Repayment adjustment on account of de-capitalization (F)	6.65	9.63	25.50	252.22	8.73
Net Repayment of loan during the year (G=E-F)	14177.47	11096.55	144.91	364.47	38.31
Net Loan Closing (H = C+D-G)	11029.66	0.00	0.00	0.00	0.00
Average Loan (I= (C+H)/2)	17656.47	5514.83	0.00	0.00	0.00
Weighted Average Rate of Interest of loan (J)	7.627%	7.347%	9.126%	9.212%	9.355%
Interest on Loan (K= I*J)	1346.68	405.16	0.00	0.00	0.00

Depreciation

113. 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.”

114. The cumulative depreciation amounting to Rs. 146506.80 lakh as on 31.3.2019, has been considered for the purpose of tariff. The COD of the generating station is 10.4.2008, and the project has completed more than 12 years of commercial operation in 2020-21. Hence, the remaining depreciable value has been spread over the balance useful life of the generating station. In terms of the 2014 Tariff Regulations, the useful life of a hydro generating station was 35 years. However, the 2019 Tariff Regulations stipulates that the useful life of a hydro generating station is 40 years. Accordingly, the balance useful life of the generating



station as on 1.4.2019, has been considered as 29.03 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)	277727.93	279047.70	279140.66	279342.39	279799.03
Net Additional capital expenditure during 2019-24 (B)	1319.77	92.96	201.73	456.64	52.54
Closing gross block (C=A+B)	279047.70	279140.66	279342.39	279799.03	279851.57
Average gross block (D)=(A+C)/2	278387.82	279094.18	279241.52	279570.71	279825.30
Land Value	3982.43	3982.43	3982.43	3982.43	3982.43
Land under Reservoir	229.08	229.08	229.08	229.08	229.08
Depreciable Value [E= (D-Land Value excluding Land under Reservoir) *90%]	247171.02	247806.75	247939.36	248235.63	248464.76
Remaining Depreciable Value at the beginning of the year (F=E-Cum Dep at 'L' at the end of previous year)	100664.22	87122.48	73044.60	70663.51	68429.64
Rate of Depreciation (G)	5.095%	5.095%	-	-	-
Balance useful Life (H)	29.03	28.03	27.03	26.03	25.03
Depreciation (I=D*G) or F/H for 2021-24	14184.12	14220.11	2702.85	2715.22	2734.45
Cumulative Depreciation at the end of the year (J=I+ Cumulative Depreciation at 'K' at the end of previous year)	160690.93	174904.38	177597.61	180287.33	182769.57
Adjustment on account of decapitalization (K)	6.65	9.63	25.50	252.22	8.73
Cumulative Depreciation at the end of the year after adjustment (L=J-K)	160684.27	174894.76	177572.11	180035.11	182760.84

Operation & Maintenance Expenses

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

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expense allowed as Regulation 35(2)(a) of the 2019 Tariff Regulations	12186.58	12767.46	13376.02	14013.60	14681.56
Additional O&M expenses due 3rd PRC applicable to CPSUs	1431.99	1500.29	1571.86	1646.83	1725.39
Additional O&M expenses due to 7th Pay Commission wage Revision of Kendriya Vidyalaya Staff	30.26	31.70	33.22	34.80	36.46
Additional O&M expenses due to	161.88	169.60	177.69	186.16	195.04



	2019-20	2020-21	2021-22	2022-23	2023-24
(GST)					
Total O&M Expenses	13810.70	14469.05	15158.78	15881.40	16638.45
Security Expenses (estimated)	623.80	653.55	684.73	717.39	751.61

116. 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	2020-21	2021-22	2022-23	2023-24
<i>(Rs. in lakh)</i>					
Teesta V	12186.58	12767.46	13376.02	14013.60	14681.56

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.

117. The generating station is in operation for more than 3 years, as on 1.4.2019.

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

Additional O & M Expenses

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

	2019-20	2020-21	2021-22	2022-23	2023-24
<i>(Rs. in lakh)</i>					
Additional O&M expenses due to 7 th Pay Commission wage revision- 3 rd PRC applicable to CPSUs (a)	1431.99	1500.29	1571.86	1646.83	1725.39
Additional O&M expenses due to 7 th Pay Commission wage revision of Kendriya Vidyalaya (KV) Staff (b)	30.26	31.70	33.22	34.80	36.46
Impact of Goods & Service Tax (c)	161.88	169.60	177.69	186.16	195.04
Security Expenses (d)	623.80	653.55	684.73	717.39	751.61
Total O&M Expenses claimed (a+b+c+d)	2247.92	2355.15	2467.49	2585.19	2708.50

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

119. It is noticed that the Petitioner has claimed additional O&M expenses of Rs. 1431.99 lakh in 2019-20, based on the impact of pay revision of the Petitioner's staff



for Rs. 1366.79 lakh in 2018-19. In this regard, it is pertinent to mention that Petition No. 231/MP/2019 was filed by the Petitioner seeking recovery of the additional O&M expenses for the generating station due to the impact of wage revision for the period 2014-19 and the Commission vide order dated 10.11.2022 had considered an amount of Rs. 1366.79 lakh as impact of wage revision during 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% the above allowed in 2018-19) works out to Rs. 1431.99 lakh. Accordingly, the claim of the Petitioner for Rs. 1431.99 lakh in 2019-20 is considered and is thereafter escalated @4.77% per annum during the further years of the period 2019-24 is allowed as additional O&M expenses due to pay revision of the Petitioner's staff as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1431.99	1500.29	1571.86	1646.83	1725.39

Impact of wage revision of KV/DAV staff

120. As regards the claim of Petitioner towards the impact of pay revision of KV/DAV staff, it is pertinent to mention that the Commission in its order dated 10.11.2022 in Petition No 231/MP/2019 (as stated above) had considered an amount of Rs. 54.69 lakh as impact of wage revision of the KV/DAV staff in 2018-19. As such, the impact of wage revision in 2019-20 (after escalating @ 4.77% on the above allowed amount in 2018-19) works out to Rs. 57.30. Accordingly, the claim of the Petitioner for Rs. 30.26 lakh in 2019-20, is considered (being lower) and the same is thereafter escalated @4.77% per annum for the relevant years of the period 2019-24, and is accordingly allowed as additional O&M expenses due to pay revision of KV/DAV staff subject to true-up as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
30.26	31.70	33.22	34.80	36.46



121. The total additional O&M on account of wage revision as allowed by the Commission is summarized as under:

					(Rs. in lakh)
2019-20	2020-21	2021-22	2022-23	2023-24	
1462.25	1531.99	1605.08	1681.63	1761.85	

Goods & Service Tax

122. The Respondent GRIDCO, has submitted that the Petitioner is seeking the grant of GST without furnishing the documents in support of the said claim. It has further submitted that the Petitioner may be directed to furnish the details of such Taxable Services with corresponding GST, failing which the above claim for GST may not be allowed. In response, the Petitioner has submitted that it has furnished the auditor's certificate for additional impact of GST.

123. The matter has been considered. It is noticed that the Petitioner has submitted the total GST amount of Rs. 206.77 lakh for the period from 1.7.2017 to 31.3.2019, based on the actual audited accounts for 21 months (Rs. 52.27 lakh in 2017-18 and Rs.154.51 lakh in 2018-19). On scrutiny of the details, it is noticed that the claim of Petitioner also includes impact of GST on security expenses, which is summarized below:

				(Rs in lakh)
Sl. No.	Year	Security Services	Operational Services	Total
1	2017-18	8.93	43.34	52.27
2	2018-19 (till Dec.18)	9.36	101.81	111.17
3	2018-19 (1.1.19 to 31.3.19)	3.69	39.65	43.34
	Total	21.98	184.80	206.77

124. As per Regulation 35(2)(d) of the 2019 Tariff Regulations, Security expenses shall be allowed separately, after prudence check. Hence, excluding the security



service expenses, the same works out as Rs. 184.80 lakh, as shown in the table above, for the period from 1.7.2017 to 31.3.2019. This has been normalized and an amount of Rs.110.63 lakh has been worked out for 2019-20 (after escalating above amount of Rs.105.60 lakh @ 4.77%). Accordingly, the base value of 2019-20 has been escalated @4.77% and 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: w

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
110.63	115.91	121.44	127.23	133.30

Capital Spares

125. As regards capital spares, the Petitioner has submitted that same will be claimed at the time of 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

126. Regulation 35(2)(c) of 2019 Tariff 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.”*

127. The estimated security expenses claimed by the Petitioner, based on security requirement of the generating station is as under:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
623.80	653.55	684.73	717.39	751.61

128. The Petitioner has claimed actual security expenses of Rs. 595.40 lakh in 2018-19 and has escalated the same at the rate of 4.77%. Considering the security requirements of the generating station, we allow the projected security expenses



as claimed by the Petitioner above, for the period 2019-24. The Petitioner is however, directed to submit the actual security expenses incurred, duly audited, at the time of truing up of tariff.

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

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses (a)	12186.58	12767.46	13376.02	14013.60	14681.56
Additional O&M expenses due to 7 th Pay Commission wage revision- 3 rd PRC applicable to CPSUs (b)	1431.99	1500.29	1571.86	1646.83	1725.39
Additional O&M expenses due to 7th Pay Commission wage Revision of Kendriya Vidyalaya Staff(c)	30.26	31.70	33.22	34.80	36.46
GST (d)	110.63	115.91	121.44	127.23	133.30
Total expenses excluding Security Expenses(e=a+b+c+d)	13759.46	14415.36	15102.54	15822.46	16576.71
Security Expenses (f)	623.80	653.55	684.73	717.39	751.61
Total additional O&M Expenses (g=e+f)	14383.26	15068.91	15787.27	16539.85	17328.32

Interest on Working Capital

130. 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”*

131. 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

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

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
6620.62	6608.88	5202.99	5302.53	5409.86

Working Capital for Maintenance Spares

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

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
2157.49	2260.34	2368.09	2480.98	2599.25

Working capital for O&M Expenses

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

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1198.61	1255.74	1315.61	1378.32	1444.03

Rate of Interest on Working Capital

135. The Petitioner has claimed rate of interest on working capital @12.05% for each year. The Respondent has submitted that the interest rate should be linked to 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 01.04.2019 + 350 bps) for the year 2019-20, 11.25% (i.e. 1 year SBI MCLR of 7.75% as on 01.04.2020 + 350 bps) for the year 2020-21, 10.50% (i.e. 1 year SBI MCLR of 7.00% as on 01.04.2021 + 350 bps) for the year 2021-22, 10.50% (i.e. 1 year SBI MCLR of 7.00% as on 01.04.2022 + 350 bps) for the period 2022-23 and 12.00% (i.e. 1 year SBI MCLR of 8.50% as



on 01.04.2023 + 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)	1198.61	1255.74	1315.61	1378.32	1444.03
Working capital for Maintenance Spares	2157.49	2260.34	2368.09	2480.98	2599.25
Working capital for Receivables	6620.62	6608.88	5202.99	5302.53	5409.86
Total Working capital	9976.71	10124.96	8886.69	9161.83	9453.13
Rate of interest (%)	12.050%	11.250%	10.500%	10.500%	12.000%
Interest on Working capital	1202.19	1139.06	933.10	961.99	1134.38

Annual Fixed Charges approved for the period 2019-24

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

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	14184.12	14220.11	2702.85	2715.22	2734.45
Interest on loan	1346.68	405.16	0.00	0.00	0.00
Return on Equity	22731.41	22772.13	22778.83	22792.35	22803.02
Interest on Working capital	1202.19	1139.06	933.10	961.99	1134.38
O&M Expenses	13759.46	14415.36	15102.54	15822.46	16576.71
Security Expenses	623.80	653.55	684.73	717.39	751.61
Total*	53847.67	53605.37	42202.06	43009.41	44000.17

**Including security expenses. Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column.*

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

Normative Annual Plant Availability Factor (NAPAF)

138. The Petitioner has claimed NAPAF of 87% in terms of Regulation 50(A)(4) of the 2019 Tariff Regulations, which provides as under:

50. Norms of Operation for Hydro Generating Stations: The norms of operation as given hereunder shall apply to hydro generating station:

(A) Normative Annual Plant Availability Factor (NAPAF): (1) The following normative annual plant availability factor (NAPAF) shall apply to hydro generating station:



(a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability not affected by silt: 90%.

(b) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF.

(c) Pondage type plants where plant availability is significantly affected by silt: 85%. 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 (%)
Teesta-V	Pondage	3x170	87%

139. Accordingly, NAPAF of 87% as claimed by the Petitioner is allowed.

Design Energy (DE)

140. The Commission in this order has allowed the annual Design Energy (DE) of 2572.70 million units (as approved by CEA) for the period 2014-19 in respect of this generating station. Accordingly, this DE i.e. 2572.70 Mus has been considered for this generating station for the period 2019-24, as per month-wise details as under:

Month	Design Energy (MUs)
April	160.13
May	226.23
June	314.28
July	360.47
August	360.47
September	348.84
October	284.31
November	172.48
December	119.08
January	77.07
February	63.35
March	85.99
Total	2572.7

Application Fee and Publication Expenses

141. The Petitioner has sought the reimbursement of fees paid by it for filing the



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

142. 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

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

<i>(Rs. in lakh)</i>					
Annual Fixed Charges*	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed	53996.93	54064.23	42865.65	43693.81	44549.43
Allowed	53847.67	53605.37	42202.06	43009.41	44000.17

**Including security charges*

144. Petition No. 298/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member

