CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No.320/GT/2018

Coram:
Shri P.K.Pujari, Chairperson
Dr. M.K.Iyer, Member
Shri I.S. Jha, Member

Date of Order: 9th January, 2020

In the matter of

Petition for determination of tariff of Teesta Low Dam Hydroelectric Power Station-III (132 MW) for the period 2014-19

And

In the matter of

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

Vs

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

Parties Present:

Shri Piyush Kumar, NHPC
Shri A.K.Pandey, NHPC
Shri Prashant Kaul, NHPC
Shri Jitender Kumar, NHPC
Shri V.N.Tripathi, NHPC
Shri M.G.Ramachandran, Senior Advocate, WBSEDCL
Ms. Tanya Sareen, Advocate, WBSEDCL
Ms. Anushree Bardhan, Advocate, WBSEDCL
Ms. Poorva Saigal, Advocate, WBSEDCL
Shri S. Choudhury, WBSEDCL
Shri S.Debsarma Biswas, WBSEDCL

ORDER

The Petitioner, NHPC has filed this petition for determination of tariff of Teesta Low Dam Hydroelectric Power Station-III (132 MW) for the period 2014-19 in terms of the Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2014 (‘the 2014 Tariff Regulations’).

2. The generating station is a run-of-the-river type project, with pondage for 3 hours peaking, with provision of 10% overloading on continuous basis. Ministry of Power, Govt. of India, vide letter dated 30.10.2003 had accorded Investment Approval (IA) for setting up of the generating station at the total estimated cost of ₹76892.00 lakh, including IDC of ₹6041.00 lakh, based on December 2002 price level. As per the administrative approval, the generating station was scheduled to be commissioned within 4 years and 5 months from the date of IA i.e., by 31.3.2007. All the units of the generating station were under commissioning during March, 2013. As such, the delay in achieving COD of the generating station is 72 months. The generating station has been declared under commercial operation with the dates of commercial operation of each unit as under:

Unit 2	1.4.2013
Unit 3	1.4.2013
Unit 4	1.5.2013
Unit 1/generating station	19.5.2013

3. Petition No. 115/GT/2013 was filed by the Petitioner for approval of annual fixed charges of the generating station for the period from 1.4.2013 to 31.3.2014 based on the capital cost of ₹192580 lakh as on 1.4.2013 (expected COD of the generating station). However, the Commission after considering the deduction of un-discharged liabilities, the report on capital cost by the Designated Independent Agency (M/s Tata Consulting Engineers) and the capital cost of ₹90386.58 lakh for two units (1.4.2013 to 30.4.2013), ₹135579.87 lakh for three units (1.5.2013 to 18.5.2013) and ₹180773.16 lakh for four units (19.5.2013 to 31.3.2014) by order dated 22.1.2015 had determined the annual fixed charges of the generating station.

4. Aggrieved by the said order, the Petitioner had filed Review Petition (Petition No 5/RP/2015) on certain issues and the Commission by order dated 18.9.2015 disposed of the same by directing that the error in the calculation of interest on loan and O&M expenses shall be considered on merits, at the time of revision of tariff of the generating station, based on truing-up exercise, in terms of the Regulation 6(1) of the 2009 Tariff Regulations. Against the said orders dated 22.1.2015 and 18.9.2015, the Respondent, WBSEDCL had also filed appeals (Appeal Nos. 212/2015 and 282/2015) before the Appellate Tribunal for Electricity (Tribunal). During the pendency of these appeals, the Petitioner had filed Petition No.193/GT/ 2015 for revision of the annual fixed charges of the generating station for the period 2013-14 in terms of the 2009 Tariff Regulations and Petition No. 248/GT/2014 for determination of tariff of the generating station for the period 2014-19 in accordance with the provisions of the 2014 Tariff Regulations. Both the tariff petitions filed by the Petitioner were clubbed and disposed of by the Commission by a common order dated 6.2.2017. Thereafter, vide communication dated 3.7.2018, the Petitioner was advised to file tariff petitions in respect of their generating stations, by enclosing (i) Board approval of the actual cost of the Company and (ii) at least one of the documents namely (a) the DIA report (b) cost approved by CEA/PIB (c) cost approved by CCEA. Subsequently, the Tribunal, placing reliance of the aforesaid communication dated 3.7.2018 and the submissions of the parties therein, disposed of the above mentioned appeals filed by the Respondent WBSEDCL by its order dated 24.10.2018.

5. The Petitioner has furnished the Revised Cost Estimate (RCE) amounting to ₹197299 lakh as vetted by CEA. Also, the Standing Committee on time & cost overrun has recommended the RCE amounting to ₹197299 lakh with time overrun of 72 months & cost overrun of ₹1204.07 crore. Subsequently, PIB meeting was

held on 29.11.2017 and the recommendation of PIB is awaited. The Commission vide its order dated 31.12.2019 in Petition No. 280/GT/2014 had allowed the completion cost of the Project for ₹206061.44 lakh based on the Standing Committee recommended cost of ₹197299 lakh *plus* the Normative IDC of ₹8762.44 lakh. The relevant portion of the Order is extracted hereunder:

> *"55. ………….The DIA and the Standing Committee in its report on time & cost overrun have recognized that the time overrun and the corresponding cost overrun were beyond the control of the Petitioner. Accordingly, we are of the considered view that the cost overrun of ₹1204.07 crore on account of the time overrun of 72 months was beyond the control of the Petitioner and therefore allow the completion cost of ₹1972.99 crore for the project."*

6. The Petitioner has filed this petition for determination of tariff of the generating station for the period 2014-19 and has claimed the capital cost and annual fixed charges for the generating station as under:

Capital Cost

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	182919.45	186264.63	188523.78	191164.42	191683.00
Add : Addition during the year/period	3613.32	1765.77	1877.78	382.16	2463.02
Add : Discharges during the year/period	2834.87	809.63	801.48	136.42	294.87
Less : De-capitalisation during the year/ period	3103.00	316.25	38.62	0.00	0.00
Closing Capital Cost	**186264.63**	**188523.78**	**191164.42**	**191683.00**	**194440.89**

Annual Fixed Charges

(₹ in lakh)

	2014-15	2015-16	2016-17	2017- 18	2018- 19
Return on Equity	11678.56	11884.40	11944.89	12124.88	12181.54
Interest on Loan	11589.73	10587.27	9283.04	7187.77	6384.18
Depreciation	9333.86	9485.14	9596.14	9675.72	9760.46
Interest on Working Capital	1070.13	1130.33	1201.59	1175.05	1193.52
O&M Expenses	5787.13	7145.75	8907.69	9192.01	9802.36
Total	**39459.41**	**40232.89**	**40933.35**	**39355.43**	**39322.06**

7. In compliance with the directions of the Commission vide ROP, the Petitioner has filed the additional information vide affidavits dated 6.3.2019 and 14.6.2019. Reply has been filed by the Respondent, WBSEDCL vide its affidavit dated 5.4.2019

and 25.6.2019. Rejoinder to the said replies have been filed by the Petitioner vide its affidavit dated 20.6.2019 and 5.7.2019. The Commission, after hearing the parties on 14.5.2019, reserved its order in the Petition, with directions to the Petitioner, to file certain additional information. Accordingly, based on the submissions of the parties and the documents available on record, we proceed to determine the tariff of the generating station for the period 2014-19, on prudence check, in terms of the 2014 Tariff Regulations, as stated in the subsequent paragraphs.

Capital Cost

8. Clause (1) of Regulation 9 of the 2014 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. Clause (3) of Regulation 9 provides as under:

> *"9(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) xxxx*
>
> *(c) xxxx"*

9. The Commission vide its order dated 31.12.2019 in Petition No. 280/GT/2018 had allowed the closing capital cost of ₹182918.57 lakh as on 31.3.2014. Accordingly, the capital cost of ₹182918.57 lakh has been considered as the opening capital cost as on 1.4.2014 for determination of tariff for the period 2014-19.

Additional Capital Expenditure

10. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted upto 31.3.2014

(either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2014-19.

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

"14. Additional Capitalization and De-capitalization:

(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) Un-discharged 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 un-discharged 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 un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

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

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

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

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

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization 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."

12. The year-wise break-up of the actual additional capital expenditure for the period 2014-18 and projected additional capital expenditure for the period 2018-19, including discharge of liabilities, claimed by the Petitioner in terms of the provisions of Regulation 14(1) & 14(3) of the 2014 Tariff Regulations, is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Add : Addition during the year / period	3613.32	1765.77	1877.78	382.16	2463.02	10102.05
Add : Discharges during the year/ period	2834.87	809.63	801.48	136.42	294.87	4877.27
Less : De-capitalisation during the year/period	3103.00	316.25	38.62	0.00	0.00	3457.87
Net additional capital expenditure	**3345.19**	**2259.15**	**2640.64**	**518.58**	**2757.89**	**11521.45**

13. The Petitioner in this petition has submitted that the generating station was supposed to complete all works within the original scope of work/ Revised Cost Estimate and purchase all initial spares within the cut-off date. It has however submitted that due to reasons beyond the control of the petitioner, there has been spillage of the expenditure, beyond the cut-off date of the generating station. The petitioner has therefore prayed that the Commission may allow the spillage of such essential expenditure which is within the original scope of work of the project including initial spares, beyond the cut-off date of the generating station i.e. 31.3.2016.

14. The Respondent, WBSEDCL in its reply affidavit dated 5.4.2019 has stated that the additional capitalization claimed by the Petitioner is admissible only in terms of Regulation 14 of the 2014 Tariff Regulations and is subject to prudence check of the same by the Commission. It has also stated that Petitioner cannot be allowed the additional capitalization incurred after the cut-off date as there is no valid justification given by the Petitioner for the delay in incurring such capital expenditure beyond the cut-off date. The Petitioner, in its rejoinder has clarified that major portion of additional capitalisation which fall within the original scope of work has been incurred and claimed within the cut-off date. However, certain additional capital expenditure within the original scope of work has been incurred by the station beyond the cut-off date due to unavoidable circumstances. The

Petitioner has added that the additional capitalization beyond the cut-off date are inevitable in case of hydro power projects due to various reason like liabilities to meet award of arbitration, change in law or compliance of any existing law, force majeure events, expenses on account of need for higher security and safety of plant, replacement of assets due to ageing/ obsolescence of technology etc. which are very essential for successful and efficient plant operation. The Petitioner has contended that the existing regulatory provisions permit the Petitioner to incur additional capitalization on the above grounds under Regulation 14(1), 14(2) & 14(3) of the 2014 Tariff Regulations. Accordingly, the Petitioner has prayed that the contentions of the Respondent may be rejected and the additional capitalisation claimed in Form-9A may be allowed.

15. The capital cost of ₹182918.57 lakh allowed as on 31.3.2014, includes normative IDC of ₹8762.44 lakh. The ceiling capital cost on completion of the project, for works within the original scope of work is ₹197299 lakh. As such, the capital cost allowed for works within the original scope of the project, as on 31.3.2014, is ₹174156.13 lakh (₹182918.57-₹8762.44). Accordingly, an amount of ₹23142.87 lakh (₹197299–₹174156.13) is available for consideration of the additional expenditure towards balance works/assets, within the original scope of work of the project. In view of above, we restrict the capitalisation of the additional expenditure for assets/works under the original scope of the project to ₹23142.87 lakh.

Discharge of liabilities

16. The Petitioner has claimed following discharge of liabilities during 2014-19:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2834.87	809.63	801.48	136.42	294.87

17. The year-wise discharge of liabilities has been allowed as claimed by the Petitioner in Form 9A of the petition. The Petitioner is however directed to submit the reconciliation statement showing the details of such liabilities, as per balance sheet for the period 2014-19, duly certified by auditor, at the time of truing –up of tariff of the generating station for the period 2014-19, subject to restriction of cost mentioned in para 15 above.

Additional Capital Expenditure

2014-15

18. The actual additional capital expenditure claimed by the Petitioner for the period 2014-15 is summarized as under:

(₹ in lakh)

Head	Amount
Assets/works within the original scope of work of project	3556.32
Assets/works other than within the original scope of work of project	57.00
Discharge of liabilities	2834.87
Total	**6448.19**

19. The Petitioner has claimed total actual additional capital expenditure of ₹6448.19 lakh for the year 2014-15. This includes claim for additional capital expenditure for ₹3556.32 lakh in respect of assets/works which are within the original scope of work of the project, including ₹59.24 lakh for initial spares, under Regulation 14(1)(ii) & (iii) of the 2014 Tariff Regulations and the additional capital expenditure of ₹57.00 lakh for works other than within the original scope of work of project under the provisions of Regulation 14(3)(iii) & (viii) of the 2014 Tariff Regulations. In addition, an expenditure of ₹2834.87 lakh has been claimed towards discharge of liabilities. The same is examined as under:

A. Assets/Works within the original scope of work of project

20. The Petitioner has claimed additional capital expenditure of ₹3556.32 lakh in 2014-15 in respect of works/assets within the original scope of work project which includes Compensation payment to affected families, Providing & Laying Soiling and PCC, Balance work in colony roads, Hydro-Mechanical Works-Dams and Barrage, Hydro-Mechanical Works-Tunnels & Canals, Tailrace Channels, Balance work of Dams and Barrages, Work in Left Bank Slope protection, RBM filling up, etc under Regulation 14(1)(ii) of the 2014 Tariff Regulations. This also includes the claim for initial spares amounting to ₹59.24 lakh under Regulation 14(1)(iii) of the 2014 Tariff Regulations. As the claim of the Petitioner is in respect of works/ assets within the original scope of work of the project and is within the cut-off date of the generating station, we allow the additional capitalisation of the said expenditure of ₹3556.32 lakh for 2014-15. The said amount is also within the completion cost of ₹197299 lakh.

B. Assets/works other than within the original scope of work of project

21. The Petitioner has also claimed additional capital expenditure of ₹57.00 lakh for assets/works other than within the original scope of work of the project under Regulation 14 (3) (iii) & 14 (3)(viii) of the 2014 Tariff Regulations. The admissibility of the claims, on prudence check of the justification furnished by the Petitioner, is as under:

(Rs. in lakh)

Head of Work / Equipment	Actual amount claimed	Justification	Remarks on admissibility	Amount allowed
Balance Work in Dining Hall for CISF	0.41	Requirement of Security agency	Since the assets/ works are related to the safety & security in the operation of the plant, the expenditure is **allowed.** However, the Petitioner is directed to	0.41
Construction of Security And Small Store Room Near Gate of Sector-A,TLD III PS	1.89			1.89
Construction of Temporary Accommodation for SOS at CISF Barrack	9.64			9.64
Balance Work of SO Rooms for CISF (Temp)	0.19			0.19
Construction of Toilet with Connecting Shed for CISF	3.89			3.89

Personnel at Sector-A,TLD III PS			furnish documentary evidence along with year of capitalization and reconciliation with balance sheet in support of the said claim, at the time of truing up of tariff.	
Construction of Dining Hall by Extending Canteen, Connecting Shed Etc at CISF Barrack, TLD III PS	7.96			7.96
Balance Work of Foot Over Bridge and Door work for Asst. Commandant of CISF, Sector-A,TLD III PS	1.85			1.85
Construction of Morcha for CISF at top of Barrage	2.51			2.51
Electric Operated Automatic Boom Barrier	1.79			1.79
Construction of Main Gate at "O" Point and Near 33 Kv Building To Across Road From Nh31A To Barrage	26.31	For restricting access to bonafide persons only to the Power House/ Barrage area for security point of view, main gates at two locations have been constructed.		26.31
Boat	0.56	The NH-10 is situated on the bank of reservoir area. For protection of NH 10, RRT works has been constructed and proper monitoring of RRT work specially during monsoon period is very essential for hindrance free movement at NH 10. As the approach of reservoir from NH 10 is inaccessible at many places, it could be monitored through motor boat only. Accordingly, Motor Boat has been purchased.		0.56
Total claimed	**57.00**			
Total allowed				**57.00**

22. As stated in para 17 above, the amount of ₹2834.87 lakh claimed towards discharge of liabilities in 2014-15 for assets/works within the original scope of project has been allowed. As such, the total additional capital expenditure of ₹6448.19 lakh as claimed by the Petitioner is allowed in 2014-15.

2015-16

23. The actual additional capital expenditure claimed by the Petitioner for the period 2015-16 is as under:

(₹ in lakh)

Heads	Amount
Assets/works within the original scope of work of project	1547.69
Assets/works other than within the original scope of work of project	218.08
Discharge of liabilities	809.63
Total	**2575.40**

24. The Petitioner has claimed total actual additional capital expenditure of ₹2575.40 lakh in 2015-16 which includes an expenditure of ₹1547.69 lakh in respect of assets/works within the original scope of work of the project under Regulations 14(1)(ii) & (iii) of the 2014 Tariff Regulations. The Petitioner has also claimed additional capital expenditure of ₹218.08 lakh in respect of works other than within the original scope of work of the project under Regulation 14(3)(iii) & (viii) of the 2014 Tariff Regulations and an amount of ₹809.63 lakh towards discharge of liabilities. The same is examined as under:

A. Assets/Works within the original scope of work of the project

25. The Petitioner has claimed actual additional capital expenditure of ₹1547.69 lakh in 2015-16 in respect of works/assets such as the Balance work executed in Dam and barrages, hydraulic mobile crane, cost compensation claim for E&M work, reservoir rim treatment (RRT) works, Compensation for 71 project affected families, balance work in building containing hydroelectric generating plant, construction of concrete pavement, excavators-hydraulic, Tata Hitachi, screw pump, etc., including initial spares for ₹101.37 lakh. As the claim of the Petitioner is in respect of works/assets within the original scope of work of the project and is within the cut-off date of the generating station, we allow the additional

capitalisation of ₹1547.69 lakh in 2015-16 in terms of Regulation 14 (1)(ii) & (iii) of the 2014 Tariff Regulations. The said amount is within the balance amount of the completion cost of ₹197299 lakh.

B. Assets/works other than within the original scope of work of the project

26. The Petitioner has claimed additional capital expenditure of ₹218.80 lakh for assets/works other than within the original scope of the work of the project under Regulation 14(3)(iii) & 14(3) (viii) of the 2014 Tariff Regulations. The admissibility of the claims, on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Head of Work / Equipment	Actual amount claimed	Justification	Remarks on admissibility	Amount allowed
LAN Switch 8 Port	0.11	Part of CCTV installed at Power station. Essential requirement for Security & Monitoring Purpose	Since the assets/ works are related to the safety & security in the operation of the plant, the expenditure is allowed. However, the Petitioner is directed to furnish documentary evidence in support of the said claim, at the time of truing up of tariff	3.80
LAN Switch, 16 Port - 2 PCS	0.15	Part of CCTV installed at Power station. Essential requirement for Security & Monitoring Purpose		
Switch Rack 12U Complete with Accessories - 2 PCS	0.17	Part of CCTV installed at Power station. Essential requirement for Security & Monitoring Purpose		
Super Door Frame Metal Detector with 9 Zone Sensitivity & Entry/Exit Counter Balance Arrangement	3.37	Requirement of Security agency.		
Extension of 2nd Floor of Administrative Building at Sector-C,TLD III PS and Electrification	25.84	The extension is essentially required considering the strength of employee. The work has been taken up and executed after COD of Power Station.	Regulation 14(3)(viii) of the 2014 Tariff Regulations pertains to the capitalisation of expenditure towards additional work which has become necessary for the	153.28
Extension of Quality Control office at Store Compex, TLD III PS	0.03	The extension is essentially required which was executed after COD of Power		

		Station.	successful and efficient operation of the station Considering the nature of the assets/works claimed, these items in our view, should have been incorporated within the original scope of work of the project. Accordingly, the expenditure is **allowed** and is considered within the balance limit of the completion cost of the project	
Balance Work of Protection and Fencing at Parade Ground at Sector-F,TLD III PS	28.01	This is the execution of balance work which is completed during 2015-16 and capitalized in same year.		
Construction of officer's club-cum Training Hall at Sector-F,TLD III PS	28.72	There was no officer club in Power Station for the entertainment of employee. Construction is essential which is completed during 2015-16		
Construction of room sheds (temporary) for visiting service engineers, shift duty employees etc	65.18	The construction of room is essential for smooth operation and maintenance of equipment's of Power House		
Balance Work of Internal Electrification of 05 Nos of Temporary Type Room Shed (3rd Block) at 27Th Mile, TLD III PS	4.11	This is the execution of balance work which is completed during 2015-16 and capitalized in same year.		
Construction of CISF Strong Room at Store Complex Sector A	1.39	The construction has been done as per requirement of security agency which is essentially required.		
Construction of DG Room at Sector-F at TLD III PS	0.02	The construction is essential for protection of DG set.	As the expenditure claimed is for the protection of the generator, the same is allowed	0.02
Balance Work of Internal Electrification Work at Silt Lab, General office, Mechanical Work Shop.	1.94	This is the execution of balance work which is completed during 2015-16 and capitalized in same year	Regulation 14(3)(viii) pertains to capitalisation of expenditure towards additional work which has become necessary for successful and efficient operation of the plant.	4.71
Balance Work of Providing Roof and Provision of Concrete and Steel Tubuler Railing in Administrative Building at Sector-C,TLD III PS	2.77	This is the execution of balance work which is completed during 2015-16 and capitalized in same year		

Remote Terminal Unit with PLCC Modems	26.96	Since establishment of real time data communication is very important. To establish an alternate link for real time data at SLDC Howrah, RTU with PLCC Modem were purchased and installed	Considering the nature of the assets/ works claimed, these items in our view, should have been incorporated in original scope of work of the project. Accordingly, the expenditure is **allowed** and is within the balance limit of the completion cost.	26.96
Air Circuit Breaker 800A,65KA,3Pole Electrically Operated Micrologic 6.0 P - 6 PCS	25.75	The material has been purchased and used for replacement of damaged part.	The expenditure claimed is towards the purchase of spares, on replacement basis, and is within the cut-off date. Hence, **allowed.** As the gross value of the replaced assets is not available, keeping in view the COD of generating station, an amount of ₹23.36 lakh has been considered as the de-capitalized value of the old replaced assets. The old asset has been de-capitalized under 'Assumed deletions'. However, the Petitioner is directed to submit the de-capitalised value of the old asset at the time of truing up of tariff	25.75
Echograph "T" RSG-35	2.57	Hospital items, essentially required	As the expenditure is for the benefit of the employees	2.57

			working in remote locations of the project of the Petitioner, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations	
Solar Panel Full Automatic Power Supply Unit 24V, 100A	1.00	Reduction in electricity charge (in turn saving in O&M expenses) will be passed to beneficiaries when the O & M expenses will be allowed based on actual O&M expenses.	As O&M expenses have been allowed to the generating station on normative basis, the capitalization of this asset is **not allowed,** despite its indirect impact on the efficient operation of the generating station	0.00
Total claimed	**218.09**			
Total allowed				**217.09**

27. As stated in para 17 above, the amount of ₹809.63 lakh claimed towards discharge of liabilities in 2015-16 has been allowed. As such, the total actual additional capital expenditure of ₹2574.40 lakh is allowed for the year 2015-16.

2016- 17

28. The actual additional capital expenditure claimed by the Petitioner for the year 2016-17 is as under:

Heads	Amount *(₹ in lakh)*
Assets/works within the original scope of work of project	1797.48
Assets/works other than within the original scope of work of project	80.30
Discharge of liabilities	801.48
Total	**2679.26**

29. The Petitioner has claimed the total actual additional capital expenditure of ₹2679.26 lakh in 2016-17 which includes an expenditure of ₹1797.48 lakh towards assets/works within the original scope of work of the project under Regulation

14(2) of the 2014 Tariff Regulations. The Petitioner has also claimed additional capital expenditure of ₹80.30 lakh in respect of works other than within the original scope of work of the project under Regulation 14(3) of the 2014 Tariff Regulations and an amount of ₹801.48 lakh for discharge of liabilities. The same is examined as under:

A. Assets/Works within the original scope of work of the project

30. The Petitioner has claimed additional capital expenditure of ₹1797.49 lakh in 2016-17 for works/assets within the original scope of work of the project namely towards the balance work in road, balance work of toe protection work, building, PCC cladding and lining, widening of formation width at road, GIS building at P.H, construction of 1st floor of silt lab & transit camp building at left bank of barrage, application of shortcrete over right bank of intake area of TLD III P.S., barbed wire fencing, boundary wall near 33 kV station, construction of permanent gauge pillar, tri-axial joint meter, expansion of joint treatment at barrage & intake structure, finishing work of stair, terrace of silt lab building, balance work of paver block fixing and pipe railing work, balance work of providing and fixing paver block and railing and other miscellaneous work along approach road, balance work of providing and fixing aluminium composite panel (ACP) at barrage control room, barrage power pack room, intake power pack rooms and dg room at TLD III P.S., balance work of rendering / finishing of barrage, cellular wall and TRC, tailrace channels (lowering cum widening of river & right bank from Rd 250 M to Rd 500 M of barrage, RRT works allocated in main generating equipment's, readout unit for monitoring data of clinometers, supply and installation of street light with led fitting, etc. including initial spares amounting to ₹416.17 lakh under Regulation 14(2) of the 2014 Tariff Regulations. As the said expenditure is towards the works/ assets within the original scope of work of the project and is claimed after the cut-

off date, the same is considered and allowed in terms of the provisions of Regulation 14(3) of the 2014 Tariff Regulations. Moreover, the expenditure within the balance ceiling limit of completion cost of ₹197299 lakh and hence, the same is allowed.

B. Assets/works other than within the original scope of work of the project

31. The Petitioner has claimed additional capital expenditure of ₹80.30 lakh for assets/works other than within the original scope of work of the project under Regulation 14(3)(iii) & 14(3)(viii) of the 2014 Tariff Regulations. The admissibility of the claims, on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Head of Work / Equipment	Actual amount claimed	Justification	Remarks on admissibility	Amount allowed
Main Gate at "O" Point and Near 33 kV Building To Access Road From NH31A To Power House / Barrage Control Room with Protection Work	0.86	For restricting access to bonafide persons only to the Power House/ Barrage area for security point of view, main gates at two locations have been constructed	Since the asset is related to the security & safe operation of the generating station, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations	0.86
Super Door Frame Metal Detector with 9 Zone Sensitivity & Entry/Exit Counter Balance Arrangement	0.12	Security Equipment as per requirement of security agency.		0.12
Balance work of 2nd Floor of Administrative Building at Sector-C,TLD III PS	0.97	Balance work (Refer item no.11 of FY2015-16) which has been taken up and completed during FY 2016-17 and capitalised accordingly.	The expenditure is for the balance work, which was earlier allowed by the Commission. Considering the nature of the work claimed, these items should have been incorporated in original scope of work. The expenditure is allowed and is accounted in the	0.97

			balance limit of the completion cost of the project	
Extension of Kendriya Vidyalaya at Sector A, TLD III PS	12.91	As per requirement of employee residing at Power Station, level of class has been enhanced. Accordingly to accommodate enhanced no. of higher classes / students, additional rooms were constructed. The construction is essentially required for employee residing at Power Station	As the expenditure is for the benefit of the employees working in remote locations of the project of the Petitioner, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	12.91
Balance Work of Officer Club	3.73	Balance work which has been taken up and completed during 2016-17 and capitalised accordingly	Regulation 14(3)(viii) of the 2014 Tariff Regulations pertains to additional work which has become necessary for the successful and efficient operation of the station. Considering the nature of the works claimed, these items should have been incorporated within the original scope of work of the project. Hence, the expenditure is allowed and is accounted in the balance limit of the completion cost of the project.	30.55
Balance work of Type IV Building at Sec F	4.13			
Balance work of Internal Electrification of Building Extension of KV Sector A	3.88			
Balance work of construction of E&M office at Sector-A at TLD III PS	11.37			
Balance work of Strong Room By Covered RCC Staircase, CGI Shed Near Strong Room at Sec A	7.44			
Construction of Temp. Accommodation for SOS at CISF Barrack	2.42	The construction has been done as per requirement of security agency which is essentially required	Since the asset is related to the security & safe operation of the generating station, the same is allowed under Regulation	27.02
Construction of Recreation, Kitchen and Dining Room for SO, CISF at Stores	13.45			

Complex TLD III PS			14(3)(iii) of the 2014 Tariff Regulations	
Balance work of Security Gate with Morcha for TLD III PS	11.15			
Echograph"T" RSG-35	1.14	Hospital items, essentially required.	The **e**xpenditure is for the benefit of the employees working in the remote locations of the project of the Petitioner and will facilitate the efficient operation of the generating station. Hence, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations	1.50
ENT Set, Make MSI	0.01			
Foot Step (Double Step)	0.04			
Foot Step Double Step Ss Frame, United Surgical Industries, Model No: Usi 1030B	0.04			
I.V. Stand Ss Pipe with Ss Base, United Surgical Industries, Model: USI 1037C - 3 PCS	0.10			
Infrared Thermometer - 4 PCS	0.08			
Patient's Revolving Stool Cushioned Top SS Frame, United Surgical Industries, Model No: Usi 1075B - 3 PCS	0.13			
PLCC Item DC Converter Stabilizer and Power Supply Unit B5La	0.90	DC Converter of PLCC system was faulty, to keep the system in healthy condition Power Supply Unit was purchased and installed.	**Since the e**xpenditure is of minor nature, the same is not allowed in terms of the provisions of the 2014 Tariff Regulations	0.00

Supply and Installation of RTU System at TLD III PS.	3.25	Balance work which has been taken up and completed during FY 2016-17 and capitalised accordingly.	The capitalization of assets has been allowed during the year 2015-16. As such the balance payment has been considered in this year. The expenditure on asset "RTU system" claimed in 2015-16 was considered under the original scope of work of the project. Accordingly, the balance expenditure claimed for this asset is allowed and is accounted in the balance limit of the completion cost of the project.	3.25
Bed Side Screen 3 Panel, United Surgical Industries, Model No : Usi 1028	0.05	Hospital items, essentially required	**The e**xpenditure is for the benefit of the employees working in remote locations of the project of the Petitioner and will facilitate in the efficient operation of the generating station. Hence, the expenditure is a**llowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	1.76
Dressing Trolley with Bowl & Bucket Ss Frame & Ss Shelves, United Surgical Industries, No: Usi 1025B	0.13			
Examination Couch, United Surgical Industries, Model No : Usi 1065 - 2 PCS	0.51			
Invalid'S Wheel Chair Folding (Detachable Arm Rest & Foot Rest), United Surgical Industries, Usi 901	0.09			
Patient'S Medicine Cup Board (Abs), Wincon, Model Usi 949 - 3 PCS	0.25			
Chair (Ss) 3 Seats with Arm Rest, Wincon, Model 5730 - 5 PCS	0.73			
Solar Panel Full Automatic Power Supply Unit 24V,	0.44	Reduction in electricity charge (inturn saving in	As O&M expenses have been allowed to the generating	0.00

100A		O&M expenses) will be passed to beneficiaries when the O & M expenses will be allowed based on actual O&M expenses	station on normative basis, the capitalization of this asset is **not allowed**, despite its indirect impact on the efficient operation of the generating station	
Total claimed	**80.30**			
Total allowed				**78.96**

32. As stated in para 17 above, the amount of ₹801.48 lakh claimed towards discharge of liabilities in 2016-17 has been allowed. As such, the total actual additional capital expenditure of ₹2677.93 lakh is allowed for the year 2016-17.

2017- 18

33. The actual additional capital expenditure claimed by the Petitioner for the year 2017-18 is as under:

(₹ in lakh)

Head	Amount claimed
Assets/works within the original scope of work of project	315.28
Assets/works other than within the original scope of work of project	66.88
Discharge of liabilities	136.42
Total	**518.58**

34. The Petitioner has claimed total actual additional capital expenditure of ₹518.58 lakh in 2017-18 which includes an expenditure of ₹315.28 lakh for assets/works within the original scope of work of the project under Regulation 14(2) of the 2014 Tariff Regulations. The Petitioner has also claimed additional capital expenditure of ₹66.88 lakh in respect of works other than within the original scope of work of the project under Regulation 14(3) of the 2014 Tariff Regulations and an amount of ₹136.42 lakh for discharge of liabilities. The same is examined as under:

A. Assets/Works within the original scope of work of the project

35. The Petitioner has claimed actual additional capital expenditure of ₹315.28 lakh in 2017-18 in respect of works/assets within the original scope of work of the project towards balance work of providing and fixing balance paver block, accelerograph system, android app (river gauge), balance work-channelization of railey khola, construction of silt lab and transit room, inbuilt data logger with GSM / GPRS , balance work of providing and laying levelling concrete, tiles, etc, radar sensor, lifting beam for 65 Mt spillway stoplog gantry crane, balance work of E&M works, portable 100 kV fully automatic microprocessor based oil bdv test, bench & desk for KV school, 4.1 HP waste water submersible pump, etc., including initial spares amounting to ₹1.77 lakh under Regulation 14(2). As the said expenditure is towards the works/ assets within the original scope of work of the project and is claimed after the cut-off date, the same is considered and allowed in terms of the provisions of Regulation 14(3) of the 2014 Tariff Regulations. Moreover, the expenditure within the balance ceiling limit of completion cost of ₹197299 lakh.

B. Assets/works other than within the original scope of work of the project

36. The Petitioner has also claimed additional capital expenditure of ₹66.88 lakh for assets/works other than within the original scope of work of the project under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The admissibility of the claims, on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Head of Work / Equipment	Actual amount claimed	Justification	Remarks on admissibility	Amount allowed
AC & DC Solar Power Supply, Make : Deys Electronics Model No: D101 - 2 nos	3.11	Reduction in electricity charge (in turn saving in O&M expenses) will be passed to beneficiaries when the O & M expenses	As O&M expenses have been allowed to the generating station on normative basis, the capitalization of this asset is **not allowed**, despite its indirect	0.00

		will be allowed based on actual O&M expenses.	impact on the efficient operation of the generating station	
30 KWP Solar PV On Grid Connected Power Plant	20.38	Reduction in electricity charge (inturn saving in O&M expenses) will be passed to beneficiaries when the O & M expenses will be allowed based on actual O&M expenses.		
Motor Boat - 10 Seater FRP 5.4M81.9080.90M	9.85	The NH-10 is situated on the bank of reservoir area. For protection of NH 10, RRT works has been constructed and proper monitoring of RRT work specially during monsoon period is very essential for hindrance free movement at NH 10. As the approach of reservoir from NH 10 is inaccessible at many places, it could be monitored through motor boat only. Accordingly, Motor Boat has been purchased.	Since the assets/ works are related to the safety & security in the operation of the plant, the expenditure is **allowed.** However, the Petitioner is directed to furnish documentary evidence in support of the said claim, at the time of truing up of tariff.	9.85
ECG Machine	0.26	Hospital items, essentially required.	**The e**xpenditure is for the benefit of the employees working in remote locations of the project of the Petitioner and will facilitate in the efficient operation of the generating station. Hence, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations	0.90
Foetal Doppler (Single Foetus, Portable Type)	0.07			
Oxygen Concentrator	0.43			
X-Ray View Box Led 2 Films - 3 PCS	0.14			
DRS Compact Relay for Unit Protection	31.39	All relays installed at TLD-III PS for the protection of Generating unit and	The expenditure claimed is for purchase of spare relays on replacement	31.39

		feeder is Numerical type. These numerical relays are very essential and critical to shut down the units or feeder during fault and isolation of faulty equipment's. DRS relays initially commissioned were malfunctioning and being the critical equipment new DRS compact relays were purchased to replace the same for efficient operation of Power Plant.	basis relays. Since the gross value of the replaced assets is not available and keeping in view the COD of generating station, an amount of ₹27.12 lakh has been considered as the decapitalized value of the old replaced assets. The old asset has been de-capitalized under "Assumed deletions". However, the Petitioner is directed to submit the de-capitalized value of old asset at the time of truing up of tariff.	
MS Office Professional Plus 2016 Single OLP C	1.23	Essential requirement for upgradation of Computer Software.	As the expenditure is of a minor nature, the capitalization of same is **not allowed** after the cut-off date	0.00
Total claimed	**66.88**			
Total allowed				**42.13**

37. As stated in para 17 above, the amount of ₹136.42 lakh claimed towards discharge of liabilities in 2017-18 has been allowed. As such, the total actual additional capital expenditure of ₹493.83 lakh is allowed for the year 2017-18.

2018- 19

38. The projected additional capital expenditure claimed by the Petitioner for the year 2018-19 is as under:

Heads	Amount claimed ***(₹ in lakh)***
Assets/works within the original scope of work of project	2240.52
Assets/works other than within the original scope of work of project	222.50
Discharge of liabilities	294.87
Total	**2757.89**

39. The Petitioner has claimed total projected additional capital expenditure of ₹2757.89 lakh in 2018-19 which includes an expenditure of ₹2240.52 lakh in

respect of assets/works within the original scope of project under Regulation 14(2) of the 2014 Tariff Regulations. The Petitioner has also claimed additional capital expenditure of ₹222.50 lakh for works other than within the original scope of work of the project under Regulation 14(3) of the 2014 Tariff Regulations and an amount of ₹294.87 lakh towards discharge of liabilities. The same is examined as under:

A. Assets/Works within the original scope of work of the project

40. The Petitioner has claimed projected additional capital expenditure of ₹2240.52 lakh in 2018-19 for works/assets within the original scope of work of the project towards the Construction of road at left bank, land scaping/turfing power house road and left bank area, Construction of step drain, Fencing by chain link wire mesh along the road from PH to labour hutment, Footpath along the road to PH on both side, Providing and fixing ACP false ceiling in machine hall roof, Chequered tiles in chilling plant area, Construction of stores for HM Division, Railing in the draft tube gate area, Right bank slope stabilization drainage works, Balance work of LOT-3 HM work, Supply, Erection, Testing and commissioning of 33/11 kV, 2x2 MVA substation including erection of 11 kV, Balance work of providing and fixing MS railing on edge of cellular wall and pier of barrage, etc., including initial spares of ₹1050.47 lakh under Regulation 14(2) of the 2014 Tariff Regulations. As the additional capital expenditure claimed is for works/assets under original scope of work of the project and is after the cut-off date, the same is considered and allowed in terms of the provisions of Regulation 14(3) of the 2014 Tariff Regulations. Moreover, the expenditure is within the balance ceiling limit of completion cost of ₹197299 lakh.

B. Assets/works other than within the original scope of work of the project

41. The Petitioner has also claimed additional capital expenditure of ₹222.50 lakh for assets/works other than within the original scope of work of the project

under Regulation 14(3)(iii) & 14(3)(viii) of the 2014 Tariff Regulations. The admissibility of the claims, on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Head of Work / Equipment	Actual amount claimed	Justification	Remarks on admissibility	Amount allowed
Construction of Armour / Magazine House for CISF	11.00	The construction of house is required as per requirement of Security Agency.	Since the assets/ works are related to the safety & security in the operation of the plant, the expenditure is **allowed**. However, the Petitioner is directed to furnish documentary evidence in support of the said claim, at the time of truing up of tariff.	78.50
Security Gate between Store complex & CISF complex.	3.00			
Security Room for KVS	5.50			
Security Room at Main gate at Sec-F	4.00			
Supply and installation of High Mast lighting at Power House and Barrage	30.00	Essentially required for security of Power House, Barrage and nearby areas.		
Purchase of CCTV	25.00	Essentially required for security purpose.		
Extension of Kendriya Vidyalaya	50.00	The extension of Kendriya Vidyalaya is essentially required for further enhancement of classes.	The expenditure is for the benefit of the employees working in remote locations of the project of the Petitioner and will facilitate in the efficient operation of the generating station. Hence, the expenditure is **allowed** under Regulation 14(3)(viii) of the 2014 Tariff Regulations	50.00
Construction of temporary room for cafeteria purpose at PH	6.00	The construction of room is essentially required for the employee posted at Power House for operation and Maintenance work.	The construction of such temporary facilities for employees may be at the cost of the Petitioner and cannot be recovered from beneficiaries. Hence, **not allowed**	0.00

Purchase of Lab equipments	5.00	Essentially required for lab set up for quality control.	As the expenditure is of minor nature, the same is **not allowed**	0.00
Purchase of Relay Test Kit	56.00	Presently no relay test kit is available at power station. Due to un-availability of such basic testing instrument, testing of relay is not possible on real time basis. Therefore to minimize the downtime of the generating unit One no. of Three Phase Relay test kit is very essential for smooth and efficient operation of power plant.	As the expenditure is in the nature of tools and tackles, the capitalization of the same is **not allowed** after cut-off date in terms of the regulations	0.00
Purchase of SF6 Gas Analyser and Gas Leakage Detector	27.00	Due to past history of GIS at Teesta Low Dam III, SF6 gas analysis at regular interval is very necessary. So that necessary corrective action may be taken place well in advance before failure of equipment. Since this testing instrument is not available at the Power Station. Therefore to minimize the downtime of the generating unit One no. of SF6 Gas Analyser and One no. of Gas Leakage Detector is very essential for smooth and efficient operation of power plant.	As the expenditure is in the nature of tools and tackles, the capitalization of the same is **not allowed** after cut-off date in terms of the regulations	0.00
Total claimed	**222.50**			
Total allowed				**128.50**

42. As stated in para 17 above, the amount of ₹294.87 lakh claimed towards discharge of liabilities in 2018-19 has been allowed. As such, the total actual additional capital expenditure of ₹2663.89 lakh is allowed for the year 2018-19.

43. Based on the above discussions, the total additional capital expenditure including discharge of liabilities, allowed is summarised as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
6448.19	2574.40	2677.93	493.83	2663.89

De-capitalization

44. 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."*

45. The Petitioner has claimed de-capitalization amounts for the period 2014-19 in respect of old assets (being unusable/unserviceable) and taken as obsolete, amount provisionally capitalised for restoration of loss on account of floods during the years 2007 & 2009 and recovered through BG and insurance, etc., as under:

(₹ in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
3103.00	316.25	38.62	0.00	0.00

46. It is noticed that out of total de-capitalization of ₹38.62 lakh claimed by the Petitioner in 2016-17, an amount of ₹33.01 lakh has been de-capitalised on the ground that "*on account of overcapitalisation of assets on estimation basis in previous years and reduction of sales tax demand amount in Current year but previously booked in Assets prior to COD*". Since, de-capitalisation of the amount relates to the period prior to 2016-17, the deletion of the same is considered in 2014-15. However, the de-capitalization for assets which are not in use is allowed in

terms of the above Regulation. Accordingly, the de-capitalisation considered for the purpose of tariff is as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3136.01	316.25	5.61	0.00	0.00

Assumed Deletions

47. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff, provided that the capitalization of the said asset is followed by de-capitalization of the original value of the old asset. However, in certain cases where de-capitalization has been 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 de-capitalization, which is not a book entry in the year of capitalization, is termed as "Assumed deletion". Further, in the absence of the gross value of the asset being de-capitalized, the same is calculated by de-escalating the gross value of new asset @5% per annum, till the year of capitalization of the old asset.

48. It is observed that the Petitioner has claimed 'Air Circuit Breaker' for an amount of ₹25.75 lakh in 2015-16 and 'DRS Compact Relay for Unit Protection' for ₹31.39 lakh in 2017-18 on replacement basis. However, the Petitioner has not furnished the de-capitalized value of the old assets which are being replaced. Accordingly, based on the above said methodology, the 'assumed deletions' are considered as under:

(₹ in lakh)

Year	Asset	Assumed deletion
2015-16	Air Circuit Breaker	23.36
2017-18	DRS Compact Relay for Unit Protection	25.82

Net additional capital expenditure

49. Accordingly, the net additional capital expenditure considered for the purpose of tariff for the period 2014-19 is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Addition	3613.32	1764.77	1876.44	357.41	2369.02
Less: Deletion	3136.01	316.25	5.61	-	-
Less: Assumed Deletion	-	23.36	-	25.82	-
Add: Discharge of Liabilities	2834.87	809.63	801.48	136.42	294.87
Net additional capital allowed	**3312.18**	**2234.79**	**2672.31**	**468.01**	**2663.89**

The Petitioner is directed to furnish the reconciliation with balance sheet, duly certified by Auditor, at the time of true up exercise.

Capital Cost for 2014-19

50. In view of the above, the capital cost allowed for the purpose of tariff for 2014-19 is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital cost	182918.57	186230.75	188465.54	191137.85	191605.86
Net additional capital expenditure allowed	3312.18	2234.79	2672.31	468.01	2663.89
Capital Cost allowed as on 31st March of the year	**186230.75**	**188465.54**	**191137.85**	**191605.86**	**194269.75**

Debt-Equity Ratio

51. The debt-equity ratio of 70:30 has been considered in terms of Regulation 19 of the 2014 Tariff Regulations for the purpose of tariff.

Return on Equity

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

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

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

Provided that:

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

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

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

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

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

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

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

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

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

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

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

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

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

54. In line with the above regulations, grossing up of base rate has been done with the MAT Rate of the year 2013-14. The Petitioner is however directed to submit the effective tax rates along with the tax Audit report for the period 2014-19 at the time of truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, Return on Equity has been computed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	54875.57	55869.22	56539.66	57341.35	57481.76
Addition due to additional capitalization	993.65	670.44	801.69	140.40	799.17
Closing Equity	55869.22	56539.66	57341.35	57481.76	58280.92
Average Equity	55372.40	56204.44	56940.51	57411.56	57881.34
Return on Equity (Base Rate)	16.500%	16.500%	16.500%	16.500%	16.500%
Tax rate for the year	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	20.876%	20.876%	20.876%	20.876%	20.876%
Return on Equity (Pre Tax)	**11559.54**	**11733.24**	**11886.90**	**11985.24**	**12083.31**

Interest on loan

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

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

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

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of Decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalization of such asset

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

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered

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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

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

56. The Petitioner in the petition has submitted that in order to reduce the rate of interest on loan, the re-financing of loan has been done as per Regulation 26 (7) of 2014 Tariff Regulations. It has stated that in terms of the said regulation, the benefit of re-financing is to be shared between the generating company and beneficiaries in the ratio of 1:2. The Petitioner has also stated that the refinancing charge is to be passed on to beneficiaries on actual basis. The Petitioner has furnished the detailed calculation of the benefit in Annexure-VI of the petition and has clarified that the share of Petitioner due to refinancing shall be recovered over and above the annual fixed charges through separate bills after approval of same. In terms of the submissions of the Petitioner, the benefit of re-financing of loan shall be shared between the generating company and beneficiaries in the ratio of 1:2 as per Regulations 26(7) of 2014 Tariff Regulations. In case of any dispute, the parties are at liberty to make an application in accordance with Regulation 26(9) of the 2014 Tariff Regulations.

57. The salient features for computation of interest on loan are as under:

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

(b)The weighted average rate of interest has been worked out on the basis of the revised loan portfolio in line with the submission of Petitioner.

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

(d)Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

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

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	128043.00	130361.53	131925.88	133796.50	134124.10
Cumulative Repayment up to Previous Year	8654.94	17987.92	27470.73	37064.73	46737.83
Net Loan-Opening	119388.06	112373.60	104455.15	96731.77	87386.28
Repayment during the year	9332.98	9482.81	9594.00	9673.10	9754.19
Addition due to Additional Capitalization	2318.53	1564.35	1870.62	327.61	1864.72
Net Loan-Closing	112373.60	104455.15	96731.77	87386.28	79496.81
Average Loan	115880.83	108414.38	100593.46	92059.02	83441.54
Weighted Average Rate of Interest on Loan	10.013%	9.758%	9.248%	7.818%	7.659%
Interest on loan	**11603.62**	**10579.11**	**9302.87**	**7197.56**	**6390.60**

Depreciation

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

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the

generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

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

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

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

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) alongwith 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 de-capitalized asset during its useful services."

60. The weighted average rate of depreciation of 5.056%, 5.062%, 5.055%, 5.055% and 5.056% calculated as per the 2014 Tariff Regulations has been considered for calculation of depreciation for the years 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 respectively. Accordingly, depreciation has been computed as follows:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	182918.57	186230.75	188465.54	191137.85	191605.86
Additional Capitalization	3312.18	2234.79	2672.31	468.01	2663.89
Closing Capital Cost	186230.75	188465.54	191137.85	191605.86	194269.75
Average Capital Cost	184574.66	187348.15	189801.70	191371.86	192937.81
Rate of Depreciation	5.056%	5.062%	5.055%	5.055%	5.056%
Depreciable value	166117.19	168613.33	170821.53	172234.67	173644.02
Remaining Depreciable value	157462.25	150923.30	143697.56	135517.78	127260.29
Depreciation	**9332.98**	**9482.81**	**9594.00**	**9673.10**	**9754.19**

O&M expenses

61. Sub-clause (c) of clause (3) of Regulation 29 of the 2014 Tariff Regulations provide the following:

> *"29. Operation and Maintenance Expenses:*
>
> *(3) Hydro Generating Station*
>
> *(c) In case of the hydro generating stations, which have not been in commercial operation for a period of three years as on 1.4.2014, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of commercial operation. Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @6.04% per annum up to the year 2013-14 and then averaged to arrive at the O&M expenses at 2013-14 price level. It shall be thereafter escalated @ 6.64%per annum to arrive at operation and maintenance expenses in respective year of the tariff period."*

62. The Petitioner has submitted that the generating station is under commercial operation w.e.f 19.5.2013 and hence was not in operation for more than 3 years as on 1.4.2014. It has stated that the O&M expenses for this station has not been notified under Regulation 29 (3) (a) of the 2014 Tariff Regulations. The Petitioner has also stated that the norms for calculation of O&M expenses for a new project have been defined under Regulation 29 (3) (c) of the 2014 Tariff Regulations. It has however submitted that the generating station is under commercial operation for more than 5 years and its year-wise actual O&M expenses during the period 2014-18 is known and hence considered in the Petition. The Petitioner has further

submitted that the O&M expenses for 2018-19 have been determined on the basis of the actual O&M expenses for 2017-18 with escalation @6.64%.

63. The Respondent WBSEDCL has submitted that since the generating station achieved COD on 19.5.2013, it did not operate for more than 3 years. Accordingly, the Respondent has stated that the O&M expenses are to be determined in terms of Regulation 29 (3) (c) of the 2014 Tariff Regulations. The Respondent has pointed out that the claim of the Petitioner for O&M expenses on the basis of the actual expenditure for the period 2014-18 is contrary to the above said Regulations. Accordingly, the Respondent has prayed that the Commission may consider the O&M expenses for the generating station in accordance with Regulation 29 (3) (c) of the 2014 Tariff Regulations.

64. The claim of the Petitioner for O&M expenses are as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
5787.13	7145.75	8907.69	9192.01	9802.36

65. As stated, the capital cost of ₹188465.54 lakh has been allowed as on cut-off date i.e. 31.3.2016. The Rehabilitation & Resettlement cost of ₹220.03 lakh upto cut-off date has been considered for calculating O&M expense for the period 2014-19. Accordingly, O&M expenses allowed in terms of above Regulations for the first year of the generating station (2013-14) is as under:

(₹ in lakh)

Total capital expenditure up to cut-off date	188465.54
Less R & R Expenditure	(-) 220.03
Capital cost considered for O&M expenses (excluding R&R expenses)	188245.51
O&M Expenses @2% of capital cost for 2013-14 (188295.51 x 2%)	3764.91
O&M Expenses for 2013-14 (escalated by 6.04% of above)	-
Average O&M Expenses for 2013-14 at 2013-14 price level	3764.91

66. The above average O&M expenses of ₹3764.91 lakh for 2013-14 has been escalated @6.64% per annum to arrive at the O&M expenses in the respective year

of the period 2014-19. Accordingly, O&M expenses has been worked out and allowed as under:

(₹ in lakh)

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

Interest on Working Capital

67. 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 hydroelectric 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."

Rate of interest on working capital

68. 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."

69. In terms of the above regulations, interest on working capital is worked out as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	602.24	642.22	684.87	730.34	778.84
O & M expenses	334.58	356.79	380.48	405.75	432.69
Receivables	6246.81	6174.17	6051.72	5776.34	5726.15
Total	**7183.62**	**7173.19**	**7117.07**	**6912.42**	**6937.68**
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**969.79**	**968.38**	**960.80**	**933.18**	**936.59**

Annual Fixed Charges

70. Based on the above, the annual fixed charges approved for the generating station is summarized as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	11559.54	11733.24	11886.90	11985.24	12083.31
Interest on Loan	11603.62	10579.11	9302.87	7197.56	6390.60
Depreciation	9332.98	9482.81	9594.00	9673.10	9754.19
Interest on Working Capital	969.79	968.38	960.80	933.18	936.59
O & M Expenses	4014.90	4281.49	4565.78	4868.95	5192.25
Total	**37480.84**	**37045.03**	**36310.35**	**34658.02**	**34356.93**

Normative Annual Plant Availability Factor (NAPAF)

71. In terms of Regulation 37(4) of 2014 Tariff Regulations, NAPAF of 85% has been considered for the generating station for the period 2014-19.

Design Energy (DE)

72. The CEA in TEC dated 3.7.2014 has approved the annual DE of the generating station as 6612 MUs. The same has been considered for the purpose of tariff of the generating station. The month-wise details are as under:

Month	10 days Daily	Design Energy (MU)
April	I	6.91
	II	8.73
	III	14.46
May	I	10.37
	II	10.59
	III	20.15
June	I	19.03
	II	29.04
	III	28.76
July	I	30.10
	II	30.10
	III	33.11
August	I	30.10
	II	30.10
	III	33.11
September	I	28.37
	II	20.60
	III	25.50
October	I	22.54
	II	23.69
	III	24.55
November	I	13.03

	II	7.27
	III	6.20
December	I	8.78
	II	8.09
	III	6.35
January	I	8.13
	II	7.52
	III	7.92
February	I	6.06
	II	6.01
	III	4.70
March	I	7.36
	II	7.72
	III	9.02
Total		594.07

Application Fee and Publication Expenses

73. The Petitioner has sought reimbursement of filing fee of ₹2904000/- and also the expenses incurred towards publication of notices in the application of tariff for the period 2014-19. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations, the Petitioner is entitled to recover the filing fees and the expenses incurred on publication of notices for the period 2014-19 directly from the Respondent on submission of documentary proof.

74. In addition, the Petitioner is entitled recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2014 Tariff Regulations.

75. The annual fixed charges approved for the period 2014-19 as above are subject to revision based on the truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations. The tariff recovered by the Petitioner in terms of the earlier orders of this Commission shall be adjusted against the tariff determined by this order.

76. Petition No. 320/GT/2018 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-
(I.S.Jha)	**(Dr. M.K.Iyer)**	**(P.K.Pujari)**
Member	**Member**	**Chairperson**