CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No.354/GT/2018

Coram:

Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member

Date of Order: 24th January, 2021

In the matter of

Petition for determination of tariff in respect of Teesta Low Dam Power Station, Stage-IV for the period from 11.3.2016 (COD of first unit) to 31.3.2019

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 Rajiv Shankar Dwiwedi, Advocate, NHPC
Shri S.R. Sarkar, Advocate, NHPC
Shri Mohd. Faruque, NHPC
Shri Prashant Kaul, NHPC
Shri M.G. Ramachandran, Senior Advocate, WBSEDCL
Ms. Anushree Bardhan, Advocate, WBSEDCL
Ms. Tanya Sareen, Advocate, WBSEDCL

ORDER

This petition has been filed by the Petitioner, NHPC Ltd for approval of tariff of Teesta Low Dam Project Stage-IV (4 x 40 MW) (hereinafter referred to as "the generating station") from the date of commercial operation (COD) of Unit-I to 31.3.2019 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 'the 2014 Tariff Regulations').

2. The generating station comprises of 4 units of 40 MW capacity each and is situated on river Teesta in the district of Darjeeling in the State of West Bengal. The project was sanctioned by the Cabinet Committee on Economic Affairs, Government of India on 30.9.2005 at the cost of ₹1061.38 crore (Including IDC & FC of ₹69.71 crore) at March 2005 price level. The generating station has been designed as a ROR (run-of-river) project with small pondage. In terms of approval of the Cabinet Committee on Economic Affairs (CCEA) on 30.9.2005, all units of the generating station were scheduled to have been put under commercial operation within 48 months of the approval i.e. by 30.9.2009. However, there is a time overrun of 83 months in the completion of the project, with the unit-wise dates of commercial operation as under:

Units	**COD**
Unit I	11.3.2016
Unit II	31.3.2016
Unit III	17.7.2016
Unit IV / generating station	19.8.2016

3. As per Memorandum of Understanding (MOU) signed with the State of West Bengal, the Respondent, West Bengal State Electricity Distribution Company Limited (WBSEDCL), is the sole beneficiary of this project and full power from the generating station is allocated to the Respondent, WBSEDCL vide Ministry of Power, Government of India letter dated 10.6.2015.

Background

4. Petition No. 107/GT/2016 was filed by the Petitioner for approval of tariff for the 2014-19 tariff period in accordance with the 2014 Tariff Regulations from actual COD of Unit-I

(11.3.2016) and Unit-II (31.3.2016) and from anticipated COD of Units-III (30.6.2016) and Unit-IV (30.9.2016) till 31.3.2019. The Commission vide order dated 8.11.2016 granted interim tariff based on the original sanctioned cost of the project without considering the time and cost overrun, pending determination of final tariff of the generating station. The relevant portion of the order dated 8.11.2016 is extracted hereunder:

> *"7. In the present case, there is time over run of 84 months (approx) in the completion of the project. Consequent upon the time overrun, the capital cost of this project has increased from ₹1061.38 crore (including IDC & FC of ₹69.71 crore) to the completion cost of ₹1837.62 crore (including IDC & FC of ₹423.71 crore and excluding normative IDC of ₹44.46 crore). The petitioner in the petition has furnished the reasons for the delay in the commissioning of the units and the respondent, WBSEDCL in its preliminary reply has submitted that the reasons for the delay may not be acceptable. In our considered view, the question of time overrun and cost overrun involved in the completion of the project and its impact on capital cost is required to be considered in detail, after hearing the parties on merits, based on the report of the DIA and the submissions of the parties thereof, at the time of determination of final tariff of the generating station. Accordingly, the question of time and cost overrun has not been considered in this order.*
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> *xxxx*
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> *10. The petitioner has claimed completion cost of ₹188208.71 lakh as on cut-off date i.e., 31.03.2019. The DIA report on vetting of capital cost and the approved RCE from the Central Government is pending. Considering the fact that the project involves significant time and cost overrun, we grant interim tariff from the actual/anticipated COD the said units i.e. from 11.3.2016 to 31.3.2018, based on the original sanctioned cost of ₹106138.00 lakh, pending the determination of final tariff of the generating station from COD of the units till 31.3.2019.*
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> *11. Based on the above, the interim fixed charges allowed for the generating station for the period from 11.3.2016 (COD of Unit-I) till 31.3.2018 are as under:*

(₹ in lakh)

	11.3.2016 to 30.3.2016	***31.3.2016***	***1.4.2016 to 29.6.2016***	***30.6.2016 to 29.9.2016***	***30.9.2016 to 31.3.2017***	***1.4.2017 to 31.3.2018***
Return on Equity	*80.45*	*8.06*	*725.60*	*1160.68*	*3235.59*	*6585.42*
Interest on Loan	*95.12*	*9.52*	*732.74*	*1087.75*	*3035.45*	*6007.98*
Depreciation	*32.86*	*3.29*	*296.32*	*474.00*	*1321.36*	*2689.38*
Interest on Working Capital	*2.15*	*0.18*	*29.12*	*45.27*	*177.93*	*599.73*
O&M Expenses	*57.50*	*5.75*	*518.92*	*795.67*	*2110.26*	*4488.48*
Total	***268.07***	***26.81***	***2302.70***	***3563.38***	***9880.60***	***20370.99***

> *12. The interim tariff allowed as above is subject to adjustment after determination of final tariff of the generating station for the period 2015-19 in accordance with the provisions of the 2014 Tariff Regulations."*

5. Thereafter, the petition was heard along with interlocutory application (IA No. 63/2016) filed by the Respondent WBSEDCL seeking production of documents/ information from the Petitioner. The Commission vide order dated 3.1.2017 disposed of the petition and IA with a direction to the Petitioner to file fresh tariff petition considering the actual COD of the Units along with the DIA Report and approved RCE (Revised Cost Estimate). The Petitioner was also directed to take into consideration the documents/ information sought for by the Respondent in the said IA while filing the tariff petition. Accordingly, the interim tariff as granted vide order dated 8.11.2016 *(as per table under para 4 above)* was directed to be continued till further orders or till the determination of final tariff of the generating station. The relevant portion of the order dated 3.1.2017 is extracted below:

> *"7. Keeping in view the submission of the petitioner that RCE and DIA report may take some more time and considering the fact that the petition along with tariff filling forms is required to be amended based on the actual COD of the Units III & IV, we find no reason to keep the petition pending. Accordingly, we are inclined to dispose of the petition with the direction to the petitioner to file fresh tariff petition based on actual COD of the Units along with the DIA report and the approved RCE. While doing so, the petitioner shall also take into consideration the documents/ information sought for by the respondent, WBSEDCL in the said IA. We order accordingly.*
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> *8. We further direct that the interim tariff granted vide order dated 8.11.2016 shall continue to be in operation until further orders or till the determination of final tariff. The filling fees deposited by the petitioner in this petition shall however be adjusted against the fresh petition to be filed in terms of the above directions"*

6. Subsequently, by communication dated 3.7.2018, the Petitioner was advised to file tariff petition in respect of its generating stations by enclosing, inter alia, (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.

Present Petition

7. The Petitioner has filed this petition for approval of tariff for the period from COD of Unit-I (11.3.2016) to 31.3.2019 based on the actual expenditure (duly audited) incurred upto 31.3.2018 and the projected additional capital expenditure for 2018-19 in accordance with

the 2014 Tariff Regulations. Subsequently, the Petitioner vide its affidavit dated 6.3.2020 has revised the additional capital expenditure for the year 2018-19 on actual basis. The Commission vide ROP of the hearing dated 11.2.2020 had also directed the Petitioner to furnish, amongst others, the following information duly certified by the Auditor:

a) Statement showing break-up of the capital cost for tariff as on COD of each unit into hard cost and all components of the soft cost, duly certified by Auditor;

b) Reconciliation between the actual cash expenditure for every year considered for calculation of normative IDC and the balance sheet of the respective year, duly certified by Auditor;

c) Reconciliation between the additional capital expenditure claimed for tariff and that as per books of account, duly certified by Auditor.

8. In response, the Petitioner vide its affidavit dated 6.3.2020 has submitted that the Auditor's certification in respect of the information as asked in ROP has not been feasible within the stipulated time and audited truing-up tariff petition for this project for the period 2014-19 shall be filed within three months from the date of issue of instant tariff order. The submission of the Petitioner is extracted below:

> *"The replies to point nos. (xiv), (xvii) & (xxvi) are prepared based on audited tariff petition submitted in CERC and as per audited balance sheet of 2018-19 (copy enclosed). Auditing of this data at this juncture within the stipulated time limit is practically not feasible as following activities are required to be undertaken:*
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> *1. Appointment of Auditor.*
> *2. Co-ordination with Teesta Low Dam –IV Power station.*
> *3. Co-ordination with Finance, Law and other department of NHPC.*
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> *However, audited truing up tariff petition for this project for 2014-19 shall be filed within three months of issue of tariff order as per the direction of Hon'ble Commission. The Hon'ble Commission is requested to kindly accept the submission of unaudited reply for finalization of tariff for the period 11.03.2016 (COD) to 31.03.2019."*

9. Since the aforesaid information sought vide ROP dated 11.2.2020 is necessary for the final determination of capital cost as on COD and for the additional capitalization, including discharge of liabilities after COD, the capital cost claimed as on COD and the additional capitalization has been considered at present, for the purpose of tariff in this order. It is, however, made clear that the tariff determined as such, is subject to the Petitioner furnishing

audited certificate in respect of the above documents at the time of truing-up of tariff in respect of this generating station.

10. The Petitioner vide its affidavit dated 17.10.2018 has submitted that the Revised Cost Estimate of the project has been approved by the Board of Directors of the Petitioner company in its 417th meeting held on 10.8.2018 for ₹2404.95 crore and the same has been submitted vide letter dated 23.1.2018 to CEA (Central Electricity Authority) for its recommendation. The Petitioner has submitted that it had engaged M/s Aquagreen Engineering Management Private Limited as Designated Independent Agency (DIA) in terms of Regulation 7 of the 2009 Tariff Regulations, for vetting of the capital cost of the generating station vide letter dated 5.5.2014 and the DIA in its report dated 13.11.2018 has recommended the capital cost of ₹1546.88 crore as on COD of the generating station. The Petitioner has also submitted that the hard cost of the project has been vetted by CEA vide its letter dated 7.12.2018 for ₹1410.12 crore and submitted the same to MOP, GOI. The Petitioner has further submitted that the Revised Cost Committee (RCC) constituted by MOP, GOI in its 2nd meeting held on 28.8.2019 has proposed to recommend in its report, the completion cost of ₹1782.52 crore (excluding contingent liabilities) with a time overrun of 83 months and cost overrun of ₹721.14 crore. The Petitioner has, however, stated that report is yet to be finalized by RCC. The Petitioner is, therefore, directed to place on record the final recommendation of RCC along with RCE approved by the Govt. of India as and when the same are available. The annual fixed charges claimed by the Petitioner in this petition are as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
Depreciation	1100.61	2201.14	2200.97	3291.63	4439.28	4494.82	4586.06
Interest on Loan	2636.92	5535.08	5499.04	7670.76	10255.89	9768.15	9506.22

Return on Equity	2714.47	5432.98	5390.06	8103.87	10932.78	11140.68	11310.56
Interest on Working Capital	253.52	513.14	511.32	753.88	1009.92	1032.65	1062.37
O & M Expenses	1900.79	3801.57	3801.57	5702.36	7603.14	8107.99	8646.36
Total annual fixed charges (annualized)	**8606.31**	**17483.91**	**17402.96**	**25522.50**	**34241.01**	**34544.29**	**35111.57**
Total annual fixed charges (Pro-rata)	470.29	47.77	5101.69	2307.51	21107.47	34544.29	35111.57

11. In compliance with the directions of the Commission, the Petitioner has filed the additional information vide its affidavits dated 6.3.2019, 17.6.2019, 16.7.2019 and 26.9.2019. The Respondent, WBSEDCL has filed its objections/ replies vide affidavits dated 20.3.2019, 20.6.2019 and 12.9.2019. The Petitioner vide its affidavit dated 30.10.2019 has filed its rejoinder to the reply dated 12.9.2019 of the Respondent. The Commission, after directing the Petitioner to submit certain additional information, reserved its order in the petition on 11.2.2020. In compliance with the said directions, the Petitioner has furnished the additional information vide its affidavits dated 6.3.2020 and 27.4.2020 respectively.

12. The Respondent WBSEDCL in its reply affidavit dated 12.9.2019 has submitted that the Petitioner, despite specific directions of this Commission, has not furnished the required information as sought for by the Respondent. It has submitted that the Petitioner has not furnished the Deliverable I and II of the DIA report and the record of Deliverable III (annexure to the said report). The Respondent has also submitted that the Petitioner has not given complete details with regard to the Insurance money and Liquidated damages received for consideration towards the project cost. Accordingly, the Respondent has submitted that the Commission may take adverse inference against the Petitioner for its failure to furnish the requisite information. The Petitioner in its rejoinder affidavit dated 30.10.2019 has clarified that in compliance with the directions of the Commission vide ROP dated 27.8.2019, the

Petitioner had filed the additional information on 27.9.2019 with copy to the Respondent. It has also submitted that while the entire report of DIA with annexure has been submitted by the DIA to the Commission, the copy of the final DIA report has been furnished by the Petitioner to the Respondent. The Petitioner has also stated that the Deliverables I & II are the interim official document provided by the Petitioner to DIA for preparation of appraisal report and the gist of information has already been conveyed in the final report. The Petitioner has added that all relevant documents have been provided to the Respondent WBSEDCL vide its submission dated 9.3.2019. Accordingly, the Petitioner has prayed that the contentions of the Respondent are not appropriate. In view of the clarification by the Petitioner and in consideration of the submissions made by the parties, we proceed to determine the tariff of the generating station in terms of the 2014 Tariff Regulations, on prudence check, as discussed in the subsequent paragraphs.

Time Overrun

13. The Petitioner has submitted that as per CCEA approval dated 30.9.2005, the estimated cost of the project was ₹1061.38 crore at March 2005 price level and the project was to be completed within 48 months from date of accord of CCEA approval. However, due to reasons beyond the control of the Petitioner, the generating station has been put under commercial operation in August 2016, with the total cost of ₹2404.95 crore, with a cost overrun of ₹1343.58 crore and time overrun of 83 months. The reasons for the time overrun of 83 months in the completion of the project, as submitted by the Petitioner, are on account of the following:

a) Delay due to handing over of land and clearing of trees/forest materials from construction area (10.5 months);
b) Delay due to strike by GJMM/CITU/Bharat bandh (16.43 months);
c) Delay due to Floods (11.5 months);
d) Delay due to strengthening of left bank slope (9.5 months);

e) Delay due to additional works (4.77 months);

f) Delay due to cash crunch/financial crisis of civil contractor and subsequent effect (29.3 months); and

g) Delay due to massive earthquake on 18.9.2011(1 month)

14. As stated, CEA vide its letter dated 7.12.2018 has recommended the capital cost of the project for ₹1412.10 crore. However, with regard to time overrun, CEA has only observed that the project was to be completed by NHPC within a period of 4 years i.e. 30.9.2009, in terms of the sanction of CCEA during 2005. CEA has neither analyzed nor made any recommendations on time overrun of the project, rather it has only stated that there is a total time overrun of about 83 months in the completion of the project, as stated by NHPC and that the works of the project got delayed due to delay in land acquisition, strikes called by GJMM, flash floods, left bank slope failure, financial crises of the civil contractor, additional work and massive earthquake etc. As stated, the Petitioner had engaged M/s Aquagreen Engineering Management Pvt. Ltd as DIA for vetting of the capital cost of the generating station and the Respondent WBSEDCL has furnished its comments on the said report.

15. The Respondent, WBSEDCL vide its reply affidavit dated 12.9.2019 has submitted that the Petitioner has furnished inconsistent data and information in Petition No. 107/GT/2016 (the earlier petition wherein interim tariff was granted) and Petition No.354/GT/2018 (present petition) in respect of time overrun, under heads like land acquisition, river diversion, power dam left bank non-overflow and spillage etc. It has further submitted that the planned schedule accepted by the DIA in the present petition is different from the actual planned schedule approved by the CCEA (as submitted in Petition No. 107/GT/2016). The Respondent has also stated that discrepancies could be noticed in the timeline provided for completion of activities like infra & clearances, first phase river diversion, power house excavation etc. It has also submitted that the DIA has wrongly

proceeded to hold that these timelines are as per schedule. In response, the Petitioner in its rejoinder dated 30.10.2019 has submitted that the Petition No. 107/GT/2016 was disposed of by the Commission vide order dated 3.1.2017 and in terms of this order, the present petition has been filed and relevant documents have been submitted with copy to the Respondent. The Petitioner has also clarified that the Petitioner in its submission dated 4.6.2019 has stated that the date of CCEA clearance is the zero date for project construction and DIA has also taken the start date immediately after the zero date. The matter has been examined. It is noticed that Petition No.107/GT/2016 had been disposed of by the Commission on 3.1.2017, with a direction to the Petitioner to file fresh tariff petition based on actual COD of the units, along with the DIA report and the approved RCE. It was also made clear in the said order that the Petitioner shall also take into consideration the documents/ information sought for by the Respondent, WBSEDCL while filing the said petition. In accordance with the said direction, the Petitioner has filed the present petition afresh, with copy to the Respondent. In view of the fact that Petition No.107/GT/2016 has been disposed of and the present petition has been filed in terms of our direction, as per actual COD of the units, we find no reason to entertain the submissions of the Respondent.

16. It is observed that the Respondent WBSEDCL in Annexure 'A' of its reply has undertaken detailed analysis of the time overrun, considering the activities on critical path, as claimed by the Petitioner. The Respondent WBSEDCL has submitted that the maximum time overrun that can be allowed in the present case is only 31 months as against the delay of 83 months claimed by the Petitioner since the claim for the balance period of 52 months is not justified. It has submitted that the project should have been completed by 30.4.2012 and therefore, the Respondent has been deprived of the supply of power from the project during the period from 1.5.2012 till 19.8.2016 when all the four units were commissioned, causing substantial financial prejudice to the Respondent on account of arranging the power

requirement at a higher cost. The Respondent has contended that as per the allowable time overrun of 31 months i.e. project completion and commissioning by 30.4.2012 and proper application of prudency, the capital cost admissible cannot exceed ₹1450.89 crore and the tariff need to be computed based on the said project cost only. The Respondent has stated that the Petitioner has caused substantial financial loss to the Respondent by, firstly, delaying the commissioning of the project as a whole, till 19.8.2016, and further claiming an increased project cost to ₹2404.95 crore. Taking into consideration the submissions of the parties, the report of the DIA dated 13.11.2018 on time overrun and the observations of RCC constituted by MOP, GOI, we examine, the issue of time overrun involved in the project, as stated in the subsequent paragraphs:

17. The Petitioner has submitted the following reasons for the delay in the commissioning of the project:

Sl. No.	Description of hindrances	Delay Period (in months)	Remarks
A	**Delay due to handing over of land and clearing of trees/forest materials from construction area**		
	a) Delay in handing over of land from Forest Department	7	CCEA clearance was received on 30.09.2005 but the forest land was partially handed over by forest department of State Government in the month of April, 2006. Thus there is total delay of 7 months from CCEA clearance before start of construction activities from May 2006.
	b) Non-felling of trees and non-settlement of Eco-tourism spot at right bank by State Forest Department	0.5	Just after the mobilization period, diversion channel excavation activity was delayed due to this reason
	c) Non-felling of trees and non-removal of tree logs at left bank.	3	Due to non-felling of trees and non-removal of tree logs, the excavation activities for power house and Tail Race Channel (TRC) on left bank could not be taken up. This delay hampered the activities of the Power house and TRC
	Sub-Total	**10.5**	
B	Delay due to Strike by GJMM/ CITU/ Bharat Bandhs	16.43	GJMM/ CITU Strikes & Bharat Bandh in 2008, 2009, 2010 and 2011 hampered the complete site works. The net effective delay has been

			considered as 16.43 months
C	**Delay due to Flash floods**		
	a) Flash floods in 2007 & subsequent effects	5.5	The coffer dam and dyke got damaged and this event inundated the construction area which resulted in complete halt of construction activities. The construction site was filled with slush, which was cleaned after floods. The access roads to site were also damaged, which was restored after lapse of considerable time. Therefore net effective day considered is 5.5 months.
	b) Flash floods in 2009 & subsequent effects	6	The entire region of Sikkim and North Bengal was under influence of 'Alia Cyclone' in May, 2009, which led to heavy rain resulting in huge discharge in river. Due to the same, the Coffer Dyke was over toppled and coffer dam, Bailey bridge and dykes were damaged. The restoration of work took 6 months additional times.
	Sub Total	**11.5**	
D	Delay due to strengthening of left bank slope	9.5	After flash flood in 2007, the left Bank Slope protection works were repaired and reinstalled, which took additional time. Further, due to sandy slope material and apprehension of large slip circles failure, the work was carried out diligently, resulting in time overrun of 9.5 months.
E	Delay due to additional works	4 .77	Tail Race Channel wall was not envisaged in the original design, but during construction. The same was required due to sandy strata at site. TRC wall comprises approx. 35000 cum concreting for which net time of 4.77 months has been considered for time overrun.
F	Delay due to cash crunch/ financial crisis of Civil Contractor and subsequent effect	29.3	Work was badly hampered due to non-availability of resources with Civil Contractor during January, 2012 to August, 2012 and from March, 2013 to December, 2014.
G	Delay due to massive Earthquake which occurred on 18.9.2011	1	Due to massive Earthquake in September 2011, panic situation/ fear psychosis created and most of the labors left the site. It took almost one month to achieve desired pace of work.
	Total delay	**83**	

A. Delay due to handing over of land and clearing of trees/forest materials from construction area

18. The Petitioner has submitted that there has been a total delay of 10.5 months due to handing over of land and clearing of trees/ forest materials from construction area. To this, the Respondent WBSEDCL has submitted that as per project planning approved by CCEA, the forest land acquisition was scheduled to be completed by 30.4.2006. It has stated that the land required for construction purpose (43.06 ha at R/B plus 76.06 ha at L/B) for main project components was received by the Petitioner from the Forest department on 28.4.2006 and, therefore, the land for main project components was acquired by the Petitioner in time and the delay of 7 months for this activity may not be allowed. As regards the delay of 15 days (0.5 month) due to non-felling of trees and non-settlement of Eco-tourism spot at right bank by the State Forest Department, the Respondent has submitted that the Petitioner had not mentioned the non-settlement of Eco-tourism spot at right bank by State forest Department as a reason of delay in Petition No.107/GT/2016 and, therefore, the delay of 15 days for the same may not be allowed. As regards the delay of 3 months due to non-felling of trees and non-removal of tree logs at left bank, the Respondent has submitted that the Petitioner in Petition No.107/GT/2016 had claimed that the construction of road to major works started from 1.7.2006 after acquisition of initial phase of land on 28.4.2006. Therefore, it is obvious that non-felling of trees and removal of log from project site was not any hindrance since 1.7.2006. According to the Respondent, at best, the 2 months of time overrun (after acquisition of forest land) for the hindrance faced by the Petitioner for non-felling of trees and removal of log from project site may be allowed. In response, the Petitioner has stated that the head start date considered as 30.4.2006 for delay due to infra & clearance, instead of zero date of the project (30.9.2005) has been rectified in the present petition. It has stated that after land acquisition, M/s HCC started the work on 1.5.2006 with

delay of 7 months. According to the Petitioner, this delay of 7 months also impacted the achievement of 1st milestone (1st Phase river diversion) by 15 days. The Petitioner has further stated that from February 2007 to till October 2007, the tree felling work could not be taken up by the Forest Department. It has submitted that M/s HCC could take up the construction work as and when the land/site became available for construction and the construction of Bailey bridge could be completed on 12.4.2007. As such, the excavation activities for power house and TRC on left bank could not be taken up and accordingly, the parallel construction schedule got affected causing delay of 3 months. The DIA in its report and RCC in its recommendations have condoned the total delay of 10.5 months on this count.

19. The matter has been examined. It is evident from the above submissions that the head start date of the first activity i.e. infra & clearances considered is from the date of CCEA approval i.e. 30.9.2005. The forest land was handed over to the Petitioner by the State Forest Department during April, 2006. Only after land acquisition, the contractor M/s HCC had commenced the construction work from 1.5.2006. Thus, there has been a delay of 7 months from CCEA approval before the start of the construction activities, which in our view is not attributable to the Petitioner. It is also noticed from the 'construction schedule' furnished, that the achievement of first milestone (i.e. first phase river diversion work) was impacted for 15 days due to non-felling of trees and non-settlement of Eco-tourism spot, which in our view is beyond the control of the Petitioner. Further, the submission of the Respondent that only two months delay can be condoned since the construction of road to major works started from 1.7.2006 after acquisition of initial phase of land on 28.4.2006 is incorrect. It is clear from the submissions of the Petitioner that for the period from February 2007 till October 2007, the tree felling work could not be taken up by the State Forest Department, thereby delaying the excavation activities for power house and TRC for a period of three months from February 2007 to April 2007. This delay of three months cannot be

attributed to the Petitioner. In view of the above discussion, we hold that time over-run of 10.5 months due to delay in handing over forest land and clearing of trees/ forest materials from construction area is not attributable to the Petitioner and the same is condoned.

B. Delay due to Strike by GJMM/ CITU/ Bharat Bandh

20. The Petitioner has submitted that GJMM/ CITU strikes and Bharat Bandh in 2008, 2009, 2010 and 2011 had hampered the site works, thereby causing a delay of 16.43 months in completion of the project. The Respondent has submitted that the total delay of 10.5 months during the years 2008, 2009, 2010 and 2011 on account of strike as submitted in Petition No. 107/GT/2016 may only be allowed. The Petitioner has stated that RCC in its recommendations has agreed to justification provided by the Petitioner on this count and hence the same may be considered.

21. The matter has been examined. We notice that the Respondent has not opposed the fact of incident of strike, but has only objected to the period to be considered (10.5 months as per Petition No.107/GT/2016). DIA in its report has agreed that the strike by locals/ bandhs and its subsequent effects have adversely affected work progress. DIA in its final recommendation has held that time overrun of 54 months was beyond the control of the petitioner and has only disallowed 29 months (i.e 83 - 54) of delay caused by cash crunch/ financial crisis of civil contractor and its subsequent effects. As such, it is construed that the delay of 16.43 months as claimed by the Petitioner due to strikes and its subsequent effects has been agreed by DIA based on its activity based analysis of time overrun. RCC has also condoned the delay for this reason. Accordingly, based on DIA findings and RCC observations and on prudence check, we condone the delay of 16.43 months, as claimed by the Petitioner.

C. Delay due to Flash floods

22. The Petitioner has submitted that there has been a delay of 5.5 months due to impact of flash floods during the years 2007 and 2009 respectively. To this, the Respondent has pointed out that the Petitioner has indicated that the design diversion flood for the project situated at upstream was revised as 4700 cumec and accordingly, for the generating station, which is situated downstream of TLDP-III project, the diversion flood should be more than 4700 cumec. It has, however, stated that the Petitioner has not submitted the flood peak data authenticated by the Central Water Commission (CWC). It has also stated that CWC has submitted annual flood peak value for TLDP-III project from 2004 to 2011 to the Respondent and as per the said report, the annual flood peak for TLDP-III project for 2007 was 4387 cumec. This flood peak value when transposed to this project works out to 4510 cumec, which is less than 4700 cumec and hence, the diversion structure should have withstood the flash floods in 2007. Accordingly, the Respondent has submitted that the delay due to flash flood in 2007 may not be allowed. The Petitioner has clarified that the conversion of flood peak value of TLDP-III project to this project (TLDP-IV) is without any basis. It has stated that during the month of July 2007, the project witnessed flash floods due to heavy rainfall in the catchment area and due to this, the coffer dams and dyke got damaged and this inundated the construction area, which resulted in complete halt of the construction activities of the dam and power house. The Petitioner has stated that the construction site was filled with huge debris/ slush and the access roads to site were also damaged, which could be restored after lapse of considerable time.

23. The matter has been examined. As pointed out by the Petitioner, the conversion of flood peak value of TLDP-III to TLDP-IV (this generating station) by the Respondent has no basis. DIA has stated that flash floods had occurred in July 2007 and May 2009 and the

slush removal after flash floods accumulated in project component delayed progress of the project by 5.5 months and 6 months respectively and DIA has considered total delay of 11.5 months due to flash floods. RCC has also allowed the time overrun of 11.5 months as submitted by the Petitioner. Accordingly, we accept the submissions of the Petitioner and condone the delay of 5.5 months due to flash floods in 2007 as the same was beyond the control of the Petitioner. Similarly, the delay of 6 months due to impact of flash floods (Cyclone Aila in 2009) has also been condoned.

D. Delay due to strengthening of left bank slope

24. The Petitioner has submitted that there has been a delay of 9.5 months due to delay in the strengthening of left bank slope. To this, the Respondent has submitted that slope failure, which happened at left bank during excavation of dam foundation was due to inadequate measures taken by the Petitioner to prevent the failure of left bank slope. Referring to the DPR Vol-IV (Site Investigation and Geology), the Respondent has stated that the slope failure at left bank was well predicted during excavation of the power house and thus, the slope failure was not a geological surprise and it was an anticipated risk. Accordingly, the Respondent has submitted that the delay due to lapses on the part of the Petitioner may not be allowed. In response, the Petitioner has clarified that during the excavation of left bank cut slope, the slope between berm I and II (between EL ±240 M-EL ±216 M) slid in June 2008 due to excessive rainfall/ flash flood resulting in merging of benches. It has also stated that remedial measures such as bamboo piling/ surface drainage, boulder crates were provided immediately so as to arrest further damage. The Petitioner has pointed out that though the vulnerability of the left bank was apprehended while preparing the DPR and suitable remedial measures were proposed, the slope got further deteriorated due to sudden and unprecedented rainfall/ flash flood during excavation and finally a part of the slope failed. According to the Petitioner, even if a small portion of the slope fails, it jeopardises the stability

of the entire cut face and neighbouring areas are also affected. The Petitioner has submitted that as the restoration of the slope took considerable time, the same has resulted in a delay of 9.5 months, which may be condoned. DIA in its report has stated that the delay due to strengthening of left bank slope was due to heavy rains during 2008 and the protection measures were washed out, which hampered the major construction activities in power dam, power house and TRC. RCC has also allowed the time overrun of 9.5 months.

25. The matter has been examined. It is noticed that due to flash floods in 2007, the dewatering and slush removal continued till 17.12.2007. Also, due to heavy rainfall in 2008, the slope protection measures were washed out and the left bank slope got further deteriorated which hampered the major construction activities in power dam, power house and TRC. We have in paragraph 23 above, condoned the delay due to flash floods. In this background and considering the fact that failure of left bank slope due to rainfall and the restoration of the same took considerable time, we are of the view that the delay on this count was beyond the control of the Petitioner. DIA on this matter has observed that due to heavy rains in 2008, protection measures were washed out which hampered the major construction activities in power dam, power house and TRC. The left bank slope management was carried out which further delayed this activity by 9.5 months. DIA has also considered the delay of 9.5 months due to left bank slope management as beyond control of the Petitioner. Similarly, RCC has also allowed the time overrun of 9.5 months as submitted by the Petitioner. In this backdrop, we condone the delay of 9.5 months on this count.

E. Delay due to additional works

26. The Petitioner has submitted that theTail Race Channel wall was not envisaged in the original design, but during construction, the same was required due to sandy strata at site. It has stated that the TRC wall comprises of concreting to the tune of approximately 35000

cubic meter for which a time overrun of 4.77 months had occurred. The Respondent has submitted that the actual period of delay due to additional work has not been substantiated by the Petitioner with sufficient documents. It has also pointed out that neither the Petitioner nor the DIA has recorded that the approval of CEA has been obtained for the additional work. The Respondent has however submitted that the delay of 4.77 months as recommended by DIA may be allowed. The submissions have been examined. Considering the fact that the construction of TRC was not envisaged during the DPR stage, but the need arose later, we condone the period of delay of 4.77 months on this count, in terms of the recommendations of the DIA and the report of RCC.

F. Delay due to cash crunch/ financial crisis of Civil Contractor

27. The Petitioner has submitted that there has been a delay of 29.3 months as the work was badly hampered due to non-availability of resources with the contractor during the period from January 2012 to August 2012 and from March 2013 to December 2014. To this, the Respondent in its reply has submitted that considering the allowable delay period mentioned above (Sl nos. A to E above) including the delay of one month due to earthquake, the civil works should have been completed by 15.7.2011. Accordingly, the Respondent has submitted that the delay during the aforesaid period should have been avoided and hence cannot be allowed. The Petitioner in its rejoinder has placed a copy of the relevant communication between M/s HCC and the Petitioner with regard to cash crunch in M/s HCC and has submitted that DIA has done detail verification of the documents for delay due to cash crunch in M/s HCC and found that the Petitioner has made all efforts to complete the project.

28. The matter has been examined. It is observed that DIA in its report has recommended that the delay of 29.3 months due to cash crunch of M/s HCC, the civil contractor of the Petitioner may be condoned. DIA in its report has observed as under:

> *"However, the generating company has represented this matter to DIA for consideration of 29 months of time overrun. The detail verification of the documents made available by the generating company for delay due to cash crunch of contracting company has been done. On perusal of the reply from the petitioner, the DIA found that the generating company has made all effort to complete the project. According to Generating Company, they were willing to terminate the contractor but contractor moved to high court and got stay order on termination of contract. Hon'ble High Court had given the judgment to relook the termination of the contract. At the same time, the generating company had also appointed an independent consultant to find the best possible method to complete the project. The consultant had advised to keep the existing contractor by giving financial support. So, the generating company had followed the advice of consultant. Considering the order passed by the Hon'ble Calcutta High Court against the termination of contract, M/s NHPC has gone ahead, retained and provided financial assistance to the contractor in line with the suggestions of the independent consultant. In view of the situation and order of Calcutta high court this seems to be in order.*

29. RCC in its report has opined that the pre-emptive hit of ₹200.52 crore which had been booked by the Petitioner in its Profit & Loss Account, is adequate to provide for the delay on account of cash/ financial crunch of the civil contractor. RCC has also recorded that it was not the fault of the Management and no person/ individual can be held responsible for the said delay and accordingly, the delay of 29.3 months has been recommended to be allowed as claimed by the Petitioner. However, we note that RCC has expressed its concern with regard to the delay in completion of project on account of the financial crunch of the civil contractor and opined that the entire cost due for this delay cannot be passed on to the consumer, though it has observed that the reasons for the delay are justified. According to us, the responsibility for the timely completion of the project vests with the Petitioner and the financial crunch of the civil contractor cannot be a ground to justify the delay in the completion of the project. Though DIA in its report has observed that the Petitioner has made efforts to complete the project and had also provided financial assistance to the contractor, the same is, in our view, an internal arrangement between the Petitioner and contractor. By condoning the period of delay, the discoms/ consumers cannot be made to bear the

consequences of such an internal arrangement. In this background, we are not inclined to accept the submissions of the Petitioner and the recommendations of the DIA on this aspect and accordingly, the delay of 29.3 months due to cash/ financial crunch of the contractor is not condoned.

G. Delay due to massive Earthquake on 18.9.2011

30. The Petitioner has claimed a delay of one month due to massive earthquake on 18.9.2011 and submitted that this created panic situation/ fear psychosis and most of the labours left the site. It has also stated that it took almost one month to achieve the desired pace of work. The Respondent has submitted that one month delay may be allowed for computation of time overrun though it would not have any impact on the civil works, but only on subsequent activities like testing and commissioning etc.

31. The matter has been examined. DIA in its report has observed that the delay due to earthquake on 18.9.2011 resulted in manpower leaving the site, which had delayed major activities, including power house concreting. Since natural events like earthquakes are force majeure events which are beyond the control of the Petitioner, the delay of one month is condoned.

32. Accordingly, against the total delay of 83 months claimed by the Petitioner, delay of only 53.7 months has been condoned as summarized below:

S. No.	Description of hindrances	Delay as claimed by Petitioner	Delay allowed
1	Delay due to handing over of land and clearing of trees/forest materials from construction area		
	Delay in handing over of land from Forest Department.	7	7
	Non-felling of trees and non-settlement of Eco-tourism spot at right bank by State Forest Department.	0.5	0.5
	Non-felling of trees and non-removal of tree logs at left bank	3	3
	Sub-Total	**10.5**	**10.5**

2	Delay due to Strike by GJMM / CITU / Bharat Bandh	16.43	16.43
3	Delay due to floods		
	a) Flash Flood in 2007 & subsequent effects	5.5	5.5
	b) Flash Flood in 2009 & subsequent effects	6	6
	Sub Total	**11.5**	**11.5**
4	Delay due to strengthening of left bank slope	9.5	9.5
5	Delay due to additional works	4.77	4.77
6	Delay due to cash crunch / financial crisis of civil contractor and subsequent effect	29.3	0
7	Delay due to massive Earthquake on 18.9.2011	1	1
	Total period of delay (in months)	**83**	**53.7**

33. Considering the period of 53.7 months which has been condoned as above, the SCOD stands revised as 22.3.2014.

Cost Overrun

34. As stated, the project was originally sanctioned by the Government of India on 30.9.2005 at the cost of ₹106137.52 lakh (including IDC & FC of ₹69714 lakh). Against this, the revised completion cost as submitted by the Petitioner to MOP, GOI is ₹240495.44 lakh with a cost overrun of ₹134357.92 lakh.

35. The DIA has reviewed the details of time and cost overrun and has recommended the following capital cost, as compared to the CCEA approved cost:

(₹ in lakh)

Description	**CCEA Approved Cost (PL March 2005)**	**Revised Cost (PL Sept. 2016)**	**Expenditure up to COD (PL Sept, 2016)**	**As per the DIA**
Civil Work				
A- Direct Cost				
I - Works				
A - Preliminary	1028.72	1373.38	1373.38	1373.38
B - Land	1850.68	1589.99	1589.99	1589.99
C - Works	39951.70	78023.70	48494.42	48494.42
J - Power Plant Civil Works	12463.37	27841.49	17245.80	17245.8
K - Building	1308.03	2589.38	1847.38	1847.38
M - Plantation	21.71	21.71	0.00	0.00
O - Miscellaneous	2268.69	3361.45	3139.54	3100

P - Maintenance During Construction	549.30	1107.72	1107.72	675.87
Q - Special Tools and Plants	403.33	333.13	73.13	73.13
R - Communication	1206.11	3192.88	462.68	462.68
X - Environment & Ecology	3748.90	4340.70	3751.66	3751.66
Y - Losses on Stock	137.32	2.01	2.01	2.01
Total of I - Works	**64937.86**	**123777.53**	**79087.71**	**78655.86**
II - Establishment	3153.90	19788.46	19788.46	11374.00
III - Tools and Plants	649.29	342.92	302.92	302.92
IV- Suspense	0.00	0.00	0.00	0.00
V - Receipts and Recoveries	(-) 409.38	(-) 6931.18	(-) 6931.18	(-) 6931.18
Total Direct Cost (A)	**68331.67**	**136977.72**	**92247.90**	**83362.06**
B- Indirect Charges				
Capitalized Value of (5% of cost of cultivable land)	0.00	0.00	0.00	0.00
Audit & Accounts Charges	649.29	1175.54	1175.54	393.28
Total Indirect Charges (B)	649.29	1175.54	1175.54	393.28
Total Civil Works (A+B)	**68980.96**	**138153.27**	**93423.45**	**83755.34**
C- Electrical Works	30185.16	47651.57	42262.00	36441.31
TOTAL - Hard Cost excluding IDC & FC (A+B+C)	99166.12	185804.84	135685.45	120196.7
D- IDC & FC				
Interest During Construction (IDC)	6377.03	54371.66	54371.66	34319.99
Finance Charges (FC)	594.37	318.94	318.94	318.94
Total Soft Cost (D)	6971.40	54690.60	54690.60	34638.93
Total Capital Cost (A+B+C+D)	**106137.52**	**240495.44**	**190376.05**	**154835.58**

36. It is observed that the total of 'I-Works' indicated as ₹78655.86 lakh by the DIA in its report as above, does not match with the break-up of details and the same works out to be ₹78616.32 lakh. Total Direct Cost (A) amount of ₹83362.06 lakh has been worked out based on correct value of 'I-Works' i.e. ₹78616.32 lakh. Also, the DIA recommended capital cost of ₹154835.58 lakh as on COD excludes (i) the adjustment on 'Sale of infirm power for ₹107.77 lakh and (ii) the adjustment of the Liquidated Damages on M/s HCC for ₹39.59 lakh.

Vetting of Cost overrun by Central Electricity Authority (CEA)

37. The Petitioner has submitted completion cost as per RCE of ₹2404.95 crore (including IDC & FC of ₹546.91 crore) at September 2016 price level to CEA vide its letter dated 23.1.2018. CEA has not dealt with the soft cost component (including IDC and FC) in its

recommendations. As such, the details of hard cost of sanctioned cost at March 2005 price level and completion cost as per RCE at September 2016 price level as vetted by CEA with respective variations in hard cost is as under:

(₹ in crore)

Item	**CCEA sanctioned Cost at March 2005 PL**	**RCE submitted by Petitioner**	**Completion cost at September PL (RCE vetted by CEA)**	**Variation in completion cost w.r.t sanctioned cost**	
Civil Works	689.81	1381.53	1009.39	319.58	46.33 %
E&M works	301:85	476.52	401.12	99.27	32.89 %
Total Hard Cost	**991.66**	**1858.05**	**1410.51**	**418.85**	**42.24%**

38. CEA in its recommendations has observed that since the RCE completion cost at September 2016 price level comprises of already incurred expenditure and the anticipated balance expenditure, it has no mechanism to examine such *fait accompli* expenditure. It has also observed that the responsibility for the authenticity and correctness of the expenditure indicated in RCE lie with the project developer (Petitioner). CEA has vetted the hard cost of ₹141051 lakh and has recommended the same to MOP, GOI along with the expenditure not allowed by it, for reconsideration.

39. The Respondent WBSEDCL in its reply affidavit dated 12.9.2019 has submitted that the Petitioner has not furnished the required data/ information on the head-wise activities as regards (i) the amount of increase/ decrease in cost, (ii) the details of balance works required to be completed beyond COD, (iii) the amount spent for additional work due to damage of the project caused by different reasons, (iv) the activity-wise capital expenditure claimed upto 31.3.2019, and (v) the price variation for change in design. Accordingly, the Respondent has stated that it could not undertake the project cost analysis of head-wise activities separately. In this backdrop, the Respondent has stated that proportionate cost has been considered for arriving at the allowable escalation, establishment cost and IDC as detailed below:

a) Allowable price escalation: The Petitioner has not furnished the break-up of price escalation upto SCOD and beyond SCOD. As such, the allowable proportionate price escalation beyond SCOD could not be computed. Therefore, the allowable price escalation is computed proportionately for the allowable completion time i.e. 79 months (48 months scheduled time plus 31 months allowable time overrun) in comparison with the completion time of 131 months (48 months scheduled time plus 83 months' time overrun claimed by the Petitioner).

b) Allowable establishment cost: The allowable establishment cost beyond SCOD has been computed proportionately for the allowable time overrun i.e. 31 months in comparison to the time overrun of 83 months claimed by the Petitioner. The total allowable establishment cost has been computed by adding the establishment cost approved by CCEA and IDC for the allowable establishment cost beyond SCOD, up to the allowable date of completion.

c) Allowable IDC: The allowable IDC beyond SCOD has been computed proportionately for the allowable time overrun i.e. 31 months in comparison to the time overrun of 83 months claimed by the Petitioner. The total allowable IDC has been computed by adding the IDC approved by CCEA and the allowable IDC beyond SCOD, up to the allowable date of completion.

d) Expenditure on other heads: Other expenditure as claimed by the Petitioner could not be analyzed in the absence of the required documents/ information from the Petitioner and accordingly prudence check of the expenditure may be undertaken by the Commission.

40. In response, the Petitioner in its rejoinder affidavit dated 30.10.2019 has clarified as under:

a) The Revised Cost Committee which comprises of members from MOP, MOF and CEA has found that the time overrun of 83 months for completion of this project is justified as same was beyond control of the Petitioner. The Respondent has calculated the project cost of ₹1450.89 crore by considering the time over run of 31 months only, but has not considered the cost escalation and other factors etc. in its calculations.

b) The cost as on COD (19.8.2016) of the project is ₹1719.81 crore (excluding un-discharged liabilities of ₹11.38 crore. Further, the Petitioner has claimed the capital cost of ₹1822.94 crore as on 31.3.2019 for purpose of tariff. However, the Petitioner has only mentioned the break-up of RCE amount of ₹2404.95 crore in the tariff petition.

c) As regards time and cost overrun, the Revised Cost Committee has decided to recommend the proposal of RCE at a completion cost of ₹1782.52 crore (excluding contingent liabilities) with a cost overrun of ₹721.13 crore and a time overrun of 83 months. Moreover, this cost does not include the normative IDC for ₹28.99 crore as claimed in the petition.

Analysis of Cost Overrun

41. The submissions have been considered. Revised Cost Committee (RCC) in its 2nd meeting dated 28.8.2019 has recommended (though not finalised yet) the capital cost of the project based on the recommendations of CEA. It is noticed that the Petitioner has submitted before RCC that the expenditure as on cut-off date of the project i.e. on 31.3.2019 is ₹198304 lakh and has explained the reasons for delay of 83 months in execution of the project and cost overrun of ₹89603 lakh before RCC. The Petitioner has informed that it has already taken a pre-emptive hit of ₹20052 lakh and the same has been booked as loss in profit & loss account. Though RCC has expressed its concern with regard to the delay in completion of project on account of the financial crunch of the civil contractor and opined that the entire cost due for this delay cannot be passed on to the consumer, it has observed that the reasons for the delay are justified. Also, RCC after detailed deliberations, has agreed that the pre-emptive hit of ₹20052 lakh as booked by the Petitioner as loss is adequate to provide for the delay attributable on account of the delay of 29.3 months due to financial crunch of civil contractor. As regards the responsibility for the delay due to financial crunch of the civil contractor, RCC has observed that it was not the fault of the management and no person/ individual can be held responsible for it. The observations of RCC are as under:

> *"9. in view of above justifications given by NHPC, the Revised Cost Committee Decided to recommend the proposal of Revised Cost Estimate at completion of TLD-IV HE Project amounting to ₹1782.52 crore (1983.04-200.52),(Excluding contingent liabilities) with cost overrun of ₹721.13 crore and Time over run of 83 months. "*

42. We notice that the report of the DIA is silent on the expenditure incurred within the original scope of work of project from COD to the cut-off date of the project. Therefore, the cost recommended by DIA does not represent the completion cost and hence, the same has

not been considered for further analysis. As against the submission of the Respondent to consider the allowable time overrun of only 31 months, we have, in this order, condoned the time overrun of 53.7 months for the purpose of tariff and accordingly, the cost overrun has been worked. It is observed that an amount of ₹20052 lakh as accepted by RCC, as adequate pre-emptive hit, does not completely relate to the delay of 29.3 months on account of financial crunch of the civil contractor. We have dealt the same as per provisions of the 2014 Tariff Regulations.

Capital cost

43. 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 (2) of Regulation 9 provides as under:

> *"(2) The Capital Cost of a new project shall include the following:*
>
> *(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
>
> *(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
>
> *(c) Increase in cost in contract packages as approved by the Commission;*
>
> *(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;*
>
> *(e) Capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*
>
> *(f) Expenditure on account of additional capitalization and de-capitalization determined in accordance with Regulation 14 of these regulations;*
>
> *(g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and*
>
> *(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD."*

44. The original capital cost as per Investment Approval (IA), the cost proposed by RCC (pending final report) and the actual capital cost claimed by the Petitioner vide Form-5B of the petition dated 17.10.2018 are as under:-

(₹ in lakh)

	Original cost as per IA	**Cost proposed by RCC pending final report**	**Actual capital cost as on COD (19.8.2016)**
Capital Cost without IDC, FC, FERV & HC	**99166.14**	**138149.00**	**134547.64**
Interest During Construction (IDC)	6377.03	39826.00	54371.66
Financing Charges (FC)	594.37	277.00	318.94
Foreign Exchange Rate Variation (FERV)	-		-
Hedging Cost (HC)	-		-
Total of IDC, FC, FERV & HC (2)	6971.40	40103.00	54690.60
Capital cost including IDC, FC, FERV & Hedging Cost (1+2)	106137.54	178252.00	189238.24
Liabilities (3)	-	-	1137.81
Capital cost on accrual basis (3+4)	**-**	**-**	**190376.05**

45. The Petitioner has submitted that the capital cost of ₹189238.24 lakh as above, includes an amount of ₹20051.68 lakh of EDC which has been charged to P&L Account and ₹110 lakh included in CWIP. The capital cost furnished by the Petitioner as per Form 9E is as below:

(₹ in lakh)

	Upto 10.3.2016	**11.3.2016**	**31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 (COD)**
1.Closing Gross Block amount	43085.92	86235.51	86235.51	129651.75	173118.62	173118.62
2. Capital liabilities included in 1 above	284.45	568.90	568.90	853.35	1137.81	1137.81
IDC included in 1 above	10543.30	21142.41	21142.41	31917.84	42724.93	42724.93
FC included in 1 above	62.13	124.26	124.26	200.60	276.94	276.94
IEDC included in 1 above	6979.64	13967.16	13967.16	21030.78	28113.38	28113.38
Capital cost on cash basis (derived) (1-2)	**42801.47**	**85666.61**	**85666.61**	**128798.39**	**171980.81**	**171980.81**

46. The Petitioner vide ROP of the hearing dated 27.8.2019 was directed to furnish clarification on the following:

i. *Under what heads are the above mentioned amounts included in Form- 5(b);*

ii. *Whether these amounts are included in IEDC as per Form-13(d). if not, break-up of the same;*

iii. *Reasons for charging these amounts to P&L and CWIP in the books but including in capital cost for tariff, duly certified by the auditor*

47. In response, the Petitioner vide affidavit dated 26.9.2019 has submitted that the amount of ₹20051.65 lakh and CWIP of ₹110 lakh have been included in Form 5B based on cost considered in RCE, which do not form part of the capital cost for purpose of tariff, as the same has been booked under Profit and Loss account. The break-up details for ₹20051.65 lakh which has been considered/ distributed under various heads of Form 5B as submitted by the Petitioner is as under:

	Amount ***(₹ in lakh)***
Environment & Ecology (Sr. No. 1.9 of Form 5B)	9.46
Establishment (Sr. No. 7.1 of Form 5B)	5853.95
Maintenance (Sr. No. 1.6 of Form 5B)	361.85
Miscellaneous (Sr. No. 1.12 of Form 5B)	972.48
Receipts & Recoveries (Sr. No. 1.11 of Form 5B)	(-) 4559.27
Civil Works (Sr. No. 2.0 of Form 5B)	2825.50
(a) Sub – Total	**5463.97**
Interest During Construction (IDC) (Sr. No. 9.1 of Form 5B)	14546.15
Financing Charges (FC) (Sr. No. 9.2 of Form 5B)	41.55
(b) Sub –Total	**14587.70**
Total (a)+(b)	**20051.67**

48. It is observed that the amount of ₹20051.68 lakh in Form 5B has been mentioned as ₹20051.65 lakh and ₹20051.67 lakh in the reply affidavit dated 24.9.2019 filed by the Petitioner. Since the break-up details for ₹20051.67 lakh as only been furnished, the same has been considered, subject to the Petitioner furnishing the actual amount at the time of truing-up of tariff.

49. The Petitioner has submitted that the amount of ₹20051.67 lakh has not been included in IEDC as per Form-13D. However, it has stated that the said amount form part of the expenditure incurred during the construction period and hence considered in the RCE. The Petitioner has further submitted that if this amount is considered in RCE by MOP, GOI, then the same will be claimed by the Petitioner for the purpose of tariff. The Petitioner has also submitted that the amount of ₹20051.67 lakh has been charged to P&L account as per auditor's observation. The relevant portion of the annual report for 2014-15 showing the auditors observation is as below:

NOTE NO. : 29 – OTHER EXPLANATORY NOTES TO ACCOUNTS

> ***11.*** *Active construction work at Teesta Low Dam-IV project, which was interrupted due to stoppage of work by one of the contractor's w.e.f. 20.03.2013, has resumed on 01.11.2014. Accordingly, borrowing cost and administrative & other cost amounting to ₹ 43.72 crore for the period from 01.04.2014 upto 31.10.2014 (previous financial year ₹156.79 crore) has been charged to the Statement of Profit & Loss.*

50. On analysis of Form-5B furnished by the Petitioner, it is evident that the capital cost as on COD of the project does not reflect the correct position as per books of accounts and the same has been prepared on the basis of cost considered in RCE. Accordingly, the Petitioner was directed vide ROP dated 11.2.2020 to furnish revised Form 5B, considering the following:

(a) Actual capital cost as on COD of each unit;

(b) Excluding the amount of ₹20051.65 lakh and CWIP of ₹110 lakhs, which is not part of capital cost for tariff purpose and the Revised Cost Committee decided to recommend the proposal of Revised Cost Estimate at completion of TLDP-IV Project amounting to ₹1782.52 crore excluding ₹200.52 crore;

(c) Based on the actual Interest During Construction (IDC) as the IDC mentioned in 5B (₹54371.66 lakh) is in variance with Form 9E (₹42724.93 lakh);

(d) Details of freehold land, leasehold land and land under reservoir, since indicated as 'NIL' in the footnote of Form 5B.

51. The Petitioner vide affidavit dated 6.3.2020 has furnished the revised Form 5B, along with unit-wise break-up of cost. The capital cost claimed by Petitioner along with break-up details as on the COD of each unit in revised Form 5B, is as under:

(₹in lakh)

	11.3.2016	31.3.2016	17.7.2016	19.8.2016
Hard Cost	32480.49	64968.84	97533.30	130116.75
IEDC included in above hard cost	6979.64	13967.16	21030.78	28113.38
Add: IDC	9722.20	19506.53	29610.19	39825.51
Add: Normative IDC	821.11	1635.88	2307.65	2899.42
Add: Financing charges	62.13	124.26	200.60	276.94
Capital cost including IDC, FC and notional IDC	43085.92	86235.51	129651.75	173118.62
Less: Un-discharged liability	284.45	568.90	853.35	1137.81
Capital cost on cash basis	**42801.47**	**85666.61**	**128798.39**	**171980.81**

Interest During Construction (IDC)

52. The Petitioner in Form-5B (revised) has claimed IDC, as on the COD of units as under:

(₹in lakh)

11.3.2016	31.3.2016	17.7.2016	19.8.2016
9722.20	19506.53	29610.19	39825.51

53. The Petitioner has furnished loan agreements, details regarding loan disbursements, repayments along with rate of interest, duly certified by Auditor. The Commission vide ROP of hearing dated 11.2.2020 had directed the Petitioner to furnish explanation as to whether the rate of interest applied for calculation of IDC includes any kind of penal charges, along with the reasons for penal charges and the break-up of the rate of interest into original rate as per agreement and the penal charge, if any. In response, the Petitioner vide its affidavit dated 6.3.2020 has clarified that no penal charges have been applied for the calculation of IDC. The Petitioner was also directed to furnish a comprehensive statement comprising of all project specific and corporate loans availed by the Company, indicating the date-wise disbursement and their allocation into respective projects and the Petitioner vide its affidavit dated 27.4.2020 has furnished the said details.

54. Accordingly, IDC has been computed based on the details furnished by the Petitioner. The total IDC computed for the period from 1st loan drawl (16.3.2008) till COD (19.8.2016) amounts to ₹58482.98 lakh. As stated in the 'Notes to Account' to the Annual Report for 2015-16, the construction work at the project was interrupted due to stoppage of work by one of the contractor's viz. HCC w.e.f. 20.3.2013 to 31.10.2014. The time overrun for this period has not been condoned. In addition, the time overrun from January 2012 to August 2012 and November 2014 to December 2014 has also been disallowed, on prudence check. IDC computed for January 2012 to August 2012 amounts to ₹4668.31 lakh. IDC computed for the period from March 2013 to December 2014 is ₹16164.24 lakh. Accordingly, the same has been excluded from the overall IDC computed. As such, IDC has been re-computed as ₹37650.43 lakh (58482.98-16164.24-4668.31), after excluding the amounts pertaining to the period for which time overrun had not been condoned.

55. The Petitioner was directed vide ROP of hearing dated 27.8.2019 to explain the basis of allocation of the accrued IDC to the respective units. The Petitioner vide affidavit dated 26.9.2019 has submitted that IDC has been apportioned between construction and O&M units in the ratio of "Actual Interest on particular loan/Bond" and "Total Interest on all loans/ bonds during the same period" to arrive at the total IDC included in net capital cost as on COD. Since this explanation was vague and insufficient, the Petitioner was further directed to explain the same on the basis of actual numbers. In response, the Petitioner vide affidavit dated 6.3.2020 has, instead of the furnishing an explanation, furnished a tabular statement depicting the total IDC accrued during the period (including normative IDC) and apportioned to the units. This submission of the Petitioner, apart from being completely different from the one submitted earlier, is also incorrect as no IDC is charged to revenue. As such, due to lack of clarity and error in the methodology adopted, the submission of the Petitioner is not

acceptable. However, in absence of appropriate basis of allocation, IDC has been allocated to the respective units in the same proportion as adopted by the Petitioner. Accordingly, the unit-wise IDC allowed is as below, subject to truing-up on submission of information as to the correct basis of allocation of IDC by the Petitioner:

(₹ in lakh)

11.3.2016	**31.3.2016**	**17.7.2016**	**19.8.2016**
8325.89	16704.99	25357.57	34105.76

Normative IDC

56. Regulation 11 of the 2014 Tariff Regulations provides as below:

"11. Interest during construction (IDC), Incidental Expenditure during Construction (IEDC)

(A) Interest during Construction (IDC):

(1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the generating company or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 12 of these regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of generating company or the transmission licensee, as the case may be, after due prudence and taking into account prudent phasing of funds.

57. The Petitioner has claimed normative IDC as on the COD of units as under:

(₹in lakh)

11.3.2016	**31.3.2016**	**17.7.2016**	**19.8.2016**
821.11	1635.88	2307.65	2899.42

58. The Petitioner has furnished the computation of normative IDC vide Annexure-II to Form 14 on the basis of equity deployed in excess of 30% of the actual cash expenditure. In response to the directions of the Commission vide ROP of hearing dated 11.2.2020, the Petitioner has submitted the project balance sheets from the inception of fund infusion, i.e. since 2003-04. The scheduled COD of the project was 30.9.2009. Hence, in line with

Regulation 11 of the 2014 Tariff Regulations, the normative IDC has been allowed upto the scheduled COD, i.e. upto 30.9.2009. It is pertinent to mention that the Commission vide its order dated 28.10.2019 in Petition No. 43/GT/2018 (tariff of Kishanganga HEP) and Order dated 6.1.2020 in Petition No. 178/GT/2017 (tariff of Solapur STPS) had restricted the normative IDC upto schedule COD.

59. It is observed that the balance sheet furnished by the Petitioner for 2004-05 is illegible due to number of over-writings without any counter signature. As such, no prudence check of the capital expenditure as also the notional loan for 2004-05 could be undertaken. Accordingly, no normative IDC has been considered for 2004-05. It is further observed that for 2007-08, the Petitioner has considered the actual loan as ₹5000 lakh. However, based on the loan drawl details as per Form-14, the actual loan amount for 2007-08 is found to be ₹10200 lakh and the same has been considered for allowing normative IDC. Accordingly, normative IDC computed upto the scheduled COD i.e. 30.9.2009 amounts to ₹1623.20 lakh. The unit-wise normative IDC allowed is as below:

(₹ in lakh)

11.3.2016	31.3.2016	17.7.2016	19.8.2016
459.68	915.82	1291.90	1623.20

60. The normative IDC allowed as above, is subject to revision at the time of truing-up based on the legible audited balance sheet to be furnished by the Petitioner. The Petitioner shall also furnish the audited statement showing the reconciliation between the loan amounts considered for normative IDC and those for IDC computation.

Financing Charges

61. The Financing Charges claimed by the Petitioner as on the COD of units are as under:

(₹in lakh)

11.3.2016	31.3.2016	17.7.2016	19.8.2016
62.13	124.26	200.60	276.94

62. The Petitioner has submitted the copies of the debit-credit invoices, journal vouchers etc. in support of the financing charges claimed. The Petitioner vide ROP of the hearing dated 6.2.2019, was directed to furnish the Auditor’s certificate, with respect to the financing charges claimed along with the documentary evidence. In response, the Petitioner vide affidavit dated 20.3.2019, referring to Form 14 (draw-down schedule of IDC) of the main petition, has stated that the information had already been submitted. Since Form -14 depicts only the quarterly accrual of financing charges and does not satisfy the requirement, the Petitioner was further directed vide ROP of hearing dated 11.2.2020 to submit the documentary evidence. In response, the Petitioner vide affidavit dated 6.3.2020 has only submitted a copy of bank cheque amounting to ₹84.27 lakh along with the covering letter to suggest that the said payment through cheque was towards upfront fees in respect of PFC loan.

63. The Petitioner has not furnished any documentary evidence in support of its claim for financing charges, except for an amount of ₹84.27 lakh. It is observed that PFC loan, in respect of which the said amount has been paid, is a corporate loan allocated to other projects also. As such, the said amount cannot be considered as attributable to this project (TLDP-IV) only. Since prudence check of the said claim could not be possible in the absence of any documentary evidence, no financing charges has been allowed in this order. This is subject to revision, based on the documentary evidence to be furnished by the Petitioner in support of financing charges, along with reconciliation with the loan agreement and justifications thereof, duly certified by the Auditor, at the time of truing-up of tariff.

Un-discharged liability

64. The un-discharged liabilities as on the COD of the units considered by the Petitioner are as under:

(₹in lakh)

11.3.2016	31.3.2016	17.7.2016	19.8.2016
284.45	568.90	853.35	1137.81

65. Though the Petitioner was directed vide ROP of the hearing dated 6.2.2019 to furnish the statement of reconciliation of un-discharged liabilities as per balance sheet, as on the COD of each unit, with the amount of liabilities shown in Form-9E and Form-9F, duly certified by Auditor, the same has not been submitted by the Petitioner. However, the Petitioner vide its affidavit dated 6.3.2019 has stated that the un-discharged liability has not been defined unit-wise in the books of account and thus, the unit-wise capital cost (inclusive of un-discharged liability) has been derived on proportionate basis. The Petitioner was again directed to furnish the statement of reconciliation of un-discharged liabilities, duly certified by Auditor. In response, the Petitioner has furnished the statement (unaudited) of reconciliation of liabilities as on COD, with the balance sheet as on 30.9.2016 (i.e. balance sheet as on nearest quarter end). It is observed that the balance sheet as on 30.9.2016 reflects un-discharged liabilities amounting to ₹1494.82 lakh (including deposits/ retention money amounting to ₹241.68 lakh) under the head "other current financial liabilities". For reconciliation, the Petitioner has considered the liabilities as per balance sheet amounting to ₹1253.14 lakh which has been booked under the head "liabilities against capital works/ supplies". The perusal of the reconciliation statement furnished by the Petitioner shows that there is an un-reconciled difference of ₹44.40 lakh. Further, liabilities amounting to ₹18.84 lakh have not been considered as capital liability, despite the same being booked under the sub-head "liabilities against capital works/ supplies" for no proper reason. The reconciliation submitted by the Petitioner is summarized as below:

(₹in lakh)

A	Liability as per balance sheet as on 30.9.2016	1253.14
i	Capitalisation on 30.09.2017 (i.e. post COD)	48.11
ii	Not Capital liability	18.84
iii	Transmission line, Deposit Work	4.00
B	Liabilities not considered for tariff purpose (i+ii+iii)	70.94
C	Liabilities to be considered for tariff purpose (A-B)	1182.20
D	Liabilities actually considered as on COD for tariff	1137.81
E	**Un-reconciled difference (C-D)**	**44.40**

66. It is observed that the unaudited statement submitted by the Petitioner does not reconcile the un-discharged liabilities considered for tariff with the balance sheet correctly. In the absence of proper reconciliation between the position of un-discharged liabilities as per balance sheet with the un-discharged liabilities considered for tariff purpose, the entire un-discharged liabilities reflecting in the balance sheet amounting to ₹1494.82 lakh (including deposits/ retention money amounting to ₹241.68 lakh) has been considered as un-discharged liability for the purpose of tariff. This is subject to revision at the time of truing up, based on the following information to be furnished by the Petitioner:

(a) Audited station balance sheets as on each COD;

(b) Statement duly certified by the auditor showing reconciliation of the un-discharged liabilities as per Balance Sheet as on the COD of each unit with that considered for tariff by the petitioner and also with the amount of liabilities depicted in form 9E and 9F;

(c) Details of retention money and deposits duly certified by the auditor.

Incidental Expenditure During Construction (IEDC)

67. The IEDC (revised) claimed by the Petitioner in Form 5B is as under:

(₹in lakh)

11.3.2016	31.3.2016	17.7.2016	19.8.2016
6979.64	13967.16	21030.78	28113.38

68. As stated earlier, the time overrun of 29.3 months relating to the period from January 2012 to August 2012 and from March 2013 to December 2014 has not been condoned. It is evident from the submissions of the Petitioner that an amount of ₹20051.67 lakh, which

relates to the period from March 2013 to October 2014, has already been excluded by the Petitioner from the capital cost for purpose of tariff. The Petitioner was directed vide ROP of the hearing dated 24.8.2019 to inform whether the amount of ₹20051.67 lakh has been included in IEDC amount indicated in Form-13D. In response, the Petitioner vide affidavit dated 24.9.2019 has clarified that the said amount has not been included in IEDC. Since the amount of IEDC pertaining to the period from March 2013 to October 2014 has already been excluded by the Petitioner from the IEDC claimed, no further deduction on account of time overrun pertaining to period from March 2013 to October 2014 has been made. For the time overrun period disallowed from January 2012 to August 2012 and from November 2014 to December 2014, pro-rata deduction has been made, considering the total time overrun of 83 months claimed by the Petitioner, which works out ₹1682.03 lakh and ₹420.51 lakh respectively. Accordingly, the total amount of ₹2102.54 lakh towards IEDC has been deducted from the capital cost to be allowed on account of time overrun from January 2012 to August 2012 and from November 2014 to December 2014. IEDC disallowed as above, is subject to revision, based on the detailed item-wise break-up of IEDC actually incurred as per *proforma* below, duly certified by Auditor, for the specific periods including those for which time overrun has been disallowed to be furnished by the Petitioner, at the time of truing up of tariff.

	SCOD (30.9.2009) to Dec-11	*Jan-12 to Aug-12*	*Sept-12 to Feb-13*	*Mar-13 to Oct-13*	*Nov-13 to Dec-13*	*Jan-14 to 19.8.16 (actual COD)*
IEDC incurred (item-wise)						

Initial Spares

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

"13. Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

xxxx

(c) Hydro generating stations including pumped storage hydro generating station - 4.0%"

70. The Petitioner vide affidavit dated 6.3.2020 has submitted that the initial spares claimed is ₹1708.54 lakh as on COD of the generating station (19.8.2016) and ₹1793.31 lakh as on cut-off date (31.3.2019). As per Form 5(C) of the petition, the Petitioner has indicated the Plant and Equipment cost of ₹53602.85 lakh as on COD of the generating station, which includes contingencies for an amount of ₹2080.90 lakh. Since the Plant and Machinery cost as on cut-off date is not available, the limit of initial spares has been calculated based on Plant and Machinery cost as on COD of the generating station. However, the Petitioner is directed to submit the Plant and Machinery cost, as on cut-off date, along with the details of the initial spares capitalized. Since contingencies do not form part of the original sanction cost, the limit of initial spares has been calculated based on Plant and Machinery cost of ₹53602.85 lakh as indicated in Form (C) of the petition, excluding contingencies of ₹2080.90 lakh, which works out to ₹51521.95 lakh (₹53602.85 – ₹2080.90). In view of this, the permissible amount for initial spares works out to ₹2072.03 lakh. However, as the Petitioner has claimed initial spares for ₹1793.31 lakh as on the cut-off date, the same has been allowed.

Infirm Power

71. The Petitioner has submitted that a revenue of ₹107.77 lakh which has been received against the sale of infirm power, has been deducted from the capital cost claimed as on COD of the generating station (19.8.2016). However, the Petitioner vide its affidavit dated 6.3.2020 has submitted that the total sale of infirm power, as on COD of the generating station amounting to ₹100.36 lakh has been accounted in the capital cost of the generating station. The Petitioner has however not furnished any reason for the difference in the said amounts indicated. It is further noticed that the DIA in its report has also considered an amount of

₹107.77 lakh towards the sale of infirm power. The Respondent WBSEDCL in its reply dated 12.9.2019 has submitted that the Petitioner has not accounted for the infirm power amount of ₹1.08 crore while computing the project cost. The Petitioner in its rejoinder dated 30.10.2019 has clarified that it has already accounted the revenue earned from the sale of infirm power. The Petitioner in its affidavit dated 6.3.2020 has stated that it had adjusted an amount of ₹100.36 lakh towards the sale of infirm power. It is however noticed that an amount of ₹107.77 lakh has been furnished by the Petitioner as revenue earned from sale of infirm power to the DIA and in its submissions in the original petition. This amount has been considered. Accordingly, in addition to the adjustment of ₹100.36 lakh in the capital cost made by the Petitioner towards revenue earned from sale of infirm power, the balance amount of ₹7.41 lakh has also been adjusted from the capital cost allowed as on COD of the generating station.

Liquidated Damages & Insurance money

72. The Petitioner vide its affidavit dated 6.3.2020 has submitted that no liquidated damages has been realized from M/s HCC, as the issue is still pending before the Hon'ble High Court of Kolkata. It has also submitted that the liquidated damage realized, if any, after the decision of the Court, shall be adjusted in the project cost. With regard to the Insurance money, the Petitioner has stated that the Insurance money amounting to ₹2.75 crore (approx.) recovered for the period 2007, 2008 and 2009 has already been adjusted in the Running Account (RA) bills of the Contractor during the period 2011-16. In addition to this, the Petitioner has submitted that an amount of ₹8.51 crore recovered on 22.10.2010 in respect of Insurance claim has been adjusted in the project cost claimed for the purpose of tariff. The Petitioner has further submitted that M/s HCC has not passed on the full amount of Insurance money received by them to the Petitioner, and the matter is *sub judice*. It has

submitted that the further recovery of Insurance claim, if any, after the decision of the Hon'ble High Court, shall be adjusted in the project cost. Accordingly, we direct the Petitioner to adjust any further amount(s) that may be realized, in future, from the contractor, towards liquidated damages and insurance money, pursuant to the decision of the Hon'ble High Court.

Hard Cost

73. Accordingly, the hard cost (pro rata) allowed for the purpose of tariff for the generating station is as under:

(₹ in lakh)

	11.3.2016	**31.3.2016**	**17.7.2016**	**19.8.2016**
Hard Cost allowed on *pro rata* basis	32480.49	64968.84	97533.30	130116.75
Less: Un accounted revenue from sale Infirm Power	1.85	3.71	5.56	7.41
Hard Cost allowed before adjustment of EDC (on *prorata* basis)	32478.64	64965.13	97527.74	130109.34

Capital Cost as on COD of units/ Station

74. Based on the above discussions, the capital cost allowed for the purpose of tariff as on COD of the units is as under:

(₹ in lakh)

	11.3.2016	**31.3.2016**	**17.7.2016**	**19.8.2016**
Hard cost allowed	32478.64	64965.13	97527.74	130109.34
IDC	8325.89	16704.99	25357.57	34105.76
Normative IDC	459.68	915.82	1291.90	1623.20
Financing Charges	0.00	0.00	0.00	0.00
Sub-total	**41264.21**	**82585.95**	**124177.22**	**165838.29**
Less: Un-discharged liability	284.45	568.90	853.35	1494.82
Less: EDC disallowed	2102.54	2102.54	2102.54	2102.54
Capital cost allowed for the purpose of tariff	**38877.22**	**79914.51**	**121221.32**	**162240.93**

75. In view of above, the completion cost of the project, considering the deductions made over and above ₹20052 lakh and including notional IDC allowed, is worked out as under:

(₹in lakh)

S. No.	Cost details	
(a)	Cut off cost as considered by RCC	198303.68
(b)	pre-emptive hit booked by the Petitioner in its Profit & Loss account for delay of 29.3 months on account of financial crunch of the civil contractor and considered by RCC	20051.68
(c)	IEDC deducted for the period of delay due to financial crunch of the civil contractor which is not included in (b) above	2102.54
(d)	IDC not allowed	5719.75
(e)	FC disallowed (included in (a) above)	276.94
(f)	Infirm Power disallowed (included in (a) above)	7.41
(g)	Notional IDC allowed (not included in (a) above	1623.20
(h)	**Completion cost considered for the purpose of tariff [(h)=(a)-(b)-(c)-(d)-(e)-(f)+(g)]**	**171768.56**

Balance limit for expenditure on assets/works within the original scope of work of the project, after COD of the generating station to cut-off date

76. It is noticed that against the completion cost of ₹171768.56 lakh, the capital cost allowed as on COD of the generating station (19.8.2016) is ₹162240.93 lakh. Accordingly, an amount of ₹63.00 lakh (₹171768.56 – ₹162240.93) is available for consideration of the expenditure in respect of the balance assets/ works within the original scope of work/ RCE after COD and upto the cut-off date of the generating station.

Additional Capital Expenditure

77. 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 2014-19 tariff period. 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."

78. The year-wise break-up of the actual additional capital expenditure incurred for the period from COD to 31.3.2019, including discharge of liabilities, claimed by the Petitioner in terms of the provisions of Regulations 14(1) and 14(3) of the 2014 Tariff Regulations is as under:

(₹ in lakh)

	19.8.2016 to 31.3.2017	**2017-18**	**2018-19**
Add: Additional capital expenditure	2528.12	604.55	3043.35
Less: De-capitalization	0.47	125.97	133.37
Add :Discharge of liabilities	1029.99	207.31	522.21
Net additional capital expenditure	**3557.64**	**685.89**	**3432.20**

2016-17

79. The Petitioner has claimed actual additional capital expenditure, excluding discharge of liabilities, during the period from 19.8.2016 to 31.3.2017 as under:

(₹ in lakh)

Assets/works within the original scope of work of project **(a)**	2445.12
Assets/works other than within the original scope of work of project **(b)**	83.00
Total (c)=(a)+(b)	**2528.12**

(A) Assets/works under the original scope of work of project

80. The Petitioner has claimed additional capital expenditure of ₹2445.12 lakh for the period from 19.8.2016 to 31.3.2017, in respect of assets/ works such as the balance work of HEP building, store shed in service bay, service tax portion of protection of hill slope, concrete flooring, laying of water pipeline to shaft sil, protection work of hill slope near CISF barrack, protection wall on left bank of CISF building, balance work at dam and at penstock, balance work at tail race channel, balance work at hydro mechanical works - dam and barrages, hydro mechanical works - tunnels and canals, hydro mechanical works - tail race including draft tube gates, main generating equipment Unit-I, generator step-up transformer Unit-I, other power plant transformer Unit-I, EHV switchgear systems nit-I, DC systems/ battery systems Unit-I, power and control cables Unit-I, air conditioning and ventilation system Unit-I, power line carrier communication system Unit-I, control metering and protection system Unit-I, auxiliary and ancillary systems Unit-I, miscellaneous power plant equipment Unit-I, slope protection work for CISF barrack and construction of store shed for HM at switchyard area. Since these assets/ works fall under the original scope of work of the project and is within the ceiling limit of the balance amount available for assets/ works within the original scope of work and within the cut-off date of the project, the additional capital

expenditure of ₹ 2445.12 lakh claimed by the Petitioner is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

(B) Assets/works other than under the original scope of work of project

81. The Petitioner has claimed actual additional capital expenditure of ₹83.00 lakh in respect of assets/ works other than within the original scope of work of project in terms of Regulation 14(3)(viii) of the 2014 Tariff Regulations. The admissibility of the claim, based on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Sl. No	Head of work	Amount claimed	Justification	Remarks on admissibility	Amount allowed
1.	Construction of dining cum kitchen adjoining the CISF - Barrack on the left bank downstream dam, TLDP-IV	0.17	The work is essentially required for CISF security establishment for efficiently discharging the duty by CISF.	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been incorporated under 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.	0.17
2.	Construction of water tank for supply of water CISF establishment at TLDP-IV, Kalijhora.	0.84			0.84
3.	Wooden furniture purchased from Kolkata furniture	0.41	The item is essentially required for facilitating smooth functioning of office work of the power station.		0.41
4.	Wooden bench purchase from Kolkata furniture	0.36			0.36
5.	Portable crimping tool with DIE Sets	0.05	The item is required for regular power house maintenance purpose.		0.05
6.	Air Conditioner - 39 Nos	17.69	The item is essentially required for facilitating ergonomic and comfortable working condition for efficient functioning of office work of the power station.		17.69
7.	Automatic voltage stabilizer - 38 Nos.	1.38			1.38
8.	Dining chair made of stainless steel pipes	0.50	The items are essentially required for facilitating		0.50

	with cushion - 30 nos.		field hostel and for creating facilities for the mess for the employees for effective discharge of duties by them.		
9.	Wooden double bed 6' x 6.5' - 15 nos.	3.96			3.96
10.	Chappattibhatti buffet tawa with stand	0.14			0.14
11.	Chair - 25 Nos	0.41	The items are required for facilitating office for efficient working of the employee.		0.41
12.	Table size 2000l x 18000w x 780h mm make - feather lite & model (ht-50)	0.44			0.44
13.	Reciprocating air compressor 5hp mounted on 220ltr air receiver, complete with electricals, Elgi mod	0.94	The items are essential for successful & efficient operation of the plant.		0.94
14.	Mobile Phone, Samsung metro 313 - 05 nos.	0.14			0.14
15.	High precision balance hpb 3000 capacity 3000 gram readability 0.01 gram (10 mg), wensar, model-hpb 3000	0.51	Essentially required for hydrology data collection.		0.51
16.	Tullu Pump 1 phase 0.5hp	0.05	The item is essential for dewatering water of small pockets /leakage water from any part of the power house.		0.05
17.	Gas oven iron frame, size 18x18.- 3 nos.	0.08	Item is required in power house for maintenance work.		0.08
18.	Digital clamp meter (tong tester),400ac, 600v ac/dc, lcd display 3.5 digit	0.03	The item is essential for routine electrical maintenance of power house. Essential for successful & efficient operation of the Project.		0.03
19.	Insulation tester, hand operated ,250-500-1000 volts, upto 2000 m ohms	0.06			0.06
20.	UPS 800 va, apc, model: be800-ind- 7 nos.	0.33	The item is essentially required in office for IT equipment's.		0.33
21.	Washing Machine, IFB, eva aqua sx, 6 kg - 2Nos	0.35	The item is essentially required for field hostel employees as common facility for effective discharge of duties by the employees.		0.35
22.	Teak wood made centre table with glass top melamine polish (size of top 42'x21') - 10 nos.	0.80			0.80

23.	Dining Table 6'x4', with stainless steel frame and top laminated board. - 05 nos.	0.66			0.66
24.	HP Scanjet pro 3000 s2 sheet feeder scanner	0.24	The item is essential for routine office work of the power station.		0.24
25.	Printer - 27 nos.	6.62			6.62
26.	Movable dressing trolly, ss	0.18	The items are required in project hospital for routine checkup of the staff and neighboring area people.		0.18
27.	Accu check active glucometer - 2 nos.	0.03			0.03
28.	LED Television - 18 nos.	4.40	The item is required in field hostel for the employees for their information and update of the current world.		4.40
29.	TT table	0.35	The items are essentially required for maintaining healthy life style of employees for getting their optimum output.		0.35
30.	Multi-station Gym	1.18			1.18
31.	Steel rack, 72"x36"x15" with six panels - 30 nos.	1.51	The items are required in project hospital for facilitating necessary health checkup of the staff and neighboring area people. These are essentially required items for running of the project hospital.		1.51
32.	Test sieve with brass spun 8" dia 250 micron	0.01			0.01
33.	Hot air oven	0.33			0.33
34.	PH meter pocket tester	0.10			0.10
35.	Electric hot plate	0.11			0.11
36.	Thermometer	0.18			0.18
37.	B.P. apparatus mercury	0.11			0.11
38.	Otoscope	0.07			0.07
39.	Stretcher folding type with thick canvas	0.04			0.04
40.	Needle and syringe cutter/destroyer electric	0.06			0.06
41.	Drip stand	0.05			0.05
42.	Patient examination table - 02 nos.	0.67			0.67
43.	Electronic weighing machine - 02 nos.	0.02			0.02
44.	Autoclave electric 12x14 pressure cooker type electric (almn) - 2 nos.	0.10			0.10
45.	3 Fold screen - 2 nos.	0.07			0.07
46.	Nebulizer - 2 nos.	0.06			0.06
47.	Construction of 4no. security post for CISF	1.11	This is essentially needed to ensure safety / security of Power Station.		1.11

48.	Construction of protection near store building	2.87	The work is essential for project store and for the temporary working shed in switchyard. Some items like CGI shed constructed for driver for smooth discharge of their duties.		2.87
49.	Construction of temporary CGI shed for driver and other worker at TLDP-IV Kalijhora	0.09			0.09
50.	Construction of temporary office shed at switchyard, TLDP-IV Kalijhora	0.17			0.17
51.	Upgradation and expansion of LAN	24.91	The item is required as per IT policy of NHPC.		24.91
52.	Construction of garbage storage at Vidyutnagar	0.01	The item is essentially required for achieving success of "Swachh Bharat" at project level.		0.01
53.	Construction of canteen building for TLDP-IV at kalijhora	0.40	Canteen facility has been created for the staff of the power station for executing the work by them without hurdle.		0.40
54.	Service tax reimbursement on executive field hostel	0.58	The items are essentially required for facilitating office/field hostel for smooth and efficient discharge of the duties by the employees.		0.58
55.	Bajaj room heater nine fan	0.05			0.05
56.	Micro oven - 2Nos	0.21			0.21
57.	Geyser 25 liter capacity	0.09			0.09
58.	Refrigerator 180 liter - 02 nos.	0.24			0.24
59.	Godrej slim line locker	0.11			0.11
60.	Godrej d Larissa 3 seater sofa chair - 13 nos.	3.48			3.48
61.	Stylo table	0.06			0.06
62.	Sofa set - 7 nos.	1.76			1.76
63.	TV Cabinet size 1000x450x500 mm	0.05			0.05
64.	Wooden table with glass	0.02			0.02
	Total amount claimed	**83.00**			
	Total amount allowed				**83.00**

82. Accordingly, the additional capital expenditure of ₹83.00 lakh is allowed for the period from 19.8.2016 to 31.3.2017 in respect of assets/ works other than under the scope of work

of the project and the allowed expenditure is accounted within the balance limit of the completion cost of the project.

83. Based on the above, the total additional capital expenditure of ₹2528.12 lakh (₹2445.12 lakh+ ₹83.00 lakh) is allowed for the period from 19.8.2016 to 31.3.2017.

2017-18

84. The Petitioner has claimed actual additional capital expenditure, excluding discharged liabilities, as under:

(₹ in lakh)

Assets/works under original scope of work of the project. (a)	518.56
Assets/works other than under the original scope of work of the project (b)	85.99
Total (c)=(a)+(b)	**604.55**

(A) Assets/works under the original scope of work of the project

85. The Petitioner has claimed additional capital expenditure of ₹518.56 lakh during 2017-18 in respect of assets/ works such as Protection wall at downstream of Kalijhoara, Barbed wire fencing around reservoir, RCC gallery, Lowering of bed at TRC sunrise, Cap of HM works, Drainage and Protection works for Project road from Main road (NH-10) to Dam top at right bank of TLDP-IV project Kalijhora, Construction of CISF office and Store on the left bank at EL+190M downstream of proposed CISF Barrack at TLDP-IV, Internal electrification of CISF Barrack at TLDP-IV Kalijhora, Balance BHEL works, Balance HM works of Om Metal, TATA mini truck, Road for CISF establishment on left bank, TLD-IV PS, Balance HCC works (Reimbursement of service tax), Construction of road from P/H to SY, Construction of concrete pavement road, Footpath, drains and Development of hill sloping front of service bay area TLDP-IV PS Darjeeling, WB, Providing wire crate for protection of left bank slope (at EL ± 152m, river bed) from RD 320m to RD 511m (D/s of Dam axis), Additional work of

c/o road for CISF establishment on left bank, Providing and laying plain cement concrete for Cladding of wall in the Power House, Construction of Canopy in power house, Providing grill and gate, water supply for Technical building &Miscellaneous works at Switchyard, Balance HCC works, Construction of shed near CISF barrack and Security post, Providing & laying waterproofing course with Polymeric bituminous membrane over CGI sheet roofing in CISF Barrack at TLDP-IV PS Kalijhora, Balance work of dam, Balance HCC works including mandatory spares/ initial spares for ₹61.16 lakh. Since the additional capital expenditure of ₹518.56lakh, including initial spares of ₹61.16 lakh claimed towards assets/works under the original scope of work of the project is within the ceiling limit of the balance available for assets/works under the original scope of work and is within the cut-off date of the project, the same is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

(B) Assets/works other than under the original scope of work of project

86. The Petitioner has claimed additional capital expenditure of ₹85.99 lakh in respect of assets/ works other than under the original scope of work of project, in terms of Regulation 14(3)(viii) of the 2014 Tariff Regulations. The admissibility of the claim based on prudence check of the justification furnished by the Petitioner, is as under:

(₹ in lakh)

Sl. No	Head of work	Amount claimed	Justification	Remarks on admissibility	Amount allowed
1	Fans-28 Nos	0.58	The items are required for facilitating comfortable working condition in the office.	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been	0.58
2	D-Link 4G Dongle- 20 nos	0.56			0.56
3	Mobile Set- 7 Set	0.12	Essentially required for communication with Dam Control room, Power House and other location for collecting data for uninterrupted generation of electricity.		0.12

4	LT ACB, Make- L&T, Model- CN-CS 1000 S1	1.76	Essential for successful & efficient operation of the Plant.	incorporated in original scope of work of the project. Accordingly, expenditure for same is **allowed** and is considered within the balance limit of the completion cost of the project.	1.76
5	Vacuum cleaner, Make-Eureka Forbes	0.10	Essentially required for smooth functioning of office/field hostel.		0.10
6	Water Treatment Plant -3000 GPH, AquaTech	5.82			5.82
7	Concrete drilling Machine, Make- Bosch	0.08	The items are required for routine maintenance of civil works of the power station.		0.08
8	Hiliti Breaker - TE 500,230V	1.16			1.16
9	Kent Ro water Purifier	0.23	The items are essentially required for facilitating field hostel and office. Providing clean water is definitely a move for healthier workforce of the power station.		0.23
10	Mixer Grinder	0.04			0.04
11	Washing Machine	0.29			0.29
12	24V DC SMPS Battery Charger	0.19	The item is required for Workstation of power house control room.		0.19
13	Iron bed Size- 3'X6.5' (45 nos)	3.60	Essentially required for smooth functioning of field hostel.	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been incorporated in original scope of work of the project. Accordingly, expenditure for same is **allowed** and is considered within the balance limit of the completion cost of the project.	3.60
14	Mobile Phone	0.18	Essentially required for communication with Dam Control room, Power House and other location for collecting data for uninterrupted generation of electricity.		0.18
15	Split AC- 28 Nos	14.24	Essentially required for creating comfortable working condition in the office of the power station.		14.24
16	Pathways for people having mobility problem at office building and VIP guest house at Vdyutnagar,	2.98	The work is in the interest of the power station as general workforce use the facility.		2.98

	Siliguri				
17	Siren	0.08	This item is required for ensuring safety of dam operation.	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been incorporated in original scope of work of the project. Accordingly, expenditure for same is **allowed** and is considered within the balance limit of the completion cost of the project.	0.08
18	Siren- 3 Nos	0.10			0.10
19	Motor Cycle - 2 nos	1.74	Essentially required for watch and ward to ensure security of Power Station for all 24 hours of the day.		1.74
20	Godrej Make steel rack - 50 nos	17.81	The items are essentially required for facilitating comfortable working environment in the project office.		17.81
21	Sofa Set - 7 nos	3.07			3.07
22	Centre Table with glass top- 8 nos	0.85			0.85
23	Desktop core 17 4GB ram 500GB HDD Windows 8 with Monitor- 30 Nos	0.17			0.17
24	Kent water Purifier- 3 nos	0.89			0.89
25	Cooler cum Dispenser- 3 nos	0.71			0.71
26	LED TV- 3 Nos	2.00	The item is required in field hostel for the employees for their information and update of the current world.		2.00
27	Mains operated automatic scrubber drier	1.94	Essential for successful & efficient operation of the Project.		1.94
28	Search Light with charging adapter- 2 Nos	0.11	Essentially required for ensuring security in the project area.	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been incorporated in original scope of work of the project. Accordingly, expenditure for same is **allowed** and is	0.11
29	Uder vehicle trolley mirror- 4 Nos	0.23			0.23
30	CO2 Fire Extinguisher	0.06	Essentially required to provide standard safety to building.		0.06
31	Refrigerator- 5 Nos	2.07	Essentially required for facilitating the staff in the field hostel for getting their maximum output.		2.07
32	Plastic Chair- 150 Nos	1.55			1.55
33	Plastic Cushioned	0.62			0.62

	chair- 30 Nos			considered within the balance limit of the completion cost of the project.	
34	Heat Convector- 15 Nos	0.32			0.32
35	Room heater- 20 Nos	0.19			0.19
36	Search Light with charging adapter	0.11	Essentially required for ensuring security at project area.		0.11
37	Fire Extinguisher - ABC Type 4 Kgs - 8 Nos	0.24	Essentially required to provide standard safety to building.		0.24
38	CO2 Fire Extinguishers- 2 Kg - 2 Nos	0.09			0.09
39	Sofa set 5-seater	0.30			0.30
40	Centre table glass top	0.11			0.11
41	Wooden rack	0.10			0.10
42	Laptop intel core i5 2520 series 2.5	0.40	Essentially required to provide standard setup to officers for office work.		0.40
43	Microsoft off std 2016 sinlg al p c- 100 Nos	18.24			18.24
	Total amount claimed	**85.99**			
	Total amount allowed				**85.99**

87. Accordingly, the additional capital expenditure of ₹85.99 lakh is allowed in 2017-18 in respect of assets/ works other than under the original scope of work of project and the allowed expenditure is accounted within the balance limit of the completion cost of the project.

88. Based on the above, the total additional capital expenditure of ₹604.55 lakh (₹518.56 lakh + ₹85.99 lakh) is allowed for the period 2017-18.

2018-19

89. The actual additional capital expenditure claimed by the Petitioner, excluding discharged liabilities are as under:

(₹In lakh)

Assets/works under the original scope of work of project (a)	2943.58
Assets/works other than under the original scope of work of project (b)	99.77
Total (c)=(a)+(b)	**3043.35**

(A) Assets/works under the original scope of work of project

90. The Petitioner has claimed additional capital expenditure of ₹2943.58 lakh during 2018-19 in respect of assets/ works such as Boulder pitching on Switchyard, Providing and fixing aluminum composite panel in Power house, Construction of first floor and modification and furnishing of transit camp into office, Providing railing in cellular wall and stair from 174 to 166 in cellular wall, Construction of protection wall along NH-10 at downstream of Kalijhora on right bank, Treatment of concrete lift joints and faces with chlorinated rubber finish weather resistant paints for protection of structures like LNOF, Power dam, Spillway piers, Trunnion beams, Cellular wall, RCC dam, Capitalization of service tax portion, Payment against completion and operational acceptance of TRCM, Main generating equipment, Auxiliary and Ancillary system hydra crane 14 MT, Balance work of BHEL, Auxiliary and Ancillary system, Purchase of various relays, Lighting arrester, Tipper, Tail Race Channel-works, Hydro Mechanical works-Dams and Barrages, Store well with four fixed selves and including mandatory spares/Initial spares for ₹22.61 lakh. Since the additional capital expenditure of ₹2943.58 lakh including initial spares of ₹22.61 lakh claimed fall within the ceiling limit of the balance available for assets/ works within the original scope of work and is within the cut-off date of the project, the same is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

(B) Assets/works other than under the original scope of work of project

91. The Petitioner has claimed additional capital expenditure of ₹99.77 lakh in respect of assets/ works other than under the original scope of work of project in terms of Regulation

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

(₹ in lakh)

Sl. No	Head of work	Amount claimed	Justification	Remarks on admissibility	Amount allowed
1	PCC flooring at in between D-line and penstock area.	26.87	The work was required for channelizing the rainwater/ seepage water coming down from d/s of power dam to avoid water logging between Power House and Power Dam for safety of power plant .	Regulation 14(3)(viii) pertains to capitalization of expenditure towards additional work which has become necessary for successful and efficient operation of the plant. However, considering the nature of the work claimed, these items should have been incorporated in original scope of work of the project. Accordingly, expenditure for same is **allowed** and is considered within the balance limit of the completion cost of the project.	26.87
2	Construction of ladders near PH Area.	0.19	The work was executed for to provide access to EOT crane in Power House and provide access to roof of power house and Penstock area for routine inspection of above said component of power plant for successful & efficient operation of the Project.		0.19
3	Providing and laying PCC in primary cooling floor at EL 144.5 m in PH.	0.03	The seepage water collecting at the primary cooling floor is not getting drained off properly due to installations of E&M equipment. The same water was required to drain out by providing concrete in this area for efficient operation of power plant and for safety of installed equipment in this area.		0.03
4	Construction of CISF office and store on the left bank at EL 190 m downstream of proposed CISF barrack, TLD-IV, Kalijhora.	0.33	This work was executed for CISF establishment for safety / security of Power Station and essential for successful & efficient operation of the Power Plant. Balance amount capitalised as per actual basis. (Ref Sr.		0.33

			No. 22 of 9A of 2017-18).		
5	Construction of permanent survey pillars on river banks.	0.11	The work executed for providing permanent bench mark for monitoring of reservoir level in the reservoir area. The same was also suggested by Dam safety team.		0.11
6	Purchase of transformer	6.18	Transformer was purchase for providing power supply in Dam area, which was essentially required for operation of Dam and efficient operation of Power Plant.		6.18
7	Pump for power house	1.33	The material was purchased for smooth functioning of Power House for drainage of seepage water and essentially required for efficient operation of the Plant .		1.33
8	Purchase of submersible dewatering pump for D line sump	6.65	Between D line of Power House and power dam , some seepage water coming from dam area and from left bank is being accumulated and same is required to drained out by providing dewatering pump in D - Line sump to avoid entry of water in Power House in turbine floor and may interrupt power generation.		6.65
9	Purchase of chair, table, almirah, racks, etc	2.36	The material was purchased for smooth functioning of office building and essentially required for efficient operation of the Plant.		2.36
10	Almirah 50X30X17 with 3 Shelves - 119 nos	7.08	The material was purchased for smooth functioning of office building and essentially required for efficient operation of the Plant.		7.08

11	Purchase of laptop	3.19	The material was purchased for smooth functioning of office building and essentially required for efficient operation of the Plant This is as per IT policy of NHPC.		3.19
12	Purchase of printer and scanner	2.94			2.94
13	Digital TDMA (2 slots) based fixed / mobile radio model XIRM 3688, make Motorola - 6nos	1.37	The material was for purchase for providing communication system to CISF for providing security and safety of power plant.		1.37
14	VHF with 35 hand set,4 BS,3 RS with ACC.,4 ROIP, make: Motorola Model :XIRP-3688, XIRR-8200,XIRM-3688 - 20 nos	2.50			2.50
15	Purchase of water purifier, geyser	1.72	The material was purchased for providing drinking water facility and warm water facility in office establishment area for efficient operation of power plant and to meet the requirement of IMS.		1.72
16	Digital IR Thermometer, fluke make model No.568 4 nos.	0.11	The material was purchased for measuring of temperature of various component of plant for Essential for successful & efficient operation of the Project.		0.11
17	Rifle Rack and other Security Gadgets.	1.03	The material was purchased for keeping of arms of CISF security staff and was required for security and safety of power plant for efficient operation of project.		1.03
18	Ceiling, Wall, Pedestal and Exhaust Fans	2.40	The material was purchased for healthy environment in office establish for efficient operation of power plant.		2.40
19	Fire Extinguisher	2.18	The material was		2.18

			purchased for fire safety of power plant for efficient operation of project.		
20	Water Pump 1HP -Make: Kirloskar Model: JALRAAJ-1 - 2 nos	0.10	The pump was purchase for providing drinking water facility to CISF establishment and was essential for efficient operation of power plant.		0.10
21	SEAGATE BACKUP PLUS SLIM 1TB EXTERNAL HARD DRIVE - 4 nos	0.18	The material was purchased for keeping of back up various data of power plant was essential for efficient operation of power plant.		0.18
22	Screw Jacks	0.14	The material was purchased for efficient operation of power plant.		0.14
23	Store well of size 78X34X19 with four fixed selves	0.20	Essential for successful & efficient operation of the Project.		0.20
24	Supply and installation of Solar System for lighting of TLD-IVPS, Vidyut Nagar	30.59	The work was executed as per green energy policy of NHPC and Essential for successful & efficient operation of the Project.	Considering the nature of the asset claimed, it is evident that the asset is not essential for successful &efficient operation of the plant. Further, the Petitioner by its submissions could not establish as to how the asset is essential for successful & efficient operation of the plant. Hence, the expenditure is **not allowed.**	
	Total amount claimed	**99.77**			
	Total amount allowed				**69.18**

92. Accordingly, the additional capital expenditure of ₹69.18 lakh is allowed in 2018-19 in in respect of assets/ works other than under the original scope of work of project and the

allowed expenditure is accounted within the balance limit of the completion cost of the project.

93. Based on the above, the total additional capital expenditure of ₹3012.76 lakh (₹2943.58 lakh +₹69.18 lakh) is allowed for the period 2018-19.

Discharge of liability

94. The Petitioner has claimed the following discharge of liabilities during the period from 19.8.2016 to 31.3.2019:

(₹in lakh)

19.8.2016 to 31.3.2017	**2017-18**	**2018-19**
1029.99	207.31	522.21

95. The Petitioner has furnished the details of un-discharged liabilities and the discharges thereof in Form 16 (Liability Flow Statement). The details pertaining to the year 2018-19 were revised by Petitioner vide its affidavit dated 6.3.2020, based on actuals. The summary of the liability flow statement is as below

(₹in lakh)

	Amount
Un-discharged liabilities as on COD i.e. 19.8.2016	1137.81
(+) Addition due to un-discharged liabilities pertaining to additional capitalisation for period from COD i.e. 19.8.2016 to 31.3.2017	526.26
(-) Discharge of liability from COD i.e. 19.8.2016 to 31.3.2017	1029.99
Un-discharged liabilities as on 31.3.2017	634.07
(+) Addition due to un-discharged liabilities pertaining to additional capitalisation for 2017-18	702.85
(-) Discharge of liability during 2017-18	207.31
Un-discharged liabilities as on 31.3.2018	1129.61
(+) Addition due to un-discharged liabilities pertaining to additional capitalisation for 2018-19	627.83
(-) Discharge of liability during 2018-19	522.22
Un-discharged liabilities as on 31.3.2019	**1235.22**

96. Based on the details furnished by the Petitioner, the discharge of liability has been allowed. The Petitioner is however directed to submit the audited statement of reconciliation between the year-wise liability position as per balance sheet and those considered for tariff, at the time of truing-up of tariff.

De-capitalization

97. Regulation14(4) of the 2014 Tariff regulations provides as under:

> *"In case of de-capitalization 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-capitalization 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-capitalization takes place, duly taking into consideration the year in which it was capitalized."*

98. The Petitioner has claimed de-capitalization during the period from 19.8.2016 to 31.3.2019 in Form 9(b)(i) as under:

(₹ in lakh)

19.8.2016 to 31.3.2017	2017-18	2018-19
0.47	125.97	133.37

99. The Petitioner has de-capitalized expenditure in respect of assets not in use, such as, temporary items related to CISF quarters/ barrack and other minor assets viz., furniture, computers, air conditioner, etc. Since, the assets de-capitalized are not in use, the year-wise de-capitalization as claimed by the Petitioner above is allowed in terms of the aforesaid regulation.

Net Additional capital expenditure allowed

100. Accordingly, the net additional capital expenditure allowed for the purpose of tariff for the period from 19.8.2016 to 31.3.2019 is as under:

(₹ in lakh)

	19.8.2016 to 31.3.2017	2017-18	2018-19
Additional capital expenditure allowed	2528.12	604.55	3012.76
Deletions considered (b)	0.47	125.97	133.37

Discharge of liabilities allowed (c)	1029.99	207.31	522.21
Net Additional capital expenditure allowed (d)=(a)-(b)+(c)	**3557.64**	**685.89**	**3401.60**

101. The balance limit available in respect of assets/ works within the original scope of work of the project after considering above additions allowed is as under:

(₹ in lakh)

Balance limit available for assets/works within the original scope of work/RCE of the project as on COD of the generating station**(a)**	9527.63
Expenditure allowed for assets/works within the original scope of work/RCE of the project for the period 2016-19 **(b)**	5907.26
Expenditure for assets/works claimed under the Regulation 14(3)(viii) & 14 (3)(iii) & 14(1)(iv) of the 2014 Tariff Regulations and allowed in respect of assets/works/RCE other than the original scope of work of the project for the period 2016-19. The expenditure allowed is accounted within the balance limit of the completion cost of the project. **(c)**	238.17
Discharge of liabilities allowed during the period 2016-19 **(d)**	1759.51
Total expenditure allowed for expenditure for assets/works within the original scope of work of the project in 2016-19 **(e)=(b)+(c)+(d)**	7904.94
Balance limit available for assets/works within the original scope of work/RCE as on 31.3.2019 after considering above additions during 2016-19 (f)=(a)-(e)	**1622.69**

Capital Cost for the period from COD (19.8.2016) to 31.3.2019

102. In view of the above, the capital cost allowed for the purpose of tariff for the period from COD (19.8.2016) to 31.3.2019 is as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016 to 31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
Opening Capital Cost	38877.22	79914.51	79914.51	121221.32	162240.93	165798.57	166484.46
Net additional capital expenditure allowed	0.00	0.00	0.00	0.00	2527.65	478.58	2879.39
Add: Discharge of liabilities	0.00	0.00	0.00	0.00	1029.99	207.31	522.21
Capital Cost allowed	**38877.22**	**79914.51**	**79914.51**	**121221.32**	**165798.57**	**166484.46**	**169886.06**

103. The capital cost allowed as above is subject to truing-up, based on the information to be furnished by the Petitioner along-with the audited balance sheets as on COD of each unit.

Debt-Equity Ratio

104. 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.

105. The Debt-Equity ratio as per Form 6 and Form 14 is as under:-

	Amount *(₹ in lakh)*	**%**
Debt	120388.48	70.00%
Equity	51594.24	30.00%
Funds raised	**179182.72**	100.00%

106. Based on the debt and equity position furnished by the Petitioner as above, the debt-equity ratio of 70:30 has been allowed.

Return on Equity

107. 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 kilometer"*

108. 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."

109. In line with the above said regulations, grossing up of base rate has been done with the MAT Rate of the respective financial year. Accordingly, Return on Equity has been computed as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016 to 31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
Opening Equity	11663.17	23974.35	23974.35	36366.40	48672.28	49739.57	49945.34
Addition due to Additional Capatalization	0.00	0.00	0.00	0.00	1067.29	205.77	1020.48
Closing Equity	11663.17	23974.35	23974.35	36366.40	49739.57	49945.34	50965.82
Average Equity	11663.17	23974.35	23974.35	36366.40	49205.92	49842.45	50455.58
Return on Equity (Base Rate)	16.500%	16.500%	16.500%	16.500%	16.500%	16.500%	16.500%
Tax rate for the year	21.342%	21.342%	21.342%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre Tax)	20.977%	20.977%	20.977%	20.977%	20.977%	20.977%	21.032%
Return on Equity (Pre Tax)	**133.69**	**13.74**	**1474.28**	**689.71**	**6362.83**	**10455.45**	**10611.82**

Interest on loan

110. 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."

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

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

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

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

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

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

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016 to 31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
Gross Normative Loan	27214.05	55940.16	55940.16	84854.93	113568.65	116059.00	116539.12
Cumulative Repayment up to Previous Year	0.00	54.63	60.24	662.14	942.25	3525.58	7771.85
Net Loan-Opening	27214.05	55885.53	55879.92	84192.78	112626.40	112533.42	108767.27
Repayment during the year	54.63	5.61	601.90	280.11	2583.33	4246.27	4301.54
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	2490.35	480.12	2381.12
Net Loan-Closing	27159.43	55879.92	55278.01	83912.67	112533.42	108767.27	106846.85
Average Loan	27186.74	55882.72	55578.96	84052.73	112579.91	110650.35	107807.06
Weighted Average Rate of Interest on Loan	8.81%	9.24%	9.23%	8.59%	8.60%	8.34%	8.27%
Interest on loan	**130.88**	**14.11**	**1503.84**	**652.78**	**5968.28**	**9228.24**	**8915.64**

Re-financing of Loan

113. As regards re-financing of the loan, Regulation 26 of the 2014 Tariff Regulations provide as under:

26 (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 re-financing 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.

114. The Petitioner has submitted that in order to reduce the rate of interest on loan, re-financing of loan has been done as per Regulation 26(7) of the 2014 Tariff Regulations. The Petitioner has also submitted the calculation of the benefits of re-financing on the basis of

weighted average rate of interest for calculation of interest on normative loan before and after refinancing. Regulation 26(7) provides that the benefit of re-financing is to be shared between the beneficiaries and generating company in the ratio of 2:1 with refinancing charge to be passed on to beneficiaries on actual basis. The Petitioner has further submitted that once the tariff order is issued, the full benefit of re-financing will be passed on to the beneficiaries. Accordingly, in terms of Regulation 26 (7) of the 2014 Tariff Regulations, re-financing of loan has been considered.

Depreciation

115. 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."

116. The Petitioner, in order to lower the tariff, has claimed depreciation by spreading the depreciable value over the useful life, since the 1st year itself. In this regard, the following has been submitted by the Petitioner:

i. The year-wise applicable rate of depreciation as worked out on the basis of Regulation 27 of 2014 Tariff Regulations is approx. 5.04%.

ii. However, in order to reduce tariff of the project and to reduce burden on beneficiary, the Petitioner proposes to recover the depreciation @ 2.57% (i.e. uniform spreading of depreciation over the useful life of project) for determination of tariff.

iii. The first year & levellised tariff has been worked out under the above two options for recovery of depreciation.

iv. In the above calculation, it is seen that levellised tariff with uniform depreciation is lower than the levellised tariff in case of recovery of depreciation under Regulation 27.

v. In view of above, the Commission is requested to allow the recovery of depreciation at uniform rate (i.e. 2.57%) under Regulation 48 of the 2014 Tariff Regulations (Deviation from norms),but shall be within the ceiling norms prescribed by the Commission.

117. Regulation 47 of the 2014 Tariff Regulations provides as under:

"47. Norms to be ceiling norms: Norms specified in these regulations are the ceiling norms and shall not preclude the generating company or the transmission licensee, as the case may

be, and the beneficiaries and the long-term transmission customers /DICs from agreeing to the improved norms and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff."

118. Based on the Regulation 47 of the 2014 Tariff Regulations, depreciation has been computed by spreading over the depreciable value from the 1st year itself and allowed as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016 to 31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
Opening gross block	38877.22	79914.51	79914.51	121221.32	162240.93	165798.57	166484.46
Additional capital expenditure	0.00	0.00	0.00	0.00	3557.64	685.89	3401.60
Closing gross block	38877.22	79914.51	79914.51	121221.32	165798.57	166484.46	169886.06
Average gross block	38877.22	79914.51	79914.51	121221.32	164019.75	166141.51	168185.26
Land Related Cost	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Depreciable Value	34989.50	71923.06	71923.06	109099.19	147617.77	149527.36	151366.73
Balance Useful life of the asset	35	35	35	35	35	34.38	33.38
Remaining Depreciable Value	34989.50	71868.43	71862.82	108437.05	146675.52	146001.79	143600.77
Depreciation	**54.63**	**5.61**	**601.90**	**280.11**	**2583.33**	**4246.27**	**4301.54**

O&M expenses

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

"29. Operation and Maintenance Expenses:

(3)Hydro Generating Station
(a) xxxx
(b) xxxxx
(c) xxxx

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

120. The Petitioner has claimed O&M expenses as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	**31.3.2016 to 31.3.2016**	**1.4.2016 to 16.7.2016**	**17.7.2016 to 18.8.2016**	**19.8.2016 to 31.3.2017**	**2017-18**	**2018-19**
	(1 units)	(2 units)	(2 units)	(3 units)	(4 units)	(4 units)	(4 units)
O & M expenses (annualized)	1900.79	3801.57	3801.57	5702.36	7603.14	8107.99	8646.36
O & M expenses (Pro-rata)	**103.87**	**10.39**	**1114.43**	**515.56**	**4686.87**	**8107.99**	**8646.36**

121. The installed capacity of the generating station is 160 MW and the COD of the generating station is 19.8.2016. As per Regulation 29(3)(d) of the 2014 Tariff Regulations, the O&M expense for the first year of operation, post-COD of the generating station, is required to be calculated based on the capital expenditure as on the cut-off date. However, prior to the COD of the last unit, when the units are being capitalized on individual dates, the capital cost as admitted as on the COD of the individual units has only been considered for calculation of O&M expenses, as per consistent methodology followed by the Commission.

122. The project cost, as on cut-off date of the generating station (31.3.2019) allowed as above is ₹169886.06 lakh. The Petitioner vide affidavit dated 6.3.2020 has submitted that the expenditure on Rehabilitation and Resettlement (R&R cost) upto the cut-off date i.e. 31.3.2019 is ₹95.71 lakh. However, the Petitioner has calculated and claimed O&M expenses considering the R&R cost of ₹522.45 lakh. As such, the R&R cost of ₹522.45 lakh has been considered for the calculation of admissible O&M expenses as on the COD of the generating station and COD of units (on pro rata basis). The Petitioner is directed to furnish the actual R&R cost as on the cut-off date of the generating station at the time of truing-up of tariff. Accordingly, O&M expenses has been computed as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016 (pro-rata)	31.3.2016 (pro-rata)	1.4.2016 to 16.7.2016 (pro-rata)	17.7.2016 to 18.8.2016 (pro-rata)	19.8.2016 to 31.3.2017 (pro-rata)	2017-18	2018-19
Capital Cost	38877.22	79914.51	79914.51	121221.30	169886.06	-	-
Less: R & R Cost	130.61	261.23	261.25	391.84	522.45	-	-
Capital Cost for the purpose of O & M	38746.61	79653.29	79653.29	120829.48	169363.61	-	-
Annualized O & M for the units/station @4%	1549.86	3186.13	3186.13	4833.18	6774.54	7224.37	7704.07
No. of days	20	1	107	33	225	365	365
O&M expenses allowed	**84.69**	**8.71**	**934.02**	**436.97**	**4176.09**	**7224.37**	**7704.07**

Interest on working capital

123. 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

124. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:

> *"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."*

125. Since Units-I and II of the generating station has been commissioned during the year 2015-16 (i.e. on 11.3.2016 and 31.3.2016 respectively), the rate of interest in respect of

these two units have been considered as 13.50% i.e. SBI base rate as on 1.4.2015 plus 350 points. In respect of the Units-III and IV which have been commissioned during the year 2016-17 (i.e. on 17.7.2016 and 19.8.2016 respectively), the rate of interest for these two units have been considered as 12.70% i.e. SBI MCLR as on 1.4.2016 plus 350 points. Accordingly, in terms of the above regulations, interest on working capital is worked out as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	31.3.2016 to 31.3.2016	1.4.2016 to 16.7.2016	17.7.2016 to 18.8.2016	19.8.2016 to 31.3.2017	2017-18	2018-19
Maintenance Spares	12.70	1.31	140.10	65.55	626.41	1083.66	1155.61
O & M expenses	7.06	0.73	77.83	36.41	348.01	602.03	642.01
Receivables	69.32	7.24	774.68	352.89	3271.63	5341.12	5408.03
Total	**89.08**	**9.28**	**992.61**	**454.85**	**4246.05**	**7026.81**	**7205.65**
Interest Rate	13.50%	13.50%	13.50%	12.70%	12.70%	12.70%	12.70%
Intereston Working Capital	**12.03**	**1.25**	**134.00**	**57.77**	**539.25**	**892.40**	**915.12**

Annual Fixed Charges

126. Based on the above discussion, the annual fixed charges (on pro-rata basis) approved for the generating station is summarized as under:

(₹ in lakh)

	11.3.2016 to 30.3.2016	31.3.2016 to 31.3.2016	1.4.2016 to 16.7.2016	17.7.2016 to 18.8.2016	19.8.2016 to 31.3.2017	2017-18	2018-19
Return on Equity	133.69	13.74	1474.28	689.71	6362.83	10455.45	10611.82
Interest on Loan	130.88	14.11	1503.84	652.78	5968.28	9228.24	8915.64
Depreciation	54.63	5.61	601.90	280.11	2583.33	4246.27	4301.54
Interest on Working Capital	12.03	1.25	134.00	57.77	539.25	892.40	915.12
O & M Expenses	84.69	8.71	934.02	436.97	4176.09	7224.37	7704.07
Total	**415.92**	**43.42**	**4648.05**	**2117.34**	**19629.77**	**32046.74**	**32448.19**

Normative Annual Plant Availability Factor (NAPAF)

127. The Commission in its order dated 8.11.2016 in Petition No. 107/GT/2016 had allowed NAPAF of the generating station as under:

"13.The generating station is located on the river Teesta. The petitioner has claimed NAPAF of 85% in accordance with Regulation 37 of the 2014 Tariff Regulations considering that the fact that the river Teesta is affected by silt. The Commission in its various other orders had allowed the NAPAF of 85% to both TLDP-III and TLDP-V H.E.P (upstream projects to TLDP- IV located at river Teesta) projects of the petitioner. In line with this, we consider the NAPAF of 85% for the purpose of interim tariff. However, the same is subject to review based on scrutiny of the actual operation data."

128. In line with the above decision, NAPAF of 85% has been allowed for the period 2016-19.

Design Energy

129. CEA vide letter 18.10.2017 has approved the Design Energy of 717.717 MU for the generating station. This has been considered for the purpose of tariff of the generating station. The month-wise details are as under:

Month		Design Energy (MUs)
April	I	11.904
	II	11.486
	III	13.033
May	I	22.633
	II	15.027
	III	18.397
June	I	18.243
	II	21.939
	III	36.480
July	I	36.480
	II	36.480
	III	40.128
August	I	36.480
	II	34.824
	III	40.128
September	I	34.762
	II	36.480
	III	36.089
October	I	32.597
	II	27.333
	III	25.345
November	I	12.942
	II	11.820
	III	10.500
December	I	9.534
	II	9.162
	III	9.070
January	I	7.513
	II	7.145

	III	7.480
February	I	8.343
	II	8.051
	III	6.433
March	I	6.738
	II	7.319
	III	9.399
Total		**717.717**

130. The annual fixed charges determined as above are subject to revision based on the truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations. Also, the annual fixed charges recovered by the Petitioner in terms of the Commission orders dated 8.11.2016 and 3.1.2017 shall be adjusted against the tariff determined by this order.

Application Fee and Publication Expenses

131. The Petitioner has sought the reimbursement of petition filing fee for 2016-19 along with the expenditure incurred towards publication of notices for application of tariff in newspapers. The paper cutting of the notices published and the invoice for ₹384120/- has been furnished in Annexure-XI of the petition. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 5.1.2016 in Petition No. 232/GT/2014, we direct that the Petitioner shall be entitled to recover *pro rata,* the tariff filing fees for 2016-19, along with the expenditure of ₹384120/- incurred towards the publication of notices, directly from the respondents on submission of documentary proof.

132. Petition No. 354/GT/2018 is disposed of in terms of the above.

Sd/-
(I.S Jha)
Member

Sd/-
(P.K Pujari)
Chairperson