CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 296/GT/2020

Coram: Shri P.K. Pujari, Chairperson Shri I.S. Jha, Member Shri Pravas Kumar Singh, Member

Date of Order: 30th April, 2022

IN THE MATTER OF

Petition for revision of tariff of Loktak Hydroelectric Power Station (105 MW) for the period from 1.4.2014 to 31.3.2019 after truing up exercise.

AND

IN THE MATTER OF

NHPC Limited, NHPC Office Complex, Sector 33, Faridabad – 121003, Haryana

.... Petitioner

Vs

- Assam State Electricity Board,
 Bijuli Bhawan, Paltan Bazar
 Guwahati 781 001
- Department Of Power,
 Government of Arunachal Pradesh,
 C–Sector,
 Itanagar 799 111,
- 3. Electricity Department, Government of Mizoram, Aizawal – 796 001
- 4. Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala 799 001
- 5. Meghalaya State Electricity Board, Meter Factory Area, Short Round Road, Shillong – 793 001
- 6. Electricity Department, Government of Manipur, Imphal – 795 001



7. Electricity Department, Government of Nagaland, Kohima – 797 001

Parties Present:

Shri Sachin Datta, Senior Advocate, NHPC Shri Rajiv Shankar Dwivedi, Advocate, NHPC Shri M.G. Gokhale, NHPC Shri Piyush Kumar, NHPC Shri Indrajit Tahbildar, APDCL

ORDER

This petition has been filed by the Petitioner, NHPC Limited, for revision of tariff of Loktak Hydroelectric Power Station (3 x 35 MW) (hereinafter referred to as 'the Generating Station') for the period from 1.4.2014 to 31.3.2019 in terms of Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 'the 2014 Tariff Regulations').

Background

- 2. The generating station, located in the State of Manipur, was declared under commercial operation on 1.6.1983. The power generated from the project is being supplied to the various beneficiaries i.e. the Respondents herein in North Eastern Region in terms of the Power Purchase Agreement entered into between the Petitioner and the beneficiaries.
- 3. In Petition No. 228/GT/2014 filed by the Petitioner for approval of tariff for the generating station for the 2014-19 tariff period, the Commission vide its order dated 18.9.2015 approved the capital cost and annual fixed charges for the generating station. Thereafter, Petition No. 248/MP/2018 was filed by the Petitioner for approval of R&M of the generating station and the Commission vide its order dated 24.7.2019 disposed of the same, with certain directions.

4. The capital cost and the annual fixed charges approved vide order dated 18.9.2015 in Petition No. 228/GT/2014 are as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	16880.31	17584.65	17825.64	17965.17	17965.17
Admitted additional capitalization	704.34	240.99	139.53	0.00	0.00
Closing Capital Cost	17584.65	17825.64	17965.17	17965.17	17965.17

Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	1581.42	1611.02	1622.94	1627.30	1627.30
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	918.85	945.86	956.21	952.23	156.45
Interest on Working Capital	591.95	628.76	667.14	707.53	732.27
O&M Expenses	9673.64	10316.36	11001.78	11732.74	12512.26
Total	12765.86	13502.00	14248.06	15019.81	15028.29

5. Reply to the petition has been filed by the Respondent, APDCL vide affidavit dated 24.5.2021 and the Petitioner has filed its rejoinder to the same on 4.6.2021. The Petition was heard on 25.5.2021 through video conferencing. During the hearing, the learned Senior Counsel for the Petitioner submitted that the generating station has completed its useful life on 31.5.2018 and is in the process of implementation of R&M since December 2020. He further submitted that the petition for approval of tariff approval will be filed before the Commission after completion of the R&M works, which were approved by the Commission. On a specific query of the Commission regarding shutdown of the plant, the learned senior counsel submitted that the generating station would undergo complete shutdown from November, 2022. The Commission after hearing the parties reserved its order in the petition. Based on the submissions of the parties and the documents available on record and on prudence check, we proceed for truing up the tariff of the generating station for the 2014-19 tariff period, as stated in the subsequent paragraphs.

- 6. Regulation 8(1) of the 2014 Tariff Regulations provides as under:
 - "8. Truing up
 - (1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up:

Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17."

7. The Petitioner has filed the present petition for truing-up of tariff of the generating station for the 2014-19 tariff period based on the actual capital expenditure incurred for the said period, as per audited accounts. Accordingly, the capital cost and annual fixed charges claimed by the Petitioner are as under:

Capital cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	16880.31	17621.25	18269.54	18834.17	19189.58
Add: Addition during the	740.94	648.30	564.63	355.41	345.13
year/ period					
Closing Capital Cost	17621.25	18269.54	18834.17	19189.58	19534.71

Annual Fixed Charges claimed

(Rs. in lakh)

				1.10	74.7.17
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	920.29	970.22	1016.41	1094.19	320.22
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1598.71	1646.63	1671.78	1712.16	1741.16
Interest on Working Capital	592.38	630.14	669.65	712.75	738.66
O&M Expenses	9673.64	10316.36	11001.78	11732.74	12512.26
Total	12785.03	13563.35	14359.62	15251.83	15312.31

Capital Cost

- 8. Regulation 9 (3) of the 2014 Tariff Regulations provides as under:
 - "9. Capital Cost:
 - (3) The Capital cost of an existing project shall include the following:
 - (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
 - (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
 - (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."

9. The Commission vide its order dated 18.9.2015 in Petition No. 228/GT/2014 had approved the closing capital cost of Rs.16880.31 lakh as on 31.3.2014. Accordingly, the capital cost of Rs.16880.31 lakh, as on 31.3.2014, has been considered as the opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the 2014-19 tariff period.

Additional Capital Expenditure

- 10. Regulation 14(3) of the 2014 Tariff Regulations provides as under:
 - "14.(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.

11. The year-wise, net projected additional capital expenditure allowed for the 2014-19 tariff period, vide order dated 18.9.2015 in Petition No. 228/GT/2014 is as under:

 2014-15
 2015-16
 2016-17
 2017-18
 2018-19
 Total

 704.34
 240.99
 139.53
 0.00
 0.00
 1084.86

12. The Petitioner has submitted that there is variation between the actual capital expenditure incurred by the generating station, as against the additional capital expenditure allowed by the Commission vide order dated 18.9.2015 in Petition No. 228/GT/2014 for the 2014-19 tariff period. The detailed break-up of the additional capital expenditure claimed by the Petitioner are as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Additions during the year (a)	844.84	706.60	591.85	400.45	333.09
Deletions during the year (b)	103.90	62.52	82.67	61.46	0.00
Discharges during the year (c)	0.00	4.21	55.45	16.42	12.04
Net additional capital	740.94	648.30	564.63	355.41	345.13
expenditure claimed					
(d)=[(a)-(b)+(c)]					

(Rs. in lakh)

13. The Respondent APDCL has mainly submitted that the Commission may examine the claims of the Petitioner on prudence check and admit only those expenditures which were approved by order dated 18.9.2015 in Petition No. 228/GT/2014. The details of the additional capital expenditure claimed by the Petitioner under the provisions of Regulation 14(3) of the 2014 Tariff Regulations are as under:

SI.	Pogulations	Regulations Amount (Rs. in lakh)				
No.	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19
1	14(3)(i)	0.00	0.00	0.00	0.00	26.28
2	14(3)(iii)	185.56	30.23	329.47	45.75	81.67
3	14(3)(viii)	659.28	676.37	262.38	354.70	225.14
4	14(3)(vi)	0.00	4.21	55.45	16.42	12.04
5	14(3) (De-capitalization)	103.90	62.52	82.67	61.46	0.00
	Total as per Form-9A (Net)	740.94	648.30	564.63	355.41	345.13

14. The additional capital expenditure claims of the Petitioner are examined below:

2014-15

(Rs. in lakh) Regulation 2014-15 SI. No. Expenses incurred on account of need for higher 14(3)(iii) (a) 185.56 security and safety of the plant as advised or directed by appropriate Govt. Agencies of statutory authorities responsible for national/internal security (b) 14(3)(viii) Additional works/expenditure which has become 659.28 necessary for efficient and successful operation of plant

(a) Additional capital expenditure claimed under Regulation 14(3)(iii)

Total additional capital expenditure claimed

SI. No.	Details of the claim	Amount claimed	Justification submitted	Remarks on admissibility	Amount Allowed
		(Rs. in lakh)	by the Petitioner		(Rs. in lakh)
Items	allowed in order	dated 18.9.2	2015 in Petition No. 22	8/GT/2014	
1	Providing and	20.24	These assets /	It is noticed that	20.24
	laying of		works claimed	the additional	
	water supply		were admitted vide	capital	
	lines and		order dated	expenditure	
	construction		18.9.2015 in	claimed under	
	of toilets for		Petition No.	these heads were	
	CRPF watch		228/GT/2014	allowed on	
	towers at		(projected item No.	projected basis	
	penstock		9 & item No.10 of	for Rs.23 lakh	

844.84

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
	area.		2014-15).	and Rs.24 lakh respectively in 2014-15 vide order dated	
2	Construction of watch tower at Powerhouse, Loktak complex gate, CRPF camp at valve house.	16.26		18.9.2015 in Petition No. 228/GT/ 2014 under Regulation 14 (3) (viii) of the 2014 Tariff Regulations, on the ground that these assets were considered necessary for efficient and successful operation of the generating station. Considering the fact that the additional capital expenditure is necessary for safety of the plant of the generating station, the claim is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	16.26
3	Construction of five number new morcha at Ithai Barrage.	12.33	These assets / works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014 (projected item No. 11 of 2014-15).	It is noticed that the additional capital expenditure claimed under this head was allowed on projected basis for Rs.12 lakh vide order dated 18.9.2015 in Petition No. 228/GT/2014, on the ground that the asset was	12.33

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		(rior in raini)	by the reditioner	considered	(rter iii raiii)
				necessary for	
				efficient and	
				successful	
				operation of the	
				_	
				generating station.	
				Considering the fact that the	
				additional capital	
				expenditure is	
				necessary for	
				efficient and	
				successful	
				operation of the	
				generating	
				station, the claim	
				is allowed under	
				Regulation	
				14(3)(viii) of the	
				2014 Tariff	
				Regulations.	
				Considering the	
				fact that the	
				additional capital	
				expenditure is	
				considered	
				necessary for	
				safety of the	
				plant, the	
				additional capital	
				expenditure	
				claimed is	
				allowed under	
				Regulation	
				14(3)(iii) of the	
				2014 Tariff	
				Regulations. The	
				de-capitalization	
				value of Rs.1.03	
				lakh for old,	
				replaced	
				assets/works has	
				been considered	
				under 'Assumed	
				Deletions'.	

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
4	Construction of cook house cum Kitchen for CRPF.	23.59	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014 (projected item No. 12 of 2014-15).	It is observed that the additional capital expenditure claimed under this head was allowed on projected basis for Rs.24.00 lakh and decapitalization of Rs.0.65 lakh i.e. Rs.23.35 (24.00-0.65) lakh vide order dated 18.9.2015 in Petition No. 228/GT/2014, as the asset/work is necessary for the benefit of employees working in remote areas of the generating station and in turn will ensure the successful and efficient operation of the plant. In view of this, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.0.65 lakh for old, replaced assets/ works has been considered under 'Assumed deletions.'	23.59

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
5	Construction of 6 barracks for CRPF.	64.99	These assets/works claimed were admitted vide Tariff order dated 18.9.2015 in Petition No. 228/GT/2014 (projected item No. 3 of 2015-16).	The additional capital expenditure claimed under this head was allowed for Rs.90.00 lakh and decapitalization of Rs.5.04 lakh i.e. Net Rs.84.96 (90.00-5.04) lakh vide order dated 18.9.2015 in Petition No. 228/GT/2014. Considering the fact that the additional capital expenditure is considered necessary for safety of the plant, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.5.04 lakh for old replaced assets/works has been considered under 'Assumed deletions.'	64.99
New I				T -	Γ
6	Providing and fixing of RBT Concertina coil fencing along boundary wall at Leimatak.	13.66	The Petitioner has submitted that in view of security threats due to bad law and order situations in Manipur and	Considering the fact that the expenditure incurred is not directly related to the operation of the generating	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			powerhouse being situated in critical areas/ isolated place, vital installation of Power Station like Penstock, Power House and Leimatak Colony etc. has been secured with concentring coil fencing.	station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	
7	Construction of security boundary wall at Ithai Barrage.	0.34	The Petitioner has submitted that CRPF is entrusted with the task of security of Ithai Barrage and in view of the above the security considerations and requirements of CRPF, construction of security boundary wall at Ithai Barrage was constructed.		0.00
8	Construction of toilet room for CRPF personal at Tiger Hill Ithai.	2.63	The Petitioner has submitted that one platoon of CRPF personnel is posted at Tiger Hill for protection of Barrage of Loktak Power Station. Further, CRPF have raised the requirement of toilet near watch tower for the duty personals deployed for round the clock duty.		0.00
9	Providing and fixing RBT Concertina	11.32	The Petitioner has submitted that in view of security		0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
	Coil fencing penstock to main gate at Leimatak		threats due to bad law and order situations in Manipur, and power house being situated in critical areas/isolated place, vital installation of Loktak Power Station like Penstock, Power House and Leimatak Colony etc. have been secured with Concertina Coil Fencing. The same was required/ suggested by CRPF at Leimatak from security point of view.		
10	Providing and fixing Concertina coil fencing from penstock to river end near Powerhouse.	5.89	The Petitioner has submitted that in view of security threats due to bad law and order situations in Manipur, and power house being situated in critical areas/isolated place, vital installation of Loktak Power Station like Penstock, Power House and Leimatak Colony etc. have been secured with Concertina Coil Fencing. The same was required/ suggested by	Considering the fact that the assets/ works are covering the station area and are necessary for the safety and security of the generating station in terms of the recommendations of the Central Security agency, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	5.89

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner CRPF at Leimatak from security point	Remarks on admissibility	Amount Allowed (Rs. in lakh)
11	Construction of Kitchen & storeroom for CRPF at Lamdan	12.12	of view. The Petitioner has submitted that Loktak Power Station is having CRPF personnel deployed at Lamdan outpost. CRPF personnel at their own have arranged somehow the kitchen and storeroom made up of CGI sheet roofing and temporary walls. The temporary sheds are not in good condition as well as not secured in this high security zone. Hence, construction of new kitchen and storeroom was becoming necessary on receipt of proposal letter of CRPF.	Considering the fact that the assets/ works are necessary for the safety and security of the generating station and is based on the recommendations of the Central Security agency, the additional capital expenditure claimed is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.	12.12
12	Door Frame and Metal Detector (DFMD) (06 numbers)	2.18	A branch of SBI bank is situated inside the Power Station campus which is being used by employees as well as by outsiders. In view of security threats due to bad law & order situation in Manipur, security checking of outsiders as well	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M, the additional capital expenditure claimed is not allowed.	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			as their vehicles is essential. Hence for security check various security items have been purchased.		
	Total amount claimed	185.56			
	Total amount a	llowed			155.42

(b) Additional Capital Expenditure claimed under Regulation 14(3)(viii)

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)			
Items	Items allowed in order dated 18.9.2015 in Petition No. 228/GT/2014							
1	Lift for Powerhouse	30.16	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure claimed under this head was allowed for Rs. 31.00 lakh and decapitalization of Rs.1.59 lakh i.e. net Rs.29.41 (31.00-1.59) lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as the assets/works are already approved. Considering the fact that the	30.16			



SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				additional capital expenditure incurred will facilitate the efficient and successful operation of the generating station, the same is allowed. The decapitalization value of Rs.1.59 lakh for old, replaced assets/ works has been considered under 'Assumed	
2	Construction of one semi-permanent type-I building having 04 numbers of quarters at surge shaft	59.22	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	deletions'. It is observed that the additional capital expenditure claimed under this head was allowed for Rs.60.00 lakh and decapitalization of Rs.3.35 lakh i.e. Net Rs.56.65 (60.00-3.35) lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as	59.22

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				the assets/ works are already approved. Considering the fact that the additional capital expenditure incurred will facilitate efficient and successful operation of the generating station, the same is allowed. The de- capitalization value of Rs.3.35 lakh for old, replaced assets/works has been considered under 'Assumed deletions.	
3	Construction of Permanent type - II Double storied building 04 blocks having 04 quarters in each block at Loktak.	256.68	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure claimed under this head for Rs. 325.00 lakh and decapitalization of Rs.3.90 lakh i.e. Net Rs.321.10 (325.00-3.90) lakh by order dated 18.9.2015 in Petition No. 228/GT/2014	256.68

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				under Regulation 14(3)(viii) of the 2014 Tariff Regulations. Considering the fact that the additional capital expenditure incurred will facilitate efficient and successful operation of the generating station, the same is allowed. The de- capitalization value of Rs.3.90 lakh for old, replaced assets/works has been considered under 'Assumed deletions'.	
4	Disaster management pumps (2 numbers)	66.73	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure claimed under this head was allowed for Rs.67.00 lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations,	66.73

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				since the asset is considered necessary for efficient and successful operation of the generating station. In view of this, the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff	
5	Three Phase relay kit	26.37	These assets/works claimed were admitted vide Tariff order dated 18.9.2015 in Petition No. 228/GT/2014.	Regulations. It is observed that the additional capital expenditure claimed under this head was allowed for Rs.27.00 lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations since the asset is considered necessary for efficient and successful operation of the generating station. In view of this, the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff	26.37

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
6	Replacement of LT distribution lines by underground LT Cabling at Loktak Colony	20.73	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/ 2014. The Commission had allowed this item as the asset is considered necessary for the benefit of employees (families) working in remote areas of the generating station and in turn will ensure the efficient and successful operation of the plant. The gross value of old asset is indicated as Rs.6.09 lakh.	The additional capital expenditure claimed under this head was allowed for Rs.35.00 lakh and decapitalization of Rs.6.09 lakh i.e. Net Rs.28.91 (35.00-6.09) lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as the asset is considered necessary for the benefit of employees (families) working in remote areas of the generating station and in turn will ensure the efficient and successful operation of the plant. In view of this, the additional capital expenditure incurred is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	20.73

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				The de- capitalization value of Rs.6.09 lakh for old, replaced assets/works has been considered under 'Assumed deletions'.	
7	Replacement of 11 kV line from Leimatak to loktak	69.76	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure of Rs.75.00 lakh and decapitalization of Rs.38.61 lakh i.e. Net Rs. 36.39 (75.00-38.61) lakh was allowed under this head vide order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations since the asset is considered necessary for efficient and successful operation of the generating station. In view of this, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.38.61 lakh for	69.76

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				old, replaced assets/works has been considered under 'Assumed deletions'.	
New I		·		· · · · · ·	
8	Construction of Toilet of community Hall at Loktak	17.77	The Petitioner has submitted that a new Community Hall was constructed during 2011-12. When the same was put to use, the necessity of toilet adjacent to community hall was observed during various gatherings like official meetings, programs etc. of Power Station.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00
9	Siemens make, sentron series 3WL, air circuit breaker (02 numbers)	5.08	The Petitioner has submitted that the existing Air Circuit Breakers (ACB's) installed in the various panels for control of auxiliary equipment's had outlived their useful life and started giving troubles. Hence, ACBs were purchased and replaced in the respective UABs of individual units for improving the reliability of functioning of auxiliaries for smooth operation of machines. The Petitioner further submitted that	In view of the submissions of the Petitioner and keeping in view that the additional capital expenditure incurred is for the efficient operation of the generating station, the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The decapitalization value of Rs. 0.58 lakh for old, replaced assets/works	5.08

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			based on Indexation method, gross value of old assets is considered as Rs.57514 and WDV as Rs.8083.	as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.1.12 lakh under 'Assumed deletions'.	
10	Construction of Elevated water tank at Ithai Barrage, Ithai.	6.98	The Petitioner has submitted that the generating station has barrage in Ithai where sufficient numbers of Petitioner's and CRPF personnel are deployed. Being an extremely remote location, there is lack of proper water supply system in the area. For proper storage system for drinking water, the construction of elevated Water Tank at Ithai Barrage became inevitable.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00
11	Tubewell at Liematak	4.86	The Petitioner has submitted that for better water supply and to maintain hygiene level of employees posted		0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			at Leimatak, a borewell for fresh water was installed at Leimatak. This work was essential keeping in view the requirement of OHSAS.		
12	Tubewell at Ithai Barrage	4.89	The Petitioner has submitted that the generating station has barrage in Ithai where sufficient numbers of Petitioner's and CRPF personnel are deployed. Being an extreme location & lack of proper water supply system, staff were using the river water directly for drinking and other purposes. Considering the safety of health of staff, tapping of water through tube Well at Ithai Barrage became very essential.		0.00
13	Air Circuit Breaker 630 Amp, 440 Volt (03 numbers)	3.69	The Petitioner has submitted that earlier there were Oil Circuit Breakers (OCBs) in operation, which were installed way back in 1980s. As the OCBs have outlived their useful lives and the spare parts of those OCBs are also not available these days in the	Considering that the additional capital expenditure incurred is for assets/works which are necessary for the successful and efficient operation of the generating station, the same is	3.69

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			market, hence to overcome the frequent problems in operation as well as to avoid any accident, the replacement of old OCBs with new ACBs became very necessary. Further, the Petitioner submitted that based on Indexation method the gross value of old assets is considered as Rs.41824 and WDV as Rs.5636.	allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The decapitalization value of Rs.0.42 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.0.81 lakh under 'Assumed deletions'.	
14	2X10 KVA Online UPS System	8.60	The Petitioner has submitted that prior to purchase of 2x10 KVA, there was only one 2 KVA UPS for power supply to the servers and the existing LAN. However, with the ongoing upgradation and enhancement of the existing LAN, new equipment's and accessories like new servers, new L3 and L2	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed. The	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		,	switches, New	corresponding	,
			Routers for Leased	de-	
			Line and VSAT,	capitalization	
			KVM Switches,	on account of	
			OFC Equipment's	the same is	
			etc. were added to	also not	
			the existing	allowed.	
			network		
			infrastructure for		
			uninterrupted		
			power supply.		
			Moreover, the		
			upgraded LAN is		
			connected with		
			Corporate WAN		
			through high		
			speed leased lines		
			and VSAT which		
			also require		
			reliable and		
			uninterrupted		
			power supply		
			round the clock.		
			Considering the above		
			requirements as well as to make up		
			for the frequent		
			power cuts in		
			generating station		
			area, a stable and		
			redundant online		
			UPS system was		
			required to keep		
			pace with CO		
			ERP, Internet etc.		
			Hence the		
			redundant UPS		
			systems were		
			purchased. The		
			gross value of old		
			assets is Rs.35950		
			and WDV is		
			Rs.6017.		
15	2kVA 24V	1.07	The Petitioner has	Considering the	0.00
	pure sine		submitted that the	fact that the	
	Wave		Power supply at	expenditure	
	Inverter /		Ithai barrage area	incurred is not	

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
	Home UPS-		is very erratic and	directly related	
	Luminous		frequent power	to the operation	
	Make (02		cuts are often in	of the	
	numbers)		the area. Two	generating	
			number	station and is in	
			accelerographs	the nature of	
			are installed for	O&M	
			monitoring of	expenses, the	
			earthquake	additional	
			activities at Ithai	capital	
			Barrage which	expenditure	
			requires LAN	claimed is not	
			connectivity and	allowed.	
			adequate power		
			supply backup		
			round the clock.		
			The LAN		
			connectivity at Ithai		
			Barrage needs to		
			be integrated with		
			corporate WAN		
			through VSAT at		
			Ithai, which also		
			requires round the		
			clock power		
			supply. To sort out		
			the frequent power		
			cut problems as		
			well as to provide		
			round the clock		
			power supply with		
			adequate power		
			backup to the		
			accelerographs,		
			VSAT equipment		
			and LAN		
			equipment, 2		
			numbers 2kVA		
			24V pure sine		
			wave inverter with		
			adequate battery		
			banks were		
			required. Hence,		
			these equipment		
			were purchased.		

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
16	Cisco router 1921 with 02 numbers gigabit ethernet Ports.	0.03	The Petitioner has submitted that all the important WAN Link between CO and powerhouse at Leimatak has been provided by Ku Band VSAT Link only. The VSAT link has limited bandwidth as well as the link is not reliable and hence it creates a lot of problems in various office works requiring ERP applications and Internet at Leimatak powerhouse area. To provide a reliable and faster primary MPLS Link for the WAN connectivity to Leimatak powerhouse, the equipment was purchased.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00
17	HP L2 2530 managed Switch-48 10/100/1000 Ports with 4SFP slots with 2 number 10G SFP Module with POE	4.54	The Petitioner has submitted that the existing LAN switches at the generating station had a temporary setup catering to about 90 nodes only and these switches does not support OFC modules. The number of existing nodes was not enough considering the widespread implementation of	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			ERP applications		
			in all areas of the		
			generating Station.		
			With the		
			implementation of		
			ERP applications,		
			about 200 network		
			node points were		
			required for all the		
			locations in the		
			generating station		
			area. Further after		
			upgradation of the		
			LAN, the existing		
			switches alone will		
			not be sufficient to		
			cater all the nodes.		
			Considering the		
			above		
			requirements and		
			keeping in mind for		
			integrating with the		
			future expansion		
			/upgradation to		
			OFC based a		
			permanent LAN, 4		
			numbers of 48 port		
			L2 Managed		
			Switches with fibre module slots were		
			required over and		
			above the existing		
			switches.		
			Therefore, these		
			switches were		
			purchased.		
18	CO2 type fire	6.15	The Petitioner has	In view of the	6.15
. •	extinguisher	5.15	submitted that	submissions of	0.10
	complete with		many fire	the Petitioner	
	all necessary		extinguishers	and	
	fittings		installed at	considering the	
	9-		different location of	fact that the	
			generating station	additional	
			has become	capital	
			obsolete and	expenditure	
			needs to be	incurred is for	
			replaced.	the safety and	
			Moreover, some	security of the	

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			additional locations are also identified for compliance of OHSAS and environment policy, where fire extinguishers need to be installed. Therefore, fire extinguisher has been purchased. The gross value of replaced items is Rs.108866 and WDV is Rs.18.	generating station, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations. The decapitalization value of Rs. 1.09 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs. 1.36 lakh under 'Assumed deletions'.	
19	HP proliant DL380E G8 server- intel Xeon e5- 24078gb ram,1.2tb sas hdd, dvd rw, keyboard, mouse,18.5tft (04 numbers)	8.53	The Petitioner has submitted that the existing domain servers in generating stations administrative office and Leimatak Powerhouse were very old and are in deteriorating conditions. These servers were purchased before 2006 and as such	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the efficient operation of the generating station the same is	8.53

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		, , ,	the items have	allowed under	,
			already outlived	Regulation	
			their useful life.	14(3)(viii) of the	
			Further, the	2014 Tariff	
			servers were	Regulations.	
			running on	The de-	
			Microsoft Windows	capitalization	
			2003 Server	value of	
			Operating System	Rs.1.38 lakh for	
			which are already	old, replaced	
			after end-of-	assets/works	
			support by	as claimed by	
			Microsoft. Since	the Petitioner	
			servers are the	appears to be	
			main backbone of	on the lower	
			the entire network	side. Hence,	
			in generating	considering the	
			station, these are	methodology described in	
			to be kept in smooth running	paragraph 27	
			condition 24X7.	of this order	
			The existing	below, the de-	
			servers are	capitalization of	
			technically not	the same has	
			suitable for new	been	
			applications and	considered as	
			are having lower	Rs.1.88 lakh	
			processing	under	
			capabilities, which	'Assumed	
			creates	deletions'.	
			bottlenecks in the		
			implementation of		
			new application		
			packages like		
			ERP. In view of the		
			above as well as		
			considering future		
			scalability of the		
			entire network		
			infrastructure, new		
			server computers		
			along with new		
			operating systems are required to be		
			installed in		
			generating station		
			for smooth		
			functioning of		

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			office works. Hence the servers were purchased. The gross value of old assets is Rs.138000 and WDV is Rs.6900.		
20	Handheld VHF device - MOTOROLA GP328 (03 numbers)	0.35	The Petitioner submitted that since the generating station is in remote locations, generating station is having few sites beyond mobile networks. In the absence of any prominent mode of communication and to get the uninterrupted connectivity with the generating station from various sites adequate nos. of VHF sets are required. The gross value of old assets is Rs.55590 and WDV is Rs.3.	In view of the submissions of the Petitioner and since the additional capital expenditure incurred is for the efficient operation of the generating station the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The decapitalization value of Rs.0.56 lakh for old, replaced assets/works has been considered under 'Assumed deletions'.	0.35
21	CVT, 132KV, 4400PF (04 numbers)	13.72	The Petitioner has submitted that three numbers of captive voltage transformers had been installed in the 132 KV Feeders at generating station for voltage monitoring and synchronising	In view of the submissions of the Petitioner and since the additional capital expenditure incurred for the efficient operation of the generating station the	13.72

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
22	Current Transformer 132 KV, CTR 300-200/1; Class 5P10; Burden 30VA	1.10	petitioner purpose. During conditioning monitoring test of these CVTs, Tan Delta Test results showed that these three numbers of CVTs installed in Jiribam-II Feeders are in very bad condition and may fail at any time. Additionally, one no. of CVT installed in Imphal- I feeder was also not working properly. Therefore, four numbers of CVTs were replaced in 2014-15 to improve the system reliability. Based on Indexation method, gross value of old assets is considered as Rs.155397 and WDV as Rs.22739. The Petitioner has submitted that due to oil leakage in the old installed CT, the same got replaced with the newly purchased 132 kV CT during 2014-15. The old 132KV transformer was purchased/ installed way back during commissioning of the generating	same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de- capitalization value of Rs.1.55 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the de- capitalization of the same has been considered as Rs.3.02 lakh under 'Assumed deletions'. In view of the submissions of the Petitioner and since the additional capital expenditure incurred for the efficient operation of the generating station the same is allowed under Regulation	1.10
			station. Based on Indexation method,	14(3)(viii) of the 2014 Tariff	

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			gross value of old asset (O&M Gross Block) is considered as Rs.12479 and WDV as Rs.1801.	Regulations. The decapitalization value of Rs.0.12 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.0.24 lakh under 'Assumed deletions'.	
23	132 kV/ 63.5V potential Transformer (PT) (Single Phase) (06 numbers)	16.19	The Petitioner has submitted that as per the new guidelines issued by CEA every PT should be class 0.2 accuracy. Being old generating station, all the bus PTs were installed with accuracy class 1. Therefore, in 2014-15, 6 numbers of 132 kV bus PT were replaced to improve the system reliability and to improve the measuring accuracy. Based on Indexation	In view of the submissions of the Petitioner and since the additional capital expenditure incurred for the efficient operation of the generating station the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The decapitalization value of Rs.1.83 lakh for	16.19

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		(Rs. in lakh)	_	old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.3.57 lakh	
			the Project.	under 'Assumed deletions'.	
24	Beacon make pump model 10LA4 bare shaft pump for cooling water system of PH	26.08	The Petitioner has submitted that old cooling water pumps had been installed at the generating station way back since commissioning and due to ageing, wear and tear, the discharge of these old pumps had been reduced considerably resulting in reduced efficiency in cooling of various coolers associated with generating units. To improve the cooling system of generating units, Beacon make cooling water pumps were replaced in 2014-	In view of the submissions of the Petitioner and since the additional capital expenditure incurred for the efficient operation of the generating station the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The decapitalization value of Rs.2.95 lakh for old, replaced assets/works as claimed by the Petitioner appears to be	26.08

SI.	Details of the	Amount	Justification	Remarks on	Amount
No.	claim	claimed	submitted by the	admissibility	Allowed
		(Rs. in lakh)	Petitioner		(Rs. in lakh)
			15. Based on Indexation method, gross value of old assets is considered as Rs.295476 and WDV as Rs.41526.	on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.5.75 lakh under 'Assumed deletions'.	
	Total amount claimed	659.28			
	Total amount al	lowed			610.54

15. Based on the above, the total additional expenditure of Rs.765.96 lakh {Rs.155.42 lakh +Rs.610.54 lakh} is allowed in 2014-15.

2015-16

16. The details of the actual additional capital expenditure claimed by the Petitioner in 2015-16 under the various provisions of Regulation 14(3) of the 2014 Tariff Regulations are examined below:

(Rs. in lakh)

	(1.5. 11 10			
SI. No.		Regulation	2015-16	
(a)	14(3)(iii)	Expenses incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Govt. Agencies of statutory authorities responsible for national/ internal security	30.23	
(b)	14(3)(viii)	Additional works/expenditure which has become necessary for efficient and successful operation of plant	676.37	
	Total additional capital expenditure claimed			

(a) Additional Capital Expenditure claimed under Regulation 14(3)(iii)

SI.	Details of the	Amount	Justification submitted	Remarks on	Amount
No.	claim	claimed (Rs. in lakh)	by the Petitioner	admissibility	Allowed (Rs. in lakh)
Item	s allowed in order		15 in Petition No. 228/GT/	/2014	(rtor iir iaiti)
1	Construction of 6 barracks for CRPF.	5.22	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure claimed under this head were allowed for Rs.90.00 lakh and decapitalization of Rs.5.04 lakh i.e. Rs.84.96 (90.00-5.04) lakh vide order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as the asset is necessary for the benefit of employees (families) working in remote areas of the generating station and in turn will ensure the successful and efficient operation of the plant. In view of this, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	5.22
New	Items			-	
2	CCTV equipment system for KV school, Loktak	6.93	The Petitioner has submitted that in view of security threats due to bad law and order situations in Manipur various vulnerable locations of the Project and generating station areas have been kept under CCTV Surveillance so that the critical areas near to Power station could	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			be closely monitored by the department.		
3	CO2 type fire extinguisher complete with all necessary fittings (29 numbers)	2.96	The Petitioner has submitted that fire extinguishers were purchased for meeting the requirement of safety of generating station equipment as well as in the various premises of generating station. Installation of fresh fire extinguishers became mandatory in compliance of OHSAS and environment policy requirement. The Gross value of old assets are as Rs.48385 and WDV as Rs.8.	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the safety and security of the generating station, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations. The decapitalization value of Rs.0.48 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs. 0.62 lakh under 'Assumed deletions'.	2.96
4	Battery charger. Input voltage: 220V AC, charging voltage range: 6V to 36V DC (04 numbers)	0.00*	The Petitioner has submitted that a branch of SBI bank is situated inside the generating station which is being used by employees as well as	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature	0.00
5	Day binocular with inbuilt digital compass (05 numbers)	0.00*	by outsiders. In view of security threats due to bad law & order situation in Manipur,	of O&M expenses, the additional capital expenditure claimed is not allowed . The	



SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
6	Handheld metal detector (05 numbers)	0.00*	security checking of outsiders as well as their vehicles is essential. Hence for	discharge of liabilities for these assets are also not considered.	
7	Under vehicle searching mirror (with torch), make see, model: evusm (02 numbers)	0.00*	security check various security items have been purchased. The Petitioner has claimed this under undischarged liability.		
8	Handheld search light (02 numbers)	0.00*			
9	Lan for CCTV at generating station (PO10215/37)	2.90	The Petitioner has submitted that in view of security threats due to bad law and order	Considering the fact that the expenditure incurred is not directly related to the	0.00
10	IP based Bullet type Fixed camera, Samsung, PS- SNO-7080R for different locations of generating station (PO10214/161)	12.24	situations in Manipur, various vulnerable location of the Project and generating station area have been kept under CCTV Surveillance so that the same could be closely monitored by the department. Asset is considered necessary for the safety of the generating station.	operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	0.00
	Total amount claimed	30.23			
	Total amount all	owed			8.18

^{*}The Petitioner has claimed these expenditures under un-discharged liabilities during 2015-16 however, these liabilities have been discharged during 2016-17.

(b) Additional Capital Expenditure claimed under Regulation 14(3)(viii)

SI. No.	Details of the claim allowed in order	Amount claimed (Rs. in lakh) dated 18.9.20	Justification submitted by the Petitioner 015 in Petition No. 228/GT/2	Remarks on admissibility	Amount Allowed (Rs. in lakh)
1	Replacement of LT distribution lines by underground	17.02	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure for Rs.35.00 lakh and decapitalization	17.02

SI.	Details of the	Amount	Justification submitted	Remarks on	Amount
No.	claim	claimed	by the Petitioner	admissibility	Allowed
		(Rs. in lakh)	•		(Rs. in lakh)
	LT Cabling at			of Rs.6.09 lakh i.e.	
	Powerhouse			net Rs.28.91	
	Colony.			(35.00-6.09) lakh	
				was allowed in	
				2015-16 by order	
				dated 18.9.2015 in	
				Petition No.	
				228/GT/2014 under	
				Regulation	
				14(3)(viii) of the	
				2014 Tariff	
				Regulations as the	
				asset is necessary	
				for the benefit of	
				employees (families) working in	
				remote areas of the	
				generating station	
				and in turn will	
				ensure the	
				successful and	
				efficient operation of	
				the plant. In view of	
				this, the additional	
				capital expenditure	
				claimed is allowed	
				under Regulation	
				14(3)(viii) of the	
				2014 Tariff	
				Regulations. The	
				de-capitalization	
				value of old	
				replaced assets/	
				works has been	
				considered under	
				'Assumed	
	D. d.	47.55	T I	deletions'.	47.55
2	Replacement	17.55	These assets/works	It is observed that	17.55
	of EPABX		claimed were admitted	the additional	
	System.		vide Tariff order dated	capital expenditure	
			18.9.2015 in Petition	for Rs.30.00 lakh	
			No. 228/GT/2014. The Commission had	and decapitalization of Rs.6.85 lakh	
			allowed this item as the	i.e.net Rs.23.15	
			item is considered	(30.00-6.85) lakh	
			necessary for efficient	was allowed by	
			and successful	order dated	
			operation of the	18.9.2015 in	
			generating station. The	Petition No.	
L			generaling station. The	i Guudii NO.	

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		(KS. III IAKII)	gross value of old asset is considered as Rs.6.85 lakh.	228/GT/ 2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as the asset is necessary for the benefit of employees (families) working in remote areas of the generating station and in turn will ensure the successful and efficient operation of the plant. In view of this, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.6.85 lakh for old, replaced assets/works has been considered under 'Assumed deletions'.	(NS. III Idini)
3	Construction of Permanent type - II Double storied building 04 blocks having 04 quarters in each block at Loktak.	112.34	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014. The Commission had allowed this item as the asset is necessary for the safety of employees working in remote areas of the generating station and in turn will ensure the successful and efficient operation of the plant. The gross value of old asset is considered as Rs.3.90 lakh.	It is observed that the additional capital expenditure claimed under this head was allowed for Rs.325.00 lakh and decapitalization of Rs.3.90 lakh i.e. Rs.321.10 (325.00-3.90) lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations as the assets / works are	112.34

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				already approved. In view of this, the additional capital expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
4	Construction of Boundary Wall for CRPF Camp at Valve House	29.75	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is observed that the additional capital expenditure claimed under this head was allowed for Rs.35.00 lakh and decapitalization of Rs.0.44 lakh i.e. Rs.34.56 (35.00-0.44) lakh by the dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3) (viii) of the 2014 Tariff Regulations, as the asset is necessary for the safety of employees working in remote areas of the generating station and in turn will ensure the successful and efficient operation of the plant. In view of this, the additional capital expenditure incurred is allowed under Regulation 14(3) (viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.0.44 lakh for old, replaced assets/works has been considered	29.75

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
				under 'Assumed deletions'.	
5	Purchase of high mast Light Tower for area illumination.	21.86	These assets/works claimed were admitted vide order dated 18.9.2015 in Petition No. 228/GT/2014.	It is noticed that the additional capital expenditure claimed under this head was allowed for Rs.22.00 lakh by order dated 18.9.2015 in Petition No. 228/GT/2014 under Regulation 14(3)(viii) of the 2014 Tariff Regulations. In view of this, the additional capital expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulation 14(3)(viii) of the 2014 Tariff Regulations.	21.86
	Items	T			
6	Supply & Installation of HSD Tank & Dispensing Unit at Loktak power station. (PO10214/ 213)	11.38	The Petitioner has submitted that generating station has sufficient numbers of Department and hired vehicles along with other heavy vehicle/ equipment to meet the day to day requirement of Power Station. Old HSD Tank which was in use for a long time got damaged due to rusting and a huge amount of Sludge got accumulated inside the tank. This has caused an increase in percentage of wastage of diesel. As per the observation of store wing and IOCL team, a	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the efficient operation of the generating station, the claim is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.1.14 lakh for old, replaced assets/works as claimed by the	11.38

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			new HSD tank got installed at the power station to avoid such wastage. Gross Value old asset is considered as Rs.113800.	Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.2.39 lakh under 'Assumed deletions'.	
7	Handheld VHF device - MOTOROLA GP328 (11 numbers)	1.82	The Petitioner has submitted that being in remote locations, generating station is having few sites beyond mobile networks. In the absence of any prominent mode of communication and to get the uninterrupted connectivity with the generating station from various sites adequate nos. of VHF sets are required. Gross value of old assets are Rs.111180 and WDV as Rs.6.	In view of the submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is for the efficient operation of the generating station, the claim is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.1.11 lakh for old, replaced assets/works has been considered under 'Assumed deletions'.	1.82
8	UTM/FIREWA LL-MIN 8 ETHERNET, 2USB; MIN 120000CONC UR SESNS; MIN4000 NEW SESNS/SEC; MIN1000 IPS throughput (02 numbers)	4.20	The Petitioner has submitted that generating station is connected with internet facility through a 4 mbps internet lease line and Ku Band VSAT connection by BSNL. The internet facilities are connected to NHPC LAN at generating station Admin Office and	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Leimatak Powerhouse.		
			The end users are also		
			browsing ERP through		
			LAN and WAN links. To		
			protect the network from		
			virus, trojans, malware,		
			spoofing, online transaction attacks and		
			for providing information		
			and data protection		
			hardware based unified		
			threat management		
			firewall was a necessary		
			requirement as advised		
			by generating stations		
			IT&C Division vide letter		
			no. dated 2-11-2012.		
			Since two independent		
			LANs (one at Loktak		
			Admin Office Complex		
			and the other at		
			Leimatak Powerhouse		
			area which are		
			approximately 25 Kms apart) 2 UTM/Firewall		
			devices were		
			purchased.		
9	Upgradation of	41.73	The Petitioner has	In view of the	41.73
	LAN at		submitted that the	submissions of the	
	Generating		existing Local Area	Petitioner and	
	station		Network (LAN) at	considering the fact	
			generating station was	that the additional	
			having about 68 nodes	capital expenditure	
			covering only 7	incurred is for the	
			locations at Loktak	efficient operation of	
			Administrative Complex	the generating	
			and only 4 locations at	station, the claim is	
			Leimatak Powerhouse Complex. The existing	allowed under Regulation	
			network system was	14(3)(viii) of the	
			based on UTP cables	2014 Tariff	
			and LAN extender	Regulations. The	
			Modems through	de-capitalization	
			telephone Lines.	value of Rs.18.92	
			Moreover, the two LANs	lakh for old,	
			were existing as	replaced	
			separate entities without	assets/works has	
			any intercommunication.	been considered	
			With the introduction of	under 'Assumed	

SI. No.	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
		(Rs. in lakh)	ERP in the Petitioner's	deletions'.	(Rs. in lakh)
			company almost all the	deletions.	
			office proceedings/		
			works have to be carried		
			out online through ERP		
			applications and hence		
			a wider reach of		
			computing facilities to		
			maximum locations		
			have been required.		
			With the coming of ERP,		
			high speed		
			communication		
			networks like managed		
			leased lines and ku		
			Band VSAT		
			communication systems		
			were installed at		
			generating station so		
			that the ERP		
			applications can be		
			accessed smoothly from		
			the generating station		
			through Petitioner's		
			Corporate WAN. The		
			existing LANs were not		
			suitable for high-speed requirements and were		
			also restricted to only a		
			few locations. Moreover,		
			integration of the		
			existing network with the		
			corporate WAN was not		
			reliable as the existing		
			infrastructures were		
			outdated. Further,		
			intercommunication		
			between the two LANs		
			is required for efficient		
			communication and		
			resource sharing		
			between the two		
			locations. In view of the		
			above points and for		
			wider reach of ERP		
			Application access from		
			maximum locations of		
			the office, a high-		
			speed LAN System		



SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
			comprising of OFC and UTP cable links with client-server-based technology as well as capable of integration with Corporate WAN through managed Leased Circuits and VSAT is required. The gross value of old assets are Rs. 1892037 and WDV as Rs.94602.		
10	Water treatment plant 300 CUM of water per day (15000 PH), kirloskar, ECO water solution (300 KLD) (02 numbers)	24.04	The Petitioner has submitted that the generating station colonies are situated in the areas of Manipur where monsoon persist for almost half years or may be more than that. Water of Loktak lake is the only source of water supply to the colony of the power station for drinking & other uses. During monsoon, the water becomes very muddy/ contaminated. Plenty of families /officials are residing in Township situated at Loktak & Leimatak and water supply to these colonies were being maintained/ cleaned by adding alum in the tanks where water is stored from adjacent river only. Considering the health of employees and their families and to minimize the problems arising from contaminated water, installation of water treatment plant was inevitable.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00
11	Laying of alternate water supply line at	47.12	The Petitioner has submitted that Lokchoa (nallah) is the only	Considering the fact that the expenditure incurred is not	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
	loktak		source of water supply for the generating station. The Power Station had to sometimes experience the drain blockage and pipeline problem also. In view of above and the shortage of waters supply during dry season, an alternative water supply arrangement was very necessarily required to meet out the day to day requirement from power Channel.	directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed .	
12	Sedimentation tank at zero colony-loktak	18.69	The Petitioner has submitted that there are only two water tanks which supply old colony, new colony and zero colony. The residential and office area of generating station is scattered very widely and considering the low pressure and frequent complaint received from employees residing/working in zero colony especially during dry season, a necessity for construction of new sedimentation tank was required.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00
13	GPS based time synchroni- sation equipment	2.32	The Petitioner has submitted that as per guidelines, it is mandatory that every generating station should have healthy GPS time Sync unit. Further, every numerical protection relay and event logger installed at generating station should be time synchronised with GPS	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed.	0.00

SI. No.	Details of the claim	Amount claimed (Rs. in lakh)	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed (Rs. in lakh)
14	Evenutive field	159.50	system. It was therefore essential to purchase one no. complete "GPS based Time Synchronisation" equipment's for powerhouse so that all the numerical relays and event logger can be time synchronised with GPS. The Petitioner has	In view of the	
	Executive field hostel at Loktak (16 quarters).	139.30	submitted that the existing structures of generating station was constructed during the period of 1975-76 and most of these quarters are made of ekra walling with wooden structure and CGI Sheet roofing. These structures have outlived their useful life and not worth for economical repairs. There is a potential danger of collapsing/damaging of these structures if a heavy cyclonic wind is experienced in the region. Considering all the factors recorded above construction of field hostel was become necessary. The Gross value of old assets is considered Rs.595308 and WDV as Rs.59531. The partial amount of executive field hostel has been capitalised during FY 2016-17.	submissions of the Petitioner and considering the fact that the additional capital expenditure incurred is necessary for the employees of the generating station and in turn contribute to the efficient operation of the plant, the claim is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The de-capitalization value of Rs.5.95 lakh for old, replaced assets/works as claimed by the Petitioner appears to be on the lower side. Hence, considering the methodology described in paragraph 27 of this order below, the decapitalization of the same has been considered as Rs.33.47 lakh under 'Assumed	159.50

SI. No.	Details of the claim	Amount claimed	Justification submitted by the Petitioner	Remarks on admissibility	Amount Allowed
NO.	Claiiii	(Rs. in lakh)	by the retitioner	admissionity	(Rs. in lakh)
				deletions'.	
15	Club building at Powerhouse Colony, Leimatak (102/001145)	81.38	The Petitioner has submitted that generating station was not having any club building at Leimatak earlier. An old temporary structure made of CGI Sheet constructed along with colony in years back in 1975-76 was used by the generating station for any official gathering etc. However, there are various officers with their family residing in Leimatak colony and no other market / any enjoyment facility available nearby. Accordingly, to maintain physical & mental health of employees, it was necessary to construct a club building. In recent time during visit of dignitaries, high level officials, locals etc., the necessity of a club for meeting, gathering etc. was realized and accordingly, the same was constructed. Major portion of asset is capitalized during FY 2015-16 and the balance amount capitalized during FY 2017-18.	Considering the fact that the expenditure incurred is not directly related to the operation of the generating station and is in the nature of O&M expenses, the additional capital expenditure claimed is not allowed. The Petitioner may, if need be, claim the same along with R&M.	0.00
16	Numerical generator protection	9.31	The Petitioner has submitted that various electromagnetic / static	Considering the additional capital expenditure	9.31
	relay, ABB Reg 670		type protection relays were installed for the protection of all	incurred is necessary for the efficient operation of	
			generating units. As per the Protection guidelines every	the generating station, the claim is allowed under	