SI.	Works	Claimed	Allowed	Reason for admissibility				
No.	110113	(Rs. in lakh)	(Rs. in lakh)	Reason for admissibility				
	Demulation 44(2) (:::\	-l:44l\					
1	. Regulation 14(3) (Wi fi device	1.86	1.86	The Petitioner has submitted that the expenditure is for Wi-Fi Connectivity at project's office area & Powerhouse. It is				
				observed that the Commission in its order dated 29.3.2017 in Petition No 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.2.26 lakh in 2014-15. Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation of the				
				generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
2	Club building construction of multipurpose	21.67	21.67	The Petitioner has submitted that the restoration is also essential to protect the EL-840M road which is the only connecting				
	hall between C&D type			road for movement/ transportation of heavy equipment of Generating station/PSP & KHEP. It is observed that the Commission in its order dated 29.3.2017 in Petition No. 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.450.00 lakh in 2017-18. Considering the fact that the assets/works are considered necessary for the successful				
				and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
3	DG set	2.46	2.46	The Petitioner has submitted that the additional capital expenditure has been made in order to monitor reservoir area during the monsoon (Disaster Management Work).				
				Considering the fact that the assets/works are necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
A. N	A. New Items - Regulation 14(3)(viii)							
4	Main generating equipment - installation & commissioning of 800 xa HMI & IMS upgradation	190.54	190.54	The Petitioner has submitted that the older version of CPU's (supporting Win NT/200) & accessories of the installed OS AS520 working on Window NT platform was obsolete because of advancement and adoption of latest technologies by manufacturing companies. Further, Microsoft has globally withdrawn all support for earlier platforms i.e. Window NT, XP and server 2003 system. Spare machine (CPU)				

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				similar to existing configuration was also not available in the market for last past few years. The old system used to experience technical snag like hanging and crashing of CPU at several times during operation. In the event of OS getting non-operational, operator had the only option to operate the machine from Unit Control Board i.e. manually. In that case, operator was not able to monitor various operating parameter of the unit and trends. Therefore, upgradation of existing OS to the latest operating system and latest server platform was essentially required for efficient working. Considering the fact that the assets/works are considered necessary for successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. It is noticed that the Petitioner has not considered the decapitalization of old asset/work and hence, the amount of Rs.116.97 lakh has been considered under 'Assumed Deletions',
5	Plant Battery bank	342.78	342.78	The Petitioner has submitted that the existing battery banks were procured in year 2002 and commissioned during 2003-04. These banks had undergone physical deformation, corrosion of positive strap and decomposition of lead plates over the operating cycle as a result of which the performance was deteriorating. For the control & protection system of the plant, healthiness of the DC battery bank is absolutely essential. In the event of disruption of DC supply, control & protection system shall no longer be in operation and will lead to shut down of the plant. Therefore, it is evident that DC supply system equipped with battery bank plays instrumental role in un-interrupted operation of the plant and hence replacement of the existing battery banks was done. Considering the fact that the assets/works are considered necessary for the successful and efficient operation of the generating station, the expenditure is allowed under Regulations. It is noticed that the Petitioner has not considered the de-capitalisation of old asset/work and hence, the amount of

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				Rs.210.44 lakh has been considered under 'Assumed Deletions',
6	Lab & testing equipment flame photometer	0.97	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of tools & tackles, the additional
7	Common meter reading instrument (cmri) (handheld computer PC lite)	0.61	0.00	capitalization claimed are not allowed.
8	Lab & testing equipment - flexural strength testing equipment and beam molds	3.82	0.00	
9	Fabrication generator maintenance device	3.58	0.00	Considering the fact that the expenditure incurred is for asset which is in the nature of O&M expenses, the additional capitalization claimed is not allowed .
10	Video conferencing system for ED Office	3.19	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
11	2 numbers transformer oil storage tank - powerhouse	26.97	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not
12	Office building in central store at Koti	14.77	0.00	allowed.
13	Car, jeep, motorcycle - GPS system	0.68	0.00	The Petitioner has claimed these expenditures in order to fulfil the needs during the visits of dignitaries to the project
14	Car, jeep, motorcycle – Toyota Fortuner Sigma 4 for VIP guests	35.35	0.00	site. As the additional capital expenditure incurred on procurement of vehicles for dignitaries do not contribute to the efficient operation of the generating station, the claim is not allowed .
15	Oxygen monitoring equipment for powerhouse	2.98	0.00	Considering the fact that the expenditure incurred is for assets which are minor in nature, the additional capitalization claimed is not allowed .
16	Water supply equipment laying of 100mm dia GI pipe line from Ilo dam site to Khand nala	16.38	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
17	Online transformers dry out system	24.52	24.52	The Petitioner has submitted that this device removes the moisture content from the transformer oil and winding insulation in the running and idle condition of the transformer for the healthiness of the transformer. Putting the transformer under continues dry out is aimed at mitigating the possibility of outage of the transformer for a longer duration. Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
18	Substations equipment - 250 kva DG set	16.63	0.00	The Petitioner has submitted that the asset/work has been claimed for alternate power supply of New office building at B. Puram. Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed.
19	Electric panel	13.47	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed.
20	Illumination system	0.38	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
21	Main generating equipment- Transformer winding resistance measuring kit, model tem 25 with laptop	7.03	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of tools & tackles, the additional capitalization claimed are not allowed .
22	HV magnetizing kit - powerhouse	3.23	0.00	
23	Hydro static level measurement system - powerhouse	9.11	0.00	
24	Uniphose 225pm portable gas monitor with rechargeable (nimh battery)	1.50	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
25	Search light	0.07	0.00	Considering the fact that the expenditure
26	Small value	0.03	0.00	incurred is for assets which are minor in
	sound level			nature, the additional capitalization claimed
27	meter Safety	0.12	0.00	is not allowed.
21	equipment -	0.12	0.00	
	resistance meter			
29	Main generation	100.15	0.00	Considering the fact that capitalization of
	spares			spares is not allowed after the cutoff date, the additional capitalization claimed is not allowed.
30	Main generating equipment - 420kv, 2000a busduct	7.37	7.37	The Petitioner has submitted that the expenditure is outstanding payment of M/S Siemens towards retention amount for the services portion of Gas Insulated Switchgear (GIS) system for Generating station against agreement No. THDC/RKSH/188/AG(ii). Considering the fact that amount incurred is towards outstanding payments made and keeping in view that the asset/work is necessary for successful and efficient plant operation of the generating station; the expenditure claimed is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
	Total	852.21	591.19	Trogulations.
B.	Regulation 14(3)	(vii) and Reg	ulation 14(3) (viii)
31	Rehabilitation Expenses	3570.43	3570.43	The Petitioner in compliance to the directions of the Commission has furnished that in compliance of GOI Office Memorandum dated 26.8.2016 in reference of meeting held on 30.6.2011 & 10.08.2016 under the chairmanship of JS (H) GOI on various rehabilitation issues, wherein decision was taken to release funds under different heads. The fund was released in a phased manner, as per progress of work. During 2016-17, a net sum of Rs.35.70 crore was spent. Considering the submissions of the Petitioner in justification of the claim and the fact that the expenditure is for assets/works is for compliance of the order or decree of a court of law, the same is allowed under Regulation 14(3)(i) of the 2014 Tariff Regulations.
	Total	3570.43	3570.43	
	ulation 14(3)(iii) (Ne	w Item)		
32	CCTV camera setup	173.76	173.76	The Petitioner has submitted that the additional capital expenditure has been made for the purpose of complete

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				surveillance of total DAM area, Powerhouse & all entry gates of project area as per requirement of CISF. It is observed that the asset/work was earlier allowed by the Commission for Rs.44.35 lakh vide order dated 29.3.2017 in Petition No. 178/GT/2015. Considering the fact that the expenditure is for assets/works which are considered necessary for safety of the generating station, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.
33	Street light pole	18.52	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
34	Safety Equipment - Electronic ID Verification System	4.16	4.16	The Petitioner has submitted that the documents in support of the expenditure are confidential in nature and can be produced to the Commission, if required. Considering the fact that the expenditure is for assets/works which are considered necessary for the safety of the generating station and is within the balance limit, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.
35	Boom barrier	1.17	1.17	The Petitioner has submitted that the documents are confidential in nature and can be produced to the Commission, if required. Considering the fact that the expenditure is for assets/works which are considered necessary for safety of the generating station and is within the balance limit, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.
	Total additional	197.60 4620.24	179.09 4340.71	
expen	diture (A + B +C)			

17. Accordingly, the total additional capital expenditure allowed is Rs.4340.71 lakh (Rs.179.09 lakh + Rs.591.19 lakh + Rs.3570.43 lakh) in 2016-17.

2017-18

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)		Reaso	n for a	admissibility		
Α.	A. Regulation 14(3) viii (New Item)								
1	Toe	474.54	474.54	The	Petitioner	hoo	submitted	that	the
		296.58	296.58	THE	retitioner	Has	Submitted	แเลเ	uie

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility				
	strengthening			restoration is also essential to protect the EL-840M road which is the only connecting road for movement/ transportation of heavy equipment of generating station/PSP & KHEP. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
2	Main generating equipment- hp air compressor including fresh water-cooling arrangement & accessories-powerhouse	225.27	0.00	The Petitioner has submitted that the High-Pressure Compressor was procured for stability of compressed air system which creates high pressure air for the operation of Units and reactive power synchronization mode. Considering the fact that the expenditure incurred is for assets which are in the nature of O&M the additional capitalization of the same is not allowed .				
3	Ambulance	6.10	6.10	The Petitioner has submitted that the expense has been incurred for hospital duty vehicle that has been purchase against BER vehicle UP08-3894 (De-capitalized on 2009-10 as per books of accounts). It is to be noted, that the Commission vide its order dated 29.3.2017 in Petition no 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.15.00 lakh, in year 2018-19. Considering the fact that the assets/works are considered necessary for successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
4	Tata Starbus school bus	0.50	0.50	The Petitioner has submitted that the expense has been incurred for vehicle for the transportation of students at project. It is to be noted, that the Commission vide its order dated 29.3.2017 in Petition no 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.80.00 lakh, in year 2016-17. Considering the fact that the asset/ works is considered necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.				
Α.								
5	Early warning system-dam	201.72	201.72	The Petitioner has submitted that the additional capital expenditure has been made to establish flood forecast system for protection of DAM & other Structure.				

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. It is noticed that the Petitioner has not considered the decapitalization of old asset/work and hence, the amount of Rs.117.94 lakh has been considered under 'Assumed Deletions'
6	Electromagnetic flow meter mag flow size dn 250,200,65 dc- dc& flow indicator (892-1)	7.15	7.15	The Petitioner has submitted that flow meters installed in the generating station for measuring flow of cooling water of Stator Air Coolers LGB &UGB have deteriorated. So, 02 sets (06 numbers) of deteriorated flow meters have been replaced by new 02 sets of latest versions of electromagnetic flowmeter for smooth operation of generating units. Considering the fact that the assets/works are considered necessary for successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. The Petitioner has not considered the de-capitalization of old asset/work and hence, the amount of Rs.4.18 lakh has been considered under 'Assumed Deletions'
7	Installation of new Cubical Distribution Panel in mechanical department	1.42	1.42	The Petitioner has submitted that Cubical panel has been installed in mechanical department for proper distribution of power network system & safety purpose as well to cater electric load of mechanical workshop. Considering the fact that the assets/works are considered necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
8	Spirometer with usb/pc	0.19	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature
9	B.p. apparatus (make mercury)	0.18	0.00	of tools & tackles, the additional capitalization claimed is not allowed .
10	Lab & testing equipment (humidity chamber)	1.48	0.00	
11	Wireless Network between Admin building and Powerhouse	0.77	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and machinery, the additional capitalization of the same is not allowed.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
	(PGCIL lease line connectivity)			
12	Ups 3 kva	0.50	0.00	Considering the fact that the expenditure incurred is for assets which are minor in nature, the additional capitalization claimed is not allowed .
13	Lader-bcm	0.15	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed .
14	Cold water fish hatchery	4.84	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
15	Street light arrangement for internal road of hec at dibnu	20.70	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed .
16	Mah-scorpio s5	11.13	0.00	Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
17	Scorpio s-10, bs(iv) 4 wd	14.30	0.00	The Petitioner has claimed these expenditures in order to fulfil the needs during the visits of dignitaries to the project site. As the additional capital expenditure incurred on procurement of vehicles for dignitaries do not contribute to the efficient operation of the generating station, the same is not allowed.
18	Tata tipper	0.21	0.21	The Petitioner has submitted that in the procurement of Telco Vehicles through Das & DR/C payment were made against Performa invoice and later on actual invoice raised for the vehicles. In the adjustment in subsequent bills. Presently outstanding amount against various P.O is adjusted in forthcoming supplies. Considering the fact that the asset/work is balance payment and for asset/work which is considered necessary for the successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
19	Other hydraulic works	1.89	1.89	The Petitioner has submitted that the expenditure is in compliance of theinterim award by Arbitration Tribunal. Considering the fact that the assets/works is incurred

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				due to interim award dated 31.8.2016 of the Arbitration tribunal, the expenditure is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations. This is however, subject to the final decision in the arbitration matter.
20	School building	36.78	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed .
21	New road girls hostel 1to girls hostel 2 & around play ground	121.71	0.00	The Petitioner has submitted that New road was required to join Girls Hostel-I to New Girls Hostel-II, Dibnu & around playground. Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.
22	Treatment - slope EL 750 to 810m near old Police station	542.37	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed .
23	Construction P&M spares	5.30	0.00	Considering the fact that capitalization of spares is not allowed after the cutoff date,
24	Main generation spares	82.14	0.00	the additional capitalization claimed is not allowed .
25	Unclassified land (rehabilitation expenses)	4315.76	4315.76	The Petitioner has submitted that the additional capital expenditure incurred is as per Tehri Dam Rehabilitation Policy 1998 and meetings held under the Chairmanship of JS. (Hydro) GOI on 5.2.2008, Secretary (Power), GOI on 30.6.2011 and JS (Hydro) GOI on 10.8.2016. Considering the submissions of the Petitioner in justification of the claim and the fact that the assets/ works are considered necessary for the successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
R	Total New Items- Regulat	6373.67	5305.86	
26	CCTV system	1.05	1.05	The Petitioner has submitted that the additional capital expenditure has been incurred as per requirement of CISF. The CCTV camera has been installed for
27		0.22	0.22	complete surveillance of DAM area, Powerhouse & all entry gates of Project. Considering the fact that the expenditure is for assets/works which are considered necessary for safety of the generating station and is within the balance limit, the

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				same is allowed under Regulation 14(3)(iii)
				of the 2014 Tariff Regulations.
	Total	1.28	1.28	
	Total additional expenditure (A+B)	6374.95	5307.13	

18. Accordingly, the total additional capital expenditure allowed is Rs.5307.13 lakh (Rs.1.28 lakh + Rs.5305.86 lakh) in 2017-18.

2018-19

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
Α.	Regulation 14(3) (viii) (already a	dmitted)	
1	Establishment of real time flood forecasting system for Tehri Dam	12.06	12.06	The Petitioner has submitted that expenditure is required for early warning of flood for protection of Dam & other structure. It is to be noted, that the Commission vide its order dated 29.3.2017 in Petition no 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.272.50 lakh in year 2015-16. Considering the fact that the assets/works are considered necessary for successful and efficient plant operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
A. N	ew Items-Regulati	on 14(3) (viii	i)	•
2	Establishment of real time flood forecasting system for Tehri Dam	4.43	4.43	The Petitioner has submitted that expenditure is required for early warning of flood for protection of Dam & other structure. It is observed that the Commission vide its order dated 29.3.2017 in Petition No 178/GT/2015 had allowed the additional capitalization for this asset/work for Rs.272.50 lakh, in 2015-16. Considering the fact that the assets/works are considered necessary for the successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
3	Biometric Machine	0.53	0.00	Considering the fact that the expenditure incurred is for assets which are not directly
4	Biometric Machine	0.23	0.00	related to Plant and Machinery, the additional capitalization claimed is not
5	Biometric Devices (5 numbers)	3.04	0.00	allowed.
6	Underwater colour video camera kit- hm	3.42	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed.
7	Purchase of BEML Wheel Loader	73.46	73.46	The Petitioner has submitted that available loaders are in very poor condition and required frequent repair. Considering the requirement of the project the said loader has been purchased and is utilized to maintain the various roads of the project, dragging work and other development work at various location at the Project site. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
8	Single fiber fusion splicer, OTDR (Optical time-domain reflectometer), fusion splicer tool kit	2.24	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of tools and tackles, the additional capitalization claimed is not allowed.
9	Workstation for repair and maintenance of OFC (Optical Fiber Cable) for uninterrupted monitoring/ control of Plant Equipment.	3.41	0.00	
10	BOLERO ZLX 2 WD PS-MECH	8.40	0.00	The Petitioner has claimed additional expenditure in order to fulfil the needs, during the visits of dignitaries to the project site. As the additional capital expenditure incurred on procurement of vehicles for dignitaries do not contribute to the efficient operation of the generating station, the

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
				claim is not allowed.
11	Purchase of Bolero Jeep SLE	91.87	91.87	The Petitioner has submitted that considering the requirement of project, the said vehicle (jeep) has been purchased against replacement of the BER vehicle. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station and is on replacement basis, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. Further the Petitioner has submitted the Gross value of old asset the same has been considered under Decapitalization at paragraph 23.
12	Toyota Innova crysta 2.4 mt- 7str-vx-mech	20.14	0.00	The Petitioner has claimed these expenditures in order to fulfil the needs during the visits of dignitaries to the project site. As the additional capital expenditure incurred on procurement of vehicles for dignitaries do not contribute to the efficient operation of the generating station, the claim is not allowed .
13	Bolero sle 2wd- mech	7.66	7.66	The Petitioner has submitted that considering the requirement of Project the
14	Purchase of TaTa Truck LPT - 1613	74.57	74.57	said vehicle has been purchased against the replacement of BER vehicle. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station and is on replacement basis, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
15	HDPE Patrolling Boat with accessories - DAM	30.33	30.33	The Petitioner has submitted that HDPE boat was purchased for CISF patrolling in reservoir to ensure safety & security of Dam. Considering the fact that the asset is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
16	Enterprise Antivirus for 3 years.	2.04	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of minor assets, the additional capitalization claimed is not allowed.
17	10 KVA 220 DC TO 230V 50 HZ AC industrial convector -	1.09	0.00	Considering the fact that the expenditure incurred is for assets which are in the nature of O&M expenses, the additional capitalization claimed is not allowed.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility
	O&M			
18	Solar water heating system for CISF barrak at Bhagirathi puram.	10.28	0.00	
19	Small value items such as offline UPS (1 KVA) - 45 numbers; Modems - 6 numbers, Plan Telephone set etc.	2.30	0.00	
20	Supply, installation and commissioning of Auto Pump control panel with Hooter Box at Dam dewatering gallery	1.06	1.06	The Petitioner has submitted that the procurement of Auto Pump control panel with Hooter Box for Dam dewatering pumping system is necessary for the safety of Dam. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
21	Portable Submersible Pump - WATER SUPPLY	1.88	1.88	The Petitioner has submitted that Submersible pump was procured for dewatering of water during heavy flooding in turbine pit. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.
22	SF6(Sulphur Hexafluoride) gas analyser kit for 420 kv GIS (Gas Insulated Switchyard)	16.76	0.00	The Petitioner has submitted that Gas Analyzer kit is required for analyzing quality of the SF6 gas filled in various parts/components of the switchyard which is very crucial in order to ascertain the healthiness of the switchyard. Also, since SF6 gas is a greenhouse gas and quality of that gas is required to be monitored regularly as per the norms of environment/OHSAS. Hence, in view of the above SF6 gas analyzer kit was procured from OEM. Considering the fact that the expenditure incurred is for assets which are in the nature of tools and tackles, the additional capitalization claimed is not allowed.

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility				
23	Main generation spares	121.12	0.00	Considering the fact that capitalizations spares is not allowed after the cut-off dat the additional capitalization claimed is not allowed.				
24	Miscellaneous power plant spare	27.35	0.00	the additional capitalization claimed is not allowed.				
25	SUB STATION EQUIPMENT- Outdoor pedestal type factory fabricated & vermin proof cubical LT feeder pillar	3.51	3.51	The Petitioner has submitted that Old LT panel was rusted & damaged and not safe for electrical operation hence was replaced with new LT panel. Considering the fact that the assets/works are considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. It is noticed that the Petitioner has not considered the de-capitalization of old asset/work and hence, the amount of Rs.1.95 lakh has been considered under 'Assumed Deletions'.				
26	Additional Sewage Treatment Plant (STP), MBBR (Moving Bed Biofilm Reactor) Type having Capacity 12 KLD (Kilo Ltr per Day), installed near interface building(IFB) of Tehri HEP	7.95	0.00	The Petitioner has submitted that the additional capital expenditure has been made as per the Water (Prevention and control of Pollution) Act 1974 as amended thereafter. It was directed to install appropriate capacity of STP/up gradation of existing STP to achieve prescribed standards with time targeted schedule. Hence to meet out the latest parameters set by NGT (National Green Tribunal), the new sewage Treatment Plant (STP) of capacity 12 KLD based on MBBR Technology along with accessories was installed. Considering the fact that the expenditure incurred is for assets which are not directly related to Plant and Machinery, the additional capitalization claimed is not allowed.				
	Total	531.14	300.84					
B.	New Items-Regula							
27	Procurement of New wireless sets for CISF.	18.69	18.69	The Petitioner has submitted that expenditure was for replacement of old wireless system with new wireless sets for CISF for safety of Dam and Powerhouse. Considering the fact that the expenditure is for assets/works which are considered necessary for safety of the generating station and is within the balance limit, the same is allowed under Regulation 14(3)(iii) of the 2014 Tariff Regulations.				
	Total	18.69	18.69					
C.	C. New Items-Regulation 14(3) (vii) and Regulation 14(3)(viii)							

SI. No.	Works	Claimed (Rs. in lakh)	Allowed (Rs. in lakh)	Reason for admissibility	
28	Rehabilitation works.	63.20	63.20	The Petitioner has submitted that expenditure was incurred as per Tehri Dam Rehabilitation Policy 1998, the decision of MOP on 11.06.2016, the meetings held under Chairmanship of Joint secretary (Hydro), GOI on 20.12.18 and as per Hon'ble Supreme Court directions. Considering the submissions of the Petitioner and keeping in view that the expenditure incurred is in respect of assets/works in compliance of the order of court, the same is allowed under Regulation 14(3)(i) of the 2014 Tariff Regulations.	
	Total	63.20	63.20	-	
	Total Additional 613.03 382.73 Expenditure (A+B+C)				

19. Accordingly, the total additional capital expenditure allowed is Rs.382.73 lakh (Rs.18.69 lakh + Rs.300.84 lakh + Rs.63.20 lakh) in 2018-19.

De-capitalization

20. As regards De-capitalization, Regulation 14(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 decapitalization 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."

21. The Petitioner has claimed de-capitalization (as per Form 9Bi) for assets/works such as, Computer Monitor Printer UPS, elevator, vehicles, dam (original cost) & others, vehicles Spillways (original cost)-jpil & others, residential quarters, DG. sets assembling testing commissioning, elgi four post lift, jack hammer, hydraulic-dam, tunnels, channels and penstock, Sofa/Centre table, battery system - cooling system, battery charger, crane, battery Charger, Diamond

Core Milling/Lathe/Welding Machine, Turbines Unit-1, Dam & Barrages, Canals Shafts etc., Hydraulic Works, Camera, etc., during the 2014 -19 tariff period, as under:

2014-15	2015-16	2016-17	2017-18	2018-19				
3894.15	272.36	532.11	102.38	10.26				

22. Since, these assets are not in use, the de-capitalization claimed by the Petitioner as above, is allowed.

Assumed Deletions

- 23. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff, provided that the capitalization of the said asset is followed by the de-capitalization of the original value of the old asset. However, in certain cases, where decapitalization is affected in books during the following years, to the year of capitalization of new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as "Assumed deletion". Further, in absence of the gross value of the asset being de-capitalized, the same is calculated by de-escalating the gross value of new asset @ 5% per annum till the year of capitalization of the old asset.
- 24. It is observed that the Petitioner, while claiming the additional capital expenditure has not provided de-capitalization value of old assets which are being replaced. Accordingly, based on above methodology, the following assumed deletions, is considered as under:

Year	Asset	Assumed deletion considered
2015-16	Electromagnetic flow meter	1.25
2015-16	Eot crane 10 T capacity for draft tube gate	17.80
2016-17	Main generating equipment - installation & commissioning of 800xa HMI & IMS upgradation	122.82
2016-17	Plant battery bank	220.96
2017-18	Early warning system-dam	123.84
2017-18	Electromagnetic flow meter mag flow size dn 250,200,65 dc-dc& flow indicator (892-1)	4.39
2018-19	Sub-station Equip- Outdoor pedestal type factory fabricated & vermin proof cubical LT feeder pillar	2.05

Discharge of Liabilities

25. The Petitioner has claimed the following discharge of liabilities:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
985.68	20.11	101.83	149.07	20.64

26. The Petitioner has furnished the Form-16 of liabilities in the present petition. Accordingly, on prudence check, the undischarged liabilities for 2014-19 tariff period, corresponding to allowed assets/works have been considered with their respective discharges made by the Petitioner. Accordingly, the discharge of liabilities allowed during the 2014-19 tariff period is as under:

(Rs. in lakh)

					<u> </u>
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Un-discharged	2560.38	1574.70	1654.28	1563.92	1434.67
liabilities (A)					
Liability Discharged (created	985.68	1.82	8.96	149.07	0.66
before 1.4.2014) (B)					
Allowed Undischarged Liability	0.00	81.40	0.00	19.82	228.37
(created after 1.4.2014) (C)					
Allowed Discharge of Liability	0.00	0.00	81.40	0.00	19.82
(created after 1.4.2014) (D)					
Total allowed liability	985.68	1.82	90.37	149.07	20.47
discharged (E)=[(B)+(D)]					
Closing Un-discharged liabilities	1574.70	1654.28	1563.92	1434.67	1642.56
(F) = [(A)+(C)-(E)]					

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

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure	6277.72	4353.84	4340.71	5307.13	382.73
Add: Discharge during the year/	985.68	1.82	90.37	149.07	20.47
period					
Less: Assumed deletions	0.00	19.06	343.78	128.23	2.05
Less: De-capitalization	3894.15	272.36	532.11	102.38	10.26
Net additional capital	3369.25	4064.25	3555.19	5225.59	390.89
expenditure					

28. Accordingly, the capital cost allowed for the generating station for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	705372.64	708741.89	712806.14	716361.33	721586.93
Add: Additional capital expenditure allowed	3369.25	4064.25	3555.19	5225.59	390.89
Closing Capital Cost as on 31st March of the year	708741.89	712806.14	716361.33	721586.93	721977.82

Debt- Equity Ratio

- 29. Regulation 19 of the 2014 Tariff Regulations provides as under:
 - (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 utilized 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 f 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 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."
- 30. Gross normative loan and equity amounting to Rs.449787.64 lakh and Rs.255585.00 lakh respectively, as on 31.3.2014, as considered vide order dated 5.12.2017 in Review Petition No. 20/RP/2017 (in Petition No. 172/GT/2015), has been considered as normative loan and equity as on 1.4.2014. As stated, the Commission in its order dated 16.4.2013 in Petition No. 250/GT/2010 had approved the annual fixed charges of the generating station considering the revised debt equity ratio of 60.70:39.30 (from 62.78:37.22) as on the COD of the generating station, based on order dated 7.1.2014 in Review Petition No.7/RP/2013. The relevant portion of the order is extracted as under:
 - "11. We have considered the submissions of the parties. We have decided in this order that the debt equity ratio of 60.70:39.30 as on COD would be applicable for apportioning the capital cost between debt and equity as on the COD. It follows as a natural corollary that any expenditure incurred after COD shall be considered as additional capital expenditure. As regards the servicing of the additional capital expenditure through debt or equity, we are of the view that the entire amount of additional capitalization should be treated as loan so as to bring overall debt equity ratio closer to the debt equity of 70:30 during the period 2004-09. This is in line with the methodology adopted in respect of tariff orders pertaining to some of the hydro generating stations of NHPC for the period 2004-09. We order accordingly."
- 31. In line with the above decision, the entire amount of admitted additional capital expenditure has been considered as loan.:

Asset	Capital Cost as on 1.4.2014		Net Additional Capitalization during 2014-19 tariff period		Capital Cost as on 31.3.2019	
	Amount	%	Amount	%	Amount	%
Debt	449787.64	63.77%	16605.18	100%	466392.82	64.60%
Equity	255585.00	36.23%	0.00	0%	255585.00	35.40%
Total	705372.64	100%	16605.18	100%	721977.82	100%

Return on Equity

- 32. Regulation 24 of the 2014 Tariff Regulations provides as under:
 - **"24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.
 - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

- i). in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
- ii). the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- iii). additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
- iv). the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system: v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- vi). additional RoE shall not be admissible for transmission line having length of less than 50 kilometers."
- 33. 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."
- 34. As regards deferred tax liability of the generating station, the Respondent BRPL has submitted the following:
 - (a) Deferred tax liability is required to be dealt with in accordance with Regulation 49 of the 2014 Tariff Regulations, which restricts the claim of tax amount only to deferred tax liabilities up to 31st March 2009, whenever the same materializes.
 - (b) The generating station is in commercial operation since 18.5.2004 and accordingly the provisions of the deferred tax liability and its over-payment by the beneficiaries are applicable to this generating station.
 - (c) Further, during the tariff period 2004-09 there was no grossing up of the equity and the beneficiaries were paying income tax on actuals as per the 2004 Tariff Regulations. As the Respondents were paying the income tax on the generation business, without getting the benefits allowed under the Income Tax Act, 1961 and accordingly Respondents were made to pay huge amount in Income tax.
 - (d) It may be noted that the Petitioner is required to pay back the extra amount of income tax after accounting for the benefits allowed under the Income Tax Act, 1961. As such, the Petitioner cannot be permitted to use the extra

- payment made by the beneficiaries for its use or for payment of income tax for services offered by other profit centres, other then the operation business from this power station. Accordingly, the Petitioner should pay back the extra payment made under Regulation 49 of the 2014 Tariff Regulations.
- (e) No details of under-recovery or over-recovery of the grossed-up rate of return either claimed or refunded on year-to-year basis from/to the beneficiaries have been furnished by the Petitioner. Further it can be perused from the Profit & Loss Account for the 2014-19 tariff period that the Petitioner has not paid any Income tax during the entire tariff period. The reasons for not paying income tax is evidently clear that the infrastructure sector generating companies are entitled for huge benefits under the provisions of the Income Tax Act, 1961.

35. The Petitioner has clarified the following;

- (a) that the generating station was put to commercial operation as on 9.7.2007, instead of 18.5.2004. The Petitioner has made provision for deferred tax as per Accounting Standards in their books, which can be checked from the Balance Sheet & P&L account. However, ROE has been calculated in compliance with the 2014 Tariff Regulations.
- (b) duly audited effective tax rate, is already available in the petition. The Petitioner pays income tax on the total income earned from all the projects and the statement of income tax paid is shown in the Balance Sheet of the Petitioner. The Petitioner is maintaining books project/ unit wise and consolidate the accounts company as a whole. As per company's system, the income tax is worked out at Corporate Office and kept in the books of Corporate Office. To avoid duplicity in reflecting income tax, it is shown only in Company's balance sheet, not project wise. Therefore, effective tax rate of the Company is considered, as effective tax rate, for each individual project and is submitted in the petition.
- (c) Further, the Company being in power business is availing the benefit of tax holiday for the project from 2008-09 to 2017-18, but as per provisions of the Income Tax Act 1961, it is liable to pay a minimum tax on the deemed income computed as per provisions of section 115JB of the Income Tax Act 1961. However MAT credit as per section 115JAA of the Income tax act 1961, has been generated on the difference between normal tax liability computed as per normal provisions and the MAT tax liability, which can be claimed when company is liable to pay tax as per normal provisions i.e. 30% plus surcharge & education cess.
- (d) As such, the Company has availed MAT credit and paid tax as per MAT provision of Income Tax Act. Accordingly, the Return on Equity has been computed by grossing up the base rate with the actual rate of MAT/ Effective Tax Rate applicable for the period from 2014-15 to 2018-19. Thus, the benefit of MAT credit availed by company has been passed on to beneficiaries. Therefore, the statement of Respondent BRPL is not correct that company has not paid tax during tax holiday period.

36. We have considered the matter. It is noticed that in order to avoid duplicity in reflecting Income Tax, the same is shown only in Company's balance sheet and not project-wise. Further, it is noticed that the Return on Equity has been computed by grossing up the base rate with the actual rate of MAT/ Effective Tax Rate applicable for the period from 2014-15 to 2018-19 and that the benefit of MAT credit has been passed on to beneficiaries. Therefore, the effective tax rate of the Company is considered as the effective tax rate for each individual project and has been submitted in the petition. Considering the above, the base rate has been grossed up with the effective tax rates as per the tax Audit report furnished by the Petitioner for the 2014-19 tariff period. Accordingly, in terms of the above regulations, ROE has been computed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Equity (A)	255585.00	255585.00	255585.00	255585.00	255585.00
Addition due to additional capitalization (B)	0.00	0.00	0.00	0.00	0.00
Closing Notional Equity (C) = (A + B)	255585.00	255585.00	255585.00	255585.00	255585.00
Average Equity (D) = [(A+C)/2]	255585.00	255585.00	255585.00	255585.00	255585.00
Return on Equity (Base Rate) (E)	16.500%	16.500%	16.500%	16.500%	16.500%
Effective Tax rate for the year (F)	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (G)	20.876%	20.977%	20.977%	20.977%	21.032%
Return on Equity (H) = [(D x G)]	53355.92	53614.07	53614.07	53614.07	53754.64

Interest on loan

- 37. 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 2014-19 tariff period shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization 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 upto 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 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.
- (8) The changes to the terms and conditions of the loans shall be reflected from the date of such refinancing.
- (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 reenactment 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 refinancing of loan."

38. Regulation 26(5) of the 2014 Tariff Regulations provides for consideration of actual loan portfolio at the beginning of each year for computation of weighted average rate of interest (WAROI). Accordingly, WAROI has been worked out on the basis of actual loan portfolio of the respective year, applicable to the project. The repayment for the 2014-19 tariff period has been considered equal to the depreciation allowed for the respective years. Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest. Accordingly, Interest on loan is worked out as under:

2014-15	2015-16	2016-17	2017-18	2018-19
449787.64	453156.89	457221.14	460776.33	466001.93
235562.63	269077.42	304079.11	339032.74	374469.84
214225.01	184079.47	153142.04	121743.60	91532.08
34927.32	35114.61	35314.68	35537.86	35674.66
1412.53	112.92	361.05	100.76	5.68
33514.79	35001.69	34953.63	35437.11	35668.98
3369.25	4064.25	3555.19	5225.59	390.89
184079.47	153142.04	121743.60	91532.08	56254.00
199152.24	168610.76	137442.82	106637.84	73893.04
12.33%	12.26%	12.21%	9.69%	9.34%
24555.99	20663.67	16776.80	10332.45	6899.14
	449787.64 235562.63 214225.01 34927.32 1412.53 33514.79 3369.25 184079.47 199152.24 12.33%	449787.64 453156.89 235562.63 269077.42 214225.01 184079.47 34927.32 35114.61 1412.53 112.92 33514.79 35001.69 3369.25 4064.25 184079.47 153142.04 199152.24 168610.76 12.33% 12.26%	449787.64 453156.89 457221.14 235562.63 269077.42 304079.11 214225.01 184079.47 153142.04 34927.32 35114.61 35314.68 1412.53 112.92 361.05 33514.79 35001.69 34953.63 3369.25 4064.25 3555.19 184079.47 153142.04 121743.60 199152.24 168610.76 137442.82 12.33% 12.26% 12.21%	449787.64 453156.89 457221.14 460776.33 235562.63 269077.42 304079.11 339032.74 214225.01 184079.47 153142.04 121743.60 34927.32 35114.61 35314.68 35537.86 1412.53 112.92 361.05 100.76 33514.79 35001.69 34953.63 35437.11 3369.25 4064.25 3555.19 5225.59 184079.47 153142.04 121743.60 91532.08 199152.24 168610.76 137442.82 106637.84 12.33% 12.26% 12.21% 9.69%

Depreciation

- 39. 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 up to 31.3.2014 from the gross depreciable value of the assets.
- (7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.
- (8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."
- 40. Cumulative depreciation amounting to Rs.214134.70 lakh as on 31.3.2014, as approved vide order dated 5.12.2017 in Review Petition No. 20/RP/2017 (in Petition No. 172/GT/2015), has been considered for the purpose of tariff. The COD of the generating station is 9.7.2007. As such, the expired life of the generating station till 31.3.2014 is 6.73 years and the balance useful life of the generating station, as on 31.3.2014, is 28.27 years. The weighted average rate of depreciation has been considered for the calculation of depreciation during the years 2014-19. Accordingly, depreciation has been worked out as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block (A)	705372.64	708741.89	712806.14	716361.33	721586.93
Net Additional capital expenditure during 2014-19 (B)	3369.25	4064.25	3555.19	5225.59	390.89
Closing gross block (C)=(A+B)	708741.89	712806.14	716361.33	721586.93	721977.82
Average gross block (D)=[(A+C)/2]	707057.27	710774.02	714583.74	718974.13	721782.37
Depreciable Value (E)=(D*90%)	636351.54	639696.62	643125.37	647076.72	649604.14
Remaining Depreciable Value at the beginning of the year (F)=[(E)-(Cumulative Depreciation	422216.84	392047.13	360474.19	329471.91	296562.22

	2014-15	2015-16	2016-17	2017-18	2018-19
at 'L' at the end of previous year)]					
Rate of Depreciation (G)	4.940%	4.940%	4.942%	4.943%	4.943%
Balance useful Life (H)	28.27	27.27	26.27	25.27	24.27
Depreciation (I)=(D*G)	34927.32	35114.61	35314.68	35537.86	35674.66
Cumulative Depreciation at the end of the year (J)=[(I)+(Cumulative Depreciation at 'L' at the end of previous year*)]	249062.02	282764.10	317965.86	353142.67	388716.57
Less: Depreciation adjustment on account of de-capitalization (K)	1412.53	112.92	361.05	100.76	5.68
Cumulative Depreciation at the end of the year (L)	247649.49	282651.18	317604.81	353041.91	388710.89

^{*}Cumulative depreciation at the end of 2013-14 is Rs.214134.70 lakh.

Operation & Maintenance expenses

- 41. Regulation 29 (3) (b) of the 2014 Tariff Regulations provides as under:
 - (b) for hydro generating stations of Satluj Jal Vidyut Nigam Limited (SJVNL) and Tehri Development Corporation Limited (THDC), the O&M expenses shall be approved as per the following methodology:
 - i. The operation and maintenance expenses shall be derived on the basis of actual operation and maintenance expenses for the years 2008-09 to 2012-13, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.
 - ii. The normalised operation and maintenance expenses after prudence check, for the years 2008-09 to 2012-13, shall be escalated at the rate of 6.04% to arrive at the normalized operation and maintenance expenses at the 2012-13 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2008-09 to 2012-13 at 2012-13 price level. The average normalized operation and maintenance expenses at 2012-13 price level shall be escalated at the rate of 6.04% to arrive at the operation and maintenance expenses for year 2013-14 and thereafter escalated at the rate of 6.64% p.a., to arrive at the O&M expenses for the period FY 2014-15 to FY 2018-19.
- 42. In terms of the above regulation, the Commission vide its order dated 29.3.2017 in Petition No. 178/GT/2015 had allowed the year-wise O&M expenses for the generating station as under:

				Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
21340.78	22757.81	24268.93	25880.39	27598.84

43. Since the claim of the Petitioner for O&M expenses is in terms of the above regulations, the same is allowed

Interest on Working Capital

- 44. Sub-section (c) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:
 - "28 (1) (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 expenses specified in regulation 29; and
 - (iii) Operation and maintenance expenses for one month."

Working capital for Receivables

45. Accordingly, Receivable component of working capital has been worked out on the basis of two (2) months of fixed cost as under:

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Γ	22992.71	22654.22	22291.38	21514.07	21278.20

Working capital for Maintenance Spares

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

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
3201.12	3413.67	3640.34	3882.06	4139.83

Working capital for O&M expenses

47. O&M expenses for one (1) month for the purpose of working capital are as under:

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
1778.40	1896.48	2022.41	2156.70	2299.90

- 48. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:
 - "(3) Rate of interest on working capital shall be on normative basis and shall be

considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."

- 49. In terms of the above regulations, the Bank Rate of 13.50% (Base Rate + 350 basis points) as on 1.4.2014 has been considered by the Petitioner. This has been considered in the calculations of working capital.
- 50. Accordingly, interest on working capital has been calculated as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	1778.40	1896.48	2022.41	2156.70	2299.90
Maintenance Spares	3201.12	3413.67	3640.34	3882.06	4139.83
Receivables	22992.71	22654.22	22291.38	21514.07	21278.20
Total Working Capital	27972.23	27964.38	27954.13	27552.82	27717.93
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on	3776.25	3775.19	3773.81	3719.63	3741.92
Working capital					

Annual Fixed Charges

51. The annual fixed charges approved for the generating station for the 2014-19 tariff period are summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	34927.32	35114.61	35314.68	35537.86	35674.66
Interest on Loan	24555.99	20663.67	16776.80	10332.45	6899.14
Return on Equity	53355.92	53614.07	53614.07	53614.07	53754.64
Interest on Working	3776.25	3775.19	3773.81	3719.63	3741.92
Capital					
O&M Expenses	21340.78	22757.81	24268.93	25880.39	27598.84
Total	137956.27	135925.34	133748.29	129084.40	127669.20

Auxiliary Energy Consumption and Refinancing of Ioan

52. The Petitioner has submitted that the Auxiliary Energy Consumption (AEC) for the 2014-19 tariff period is 1.20% and no refinancing of the loan has been done for the said period. The Respondent, BRPL has submitted that in terms of Regulations 8(2) of the 2014 Tariff Regulations, truing up was to be carried out by the Petitioner in respect of AEC and Re-financing of loan, on monthly basis, with annual

reconciliation, but no such details on monthly basis, with annual reconciliation, have been furnished in the petition. The Petitioner has clarified that that in line with the first amendment to the 2014 Tariff Regulations, in 2015, financial gains on account of auxiliary energy consumption has been shared with the Discoms. It has further submitted that there has no loan has been refinanced for the 2014-19 tariff period. In view of this, the claim of the Petitioner for AEC of 1.20% is considered.

Normative Annual Generating Station Availability Factor

53. The NAPAF of 77% has been considered for the generating station as per the 2014 Tariff Regulations.

Design Energy

- 54. As regards Design Energy (DE), the Petitioner has submitted that the annual DE of 2797 MUs has been considered during the 2014-19 tariff period based on the CEA approval. The Respondent, BRPL vide its reply dated 24.7.2020 has submitted as under:
 - a) Since the Petitioner has considered DE as per CEA approval during the 2014-19 tariff period, it is evident that the Petitioner is not claiming the annual design energy sought in Techno-Economic Clearance (TEC) of the project, as approved by CEA.
 - b) Subsequent to TEC, the Petitioner again approached the CEA with the revised inflow series data as against the data provided at the time of the TEC granted by CEA. Whereas, the Petitioner submits one set of data to the CEA to seek the TEC of the project to justify its economic viability and another after the construction of the project.
 - c) The Petitioner has again approached CEA with another set of data with the sole purpose to reduce the DE. As such, the Petitioner has adopted modified design energy of 2797 MUs for the 2014-19 tariff period which may not be allowed. In the event of modification of DE, the Petitioner does not allow the benefits of secondary energy level up to the design energy allowed. (Commissions' order dated 16.4.2013 in Petition No. 250/2010 may be

referred to).

55. The Petitioner has clarified as under:

- a) The issue of design energy has been settled vide Commission's order dated 16.4.2013 in Petition No. 250 of 2010 and in the event of modification of DE, the Commission had not allowed the benefits of secondary energy up to DE. This decision of the Commission was been upheld by Appellate Tribunal for Electricity vide its judgment dated 29.5.2015 in Appeal No.103/2014 filed by the Petitioner and has therefore attained finality;
- b) CEA vide its letter dated 17.11.2004 has issued guidelines for revision of DE and directed to follow the guidelines for revision of DE. Accordingly, the Petitioner vide letter dated 15.2.2008 had submitted its proposal to CEA for revision of DE of the generating station and the same has been approved as 2797 MU by CEA in consultation with the Central Water Commission based on actual observations as under:-
 - 1. Revised Hydrology i.e. the observed site specific flow data available at Tehri from 1964-65 to 2006-07 recommended by IIT, Roorkee in their study and also examined and recommended by CWC.
 - 2. Losses in water conductor system
 - 3. Average efficiency of generating unit- 93.25% in 90% dependable year
 - Irrigation releases from Tehri Reservoir based on 10 daily requirements for the period November to June, indicated by Chief Engineer (Ganga), Irrigation Department, State of UP as per their letter no. 2770/1/CE dated 2.7.2005.
 - Area capacity characteristic of Tehri Reservoir: as considered at the time of CEA clearance with capacity at FRL and MDDL as 3540 MCM and 925 MCM respectively.
 - 6. Considering above actual observations and 10 daily peaking power output and design energy during 90% dependable year viz. 2004-05, Central Electricity Authority approved the design energy 2797 MU.
- 56. We have considered the matter. It is observed from CEA letter dated 20.1.2010 furnished by the Petitioner vide affidavit dated 27.8.2020, that the DE approved by CEA is 2797 Million units (MUs) on account of the revised hydrology and other factors such as losses in water conductor system, efficiency of generating unit, Tailrace water level and Irrigation releases. Since the DE has been approved by the CEA as stated above, and same design energy of the

generating station was considered by the Commission vide order dated 29.3.2017 in Petition No. 178/GT/2015. Accordingly, the DE for the generating station is allowed as under:

Month		Design Energy (MUs)
April	I	64.77
	Ш	65.54
	Ш	73.71
May	-	82.21
	Ш	72.00
	Ш	80.92
June	ı	70.97
	Ш	70.07
	III	21.86
July	- 1	23.95
	Ш	25.23
	III	40.35
August	I	123.83
	Ш	129.50
	III	186.18
September	I	89.51
	Ш	94.82
	III	56.25
October	ı	65.48
	Ш	54.79
	Ш	42.68
November	-	54.87
	Ш	55.91
	Ш	57.70
December	ı	92.75
	Ш	94.60
	Ш	103.11
January	I	96.33
	Ш	99.08
	Ш	108.97
February	I	102.54
	Ш	81.36
	III	68.12
March	I	84.04
	Ш	82.31
	III	80.26
Total		2796.57

Summary

57. The annual fixed charges claimed and those allowed for the 2014-19 tariff period, after truing up, is summarized below:

	2014-15	2015-16	2016-17	2017-18	2018-19
Annual fixed charges claimed	139847.81	137834.61	135189.00	130444.64	128800.43
Annual fixed charges allowed	137956.27	135925.34	133748.29	129084.40	127669.20

- 58. Annexure-I given hereunder form part of the order.
- 59. Petition No. 98/GT/2020 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-		
(Pravas Kumar Singh)	(I.S. Jha)	(P.K. Pujari)		
Member	Member	Chairperson		

Annexure I

Weighted Average Rate of Depreciation for the 2014-19 tariff period

_										(Rs. ir	ı lakh)
SI.	Name of assets	2014	-15	2015-16		2016-17		2017-18		2018-19	
NO.		Gross Block as	Depreciation	Gross Block	Depreciation						
		on 01.04.2014	Amount	as on 01.04.2015	Amount	as on 01.04.2016	Amount	as on 01.04.2017	Amount	as on 01.04.2018	Amount
				01.04.2013		01.04.2010		01.04.2011		01.04.2010	
_	LAND										
(A)	Free Hold	1,315.04	43.92	1,315.04	43.92	1,315.04	43.92	1,315.04	43.92	1,315.04	43.92
(B)	Lease Hold							•			
2	BUILDING										
(A)	RESIDENTAL BUILDING	5,018.71	167.62	5,019.08	167.64	4,997.19	166.91	4,337.13	166.91	4,337.13	166.91
(B)	NON RESIDENTAL BUILDING	3,356.58	112.11	3,361.37	112.27	3,364.92	112.39	3,401.35	113.61	4,756.46	158.87
(C)	TEMPORARY BUILDING	392.26	13.10	397.40	13.27	600.20	20.05	600.20	20.05	600.20	20.05
3	ROAD & BRIDGES	1,846.41	61.67	1,846.41	61.67	2,001.77	66.86	2,001.77	66.86	2,123.48	70.92
4	MACHINERY	1,012.41	53.46	1,027.10	54.23	1,027.10	54.23	1,027.10	54.23	1,027.10	54.23
5	MACHINERY										
	MAIN GENERATING PLANT AND										
(A)	MACHINERY	1,69,574.69	8,353.54	1,70,970.66	9,027.25	1,70,334.42	9,028.51	1,71,137.01	9,036.03	1,71,428.90	3,051.45
	SWITCH GEAR INCLUDING CABLE										
(B)	CONNECTIONS	1,742.30	91.99	1,742.30	91.99	1,742.30	91.99	1,770.05	93.46	1,731.15	91.40
6	HYDRAULIC WORKS							•			
(A)	DAM BARRAGE & SPILLWAYS	3,96,736.92	20,347.71	3,92,883.95	20,744.27	3,32,662.30	20,732.60	3,32,662.30	20,732.60	3,92,651.24	20,731.99
(B)	UNCLASSIFIED LAND	1,44,717.74	7,641.10	1,48,537.27	7,842.77	1,52,605.01	8,057.54	1,56,175.44	8,246.06	1,60,491.20	8,473.94
(0)	Less:- IRRIGATION COMPONENT	-1,44,133.80	-7,610.26	-1,44,133.80	-7,610.26	-1,44,133.80	-7,610.26	-1,44,133.80	-7,610.26	-1,44,133.80	-7,610.26
	TUNNELS, SURGETANKS, PENSTOCKS &										
/B)	OTHER HYDRAULIC WORKS EXCL. PSP ESSENTIAL WORKS	445.400.00	3,880,85	440.040.00	3,906.03	446.070.40	3,906,90	1,16,973,18		440.075.00	
(D)	SELF PROPELLED VEHICLES	1,16,193.08	3,000.00	1,16,946.88	-,	1,16,973.18	3,306.30	41	3,906.90	1,16,975.06	3,906.97
_	FURNITURE AND FIXTURE	1,046.48		,	103.62	1,146.56		1,169.51		1,201.73	114.16
0	WATER SUPPLY, DRAINAGE AND	501.34	31.74	501.34	31.74	501.34	31.74	501.03	31.72	501.24	31.73
9	SEVERAGE	665.07	35.12	705.63	37.26	724.57	38.26	740.95	39.12	740.95	39.12
10	COMPANY	2,323,83	122.70	2,323.83	122.70	2,323.83	122.70	2,323.83	122.70	2,323.83	122.70
11	EQUIPMENTS	3,167.48	200.50	3,355.04	212.37	3,374.19	213.59	3,597.04	227.69	3,801.45	240.63
12	SUBSTATION EQUIPMENT	644.06	34.01	644.06	34.01	634.85	33.52	651.48	34.40	651.48	34.40
13	INTERNAL DISTRIBUTION LINES	210.33	11.11	210.33	11.11	210.33	11.11	242.70	12.81	242.70	12.81
	Total	7,06,330.95	34,891.39	7,08,807.78	35,013.85	7,13,065.91	35,231.46	7,17,154.05	35,449.92	7,23,426.62	35,755.93
	Depreciation	4.9402		4.9402		4.9422		4.9432		4.9432	

