

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 172/GT/2015

Coram:

**Shri Gireesh. B. Pradhan, Chairperson
Shri A.K.Singhal, Member
Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order : 20.03.2017

In the matter of

Revision of Tariff of Tehri Hydroelectric Power Project (HPP), Stage-I (4 X 250 MW) for the period from 1.4.2009 to 31.3.2014- Truing up of tariff order dated 27.1.2015 in Petition No. 195/GT/2013

And in the matter of

THDC India Ltd
Bhagirath Puram,
Rishikesh-249001
Uttarakhand

.....Petitioner

Vs

1. Punjab State Power Corporation Limited,
The Mall,
Patiala – 147001 (Punjab)
2. Haryana Power Utilities,
Shakti Bhawan, Sector 6,
Panchkula – 134 109 (Haryana)
3. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14 Ashok Marg,
Lucknow – 226001 (UP)
4. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
Behind Nehru Place Bus Terminal,
New Delhi-110019
5. BSES Yamuna Power Ltd.,
3rd Floor, Shakti Kiran Building,
Karkardooma, Near Court,
New Delhi-110092



6. TATA Power Delhi Distribution Ltd.,
33 KV Grid Sub-Station Building,
Hudson Lane, Kingsway Camp,
Delhi-110009
7. Engineering Department,
Chandigarh Administration,
1st Floor, UT Secretariat,
Sector 9-D, Chandigarh-160009
8. Uttarakhand Power Corporation Ltd.,
Urja Bhawan, Kanwali Road,
Dehradun-248001 (UK)
9. Himachal Pradesh State Electricity Board Limited,
Vidyut Bhawan, Shimla-171004 (HP)
10. Jaipur Vidyut Vitran Nigam Ltd.,
Vidyut Bhawan,
Janpath,
Jyotinagar, Jaipur-302005 (Rajasthan)
11. Ajmer Vidyut Vitran Nigam Ltd.,
Old Power House,
Hatthi Bhatta, Jaipur road,
Ajmer-305001 (Rajasthan)
12. Jodhpur Vidyut Vitran Nigam Ltd.,
New Power House, Industrial Area
Jodhpur-342003 (Rajasthan)
13. Power Development Department (PDD),
Govt. of J&K, Civil Secretariat,
Jammu -180001 (J&K)

...Respondents

Parties present:

For Petitioner: Ms. Anushree Bardhan, Advocate, THDC
Ms. Poorva Saigal, Advocate, THDC
Shri Ajay K. Mathur, THDC
Shri J.K. Hatwal, THDC
Shri Manoj Kumar Tyagi, THDC
Shri H. Chakrabarty, THDC
Shri Sarosh M. Siddiqui, THDC

For Respondents: Shri Alok Shankar, Advocate, TPDDL
Ms. Shimpy Mishra, TPDDL
Shri B.L. Sharma, JVVNL
Shri Tarun Ahuja, JVVNL



ORDER

This petition has been filed by the petitioner THDC India Ltd for revision of tariff of Tehri Hydroelectric Power Project, Stage-I (4 X 250 MW) ('the generating station') for the period 2009-14 after truing-up exercise in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations").

2. The generating station, located in the State of Uttarakhand is a storage type hydro power generating station, providing peaking power and is designed to produce annual energy generation of 2797 MUs. The Tehri Hydro Power Complex comprises of the generating station (1000 MW), Tehri Pumped Storage Plant (1000 MW) and downstream power station at Koteshwar (400 MW). The entire Tehri Power Complex is scheduled to have an aggregate capacity of 2400 MW. The generating station comprises of four units with a capacity of 250 MW each. The commercial operation dates of the various units of the generating station are as under:

Unit-IV	22.9.2006
Unit-III	9.11.2006
Unit-II	30.3.2007
Unit- I	9.7.2007

3. Petition No. 250/2010 was filed by the petitioner for approval of tariff of the generating station for the period from 22.9.2006 to 31.3.2009 and Commission by order dated 16.4.2013 had approved the annual fixed charges. Subsequently, the Commission vide order dated 5.6.2014 in Petition No. 7/RP/2013 has revised the annual fixed charges of the generating station for the period 2006-09. Thereafter, the Commission by order 27.1.2015 in Petition No. 195/GT/2013 had approved the annual fixed charges of the generating station for the period 2009-14 as under:



(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	47727.94	49476.14	49524.71	50322.13	53355.92
Interest on Loan	41649.16	38365.78	34596.26	30920.81	27237.02
Depreciation	36170.99	36438.98	36711.61	36890.58	37068.76
Interest on Working Capital	3597.14	3626.81	3614.23	3620.66	3677.09
O & M Expenses	19600.56	20721.71	21907.00	23160.08	24484.83
Total	148745.79	148629.43	146353.81	144914.26	145823.62

4. Clause (1) of Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff (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 31.3.2014, 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, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

5. The petitioner vide affidavit dated 27.6.2016 has revised the annual fixed charges claimed vide affidavit filed on 17.9.2014, considering the order of the Commission dated 27.1.2015. Accordingly, the annual fixed charges claimed by the petitioner for the period 2009-14 are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-2013	2013-14
Depreciation	36751.50	36970.20	37133.89	37412.33	37459.49
Interest on Loan	41868.49	38661.89	34753.60	31079.48	27995.87
Return on Equity	47726.81	49476.57	49524.35	50323.13	53354.95
Interest on Working Capital	3613.79	3492.36	3853.24	4395.36	4382.11
O & M Expenses	19600.56	20721.71	21906.99	23160.07	24484.83
Total	149561.15	149322.72	147172.08	146370.37	147677.25

6. In compliance with the directions of the Commission, the petitioner has filed additional information and has served copies on the respondents. The respondents UPPCL and BRPL have filed reply in the matter and the petitioner has filed its rejoinder to the replies. The



petitioner has also filed additional information vide affidavit dated 8.9.2016. We now proceed to examine the claim of the petitioner based on the submissions of the parties and the documents available on record, as discussed in the subsequent paragraphs.

Capital cost

7. Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:

“7. (2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

.....
.....

Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff.

8. The Commission in order dated 27.1.2015 in Petition No. 195/GT/2013 had considered capital cost of ₹686483.57 lakh as on 31.3.2009 as the opening capital cost as on 1.4.2009 for the purpose of determination of tariff. In accordance with Clause 1 of Regulation 7 of the 2009 Tariff Regulations, the capital cost admitted by the Commission as on 31.3.2014 is to be considered as opening capital cost on 1.4.2014. It is noticed that the Commission had inadvertently considered CWIP amount in the closing capital cost as on 31.3.2009 vide order dated in Petition No. 250/2010. The petitioner has submitted Auditor Certificate towards reconciliation of closing balance as on 31.3.2009 stating the CWIP at ₹3174.67 lakh. Accordingly, the same amount has been adjusted from the opening capital cost as on 1.4.2009. Hence, the capital cost of ₹683308.90 lakh has been considered as the opening capital cost as on 1.4.2009 for revision of tariff in the present order for the period 2009-14.

Actual Additional Capital Expenditure

9. Regulation 9 (2) of the 2009 Tariff Regulations provides as under:

“9. (2) The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, 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;

(ii) Change in law;

(iii) Deferred works relating to ash pond or ash handling system in the original scope of work;

(iv) 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) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) 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 of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, 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. 1.4.2009.

(vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non availability of spares for successful and efficient operation of the stations.

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialization of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station.

(viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.

(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometres of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”



10. The projected additional capital expenditure allowed for the period 2009-14 in order dated 27.1.2015 in Petition No.195/GT/2013 and the actual additional capital expenditure claimed by the petitioner in this petition are summarized as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14	Total
Additional capital expenditure allowed in order dated 27.1.2015 in Petition No. 195/GT/2013	Additional capital expenditure allowed prior to consideration of FERV an un-adjusted advances and liabilities	3429.89	4784.73	3171.49	2936.26	1960.00	16282.37
	Less: Assumed Deletions	124.58	10.37	73.51	5.93	0.00	214.39
	Total	3305.31	4774.36	3097.98	2930.33	1960.00	16067.98
Additional capital expenditure claimed		7581.13	2937.59	3454.80	3611.47	5311.96	22896.95

11. The petitioner has claimed the additional capital expenditure by considering actual capital expenditure, adjustment of undischarged liability and advances as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional capital expenditure	2759.33	4726.34	3442.21	3705.62	5257.16
Less adjustment of Advance as on 31.03.2009 in subsequent year	(-)3334.61	(-)1998.08	(-)19.72	(-)27.99	(-)33.11
Add disbursement of liability as on 31.03.2009 in subsequent year	8675.35	1276.07	232.23	28.41	37.22
Less: Undischarged liability for 1.4.2009 & onward	518.95	1193.88	487.85	95.52	25.05
Add subsequent disbursement of liability created after 31.03.2009	0.00	127.14	287.93	0.94	75.74
Total	7581.13	2937.59	3454.80	3611.47	5311.96

*the petitioner has considered discharge of advances during entire period.



12. The respondents, UPPCL and BRPL have submitted that the excess claim for additional capital expenditure may not be allowed by the Commission. The respondent BRPL has submitted that the claim for additional capitalization is more than the additional capitalization allowed by the Commission during the period 2009-14 except for the year 2010-11. It has also submitted that the petitioner is not expected to increase the capital cost of the project beyond the Power component of ₹695111 lakh on social and other works without the approval of the competent authority. The respondents have argued that the petitioner has not filed any documents to support the various claims made by the petitioner.

13. In response, the petitioner vide affidavit dated 29.10.2015 has clarified that the Commission has not considered the discharge of liabilities and other adjustments in additional capital expenditure in order dated 27.1.2015 under the heading "Expenditure under Net of unadjusted advance and liabilities." Accordingly, the petitioner submitted that it has claimed discharged liabilities and has adjusted the capital advance during the period 2009-14. The petitioner has further submitted that certain additional capital expenditure which was not considered by the Commission vide order dated 27.1.2015 has been claimed with proper justification based on audited accounts and the tariff forms have been duly certified by Statutory Auditors as per books.

14. As regards the R&R expenditure, the petitioner has submitted that the same has been adjusted as a part of Irrigation Component for ₹144133.80 lakh and the entire 'Irrigation Component' has been adjusted firstly from Land Unclassified and the balance from Dam & Barrage as on the cut-off date i.e. 31.3.2009. It has also submitted that the capital cost considered for the purpose of tariff computation is towards the Power component only as per RCE approved by Government of India and admitted by Commission as on 31.3.2009. However the petitioner has submitted that the R&R expenditure incurred after 31.3.2009 forms part of additional capital expenditure and therefore, has been claimed in the petition. The petitioner has further clarified that the 'Power component' against which the tariff is being



claimed does not contain any cost pertaining to providing drinking water to Delhi and UP and hence, no apportionment of the cost is required to be done. In response to the reply of the respondent UPPCL regarding the replacement of Russian made Excitation system, the petitioner has submitted that originally the Excitation System was installed in the Power House which was imported from Russia along with the main electromechanical equipment. It has further submitted that during the initial run of the equipment itself, the Excitation System started having some technical snags and it was felt necessary to procure new Excitation System for the generating units as the Russian made Excitation System did not seem to be reliable and dependable. Accordingly the petitioner submitted that it has procured the new Excitation System for all the four units from M/s BHEL and that the Russian made Excitation System was used as a make shift arrangement in the times of emergency since power generation cannot take place without a proper Excitation System in place and it was only after the performance of the indigenous Excitation System supplied by M/s BHEL was fully established, the Russian Excitation System was decapitalised in the year 2009-10.

15. The submissions of the parties have been considered. Based on the above reconciliation, the year-wise admissibility of the additional capital expenditure under various heads is discussed as under:

Additions against works already approved

2009-10

					<i>(₹ in lakh)</i>
S.N (as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
1	REHAB EXPENSES	3491.29	3491.29	3491.29	The additional capital
2	DECAP OF REHAB EXPENSES (RKSH ADVICE)	(-)23.95	(-)23.95	(-)23.95	
3	CONSTRUCTION OF MULTIPURPOSE HALL, B.PURAM	73.96	0.02	0.02	



S.N (as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
4	CONSTRUCTION OF RECREATION HALL, B.PURAM	33.18	33.18	33.18	<p>expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulation;</p> <p>The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulation</p>
5	CONSTRUCTION OF FIRE STATION BUILDING AT B.PURAM	66.35	36.35	36.35	
7	CONSTRUCTION OF PARKING IN ADMINISTRATIVE BUILDING. B.PURAM	5.71	5.71	5.71	
8	Electrification of multipurpose hall at b.puram	7.35	1.33	1.33	
9	Residential building for CISF fire wing b.puram	1.05	0.01	0.01	
10	Building of CISF Fire Wing B.Puram	4.17	2.09	2.09	
11	Decap of residential building for cisy fire wing b.puram	(-)4.19	(-)1.05	(-)1.05	
12	Decap of residential building for cisy fire wing b.puram	(-)0.06	(-)0.06	(-)0.06	
13	CONSTRUCTION OF Type-IST RESIDENCE FOR CISF FIRE WING AT B.PURAM	0.11	0.11	0.11	
14	Decap of CONVENT SCHOOL AT B.PURAM	-0.65	(-)0.65	(-)0.65	
15	CONSTRUCTION OF BOTANICAL GARDEN AT KOTI	1.99	0.01	0.01	
16	Construction of toilet at Bageshwar mandir	5.83	5.83	5.83	
17	GC SHEETS SHED FOR ELETRO. MECH. DEPTT.	0.90	0.90	0.90	
18	PORTA CABIN FOR CISF	33.95	33.95	33.95	
19	SUPPLY FABRICATION AND CONSTRUCTION OF SHED WITH LOCK & KEY ARRANGEMENT	1.28	1.28	1.28	
20	SECURITY CABINS	0.73	0.73	0.73	
21	CONSTRUCTION OF 03 NOs. NISHAN SHED	53.88	27.15	27.15	
22	Construction of electronic barrier	15.28	15.28	15.28	
23	CONSTRUCTION OF NEW ROAD FROM DAM TOP TO OLD RCM OFFICE	3.77	3.77	3.77	
24	CONSTRUCTION OF NEW ROAD FROM RKSH ROAD JUNC.TO Q.C OFFICE	3.73	3.73	3.73	



S.N (as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
25	CONSTRUCTION OF NEW ROAD FROM KHANDNALA TO DAM TOP	0.75	0.75	0.75	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulation
26	CONSTRUCTION OF NEW ROAD FROM KHANDNALA TO DAM TOP	0.32	0.32	0.32	
27	PUMP MOTOR AND STARTER	7.54	7.54	7.54	
28	HUSKY 620 DIESEL CRANE	101.36	101.36	101.36	
29	WHEEL LOADER,BEML MAKE,2009,MODEL 656-1,ENG.NO.1508E0086990	49.73	49.73	49.73	
30	Winch machines	7.33	7.33	7.33	
31	ERECTION, TESTING, COMMISSIONING, OF S.E.E. UNIT-2	349.99	67.45	67.45	
32	Adjustment in generating unit.	(-)1605.61	(-)1605.61	(-)1605.61	
33	Decapitalisation of GIS(-)1	(-)0.62	(-)0.62	(-)0.62	
34	Decapitalisation BUS DUCT & GENERATOR TERMINAL EQUIPMENTS:	(-)6.75	(-)6.75	(-)6.75	
35	Decapitalisation of PROCESS STATION FOR ST. CONTROL	(-)12.02	(-)12.02	(-)12.02	
36	Decapitalisation of auxiliary plant and machine.	(-)0.03	(-)0.03	(-)0.03	
37	Decapitalisation of auxiliary plant and machine.	(-)0.01	(-)0.01	(-)0.01	
38	SWITCH GEAR SYSTEM FOR DAM GALLERIES	251.65	76.17	76.17	
39	Decapitalisation of SWITCHGEAR	(-)0.04	(-)0.04	(-)0.04	
40	Decapitalisation of 415 V UNIT AUX. SWITCH GEAR	(-)1.16	(-)1.16	(-)1.16	
41	DECAPITALISATION AGAINST EXCESS LIABILITY THDC/RKSH/CD-210/SUPPLY	(-)4.40	(-)4.40	(-)4.40	
43	ELECTRIC PASSENGER ELEVATOR MACHINE ROOMLESS (MONO SPACE)	21.45	-	-	
45	SUPPLY/ERECTION/CONSTRUCTION OF 33KV SWITCH YARD &RENOVATION OF 33KV SUB STATION	225.21	38.74	38.74	
46	DEWATERING SYSTEM	9.43	9.43	9.43	
47	DEWATERING PUMPING SYSTEM AT DAM GALLERY	107.21	10.57	10.57	



S.N (as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
48	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)0.03	(-)0.03	(-)0.03	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulation
49	Supply & Supervision of Instruments in Spillway.	3.69	3.69	3.69	
50	Energy Dissipation Arrangement at T-1,T-2 Outlet	1.68	1.68	1.68	
51	DECAPITALISATION AGAINST MATERIAL RECOVERY	(-)221.76	(-)221.76	(-)221.76	
52	DECAPITALISATION OF ASSETS	(-)7.05	(-)7.05	(-)7.05	
53	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)3.04	(-)3.04	(-)3.04	
54	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)35.74	(-)35.74	(-)35.74	
55	STOPLOG GATE & LIFTING BEAM FOR T3 &T4	93.21	7.15	7.15	
56	OTHER-HYDRAULIC WORKS	5.42	5.42	5.42	
58	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)5.82	(-)5.82	(-)5.82	
59	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)41.72	(-)41.72	(-)41.72	
60	MUCK REMOVED BY KCT&BROS.(CS)LTD	4.88	4.88	4.88	
61	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)7.34	(-)7.34	(-)7.34	
62	DECAPITALISATION AGAINST EXCESS LIABILITY	(-)53.69	(-)53.69	(-)53.69	
63	ILLUMINATION SYSTEM	67.32	-	-	
64	ILLUMINATION SYSTEM	34.46	34.46	34.46	
65	HIGH MAST LIGHT AT DAM SITE	70.66	21.79	21.79	
66	UTES-100(TESTING SET)	17.55	17.55	17.55	
67	PDM PD SENSOR	52.12	52.12	52.12	
68	SUPPLY AND FIXING CCTV SYSTEM	39.47	-	-	
69	HMT RADIAL DRILLING M/C SET ETC(1 TO 5 ITEMS)	11.71	11.71	11.71	
70	TABLE TOP FULLY AUTOMATIC AUTOCLAVE	0.90	0.90	0.90	
71	DIESEL ENGINE DRIVEN AIR COMPRESSOR MODEL XA175HD	6.29	6.29	6.29	



S.N (as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
72	DOOR FRAME METAL DETECTOR (MULTI-ZONE)	6.05	6.05	6.05	
73	INCLINOMETER SYSTEM(BI-AXIAL PROBE & DATA LOGGER) SET	3.59	7.18	3.59	Capitalisation of one set has been allowed in line with order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations. However, the spare asset has not been allowed.
74	UNIVERSAL TOOL & CUTTER GRINDING M/C SET ETC. (SL 1 TO 7 ITEMS)	7.61	7.61	7.61	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
75	SPIKE ROAD BLOCK WITH DRIVE MACHINE RICE	3.61	3.61	3.61	
78	SHOCK PULSE TESTER SET, LABORATORY CEMENT AUTOCLAVE DIGITAL, ELECTRONIC BALANCE ETC	53.11	53.11	53.11	
79	BOLERO INVADOR NO.UK-09-8377;ENG.NO. GA-94G73896	4.69	4.69	4.69	
80	BOLERO INVADOR NO.UK-09-8378;ENG.NO. GA-94G73559	4.69	4.69	4.69	
81	BUS-UK-09 PA-0017	14.26	-	-	
82	BUS NO UK09-PA0016	14.26	-	-	
83	BUS NO UK09 PA- 0014	14.25	8.24	8.24	
84	BUS UK-09 PA -0013	14.25	14.26	14.26	
85	MS STEEL BARGE(BOAT)	77.75	77.75	77.75	
86	RAILWAY CROSSING BRIDGE	50.30	12.22	12.22	
	Additional capital expenditure	5614.29	4399.17	4395.58	
	De-capitalisation	(-)2035.68	(-)2032.54	(-)2032.54	
	Net Additional capital expenditure	3578.62	2366.63	2363.04	
	Additional capital expenditure not claimed in this petition	(-)148.73			
	Net Additional capital expenditure allowed in previous order	3429.89			



2010-11*(₹ in lakh)*

S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
1	REHAB EXPENSES	3736.79	3736.79	3736.79	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
2	Construction of control room for flood forecasting system & O&M reservoir Tehri.	30.97	30.97	30.97	
3	Construction of dormitory for CISF sub-officer at B.Puram.	33.95	33.95	33.95	
4	CONSTRUCTION OF STORE SHED	7.55	7.55	7.55	
5	Decapitalisation of CONSTRUCTION OF MULTIPURPOSE HALL B.Puram	(-)0.29	(-)0.29	(-)0.29	
6	Decapitalisation Const.of recreation hall b.puram	(-)2.90	(-)2.90	(-)2.90	
7	CONSTRUCTION OF Type-IST RESIDENCE FOR CISF FIRE WING AT B.PURAM	1.34	1.34	1.34	
8	CONSTRUCTION OF FIRE STATION BUILDING AT B.PURAM	1.60	1.60	1.60	
9	PUMP MOTOR AND STARTER	6.04	6.04	6.04	
10	WINCH MACHINE 10 TON CAPACITY WITH ACCESSORY.	15.90	15.90	15.90	
11	ROAD ROLLER	9.82	9.82	9.82	
12	WINCH MACHINE	0.22	0.22	0.22	
13	ELEVATOR (OTIS MAKE)	40.09	40.09	40.09	
14	PORTABLE TYPE D.G. SET 250KV,	17.09	17.09	17.09	
15	Supply/Installation & COMMISSIONING of 11kv. capacitor bank & APFC Panel at 33/11kv sub-station at B.Puram	45.10	45.10	45.10	



S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
16	Decapitalisation of Supply/Erection/CONSTRUCTION OF 33KV SWITCH YARD & RENOVATION of 33KV SUB STATION	(-)1.77	(-)1.77	(-)1.77	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
17	ADJUSTMENT OF CAPITALISATION AMOUNT IN SPILLWAYS WORK	24.73	24.73	24.73	
18	SPILLWAYS (ORIGINAL COST)	1121.90	1121.90	1121.90	
19	Decapitalisation of SPILLWAYS(ORIGINAL COST)	(-)786.33	(-)786.33	(-)786.33	
20	PAYMENT TRANSFER FROM MAIN DAM TO O&M 2007-08 AND 2008-09- Hydraulic Work	(-)0.28	(-)0.28	(-)0.28	
21	ADJUSTMENT OF GEOLOGICAL SURVEY OF INDIA (CANAL. SURGE TANK, SHAFT, BUTTERFLY VALVE ETC)	(-)6.77	(-)6.77	(-)6.77	
22	External Electric connection	16.21	16.21	16.21	
23	Supply /Erection of STREET LIGHT POLE	30.25	30.25	30.25	
24	ADJUSTMENT OF ILLUMINATION SYSTEM	(-)19.53	(-)19.53	(-)19.53	
25	PROVIDING OF NET LAN	14.04	14.04	14.04	
26	INFORMATION MANAGEMENT SYSTEM	236.54	236.54	236.54	
27	GAUGE DISCHARGE MEASUREMENT STATION	33.51	33.51	33.51	
28	INJECTO COMPACT 310 GROUTING UNIT CONSISTING OF MIXER 1HCM 100 1NO ETC.	9.67	23.83	9.67	
32	BOLERO CAMPER 2WD S STR/BSII COLOR WHITE	4.90	4.90	4.90	
33	HYDRAULIC PLATFORM (life make) INSTALLED ON TRUCK NO.UP08-5664	4.53	4.53	4.53	



S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
	Additional Capital Expenditure	5442.75	5456.91	5442.75	
	De-capitalisation	(-)817.87	(-)817.87	(-)817.87	
	Net Additional capital expenditure	4624.88	4639.04	4624.88	
	Additional capital expenditure not claimed in instant petition	159.85			
	Net Additional capital expenditure allowed in previous order	4784.73			

2011-12

(₹ in lakh)

S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
1	REHAB EXPENSES	2155.77	2155.77	2155.77	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
2	Record room for F&A Department, DG room, Store room & Panel room at B.Puram	26.05	26.05	26.05	
3	Construction of CISF residences.	(-)0.009	(-)0.009	(-)0.009	
4	Construction of boundary wall around fire station	2.28	2.28	2.28	
5	Decapitalisation of DAM TOP TO OLD RCM Building Road	(-)4.02	(-)4.02	(-)4.02	
7	HYDRAULIC ROUGH TERRAIN MOBILE CRANE 75 TON CAPACITY MODEL RT880SERIAL NO406958 & JCB Loader	323.60	323.60	323.60	
10	CONSTRUCTION OF HPP CIVIL WORK, Package-3	23.76	23.76	23.76	
11	Neutral Grounding Transformer	3.49	3.49	3.49	
12	IRS BASED ACCESS CONTROL SYSTEM	33.52	33.52	33.52	



S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
13	HV TEST KIT	32.06	32.06	32.06	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
14	EOT CRANE	18.14	18.14	18.14	
15	Establishment of LAN	7.42	7.42	7.42	
16	ELECTRIC INCINERATOR WITH ACCESSORIES MAKE-CECON	6.52	6.52	6.52	
23	BUSES(4 Nos.)	41.84	41.84	41.84	
24	Trucks/Tippers (5 Nos.)	135.38	135.38	135.38	
25	VIP BOAT	85.05	85.05	85.05	
26	BOLERO CAMPER	4.91	4.91	4.91	
27	O&M SYSTEM AND SYSTEM ADMINISTRATION	55.15	55.15	55.15	
	Additional Capital Expenditure	2954.96	2954.96	2954.96	
	De-capitalisation	(-)4.02	(-)4.02	(-)4.02	
	Net Additional capital expenditure	2950.93	2950.93	2950.93	
	Additional capital expenditure not claimed in instant petition	220.56			
	Net Additional capital expenditure allowed in previous order	3171.49			

2012-13

(₹ in lakh)					
S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
1	CAPITALISATION OF REHAB EXPENSES	2753.82	2753.82	2753.82	
2	CONSTRUCTION OF INCINERATOR CHIMNEY & STAGE WIRI HOOK KHAND NALA	7.84	7.84	7.84	



S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
4	ELECTRIFICATION WORK OF 24 NOS FIELD HOSTEL, B.PURAM	0.47	0.47	0.47	The additional capital expenditure has been allowed vide previous order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulation
5	ELECTRIFICATION WORK OF 24 NOS FIELD HOSTEL, B.PURAM	16.23	16.23	16.23	
6	24 NO. FIELD HOSTEL AT B.PURAM	403.49	403.49	403.49	
7	CONSTRUCTION OF 16 NOS ADDITIONAL ROOM IN TYPE -C	11.23	11.23	11.23	
11	60 HP 2 STAGE PUMP SET CONSISTING MOTOR WITH STARTER (MAKE KIRLOSKER)	2.33	2.33	2.33	
12	60 HP 2 STAGE PUMP SET CONSISTING MOTOR WITH STARTER (MAKE KIRLOSKER)	2.33	2.33	2.33	
13	60 HP 2 STAGE PUMP SET CONSISTING MOTOR WITH STARTER (MAKE KIRLOSKER)	2.33	2.33	2.33	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
14	PASSENGER ELEVATOR	18.32	18.32	18.32	
19	CONSTRUCTION OF 11 K.V. LINE B.PURAM TO KOTI	7.45	7.45	7.45	
20	BULLET 350 UCE-BLACK COLOR; (M/C NO. UK09A 1801)	0.85	0.85	0.85	
21	SURVEY BOAT LENGTH 9-10M HAVING CAPACITY 14 TO 15 PERSONS	73.71	73.71	73.71	The additional capital expenditure has been allowed vide order dated 27.1.2015 on actual basis under Regulation 9(2)(iv) of 2009 Tariff Regulations
22	SUPPLY & INSTALLATION OF BADMINTON COURT FLOORING STAG (SIZE 15X7X4.5 MTR)	2.45	2.45	2.45	
23	ECG MACHINE	0.53	0.53	0.53	
24	OXYGEN CONCENTRATOR	0.51	0.51	0.51	
25	CENTRIFUGE MACHINE	0.15	0.15	0.15	
38	WINCH MACHINE	8.59	8.59	8.59	
43	100HP KIRLOSKER PUMP	4.25	4.25	4.25	



S.No. as per petition)	Work/Equipments added after cut off date	Allowed by the Commission in order dated 27.1.2015	Amount Capitalised / De-capitalised (+/-)	Allowed	Remarks on admissibility
44	PUMP 150HP MODEL RKB65/19E8	1.29	1.29	1.29	
45	PUMP 150HP MODEL RKB65/19E8	1.29	1.29	1.29	
49	INSTRUMAX FINE DUST SAMPLER	2.03	2.03	2.03	
50	BIOMETRIC BASED ATTENDANCE SYSTEM	17.63	17.63	17.63	
51	INSULATING MAT 200MM	1.81	1.81	1.81	
	Additional Capital Expenditure	3340.91	3340.91	3340.91	
	Additional capital expenditure not claimed in instant petition	(-)404.65			
	Net Additional capital expenditure allowed in previous order	2936.26			

Capital expenditure partially allowed/ not allowed/ not considered by the Commission in earlier order, but incurred and claimed now

16. The petitioner has submitted that it has duly considered the additional capitalization allowed and disallowed by the Commission during the period 2009-14 vide order dated 27.1.2015, but has requested the Commission in the present petition, to re-consider some of the items disallowed in the aforesaid order.

17. The respondent UPPCL has submitted that the Commission may reject the request for re-consideration of disallowed expenditure claimed by the petitioner. In response, the petitioner has submitted vide affidavit dated 29.10.2015 that some of the claims of petitioner were not allowed by the Commission in the order dated 27.1.2015 for want of justification and accordingly the petitioner has re-claimed some of the disallowed works citing more justifications as required. We have considered the submissions and proceed to examine the



claim of the petitioner and their admissibility, on prudence check. The expenditure not allowed in previous order but approved now based on the justifications submitted by the petitioner is as below:

2009-10

(₹ in lakh)

S.N.		Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
1	Work administrative building phase-ii	0.90	There was no permanent place of sitting for staff engaged in generating station. They were sitting in temporary sheds. To enable staff engaged in generating station to sit at one common place thereby enabling their HOD to monitor the activities in a comprehensive manner, the phase – II Administrative building was essential & thus constructed.	0.90	We have considered the submission of the petitioner, the expenditure claimed is allowed under Regulation 9(2)(iv) since the expenditure would help in necessary & efficient operation of the station.
2	Energy management system (11 items included)	16.12	The system works in tandem with the computerized control system with an objective to optimize the generation by way of online monitoring of the gap between the actual and scheduled generation. Such monitoring has proved to be useful to improve the productivity and plant performance. Narrowing down the gap between the actual and scheduled generation have ultimately proved worth for the system reliability & grid stability.	0.00	It is not clear from the submissions of the petitioner as to how the additional energy meters and associated equipment sought to be installed would contribute to the efficient operation of the generating station, specially keeping in view that the energy meters installed by CTU for the purpose of energy accounting are already in place. Accordingly, as decided in the order dated 27.1.2015, we find no reason to allow the capitalization of the expenditure claimed under this head. Hence, the expenditure claimed is not allowed
		0.56		0.00	
3	CONSTRUCTION OF HPP CIVIL WORK Pkg-II	373.63	Final escalation bill of HPP civil works, Package-II(Construction of Machine Hall, Transformer Hall, Expansion Chamber etc.) by creation of liability.	373.63	As the asset is considered necessary for efficient operation of the station, the same is allowed under Regulation 9(2) (iv)
4	Magnetic Settlement Target	0.71	This instrument is required for checking of settlements in the Dam and spillway area.	0.00	Since the expenditure towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, the same is not allowed.
5	DG Set	0.78	Acoustic lining was required in the DG set room for reducing	0.00	Since the expenditure to be incurred for the asset is in



S.N.	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
		the sound level for efficient working of the project.		the nature of O&M expenses, the same is not allowed.
	Total	392.70	374.54	

2010-11

(₹ in lakh)				
	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
MEGGER TEST KIT MPRT 8430	16.47	Items procured for preventive, break down maintenances and condition monitoring of EM equipment installed at Tehri Plant	0.00	As the expenditure towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, the same is not allowed.
TEST BENCH & PORATABLE INSTRUMENTS FOR ELECTRICAL LAB.	10.95		0.00	
PORTABLE DISSOLVED GAS ANALYSER, 3 IN 1 GAS GENERATOR, HORIZON AIR COMPRESSURE, AUTOMATIC 3 PHASE TEST PORTABLE ARC WELDING BENCH, SOLAR PANEL ETC TRANSFORMER (TOTAL NO. OF EQUIPMENT IS 61)	74.05	Testing of transformer oil and 01 No. D. G. set was procured against BER declared D.G. Set.	0.00	
Total	101.46		0.00	

2011-12

(₹ in lakh)				
	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
Plant & Machinery and other equipments	2.46	For strengthening the B.puram water supply scheme, 02 no. 20 HP capacity pump sets were purchased by Mechanical Department and installed at RCC pump station for supplying drinking water.	0.00	As the expenditure incurred is towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, hence the same is not allowed.
Arbitration award for Gantry	0.66	Arbitration award	0.66	Since the expenditure claimed is related to payment in compliance of the arbitration award, the same is allowed



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
				under Regulation 9(2)(i) of 2009 Tariff Regulations.
CONSTRUCTION OF HPP CIVIL WORK Package-1	466.31	Final escalation bill of HPP Civil Works Package-I (Construction of Intake works, Head Race Tunnels, Butterfly Valve Chamber etc) by creation of liability.	466.31	As expenditure incurred is towards settlement of escalation bill, the same is allowed
QC-Testing Equipments	5.35	Enhancing testing facility i.e. to upgrade CMTL for carrying out chemical test of cement (Heat of hydration test)	0.00	Since the expenditure incurred for the asset is in the nature of O&M expenses, the same is not allowed.
SOKKIA DIGITAL LEVEL	1.72	It is required for day to day use of survey/monitoring of various settlement points of surface and underground galleries in dam body. Also essential for execution of miscellaneous construction activities required during O&M of Dam and reservoir	0.00	
SOKKIA SET-REFLECT TOTAL STATION	6.31		0.00	
SOKKIA BGS40 BAR CODED STAFF	0.51		0.00	
KIRLOSKAR PUMP MODEL UP100/29 WITH SPARES SETS	6.36	Spares pumps were procured to maintenance the inventory to meet out the emergency situation.	0.00	As the expenditure is in the nature of spare assets; the same is not allowed.
Portable Sound Level Meter Digital, Lux meter Digital, Oxygen Monitoring Equipments	1.60	The equipments were purchased for monitoring of environment at Tehri HPP as a requirement of ISO.	0.00	As the expenditure towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, the same is not allowed.
Total	491.28		466.96	

2012-13

(₹ in lakh)

	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
FENCING WORK OF 24 NOS. FIELD HOSTEL, B.PURAM	7.50	Most of the Staff engaged in generating station has been accommodated in field hostel. The Tehri project is located in hilly area, the entire area is prone to possible attack by wild animals. The staff of generating station works in 3 shifts round the clock. This staff move out and come back from	7.50	As the asset is considered necessary for efficient operation of the generating station, it is allowed under



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
		generating station in late night to hostel. To safeguard the staff from wild animals, the fencing of field hostel was essential.		Regulation 9(2) (iv) of 2009 Tariff Regulations.
Construction of Road in B.Puram.	132.74	For improvement in movement/communication some new road was constructed in B.Puram.	132.74	
100 HP PUMP SET CONSISTING MOTOR WITH STARTER (MAKE KIRLOSKER)	3.67	Purchased for Bhagirathipuram water supply scheme to cope up the additional demand of drinking water.	3.67	
	3.67		3.67	
DRILLING &GROUTING WORK	18.14	The work was executed for installation of inverted plumbs and drainage holes for the safety of Adit-4B through which ventilation of expansion chambers, adit leading to crown of machine hall of Tehri HPP is being done.	18.14	
VB8A-LSG-11KV 250MVA-800A-SINGLE PANEL Vaccume Circuit Breaker (VCB)	3.26	The power supply was being fed from UPCL sub station, New Tehri from their existing VCB through which other far away villages were also being fed. On the occurrence of fault at any location of the over head line, the VCB was getting tripped and the restoration of power supply was normally taking lot of time by UPCL. Hence the important construction activities were getting affected badly due to frequent trippings. Therefore 01 no. VCB was required to be procured for independent feeding of power supply through separate over head line B.Puram to avoid the power supply disturbance for important construction activities. Moreover, the power supply shall also be fed to other consumers at	3.26	



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
		Bhagirathipuram by UPCL through this independent VCB and overhead line.		
VB8A-LSG-11KV 250MVA-800A-SINGLE PANEL Vacuum Circuit Breaker (VCB)	3.26	Quarrying work shall be carried out at Asena for which power supply shall be provided by UPCL from their sub station. Since additional VCB was not available in their sub station, 01 no. VCB was required to be procured for independent feeding of power supply for quarrying work at Asena.	3.26	
CONSTRUCTION OF 11 KV LINE-IPS-3 TO Sub Station-NTT	4.57	The power supply was being fed from UPCL sub station at New Tehri through their existing 11 kV overhead line which was also feeding other far away villages. On the occurrence of fault at any location of this over head line, trippings were observed and the restoration of power supply was normally taking lot of time by UPCL. Hence the important construction activities were getting affected badly during frequent tripping of over head line. Therefore it was decided to feed the power supply through independent 11 kV over head line from UPCL sub station to B.Puram. Earlier the drinking water to New Tehri was supplied by THDCIL for which the 11 kV over head line was already existing from IPS -III to B.puram. Hence it was required to extend this 11 kV line only from IPS-III to New Tehri sub station of UPCL. Accordingly the power supply disturbance for construction activity was avoided on feeding power supply through this	4.57	As the asset is considered necessary for efficient operation of the generating station, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations.



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
		independent 11 kV over head line. More over the power supply shall also be fed to other consumers at Bhagirathipuram by UPCL through this independent 11 kV overhead line.		
PHASE SEQUENCE METER MAKE-FLUKE MODEL 9040	0.18	Items procured for preventive, break down maintenances and condition monitoring of EM equipment installed at Tehri Plant	0.00	As the expenditure on assets is minor in nature, the same is not allowed.
HIGH VOLTAGE DETECTOR MAKE MOTWANE,MODEL -HV-50	0.55		0.00	
EARTH TESTER-DIGITAL MAKE-MOTWANE DET-20	0.36		0.00	
DG SET 62.5KVA WITH AMF PANNEL MAKE KIRLOSKER	5.65	The DG set has been installed for strengthening back up power supply required in B.Puram.	5.65	As the asset is considered necessary for efficient operation of the generating station , it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations
3-PHASE INDUCTION MOTOR 187KW FRAME SIZE VSC 315 MAKE KIRLOSKER	9.19	Spares motor was procured to maintenance the inventory to meet out the emergency situation for power house dewatering system.	0.00	Since the claim is of the nature of spares, the expenditure is not allowed.
TWO DIMENSIONAL JOINT METER MAKE : AECS; MODEL-AIS 1225	1.99	Two dimensional Joint Meters AECS make have been procured for installation at construction joints/ cracks etc to monitor the behaviour of Spillways structures at Tehri HPP.	1.99	As the asset is considered necessary for efficient operation of the generating station, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations
CABLE FAULT LOCATOR,MAKE MEGGER MODEL NO-PFL 40A-1500-21	32.71	Items procured for preventive, break down maintenances and condition monitoring of EM equipment installed at Tehri Plant	0.00	As the expenditure towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, the same is not allowed.
THERMAL IMAGING CAMERA INSTRUMENT (MODEL NO 881-2 MAKE TESTO)	3.13		0.00	



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
CAPACITANCE & DISSIPATION FACTOR WITH STANDARD ACCESSORIES	39.99		0.00	
KEYBOARD CONTROLLER MAKE & MODEL SAMSUNG SPC-6000	0.54	Procured for repair & Maintenance work of CCTV system at Project area	0.00	
DVR 16 CHANNEL MAKE & MODEL SAMSUNG SRD-452 D	0.88		0.00	
PNEUMATIC FENDER DIA 600MMX1100MM WITH PP ROPE	1.91	The regular monitoring of Intake structure as well as ungated shaft spillway are being done by boats, to safe guard the hull of boat this Pneumatic Feinder are being used in between boats and rip-rap material. Vice-versa the hull of boat will get panitrated by angular quatrised stone. Hence the regular monitoring of the intake structure & ungated shaft spillway and near by other structure without pneumatic Feinder dia. could not be possible .	1.91	As the asset is considered necessary for efficient operation of the generating station, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations
WORK ON TUNNEL	166.29	The said expenditure was made against following works executed for Tehri HPP: 1) Structural work in False Ceiling in Adit-3. 2) GI Profile Roofing/ Cladding in Adit-3. 3) Design, Manufacture, Transport, Erection, Testing & Commissioning of Motorised (Electrically Operated) Steel Gate of size 27.32 Sq.m. in Adit-3 inclusive of service tax. Keeping in view the nature of works, as required for safety & security of Tehri HPP, these items were considered as Capital items for Tehri HPP.	166.29	
SUBMERSIBLE PUMP 60/65 HP	1.18	Purchased for Bhadirathipuram water	1.18	



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
	1.18	supply scheme to renovate intake system after impounding of KHEP reservoir. Submersible pump sets are installed at Zero point intake pumping station in KHEP dam reservoir	1.18	
	1.18		1.18	
STAR DELTA STARTER AUTOMATIC	0.40	Purchased for Bhadirathipuram water supply scheme to renovate intake system after impounding of KHEP reservoir. Submersible pump sets are installed at Zero point intake pumping station in KHEP dam reservoir	0.40	As the expenditure towards procurement of these assets is in the nature of Tools & Tackles/ minor assets, the same is not allowed.
	0.40		0.00	
	0.40		0.00	
DECAP OF REHAB EXPENSES	(-)16.48		(-)16.48	The negative adjustments have been allowed
ADJUSTMENT OF CONVERSION OF 64NOS. T-2B QTR. INTO 32NOS. T-2B AT KOTI, CONVERSION OF 48NOS. T-1B QRTRS INTO 24NOS.T-2B, CONST. OF T-1B QRTR INTO T-2B QRTR AT V.K PURAM	(-)9.86		(-)9.86	
ADJUSTMENT OF ACCESSORIES (BASE PLATE COUPLINGS & KCY BOLTS)	(-)0.93		(-)0.93	
ADJUSTMENT OF ELECTRIC MOTOR 60 HP SP DD	(-)0.93		(-)0.93	
ADJUSTMENT OF CENTRIFUGAL PUMP,MOTOR & STARTER	(-)2.65		(-)2.65	
ADJUSTMENT OF 4- STATER,5-PUMP,5- MOTORS,4-PANELS FOR NEW WATER SUUPLY SCHEME	(-)38.14		(-)38.14	
ADJUSTMENT OF PUMP- KIRLOSKAR MAKE 60 HP CENTRIFUGAL PUMP, PUMP- KIRLOSKAR PUMPSET DSM-40 SIZE 150X125MDC, PUMP-(M&P MAKE)	(-)3.95		(-)3.95	



	Claimed	Submission of the petitioner	Allowed	Remarks on admissibility
ADJUSTMENT OF STARTER 60 HP	(-)0.34		(-)0.34	
ADJUSTMENT OF OCB-33KV OCB ALONG WITH CONTROL PANEL & STARTER	(-)0.53		(-)0.53	
ADJUSTMENT OF CHAIN PULLEY BLOCK CAP. 5TON LIFT-3MT	(-)0.04		(-)0.04	
ADJUSTMENT OF DEWATERING SYSTEM	(-)6.38		(-)6.38	
Total additional capital expenditure	444.93		354.21	
Total De-capitalisation allowed	(-)80.22		(-) 80.22	
Net Additional capital expenditure	364.71		273.99	

18. The expenditure not claimed by the petitioner in previous order but approved now by the Commission during 2013-14 based on the petitioner's submissions is as below:

2013-14

(₹ in lakh)

Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (+/-)	Justification	Allowed	Remarks on admissibility
REHAB EXPENDITURE	4767.98	In compliance to Hon'ble Supreme Court order dated 30.3.2011, a meeting was held in MOP, Gol with State Govt on rehab issues. Accordingly addl. fund was released to state govt. on 28.11.2011. Out of which a sum of Rs. 47.67 Cr had incurred for rehabilitation & various development works during 2013-14.	4767.98	As the asset is considered necessary for efficient operation of the generating station, it is allowed under Regulation 9(2) (iv).
Capitalisation of jali door for executive field hostel Bhagirathipuram	1.99	Jali door were required for better utilisation of existing 24 nos field hostel.	1.99	As the expenditure is for the benefit of employees of the project, it is allowed



Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (+/-)	Justification	Allowed	Remarks on admissibility
				under Regulation 9(2) (iv) of 2009 Tariff Regulations
Construction of photo-gallery at top terrace	21.27	Photo gallery was required to show the time-wise progress of project	0.00	As the expenditure incurred does not contribute to the efficient operation of the generating station, the same is not allowed.
24 NO. FIELD HOSTEL AT B.PURAM	32.17	Construction of 24 Nos. Field Hostel was required to provide accommodation to senior officers who are engaged in Construction/O&M activities of project and lives as a bachelor in project area.	32.17	As the expenditure is for the benefit of employees of the project, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations.
CONSTRUCTION OF 4 NO ROOM AT S.S.MANDIR School at V.K.PURAM KOTI	22.62	Work was required for study of wards of employees and affected persons of nearby area.	22.62	
CONSTRUCTION MAINTENANCE .INTER COLLEGE B.P	22.61	Work was required for study of wards of employees and affected persons of nearby area.	22.61	
CONSTRUCTION OF 5 NO.BATH ROOM AT CISF LINE	4.35	For CISF personal a Statutory requirement related to safety of project	4.35	As the expenditure is for the benefit of CISF personnel, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations.
CONSTRUCTION OF FIRE STATION AT B.PURAM	1.85	For CISF personal a Statutory requirement related to safety of project	1.85	
Construction of morcha post quarter guard b.puram	10.56	For CISF personal a Statutory requirement related to safety of project	10.56	
STAGE PUMP SETs for water supply	20.13	Purchased for Bhagirathipuram water supply scheme in order to strengthen the main pumping station at Bhagirathipuram	20.13	As the expenditure is for the benefit of employees of the project, it is allowed under Regulation 9(2) (iv) of 2009 Tariff Regulations
JCB 4DX BACKHOE LOADER (UK09A 2870) CH NO HAR4DXSDP0141453 9	22.33	Purchase against BER declared Loader to meet out the requirement of RCM, DAM, Spillway & Other Deptt. for Road and other works	22.33	As the asset is considered necessary for efficient operation of the generating station, the expenditure is allowed under Regulation 9(2) (iv).
BD 80 BULLDOZER WITH FRAME	97.16	Purchase against BER declared Dozers to meet out the requirement of	97.16	
BE 300LC	85.86	DAM, Spillway & Other	85.86	



Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (+/-)	Justification	Allowed	Remarks on admissibility
HYDRAULIC EXCAVATOR		Deptt. for Dredging, Road and other works		
DAM EXPENDITURE	14.36	Electrification expenditure on Dam Top.	14.36	As the asset is considered necessary for efficient operation of the generating station, the expenditure is allowed under Regulation 9(2) (iv).
BATTERY OPERATED CLUB CAR (4&7-SEATER) PH 1323-374980 & PH 1322-372976	31.01	Purchased against recommendation of intelligence Bureau on security arrangements at Tehri Project. As per the enclosed minutes of security meeting, It was decided not to allow any vehicles inside the tunnel. Battery operated vehicles may be used for ferrying employee's laborers, visitors, etc from tunnel entry to machine hall at power house.	31.01	
BULLET 350 UCE-STD (UK09A-3543)	0.97	Purchase against requirement of CISF deptt. for Transportation and Security Purpose of the project	0.97	
LPK2518TC/38/BSIII/G750/SRT/14BOX/ERGO- TATA TIPPER-UK09 CA 0396	65.03	Purchase against the requirement of RCM, DAM, Spillway & Other Deptt. for Road and other works	65.03	
CHAIN PULLY BLOCK 2,3,5 T CAPACITY	0.61	Purchased to fulfil the requirement of Deptt.	0.00	
WHEEL MOUNT TROLLEY	0.07	Purchased to fulfil the requirement of Deptt.	0.00	
LAYER-2,24 PORT NETWORK SWITCH, MAKE CISCO	0.95	For Computer Networking purpose	0.00	
VIBRATING WIRE TYPE LOAD CELL CAPACITY UPTO 30KN	0.86	These 4 nos. of load cells have been installed as per Design & Engg. Deptt. Rksh to monitor convergence and load on BVC walls.	0.00	As the expenditure on assets is minor in nature, the same is not allowed.
EXPLOSIVE VAPOR DETECTOR PILOT M	16.38	For Power House Safety Purpose	16.38	As the asset is considered necessary for efficient operation of the generating station, the expenditure is allowed under Regulation 9(2) (iv).
PROJECTORS	4.13	For Office Use	0.00	As the expenditure on



Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (+/-)	Justification	Allowed	Remarks on admissibility
INCLUDING ACCESSORIES				assets is minor in nature, the same is not allowed.
ONLINE TRANSFORMER OIL DRY OUT SYSTEM MODEL-CD-002	19.70	For Power House Safety Purpose	19.70	As the asset is considered necessary for efficient operation of the generating station, the expenditure is allowed under Regulation 9(2) (iv).
WATER LEVEL SOUNDER INSTRUMENT WITH TAPE LENGTH 150 METER	0.48	2 Nos. water level sounders were purchased for regular monitoring of water level in 16 nos of peizometers installed at El 840 m of Intake Area.	0.00	As the expenditure on assets is minor in nature, the same is not allowed.
1600 mAH BATTERY	0.49	Replaced old batteries of Walkie Talkie sets with CISF	0.00	
RAPID CHARGER FOR KENWOOD MAKE TK-2107 WALKIE TALKIE SET	0.51	Replaced old chargers of Walkie Talkie sets with CISF	0.00	
Rehab exp.for Jan to March 2014	(-)2.86	Money was spent on various development works, new bridges, roads, establishment charges for Rehabilitation Directorate & acquisition of land for disposal of excavated muck from P.H. etc.	(-)2.86	
CONST.OF D TYPE QTR AT B.PUARM -8 NO.	(-)8.52	Declared Beyond Economic Repair (BER)	(-)8.52	The negative adjustments have been allowed.
TATA MODEL5080 UP07C-5317,EN-697D28 ESQ125428	(-)0.33	Declared Beyond Economic Repair (BER)	(-)0.33	
TATA MODEL5080 UP07C-5321,EN-697D28 ESQ12678	(-)0.33	Declared Beyond Economic Repair (BER)	(-)0.33	
TATA LP-407/31 UP08-5409,EN-816744,CH-357042DRQ	(-)0.75	Declared Beyond Economic Repair (BER)	(-)0.75	
TATA LP407/31 UP08-5410,EN812131,CH357042DRQ0500	(-)0.75	Declared Beyond Economic Repair (BER)	(-)0.75	
adjustment of advance against deposit work as on 31-3-2014 (UPCL)	(-)10.13		(-)10.13	



Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (+/-)	Justification	Allowed	Remarks on admissibility
CANAL.SURGE TANK,SHAFT,BUTTE RFLT,VALVE ETC	14.39	The said payment was made to Geological Survey of India (GSI) against Service Tax in respect of their services rendered by them for Tehri HPP. Basic cost against the services of GSI expert was already released Service Tax as above was released as claimed by GSI in May 2013.	14.39	This expenditure is of the nature of statutory service tax payment against the geological survey prior to commissioning. Hence, same is allowed as a part of capital cost.
Additional Capital Expenditure	5280.82		5251.44	
De-capitalisation	(-)23.66		(-)23.66	
Net Additional capital expenditure	5257.16		5227.78	

Assumed Deletions

19. As per consistent methodology adopted by the Commission, 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 de-capitalization 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".

20. The Commission has considered assumed deletions for the period 2009-13 in order dated 27.1.2015 in Petition no 195/GT/2013 towards de-capitalization by the petitioner on account of Sale of Assets/Assets written off/ new assets purchased during the year, replacement and deemed deletion. The petitioner has replaced "BD 80 Bulldozer With Frame, BE 300LC Hydraulic Excavator, 1600 mAH Battery Rapid Charger, and Walkie Talkie set" during 2013-14 and has submitted that the cost of de-capitalised item amounting up to



₹100.00 has not been considered. Accordingly, the assumed deletions considered are as below:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Assumed deletions	(-)124.58	(-)10.37	(-)73.51	(-)5.93	0.00

Approved Additional capital expenditure

21. Based on the above observations, the total additional capital expenditure approved for the period 2009-14 is as under:

(₹ in lakh)						
		2009-10	2010-11	2011-12	2012-13	2013-14
Additions against works already approved	Additional capital expenditure	4395.58	5442.75	2954.96	3340.91	0.00
	De-capitalisation	(-)2032.54	(-)817.87	(-)4.02	0.00	0.00
	De-capitalisation	(-)124.58	(-)10.37	(-)73.51	(-)5.93	0.00
	Sub-total	2238.46	4614.51	2877.43	3334.98	0.00
Capital expenditure not allowed/not considered in previous order, but claimed in the present petition	Additional capital expenditure	374.54	0.00	466.96	354.21	5251.44
	De-capitalisation	0.00	0.00	0.00	(-)80.22	(-)23.66
	Sub-total	374.54	0.00	466.96	273.99	5227.78
Total Additional capital expenditure allowed		2613.00	4614.51	3344.39	3608.97	5227.78

Exclusions in additions and deletions (incurred, capitalized in books but not to be claimed for tariff purpose)

22. The following year-wise expenditure/deletions are towards replacement of minor assets, purchase of miscellaneous assets, BER & Miscellaneous items, CWIP transferred to fixed asset, etc. as submitted by the petitioner vide affidavit dated 8.9.2016 and certified by auditor:

(₹ in lakh)					
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Minor items, Furniture Fixtures, Computer, BER & Misc items etc. not considered	199.98	148.11	38.77	-91.91	-2392.90
FERV are not considered	(-)951.87	208.60	467.14	144.19	431.79



	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
CWIP tr. To Fixed Asset are not considered	1254.86	22.38	0.00	19.76	1.37
Total	502.97	379.10	505.91	72.04	(-) 1959.74

23. The expenditure incurred towards procurement/replacement of minor assets and procurement of capital spares after the cut-off date is not permissible for the purpose of tariff in terms of the 2009 Tariff Regulations. Accordingly, the petitioner has considered these additions under exclusion category. As such, the exclusions of the positive entries under the head are in order and are allowed. Further, the capital work in progress transferred to Gross block has been excluded for tariff purpose as it does not form the part of the capital cost.

24. The petitioner has also ignored/ excluded negative entries towards the BER and miscellaneous items for the purpose of tariff for the purpose of tariff as the corresponding positive entries for purchase of such assets are not being allowed for the purpose of tariff in terms of the provisions of the 2009 Tariff Regulations. In this regard, the observations of the Commission in order dated 7.9.2010 in Petition No.190/2009 as under:

“20. After careful consideration, we are of the view that the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block, if the cost of the new assets is not considered on account of implication of the regulations. In other words, the value of the old assets would continue to form part of the gross block and at the same time the cost of new assets would not be taken into account. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of those assets are being rendered by similar assets which do not form part of the gross block.”

25. The matter has been examined. The issue of exclusion of negative entries corresponding to deletion of minor assets for the purpose of tariff was dealt with by the Commissions in Petition No.230/GT/2014 (revision of tariff of Dhauliganga HEP for 2009-14) and the Commission by order dated 24.2.2016 has observed as under:

“31. The present case is distinguishable from the facts of the case which was decided in the said appeal. The minor assets are not considered as capital assets and are not permitted to be capitalised after the cut-off date. In our view, since the cost of new assets would not be taken into account by implication of the regulations, the value of



old assets should be permitted to continue to form part of the gross block. In other words, if the cost of the new assets is not considered on account of implication of the regulations, the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of these assets are being rendered by similar assets which do not form part of the gross block. In this background and in line with the decision of the Commission in order dated 7.9.2010, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.”

26. In line with the above decision, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.

Un-discharge and discharge of liabilities

27. The petitioner has submitted the details of un-discharged liabilities in the actual additional capital expenditure for the period 2009-14. Further, the petitioner has submitted the details of advances and liabilities discharged corresponding to the 2006-09 period and the 2009-14 period. The details in respect of liabilities submitted by the petitioner are as below:

	(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Adjustment of Advance as on 31.3.2009 in subsequent year	(-3334.61)	(-1998.08)	(-19.72)	(-27.99)	(-33.11)	(-) 5413.51
Disbursement of liability as on 31.3.2009 in subsequent year	8675.35	1276.07	232.23	28.41	37.22	10249.28
Liability for 1.4.2009 & onward	(-518.95)	(-1193.88)	(-487.85)	(-95.52)	(-25.05)	(-)2321.24
subsequent disbursement of liability created after 31.3.2009	0.00	127.14	287.93	0.94	75.74	491.75
Total	4821.79	(-)1788.74	12.59	(-)94.17	54.80	3006.28

28. The un-discharged liabilities and the discharge of liabilities furnished by the petitioner as above have been considered for working out the admissible capital expenditure for the period 2009-14. It is further noticed that in Petition No. 195/GT/2013, the Commission had, vide order dated 27.1.2015, granted liberty to the petitioner to approach the Commission with



the details of Advances and liabilities at the time of final true up exercise. The relevant extract of the order dated 27.1.2015 is as under:

“22. The claim of the petitioner towards unadjusted advances and liabilities has not been considered as additional capital expenditure since the discharge of these liabilities has not been specified by the petitioner. However, the petitioner is granted liberty to claim the said expenditure, with sufficient details/justification, at the time of final truing-up of tariff in terms of Regulation 6(1) of the 2009 Tariff Regulations.”

29. The petitioner has submitted auditor certified reconciliation statement of closing balance as on 1.4.2009 in the petition vide affidavit dated 27.6.2015 in , as under:-

(₹ in lakh)	
Fixed Assets 31.3.2009	832232.56
CWIP 31.3.2009	3174.67
Advance 31.3.2009	7015.56
Liability 31.3.2009	(-)10980.17
Total	831442.62
Less : Irrigation components 31.3.2009	144133.80
Less: Unservicable items as on 31.3.2009	1.04
Less: FERV 31.3.2009	558.73
Less: Equity reduced by CERC	265.48
Capital cost as on 31.3.2009 (Power components allowed by CERC)	686483.57

30. In consideration of the submission of the petitioner, and the affidavit dated 8.9.2016, the entire position of additional capitalization including the adjustment of liabilities and advances have been reconciled with the audited statement furnished by the petitioner. Accordingly, the year-wise additional capitalization position including the adjustment of liabilities and advances which have been allowed in tariff for the period 2009-14 are as under:-

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Additional capital expenditure	2613.00	4614.51	3344.39	3608.97	5227.78
Less adjustment of Advance as on 31.03.2009 in subsequent year	7015.56*	0.00	0.00	0.00	0.00
Add disbursement of liability as on 31.03.2009 in subsequent year	8675.35	1276.07	232.23	28.41	37.22
Less: Undischarged liability for 1.4.2009 & onward	518.95	1193.88	487.85	95.52	25.05
Add subsequent	0.00	127.14	287.93	0.94	75.74



	2009-10	2010-11	2011-12	2012-13	2013-14
disbursement of liability created after 31.03.2009					
Total	3753.83	4823.85	3376.70	3542.79	5315.69

*the entire advance of ₹ 7015.56 lakh as shown in auditor certificate vide affidavit dated 27.6.2015 has been adjusted in 2009-10 as against the figure of ₹ 5431.51 lakh

Capital cost for 2009-14

31. Accordingly, the capital cost considered for the purpose of the tariff for the period 2009-14 is as under:

	2009-10	2010-11	2011-12	2012-13	2013-14
	(₹ in lakh)				
Opening Capital Cost	686483.57	687062.73	691886.59	695263.28	698806.08
CWIP adjustment	3174.67	0.00	0.00	0.00	0.00
Net opening capital cost	683308.90	687062.73	691886.59	695263.28	698806.08
Additional capital expenditure	3753.83	4823.85	3376.70	3542.79	5315.69
Closing Capital Cost	687062.73	691886.59	695263.28	698806.08	704121.77

Debt-Equity Ratio

32. Regulation 12 of the 2009 Tariff Regulations provides that:

"12. Debt-Equity Ratio (1) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

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, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 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.”

33. As stated, the Commission in order dated 5.6.2014 in Petition No. 250/GT/2010 had revised the annual fixed charges considering the revised debt equity ratio of 60.70:39.30 (from 62.78:37.22) as on the COD of the generating station in terms of the order dated 7.1.2014 in 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."

34. In line with the above order, the entire amount of admitted additional capital expenditure has been considered as loan.

Return on Equity

35. In terms of Regulation 15 (3) of the 2009 Tariff Regulations, Return on Equity is computed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	254402.82	254402.82	254402.82	254402.82	254402.82
Addition of Equity due to additional capital expenditure	0.00	0.00	0.00	0.00	0.00
Normative Equity-Closing	254402.82	254402.82	254402.82	254402.82	254402.82
Average Normative Equity	254402.82	254402.82	254402.82	254402.82	254402.82
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.750	16.500
Tax Rate for the year (%)	16.995	19.931	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	18.674	19.358	19.377	19.689	20.876
Return on Equity	47507.18	49247.30	49295.63	50089.37	53109.13

*Base rate for 2012-13= 15.50% * (3/4) + 16.50% * (1/4)



Interest on Loan

36. The opening gross normative loan as on COD of each unit has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations. The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective years applicable to the project. The repayment for the period 2009-14 has been considered equal to the depreciation allowed for the respective year. The 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 has been calculated as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	428906.08	432659.91	437483.77	440860.46	444403.26
Cumulative repayment of loan upto previous year	53866.97	89797.55	125905.06	162239.37	198828.61
Net Loan Opening	375039.11	342862.37	311578.71	278621.10	245574.64
Addition due to additional capital expenditure	3753.83	4823.85	3376.70	3542.79	5315.69
Repayment of loan during the year	35930.58	36107.51	36334.31	36589.25	36734.02
Net Loan Closing	342862.37	311578.71	278621.10	245574.64	214156.32
Average Loan	358950.74	327220.54	295099.90	262097.87	229865.48
Weighted Average Rate of Interest of loan (%)	11.5516	11.6858	11.7020	11.8061	12.1576
Interest on Loan	41464.65	38238.32	34532.51	30943.53	27946.07

Depreciation

37. The weighted average rate of depreciation of 5.254% is considered for the year 2009-10. Necessary calculations in support of depreciation allowed are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	683308.90	687062.73	691886.59	695263.28	698806.08
Add: Additional Capital Expenditure	3753.83	4823.85	3376.70	3542.79	5315.69
Closing Capital Cost	687062.73	691886.59	695263.28	698806.08	704121.77
Average Capital Cost	685185.82	689474.66	693574.93	697034.68	701463.92
Rate of Depreciation (%)	5.254%	5.247%	5.249%	5.259%	5.247%
Depreciable value (excluding land) @ 90%	615483.70	619343.66	623033.90	626147.68	630133.99



Balance depreciable Value	583042.80	551142.23	518620.21	485340.49	452738.24
Depreciation	35930.58	36107.51	36334.31	36589.25	36734.02
Cumulative depreciation at the end of the period	68371.48	104478.99	140813.30	177402.55	214136.56
Less: Cumulative depreciation adjustment on account of de-capitalisation	170.05	65.29	6.11	6.79	1.87
Cumulative depreciation at the end	68201.43	104413.70	140807.19	177395.76	214134.70

O & M Expenses

38. The O & M expenses allowed in order dated 27.1.2015 in Petition No. 195/GT/2013 have been considered as under:

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
19600.56	20721.71	21906.99	23160.07	24484.83

39. O&M expenses allowed in this order as per approved capital cost upto cut-off date is as under:-

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
19509.92	20625.88	21805.68	23052.97	24371.60

Interest on Working Capital

40. The petitioner is entitled to claim interest on working capital as per Regulation 18 of the 2009 Tariff Regulations, provided as under:

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital are equivalent to two months' of fixed cost. In the tariff being allowed, receivables have been worked out on the basis of "2 months" fixed cost.

(ii) Maintenance spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares 15% per annum of the O & M expenses as part of the working capital. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

(iv) Rate of interest on working capital



In accordance with clause (3) of Regulation 18 of the tariff regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later.

41. Accordingly, Interest on Working Capital has been calculated as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M expenses	1625.83	1718.82	1817.14	1921.08	2030.97
Maintenance Spares	2926.49	3093.88	3270.85	3457.95	3655.74
Receivables	24665.25	24637.78	24260.56	24046.63	24305.82
Total Working Capital	29217.56	29450.49	29348.55	29425.65	29992.52
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest on Working Capital	3579.15	3607.68	3595.20	3604.64	3674.08

Annual Fixed charges

42. Accordingly, annual fixed charges approved for the generating station for the period from 1.4.2009 to 31.3.2014 is summarized as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	47507.18	49247.30	49295.63	50089.37	53109.13
Interest on Loan	41464.65	38238.32	34532.51	30943.53	27946.07
Depreciation	35930.58	36107.51	36334.31	36589.25	36734.02
O&M Expenses	19509.92	20625.88	21805.68	23052.97	24371.60
Interest on Working Capital	3579.15	3607.68	3595.20	3604.64	3674.08
Total	147991.48	147826.70	145563.33	144279.76	145834.90

Design Energy and NAPAF

43. As regards Design Energy and NAPAF, the Commission, in order dated 16.4.2013 in Petition No. 250/2010 had observed as under:

"58. The petitioner has submitted the detailed calculations for arriving at the modified design energy which have not been challenged by any of the beneficiaries. As such, the modified design energies as indicated in the table under para 56 are being allowed with the stipulation that secondary energy benefits shall be recoverable by the petitioner only beyond the design energy level of 2797 MU approved by the CEA."

44. The petitioner had filed review on the order dated 16.4.2013 and the Commission vide order dated 7.1.2014 in Petition 7/RP/2013 had observed as follows:-



“25. We have considered the submissions of the contesting parties. In line with the tariff regulations, the petitioner is entitled to Secondary Energy Charges for generation in excess of the design energy. The Commission has relaxed the design energies corresponding to levels of reservoir filling i.e 815 m and 820 m approved by the State Government to enable the petitioner to recover energy charges/AFC. However, considering the fact that higher inflows than normal may allow generation of higher energy as compared to modified design energies, the secondary energy benefits/incentives were allowed only beyond the CEA approved design energy of 2797 MUs to provide relief to the beneficiaries who are already at disadvantageous position in terms of lower generation due to restricted level of reservoir filling. The view taken was a conscious decision. Therefore, the prayer of the petitioner for review of the impugned order is outside the scope of review.”

]Accordingly, the Design Energy and NAPAF of the generating station were modified towards the recovery of Annual Fixed Charges with the stipulation that the incentive would be available to the generating station only after achieving the normative Design Energy of 2797 MUs and NAPAF of 77%. We adopt the same in this order.

45. The difference between the tariff determined by order dated 27.1.2015 and this order shall be adjusted in terms of the proviso to Regulation 6 (6) of the 2009 Tariff Regulations, amended on 21.6.2011.

46. Petition No. 172/GT/2015 is disposed of in terms of the above.

Sd/-
(Dr. M.K.Iyer)
Member

Sd/-
(A. S. Bakshi)
Member

Sd/-
(A. K. Singhal)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)

(₹ in lakh)

Particulars	Interest Rate					Loan deployed as on 1.4.2009	Additions/ Adjustments (-) (FERV) during the tariff period	Total
	2009-10	2010-11	2011-12	2012-13	2013-14			
Loan-3-KFW-2896	7.5288	7.6838	7.6674	7.7409	10.7445	3712.42	59.43	3771.84
Loan-4-KFW-9831	3.5155	2.7609	3.2507	2.5423	1.0946	17769.32	252.24	18021.55
Loan-5-KFW-9836	4.9007	3.8965	0.0000	0.0000	0.0000	534.92	-7.23	527.69
Loan-7-PFC	10.2222	10.0848	9.8927	9.5966	9.1811	120600.00	0.00	120600.00
Loan-8-PFC	13.1679	13.1971	13.0350	12.3995	12.3878	135416.83	0.00	135416.83
Loan-9-REC	11.2661	11.4751	11.5243	12.2263	12.7446	174443.53	0.00	174443.53
Total						452477.02	304.44	452781.45

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross loan - Opening	452477.02	451525.15	451738.33	452205.47	452349.66
Cumulative repayments of Loans up to previous year	87442.79	123513.74	159308.60	195328.18	231497.75
Net loan - Opening	365034.23	328011.41	292429.73	256877.29	220851.91
Increase/ Decrease due to ACE	0.00	0.00	0.00	0.00	0.00
Increase/ Decrease due to FERV	-951.87	213.19	467.14	144.19	431.79
Total	36070.95	35794.86	36019.58	36169.57	36537.94
Less: Repayment (s) of Loans during the year	328011.41	292429.73	256877.29	220851.91	184745.76
Net loan - Closing	346522.82	310220.57	274653.51	238864.60	202798.83
Average Net Loan	40029.03	36251.74	32139.88	28200.59	24655.42
Rate of Interest on Loan	11.55%	11.69%	11.70%	11.81%	12.16%
Interest on loan	452477.02	451525.15	451738.33	452205.47	452349.66

