

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 195/GT/2013

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A.K.Singhal, Member**

Date of Hearing: 27.2.2014

Date of Order: 27.1.2015

In the matter of

Approval of final tariff of Tehri Hydroelectric Power Project (HPP), Stage-I (4 X 250 MW)
for the period from 1.4.2009 to 31.3.2014

And

In the matter of

THDC India Ltd
Bhagirath Puram,
Rishikesh-249001
Uttarakhand

.....Petitioner

Vs

1. Punjab State Power Corporation Ltd,
The Mall, Patiala-147001
2. (a) Dakshin Haryana Bijili Vitaran Nigam Ltd,
(b) Uttar Haryana Bijili Vitaran Nigam Ltd
Shakti Bhawan, Sector – 6
Panchkula – 134109(Haryana)
3. Uttar Pradesh Power Corporation Ltd
Shakti Bhavan, 14, Ashok Marg,
Lucknow – 226001(Uttar Pradesh)
4. Delhi Transco Ltd,
Shakthi Sadan, Kotla Road,
New Delhi-110002
5. BSES-Rajdhani Power Ltd
BSES Bhawan, Nehru Place,
New Delhi – 110019

6. BSES-Yamuna Power Ltd.,
Shakti Kiran Building, Karkardooma, Delhi- 110072

7. North Delhi Power Ltd.,
33 KV Grid Sub-Station Building,
Hudson Lines, Kingsway Camp,
Delhi-110009

8. Engineering Department,
Chandigarh Administration
1st Floor, UT Secretariat, Sector, 9-D
Chandigarh-160009

9. Uttarakhand Power Corporation Ltd,
Urja Bhawan, Kanwali Road,
Dehradun-248001(Uttarakhand)

10. Himachal Pradesh State Electricity Board,
Vidut Bhavan, Kumar House
Shimla-171004 (Himachal Pradesh)

11. (a)Jaipur Vidyut Vitaran Nigam Ltd.,
(b)Jodhpur Vidyut Vitaran Nigam Ltd.,
(c)Ajmer Vidyut Vitaran Nigam Ltd.,
Vidyut Bhavan, Janpath,
Jyoti Nagar, Jaipur-302005 (Rajasthan)

12. Power Development Department,
Government of J& K,
Civil Secretariat, -180001 (J&K)

.....Respondents

Parties present:

For Petitioner: Shri M.G.Ramachandran, Advocate, THDC
Ms. Anushree Bardhan, Advocate, THDC
Shri H. Chakraborty, THDC
Shri M.K.Tyagi, THDC
Shri Rajeev Jain, THDC

For Respondents: Shri R.B.Sharma, Advocate, BRPL
Shri Parinay D. Shah, Advocate, TPDDL

ORDER

This petition has been filed by the petitioner, THDC, for approval of tariff of Tehri Hydroelectric Power Project, Stage-I (4 X 250 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014 in terms of the proviso to

Regulation 6 (1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “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 dates of commercial operation of these units of the generating station are as under:

	Date of commercial operation
Unit-I	22.9.2006
Unit-II	9.11.2006
Unit-II	30.3.2007
Unit-IV	9.7.2007

Background

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.

4. Aggrieved by the said order dated 16.4.2013, the petitioner filed Review Petition (7/RP/2013) on the issues namely (a) Debt-equity ratio (b) Condonation of Time overrun of 23 months (c) Capital cost of the shared assets, and (d) Secondary energy benefits. However, the Commission by its order dated 7.1.2014 allowed the prayer for condonation of delay due to time over run of 23 months and allowed IDC upto the said date. The Commission in the same order allowed the debt equity ratio of 60.70:39.30 as on COD of the generating station for the purpose of tariff. Accordingly, by order dated 5.6.2014 in

review petition no. 7/RP/2013 in Petition No. 250/GT/2010, the annual fixed charges of the generating station for 2006-09 was revised as under:

(₹ in lakh)

	2006-07	2007-08	2008-09
Depreciation	3487.27	13862.27	15246.80
Interest on Loan	8290.19	32886.79	36337.71
Return on Equity	8450.62	33480.85	35800.48
Advance against Depreciation	1495.74	8883.15	10891.75
Interest on Working Capital	597.80	2903.65	3215.56
O & M Expenses	2303.88	9127.82	10155.90
Total	24625.49	101144.52	111648.20

5. The annual fixed charges determined by the said order is subject to the final decision of the Appellate Tribunal for Electricity in Appeal No.103/2014 filed by the petitioner.

Tariff for 2009-14

6. The petitioner in this petition seeks approval of generation tariff for the period from 1.4.2009 to 31.3.2014 based on the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations'). The petitioner vide affidavit dated 23.7.2014 has filed revised tariff filing forms along with details of additional capitalization for the period 2009-14 and has claimed annual fixed charges which are as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
146336.22	146225.65	144924.35	144426.22	144924.45

7. The respondents, BRPL, UPPCL, PSPCL and the discoms of Rajasthan (JdVVNL, AVVNL and JVVNL) have filed replies to the petition and the petitioner has filed its rejoinder to the same.

Capital cost as on 1.4.2009

8. The last proviso of clause 2 of Regulation 7 of the 2009 Tariff Regulations provides as under:

“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 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.”

9. As stated above, the Commission, vide its order dated 5.6.2014 in Petition No. 250/2010 had approved the capital cost of ₹686483.57 lakh for the generating station (power component) as on 31.3.2009. Accordingly in terms of the above proviso, the capital cost of ₹686483.57 lakh as on 31.3.2009 has been considered as the opening capital cost as on 1.4.2009, in respect of the generating station for the period 2009-14.

Additional Capital Expenditure for 2009-14

10. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011 and 31.12.2012, provides as under:

*“9. **Additional Capitalisation.** (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

(i) Un-discharged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

(iii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred or projected to be incurred 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-materialisation 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 kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”*

11. The petitioner in the petition filed dated 29.10.2011, had claimed the year-wise additional capital expenditure for the years 2009-10 to 2013-14, on projection basis, beyond the cut-off date, as tabulated below. The petitioner also submitted that the additional capital expenditure claimed does not include contingent liabilities of ₹92682.96 lakh on account of settlement of arbitration/court cases.

(₹ in lakh)					
2009-10	2010-11	2011-12	2012-13	2013-14	Total
578.70	6743.70	2815.00	3470.00	1072.00	14679.40

12. Thereafter, the petitioner vide affidavit dated 25.7.2013 had submitted the revised tariff filing forms along with details of actual additional capital expenditure for the period 2009-14 as under:

(₹ in lakh)					
2009-10 (actual)	2010-11 (actual)	2011-12 (actual)	2012-13 (projected)	2013-14 (projected)	Total
10253.23	3428.10	13913.16	2318.69	2295.00	32208.18

13. The petitioner has submitted that the above said figures are the 'net additional capital expenditure' incurred after accounting for de-capitalization of assets not in use.

14. The learned counsel for the respondent, BRPL has submitted that the petitioner shall be directed to justify the increase in the claim for projected additional capital expenditure from ₹146.79 crore to ₹322.08 crore considering the fact that major expenditure has been claimed for assets which have become necessary for the successful and efficient operation of the generating station under Regulations 9(2)(iv) of the 2009 Tariff Regulations. The learned counsel while submitting that the Irrigation component is required to be excluded from the expenditure claimed under R&R also prayed that the expenditure towards procurement of minor assets may not be allowed by the Commission. In response, the petitioner has clarified that 20% of the expenditure has been booked to Irrigation component while 80% expenditure has been booked to Power component. The petitioner also submitted that the asset-wise justification for incurring additional capital expenditure has been furnished and the Commission may allow the same on prudence check.

15. We have considered the submissions. It is observed that the works/assets included in the claim mainly pertain to R&R expenditure incurred towards the Rehabilitation of

project oustees as per the applicable Rehabilitation policy. Also, expenditure related to the Construction of multipurpose hall & recreation hall for the benefit of project employees located in remote project area, transit camp and field hostel building, Staff quarters for CISF employees, School building, Security cabins, construction of new project roads, provision of street light, switch gear system for dam and galleries, de-watering system, need based requirement of submersible pumps for power house, pump sets for water supply scheme for employees colony at Bhagirathpuram, construction of 11 kV internal distribution line, Bolero type vehicles for security personnel, replacement of old buses, tippers, air compressor, construction of Railway crossing bridge at Raiwala for transportation of heavy machinery from different places to Tehri project, grinding machine for central workshop at the project, construction of THDC Institute of Hydropower Engineering & Technology at Dibnu, etc has been claimed. Accordingly, the additional capital expenditure claimed by the petitioner has been broadly classified and examined under the following heads:

(a) Expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation-Regulation 9(2)(iv);

(b) FERV; and

(c) Expenditure under "Net of unadjusted advance and liabilities".

Expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation-Regulation 9(2)(iv)

16. The claim of the petitioner for additional capital expenditure under Regulation 9(2)(iv) of the 2009 Tariff Regulations has been examined based on submissions of the parties and the documents available on record and has been allowed on prudence check, as summarized below:

2009-10

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
1	Rehabilitation Expenses	34,91,28,894	Land has been acquired under Land Acquisition Act for vacating the area of Tehri Reservoir from the habitants so that reservoir could be filled upto FRL. A Rehabilitation policy is also applicable for the benefit of land losers. Subject expenditure has been incurred for the rehabilitation of the oustees.	Allowed under Regulation 9(2)(iv)	3491.29
2	De-capitalisation of Rehabilitation Expenses	(-) 23,95,122	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 23.95
3	Construction of Multipurpose Hall at Bhagirathipuram.	73,96,077	Construction of multipurpose hall is required to perform various functions of workforce such as marriage etc. with provision of indoor games for employees. Tehri HPP is in a remote place and there is no any other specific place available for this purpose. This expenditure was essential to increase the efficiency of employees of generating station.	Allowed since expenditure is necessary for the benefit of the employees working at remote place.	73.96
4	Construction of recreation hall, Bhagirathipuram.	33,17,678	Recreation hall is required for entertainment of workforce. Tehri HPP is in a remote place and there is no any other specific place available for this purpose. This expenditure was essential to increase the efficiency of		33.18

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			employees as well as generating station.		
5	Const. of fire station building at Bhagirathipuram.	66,35,000	It is mandatory requirement for safety of the project as per the norms.	Allowed under Regulation 9(2)(iv) since expenditure is related to fire safety	66.35
7	Construction of Parking in Administration Building, Bhagirathipuram	5,71,088	Parking was required to accommodate the vehicles in administrative block to provide parking space for officials as well as visitor's vehicles for official work.	Allowed under Regulation 9(2)(iv) since expenditure is for the benefit of employees and for effective operation of the plant.	5.71
8	Electrification of multipurpose hall at Bhagirathipuram	7,35,075	A multipurpose hall at Bhagirathipuram was constructed for which electrification work was carried out.	Allowed since expenditure is necessary for the benefit of the employees working at remote place	7.35
10	Building of CISF Fire Wing Bhagirathipuram	2,08,507	It is mandatory requirement for safety of the project.	Allowed under Regulation 9(2)(iv) since expenditure is related to fire safety	2.08
11	De-capitalisation of Residential Building for CISF fire wing, Bhagirathipuram	(-)1,05,041	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-)1.05
12	De-capitalisation of residential Building for CISF fire wing Bhagirathipuram	(-)6,100	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 0.06
13	De-capitalisation of Construction of Residence for CISF Fire wing at Bhagirathipuram	(-)1,05,041			(-)1.05
14	De-capitalisation of CISF fire wing Bhagirathipuram	(-)2,08,507			(-)2.08
15	Construction of	2,08,507	It is mandatory	Allowed under	2.09

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	CISF fire wing at Bhagirathpuram		requirement for safety of the project.	Regulation 9(2)(iv) since expenditure is related to fire safety	
16	Residential Building for CISF fire wing Bhagirathpuram	1,05,041			1.05
17	Const. of Type-I Residence for CISF Fire wing at Bhagirathpuram	10,971	It is mandatory requirement for safety of the project.	Allowed under Regulation 9(2)(iv) since expenditure is related to fire safety	0.11
18	De-capitalisation of Convent School at Bhagirathpuram	(-)64,790	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 0.65
19	Construction of Botanical Garden at KOTI	1,99,332	As per the recommendations of Hanumanta Rao Committee, a Botanical Garden was to be established for preservation of floral species coming under submergence in Tehri reservoir.	Allowed since expenditure related to environment protection.	1.99
20	Const of toilet at Bageshwar Mandir	5,82,612	It is a only temple at THDC campus and toilet was required as basic aminity for local public so toilet was constructed.	Allowed since expenditure is necessary for the benefit of the employees working at remote place	5.82
21	GC sheets shed for Electrical Mechanical workshop	90,419	Old & used GC sheet shed of M/s JAL was purchased by THDCIL for Electromechanical works of Tehri HPP at the depreciated value of ₹90,419	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	0.90
22	Porta cabin for CISF	33,95,000	It is mandatory requirement for safety of the project.	Expenditure related to safety has been allowed under Regulation 9(2)(iv)	33.95
23	Supply, Fabrication and Construction of shed	1,27,779			1.28
24	Security Cabins	73,092			0.73

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
25	Const. of 03 number NISHAN Sheds	53,88,000	Three numbers of sheds were required for storage of equipments of Electro-Mechanical Department.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	53.88
26	Const of electronic barrier	15,28,394	Recommendations were received from Intelligence Bureau regarding installation of security and surveillance system for Tehri Dam. In this context Electronic Barriers were purchased and installed at Adit III, Power House, Adit – I, Dam East Barrier, Spillway Barrier and View Point Barrier.	Allowed under Regulation 9(2)(iv) since expenditure is related to safety of the project.	15.28
27	Const. of new road from DAM TOP to old RCM Office	3,77,308	During construction of project, this road was KACHCHA road for movement of staff, heavy equipments and machinery. This is the only road to reach dam site and power house complex . After completion of project, it is necessary to construct this road as a permanent all weather road for safety and smooth functioning of the project.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	3.77
28	Const. of new road from Rishikesh Road Junction to Q.C. office	3,73,488	This is only road to connect the dam and power house complex from Rishikesh - Tehri (Koti). It is necessary to construct this road		3.73

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			as a permanent all weather road for safety and smooth functioning of the project.		
29	Const. of new road from KHANDNALA to DAM TOP	75,019	During construction of project, this road was KACHCHA road for movement of staff, heavy equipments and machinery. This is only one road to reach dam site and power house complex. After completion of project, it is necessary to construct this road as a permanent all weather road for safety and smooth functioning of the project.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	0.75
30	Const. of new road from KHANDNALA to DAM TOP	32,456			0.32
31	Pump Motor and Starter	7,53,996	After commissioning of Tehri HPP and subsequent impounding of Tehri reservoir, Intake pump station meant for feeding Koti Water Supply came under full submergence .To continue feeding drinking water to koti colony a new intake system was developed in the proximity of reservoir at Koti for which 04 No. 20 HP pump sets were essential to be procured and installed there at Koti-II. After completion of Tehri HPP and subsequent departure of M/S J.P. Industries from	Allowed under Regulation 9(2)(iv) based on the justification and since the same is for the benefit of employees.	7.54

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			Tehri, the camp was handed over to THDC and to maintain the campus and surrounding area existing water supply scheme was handed over to Mechanical unit Tehri for its M&R and operation to feed campus and various parks developed near to camp. Some of the old pumps sets fitted with the scheme were in poor conditions and were not suitable to operate, therefore, were replaced by purchasing new pump sets to successfully and satisfactorily operate the camp water supply scheme to feed water.		
32	HUSKY 620 Diesel Crane	1,01,36,432	Mechanical department declared BER of 12.5 T & 25 T capacity crane. There was no crane between 5.5 T & 40 T capacity. So 20 T capacity Husky 620 was procured. The crane is being used for loading/unloading of Hydro Mechanical and electrical equipment.	Allowed under Regulation 9(2)(iv) based on the justification submitted. The gross value of the old asset i.e ₹24.44 lakh included in assumed deletions.	101.36
33	Wheel Loader ,BEML Make	49,73,081	Old & obsolete model loader was declared BER; the new loader was procured under replacement. This loader is being used for road cutting & cleaning of	Allowed under Regulation 9(2)(iv) based on the justification submitted. The gross value of the old asset i.e ₹21.01 lakh has	49.73

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			blockage, transportation of KHEP's EM equipments, approach road & dredging work at T3-T4 outlet site.	been included in 'assumed deletions'.	
34	Winch machines	7,33,257	During execution of work 2 no old & used winch machines of M/s JAL were purchased by THDCIL for inspection of T-1 & T-2 shaft spillways junction & repair works.	Allowed under Regulation 9(2)(iv) based on the justification submitted.	7.33
35	Erection, Testing and Commissioning of S.E.E. UNIT-2	3,49,98,906	Replacement of Russian Excitation system with BHEL make Excitation system	Allowed under Regulation 9(2)(iv) based on the justification submitted. The gross value of the old asset i.e ₹1605.61 lakh has been de- capitalized	349.99
	Adjustment in generating unit	(-)16,05,60,857	During operation of power house excitation system was not working properly so new excitation system was installed for smooth functioning of machine.	De-capitalization against replacement of excitation system has been allowed.	(-) 1605.61
37	De-capitalisation of GIS-1	(-) 62,170		De-capitalization has been allowed	(-) 0.62
40	De-capitalisation BUS Duct & Generator terminal Equipments	(-) 6,74,714	Erection and commissioning work.		(-) 6.75
43	De-capitalisation of process station for Station control	(-)12,02,307			(-)12.02
44	De-capitalisation of Auxiliary plant and machine.	(-)3,018			(-) 0.03
46	De-capitalisation of auxiliary plant and machine.	(-)740			De-capitalization has been allowed

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
47	Switchgear System for Dam Galleries	2,51,65,253	There are 06 no. approach galleries on left bank and right bank of dam downstream. For grouting work, 3 phase power receptacles were installed in all 06 no. approach galleries. Also at AGRBR gallery, 04 no. submersible pumps were installed along with MCC panel for dewatering of seepage water accumulated in the sump. For feeding power supply to above dewatering system at AGRBR gallery and power receptacles in all approach galleries including lightings of all galleries, a sub station was constructed at the portal of AGRBR and cabling were done for MCC panel and pumps of dewatering system. Hence the said arrangement was executed which is part of generating station.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	251.65
48	De-capitalisation SWITCHGEAR	(-)3,508		De-capitalization has been allowed	(-) 0.04
49	De-capitalisation of 415 V Unit aux. switch gear	(-)1,16,389			(-)1.16
50	De-capitalisation against excess liability THDC/RKSH/CD- 210/SUPPLY	(-)4,39,904			(-) 4.40

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
52	Electric Passenger Elevator Machine Roomless (MONO SPACE)	21,44,640	Freight cum passenger elevator is required in station control area in power house.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant	21.45
54	S/E/CONST.OF 33KV SWITCH YARD &RENO.33KV SUB STATION	2,25,20,734	Power supply to power house auxiliaries, spillways, colonies, water supply etc. is being fed from 33/11kV sub-station at B.puram. The installed panels of substation were very old which were handed over by then UPSEB in the year 1990. Due to continuous operation, various integral parts were found defective time to time. As the manufacturer of panels M/s Tata Merlin had stopped the manufacturing unit of said panels, procuring of spare parts was not possible for which the panels started malfunctioning. Keeping in view of importance of generating plant and also other areas, it was required to replace the old panels by new panels. Moreover as the power connection from UPCL was bifurcated under Construction load and Mixed load, a	Allowed under Regulation 9(2)(iv) based on the justification.	225.20

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			new 33 KV bay was required to be constructed for construction load.		
55	Dewatering System	9,43,000	This dewatering system was installed by M/s JAL. It was used for dewatering since excavation of underground drainage galleries. The same was taken over to use it during Operation and Maintenance of permanent dewatering system or dewatering during cleaning of galleries.	Allowed under regulation 9(2)(iv) based on the justification.	9.43
56	Dewatering pumping System at DAM GALLERY	1,07,21,275	The de-watering pumping system at Dam gallery is installed as permanent dewatering system in AGRBR gallery (drainage gallery below river bed). These galleries are technical requirement of dam body for dewatering the seepage water as a requirement to release the pore pressure in dam body and abutment.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	107.21
57	De-capitalisation against excess liability	(-)2,624		De-capitalization has been allowed	(-)0.02
58	Supply & Supervision of Instruments in Spillway.	3,68,500	The work of supply and supervision of instrumentation was done by M/s Encardiorite Electronics Pvt. Ltd., Lucknow and the amount capitalised pertains to payment of services against above agreement to monitor the	Allowed under Regulation 9(2)(iv) based on the justification.	3.68

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			behaviour of spillway structure.		
59	Energy Dissipation Arrangement at T-1, T-2 Outlet	1,68,154	The work of energy dissipation arrangement at outlet of diversion tunnel T-1 & T-2 was executed by M/s Sutluj Construction and the amount capitalised pertains to payment against the work. Work was taken up before award of main spillway work to utilise the time and energy dissipation work is part of main spillway work.		1.68
60	De-capitalisation against material recovery	(-) 2,21,75,719	As per the terms of contract agreement M/s JAL were required to deposit the material recovered during execution of work. However, on account of non-deposition of recovered material at site recovery was done.	Recovery of negative adjustment has been allowed	(-) 221.76
61	De-capitalisation of Assets	(-) 7,05,268	Adjustment of amount against supply and erection of stop log gate for T3 & T4 tunnel inlets.	De-capitalization against excess liability has been allowed	(-) 7.05
62	De-capitalisation against excess liability	(-) 3,04,245			(-) 3.04
63	De-capitalisation against excess liability	(-) 35,74,271			(-) 35.74
64	Stoplog gate & lifting beam for T3 & T4	93,20,538	01 set of stop log gate, provided for T3 & T4 tunnel outlets of right bank shaft spillway, was to be used for inspection and repair of these tunnels. Due to intricacy in shifting of gates from one	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	93.21

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			tunnel to another, deployment of mobile crane and trailer, constraint of approach road for movement of crane and trailer, 01 set of stoplog gates was not sufficient for simultaneous inspection and repair of these tunnels. It is not efficient in reference to time consuming and safety of gates during transportation. It is, therefore, required 01 additional set of stoplog gate with lifting beam to be used separately at T3 & T4 tunnel outlets.		
65	Others-hyd. works	5,42,326	Release of payment of HPP Civil works, Package-II.	Allowed since release of payment	5.42
67	De-capitalisation against excess liability	(-) 5,81,847		De-capitalization against excess liability has been allowed	(-) 5.82
68		(-) 41,72,184			(-) 41.72
69	Muck removed by KCT & Bros (CS) Ltd	4,88,079	Release of payment against extra items executed under HPP civil works, Package-I.	Allowed since release of payment	4.88
70	De-capitalisation against excess liability	(-) 7,33,907		De-capitalization against excess liability has been allowed	(-) 7.34
71	De-capitalisation against excess liability	(-) 53,69,312			(-) 53.69
72	Illumination system	67,32,367	Payment against balance works of M/s Satellite.	Allowed under Regulation 9(2)(iv) considering the safety of the project	67.32
73	illumination system	34,45,581	Safety and security purpose.		34.45
74	High mast light dam site	70,66,496	Safety and security purpose.		70.66

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
76	UTES- 100(TESTING SET)	17,55,420	Up-gradation of Central Material Testing Lab at Koti by enhancing test facility of physical test for reinforcement steel. By installation of such machine in CMTL both money and time is being saved.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	17.55
77	PDM PD SENSOR	52,12,000	Replacement of damaged PD Monitor & measuring sensor of generator and insurance.	Allowed under Regulation 9(2)(iv) based on the justification. The gross value of the old asset i.e ₹46.63 lakh has been de- capitalized under assumed deletions.	52.12
78	S/F CCTV SYSTEM	39,46,865	CCTV cameras were installed in various sensitive area of project for saftey of Dam and power house	Allowed as the expenditure is related to safety of the project	39.47
79	HMT Radial drilling M/C SET ETC(1 TO 5 ITEMS)	11,71,205	Procured for workshop to establish central workshop.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	11.71
82	TABLE TOP FULLY AUTOMATIC AUTOCLAVE	89,775	Digital Autoclave is required for efficient sterilization of the instruments which is mandatory. Without proper sterilization no instrument can be used upon any patient for performing any kind of surgical or dental procedure.	Allowed as the expenditure is for the benefit of employees working at remote place.	0.90

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
86	DIESEL ENGINE DRIVEN AIR COMPRESSOR MODEL XA175HD	6,28,835	Old & obsolete model compressors were declared BER and new compressor was procured under replacement which is used for KHEP works & repairing of T4 tunnel.	Replacement of old asset has been allowed under Regulation 9(2)(iv). However, the gross value of the old asset i.e ₹ 0.90 lakh has been de-capitalized under assumed deletions.	6.29
87	DOOR FRAME METAL DETECTOR(MULT IZONE)	6,05,160	Recommendations were received from Intelligence Bureau regarding installation of security and surveillance system for Tehri dam. In this context door frame metal detector (multizone) were purchased and installed at Adit-3, power house and inside the power house.	As the expenditure is related to safety of the project, the expenditure is allowed under Regulation 9(2)(iv)	6.05
88	INCLINOMETER SYSTEM (BI- AXIAL PROBE & DATA LOGGER)SET	7,17,631	The inclinometer system (Bi-axial Probe and data logger) set is required for measurement of deflection regularly in vertical and horizontal direction of dam body. These were purchased in 2008. After their continuous use the calibration (repair) started frequently after every 3-4 months. Hence, new sets were purchased to avoid the regular recording of the deflection datas one for use and second as stand by.	Capitalisation of one set has been allowed under Regulation 9(2)(iv).However spare asset has not been allowed	3.59

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
89	UNIVERSAL TOOL & CUTTER GRINDING M/C SET ETC. (SL 1 TO 7 ITEMS)	7,60,598	Procured for workshop to establish central workshop.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	7.61
90	SPIKE ROAD BLOCK WITH DRIVE MACHINE	3,61,125	Recommendations were received from Intelligence Bureau regarding installation of security and surveillance system for Tehri Dam. In this context Spike Road Blocker with Drive Machine were purchased and installed at Adit III Power House.	Allowed as the expenditure is related to safety of project	3.61
93	SHOCK PULSE TESTER SET, LABORATORY CEMENT AUTOCLAVE DIGITAL, ELECTRIC BALANCE ETC	53,10,767	Procuring various lab equipments for setting up of CMTL at project premises for civil works.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	53.11
98	BOLERO INVADOR NO.UK- 09-8377; ENG. NO. GA-94G73896	4,69,065	Bolero invader vehicles were purchased against the demand of CISF unit Tehri for the purpose of QRT vehicles at Tehri Project. These type of vehicles were not available with the existing fleet of vehicles at Tehri, were purchased, keeping security aspects under considerations.	Expenditure related to safety may be allowed under Regulation 9(2)(iv)	4.69
99	BOLERO INVADOR NO.UK- 09-8378; ENG.NO. GA-94G73559	4,69,065	Bolero invader vehicles were purchased against the demand of CISF unit Tehri for the		4.69

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			purpose of QRT vehicles at Tehri Project. These type of vehicles were not available with the existing fleet of vehicles at Tehri, were purchased, keeping security aspects under considerations.		
100	BUS-UK-09 PA-0017	14,25,520	10 No. Old buses were completing their 15 yrs life as per RTA norms in coming future. Therefore new buses were procured under replacement	Allowed since expenditure is for the benefit of employees. However the gross value of 4 old buses i.e ₹31.60 lakh has been deducted under Assumed deletions.	14.25
101	BUS NO UK09-PA0016	14,25,520			14.25
102	BUS NO UK09 PA-0014	14,26,139			14.26
103	BUS UK-09 PA - 0013	14,26,139			14.26
104	MS STEEL BARGE(BOAT)	77,74,766	Required for operation of reservoir. It is under use for regular reservoir cleaning, water sampling of reservoir from different locations, level marking of reservoir, to take the construction materials to work at inaccessible location of reservoir. It is also for use of any ancillary/stability work along the reservoir rim as and when required.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	77.75
105	RAILWAY CROSSING BRIDGE RAIWALA	50,30,000	For transportation of all heavy machinery and consignments from different places to Tehri / Rishikesh, it was necessary to construct level crossing at Raiwala railway crossing on NH.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	50.30
106	Office Buildings	22,31,359			

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	DG room Admn building IT panel room		DG Room was required to provide back up of electricity in administrative building to create better work environment.	Allowed under Regulation 9(2) (iv) as the asset is considered necessary for efficient operation of the plant.	5.67
	Construction of control room building for flood forecasting system		To establish the control room for Installation of flood forecasting system consisting of metrological stations and gauge/discharge stations, this is essential for Tehri Dam reservoir. The forecast of inflow datas in reservoir by satellite based inflow forecasting system is very much helpful by providing sufficient warning time either for safety of dam & downstream habitation or optimization of the power plant operation during monsoon.		16.64
108	Other Plant Buildings	(-) 26,73,000		Negative adjustment has been allowed	(-) 26.73
109	Transit Camp and Field Hostel Buildings	10,125,101			
	Construction of 24 no field hostels at Bhagirathpuram (Tehri)		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 becholer in project area.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	101.25
111	Other Social and	(-) 94,23,449		Negative	(-) 94.23

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	Welfare Buildings			Adjustment has been allowed	
112	Residential Buildings	23,36,286			
a)	Construction of dormitory for sub- officers of CISF at B.PURAM		It is mandatory requirement for safety of the project.	Expenditure related to safety has been allowed under Regulation 9(2)(iv)	18.06
b)	External electrification of CISF fire B.PURAM		Building for CISF fire wing was constructed at Bhagirathipuram for which power distribution arrangement including area lighting work was carried out.		5.30
113	Other Civil Works (Excluding Temp. structure)	(-) 9,18,059		Negative adjustment has been allowed	(-) 9.18
114	Road and Culverts	25,45,409			
	Fabrication/ fixing of GI chain link		For safety of Power House, interface system & Power House intake system etc & as per requirement/instructi on of I.B.	Expenditure related to safety has been allowed under Regulation 9(2)(iv)	25.45
115	Plant & Machinery and other equipments awaiting erection	23,82,627			
a)	Electric Elevator		Freight cum passenger elevator is required in link shaft to connect power house and butter fly valve chamber.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant. De-capitalisation has been allowed	40.50
b)	Otis elevator				(-) 21.45
c)	Telco Tipper				(-) 34.53
116	Main Generation Equipments	(-) 2,82,54,244			(-) 282.54
117	Switch Gear Switch Yard including transformers and Cable connectors	(-) 1,75,47,937			(-)175.47

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
118	Misc. Power Plant Equipment including Control Panels Metering & Protection equipments	(-) 1,00,24,033			(-) 100.24
119	Grouting works in power house complex -Package I	6,88,68,481	The work has been carried out as per recommendation of Russian Expert of grouting various schemes of consolidation grouting in PAC/BVC area in Package – Ist and same has been vetted by THDC Design Department. The work was essential in nature for the safety of structures & equipment of underground Power House Complex.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	688.68
120	Hydraulic works - others	(-) 7,51,550			
	Submersible Pumps			De-capitalisation has been allowed	(-) 96.64
	Grouting works in power house complex -Package II		Grouting consultant of the project has provided the consolidation grouting scheme of Draft Tube cradle to stabilize the area and to enhance the stability of the project. The works were essential hence the same have been vetted by Design department of the project.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	175.18
	Manufacturing, supply, transportation, erection testing and commissioning of one set of stop			De-capitalisation /negative adjustment has been allowed	(-) 86.06

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	log gate				
121	Substation equipments	(-) 2,25,93,167			(-) 225.93
122	Internal Distribution lines in Townships & Work sites etc.	(-) 34,07,226			
	Supply and fixing of 30mtr high mast.			De-capitalisation /negative adjustment has been allowed	(-) 48.87
	Supply erection of street light poles along with Ghansali road		As per site requirement	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	14.80
123	Capital Expenditure on Assets Not Owned By the Company.	(-) 38,38,355		Negative adjustment has been allowed	(-) 38.38
	Total Capital Expenditure allowed	1,02,53,22,848			3429.89

2010-11

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
1	Rehabilitation Expenses	37,36,78,919	Land has been acquired under Land Acquisition Act for vacating the area of Tehri Reservoir from the habitants so that reservoir could be filled upto FRL. A Rehabilitation policy is also applicable for the benefit of land losers. Subject expenditure was incurred for the rehabilitation of the oustees.	Allowed under Regulation 9(2)(iv)	3736.78

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
2	Construction of control room for flood forecasting system & O&M reservoir Tehri.	30,96,972	To establish the control room for Installation of flood forecasting system consisting of metrological stations and gauge/discharge stations, this is essential for Tehri Dam reservoir. The forecast of inflow datas in reservoir by satellite based inflow forecasting system is very much helpful by providing sufficient warning time either for safety of dam & downstream habitation or optimization of the power plant operation during monsoon.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	30.97
3	Construction of dormetary for CISF sub-officer at B.Puram.	33,95,286	It is mandatory requirement for safety of the project.	Allowed under Regulation 9(2)(iv) since expenditure is related to safety of the project	33.95
5	Construction of Store shed	7,55,000	It is required to upkeep important materials for up-gradation of store shed as per requirement of project.	Allowed under Regulation 9(2)(iv) since expenditure is necessary for efficient operation of the project	7.55
6	De-capitalisation of Construction of Multipurpose Hall at B.Puram	(-) 28,660	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 0.29
7	De-capitalisation of Construction of recreation hall B.puram	(-) 2,90,290	Amount adjusted from earlier capitalised value.		(-) 2.90
8	Construction of Type-I residence for CISF fire wing at B.puram	1,34,337	It is mandatory requirement for safety of the project	Expenditure related to safety has been allowed under Regulation 9(2)(iv)	1.34
9	Construction of Fire station building at B.puram	1,60,000			1.60

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
10	Pump motor and starter	6,03,974	The old pump set of 60 HP capacity (03 Nos.) installed at Zero point pump station under B.puram water supply scheme were in poor and unserviceable conditions and of obsolete model, which were to be declared as BER, therefore, to replace these pumps sets in order to maintain B.Puram water supply, 03 No. of 60 HP capacity pumps, motors and starters were purchased and installed at Zero point intake pump station under B.Puram water supply scheme.	Replacement has been allowed under Regulation 9(2) (iv) along with de-capitalization of gross value of the replaced assets i.e ₹2.90 lakh covered under Assumed deletions.	6.04
11	Winch machine 10 ton capacity with accessory.	15,89,829	Winch machines of 10 Ton capacity were installed at T3 & T4 tunnel outlets of right bank shaft spillway. These winch machines are to be used for operation of stoplog gates provided at T3 & T4 tunnel outlets. Initially stoplog gated are operated by mobile crane and conditions were not favourable for operation of gate by mobile crane due to constraints of approach road for movement of mobile crane, insufficient space for crane operation, damages of gate parts due to problem in proper centring of gates panels during operation and unavailability of mobile crane due to break down. it is not efficient in reference to time consuming and safety	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	15.90

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			of gate during transportation. It is therefore, 02 nos electrically operated winch machines to be used separately at T3 & T4 tunnel outlets.		
12	Road roller	9,81,671	03 no. old & obsolete model road rollers were declared BER and new rollers were procured under replacement	Replacement has been allowed under Regulation 9(2)(iv) along with de-capitalization of gross value of the replaced assets i.e ₹7.47 lakh under Assumed deletions.	9.82
13	Winch machine	22,060	Same as at Sl. No. 10	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	0.22
21	Elevator (OTIS MAKE)	40,09,485	Freight cum passenger elevator is required in link shaft to connect power house and butter fly valve chamber.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	40.09
22	Portable type D.G.SET 250kV	17,09,310	During emergency situation at any location of project area, provision of portable DG set is very much essential during complete power failure and in the areas where providing power supply is not feasible. The same was decided in ORT meeting for arrangement of a truck mounted portable DG set. Accordingly the 250 kVA DG set was procured and installed		17.09

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			on truck for utilisation during emergency situation.		
23	Supply/installation & commissioning of 11kV capacitor bank & panel at 33/11kV sub station	45,09,722	Power supply to power house auxiliaries, spillways, colonies, water supply etc. is being fed from existing 33/11 kV sub- station at B.puram through various 11kV over head lines. The power is received from UPCL through 33 kV overhead lines. For the above usages, monthly power bills are paid to UPCL as per UERC rate schedule. As per tariff, a surcharge is imposed on energy charges for power factor below 0.85. It was, therefore required to install 11 kV capacitor bank and APFC panel at 33/11kV sub-station to avoid the low power factor surcharge. Moreover, for the connection released by UPCL on kVAH metering for construction load, consumption of kVAh energy becomes less in case of high power factor resulting reduced electricity bill.		45.10
24	De-capitalisation of S/E/construction of 33kV Switch yard & Renovation of 33kV sub station	(-) 1,76,889		De-capitalization has been allowed	(-) 1.77

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
25	Adjustment of capitalised amount in Spillways work	24,72,537	Supply of micro silica were approved against execution of spillway works.	Balance payment/ adjustment has been allowed under Regulation 9(2)(i)	24.73
26	Spillways (original cost)	11,21,90,305	Pertains to claims awarded in favour of M/s JAL & THDCIL in arbitration against the execution of spillway works..	Arbitration related payment has been allowed under Regulation 9(2)(i)	1121.90
27	De-capitalisation of Spillways(original cost)	(-) 7,86,33,000	Adjustment of amount in the original cost of the spillways as per arbitration award in the arbitration case between M/s JAL and THDCIL against the execution of spillways works.		(-) 786.33
28	Payment transfer from main dam to O&M 2007-08 and 2008-09	(-) 28,406	The payment was made against liability which was already booked in the Finance Department	Reversal of liability has been allowed	(-) 0.28
29	Adjustment of Geological survey of India	(-) 6,77,131	Release of payment to GSI against the geotechnical investigation carried out by GSI geologist for Tehri HPP. The payment was made against liability which was already booked in the Finance Deptt.	Liability adjustment has been allowed	(-) 6.77
30	External Electric connection	16,21,208	There was no road lighting arrangement from colonies to spillway area which was the main road for power house. During shift duty and also odd hours, there was movement of employees on this road. Hence considering the road in project area and to avoid complete darkness and also security point of view,	Allowed under Regulation 9(2) (iv) for safety of employees of the project.	16.21

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			street lighting from top terrace bend to spillway was installed.		
31	S/E street light pole	30,24,909	There was no road lighting arrangement from Koti colonies to Khandnala which was the main road for power house. During shift duty and also odd hours, there was movement of employees on this road. Hence considering the road in project area and to avoid complete darkness and also security point of view, street lighting from Koti Colony to Khandnala was installed.	Allowed under Regulation 9(2)(iv) for safety of employees.	30.25
32	Adjustment of illumination system	(-) 19,52,606		Negative adjustment has been allowed	(-) 19.53
33	Providing of net LAN	14,04,059	To connect all computer systems at administrative building as well as power house to access the application software like FMS and HRMS and access the internet.	Expenditure related to modernization has been allowed under Regulation 9(2)(iv)	14.04
37	Information management system	2,36,53,979	To keep history for 20 years of events alarm/tripping from CCS Controllers.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	236.54
38	Gauge discharge measurement station	33,51,493	Three no of gauge discharge stations were established , one each at Ghansali and Dharasu and third at downstream of power house. The earlier two were installed for monitoring the flow in Tehri reservoir from both the feeder rivers befor joining the reservoir. These		33.51

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			inflows are required for accessing the reservoir level well in advance and are helpful to regulate the generation of power. The third was installed for monitoring the reservoir operation by taking into account the outflow of water from the reservoir during power generation and by means of seepage.		
39	Injecto compact 310 grouting unit consisting of mixer	23,82,900	For Disaster Management Plan, the grouting unit has been kept to make immediate grouting at any point during the seepage from tunnels due to filling of the reservoir.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary from safety point of view and also for efficient operation of the plant.	23.83
52	BOLERO CAMPER 2WD	4,90,050	01 no. Bolero camper utility vehicle was purchased against the demand of CISF (fire wing) for the security and safety works at Tehri project. This type of vehicle is found suitable to carry miscellaneous T&P and small equipment to improve the promptness of fire wing works of CISF at Tehri.	Expenditure related to safety has been allowed under Regulation 9(2)(iv)	4.90
53	Hydraulic platform (life make) installed on truck no.UP08-5664	4,53,250	Required for illumination work.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	4.53
54	Office Buildings	(-) 6,01,638			
	Construction of Record Room for F&A Department at		Record room was required to upkeep records for F&A	Allowed under as the asset is considered	5.90

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	B.Puram		Department	necessary for efficient operation of the generating station	
	DG room for administration building, IT panel room, TTGH gate		DG Room was required to provide back up of electricity in administrative building to create better work environment		4.73
	Construction of control room building for flood forecasting system		To establish the control room for Installation of flood forecasting system consisting of metrological stations and gauge/discharge stations, this is essential for Tehri Dam reservoir. The forecast of inflow datas in reservoir by satellite based inflow forecasting system is very much helpful by providing sufficient warning time either for safety of dam & downstream habitation or optimization of the power plant operation during monsoon.	Negative adjustment has been allowed	(-) 16.64
55	Buildings for Workshops	(-) 70,57,322		Negative adjustment has been allowed	(-) 70.57
56	Construction of 24 no field hostels at B.puram (TEHRI)	1,78,23,000	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.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	178.23
57	School Buildings	(-) 4,67,70,162		Negative adjustment has been allowed	(-) 467.70
58	Residential Buildings	(-) 19,79,271			
a)	Construction of one extra room in C-Type quarter at B'puram		Construction of one extra room was required to facilitate in better utilisation of residences.	Allowed since expenditure is for benefit of employees	3.57

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
b)	Construction of dormitory for sub- officers of CISF at B.puram		It is mandatory requirement for safety of the project.	Negative adjustment has been allowed	(-) 18.06
c)	External electrical work of CISF fire wing new & old shopping complex B.puram				(-) 5.30
59	Other Civil Works (Excluding Temp. structure)	(-) 20,61,781			
a)	Construction of boundary wall around THDC fire station building		It is mandatory requirement for safety of the project.	Allowed since expenditure is related to safety	2.18
b)	Establishment & Operation of Gauge Discharge Measurement System		Three no. of gauge discharge stations were established, one each at Ghansali and Dharasu and third at downstream of power house. The earlier two were installed for monitoring the flow in Tehri reservoir from both the feeder rivers before joining the reservoir. These inflows are required for accessing the reservoir level well in advance and are helpful to regulate the generation of power. The third was installed for monitoring the reservoir operation by taking into account the outflow of water from the reservoir during power generation and by means of seepage.	Negative adjustment may be allowed	(-) 22.80
60	Road and Culverts	(-) 25,45,409		Negative adjustment has been allowed	(-) 25.45
61	Plant & Machinery and other equipments awaiting erection	(-) 39,48,826			(-) 39.49
62	Grouting works in power house complex -Package list	4,21,83,176	The work has been carried out as per recommendation of Russian Expert of grouting. The	Allowed under Regulation 9(2)(iv) as the asset is considered	421.83

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			Consultant has provided various schemes of consolidation grouting in PAC/BVC area in Package – 1st and same has been vetted by THDC Design Deptt. The work was essential in nature for the safety of structures & equipment of Under Ground Power House Complex	necessary for efficient operation of the generating station.	
63	Grouting works in power house complex -Package - II	2,10,07,583	Grouting consultant of the project has provided the consolidation grouting scheme of Draft Tube cradle to stabilize the area and to enhance the stability of the project. The works were essential hence the same have been vetted by Design department of the project.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the generating station.	210.08
65	Internal distribution lines in Townships & Work sites etc.	(-) 14,80,174		Negative adjustment has been allowed	(-) 14.80
	Total Capital Expenditure allowed	34,28,10,028			4784.73

2011-12

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De- capitalised (in `)	Justification	Findings	Amount allowed (₹ in lakh)
	Rehabilitation Expenses	21,55,77,465	Land has been acquired under Land Acquisition Act for vacating the area of Tehri Reservoir from the habitants so that reservoir could be filled upto FRL. A Rehabilitation policy is also applicable for the benefit of land losers. Subject expenditure was incurred for the	Allowed under Regulation 9(2)(iv)	2155.77

			rehabilitation of the oustees.		
2	Record room for F&A Department, DG room, Store room & Panel room at B.Puram	26,05,278	Record room was required to upkeep records for F&A Department and other rooms were also required to maintain the administrative block.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	26.05
3	Construction of CISF residences.	-880	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 0.01
4	Construction of boundary wall around fire station	2,28,300	It is mandatory requirement for safety of the project.	Expenditure related to safety has been allowed	2.28
5	De-capitalisation of DAM top to old RCM Building Road	(-) 4,01,580	Amount adjusted from earlier capitalised value.	Negative adjustment has been allowed	(-) 4.02
6	Hydraulic rough terrain mobile crane 75 ton capacity	3,23,60,055	There are 2 no old & obsolete model 80 T hydra cranes. One no crane is under process to declare BER and other is in poor condition. The new crane is being used for loading/unloading of heavy consignment & maintenance of HRT/TRT gates etc. 01 No. JCB loader was purchased against BER of JCB loader.	Allowed under Regulation 9(2) (iv) as the asset is considered necessary for efficient operation of the plant. The gross value of the replaced assets has been reported as ₹1 for 80 T Hydra crane and ₹ 4.76 lakhs for JCB loader. The same has been considered under Assumed deletions.	323.60
13	Construction of HPP civil work, PKG-3	23,75,755	Release of payment against escalation bill of HPP civil works, Package-III.	As expenditure incurred is towards settlement of escalation bill, the same has been allowed	23.76
14	Neutral Grounding Transformer	3,48,769	Protection of generator.	Allowed under Regulation	3.49

				9(2)(iv) as the asset is considered necessary for efficient operation of the plant	
17	IRS based access control system	33,51,996	For security of power house as per the recommendations of IB.	Expenditure related to safety has been allowed	33.52
18	HV test kit	32,06,421	Procurement of high voltage kit for testing of hydro generator winding insulation.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	32.06
19	EOT crane	18,14,374	For smooth operation and handling equipments/spares of EME store, Koti.		18.14
21	Establishment of LAN	7,42,298	To connect all the computer systems at Central Store, QC Lab. & Mechanical deptt, Koti.	Since expenditure is based on the need for modernization, the same has been allowed	7.42
22	Electric incinerator with accessories	6,51,550	It is purchased under the Environmental Protection Act, 1986, to ensure proper disposal of bio-medical waste generated in the hospital to prevent environmental pollution.	Allowed since expenditure is related to Environmental protection	6.52
36	Buses (4 Nos.)	41,84,395	10 no. existing buses were completing specified life (Statutory) for plying on hills. In years 2010 -11, therefore, 4 no buses were procured in first phase.	Allowed since expenditure is for the benefit of employees. However, the gross value of 4 old buses i.e ₹31.36 lakh is deducted under assumed deletion	41.84

37	Trucks/Tippers (5 Nos.)	1,35,37,846	There were total 05 No. of TATA Tipper (1210SE model) available at Tehri HPP, which on completion of their respective stipulated life on hilly terrains, were declared as BER and subsequently disposed off. To meet out the requirement of tippers at Tehri specially during natural disasters and various other activities at different sites of project, 05 no. of new Tata 1613 model Tippers were purchased in lieu of BER Tippers. -04 No. water tankers were purchased against BER Water Tanker	Allowed against replacement of tippers and tankers. However, the gross value of 5 tippers and 4 tankers i.e. ₹33.70 lakh is deducted under Assumed deletions.	135.38
38	VIP BOAT	85,05,000	VIP boat is required / used by dignitaries and officials for visit/inspection of reservoir and the surrounding villages and rim area of reservoir.	Need based expenditure is allowed under Regulation 9(2)(iv)	85.05
39	Bolero camper	4,91,300	Bolero Campers/ Mahindra & Mahindra make Utility type of vehicle was purchased in lieu of BER vehicle allocated to guest house and against the demand of Guest house (P&A) Tehri to cope up the transportation problems at different sites of project.	Allowed against replacement. However, the gross value of old asset i.e ₹3.69 lakh is deducted under Assumed deletions.	4.91

40	O&M system and system administration	55,15,000	O&MS application developed by M/s TCS for keeping records of O&M activities.	Allowed, since the expenditure is based on the need for modernization and is considered necessary for efficient operation of the plant.	55.15
41	Office Buildings -	33,20,279			
a)	Construction of Record Room for F&A Department at B.Puram			Negative adjustment has been allowed	(-) 5.90
b)	DG room admn bldg IT panel room TTGH gate				(-) 10.39
42	Other Plant Buildings	7,19,570			
	Const. of incinerator chimney and stay wire hook at Khandnala		Construction of Incinerator & Chimney is required to dispose of waste of THDC Hospital at Bhagirathipuram. It is an essential requirement to fulfill the norms of environment.	As the expenditure is related to environmental protection, the same has been allowed.	7.20
43	Transit Camp and Field Hostel Buildings -	1,33,67,482			
a)	Construction of LT line for power supply to newly constructed 24 nos field hostel B. puram		A Field Hostel for officers comprising of 24 nos. rooms was constructed at B.Puram. The power supply to this building was decided to be fed from the transformer installed at Administrative building. Hence the LT line was constructed from Administrative building to Field Hostel.	Allowed as the expenditure is for the benefit of employees of the project.	0.47
b)	Construction of 24 NO Field hostels at B.puram (tehri)		Construction of 24 Nos. Field Hostel was required to provide accommodation to	Allowed since the expenditure is for the benefit of employees	123.36

			senior officers who are engaged in Construction/O&M activities of project and lives as a bachelor in project area.	of the project	
44	Residential Buildings	7,44,029			
	Construction of one extra room in C-Type quarter at B'puram		Construction of one extra room was required for better utilisation of existing C-Type quarters. In C-Type quarters there were only 2 bedroom and it was needed to provide one extra room to avoid construction of new quarters for existing senior officers of THDCL, who are residing there with their families.	Allowed since expenditure is for the benefit of employees of the project	7.44
45	Other Civil Works (Excluding Temp. structure) -	(-) 2,18,219		Negative adjustment has been allowed	(-) 2.18
47	Road and Culverts	1,25,31,531			
48	Plant & Machinery and other equipments awaiting erection -	(-) 11,70,407		Negative adjustment has been allowed	(-) 11.70
49	Canals Water Channels Surge Tanks Shafts Butterfly valves and valve houses -	46,05,948			
	Grouting works in power house complex package-I		The work has been carried out as per recommendation of Russian Expert of grouting. The consultant has provided consolidation grouting in PAC/BVC area in Package – Ist and same has been vetted by THDC Design Deptt. The work was essential in nature for the	Allowed under Regulation 9(2)(iv) as the work has been carried out based on the recommendation of Russian expert for the safety of structure and equipment of underground PH complex.	46.06

			safety of structures & equipment of Under Ground Power House Complex.		
50	Tailrace works -	5,10,000			
	Drilling & Grouting work for the Installation of the inverted plumbs & for making drainage holes.		During visit of project in June-2011 M/S HPI, Moscow has recommended to install atleast three inverted plumbs for identification of movement plane (creep age) in Adit-4B. The matter was also discussed with Design Deptt. The work was very essential to study the behaviour of rock to treat/control any unforeseen settlement.	Allowed under Regulation 9(2)(iv) as the work has been carried out on the recommendation of Russian expert .	5.10
51	Hydraulic works others	61,10,806			
	Grouting works in power house complex -Package II		Grouting consultant of the project has provided the consolidation grouting scheme of Draft Tube cradle to stabilize the area and to enhance the stability of the project. The works were essential hence the same have been vetted by Design department of the project.	Allowed under Regulation 9(2)(iv) as the work has been carried out on the recommendation of Russian expert .	61.11
	Total Capital Expenditure allowed	1,39,13,16,014			3171.49

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
1	Capitalisation of Rehabilitation Expenses	27,53,82,066.5	Money was spent on various development works, new bridges, roads, establishment charges for Rehabilitation & acquisition of land land for disposal of excavated muck from P.H. etc.	Allowed under Regulation 9 (2) (iv) since the expenditure is for the rehabilitation of project oustees and towards environmental consideration, etc.	2753.82
2	Construction of incinerator chimney & stay wire hook at Khandnala	7,83,710	Construction of Incinerator & Chimney is required to dispose of waste of THDC Hospital at Bhagirathipuram. It is an essential requirement to fulfil the norms of environment.	Allowed since expenditure is related to environmental protection	7.84
4	Electrical work of 24 nos field hostel, B.Puram	47,254	A Field Hostel for officers comprising of 24 nos. rooms was constructed at B.Puram for which the electrification work was carried out.	Allowed since the expenditure on field hostel is for the benefit of employees	0.47
5	Electrical work of 24 nos field hostel, B.puram	16,23,043	A Field Hostel comprising of 24 nos. rooms was constructed at B.Puram for which the electrification work was carried out.	Allowed since the expenditure is towards field hostel which is for the benefit of employees of project	16.23
6	24 Nos. Field hostel at B.PURAM	4,03,49,000	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.		403.49

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
7	Construction of 16 nos. additional rooms in Type –C quarters	11,23,106	Construction of one extra room was required for better utilisation of existing C-Type quarters. In C-Type quarters there were only 2 Bedroom and it was needed to provide one extra room to avoid construction of new quarters for existing senior officers of THDCL, who are residing there with their families.	Allowed since the expenditure is for the benefit of employees of project	11.23
11	60 HP 2 stage pump set consisting motor with starter (make kirlosker)	2,32,650	Purchased for Bhagirathipuram water supply scheme to strengthen the intake pumping station and to replace old & obsolete pump sets.	Allowed under replacement as the asset is considered necessary for the benefit of project employees. However, in absence of gross value of replaced asset ,same has been considered as ₹1.76 lakh under assumed deletions	2.33
12	60 HP 2 stage pump set consisting motor with starter (make kirlosker)	2,32,650	Purchased for Bhagirathipuram water supply scheme to strengthen the intake pumping station and to replace old & obsolete pump sets.	Allowed under replacement as the asset is considered necessary for the benefit of project employees. However, in absence of gross value of replaced asset, same has been considered as ₹1.76 lakh under assumed deletions	2.33

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
13	60 HP 2 stage pump set consisting motor with starter (make kirlosker)	2,32,650	Purchased for Bhagirathipuram water supply scheme to strengthen the intake pumping station and to replace old & obsolete pump sets.	Allowed under replacement as the asset is considered necessary for the benefit of project employees. However, in absence of gross value of replaced asset, same has been considered as ₹1.76 lakh under assumed deletions	2.33
18	Passenger elevator	18,32,124	Elevator installed for Chute Spillway Radial gate area.	Allowed under regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	18.32
23	Construction of 11 kV line B.puram to koti	7,45,057	One no. 11kV overhead line was emanating from 33/11 kV sub-station to Koti area for feeding power supply to colonies, Central work shop, petrol pump, Quality control laboratory and water supply of Koti colony. Due to heavy rain, the said 11 kV line was badly damaged at various locations which was not possible to be reconstructed at the same locations due to severe land sliding in these areas. Hence the line was reconstructed by rerouting at different locations as per site condition and accordingly the power supply was made smooth for Koti areas.		7.45

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
24	Bullet 350 UCE-black Color; (M/C NO. UK 09A 1801)	85,300	Old Motor cycles were declared BER. The new motor cycle is purchased against replacement of BER for CISF Tehri duty for safety & security works of the project	Allowed under replacement as the asset is considered necessary. However, in absence of gross value of replaced asset, same has been considered as ₹0.65 lakh under assumed deletions	0.85
25	SURVEY BOAT LENGTH 9-10M HAVING CAPACITY 14 TO 15 PERSONS	73,70,967	It is required for survey work of Tehri reservoir and also used for hydrographic survey.	Allowed under Regulation 9(2)iv) as the asset is considered necessary for maintenance of reservoir	73.71
49	SUPPLY & INSTALLATION OF BADMINTON COURT	2,44,896	For Multipurpose Hall	Allowed as the expenditure is for the benefit of employees of the project	2.45
65	ECG MACHINE	52,625	For Hospital Use		0.53
66	OXYGEN CONCENTRATOR	50,520			0.51
67	CENTRIFUGE MACHINE	14,630			0.15
86	WINCH MACHINE	8,58,795	The Winch System was procured for Inspection of Draft Tube during Annual/Major Maintenance of Units	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	8.59
101	100HP KIRLOSKER PUMP	4,25,000	100 HP pump set was purchased for Koti water supply scheme to separately feed water to botanical garden Koti		4.25
102	PUMP 150HP MODEL RKB65/19E8	1,28,700	Purchased for Bhagirathipuram water supply scheme in order to strengthen the main pumping station at		1.29

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			Bhagirathipuram		
103	PUMP 150HP MODEL RKB65/19E8	1,28,700	Purchased for Bhagirathipuram water supply scheme in order to strengthen the main pumping station at Bhagirathipuram		1.29
107	INSTRUMAX FINE DUST SAMPLER	2,03,290	For ISO - 14001 for environment of Tehri HPP/PSP ambient air monitoring.	Allowed since expenditure is related to environmental protection	2.03
108	BIOMETRIC BASED ATTENDANCE SYSTEM	17,62,760	For Time office	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	17.63
109	INSULATING MAT 200MM	1,81,035	For Safety of Operation Personnel from High Voltages.	Allowed since expenditure is for the safety of employees of project.	1.81
110	Other Plant Buildings -	(-) 3,66,553			
a)	CONST. OF INCINERATOR CHIMNEY AND STAY WIRE HOOK AT KHANDNALA			Negative adjustment has been allowed	(-) 7.20
b)	internal electrification work of oil filtration plant at Mokri		Earlier a plant for Transformer and Turbine oil filtration had already installed at Mokri. In the 40th ORT meeting, it was decided to make the plant operative. Accordingly as per requirement raised by O&M department, the internal and external electrification work was carried out.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	3.53

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
111	Transit Camp and Field Hostel Buildings -	(-) 4,00,49,356			
a)	CONSTOF L T LINE FOR POWER SUPPLY TO NEWLY CONSTRUCTED 24 NOS FIELD HOSTEL B. PURAM			Negative adjustment has been allowed	(-) 0.47
b)	CONST OF 24 NO FIELD HOSTALS AT B.PURAM (TEHRI)				(-) 403.49
112	School Buildings -	10,79,916			
	CONSTN.OF 04 NOS ADDL.ROOMS FOR SARSWATI SHISHU MANDIR INTER COLLEGE AT V.K.PURAM		Construction of 4 nos additional rooms in Sarswati Vidhya Mandir at V.K.Puram was needed to accommodate the wards of THDC employees and other affected people.	Allowed under Regulation 9(2)(iv) since expenditure is for benefit of employees	6.69
	REPAIR/MAINT/CONS TN.WORK AT B.PURAM INTERMEDIATE COLLEGE AT B.PURTAM TEHRI		Some additional labs and toilet block were required in THDC's Intermediate College at Bhagirathipuram as it was upgraded from High School to Intermediate and requirement was as per norms.		4.11
113	Residential Buildings -	(-) 11,01,044		Negative adjustment has been allowed	(-) 11.01
114	Road and Culverts -	(-)1,25,31,531			(-) 125.32
115	Plant & Machinery and other equipments awaiting erection -	58,24,657			
a)	Hydro Static Level Measuring System		Level Sensors were installed at HRT intake for measuring Reservoir Level and at TRT for measuring TRT level.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	10.36
b)	SUPPLY & INST.OF AIR GAP VIBRATION MOINTERING SYSTEM FOR TEHRI HPP		For online monitoring of Airgap and Vibration of Generating Units.		78.79
c)	M/S MITTAL MACHINERY STORE			Negative adjustment has	(-) 13.26

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
d)	Sale through MSTC Ltd.			been allowed	(-) 19.11
116	Main Generation Equipments -	81,40,329			
	Design, Manufacturing & Supply of G.I.S./G.I.B.		Balance Payment towards Expert Service Charges for R&M charges towards rectification work in GIS against Agreement No: THDC/RKSH/CD- 188/AG (i) &(ii) dated: 15.03.2001	Allowed since expenditure is towards balance payment.	81.40
117	Tailrace works -	(-) 5,10,000		Negative adjustment has been allowed	(-) 5.10
118	Transmission Lines for supply of power (excluding internal distribution lines) -	(-) 4,57,025			(-) 4.57
119	CWIP -Others -	87,29,000			
	Total Capital Expenditure allowed	2,31,86,94,634			2936.26

2013-14

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
1	Expenditure for R&R works as committed at ministry level on 05.02.2008 & 30.06.2011.	2,50,00,000	As committed at Ministry Level, money is required to be released.	Allowed under Regulation 9(2)(iv)	250.00
4	Construction of stationary, record, driver and store rooms at admin building B.puram.	15,00,000	Construction of stationary, record, driver and store rooms at admin. building B.puram. are required for proper functioning of THDC,s TEHRI HPP office from administrative Block, Tehri.	Allowed under Regulation 9(2)(iv) for proper functioning of the plant	15.00

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
5	Construction of site office for H.M department	5,00,000	Const. of site Office for H.M. department is required for proper functioning and controlling of Hydro Mechanical activities near to Dam Site.	Allowed under Regulation 9(2)(iv) for proper functioning of the plant	5.00
6	Construction of office building for central store	6,00,000	Construction of Site Office for the employee of Central Store is required for proper functioning and controlling of Store activities near to main Store at Koti.		6.00
7	Construction of record building at B'puram	40,00,000	Const. of Record Building is required for proper up- keeping of old records of Tehri HPP.		40.00
8	Construction of room for Ventilation system for dam galleries	8,00,000	Const. of Room for ventilation system for Dam Galleries is required for proper functioning of ventilation system.		8.00
9	Balance work of gas Godown at B.puram	10,00,000	Balance work of Gas godown is required to facilitate the employees of THDC posted at Bhagirathipuram so that LPG may be provided them near to their residence to increase the efficiency of employees.		10.00
11	Construction of 4 nos additional rooms for Saraswati vidhya mandir school at Koti.	13,00,000	Construction of 4 nos addition room in Sarswati Vidhya Mandir at V.K.Puram was needed to accommodate the wards of THDC	13.00	

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
			employees and other affected people.		
12	Additional const. works in emb inter college at B.PURAM	18,00,000	Some additional labs and toilet block were required in THDC's Intermediate College at Bhagirathipuram as it was upgraded from High School to Intermediate and requirement was as per norms.	Allowed under Regulation 9(2)(iv) since expenditure is for the benefit of employees	18.00
13	CONSTRUCTION OF NEW HOSPITAL BUILDING AT B'PURAM	50,00,000	New Hospital Building is required in Bhagirathipuram as existing hospital is functioning from a temporary building and to take care of existing staffs posted at Tehri HPP, PSP and Koteshwar Project a permanent Hospital is needed.		50.00
14	CONSTRUCTION OF COMMUNITY CENTRE AT B'PURAM	50,00,000	Construction of Community Center is required to perform various functions of workforce as marriage etc. with having a provision of indoor games for employees. Tehri HPP is in a remote place and there is no any other specific place available for this purpose. This expenditure was essential to increase the efficiency of employees as well as generating station.		50.00

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
15	CONST. OF ADDITIONAL TOILET IN OLD SIMPLEX QTRS AT B.PURAM	58,00,000	Construction of one extra toilet is required for better utilisation of existing Old Simplex quarters.	Allowed under Regulation 9(2)(iv) since expenditure is for the benefit of employees	58.00
16	CONSTRUCTION OF CISF BARRACK AT B'PURAM	50,00,000	It is mandatory requirement for safety of the project.	Allowed since expenditure is related to safety of the project	50.00
17	INTERNAL ELECTRIFICATION OF NEW BUILDINGS AT PROJECT AREA AND COLONIES	15,00,000	Internal electrification works are required to be carried out in new buildings constructed by civil department in the project areas.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	15.00
18	EXTERNAL ELECT, OF NEW BUILDINGS AT PROJECT AREA AND COLONIES	10,00,000	External electrification works are required to be carried out in new buildings constructed by civil department in the project areas.		10.00
19	CONST. OF CISF MORCHA POST AT QUARTERGUARD AT B.PURAM	7,00,000	It is mandatory requirement for safety of the project.	Allowed since expenditure is related to safety of the project	7.00
20	S/F/F OF GI CHAIN LINK AT FENDER POINT TOWARDS KOTI ROAD, B'PURAM.	5,00,000	As per recommendations of IB For Dam Safety		5.00
21	CONST OF INTERNAL ROAD FOR HEC AT B'PURAM.	50,00,000	To facilitate the smooth functioning and movement.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient operation of the plant.	50.00
25	PROCUREMENT OF ONLINE DRYOUT SYSTEM FOR GENERATOR TRANSFORMER	1,00,00,000	Upkeep of Generator Transformer		100.00
27	HPP, PACKAGE-I, FINAL BILL	1,00,00,000	Payment for final bill	Allowed since expenditure is for final payment	100.00
28	HPP, PACKAGE-II, FINAL BILL	1,00,00,000			100.00
29	PROCUREMENT & ERECTION OF FLOOD LIGHT FOR SECURITY	65,00,000	As per recommendations of IB	Allowed since expenditure is related to	65.00

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
	OF DAM AND PROJECT AREA			safety of the project	
30	MISC. OTHER ELECTRIFICATION WORKS AT PROJECT AREA.	10,00,000	For the newly constructed buildings by civil department in the project areas, miscellaneous type electrification works whenever required are to be carried out.	Allowed under Regulation 9(2)(iv) as the works is considered necessary for efficient operation of the plant.	10.00
33	INSTALLATION OF CCTV SYSTEM IN PROJECT AREA/GUEST HOUSE	50,00,000	Recommendations of IB	Allowed since expenditure is related to safety of the project	50.00
34	ESTABLISHMENT OF REAL TIME FLOOD FORECASTING SYSTEM FOR TEHRI DAM	2,50,00,000	It is required for Installation of flood forecasting system consisting of metrological stations and gauge/discharge stations, for Tehri Dam reservoir. The forecast of inflow data in reservoir by satellite based inflow forecasting system is very helpful by providing sufficient warning time for safety of dam & downstream habitation and for optimization of the power plant operation during monsoon.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient and safe operation of the plant.	250.00
35	Establishment/expansion of 26 nos. seismological net work around Tehri dam	4,45,00,000	It is required for observation of micro seismic event of earth quake around Tehri Dam reservoir.	Allowed under Regulation 9(2)(iv) as the asset is considered necessary for efficient and	445.00

Sr. No. (As in petition)	Work/Equipments added after cut off date	Amount Capitalised / De-capitalised (in ₹)	Justification	Findings	Amount allowed (₹ in lakh)
36	Installation of strong motion accelerographs	1,80,00,000	It is required for observation of high seismic event of earthquake in Tehri dam and its associate structure.	safe operation of the plant.	180.00
	Total Capital Expenditure allowed	22,95,00,000			1960.00

Additional Capitalization disallowed

17. The additional capital expenditure claimed by the petitioner has been allowed on prudence check under Regulation 9(2)(iv) towards efficient operation of the plant. Some of the claim for additional capitalization for the period 2009-14 has been disallowed since the expenditure is in the nature of minor assets, tools & tackles, assets under Corporate Social Responsibility and Spare assets procured for redundancy. These include assets like laptop and computers, LG split air conditioners, LCD TV panel, DG set, Refrigerator, Room heater, Chair, table etc., 5kW connection for engineering college, construction of academic block, laboratory, administration block, workshop and survey work and master plan for engineering college at Dibner. Also, some of the claims made by the petitioner relating to design, manufacturing, supply and commissioning of IOT electrical, renovation of EME shed, maintenance of central workshop has not been allowed since no justification has been furnished by the petitioner. The expenditure towards Work Administration building Phase-II has been disallowed on the ground that the said work has not been properly defined. The petitioner has also claimed expenditure towards Construction of Office building at Dehradun (deposit work). The Commission in its order dated 26.4.2006 in Petition No.3/2006 while determining the tariff of generating stations of NTPC for 2004-09 had disallowed the expenditure incurred towards the construction of Corporate office and other offices. Only the O&M expenses (including depreciation) incurred is allowed to be recovered by way of allocation of the Corporate O&M expenses to various plants under

operation and for plants under construction. In line with the said decisions, the expenditure claimed by the petitioner has not been allowed for the purpose of tariff. It is pertinent to mention that the disallowance of expenditure in respect of NTPC office including corporate office by the Commission in its order had been confirmed by the Appellate Tribunal for Electricity.

Energy Management System

18. The petitioner has claimed expenditure of ₹55.95 lakh for Energy Management System during 2009-10 under Regulation 9(2)(iv) towards on the ground that the same is required to “monitor energy export and U.I”. It is not clear from the submissions of the petitioner as to how the additional energy meters and associated equipment sought to be installed by the petitioner 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. In the absence of any justification, we find no reason to allow the capitalization of the expenditure claimed under this head. It is pointed out that the Commission in some of its orders pertaining to the determination of tariff of the generating stations of NTPC had disallowed the capitalization of expenditure towards Energy Management System and on appeal, the Appellate Tribunal had confirmed the findings of the Commission. Accordingly, the capitalization of the expenditure claimed has been a disallowed in the present case.

19. Based on the above discussions, the total additional capital expenditure allowed, prior to adjustment of liabilities and FERV is summarized as under:

	2009-10	2010-11	2011-12	2012-13	2013-14
					<i>(₹ in lakh)</i>
Additional capital expenditure allowed	3429.89	4784.73	3171.49	2936.26	1960.00

Assumed deletions

20. As per consistent methodology adopted by the Commission in its various tariff orders in respect of hydro generating stations, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff provided such capitalization is followed by de-capitalization of the gross value of the old assets. However, in certain cases, where de-capitalization is proposed to be effected/ affected during the future year of capitalization of new assets, the de-capitalization of the old assets for the purpose of tariff is shifted to the very same year in which the capitalization of the new assets are allowed. Such de-capitalization which is not a book entry in the year of capitalization has been termed as 'Assumed Deletions'. The petitioner was directed to furnish the gross value of old assets wherever capital expenditure has been claimed towards replacement of assets and the petitioner vide affidavit dated 5.7.2013 has submitted the gross value of old assets. It is noticed that for certain assets claimed under replacement, the petitioner has not provided the gross value of old assets. In such cases, the gross value of old assets from COD of the generating station till date of de-capitalization of the said assets has been arrived at after applying the de-escalation rate of 5.72% per annum, as specified for computation of O&M expenses under the 2009 Tariff Regulations. Based on this, the additional capital expenditure allowed considering the deletions is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capital Expenditure claimed	10253.00	3428.00	13913.00	2319.00	2295.00
Additional capital expenditure allowed prior to consideration of FERV and Un-adjusted advance and liabilities	3429.89	4784.73	3171.49	2936.26	1960.00
Less: Assumed deletions	124.58	10.37	73.51	5.93	0.00
Additional Capital Expenditure allowed	3305.31	4774.36	3097.98	2930.33	1960.00

FERV

21. The claim of the petitioner for FERV after the date of commercial operation has not been considered as additional capitalisation, as the expenditure shall be claimed directly from the beneficiaries, on year to year basis, in terms of the Regulation 41 of the 2009 Tariff Regulations.

Expenditure under Net of unadjusted advance and liabilities

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.

23. Based on the above, the capital cost considered for the purpose of tariff for the period 2009-14 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost as on 1 st April of the financial year	686483.57	689788.88	694563.24	697661.22	700591.55
Additional Capital Expenditure allowed	3305.31	4774.36	3097.98	2930.33	1960.00
Capital Cost as on 31st March of the financial year	689788.88	694563.24	697661.22	700591.55	702551.55

Debt-Equity Ratio

24. 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.”

25. As stated, the Commission in order dated 5.6.2014 in Petition No. 250/GT/2010 had approved 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 based on order dated 7.1.2014 in Petition No.7/RP/2013. In the said order, the Commission had observed 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."

26. In line with the orders of the Commission as stated above, the entire amount of admitted additional capital expenditure has been considered as loan.

Return on Equity

27. Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011/31.12.2012 provides that:

"(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation.

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-II.

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

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed charges on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

28. In line with the above provisions, Return on Equity has been considered on pre-tax basis at the base rate of 15.5% for the period from 1.4.2009 to 31.12.2012 and thereafter at the base rate of 16.5% for the period from 1.1.2013 to 31.3.2014. The MAT rate for the respective year has been applied for grossing-up while calculating the rate of return on equity, as under.

	2009-10	2010-11	2011-12	2012-13	2013-14
Base Rate	15.5%	15.5%	15.5%	15.5%/16.5%	16.5%
MAT rate for the year (including education cess and surcharge)	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%

29. Accordingly, return on equity worked out is as given under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	255585.00	255585.00	255585.00	255585.00	255585.00
Addition due to Additional Capital Expenditure	-	-	-	-	-
Closing Equity	255585.00	255585.00	255585.00	255585.00	255585.00
Average Equity	255585.00	255585.00	255585.00	255585.00	255585.00
Rate of ROE (pre-tax)	18.674%	19.358%	19.377%	19.689%	20.876%
Return on Equity	47727.94	49476.14	49524.71	50322.13	53355.92

Interest on loan

30. Regulation 16 of the 2009 Tariff Regulations provides that:

“(1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

“(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

“(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year.

“(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 annual depreciation allowed.

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project.

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 re-financing.

“(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as

amended from time to time, including statutory re-enactment thereof for settlement of the dispute.

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

31. Interest on loan has been worked out as under:

- (a) The gross normative loan of ₹430898.57 lakh as on 1.4.2009 has been considered.
- (b) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project.
- (c) The repayment for the year of the tariff period 2009-14 has been considered equal to the depreciation allowed for that year.
- (d) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

32. Based on the above, interest on loan considered for the purpose of tariff is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	430898.57	434203.88	438978.24	442076.22	445006.55
Cumulative Repayment up to previous year	53866.97	90037.96	126476.93	163188.55	200079.13
Net Loan-Opening	377031.61	344165.93	312501.31	278887.67	244927.42
Repayment during the year	36170.99	36438.98	36711.61	36890.58	37068.76
Addition due to Additional Capitalization	3305.31	4774.36	3097.98	2930.33	1960.00
Net Loan-Closing	344165.93	312501.31	278887.67	244927.42	209818.66
Average Loan	360598.77	328333.62	295694.49	261907.55	227373.04
Weighted Average Rate of Interest on loan	11.55%	11.69%	11.70%	11.81%	11.98%
Interest on loan	41649.16	38365.78	34596.26	30920.81	27237.02

Depreciation

33. Regulation 17 of the 2009 Tariff Regulations provides that:

“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) 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 stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.

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

(3) 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.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance against Depreciation] as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

34. Necessary calculations in support of depreciation allowed are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	686483.57	689788.88	694563.24	697661.22	700591.55
Additional capital expenditure during 2009-14	3305.31	4774.36	3097.98	2930.33	1960.00
Closing gross block	689788.88	694563.24	697661.22	700591.55	702551.55
Average gross block	688164.20	692232.01	696168.18	699182.34	701627.50
Rate of Depreciation	5.25637%	5.26441%	5.27381%	5.27667%	5.28368%
Depreciable Value	618149.67	621785.52	625328.08	628040.82	630241.46
Remaining Depreciable Value	564282.70	531754.10	498858.22	464863.21	430173.59
Depreciation	36170.99	36438.98	36711.61	36890.58	37068.76

O&M Expenses

35. Regulation 19 of the 2009 Tariff Regulations provides as under:

“Normative operation and maintenance expenses shall be as follows, namely:

(a) xxxx

(e) xxxx

(f) **Hydro generating station**

“(i) Operation and maintenance expenses, for the existing generating stations which have been in operation for 5 years or more in the base year of 2007-08, shall be derived on the basis of actual operation and maintenance expenses for the years 2003-04 to 2007-08, based on the audited balance sheets, excluding abnormal operation and maintenance expenses, if any, after prudence check by the Commission.

(ii) The normalized operation and maintenance expenses after prudence check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2003-04 to 2007-08 at 2007-08 price level. The average normalized operation and maintenance expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10:

Provided that operation and maintenance expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of the employees of the Public Sector Undertakings to arrive at the permissible operation and maintenance expenses for the year 2009- 10.

(ii) The operation and maintenance expenses for the year 2009-10 shall be escalated further at the rate of 5.72% per annum to arrive at permissible operation and maintenance expenses for the subsequent years of the tariff period.

(iii) In case of the hydro generating stations, which have not been in commercial operation for the period of five years as on 1.4.2009, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works). Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @ 5.17% per annum up to the year 2007-08 and then averaged to arrive at the O & M expenses in respective year of the tariff period. The impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation.”

36. The O & M expenses claimed by the petitioner vide affidavit dated 23.7.2013 are as under:

<i>(₹ in lakh)</i>				
2009-10	2010-11	2011-12	2012-13	2013-14
18628.72	19694.28	20820.80	22011.74	23270.82

37. The above claim of the petitioner is based on 2% of the capital cost of ₹680843.04 lakh as admitted by the Commission as on cut-off date i.e 31.3.2009. However, based on the order dated 5.6.2014 in Petition No.250/2010, the ‘original project cost’ as on 31.3.2009 of Power component is ₹686483.57 lakh, excluding the Irrigation component. The petitioner vide affidavit dated 23.7.2013 has submitted that the R&R cost as on 31.3.2009 was ₹127855.38 lakh and the same is part of irrigation component of

₹144133.80 lakh as on 31.3.2009. Accordingly, the capital cost of ₹686483.57 lakh for Power component as on 31.3.2009 as approved by the Commission is exclusive of R&R expenditure.

38. For the purpose of arriving at the salary hike during the year 2009-10, the petitioner has considered the data of actual O&M expenses for the year 2007-08. However, considering the fact that the generating station was not in operation for the full year during 2007-08, the petitioner was directed to furnish the actual O&M data for the year 2008-09. Also, the petitioner was directed to furnish the provisions made in the O&M expenses during the year 2008-09 towards wage revision, if any. In response, the petitioner vide its affidavit dated 11.4.2014 has filed the said information.

39. On prudence check of the actual O&M expenditure for the year 2008-09, the expenses of following nature have been excluded for arriving at the allowable employee cost, the total allowable O&M expenses and the employee cost as percentage of the total O&M expenses.

(a) **Productivity linked incentive and performance related pay:** The productivity linked incentive and performance related pay made to the employees of the generating station and corporate centre/service centre has not been allowed as the same has to be borne from the 'incentive' earned by the petitioner by way of better performance of the generating station in terms of the provisions of the 2009 Tariff Regulations. Hence, not allowed.

(a) **Losses Written Off & Loss on Sale/discarding of asset:** As per the provisions of the 2009 Tariff Regulations, the petitioner is entitled to recover 90% of the asset value as depreciation. The subsequent profit/loss on sale of un-serviceable assets is to the account of the petitioner and not considered for the purpose of tariff. Hence, not considered.

(b) **Corporate Social Responsibility & Expenditure on gifts:** Not allowed as the petitioner is required to bear such expenses from its own profits/ resources.

(c) **Survey and Investigation Expenditure: Expenditure** pertains to under construction projects of the petitioner and is not likely to be encountered/continued during 2009-14 for the generating station.

(d) **Deferred Revenue Expenditure Written Off:** In view of uncertainty regarding the extent and re-occurrence of such expenses, the same is not considered.

(e) **Provisions for wage revision at generating station and corporate centre:** The same has been reduced from the O&M expenses for the year 2008-09 in view of a separate provision for salary hike to the tune of 50% as per the provisions of the 2009 Tariff Regulations.

40. Based on the above discussions, the total O&M expenses (net) considered for the generating station for 2008-09, for the purpose of working out the O&M expenses for 2009-14 is as summarized as under:

(₹ in lakh)					
Details of Operation and maintenance expenses					
Sl. No.	ITEM	2008-09	O&M expenses considered for the period 2009-14 before provisions	Provisions	Year-2008-09 O&M expenses considered for the period 2009-14 after deduction of provisions
(A)	Break up of O&M Expenses				
1	Consumption of stores & spares	0.00	0.00	0.00	0.00
2	Repair & Maintenance	2039.28	2039.28	0.00	2039.28
3	Insurance	442.98	442.98	0.00	442.98
4	Security expenses	716.45	716.45	0.00	716.45
5	Administration Expenses			0.00	
5.1	Rent	29.93	29.93	0.00	29.93
5.2	Electricity charges	1146.70	1146.70	0.00	1146.7
5.3	Travelling & Conveyance	294.05	294.05	0.00	294.05
5.4	Communication Expenses	32.53	32.53	0.00	32.53
5.5	Advertising	85.63	85.63	0.00	85.63
5.6	Donations	0.00	0.00	0.00	0.00
5.7	Entertainment	10.57	10.57	0.00	10.57
	Sub-Total (Administration Expenses)	1599.41	1599.41	0.00	1599.41
6	Employee Cost				
6.1	Salaries, Wages, & Allowances	7352.29	7352.29	1201.36	6150.93
6.2	Staff welfare expenses	237.40	237.4	0.00	237.40
6.3	Productivity link Incentive	583.36	0.00	0.00	0.00
6.4	Expenditure on VRS	0.00	0.00	0.00	0.00
6.5	Ex-gratia	0.00	0.00	0.00	0.00
6.6	PRP	0.00	0.00	0.00	0.00

	Sub-total (Employee cost)	8173.05	7589.69	1201.36	6388.33
7	Loss of store	0.00	0.00	0.00	0.00
8	Provisions	0.00	0.00	0.00	0.00
9	Corporate office expenses Allocation	1664.14	1159.42	0.00	1159.42
10	Others (specify items)	986.04	656.36	0.00	656.36
11	Total (1 to 10)	15621.40	14203.59	1201.36	13002.23
12	Less: Revenue / Recoveries, if any	0.00	0.00	0.00	0.00
13	Net O&M Expenses	15621.40	0.00	0.00	13002.23

41. The Employee cost of the Corporate Centre/Service centre allocated to the project for the year 2008-09 is worked out as summarized under:

Details of O&M expenses at Corporate level				2008-09	
Sl. No.	ITEM	2008-09			
(A)	Breakup of Corporate expenses (aggregate at company level)		Allowed		Employee cost % of total allowed O&M
1	Employee expenses:		Provisions		
1.1	Salaries, wages and allowances	6724.08		6724.08	
1.2	Staff welfare expenses	163.33		163.33	
1.3	Productivity linked incentive	389.94		0.00	
1.4	Expenditure on VRS	0.00		0.00	
1.5	Ex-gratia	0.00		0.00	
1.6	Performance related pay (PRP)	35.54		0.00	
	Sub Total (Employee Expenses)	7312.89		6887.41	78.31%
2	Administrative Expenses	-		-	
2.1	Repair and maintenance	394.40		394.40	
2.2	Training and Recruitment	-		-	
2.3	Communication	87.47		87.47	
2.4	Travelling and Conveyance	374.57		374.57	
2.5	Rent	178.24		178.24	
2.6	Others (Specify items)	976.50		764.51	
	Sub Total (Administrative)	2011.18		1799.19	
3	Security	108.91		108.91	

4	Donations	-		-				
5	Provisions	-		-				
6	Others (Specify items)	-		-				
7	Total (1 to 6)	9432.98		8795.51				
8	Less recoveries (if any)	0.00		0.00				
9	New Corporate Expenses	9432.98		8795.51				
(B)	Allocation of Corporate Expenses			Allocation allowed	Employee cost (at same % of total allowed O&M)	Less - Provisions	Employee cost allowed	Corporate centre allocation of O&M allowed
1	Power Generation /Transmission O&M	1664.15	0.176418	1551.69	1215.06	392.27	822.79	1159.42
2	Project management /Project under construction	7768.83	0.823582	7243.82				

42. Accordingly, the Employee cost and O&M expenses considered for the year 2008-09 after prudence check, for the purpose of working out the 50% increase in employee cost in terms of the provisions of the above regulations are as under:

	(₹ in lakh)	
	Data for the year 2008-09	O&M Expenses considered
Employee cost for Generating Station (a)	8173.05	6388.33
Employee cost of Corporate centre /service centre allocated to project (b)	1215.06	822.79
Total employee cost (c)=(a)+(b)	9388.11	7211.12
Total O&M expenses for Generating Station	15621.4	13002.23
Employee cost as % of total O&M	60.10%	55.46%

43. In terms of Regulation 19(f) (iv) of the 2009 Tariff Regulations, the O&M expenses shall be fixed at 2% of the original project cost (excluding R&R works). Further, the O&M expenses in first year of commercial operation shall be escalated @ 5.17% per annum up to the year 2007-08 and then averaged to arrive at the O & M expenses in respective year of the tariff period. Accordingly, the O&M expenses for 2008-09 have been worked out as under:

		(₹ in lakh)
From 9.7.2007 to 31.3.2009		
(i)	Capital cost as on cut-off date 31.03.2009	686483.57
(ii)	Less : R & R Expenses	0.00
(iii)	Total Capital expenditure up to cut-off date considered for calculation of O&M expenses for the first year of operation {(i)– (ii) }	686483.57
(iv)	O & M expenses for 2007-08 {2% of (iii)}	13729.67
(v)	O & M expenses for 2008-09 { escalation @ 5.72% of (iv) }	14515.01

44. Regulation 19(f)(iv) of the 2009 Tariff Regulations also provides that the impact of pay revision on employee cost for arriving at the operation and maintenance expenses for the year 2009-10 shall be considered in accordance with the procedure given in proviso to sub-clause (ii) of clause (f) of this regulation. Sub-clause (ii) of clause (f) of Regulation 19 provides that the average normalized operation and maintenance expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the O&M expenses for year 2009-10. Accordingly, the O&M expenses for 2009-10 have been worked out as under:

		(₹ in lakh)
2009-10		
(i)	O & M expenses for 2008-09	14515.01
(ii)	O&M expenses for the FY 2009-10 before salary hike {1.0572*1(iv)}	15345.27
(iii)	Effect of salary hike on O&M Expenses 50 % of (15345.27 x 7211.12/13002.23)	4255.29
	O & M expenses for 2009-10 after salary hike (ii+ iii)	19600.56

45. As per Regulation 19(f)(iv) of Tariff Regulations, the O&M expenses for the year 2009-10 shall be escalated @5.72% per annum to arrive at O&M expenses for the tariff period 2009-14. Accordingly, the following year wise O&M expenses are allowed for the period 2009-14as under:

					(₹ in lakh)
2009-10	2010-11	2011-12	2012-13	2013-14	
19600.56	20721.71	21907.00	23160.08	24484.83	

Interest on Working Capital

46. The petitioner is entitled to claim interest on working capital as per Regulation 18 of the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder.

(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. In the instant case, SBI PLR of 12.25% as on 1.4.2009 has been considered in for working out Interest on Working Capital.

47. SBI PLR of 12.25% has been considered in the computation of the interest on working capital. Necessary computations in support of calculation of interest on working capital are given as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	2940.08	3108.26	3286.05	3474.01	3672.72
O & M expenses	1633.38	1726.81	1825.58	1930.01	2040.40
Receivables	24790.97	24771.57	24392.30	24152.83	24303.94
Total	29364.43	29606.64	29505.93	29556.39	30017.06
Interest on Working Capital @ 12.25%	3597.14	3626.81	3614.23	3620.66	3677.09

48. Based on above, the Annual Fixed Charges allowed for the generating station for 2009-14 is summarized out 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

49. The annual fixed charges allowed for this generating station for the period 2009-14 as above is subject to truing-up in terms of Regulation 6(1) of the 2009 Tariff Regulations.

Design Energy and NAPAF

50. The Design Energy as approved by CEA on completion of the project is 2797 Million units (MUs) and the NAPAF of the station for recovery of capacity charges is 77% as per Tariff Regulations, 2009. However, petitioner has prayed that due to restrictions on filling of the reservoir by the State Government, the reservoir level was allowed to be filled up to EL 820 M during the period 2009-12 and to EL 825 M for the period 2012-13 as against the Full Reservoir Level of 830 M of Tehri dam, as such following design energy and NAPAF may be considered:

Sl. No.	Year	Level of reservoir filling allowed against FRL of 830 M	Modified Design Energy as against approved Design energy of 2797 MUs	Modified NAPAF as against 77% as per Tariff Regulations, 2009
1.	2009-10	820 M	2720.86	76.26%
2.	2010-11			
3.	2011-12			
4.	2012-13	825 M	2763.39	76.55%
5.	2013-14			

51. The petitioner has submitted the calculations in support of modified design energy and modified NAPAF as claimed above. The respondent, BRPL in his submissions stated that the petitioner's prayer for considering NAPAF of 76.26% and 76.55% corresponding to reservoir level of 820 M and 825 M respectively may not be permitted as the NAPAF of 77% for the generating station is based on the provisions of the 2009 Tariff Regulations. Further, the irrigation component is required to be excluded from the expenditure claimed by the petitioner under R&R. Moreover, expenditure towards procurement of minor assets

may not be allowed by the Commission. In response, the petitioner has clarified that because of R&R issues and statutory directions from State Authorities, the reservoir could not be filled upto the EL 830 M. Hence, the petitioner has submitted calculations for modified NAPAF and modified design energy corresponding to permitted levels of reservoir filling.

52. The matter has been examined. It is observed that the calculations for Design Energy submitted by the petitioner have not been approved by CEA. It is further noticed that the generating station has achieved actual generation and NAPAF beyond the normative figures of 2797 MUs and 77% during the period 2009-13. In this background, the submissions of the petitioner for accepting the modified Design Energy and NAPAF are not tenable.

53. It is observed that the Commission, in order dated 7.1.2014 in the Petition No. 7/RP/2013 in Petition No. 250/2010 has observed as under:

“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.”

54. It is evident from the above order that the Commission had modified the Design Energy and NAPAF of the generating station only 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 the instant case.

55. The filing fees deposited by the petitioner for this tariff petition and the publication fees paid by the petitioner shall be reimbursed by the beneficiaries in line with Regulation 42 of the 2009 Tariff Regulations.

56. The claim of the petitioner towards recovery of RLDC fees & charges incurred by the petitioner is disposed of in terms of our order dated 6.2.2012 in Petition No.140/MP/2011 (NTPC-v-POSOCO Ltd & ors).

57. The difference in the annual fixed charges determined by this order shall be adjusted in accordance with Regulation 5 (3) of the 2009 Tariff Regulations.

58. Petition No. 195/GT/2013 is disposed of in terms of the above.

Sd/-
(A.K.Singhal)
Member

Sd/-
(M. Deena Dayalan)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson