CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 229/GT/2013

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

Date of Hearing: 7.11.2013
Date of Order: 26.2.2014

In the matter of

Revision of tariff of Dhauliganga Hydroelectric Project, Stage-I (280 MW) for the period from 1.4.2009 to 31.3.2014-Truing-up of tariff determined by order dated 14.3.2011 in Petition No.109/2010.

And in the matter of

NHPC Ltd,
NHPC Office Complex, Sector 33,
Faridabad – 121003 .....**Petitioner**

Vs

1. Punjab State Power Corporation Ltd
The Mall, Secretariat Complex,
Patiala – 147 001

2. Haryana Power Purchase Centre,
Shakti Bhawan, Sector, 6
Panchkula – 134 109

3. Uttar Pradesh Power Corporation Ltd
Shakti Bhawan,
14, Ashok Road,
Lucknow – 226 001

4. Engineering Department,
UT Secretariat, 1st Floor,
Chandigarh-160009

5. Tata Power Delhi Distribution Ltd
33 KV Sub-station, Kingsway Camp
Delhi – 110 009

6. BSES Yamuna Power Ltd
BSES Bhawan, Nehru Place, New Delhi – 110 019

7. Rajasthan Rajya Vidyut Prasaran Nigam Ltd
Vidyut Bhawan, Janpath, Jyoti Nagar,
Jaipur – 302 205

8. Jaipur Vidyut Vitran Nigam Ltd
Vidyut Bhawan, Janpath,
Jaipur – 302 205

9. Jodhpur Vidyut Vitran Nigam Ltd
New Power House, Industrial Area,
Jodhpur – 342 003

10. Ajmer Vidyut Vitran Nigam Ltd
Old Power House,
Hatthi Bhatta, Jaipur Road,
Ajmer – 305 001

11. BSES Rajdhani Power Ltd
BSES Bhawan, Nehru Place,
New Delhi – 110 019

12. Uttrakhand Power Corporation Ltd
Urja Bhawan, Kanwali Road,
Dehradun – 248 001

13. Power Development Department,
Government of J&K,
New Secretariat
Jammu – 180001

14. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House,
Shimla-171004 ....**Respondents**

Parties present

For Petitioner	Shri A.K.Pandey, NHPC Shri S.K.Meena, NHPC
For Respondents	Shri Padamjit Singh, PSPCL Shri T.P.S. Bawa, PSPCL Shri R.B.Sharma, Advocate, BRPL

ORDER

The petition has been filed by NHPC Ltd, a generating company owned and controlled by the Central Government, for revision of tariff in respect of Dhauliganga Hydroelectric Project, Stage-I (4 x 70 MW) ('the generating station'), for the period 1.4.2009 to 31.3.2014 in accordance with clause (1) of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations') after accounting for additional capital expenditure.

2. The generating station comprises of 4 units of 70 MW each and the date of commercial operation of the generating station is 1.10.2005. Petition No. 109/2010 was filed by the petitioner for determination of tariff of the generating station for the period from 1.4.2009 to 31.3.2014 and the Commission by its order dated 14.3.2011 determined the annual fixed charges for the generating station for the period 2009-14. The annual fixed charges determined by order dated 14.3.2011 was as under:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Return on Equity	8307.44	8354.02	8362.78	8363.90	8364.05
Interest on Loan	3549.88	3242.03	2924.37	2601.00	2319.13
Depreciation	8971.20	9016.45	9024.97	9026.05	9026.20
Interest on Working Capital	701.80	712.61	722.53	732.95	745.18
O & M Expenses	5351.45	5657.55	5981.16	6323.28	6684.98
Total	**26881.76**	**26982.66**	**27015.81**	**27047.18**	**27139.53**

3. The petitioner in this petition has claimed revision of tariff for the period 2009-14 based on the actual additional capital expenditure incurred during the period 2009-12 and revised projections for additional capital expenditure for the period 2012-14.

4. The first proviso to Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

5. Replies to the petition have been filed by Respondent No.3, Uttar Pradesh Power Corporation Ltd (UPPCL), Respondent No. 6, BSES Yamuna Power Ltd (BYPL), Respondent No. 10, Ajmer Vidyut Vitran Nigam Ltd (AVVNL) and Respondent No.11, BSES Rajdhani Power Ltd (BRPL), The petitioner has also filed its rejoinder to the said replies.

6. The petitioner's claim for annual fixed charges in this petition is summarized as under:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Return on Equity	11135.66	11060.56	10939.00	8453.34	8856.15
Interest on Loan	3564.65	3272.47	2956.17	2584.86	2304.84
Depreciation	8952.56	8988.79	9008.50	8982.78	8982.93
Interest on Working Capital	760.66	769.08	776.55	733.58	754.23
O & M Expenses	5351.45	5657.55	5981.16	6323.29	6684.98
Total	**29764.99**	**29748.44**	**29661.38**	**27077.85**	**27583.13**

Capital Cost

7. The last proviso to Regulation 7 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides as under:

> *"Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff."*

8. The Commission had considered the capital cost of ₹175341.02 lakh as on 31.3.2009 as the opening capital cost as on 1.4.2009 in order dated 14.3.2011 in Petition No. 109/2010 for the purpose of approval of tariff for the period 2009-14. Accordingly, this capital cost has been considered as on 1.4.2009 for the purpose of revision of tariff in this petition.

Additional Capital Expenditure

9. 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;

(iv) 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."

10. The additional capital expenditure for 2009-14 approved by the Commission vide order dated 14.3.2011 in Petition No.109/2010 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capital Expenditure allowed on projected basis	1480.03	296.45	37.77	4.77	1.00

11. The petitioner in the present petition has claimed following actual additional capital expenditure for the period 2009-12.

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capitalization (before adjustment on account of un-discharged liabilities)	730.48	596.86	(-) 568.64	4.77	1.00
Less: Un-discharged liabilities during the year	1.34	0.52	0.00	0.00	0.00
Add: Liabilities discharged during the year (Related to un-discharged liability included in the actual additional capital expenditure)	0.00	1.11	0.00	0.00	0.00
Add: Liabilities discharged during the year (Related to un-discharged liability as on 31.3.2009)	85.75	122.13	0.00	0.00	0.00
Additional Capital Expenditure claimed	**814.89**	**719.58**	**(-) 568.64**	**4.77**	**1.00**

12. The petitioner has stated that revision of the annual fixed charges has become necessary as there is significant difference between additional capital expenditure allowed and the actual capital expenditure incurred during the years 2009-10, 2010-11 and 2011-12, based on audited books of accounts for the respective year. Moreover, some of addition / deletion allowed by the Commission is not to be incurred and are therefore being surrendered by the petitioner, in this petition.

13. The reconciliation of the actual additional capital expenditure claimed with respect to the additional capital expenditure as per books of accounts, duly certified by auditor for the period 2009-12 is as under:

(₹in lakh)

	2009-10	2010-11	2011-12
Additions as per books (a)	**(-)10075.29**	**983.78**	**5132.83**
Additions claimed (b)			
Additions against works already approved by Commission	696.36	33.26	1.87
Additions not projected earlier but incurred and claimed	34.77	557.74	259.60
Additions on account of IUT (in)	4.89	6.43	0.35
Total (b)	**736.02**	**597.43**	**261.82**
Deletions on account of sale of assets/assets written off (c)	**(-) 4.35**	**(-)0.44**	**(-) 830.28**
Net additions to be claimed (b)+(c)	**731.67**	**596.99**	**(-) 568.46**
Exclusions in additions (incurred, capitalized in books but not to be claimed for tariff purpose) (d1)	(-)10789.38	1188.74	6005.65
Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose) (d2)	(-) 17.58	(-) 801.95	(-) 304.36
Net value of exclusions (d=d1+d2)	**(-) 10806.96**	**386.79**	**5701.29**
Total (e) = (b) +(c) + (d) (as (a) above)	**(-)10075.29**	**983.78**	**5132.83**
Additional Capital Expenditure claimed before deemed deletion / un-discharged/discharged liabilities (b) +(c)	**731.67**	**596.99**	**(-) 568.46**
Add: Deemed deletions	(-) 1.19	(-) 0.13	(-) 0.18
Less: Un-discharged liabilities in the claimed additional capital expenditure	1.34	0.52	0.00
Add: Liabilities discharged during the year (Related to un-discharged liability as on 31.3.2009)	85.75	122.13	0.00
Add: Liabilities discharged during the year (Related to un-discharged liability included in the actual additional capital expenditure)	0.00	1.11	0.00
Additional Capital Expenditure claimed	**814.89**	**719.58**	**(-) 568.64**

14. Based on the above reconciliation, the year-wise admissibility of the works, expenditure allowed by the Commission for these works, actual expenditure against these works along with admissibility of the actual expenditure in terms of the 2009 Tariff Regulations for 2009-10, 2010-11 and 2011-12 under various heads considering the submissions of the parties is discussed in the subsequent paragraphs:

Additions against Works approved in Orders dated 14.3.2011

15. The year-wise actual additional capital expenditure claimed by the petitioner vis-à-vis the additional capital expenditure allowed by the Commission on projected basis in orders dated 14.3.2011 in Petition No. 109/2010 is as under:

(₹in lakh)

	2009-10	2010-11	2011-12
Additional capital expenditure allowed in order dated 14.3.2011 (excluding discharge of liability)	738.51	17.70	37.77
Actual additional capital expenditure claimed	696.36	33.26	1.87

16. The details of works, the expenditure allowed by the Commission for the works, the actual expenditure against these works along with justification for admissibility of the actual expenditure in terms of the 2009 Tariff Regulations for 2009-10, 2010-11 and 2011-12 after prudence check, is summarized as under:

2009-10

(₹in lakh)

Sl.No.	Assets/works	Amount allowed by order dated 14.3.2011	Actual expenditure incurred/ claimed	Decision on admissibility
1	Payment of extension of time claim consequent upon settlement of contingent liability to M/S HCC	330.71	330.71	**Allowed** under Regulation 9(2)(i) as the expenditure is towards payments for settlement in terms of arbitration award.
2	Payment of Extension of time claim consequent upon settlement of contingent liability to M/S Samsung	161.89	161.89	
3	Payment made for Construction of permanent 312 KV DG Room & Panel room at Niglpani in respect of works sanctioned in the Budget Estimate 2008-09	3.00	10.90	The asset has been claimed under Regulation 9(2)(i) without any linkage to arbitration /court award. However, considering the necessity of the assets for successful operation of the plant, expenditure has been **allowed** under Regulation 9(2)(iv).
4	Permanent Post (Pukka Morcha) for armed guards of CISF for - (1) Armory and CISF barracks (2) Around PH gate (3) Dam site (4) Security Gate at PH	6.00	2.42	**Allowed** under Regulation 9(2)(iv) for already approved works. Remaining work was completed in 2010-11.

5	Store room, railing & Toilet at Tapovan	1.90	5.57	**Allowed** under Regulation 9(2)(iv) for already approved works.
6	Wheel Dozer	185.20	173.56	**Allowed** under Regulation 9(2)(iv) for already approved works. After procurement of this asset during 2009-10, the same was transferred to Tanakpur HEP of the petitioner during 2010-11.
7	Laying of OFC & ERP related equipments viz. computers, servers, printers	0.64 {20.00 – 19.36 (de.cap)}	11.17	**Allowed** under Regulation 9(2)(iv) for already approved works. The de-capitalized value of ₹3.35 lakh has been considered under Deletions" and the remaining de-capitalization has been considered under "assumed deletions".
8	Medical Equipment: Glucometer, Oxygen Cylinder, BP Instrument & other Misc. Equipment	1.00 {2.00-1.00 (de-cap)}	0.12	**Allowed** under Regulation 9(2)(iv) for already approved works. Only BP instruments purchased during 2009-10.
Total Expenditure claimed			**696.34**	
Total Expenditure allowed				**696.34**

17. It is evident from the above that against the projected expenditure of ₹738.51 lakh allowed by the Commission for 2009-10, the petitioner has incurred ₹696.34 lakh against works/assets for which projected actual expenditure of ₹690.34 lakh was allowed on projected basis. The expenditure on remaining works/assets has been claimed/will be claimed by the petitioner in ensuing years.

2010-11

(₹ in lakh)

Sl.No.	Assets/works	Amount allowed by order dated 14.3.2011	Actual expenditure incurred/ claimed	Decision on admissibility
1	Control room for VSAT & LDST near VT portal	(-) 12.36 [7.00 - 19.36 (de-cap)]	1.09	**Allowed** under Regulation 9(2)(iv) for already approved works. De-capitalization has been considered under "assumed deletions".
2	ERP related equipment	0.62 [10.00-9.38]	4.26	
Total Expenditure claimed			**5.35**	
Total Expenditure allowed				**5.35**

18. Against the projected expenditure of ₹17.70 lakh allowed by the Commission, the petitioner has incurred expenditure of ₹5.35 lakh against works/assets for which projected expenditure of (-) ₹11.74 lakh (net) was allowed on projected basis. The expenditure on remaining works/assets has been claimed/will be claimed by the petitioner in ensuing years.

2011-12

19. Against the works approved by the Commission during the year 2011-12 in order dated 14.3.2011, no additional capitalization work has been undertaken by the petitioner.

Works allowed in 2009-10 but capitalized in 2010-11

(₹ in lakh)

Sl.No.	Assets/works	Amount allowed by order dated 14.3.2011	Actual expenditure incurred/ claimed	Decision on admissibility
1	Construction of B Type Qtr. at Tapovan-Payment to M/s Acon consequent upon settlement of contingent liability through arbitration	48.17	25.03	**Allowed** under Regulation 9(2)(i) as the expenditure is towards payments for settlement in terms of arbitration.
2	Construction of 3 nos pakka morcha in Power House, Dam site, CISF at dobat	6.00	2.87	**Allowed** under Regulation 9(2)(iv) for already approved works.
Total Expenditure claimed			**27.90**	
Total Expenditure allowed				**27.90**

Works allowed in 2010-11 but capitalized in 2011-12

(₹ in lakh)

Sl.No.	Assets/works	Amount allowed by order dated 14.3.2011	Actual expenditure incurred/ claimed	Decision on admissibility
1	Medical Equipment-Semi Auto Analyzer	3.00	1.87	**Allowed** under Regulation 9(2)(iv) for already approved works.
Total Expenditure claimed			**1.87**	
Total Expenditure allowed				**1.87**

Capital expenditure not allowed /projected earlier, but incurred and claimed

2009-10

(₹ *in lakh*)

Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Decision on admissibility
1	Construction of fire tender shed at Nigalpani	2.57	**Allowed** under Regulation 9(2) (iv) as the asset is considered necessary for upkeep of fire tender which is important equipment from safety view point.
2	Capitalization of sales tax from 2002-03 to 2004-05	10.09	**Allowed** under Regulation 9(2)(i) to meet statutory obligations
3	Online D.C. earth fault locator	3.32	**Not allowed** as the asset is in nature of "Tools and Tackles".
4	Energy meter reading instruments (at generator and transformer ends of each unit)	1.33	The generating station was operating without these meters since COD i.e 1.10.2005. As such, these meters are not essentially required for successful operation of the plant. Moreover, from the expenditure claimed, the assets appear to be of minor nature which is not allowable under the 2009 Tariff Regulations. Accordingly, expenditure has **not been allowed**.
5	Tri-vector energy meter	1.06	
6	Multi-functional energy meter (4 nos.)	0.29	
7	Multi-functional energy meter (4 nos.)	0.83	
8	Energy meter reading instrument	0.50	
9.	Gate valve	0.13	**Not allowed** under Regulation 9(2)(iv), as the expenditure is of recurring nature and shall be met from O&M expenses.
10	Gate valve	0.33	
11	Mobile hydraulic filtration unit	2.95	**Allowed** under Regulation 9(2)(iv) as the equipment is necessary for the efficient operation of the generating station.
12	Outdoor unit (LDST)	11.40	**Allowed** under Regulation 9(2)(iv) for replacement of the old asset. De-capitalization has been considered under "assumed deletions"
Total Expenditure claimed		**34.80**	
Total Expenditure allowed			**27.01**

2010-11

(₹*in lakh*)

Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Decision on admissibility
1.	Building containing Hydro electric generation plant-Escalation claim of M/s HCC	177.32	**Allowed** under Regulation 9(2)(i), as payment has been made due to direction/decision of the District Court, Pithoragarh.
2.	Store at power house	7.54	The expenditure on the assets was not

3.	Construction of stores shed at power house	3.43	allowed in order dated 14.3.2011 in Petition No.109/2010 for want of proper justification. However, the petitioner has now submitted that due to erosion problem of underwater parts, additional underwater components are being procured for which additional storing space was required. In view of the justification, the expenditure is **allowed** under Regulation 9(2)(iv) as the assets are considered to be necessary.
4.	Const. of green room and toilet behind meditation hall at Tapovan	2.52	Construction of green room & toilet at Tapovan was not allowed in order dated 14.3.2011 in Petition No.109/2010. Hence, **not allowed** under Regulation 9(2)(iv).
5.	Side walling with steel panel at MAT, Power house	11.96	Side walling with steel panel at MAT, PH was not allowed in order dated 14.3.2011 in Petition No.109/2010 for want of proper justification. However, petitioner has now submitted that the asset was required to divert the seepage water in main access tunnel. The same was suggested by Dam Safety Team. In view of the justification, the expenditure has been **allowed** under Regulation 9(2)(iv) as the assets are considered necessary.
6.	Dam & barrage- Escalation claim of M/s KD-JV	166.50	**Allowed** under Regulation 9(2)(i), as payment has been made due to direction/decision of the District Court, Pithoragarh.
7.	Power tunnel & pipe line- Escalation claim of M/s Samsung	175.86	
8.	Air circuit breaker	1.26	**Allowed** under Regulation 9(2)(iv), after considering the assumed deletion based on escalation @ 5% per annum of gross value of the new asset, since station is only 8 years old.
9.	Power pack unit for energy meter	0.60	**Not allowed** under Regulation 9(2)(iv), as the expenditure is of recurring nature and is required to be met through O&M expenses.
10.	Overhead water tank (payments for completed balance work)	3.61	Balance work of incomplete water tank was not allowed in order dated 14.3.2011 in Petition No.109/2010. Hence, **not allowed** under Regulation 9(2)(iv).
11.	a) Remote unit for GPS based time synchronization b) control unit for GPS based time synchronization	1.63 (1.01+0.62)	**Allowed** under Regulation 9(2)(iv), as the asset has been procured to meet the guidelines related to time synchronization of numerical protection relays for the protection of generating units and transmission lines as specified by NRLDC.
12.	Suspended Solids Analyzer	3.46	**Not allowed** under Regulation 9(2)(iv) as the asset is in the nature of "Tools

			and Tackles".
13.	Exhaust Fans	2.04	**Not allowed** under Regulation 9(2)(iv), as the asset is of minor nature and is not permissible after the cutoff date, in terms of proviso to Regulation 9(2)(iv).
Total Expenditure claimed		**557.53**	
Total Expenditure allowed			**545.50**

2011-12

(₹in lakh)

Sl.No.	Assets/works	Actual expenditure incurred/ claimed	Decision on admissibility
1.	Providing & Fixing of false ceiling in MAT of power house	15.47	The claim of the petitioner for expenditure on this work/asset for 2009-10 was not allowed in order dated 14.3.2011 in Petition No.109/2010. Hence, **not allowed** under Regulation 9(2)(iv).
2.	Stage in kV at Nigalpani	7.05	
3.	Balance work of incomplete B-type quarters (B-25 to 60) at Nigalpani	203.03	Balance work of incomplete B-type quarters at Nigalpani was not allowed in order dated 14.3.2011 in Petition No.109/2010 However, petitioner has submitted that case was referred to arbitration and was finalized with arbitration award in favour of the firm. The balance work was completed with an amount of ₹21.53 lakh. The already released amount of ₹181.50 lakh, including arbitral award amount of the work was in CWIP. Thus, the total amount of ₹203.03 lakh was capitalized. Hence, **allowed** under Regulation 9(2)(i), in view of justification by the petitioner.
4.	Submersible pump KSB make 3 HP	0.42	**Allowed** under the Regulation 9(2)(iv), against replacement of old pump.
5.	Submersible pump	0.42	**Not allowed** under Regulation 9(2)(iv) as the additional asset is being claimed without de-capitalization of old asset. The expenditure on additional spare pumps required for handling increased seepage through civil structures and de-watering requirements may be met from O&M expenses as the expenditure on additional submersible pumps is of re-curing nature.
6	Three phase welding rectifier set	0.71	**Not allowed** under Regulation 9(2)(iv), as the asset is of minor nature. Moreover, welding machines are already available for maintenance

			purpose and a new portable welding set was purchased as a spare asset.
7	Up-gradation of communication system & expansion of LAN from Admn. Office to PH & dam	17.48	Laying of OFC cable from Tapovan to PH along with other assets for ERP implementation was allowed by the Commission for 2009-10. However, in view of the fact that the expenditure related to laying of OFC cable has not been claimed/incurred during 2009-10, the expenditure on up-gradation of communication system (including OFC laying) & expansion of LAN has been **allowed** along with the de-capitalization amount of ₹19.36 lakh as provided by the petitioner in Petition No. 109/2010 . Accordingly, the de-capitalization of gross value of replaced assets has been considered under "Assumed deletions"
8	DSPT terminal	1.49	**Allowed** under Regulation 9(2)(iv) for up-gradation of communication system.
9	Float cum boost battery charger	1.75	**Allowed** under Regulation 9(2)(iv), after considering deemed deletion based on de-escalation @ 5% per annum of gross value of the new asset, since the generating station is only 8 years old.
10	Transformer OHM Meter	6.24	**Not allowed u**nder Regulation 9(2)(iv) as the assets are in the nature of "Tools and Tackles".
11	Digital micro OHM meter	4.15	
12	Precision level instruments	1.37	**Not allowed** under Regulation 9(2)(iv), as such instruments falls under the category 'tools & tackles', and are not allowed after the cut-off date, in terms of proviso to Regulation 9(2)(iv).
Total Expenditure claimed		**259.58**	
Total Expenditure allowed			**224.17**

Inter-unit Transfers

20. The petitioner has claimed following Additional Capital Expenditure on account of Inter- unit transfers:

(₹ in lakh)

	2009-10	2010-11	2011-12
Inter unit transfers	4.89	6.43	0.35

21. The admissibility of the following assets (year-wise) which were transferred from other stations/offices of the petitioner has been examined as under:

(*₹ in lakh*)

2009-10		
Assets/works	**Actual exp. incurred/ claimed**	**Decision on admissibility**
Media for MS office	4.89	**Not allowed** under Regulation 9(2)(iv), as the asset is of minor nature and is not allowed after the cut-off date, in terms of proviso to Regulation 9(2)(iv).
Total claimed	**4.89**	
Total allowed	**0.00**	
2010-11		
LDST set	6.43	Commission in its order dated 14.3.2011 had allowed purchase of new VSAT for utilization at the dam site. However, the petitioner has transferred the asset from its Dulhasti HEP to this generating station. Hence, inter-unit transfer (in) of the asset has been **allowed.**
Total claimed	**6.43**	
Total allowed	**6.43**	
2011-12		
Motorola Xoom Tablet	0.35	**Not allowed** under Regulation 9(2)(iv), as the asset is of minor nature and is not allowed after the cut-off date, in terms of proviso to Regulation 9(2)(iv).
Total claimed	**0.35**	
Total allowed	**0.00**	

22. Accordingly, capitalization allowed on account of Inter-unit transfers for the purpose of tariff is as under:

(*₹ in lakh*)

2009-10	2010-11	2011-12
0.00	6.43	0.00

Deletions

23. The petitioner has indicated the following amounts as year-wise de-capitalization on account of assets, declared obsolete, sold, survey off, etc. in respect of assets such as computers, printers, energy meters, bus, truck, land free hold, submersible pumps, staff quarters & Inter-unit transfers (out) etc.

(*₹ In lakh*)

	2009-10	2010-11	2011-12
Deletions on account of sale of assets/assets written off during the year/items transferred to obsolete head	(-) 3.99	(-) 0.44	(-) 656.72
Deletions on account of IUT (out)	(-) 0.36	0.00	(-) 173.56
Total deletions claimed (excl. deemed deletion)	(-) 4.35	(-) 0.44	(-) 830.28

24. The deletions on account of sale of assets/assets written-off during the year have been allowed as the corresponding assets do not render any useful service in the operation of the generating station.

Inter-unit transfers (out)

25. The claim of the petitioner towards deletions on account of Inter-unit transfers for additional capitalization is examined as under:

(₹In lakh)

	Assets/works	De-capitalization claimed	Remarks for admissibility
2009-10	Ambassador Car	(-) 0.36	**Allowed**
2011-12	Wheel Dozer	(-) 173.56	**Allowed,** since asset transferred to Tanakpur HEP of the petitioner

26. The de-capitalization of the above amounts as affected in books of accounts has been allowed for the purpose of tariff as the corresponding assets do not render any useful service in the operation of the generating station. Accordingly, the deletions considered for the purpose of tariff are as under:

(₹In lakh)

	2009-10	2010-11	2011-12
Deletions allowed	(-) 4.35	(-) 0.44	(-) 830.28

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

27. The petitioner has prayed that the following positive entries effected in books of accounts on account of replacement of minor assets, purchase of capital spares, transfer to obsolete head, Inter head adjustments(matching positive and negative entries), etc. may be excluded/ignored for the purpose of tariff:

(₹in lakh)

	2009-10	2010-11	2011-12
Expenditure on replacement of minor assets, purchase of capital spares, (incurred, capitalized in books but not to be claimed for tariff purpose)	370.31	11.37	39.40
Inter head adjustments (positive contra entries)	6.66	791.62	301.54
Inter-unit transfer (in) of minor asset	0.78	0.00	0.00
Transfer to obsolete head (positive adjustments)	0.00	1.89	0.44

FERV Exclusion	**(-)11167.13**	**383.86**	**5664.26**
Total	**(-) 10789.38**	**1188.74**	**6005.65**

28. The expenditure incurred on procurement/replacement of minor assets and procurement of capital spares is not allowed for the purpose of tariff after the cut-off date under the 2009 Tariff Regulations. Accordingly, the petitioner itself has put these additions (directly purchased at the station/inter unit transfer (in) of minor assets) under exclusion category. The exclusion of positive entries arising due to assets transferred to obsolete head is allowable as the corresponding assets do not render any useful service in the operation of the plant. Further, exclusion/ignoring of Inter head adjustments & transfer to obsolete head (matching positive entries in additions and negative entries in deletions) is also allowed for the purpose of tariff. In view of the fact that ERV gain/loss is being billed directly to the beneficiaries the exclusion of ERV gain/loss as claimed by the petitioner is allowed for the purpose of tariff.

29. In view of the above, the exclusion of the positive entries as claimed by the petitioner (along with FERV gain/loss) as above, is allowed for the purpose of tariff.

Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)

30. The petitioner has prayed that following negative entries as effected in the books of accounts pertaining to de-capitalized minor assets such as computers, office equipment, furniture, fixed assets of minor value less than ₹5000 etc., pertaining to assets sold/written off may be excluded/ignored for the purpose of tariff:

(₹In lakh)

	2009-10	**2010-11**	**2011-12**
De-cap of minor assets, tools and tackles which are not considered by Commission for additional capitalization	(-) 10.42	(-) 3.16	(-) 2.38
Inter-unit transfer (out) of minor assets	(-) 0.50	(-) 5.28	(-) 0.50
Inter head adjustments(negative contra entries)	(-) 6.66	(-) 791.62	(-) 301.04
Transfer to obsolete head (negative adjustments)	0.00	(-) 1.89	(-) 0.44
Total Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)	**(-) 17.58**	**(-) 801.95**	**(-) 304.36**

31. The petitioner has prayed that negative entries arising out of de-capitalization of minor assets/inter-unit transfer (out) of minor assets may be excluded/ ignored for the purpose of tariff as the corresponding positive entries for purchase of minor assets are not being allowed for the purpose of tariff. The petitioner has also prayed that de-capitalization of minor assets may be ignored in terms of Commission's order dated 7.9.2010 in Petition No.190/2009 which reads as under:

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

32. The respondent BRPL in its reply has submitted that reliance made by the petitioner to the observations contained in the Commission's order dated 7.9.2010 is not acceptable as the said order was covered under the 2004 Tariff Regulations, whereas the instant case is governed by the provisions of the 2009 Tariff Regulations. Accordingly, the respondent has prayed that the de-capitalized minor assets shall be deleted from the capital cost as per proviso to Regulation 7(1)(c) of the 2009 Tariff Regulations. In response, the petitioner in its rejoinder has clarified as under:

> *"The contention of the respondent that de-capitalization of minor assets, tools and tackles, furniture and fixtures etc. is required to be adjusted in the capital cost as per proviso under regulation 7(1) (c) of the Tariff Regulations, 2009 is not justified, since proviso under Regulation 7(1) (c) is for the assets which are allowed by CERC under regulation-7,8 & 9 of CERC Tariff Regulations, 2009. This can be under stood from the combined reading of regulation 7, 8 & 9. From combined reading of above regulations it is clear that those assets which are forming part of capital cost of hydro generating station i.e. (a) actual expenditure up to cut-off date within the original scope including initial spares for new generating stations (read regulation- 7(1)(a), 8(iii) & 9(1)) and (b) additional capitalization allowed under regulation 9(2)(i), (ii) & (iv), if declared not in use would be taken out from capital cost. Therefore, additional capitalization not allowed under the provision of 9(2) for the purpose of tariff, if declared not in use/obsolete/ de-capitalized should not be taken out from the capital cost for the purpose of tariff"*

33. We have considered the submissions of the parties. The provisions of both, the 2004 and the 2009 Tariff Regulations provide that the expenditure on minor items/assets, tools and tackles

etc brought after the cut-off date shall not be considered for additional capitalization for determination of tariff. Considering the fact that new assets of minor nature are not considered for capitalization on account of implication of the regulations, the Commission in its order dated 7.9.2010 had concluded that the value of the old assets would continue to form part of the gross block and at the same time the cost of new assets would not be taken into account. In our view, the generating station in this case, having been denied the capitalization of minor assets on account of the provisions of the regulations, should not be debarred from servicing the cost of minor assets originally included in the capital cost of the project and replaced by new assets. Accordingly, in line with the decision contained in order dated 7.9.2010 and for the purpose of consistency, the submissions of the petitioner is accepted. Hence, the negative entries corresponding to the deletion of minor assets have been allowed to be excluded/ignored for the purpose of tariff, as prayed for by the petitioner. Further, the negative values arising out of intra head adjustments and assets transferred to obsolete head are allowed to be excluded as the corresponding matching positive entries have been allowed for exclusion, thus having no impact on tariff. In view of the above, the exclusion of negative entries as claimed by the petitioner is allowed for the purpose of tariff.

Assumed deletions

34. As per consistent methodology adopted by the Commission, expenditure on replacement of assets, if found justified is allowed for the purpose of tariff provided that the capitalization of the said asset is followed by the de-capitalization of the gross value of the old asset. However, in certain cases where de-capitalization is proposed to be effected /affected during the future years to the year of capitalization of new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as “Assumed deletion”. The amounts considered by the petitioner under this head are as under:

(₹In lakh)

	2009-10	2010-11	2011-12
Assumed deletions	(-) 1.19	(-) 0.13	(-) 0.18

35. Assumed deletions based on the 10% value of the actual expenditure on new addition as claimed by the petitioner is not acceptable as this generating station is 8 years old (approx) only. Accordingly, the assumed deletion has been worked out assuming the gross value of the new asset being de-escalated @ 5% per annum from the year of its capitalization. Deemed deletion of the assets under replacement is given as under:

(₹In lakh)

Asset	Gross value of new asset	Assumed deletion value allowed
2009-10		
LDST	11.40	9.29
2010-11		
Air circuit breaker	1.26	0.97
2011-12		
Float cum battery charger	1.75	1.29

36. In addition to above, the assumed deletion of 'Gate valve' amounting to ₹0.05 lakh during 2009-10 has not been considered, since capitalization of the asset, being minor in nature, has not been allowed.

37. It is observed that against the part expenditure allowed during 2009-10 for procurement of hardware related to ERP against laying of OFC & ERP related equipments viz. computers, servers, printers", and part expenditure allowed during 2011-12 for laying of OFC along with LAN equipment, the petitioner has not provided the de-capitalized value of the replaced assets. Accordingly, in line with the methodology adopted in order dated 14.3.2011 in Petition No.109/2010, an amount of ₹19.36 lakh is to be de-capitalized against the capitalization of expenditure related to "laying of OFC & ERP related equipments viz. computers, servers, printers". Accordingly, an amount of (-) ₹16.01 lakh (19.36-3.35) has been considered under "Assumed Deletions" in the year 2011-12 after adjustment of an amount of ₹3.35 lakh indicated

by the petitioner under regular deletions against the procurement of hardware related to ERP during 2009-10.

38. Further, against the capitalization of Control room for VSAT & LDST near VT portal during 2010-11, the petitioner has not provided/indicated any de-capitalization value pertaining to the old asset damaged due to landslide. Accordingly, in line with the methodology adopted in order dated 14.3.2011 in Petition No.109/2010, an amount of Rs.19.36 lakh is de-capitalized under "Assumed deletion".

39. Further, the Commission in its order dated 14.3.2011 in Petition No. 109/2010 had approved an amount of ₹10.00 lakh on projected basis, and considered the de-capitalization value of ₹9.38 lakh for "ERP related equipment" during 2010-11, based on the submission of the petitioner. However, the petitioner has incurred actual expenditure of ₹4.26 lakh (part procurement) without indicating the corresponding de-capitalised amount. Accordingly, an amount of ₹4.00 lakh has been considered as the de-capitalization value on *pro rata* basis, under 'assumed deletions'.

40. In view of the above, the deemed deletions considered for the purpose of tariff against the deletions claimed by the petitioner are as follows:

(₹In lakh)

	2009-10	2010-11	2011-12
Deemed deletion allowed	**(-) 9.29**	**(-) 24.33** [(-)0.97+(-)19.36+(-) 4.00]	**(-) 17.30** [(-)1.29+(-)16.01]

41. In view of the above deliberations, the actual additional capital expenditure for period 2009-12 allowed prior to adjustment of un-discharged liabilities and discharge of liabilities, for the purpose of tariff is as under:

(₹In lakh)

	2009-10	2010-11	2011-12
Additions allowed (a)			
Additions against works already approved by Commission	696.34	33.25	1.87
Additions not projected earlier but incurred	27.01	545.50	224.17

and claimed			
Additions on account of Inter-unit transfers (in)	0.00	6.43	0.00
Total (a)	**723.35**	**585.18**	**226.04**
Deletions on account of sale of assets/assets written off/ Inter-unit transfers deletions allowed (b)	(-) 4.35	(-) 0.44	(-) 830.28
Net additions allowed before assumed deletion / un-discharged/discharged liabilities (c)= (a)+(b)	719.00	584.74	(-) 604.24
Assumed deletions considered (d)	**(-) 9.29**	**(-) 24.33**	**(-) 17.30**
Net additions allowed after accounting for assumed deletion but before adjustment of un-discharged/discharged liabilities (e)= (c)+(d)	**709.71**	**560.41**	**(-) 621.54**

Un-discharged liabilities

42. The petitioner has indicated the following un-discharged liabilities/discharge of liabilities in additional capital expenditure during the period 2009-12:

(*₹ in lakh*)

	2009-10	**2010-11**	**2011-12**
Un-discharged liabilities included in Additional capitalization	1.34	0.52	0.00
Liabilities discharged during the year -related to un-discharged liability existed as on 31.3.2009	85.75	122.13	0.00
Liabilities discharged during the year for the Additional capitalization for 2009-12	0.00	1.11	0.00

43. The liabilities discharged as above (year-wise) have been allowed as additional capital expenditure for the purpose of tariff in terms of Regulation 9(2)(viii) of 2009 Tariff Regulations, amended on 31.12.2012.

Projected Additional Capital Expenditure during 2012-13 and 2013-14

44. The petitioner has not made any revision in the projected additional capital expenditure of ₹4.77 lakh and ₹ 1.00 lakh for the years 2012-13 and 2013-14, allowed by the Commission vide order dated 14.3.2011 in Petition No. 109/2010.

Actual additional capital expenditure allowed during 2009-12

45. In view of above discussions, the actual /projected Additional Capital Expenditure for period 2009-14 allowed for the purpose of tariff, is summarized as under:

(₹ in lakh)

		2009-10	2010-11	2011-12	2012-13	2013-14
		ACTUAL			PROJECTED	
	<u>Addition</u>					
1	Addition against work already approved by Commission	696.34	33.25	1.87	22.00	2.00
2	Capitalization against works allowed in previous year but actually incurred in subsequent years	27.01	545.50	224.17	0.00	0.00
3	Addition not projected earlier but incurred and claimed	0.00	6.43	0.00	0.00	0.00
4	**Total Addition (1+2+3)**	**723.35**	**585.18**	**226.04**	**22.00**	**2.00**
	<u>Deletion</u>					
5	Deletion allowed	4.35	0.44	830.28	6.73	1.00
6	Assumed Deletion	9.29	24.33	17.30	10.50	0.00
7	**Total Deletion (5+6)**	**13.64**	**24.77**	**847.58**	**17.23**	**1.00**
8	**Total Additional Capital Expenditure allowed before adjustment of discharge/un-discharge of liabilities (4-7)**	**709.71**	**560.41**	**(-) 621.54**	**4.77**	**1.00**
9	Less: Un-discharged liabilities in the admitted Additional Capital Expenditure	1.34	0.52	0.00	0.00	0.00
10	Add: Liabilities discharged during the year out of Additional Capital Expenditure during 2009-12	0.00	1.11	0.00	0.00	0.00
11	Add: Liabilities discharged during the year (Related to un-discharged liabilities as on 31-3-2009)	85.75	122.13	0.00	0.00	0.00
12	**Additional Capital Expenditure allowed (8-9+10+11)**	**794.12**	**683.13**	**(-) 621.54**	**4.77**	**1.00**

Capital Cost

46. The capital cost allowed for the purpose of the annual fixed charges is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	175341.02	176135.14	176818.27	176196.73	176201.50
Additional Capital Expenditure	794.12	683.13	(-) 621.54	4.77	1.00
Closing Capital Cost	**176135.14**	**176818.27**	**176196.73**	**176201.50**	**176202.50**

Debt- Equity Ratio

47. Regulation 12 of the 2009 Tariff Regulations provides as under:

"(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."

48. The petitioner has submitted that the additional capital expenditure has been financed through internal resources. In terms of the above said regulations, the debt-equity ratio of 70:30 has been considered on the additional capital expenditure allowed for the purpose of tariff.

Return on Equity

49. Regulation 15 of the 2009 Tariff Regulations provides as under:

*"15. **Return on Equity**. (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% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall 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:

Rate of pre-tax return on equity = 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 Charge 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 the 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.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:
Rate of return on equity = 15.50/ (1-0.1133) = 17.481%
(ii) In case of generating company or the transmission licensee paying normal corporate tax @ 33.99% including surcharge and cess:
Rate of return on equity = 15.50/ (1-0.3399) = 23.481%"

50. The petitioner has claimed Rate of Return on Equity as follows:

	2009-10	2010-11	2011-12	2012-13	2013-14
	ACTUAL			PROJECTED	
Base Rate	15.5%	15.5%	15.5%	15.5%/16.5%	15.5%
Applicable Tax Rate	33.990%	33.218%	32.445%	11.330%	11.330%
Tax Rate	30%	30%	30%	10%	10%
Surcharge	10%	7.50%	5%	10%	10%
Education cess	3%	3%	3%	3%	3%
Rate of ROE (pre-tax)	23.481%	23.210%	22.944%	17.762%	18.608%

Note: - Base Rate has been changed from 15.5% to 16.5% for storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage vide 2009 Tariff Regulations amended on 31.12.2012. The rate of ROE (pre-tax) for the year 2012-13 (17.762%) is the composite rate calculated for the year.

51. Accordingly, the petitioner is entitled to Return on Equity as under:

(₹ In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	47301.89	47540.12	47745.06	47558.60	47560.03
Addition due to Additional Capital Expenditure	238.24	204.94	(-) 186.46	1.43	0.30
Closing Equity	47540.12	47745.06	47558.60	47560.03	47560.33
Average Equity	47421.01	47642.59	47651.83	47559.32	47560.18
Return on Equity	**11134.93**	**11057.85**	**10933.24**	**8447.49**	**8850.00**

Interest on Loan

52. The salient features of computation of interest on loan allowed in tariff are summarized below:

(i) The opening gross normative loan as on COD of each unit has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations.

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

(iii) The repayment for the year of the tariff period 2009-14 has been considered equal to the depreciation allowed for that year.

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

53. Interest on Loan has been calculated as under:

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Gross Normative Loan	128039.13	128595.02	129073.21	128638.13	128641.47
Cumulative Repayment up to Previous Year	13704.41	22656.45	31643.25	40647.48	49624.70
Net Loan-Opening	114334.72	105938.57	97429.96	87990.65	79016.77
Repayment during the year	8952.04	8986.80	9004.24	8977.22	8977.36
Addition due to Additional Capitalization (2009-14)	555.88	478.19	(-) 435.08	3.34	0.70
Net Loan-Closing	105938.57	97429.96	87990.65	79016.77	70040.11
Average Loan	110136.65	101684.27	92710.30	83503.71	74528.44
Weighted Average Rate of Interest on Loan	3.236%	3.217%	3.187%	3.093%	3.090%
Interest	**3564.43**	**3271.64**	**2954.45**	**2583.15**	**2302.81**

Depreciation

54. The weighted average rate of depreciation of 5.094%, 5.092% and 5.101**%** for the years 2009-10, 2010-11 and 2011-12 respectively, have been considered for the calculation of depreciation. Assets amounting to ₹13.64 lakh, ₹24.77 lakh, ₹847.58 lakh, ₹17.23 lakh and ₹1.00 lakh (as indicated in Sl.no.7 of the table under para 45 above) have been de-capitalized during the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively. As per methodology adopted, the amount of cumulative depreciation allowed in tariff against those de-capitalized assets has been calculated on *pro rata* basis. Further, proportionate adjustment has been made to the cumulative depreciation on account of de-capitalization of assets considered for the purpose of tariff. The necessary calculations in support of depreciation are as under.

(₹In lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Gross Block as on 31.3.2009	175341.02	176135.14	176818.27	176196.73	176201.50
Additional capital expenditure during 2009-14	794.12	683.13	-621.54	4.77	1.00
Closing gross block	176135.14	176818.27	176196.73	176201.50	176202.50

Average gross block	175738.08	176476.70	176507.50	176199.11	176202.00
Land related Cost	1012.35	1012.35	715.75	715.75	715.75
Rate of Depreciation	5.094%	5.092%	5.101%	5.095%	5.095%
Depreciable Value	157253.16	157917.92	158212.57	157935.03	157937.62
Remaining Depreciable Value	143553.13	135267.61	126579.90	117492.66	108522.87
Depreciation	**8952.04**	**8986.80**	**9004.24**	**8977.22**	**8977.36**

O & M Expenses

55. The following O & M expenses considered in the order dated 14.3.2011 in Petition No. 109/2010 has been considered for tariff.

(₹ In lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
5351.45	5657.55	5981.16	6323.28	6684.98

Interest on Working Capital

56. 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.

57. Necessary computations in support of interest on working capital are appended hereunder:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	802.72	848.63	897.17	948.49	1002.75
O & M expenses	445.95	471.46	498.43	526.94	557.08
Receivables	4960.58	4957.13	4941.56	4510.74	4594.85
Total	6209.25	6277.23	6337.17	5986.17	6154.68
Interest on Working Capital @12.25%	**760.63**	**768.96**	**776.30**	**733.31**	**753.95**

Annual Fixed Charges

58. The Annual Fixed Charges approved for the generating station are consolidated in the table below:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	11134.93	11057.85	10933.24	8447.49	8850.00
Interest on Loan	3564.43	3271.64	2954.45	2583.15	2302.81
Depreciation	8952.04	8986.80	9004.24	8977.22	8977.36
Interest on Working Capital	760.63	768.96	776.30	733.31	753.95
O & M Expenses	5351.45	5657.55	5981.16	6323.28	6684.98
Total	**29763.47**	**29742.79**	**29649.38**	**27064.43**	**27569.10**

59. The recovery of the Annual Fixed Charges shall be subject to truing up in terms of Regulation 6 of the 2009 Tariff Regulations.

60. The difference between the Annual Fixed Charges already recovered by the petitioner and the Annual Fixed Charges determined under this order shall be mutually settled between the petitioner and the respondents, in terms of the clause (6) of Regulation 6 of the 2009 Tariff Regulations.

61. Petition No. 229/GT/2013 stands disposed of in terms of the above.

Sd/-	*Sd/-*	*Sd/-*
[A.K.Singhal]	**[M. Deena Dayalan]**	**[Gireesh B.Pradhan]**
Member	**Member**	**Chairperson**