

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 294/2009

**Coram: Shri S. Jayaraman, Member
Shri M.Deena Dayalan, Member**

DATE OF HEARING: 28.10.2010

DATE OF ORDER: 30.9.2011

IN THE MATTER OF

Fixation of tariff in respect of sale of power from Kopili Hydro Electric Project-Kopili Power Station (4 x 50 MW) of North Eastern Electric Power Corporation Ltd, Shillong for the period from 1.4.2009 to 31.3.2014.

AND IN THE MATTER OF

North Eastern Electric Power Corporation Ltd, Shillong

..... Petitioner

Vs

1. Assam State Electricity Board, Guwahati
2. Meghalaya State Electricity Board, Shillong
3. Department of Power, Government of Tripura, Agartala
4. Power and Electricity Department, Government of Mizoram, Aizawl
5. Electricity Department, Government of Manipur, Imphal
6. Department of Power, Government of Arunachal Pradesh, Itanagar
7. Department of Power, Government of Nagaland, Kohima
8. North Eastern Regional Power Committee, Shillong
9. North Eastern Regional Load Despatch Centre, Shillong

.....Respondents

The following were present:

1. Shri P. K. Borah, NEEPCO
2. Shri Rana Bose, NEEPCO
3. Ms. Debjani Dey, NEEPCO
4. Shri A.C.Sarmoh, NEEPCO
5. Shri H.M.Sharma, ASEB
6. Shri K.Goswami, ASEB
7. Shri R.Kapoor, ASEB
8. Shri A.Kharpan, MeECL
9. Shri T.Passah, MeECL
10. Shri A.Gan Choudhury, TSECL
11. Shri A.Das, TSECL

ORDER

The petitioner has filed this petition for fixation of tariff in respect of Kopili Hydro Electric Project-Kopili Power Station (4x50 MW) (hereinafter referred to as



“the generating station”) of North Eastern Electric Power Corporation Ltd, for the period from 1.4.2009 to 31.3.2014 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 regulations”).

2. The date of commercial operation of the units of the generating station is as under:

Units	Date of commercial operation
Unit-I	5.7.1988
Unit-II	22.6.1988
Unit-III	1.5.1997
Unit-IV	12.7.1997

3. The tariff for the generating station for the period from 1.4.2004 to 31.3.2009 along with additional capitalization/de-capitalization during the years 2004-05 and 2005-06 was determined by the Commission vide its order dated 19.2.2008 in Petition No.76/2007 based on the capital cost of ₹25766.53 lakh as on 31.3.2006. Subsequently, the annual fixed charges for the period 2006-09 were revised by Commission’s order dated 2.6.2010 in Petition No.210/2009 after considering the impact of additional capital expenditure for the period 2006-09. The annual fixed charges approved by the Commission vide order dated 2.6.2010 is as under:

	<i>(₹ in lakh)</i>		
	2006-07	2007-08	2008-09
Depreciation	658.91	660.51	672.44
Interest on Loan	317.61	266.70	228.43
Return on Equity	1802.38	1805.02	1824.62
Advance Against Depreciation	0.00	0.00	0.00
Interest on Working Capital	161.72	166.27	171.78
O & M Expenses	2768.60	2879.35	2994.52
TOTAL	5709.21	5777.85	5891.79

4. The annual fixed charges claimed by the petitioner for the period 2009-14 is as stated overleaf:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	2494.52	2580.61	2712.32	2897.11	3097.25
Interest on Loan	233.38	266.98	340.41	460.66	580.51
Depreciation	697.73	765.20	859.56	1029.09	1252.51
Interest on Working Capital	303.36	320.53	340.80	365.52	392.53
O & M Expenses	4637.34	4902.60	5183.03	5479.50	5792.93
Total	8366.33	8835.92	9436.12	10231.88	11115.73

5. Reply to the petition has been filed by Assam Power Distribution Company Ltd (APDCL), the *erstwhile* ASEB (the respondent No.1).

6. During the hearing on 28.10.2010, the respondent No.1, raised preliminary issue and submitted that revision of tariff of the generating station for 2009-14 by the petitioner after considering the approved additional capital expenditure for the year 2006-09 cannot be considered since the petitioner has not effected the publication of the amended application in terms of Clause (2) of Section 64 of the Electricity Act, 2003 (Act). The respondent No.1 also submitted that the petitioner was required to file details of the annual revenue requirement (ARR) as per Sections 62(5) of the Act and paragraph 5.3 (h) (3) of the Tariff Policy. Similar arguments have also been put forth by the respondent No. 3, Tripura State Electricity Corporation Limited (TSECL), the *erstwhile* Department of Power, Government of Tripura.

7. Clause (2) of Section 64 of the Electricity Act, 2003 provides as under:

“Every applicant shall publish the application, in such abridged form and manner, as may be specified by the appropriate Commission”

8. In line with the above provision, the Commission has notified the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, wherein Clause (6) of Regulation 3 provides as under:

“The applicant shall, within 7 days after making the application, publish a notice of his application in at least two daily newspapers, one in English language and one in vernacular language, having circulation in each of the State/Union Territory where the beneficiaries are situate in the same language as of the daily newspaper in which the notice of the application is published, as per the specimen given in the schedule to these regulations”

9. It is clear from the above that the notice of the application for determination of tariff needs to be published by the petitioner as per specimen provided in the schedule to the said regulations. The petitioner, in compliance with the above had effected publication of notice of the application for determination of tariff for 2009-14 after posting the same in its web-site and after service of copy of the complete application on each of the beneficiary.

10. During the proceedings held on 17.8.2010, the Commission directed the petitioner to file the adjustment statement of the capital cost, as admitted by the Commission as on 31.3.2009 for the generating stations after taking into consideration the tariff orders of the Commission for the period 2004-09 with copy to the respondents, including the consumer respondent.

11. The petitioner, in terms of the above directions had amended its tariff application by revising the tariff forms of the generating station after taking into consideration the tariff orders of the Commission for the period 2004-09 and after serving copies of the same to all the respondents including the consumer respondent. Since compliance made by the petitioner was as per directions of the Commission, we are of the view that there is no need for the petitioner to again publish notice of the amended application. Moreover, the expense involved in publication of notice of application is required to borne by the respondents. In view of these, the submission of the respondents on this count is liable to be rejected.

12. On the issue of filing details of 'annual revenue requirement', the petitioner has submitted that determination of tariff is governed by the 2009 regulations and there is no provision in the said regulations for filing of annual revenue requirement as part of the tariff petition. As regards compliance with paragraph 5.3 (h)(3) of the Tariff policy, the petitioner has submitted that the same could not be read in isolation and that the Act and the Tariff policy lay out the principles for the Commission to formulate and issue tariff regulations. The 2009 regulations are deemed to have thus fulfilled the requirements of the Act and the tariff policy. The petitioner has thus prayed for rejection of the submissions made by the respondent Nos. 1 and 3 on these counts.

13. The generating companies or the transmission licensees (as the case may be) are permitted to charge tariff on the basis of the provisions of the tariff regulations specified by the Commission. The 2009 regulations for the control period 2009-14 provide for detailed procedures for calculation of different elements of tariff. The generating companies and transmission licensees are required to file tariff petitions containing the detailed calculation of different elements of tariff in accordance with the provisions of the regulations. The Commission in the course of proceedings also calls for any further information including revised calculations as is considered necessary for determination of tariff. Such data/information is utilized by the Commission for prudence check while determining the tariff of the generating companies and transmission licensees falling within its jurisdiction. Also, in terms of clause (1) of Regulation 6 of the 2009 regulations, the Commission shall carry out trueing up, exercise along with the tariff petition filed for the next period with respect to the capital expenditure including additional capital expenditure incurred upto 31.3.2014 as admitted by the Commission after prudence check at the time of

truing up and accordingly, in terms of clause (3) of the said regulations, the generating company/transmission licensee (as the case may be) shall submit for the purpose of truing up details of the capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014 duly audited and certified by auditors.

14. The Commission in terms of the powers conferred Section 62(5) of the Act has notified on 16.4.2010, the Central Electricity Regulatory Commission (Procedures for calculating the expected revenue from tariffs and charges) Regulations, 2010 wherein a generating company or a transmission licensee, who has made an application for determination of tariff under the regulations, shall submit information in the formats in respect of expected revenue from tariffs and charges determined by the Commission from time to time. In compliance with the said regulations, the petitioner has submitted the information to the Commission on 30.11.2010. As regards filing of ARR, the Appellate Tribunal for Electricity in its judgment dated 24.5.2011 in Appeal Nos. 100, 103 of 2009 & 146, 151 of 2010 (UPPCL-v- CERC, NTPC & ors) has held as under:

“11.3. The existing regulations of the Central Commission provide for a normative tariff and there is no provision to file ARR as suggested by the appellants. Thus the filing of ARR is not according to the scheme of things as existing in the tariff Regulations. Accordingly, this issue is also decided against the appellant.”

15. In view of the above, the submissions of the respondents, APDCL and TSECL is not acceptable. Accordingly, we now proceed with the determination of tariff of the generating station for 2009-14.

CAPITAL COST

(A) Capital Cost as on 1.4.2009

16. The last proviso of Clause 2 of Regulation 7 of the 2009 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.”

17. The Commission vide its order dated 2.6.2010 in Petition No. 210/2009 had approved the capital cost of ₹26734.91 lakh as on 31.3.2009, after taking into account the additional capital expenditure for the period 2006-09. Accordingly, in terms of the above proviso, the capital cost of ₹26734.91 lakh has been considered as the opening capital cost as on 1.4.2009.

Additional Capital Expenditure for 2009-14

18. Regulation 9 of the 2009 regulations provides as under:

“9. Additional Capitalization (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 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.

19. The petitioner has claimed the additional capital expenditure in terms of Regulation 9 (2)(iv) of the 2009 regulations as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Expenditure incurred due to any additional work necessary for successful and efficient plant operation - Regulation 9(2)(iv)	1325.15	1748.55	2953.25	3643.75	3501.25
Additional capitalization claimed	1325.15	1748.55	2953.25	3643.75	3501.25

20. After examining the asset-wise details and justification for additional capitalization claimed by the petitioner under various categories, the reply of the respondents and by applying prudence check, the admissibility of additional capitalization is discussed in the subsequent paragraphs.

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

21. The petitioner has claimed expenditure of ₹1325.15 lakh for 2009-10, ₹1748.55 lakh for 2010-11, ₹.2953.25 lakh for 2011-12, ₹3643.75 lakh for 2012-13 and ₹3501.25 lakh for 2013-14 under this head.

22. The assets projected to be capitalized under this head include winding limb, guide apparatus, top cover and pivot ring, francis runner, central AC system, 245 kV SF6 breaker, tubes for different coolers, repairing of eroded under water components acid resistant coating, runner disk, buildings, silt monitoring and plantation, spare generator transformer, transformer oil, oil coolers, 245 kV CT, rotor leads, thrust pads, digital voltage regulator, runner cone, lever strap, oil filtration plant, spares for MIV servo motor, repair and extension of existing spur, renovation and modernization of Units-1 and 2, SS top cover and pivot ring, coating on spiral casing, hydraulic control panel, online vibration monitoring system, repairing of MIV and application protective coating, protection relay, closed loop system, repairing of butterfly valve etc., and towards implementation of the recommendations of CEA and CWC and experts committee to protect hydraulic structure of the plant from acidic inflow and some other assets.

23. We now examine the claim of the petitioner for replacement of assets damaged due to acidic nature of water. It is observed that most of the items/assets which have been damaged and replaced or repaired due to acidic nature of water (pH value 3.36 to 5.44 instead of the normal pH value of 6.5 to 8.5) are sought to be replaced. The quality of the water became evident during the period after June, 2006, when the same was tested by the Geological Survey of India, North Eastern Region, Shillong, the Meghalaya State Pollution Control Board and the Centre for Soil and Material Research Station (CSMRS), New Delhi. The expert committee comprising of the CEA, CWC and the CSMRS had also visited the project site during the period from 27.2.2009 to 3.3.2009 and has suggested for routine testing of water in the area, concrete core drilling at specified locations in Khandong Dam, test of silt & slush, monitoring of seepage etc., Repair and replacement of corroded

machine components, replacement of guide vanes with stainless steel materials, replacement of cooling pipes and tubes with suitable materials with epoxy coating. The expert committee had also recommended various short-term and long-term measures to be taken up. In the light of the recommendations of the expert committee, the petitioner has sought the replacement of assets/repair of assets and procurement of new assets, on account of damage caused due to the acidic nature of water. Taking into consideration the recommendations of the expert committee and since these assets are necessary for the efficient operation of the generating station, we are of the view that the expenditure to be incurred for replacement of the assets/repair of the assets and the procurement of new assets on account of the damage caused due to the acidic nature of water should be allowed in terms of Regulation 9(2)(iv) of the 2009 regulations. We proceed accordingly. However, it is expected that the expenditure towards treatment of the assets in order to encounter the acidic nature of water should not be frequent (within a year or two) and should be for a longer period (more than five years), failing which, the expenses cannot be capitalized and would fall under the category of O & M expenses for which the petitioner may be required to approach the Commission separately with a detailed project report for carrying out the renovation works, which would be considered in accordance with law.

24. Based on the above, on prudence check, the additional capital expenditure allowed/disallowed for the respective years for the period 2009-14 under Regulation 9(2)(iv) has been tabulated under the following heads:

- (a) Assets (towards replacement, repairs and new assets) on account of acidic nature of water;
- (b) Assets (towards replacement, repairs and new assets) other than due to acidic nature of water; and
- (c) Assets disallowed.

(a) Assets allowed (towards replacement, repairs and new assets) on account of acidic nature of water:

Year	Name of asset/works projected to be capitalized	Amount allowed (₹ in lakh)
2009-10	REPLACEMENT	
	Procurement of 1(one) No winding limb suitable for 20 MVA, 1 phase, 11/220 kV EMCO make Generator Transformer (GT).	55.23
	Procurement of Guide Apparatus (GA) (Piston Ring, Sleeve, Bush, Throttle, Cup Seal etc.) from M/s BHEL	25.74
	Procurement of Guide Apparatus (GA) (Piston Ring, Sleeve, Bush, Throttle, Cup Seal etc.) from M/s BHEL	24.72
	Procurement of 4 sets of Top Cover & Pivot Ring Stainless Steel (SS)	89.80
	Procurement of lever, strap and dowel pin for 2(two) sets of Guide Vanes.	3.80
	Procurement of 70:30 Cu Ni tubes for different coolers from M/s A1 Industries, Mumbai.	27.46
	Procurement of 70:30 Cu Ni tubes for different coolers from M/s A1 Industries, Mumbai.	15.24
	Procurement of transformer oil from M/s IOCL, Guwahati.	15.75
	Procurement of 4 Nos. Runner Cone (SS) from M/s BHEL	2.50
	Procurement of 70:30 Cu Ni tubes for different coolers from M/s A1 Industries, Mumbai.	10.72
	Procurement of Guide Apparatus from M/s BHEL.	28.21
	Procurement of 70:30 Cu Ni tubes for Lower Guide Bearing/Upper Guide Bearing and thrust coolers from M/s A1 Industries, Mumbai.	13.65
	Procurement of Oil Cooler (Tube bundle assembly) with 70: 30 Cu Ni tubes for Generator Transformers (GTs) from M/s A1 Industries, Mumbai.	43.21
	REPAIRS	
	Repairing of eroded under water components of Unit # I	118.00
	Application of acid resistant coating on the repaired under water components of Unit # I.	40.00
	NEW ASSETS	
	Procurement of heavy duty Electric Resistant Welded (ERW) pipes.	3.00
	Total	517.03
2010-11	REPLACEMENT	
	Procurement of 1(one) no winding limb suitable for 20 MVA, 1 phase, 11/220 KV EMCO make Generator Transformer (GT).	90.00
	Procurement of 2(two) Nos. 245 KV, SF6 breaker from M/s Crompton Greaves Ltd.	29.26
	Procurement of 70:30 Cu Ni tubes for different coolers from M/s A1 Industries, Mumbai.	35.00
	Procurement of Turbine Guide Bearing cooler bundle of 70:30 Cu Ni tubes for Unit # I & II.	15.00
	Procurement oil coolers (tube bundles) with 70 : 30 Cu Ni tubes for GTs	90.00
	Procurement of 245 KV CT from AREVA	31.00

	Procurement of Guide Apparatus (GA) (Piston Ring, Sleeve, Bush, Throttle, Cup Seal etc.) from M/s BHEL	117.00
	Procurement of 4 Nos. Runner Cone Stainless Steel (SS) from M/s BHEL.	27.00
	Procurement of lever, strap and dowel pin for 2(two) sets of Guide Vanes.	35.00
	Renovation and modernization of Unit # I and II	100.00
	Procurement of 2(two) sets of cooler assembly for each of Lower Guide Bearing (LGB), Upper Guide Bearing (UGB), Thrust and Generator Coolers.	40.00
	Procurement of different sizes of gate valves for cooling water system.	20.00
	REPAIRS	
	Repairing of Eroded Under Water Components of Unit # II	120.00
	Application of Acid Resistant Coating on the repaired under water components of Unit # II.	40.00
	Implementation of recommendations to protect Hydraulic structures of the Plant from acidic inflow:	
	(a) Treatment of Umrong Dam Radial Gate leaf etc (3 nos.)	51.00
	(b) Installation of anodic/Cathodic protection for the submerged Gate Guides, associated linings, trash racks etc (4 no. gates)	8.00
	NEW ASSETS	
	Procurement of cooling water pipes	15.00
	Total	863.26
2011-12	REPLACEMENT	
	Procurement of Turbine Guide Bearing cooler bundle / 70:30 Cu Ni tubes for 2 (two) units.	20.00
	Procurement oil coolers (tube bundles) with 70 : 30 Cu Ni tubes for GTs	50.00
	Procurement of cooling water pipes	20.00
	Procurement of 2 Nos. Runner Cone Stainless Steel (SS) from M/s BHEL.	1.25
	Renovation and modernization of Unit # I and II	900.00
	Procurement of 2(two) sets of SS Top Cover and Pivot Ring	476.00
	Closed loop system for cooling water system or replacement of Electric Resistant Welded (ERW) pipes with Stainless Steel (SS) pipes	250.00
	REPAIRS	
	Repairing of Eroded Under Water Components of Unit # III and IV	250.00
	Application of Acid Resistant Coating on the repaired under water components of Unit # III & IV.	100.00
	Protective coating on spiral casing for Unit # I, II, III & IV.	150.00
	Repairing of 2 Nos MIV and application protective coating	100.00
	Total	2317.25
2012-13	REPLACEMENT	
	Procurement of Turbine Guide Bearing cooler bundle / 70:30 Cu Ni tubes for 2 (two) units.	20.00
	Procurement of 2(two) sets of SS Top Cover and Pivot Ring	476.00
	Procurement of 2 Nos. Runner Cone (SS) from M/s BHEL.	13.25
	Closed loop system for cooling water system or replacement of ERW pipes with Stainless Steel (SS) pipes	250.00
	REPAIRS	
	Repairing of 2 Nos. MIV and application protective coating	100.00

	Implementation of recommendations to protect Hydraulic structures of the Plant from acidic inflow:	0.00
	Treatment of the Umrong Dam upstream face by providing geo-composite with the help of under water service (2310 sqm)	900.00
	Umrong WCS :Polymer based treatment of the Umrong Tunnel Concrete Linings (34250 sqm)	641.00
	Umrong WCS :Treatment of Umrong LP & HP Tunnel Steel lining & Penstock by sandblasting, metal deposition by gas welding at excessively pitted locations, applying selected epoxy based or other suitable coating and replacing excessively pitted ferrules/expansion joints of the penstock (6750 sqm)	506.00
	Umrong WCS :Polymer based treatment of the Umrong Surge-shaft Concrete lining (3550 sqm)	66.50
	Umrong WCS: Drilling and cement grouting at Umrong Surge-shaft (LS qty.)	25.00
	Kopili Power Station: Polymer based treatment of the Concrete Linings of Kopili Power Station Tail Pool & DT & PRV (2825 sqm)	53.00
	Kopili Power Station: Renovation of river protections works at Kopili site by replacing corroded GI Wires with acid resistant PVC coated GI Wires (2500 cum)	50.00
	Dam Spill Ways: Epoxy based treatment of the Umrong Dam spill way, bucket & piers (81.90 MT)	205.00
	Installation of anodic/Cathodic protection for the submerged Gate Guides, associated linings, trash racks etc (6 no. Gates).	12.00
	Silt monitoring, Plantation, PRC & Plant Nursery, Implementation of Statutory Pollution Control & Monitoring measures.	16.00
	Implementation of recommendations to protect Hydraulic structures of the Plant from acidic inflow:	0.00
	Renovation of river protections works at Kopili site by replacing corroded GI Wires with acid resistant PVC coated GI Wires (2500 cum)	50.00
	Total	3383.75
2013-14	REPLACEMENT	
	Implementation of recommendations to protect Hydraulic structures of the Plant from acidic inflow: Immediate action	1580.25
	Silt monitoring, Plantation, PRC & Plant Nursery, implementation of Statutory Pollution Control & Monitoring measures.	15.00
	Umrong WCS :Polymer based treatment of the Umrong Tunnel Concrete Linings (34250 sqm)	641.00
	Umrong WCS :Treatment of Umrong LP & HP Tunnel Steel lining & Penstock by sandblasting, metal deposition by gas welding at excessively pitted locations, applying selected epoxy based or other suitable coating and replacing excessively pitted ferrules/expansion joints of the penstock (13500 sqm)	1012.50
	Umrong WCS :Polymer based treatment of the Umrong Surge-shaft Concrete lining (3550 sqm)	66.50
	Umrong WCS: Drilling and cement grouting at Umrong Surge-shaft (L S qty.)	25.00
	Kopili Power Station: Polymer based treatment of the Concrete Linings of Kopili Power Station Tail Pool & DT & PRV (2825 sqm)	53.00
	Kopili Power Station:Renovation of river protections works at Kopili site by replacing corroded GI Wires with acid resistant PVC coated GI Wires (5000 cum)	100.00
	Installation of anodic/ Cathodic protection for the submerged Gate Guides, associated linings, trash racks etc (4 no. Gates).	8.00
	Total	3501.25

(b) Assets allowed (towards replacement, repairs and new assets) other than due to acidic nature of water:

Year	Name of asset/works projected to be capitalized	Amount allowed (₹ in lakh)
2009-10	REPLACEMENT	
	Procurement of 1(one) No. francis runner from M/s BHEL	163.82
	Procurement of 1(one) No. turbine oil filtration unit from M/s ALFA level (India) ltd.	6.98
	Design, manufacture, supply, delivery, testing and commissioning of 3 x 22.5 TR central AC system.	35.38
	Procurement of 2(two) Nos. 245 KV, SF6 breaker from M/s Crompton Greaves Ltd.	29.26
	Procurement of 3(three) Nos. 245 KV, CT from Hivoltrans Electrical Pvt Ltd.	8.49
	Procurement of thrust bearing pads for Unit # III from M/s BHEL	3.85
	Procurement of 2(two) Nos winding limb suitable for 20 MVA, 1 phase, 11/220 KV EMCO make GT.	176.77
	Procurement of L& T make Air Circuit Breaker from M/s Pradip Chaudhury & Co., the authorised dealer of L&T.	10.74
	Procurement of new runner disc & insulation disc for Unit # III from M/s BHEL.	54.94
	Procurement of 2(two) Nos. 245 KV, SF6 breaker from M/s Crompton Greaves Ltd.	29.26
	NEW ASSETS	
	Security wall at colony & plant area	10.09
	1 No Double Storied, 3 Nos A.Type Field hostel, 2 Nos. AType Security Barrack, internal road & 3 Nos. Watch Tower at Kopili P.S. Premises.	87.06
	Silt monitoring, Plantation, PRC & Plant Nursery, Implementation of Statutory Pollution Control & Monitoring measures.	8.30
	Total	624.94
2010-11	REPLACEMENT	
	Procurement of 2(two) sets of hydraulic control panel of MIV from M/s BHEL.	8.00
	Procurement of 2(two) sets of electrical control & indication panel of MIV from M/s BHEL.	2.30
	Installation of online vibration monitoring system for all 4(four) units.	17.50
	Procurement of collector assembly from M/s BHEL (OEM).	4.62
	NEW ASSETS	
	Security wall at colony & plant area	8.00
	Store building for Kopili P.S.	17.00
	Final payment of B-Type building (residential).	6.00
	Silt monitoring, Plantation, PRC & Plant Nursery, Implementation of Statutory Pollution Control & Monitoring	28.25
	Instrumentation of Umrong Dyke	25.00
	REPAIRS	
	Repair & Extension of existing spur at the upstream of Kopili Power House from Ch.78.00 to 145.00 M under Kopili HE P.	146.18
	Additional expense in the above work for up gradation of specification to make it acid resistant.	70.00
Total	332.85	

2011-12	REPLACEMENT	
	Procurement of 2(two) sets of hydraulic control panel of MIV from M/s BHEL.	85.00
	Procurement of 2(two) sets of electrical control & indication panel of MIV from M/s BHEL.	27.00
	Replacement of protection relay of Unit - I & II with numerical relays	50.00
	Upgradation of procontrol system of Unit # I & II.	30.00
	NEW ASSETS	
	Installation of online vibration monitoring system for all 4(four) units.	186.00
	Security wall at colony & plant area	8.00
	Store building for Kopili P.S.	10.00
	Silt monitoring, Plantation, PRC & Plant Nursery, Implementation of Statutory Pollution Control & Monitoring measures.	15.00
	Instrumentation of Umrong Dam	30.00
	Total	441.00
2012-13	REPLACEMENT	
	Replacement of protection relay of Unit - III & IV with numerical relays.	50.00
	Total	50.00

(c) Assets disallowed

Year	Name of assets disallowed	Amount (₹ in lakh)	Findings
2009-10	Servicing/replacement of damaged winding limb of 1(one) No. 20 MVA, 1-phase, 11/220 KV EMCO make Generator Transformer (GT).	21.05	These assets are in the nature of O&M expenses.
	Procurement of turbine oil Servo Prime-57 from IOCL, Guwahati	21.20	
	Procurement of transformer oil from M/s CASTROL India Ltd.	4.23	
	Procurement of spring assembly from M/s International Industrial Spring, Thane.	3.63	
	Procurement of electronic module for Digital Voltage Regulator system from M/s BHEL	2.91	
	Procurement of transformer oil from IOCL, Guwahati	17.79	
	Servicing/replacement of damaged winding limbs of 2(two) Nos. 20 MVA, 1-phase, 11/220 KV EMCO make GTs.	50.00	
	Servicing/repairing of 1 No. 20 MVA, 1-phase, 11/220 KV CGL make Generator Transformer (GT).	25.00	
	3 Nos. Field hostels, 1 No. Kitchen-Dining hall, 1 No recreation room at Khandong P.S Premises.	37.37	Asset pertain to the recreation room not pertaining to this generating station
Total	183.18		

Year	Name of assets disallowed	Amount (₹ in lakh)	Findings
2010-11	Procurement of 1(one) No winding limb suitable for 20 MVA, 1 phase, 11/220 KV CGL make Generator Transformer (GT).	90.00	The assets are in the nature of spares
	Procurement of 1(one) No. spare Generator Transformer (GT) from M/s ABB	195.00	
	Procurement of 2(two) No rotor leads including insulation materials from M/s BHEL.	22.76	
	1(one) set of Thrust Pads suitable for Unit # III/IV from M/s BHEL.	41.00	
	Procurement of isolators spares	10.00	
	Transformer oil filtration plant	35.00	
	Procurement of spares for MIV servo motor from M/s BHEL (OEM).	52.68	These assets are in the nature of O&M expenses.
	Procurement of turbine oil Servo Prime-57 from IOCL, Guwahati	30.00	
	Procurement of transformer oil from IOCL, Guwahati	30.00	
	Spares and services for 4 Nos. auto transformer	15.00	
	Procurement of electronic module for Digital Voltage Regulator (DVR) system from M/s BHEL	31.00	
	Total	552.44	
2011-12	Procurement of turbine oil Servo Prime-57 from IOCL, Guwahati	30.00	These assets are in the nature of O&M expenses
	Procurement of transformer oil from IOCL, Guwahati	30.00	
	Repairing & dynamic balancing of runner	60.00	
	Repairing/replacement of fire fighting equipments	75.00	
	Total	195.00	
2012-13	Procurement of turbine oil Servo Prime-57 from IOCL, Guwahati	30.00	These assets are in the nature of O&M expenses
	Procurement of transformer oil from IOCL, Guwahati	30.00	
	Overhauling/repairing of butterfly valves and application of protective coating	100.00	
	Spares and services of switch yard equipment	50.00	
	Total	210.00	

25. Based on the above, the total amount allowed as additional capital expenditure for 2009-14 on replacement, repairs and new assets, on account of acidic nature of water and for other than acidic nature of water is summarized as stated overleaf:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Assets allowed (towards replacement, repairs and new assets) due to acidic nature of water.	517.03	863.26	2317.25	3383.75	3501.25
Assets allowed (towards replacement, repairs and new assets) other than due to acidic nature of water	624.94	332.85	441.00	50.00	0.00
Total allowed	1141.97	1196.11	2758.25	3433.75	3501.25

De-capitalization of replaced assets

26. In regard to some of the new replaced assets, the gross value of the original asset, are not proposed to be deducted by the petitioner during the respective years of the claim. These assets are tabulated as under:

Sl. No.	Year of replacement	Assets	Value of Replacement	Gross value of Old assets
1	2009-10	Winding limb	55.23	13.29
2		Guide Apparatus (GA) (Piston Ring, Sleeve etc)	25.74	6.19
3		Guide Apparatus (GA) (Piston Ring, Sleeve etc)	24.72	5.95
4		Top Cover & Pivot Ring	89.80	21.61
5		Lever, strap and dowel pin for 2(two) sets of Guide Vanes.	3.80	0.91
6		Francis runner	163.82	39.42
7		Turbine oil filtration unit	6.98	1.68
8		Central AC system	35.38	8.51
9		245 kv, SF6 breaker	29.26	7.04
10		70:30 Cu Ni tubes	27.46	6.61
11		70:30 Cu Ni tubes	15.24	3.67
12		Transformer oil	15.75	3.79
13		Runner Cone	2.50	0.60
14		245 KV, CT	8.49	2.04
15		70:30 Cu Ni tubes	10.72	2.58
16		Guide Apparatus	28.21	6.79
17		Thrust bearing pads	3.85	2.03
18		70:30 Cu Ni tubes for Lower/Upper Guide Bearing and thrust coolers	13.65	3.28
19		Winding limb	176.77	42.54
20		Air Circuit Breaker	10.74	2.58
21		New runner disc & insulation disc	54.94	28.98
22		Oil Cooler with 70 : 30 Cu Ni tubes for Generator Transformers	43.21	10.40
23		245 KV, SF6 breaker	29.26	7.04
		Total	875.52	227.53



Sl. No.	Year of replacement	Assets	Value of Replacement	Gross value of Old assets
1	2010-11	Winding limb	90.00	21.66
2		245 KV, SF6 breaker	29.26	7.04
3		70:30 Cu Ni tubes	35.00	8.42
4		Turbine Guide Bearing cooler bundle of 70:30 Cu Ni tubes	15.00	3.61
5		Oil coolers with 70 : 30 Cu Ni tubes	90.00	21.66
6		245 KV CT	31.00	7.46
7		Guide Apparatus (GA) (Piston Ring, Sleeve etc)	117.00	28.16
8		Runner Cone Stainless Steel	27.00	6.50
9		Lever, strap and dowel pin	35.00	8.42
10		Hydraulic control panel	8.00	1.93
11		Electrical control & indication panel	2.30	0.55
12		Installation of online vibration monitoring system	17.50	4.21
13		Renovation and modernization	100.00	24.07
14		Cooler assembly for each of Lower/Upper Guide Bearing, Thrust and Generator Coolers.	40.00	9.63
15		Gate valves for cooling water system.	20.00	4.81
16		Collector assembly	4.62	1.11
		Total	661.68	159.24
1	2011-12	Turbine Guide Bearing cooler bundle/70:30 Cu Ni tubes	20.00	4.81
2		Oil coolers with 70 : 30 Cu Ni tubes	50.00	12.03
3		Cooling water pipes	20.00	4.81
4		Runner Cone Stainless Steel	1.25	0.30
5		Renovation and modernization	900.00	216.59
6		SS Top Cover and Pivot Ring	476.00	114.55
7		Hydraulic control panel of MIV	85.00	20.46
8		Electrical control & indication panel of MIV	27.00	6.50
9		Closed loop system	250.00	60.16
10		Protection relay	50.00	12.03
11		Up-gradation of pro-control system	30.00	7.22
		Total	1909.25	459.46
1	2012-13	Turbine Guide Bearing cooler bundle/70:30 Cu Ni tubes	20.00	4.81
2		SS Top Cover and Pivot Ring	476.00	114.55
3		Runner Cone	13.25	3.19
4		Closed loop system	250.00	60.16
5		Protection relay	50.00	12.03
		Total	809.25	194.74

27. The gross values of the original asset amounting ₹227.53 lakh for 2009-10, ₹159.24 lakh for 2010-11, ₹459.46 lakh for 2011-12 and ₹194.74 lakh for 2012-13 are considered as deletions for the year in which these assets were replaced, for the purpose of tariff.

Additional capital expenditure for 2009-14

28. Based on the above discussions, the additional capital expenditure allowed for 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Regulation 9(2)(iv)	1141.97	1196.11	2758.25	3433.75	3501.25
De-capitalisation of replaced assets	227.53	159.24	459.46	194.74	0.00
Total additional capital expenditure allowed	914.44	1036.87	2298.79	3239.01	3501.25

Capital Cost for 2009-14

29. In view of the above discussions, the Capital cost considered for 2009-14 is as under:

	(₹ in lakh)				
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost as on 1 st April of the financial year	26734.91	27649.35	28686.22	30985.01	34224.02
Additional Capital expenditure allowed	914.44	1036.87	2298.79	3239.01	3501.25
Capital Cost as on 31st March of the financial year	27649.35	28686.22	30985.01	34224.02	37725.27

Debt-Equity Ratio

30. Regulation 12 of the 2009 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 utilised 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 modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation”

31. The petitioner has submitted that the additional capital expenditure has been financed through internal resources and others. In terms of the above said regulation, the debt-equity ratio of 70:30 has been considered on the additional capital expenditure after adjustment of un-discharged liability, for the purpose of tariff.

Return on Equity

32. Regulation 15 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 provides as under:

“(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:

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.”

33. The petitioner has considered the rate of Return on Equity @ 18.674%, based on the prevailing MAT rate (Basic rate of 15%+10% surcharge+3% education Cess = 16.995%) for 2009-10.

34. In this order, Return on equity has been worked out @17.481% per annum on the normative equity, after accounting for the additional capital expenditure, considering the base rate of 15.5% and MAT rate of 11.33%. The computation of Return on equity is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	13159.45	13433.78	13744.84	14434.48	15406.18
Addition due to Additional capitalization	274.33	311.06	689.64	971.70	1050.38
Closing Equity	13433.78	13744.84	14434.48	15406.18	16456.56
Average Equity	13296.62	13589.31	14089.66	14920.33	15931.37
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Min Alt. Tax rate for the year 2008-09	11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity	2324.32	2375.49	2462.95	2608.16	2784.89

35. The petitioner’s prayer for grossing up the base rate of Return on Equity based on the tax rates viz, MAT, surcharge, any other cess, charges, levies etc as per the relevant Finance Act, will be guided by the provisions of Regulation 15 as extracted above.

Interest on loan

36. Regulation 16 of the 2009 regulations provides as under:

“(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.

37. The interest on loan has been computed as under:

- (a) The opening gross normative loan as on 1.4.2009 of each unit of the generating station has been arrived at in accordance with the provisions of the above regulations.
- (b) The repayment of loan for the respective years of the period 2009-14 has been considered equal to the depreciation allowed for that year.
- (c) The petitioner has submitted the statement of actual interest rate incurred on the Syndicate loan carrying a floating rate of interest for the period 2008-09 to arrive at the rate of interest at 8.813% as on 1.4.2009. However, as regards syndicate loan, the rate of interest of 7.94% has been considered as on 1.4.2009 (i.e the carried over rate of interest existing as on 31.3.2009) for the years 2009-10 and 2010-11. The interest on loan has been calculated by applying the interest rate of 7.94% of the syndicate loan

for the years 2009-10 and 2010-11. Accordingly, the weighted average rate of interest on total loan has been revised to 7.94% for the years 2009-10 and 2010-11

- (d) Since the actual loan is repaid in the year 2010-11, the weighted average rate of interest on loan for the year 2010-11 has been considered for the years 2011-12, 2012-13 and 2013-14.

38. The calculation for weighted average rate of interest on loans is annexed to this order. Based on the above, the interest on loan for the purpose of tariff is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative loan	13575.46	14215.56	14941.37	16550.53	18817.83
Cumulative Repayment upto previous year	11005.18	12453.85	13036.29	13692.63	14481.60
Net Loan-Opening	2570.28	1761.71	1905.08	2857.90	4336.23
Repayment during the year	1448.67	582.44	656.34	788.97	950.43
Additions due to Additional Capitalisation	640.11	725.81	1609.15	2267.31	2450.88
Net Loan-closing	1761.71	1905.08	2857.90	4336.23	5836.67
Average Loan	2166.00	1833.40	2381.49	3597.06	5086.45
Weighted Average Rate of Interest on loan	7.94%	7.94%	7.94%	7.94%	7.94%
Interest on Loan	171.96	145.57	189.09	285.61	403.86

Depreciation

39. Regulation 17 of the 2009 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 3[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”.

40. The date of commercial operation of the generating station is 12.7.1997. Since the generating station has completed 12 years of operation as on 12.7.2009, the weighted average rate of depreciation of 5.328%, calculated as above, has been considered for the calculation of depreciation during the year 2009-10. The remaining depreciable value has been spread over the balance useful life of the assets from the year 2010-11 onwards to 2013-14. The completed useful life of the generating station as on 31.3.2010 is 12.72 years. Accordingly, the balance useful life of the generating station is considered as 22.28 years for 2010-11, 21.28 years for 2011-12, 20.28 years for 2012-13 and 19.28 years for 2013-14. Assets amounting to ₹227.53 lakh, ₹159.24 lakh, ₹459.46 lakh, and ₹194.74 lakh have been de-capitalized during 2009-10, 2010-11, 2011-12, 2012-13 respectively. The amount of cumulative depreciation allowed in tariff against these de-capitalized assets has been calculated on *pro rata* basis and the same has been adjusted from the cumulative depreciation of the year of de-capitalization. Accordingly, depreciation has been worked out as under:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross block as on 31.3.2009	26734.91	27649.35	28686.22	30985.01	34224.02
Additional capital expenditure during 2009-14	914.44	1036.87	2298.79	3239.01	3501.25
Closing gross block	27649.35	28686.22	30985.01	34224.02	37725.27
Average gross block	27192.13	28167.78	29835.61	32604.51	35974.64
Land related cost	3894.13	3894.13	3894.13	3894.13	3894.13
Rate of Depreciation	5.3275%	5.3275%	5.3275%	5.3275%	5.3275%
Depreciable value @ 90%	24472.91	25351.00	26852.05	29344.06	32377.18
Balance useful life of the asset	23.3	22.3	21.3	20.3	19.3
Remaining Depreciable value	13445.89	12977.13	13967.26	16000.79	18324.89
Depreciation	1448.67	582.44	656.34	788.97	950.43

Operation & Maintenance Expenses

41. Clause (f) of Regulation 19 of the 2009 regulations provides for normative operation and maintenance expenses for hydro generating stations as under:

“(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.

(iii) 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.

42. The petitioner has claimed the following O&M expenses for the period 2009-14 based on the actual O&M expenditure incurred during the period from 2003-04 to 2007-08.

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	4637.34	4902.60	5183.03	5479.50	5792.93

43. The year-wise break-up of the actual O&M expenses for the period 2003-08 submitted by the petitioner based on which O&M expenses for the period 2009 to 2014 have been claimed is as under:

		<i>(₹ in lakh)</i>				
Sl.		2003-04	2004-05	2005-06	2006-07	2007-08
1	Consumption of Stores and Spares	0.00	0.00	0.00	0.00	0.00
2	Repair and Maintenance	263.06	272.14	279.14	399.24	253.15
3	Insurance	90.02	109.68	104.80	81.21	38.76
4	Security	56.90	77.58	71.32	79.34	98.27
5	Administrative Expenses	28.85	38.81	38.35	38.94	41.11

6	Employee Cost	1032.73	1008.67	1053.92	1588.76	1916.87
7	Loss of store	0.00	9.66	0.18	5.69	0.17
8	Provisions	9.96	0.00	22.76	5.67	5.13
9	Corporate office expenses allocation	680.63	555.68	551.24	696.68	755.48
10	Others (Specify items)	564.50	573.94	518.05	435.79	844.00
11	Total (1 to 10)					
12	Revenue/ Recoveries, if any	0.00	0.00	0.00	0.00	0.00
13	Net O&M Expenses	2726.65	2566.14	2639.76	3331.32	3952.94

44. The actual O&M expenses in the different years have been examined for any abnormal increase for the purpose of normalization, considering the justifications submitted by the petitioner as discussed in the subsequent paragraphs:

Repairs & maintenance Expenses

45. The expenses towards Repair & Maintenance incurred for the period 2003-08 and claimed by the petitioner is as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Repair & Maintenance	263.06	272.14	279.14	399.24	253.15

46. It is noticed that that the Repair & Maintenance (R&M) expenditure has increased significantly during the year 2006-07 in comparison to the year 2005-06. This is on account of repair of guide vanes & guide apparatus undertaken during 2006-07, mainly due to acidic nature of water. In view of this, the expenditure incurred on this count is considered for the purpose of normalization. The expenses incurred for the other years are in order. Accordingly, the expenses claimed by the petitioner as above, during the period 2003-08 has been allowed for the purpose of normalization of O&M expenses for the period 2009-14.

Insurance charges

47. Insurance charges at actual claimed by the petitioner as under, has been allowed.

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Insurance charges	90.02	109.68	104.80	81.21	38.76

Security expenses

48. The expenses claimed by the petitioner towards security are as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Security expenses	56.90	77.58	71.32	79.34	98.27

49. The petitioner has submitted that during 2004-05, extra expenditure has been incurred due to deployment of the personnel of Assam Police Battalion for providing armed security services in terms of the agreement between the petitioner corporation and the State Government of Assam. For the year 2007-08, the expenses had increased due to merger of 50% Dearness Allowance (DA) with the basic Pay in respect of Meghalaya Home Guards (MLHG) with effect from 1.4.2005 and the arrear payment thereof, subsequently. These have been considered. Accordingly the Security expenses claimed as above has been allowed for the computation of O&M expenses for 2009-14.

Administrative Expenses

50. The details of the administrative expenses incurred and claimed by the petitioner are as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Administrative Expenses	28.85	38.81	38.35	38.94	41.11

51. Administrative expense mainly includes expenditure incurred on account of rent, electricity, Travelling and Conveyance, Communication expenses and Entertainment charges etc. The details of the expenditure which are abnormal are examined as under:

(a) Advertisement

52. It is observed that an expenditure of Rs.10.56 lakh for 2005-06 incurred on advertisement is significantly higher (by 1500%) in comparison to the expenses incurred for 2004-05 on this count and no proper justification has been submitted

by the petitioner for the same. Hence, the expenditure for 2005-06 has been restricted to an increase of 20% over the expenses for 2004-05. Similarly, an increase of 20% has been considered for the years 2006-07 and 2007-08 over the previous year's expenses respectively, for the purpose of normalization.

(b) Entertainment

53. There is a nominal increase in the expenses for the year 2006-07 which has been considered.

54. Accordingly, the normalized administrative expenses allowed for the purpose of O&M is as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Administrative expenses	28.85	38.81	28.59	29.04	32.95

Employee cost

55. The petitioner has claimed project specific expenses under employee cost as under:

	<i>(₹ in lakh)</i>				
	2003-04	2004-05	2005-06	2006-07	2007-08
Employee Cost	1032.73	1008.67	1053.92	1588.76	1916.87

56. The petitioner has submitted that there was a considerable increase of expenditure under the head "Salary, wages & allowances" during the year 2006-07 as compared to the expenses during 2005-06. According to the petitioner, the said increase is on account of implementation of pay revision for regular employees of the petitioner corporation with effect from 1.1.1997 and on revision of salary for the muster roll employees. It has been submitted by the petitioner that ₹1166.74 lakh was paid as Salary & Wages to the employees for the year 2006-07 and ₹171.64 lakh was paid as arrears per annum for the period 2005-06 and ₹490.24 lakh pertain to other allowances paid to the employees during the said year. The petitioner has also submitted Salary, Wages & Allowances of the generating station

(Kopili HEP-200 MW), which also include other generating stations namely, Kopili Stage-II (25 MW) and Khandong HEP (50 MW) have been apportioned with respect to the its installed capacity, in the ratio of 8:1:2 for Kopili HEP (200 MW), Kopili Stage-II (25 MW) and Khandong HEP (50 MW) respectively. Based on the said methodology, the arrears for 10 (ten) years works out to ₹124.83 lakh ($171.64 \times 8/11$) for Kopili HEP. However, for the purpose of normalization for 2003-07, an amount of ₹12.48 lakh per annum as addition in the salary account has been allowed. Further, during 2007-08, an expenditure of ₹555.45 lakh has been incurred towards the merger of 50% of Dearness Allowance with the Basic Pay of the employees of the petitioner corporation with effect from 1.1.2007 following the IDA pay pattern. Since the increase in pay revision has been dealt with separately under the provisions of the 2009 regulations, the apportioned amount (Rs. $555.45 \times 8/11 = ₹403.91$ lakh) has been deducted under this head.

57. The expenses incurred towards Staff welfare is ₹258.85 lakh for 2006-07 and Rs 61.19 lakh for 2005-06. However, no proper justification has been submitted for such a steep increase in the Staff welfare expenses. In view of this, the expenses for 2006-07 have been restricted to ₹61.19 lakh (as in 2005-06). It appears that the same has arisen due to provision kept for revision of pay w.e.f. 1.1.2007. However, the effect of pay revision is being considered separately. Similarly, for the year 2007-08, the Staff welfare expenses have been restricted to an increase of 20% over the previous normalized expenses.

58. It is noticed that productive linked incentives have been included by the petitioner in the employee cost. The same has not been allowed since incentives are to be borne by the petitioner and the beneficiaries cannot be burdened on this

count. Similarly, the costs incurred on VRS or ex gratia of the employees have not been allowed and the same shall also be borne by the petitioner.

59. Based on the above, the employees cost for the generating station allowed for normalization is as under:

	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Employee Cost	1045.21	998.61	1057.40	1290.99	1383.92

Others

60. Details of Other expenses (specific items) incurred and claimed are as under:

	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Others (Specific items)	564.50	555.68	518.05	435.79	844.00

61. It is observed that the expenditure under others (specific items) head includes Deferred Revenue Expenditure (DRE) and write-off charges. The petitioner has claimed ₹9.69 lakh, ₹79.50 lakh, ₹143.96 lakh, ₹45.07 lakh and ₹433.75 lakh expenses on account of DRE/write-off for the years 2003-04, 2004-05, 2005-06, 2006-07 and 2007-08 respectively, which has not been considered for the purpose of normalization.

62. Other major expenditure under this head which includes UI charges, petition filing fees, interest on overdrafts, social welfare and transmission charges, has not been considered for normalization.

63. The petitioner has submitted that expenses towards Social welfare mainly relate to project educational facilities (*Vivekanand Kendra Vidyalaya*). This expenditure has been considered for normalization. Other expenditures, have been restricted to an increase of 20% over the normalized expenses.

64. Based on the above, the other expenses allowed for calculation of O&M expenses is as under:

	(₹ in lakh)				
	2003-04	2004-05	2005-06	2006-07	2007-08
Other expenses (specific items)	153.98	184.58	183.19	199.02	221.86

Corporate Office expenses

65. The year-wise details of the total Corporate Office expenses incurred and its apportionment to the running generating stations, construction projects and other activities of the petitioner and proportionate corporate expenses charged to the generating station are as under:

		(₹ in lakh)				
Sl. No.	Items	2003-04	2004-05	2005-06	2006-07	2007-08
1	Employee expenses					
a	Salaries, wages and allowances	2453.93	2431.43	2463.6	3481.27	4513.94
b	Staff welfare expenses	308.84	350.35	296.34	594.68	518.84
c	Productivity linked incentive	0	77.33	69.97	202.72	139.1
	Sub - total (Employee expenses)	2762.77	2859.11	2829.91	4278.67	5171.88
2	Administrative Expenses					
a	Repair and maintenance	53.23	70.71	47.19	58.87	84.54
b	Training and Recruitment	3.52	2.37	3.48	8.81	12.19
c	Communication	57.43	74.5	80.68	74.04	81.79
d	Travelling & Conveyance	199.88	184.53	199.9	213.5	209.76
e	Rent	64.43	36.27	47.73	31.4	17.75
f	Others (Specify items)	2406.14	1691.33	1467.42	986.08	970.17
	Sub - total (Administrative Expenses)	2784.63	2059.71	1846.4	1372.7	1376.2
3	Security	9.38	63	140.88	69.65	79.18
4	Donations	0.00	0.00	0.00	0.00	0.00
5	Provisions	0.00	0.00	0.00	0.00	0.00
6	Others (specify items)	0.00	0.00	0.00	0.00	0.00
7	Total (1 to 6)	5556.78	4981.82	4817.19	5721.02	6627.26
8	Less: recoveries (if any)	675.17	1118.33	1311.99	547.26	1357.54
9	Net Corporate Expenses (aggregate)	4881.61	3863.49	3505.2	5173.76	5269.72

66. The petitioner has submitted that as per the accounting policy of the petitioner corporation, the allocation of total Corporate Office expenses to Commissioned projects and the projects under construction have been done in

proportion to sales to capital outlay during the year and further re-allocations of the allocated Corporate office expenses for commissioned projects during the respective financial years.

67. The petitioner has also submitted stated that due to significant increase in the generation during 2007-08 (1540.013 MU) in comparison to 2006-07 (157.715 MU), the allocation of corporate office expenditure during 2007-08 was more when compared to 2006-07. It has also been submitted that the enhancement in corporate office expenditure under the head Salary & wages, Staff welfare & Productivity Linked Incentive are due to the implementation of pay revision for regular employees of the petitioner company during the financial year 2006-07 and on revision of salary for the muster roll employees. No further details of the payment made on account of such revision have been submitted by the petitioner.

68. It is noticed that the Salaries, wages and allowances & Staff welfare expenses during 2006-07 and 2007-08 claimed by the petitioner are higher than the expenses incurred for the previous years. It appears that the same is on account of provisions for pay revision expenses with effect from 1.1.2007. Since the impact of pay revision is being considered separately, the expenditure towards Salaries, wages and allowances & Staff welfare expenses during 2006-07 has been restricted to an increase of 20 % over the expenses for the previous year. The same amount has been considered for 2007-08 also. The expenses towards Productivity linked incentive has not been allowed since the same is required to be borne by the petitioner.

69. The expense on rent (under administrative head) during 2003-04 is ₹64.43 lakh, which is higher than the other years, on this count. Hence, the same has been restricted ₹36.27 lakh as incurred during 2004-05. Similarly, the expense on

security (under administrative head) is ₹144.88 lakh during 2005-06 and the same has been restricted to an increase of 20% over the expenses for 2004-05, since no proper justification has been submitted by the petitioner for the abnormal increase. Based on the above, the normalized Corporate Office expenses allowed towards O&M expenses of the generating station for the period 2003-08 is as under:

(₹ in lakh)

(A) Break-up of corporate expenses (aggregate at company level)						
1	Employee Expenses	2003-04	2004-05	2005-06	2006-07	2007-08
a	Salaries, Wages and allowances	2453.93	2431.43	2463.60	2956.32	2956.32
b	Staff Welfare Expenses	308.84	350.35	296.34	355.61	355.61
c	Productivity Linked incentive	0.00	0.00	0.00	0.00	0.00
d	Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
e	Ex-gratia	0.00	0.00	0.00	0.00	0.00
	Sub-total	2762.77	2781.78	2759.94	3311.93	3311.93
2	Administrative Expenses					
a	Repair & Maintenance	53.23	63.88	47.19	58.87	70.64
b	Training & Recruitment	3.52	2.37	3.48	8.81	12.19
c	Communication	57.43	74.50	80.68	74.04	81.79
d	Travelling & Conveyance	199.88	184.53	199.90	213.50	209.76
e	Rent	36.27	36.27	43.52	31.40	17.75
f	Others (specify items)	630.54	707.66	1071.92	944.33	813.83
	Sub-total	980.87	1069.20	1446.70	1330.95	1205.96
1	Security	9.38	63.00	75.60	69.65	79.18
2	Donations	0.00	0.00	0.00	0.00	0.00
3	Provisions	0.00	0.00	0.00	0.00	0.00
4	Others (specify items)	0.00	0.00	0.00	0.00	0.00
	Total	3753.02	3913.98	4282.24	4712.53	4597.07
1	Less: Recoveries, if any	675.17	1118.33	1311.99	547.26	1357.54
2	Net Corporate Expenses	3077.85	2795.65	2970.25	4165.27	3239.53
3	Percentage (%) allocation to generating	13.94	12.78	15.72	13.46	14.33
4	Corporate office expenses allocated to the generating station	429.14	357.41	467.11	560.88	464.42

O&M expenses for 2003-08

70. Based on the above discussions and after prudence check, the following O&M expenses have been considered for the period 2003-08 for calculation of O&M expenses for the period 2009-14.

(₹ in lakh)						
Sl.		2003-04	2004-05	2005-06	2006-07	2007-08
(A)	Breakup of O&M expenses					
1	Consumption of Stores and Spares	0.00	0.00	0.00	0.00	0.00
2	Repair and Maintenance	263.06	272.14	279.14	399.24	253.15
3	Insurance	90.02	109.68	104.80	81.21	38.76
4	Security	56.90	77.58	71.32	79.34	98.27
5	Administrative Expenses	28.85	38.81	28.59	29.04	32.95
6	Employee Cost	1045.21	998.61	1057.40	1290.99	1383.92
7	Loss of store	0.00	0.00	0.00	0.00	0.00
8	Provisions	0.00	0.00	0.00	0.00	0.00
9	Corporate office expenses allocation	429.14	357.41	467.11	560.88	464.42
10	Others (Specify items)	153.98	184.58	183.19	199.02	221.86
11	Revenue/ Recoveries, if any	0.00	0.00	0.00	0.00	0.00
12	Net O&M Expenses	2067.16	2038.81	2191.56	2639.73	2493.34

71. The average O&M charges for the base year 2007-08, has been escalated @ 5.17 % as per Regulation 19(f) (ii) of the 2009 regulations. Accordingly, the year-wise O&M expenses for the generating station after applying escalation @ 5.72% from 2008-09 and 50% increase of employee cost by considering the percentage of employee cost in the year 2009-10, for the tariff period 2009-14 in terms of the provision of Regulation 19 (f) of the 2009 regulations is as under:

(₹ in lakh)						
	2003-04	2004-05	2005-06	2006-07	2007-08	Average normalized at 2007-08 price level
Employee cost (Considered)	1045.21	998.61	1057.40	1290.99	1383.92	
Average normalized Employee cost at 2007-08 price level	1278.71	1161.64	1169.56	1357.73	1383.92	1270.31
O&M Expense considered	2067.16	2038.81	2191.56	2639.73	2493.34	
Average normalized O&M at 2007-08 price level	2541.14	2371.66	2449.20	2782.17	2498.47	2518.83
	(P1)X(Esc) ⁴	(P2)X(Esc) ³	(P3)X(Esc) ²	(P4)X(Esc)	(P5)	
Escalation rate (Esc)%	5.17	5.17	5.17	5.17	5.17	
Percentage of employee cost (1270.31/2518.83*100)						50.43%

O&M Expenses for 2009-14

72. Accordingly, the O&M expenses approved for the period 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses approved	3522.42	3723.90	3936.91	4162.10	4400.17

Interest on Working Capital

73. In accordance with sub-clause (c) of clause (1) of Regulation 18 of the 2009 regulations, working capital in case of hydro generating stations shall cover:

- (i) *Receivables equivalent to two months of fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 19;*
- (iii) *Operation and maintenance expenses for one month.*

74. Clauses (3) and (4) of Regulation 18 of the 2009 regulations, the rate of interest on working capital 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. Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency.

75. Working capital has been calculated considering the following elements:

- (a) **Receivables:** In terms of the provisions of the above regulations, receivables equivalent to two months of fixed cost, considered for the purpose of tariff, is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Receivables	1287.63	1179.73	1251.86	1354.96	1474.29

(b) **Maintenance Spares:** In terms of the provisions of the above regulations, maintenance spares considered for the purpose of tariff, is as stated below:

<i>(₹ in lakh)</i>					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	528.36	558.59	590.54	624.32	660.03

(c) **O&M Expenses:** In terms of the provisions of the above regulations Operation and maintenance expenses for one month considered for the purpose of tariff, is as under:

<i>(₹ in lakh)</i>					
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M expenses	293.54	310.33	328.08	346.84	366.68

76. In terms of Clauses (3) and (4) of Regulation 18 of the 2009 regulations, the SBI PLR as on 1.4.2009 was 12.25%. This has been considered by the petitioner. The same interest rate has been considered in the calculations, for the purpose of tariff.

77. Necessary computations in support of calculation of interest on working capital is as under:

<i>(₹ in lakh)</i>					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	528.36	558.59	590.54	624.32	660.03
O & M expenses	293.54	310.33	328.08	346.84	366.68
Receivables	1287.63	1179.73	1251.86	1354.96	1474.29
Total	2109.53	2048.64	2170.47	2326.12	2500.99
Rate of interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	258.42	250.96	265.88	284.95	306.37

Annual Fixed Charges

78. The annual fixed charges approved for the generating station for the period from 1.4.2009 to 31.3.2014 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	2324.32	2375.49	2462.95	2608.16	2784.89
Interest on Loan	171.96	145.57	189.09	285.61	403.86
Depreciation	1448.67	582.44	656.34	788.97	950.43
Interest on Working Capital	258.42	250.96	265.88	284.95	306.37
O & M Expenses	3522.42	3723.90	3936.91	4162.10	4400.17
Total	7725.79	7078.36	7511.17	8129.79	8845.72

79. The petitioner shall be entitled to compute and recover the annual fixed charges and energy charges in accordance with Regulation 22 of the 2009 regulations.

80. The recovery of the annual fixed charges shall be subject to truing up in terms of Regulation 6 of the 2009 regulations.

Design Energy

81. The month-wise details of design energy in respect of the generating station is indicated in the table as under:

Month	Design Energy (MUs)
April	58.03
May	148.8
June	144.00
July	148.80
August	148.80
September	144.00
October	118.30
November	54.72
December	56.54
January	56.54
February	51.07
March	56.54
Total	1186.14

82. Monthly energy charges shall be computed in terms of the provisions contained in Regulation 22 of the 2009 regulations.

Application fee and the publication expenses

83. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition for determination of tariff for the generating station. However,

the details of the actual expenditure incurred for publication of notice in the newspapers, has not been submitted by the petitioner. Regulation 42 of the 2009 regulations provides as under:

“The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be.”

84. In terms of our decision contained in order dated 11.1.2010 in Petition No.109/2009, the expenses towards petition filing fees and publication of notices in connection with the petition are to be reimbursed.

85. Accordingly, the expenses incurred by the petitioner on petition filing fees amounting to ₹4.00 lakh each for the years 2009-10, 2010-11 respectively, in connection with the present petition shall be directly recovered from the beneficiaries, on *pro rata* basis. The reimbursement of charges towards the publication of notices in newspapers shall also be recovered on *pro rata* basis, on submission of documentary proof of the same.

86. The difference between the provisional annual fixed charges already recovered by the petitioner and the annual fixed charges determined by this order shall be liquidated by the respondents in terms of the order dated 26.8.2011 in Petition No. 175/2011(*suo motu*).

87. Petition No.294/2009 is disposed of in terms of the above.

Sd/-
[M.DEENA DAYALAN]
MEMBER

Sd/-
[S. JAYARAMAN]
MEMBER

CALCULATION OF WEIGHTED AVERAGE RATE ON ACTUAL LOANS

Sl.	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1	MHA Loan					
	Gross loan - Opening	5224.43	5224.43	5224.43	5224.43	5224.43
	Cumulative repayments of Loans upto previous year	5224.43	5224.43	5224.43	5224.43	5224.43
	Net loan - Opening	0.00	0.00	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest on Loan					
	Interest on loan	0.00	0.00	0.00	0.00	0.00
2	MOP Loan					
	Gross loan - Opening	6724.00	6724.00	6724.00	6724.00	6724.00
	Cumulative repayments of Loans upto previous year	6724.00	6724.00	6724.00	6724.00	6724.00
	Net loan - Opening	0.00	0.00	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest on Loan					
	Interest on loan	0.00	0.00	0.00	0.00	0.00
3	LIC Loan					
	Gross loan - Opening	4457.00	4457.00	4457.00	4457.00	4457.00
	Cumulative repayments of Loans upto previous year	4457.00	4457.00	4457.00	4457.00	4457.00
	Net loan - Opening	0.00	0.00	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest on Loan					
	Interest on loan	0.00	0.00	0.00	0.00	0.00
4	HUDCO Loan					
	Gross loan - Opening	5544.95	5544.95	5544.95	5544.95	5544.95
	Cumulative repayments of Loans upto previous year	5544.95	5544.95	5544.95	5544.95	5544.95
	Net loan - Opening	0.00	0.00	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	0.00	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	0.00	0.00	0.00	0.00	0.00

	Rate of Interest on Loan					
	Interest on loan	0.00	0.00	0.00	0.00	0.00
5	PSU-8th Series Tax free redeemable on 7.1.2010					
	Gross loan - Opening	325.00	325.00	325.00	325.00	325.00
	Cumulative repayments of Loans upto previous year	0.00	325.00	325.00	325.00	325.00
	Net loan - Opening	325.00	0.00	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	325.00	0.00	0.00	0.00	0.00
	Net loan - Closing	0.00	0.00	0.00	0.00	0.00
	Average Net Loan	162.50	0.00	0.00	0.00	0.00
	Rate of Interest on Loan	7.93%				
	Interest on loan	12.89	0.00	0.00	0.00	0.00
6	Syndicated Loan					
	Gross loan - Opening	6259.32	6259.32	6259.32	6259.32	6259.32
	Cumulative repayments of Loans upto previous year	4623.93	5861.57	6259.32	6259.32	6259.32
	Net loan - Opening	1635.39	397.75	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	1237.64	397.75	0.00	0.00	0.00
	Net loan - Closing	397.75	0.00	0.00	0.00	0.00
	Average Net Loan	1016.57	198.87	0.00	0.00	0.00
	Rate of Interest on Loan	7.940%	7.940%			
	Interest on loan	80.72	15.79	0.00	0.00	0.00
7	Total Loan					
	Gross loan - Opening	28534.70	28534.70	28534.70	28534.70	28534.70
	Cumulative repayments of Loans upto previous year	26574.31	28136.95	28534.70	28534.70	28534.70
	Net loan - Opening	1960.39	397.75	0.00	0.00	0.00
	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
	Less: Repayment (s) of Loans during the year	1562.64	397.75	0.00	0.00	0.00
	Net loan - Closing	397.75	0.00	0.00	0.00	0.00
	Average Net Loan	1179.07	198.88	0.00	0.00	0.00
	Interest on loan	93.61	15.79	0.00	0.00	0.00
	Weighted average Rate of Interest on Loans	7.94%	7.94%	-	-	-