

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 454/GT/2014**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson**

**Shri A. K. Singhal, Member**

**Shri A. S. Bakshi, Member**

**DATE OF HEARING: 03.02.2015**

**DATE OF ORDER: 06.10.2015**

**IN THE MATTER OF**

Revision of tariff for the period 2009-14 after trueing-up exercise with respect to capital expenditure including additional capital expenditure incurred during the financial years 2009-10 to 2013-14 in respect of Khandong Hydro Electric Project (50 MW) of North Eastern Electric Power Corporation Limited.

**AND**

**IN THE MATTER OF**

North Eastern Electric Power Corporation Ltd  
Brookland Compound  
Lower New Colony  
Shillong-793 003

.....**Petitioner**

**Vs**

1. Assam Power Distribution Company Ltd.  
"Bijulee Bhawan", Paltanbazar  
Guwahati-781 001

2. Meghalaya Power Distribution Corporation Ltd.  
Meter Factory Area, Short Round Road  
Integrated Office Complex  
Shillong-793 001

3. Tripura State Electricity Corporation Ltd.  
Bidyut Bhavan, North Banamalipur  
Agartala-799 001

4. Power and Electricity Department  
Govt. of Mizoram  
P&E Office Complex, Electric Veng, Aizwal-796 001

5. Manipur State Power Distribution Company Ltd  
Electrical Complex, Khawal Bazar  
Keishampat, Imphal-795 001



6. Department of Power  
Govt. of Arunachal Pradesh  
Vidyut Bhawan  
Itanagar-791 111

7. Department of Power  
Govt. of Nagaland  
Kohima-797 001

8. North Eastern Regional Power Committee  
Meghalaya State Housing Finance Co-operative  
Society Ltd. Building  
Nongrim Hills  
Shillong-793 003

9. North Eastern Regional Load Despatch Centre  
Dongtiah, Lower Nongrah  
Lapalang  
Shillong-793 006

.....Respondents

**Parties present:**

1. Shri Rana Bose, NEEPCO
2. Shri Paresh Ch. Barman, NEEPCO

**ORDER**

The petitioner has filed this petition for revision of tariff for the period 2009-14 after truing-up exercise with respect to capital expenditure including additional capital expenditure incurred during the financial years 2009-10 to 2013-14 in respect of Khandong Hydro Electric Project (2 x 25 MW) (hereinafter referred to as “the generating station”) of North Eastern Electric Power Corporation Limited, in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The generating station was commissioned in May, 1984. The tariff of the generating station for the period 2009-14 was determined by the Commission vide order dated 30.9.2011 in Petition No.297/2009 based on capital cost of ₹12194 lakh as on 1.4.2009. Thereafter, by order dated 2.7.2014 in Petition No.236/GT/2013, the



annual fixed charges of the generating station was revised based on the actual capital expenditure incurred during the years 2009-10 to 2011-12 and projected capital expenditure during the years 2012-13 and 2013-14. The annual fixed charges approved by the Commission vide order dated 2.7.2014 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	1135.37	1183.04	1193.22	1217.72	1332.47
Interest on Loan	0.00	0.00	0.00	0.00	9.72
Depreciation	505.05	515.42	533.47	554.71	652.86
Interest on Working Capital	80.53	84.39	87.78	91.70	99.47
O & M Expenses	926.39	979.38	1035.40	1094.62	1157.23
<b>Total</b>	<b>2647.34</b>	<b>2762.23</b>	<b>2849.88</b>	<b>2958.74</b>	<b>3251.75</b>

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

*"6. Truing up of Capital Expenditure and Tariff*

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

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

4. The annual fixed charges claimed by the petitioner in this petition for the period 2009-14 are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	1135.35	1183.05	1189.20	1209.59	1284.19
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	505.06	515.45	525.05	527.65	531.73
Interest on Working Capital	80.53	84.39	87.52	90.96	95.73
O & M Expenses	926.38	979.36	1035.38	1094.60	1157.21
<b>Total</b>	<b>2647.32</b>	<b>2762.25</b>	<b>2837.15</b>	<b>2922.80</b>	<b>3068.86</b>

5. Though the petitioner in this petition has claimed the revision of annual fixed charges for the period 2009-14, it is noticed that there is no change in the annual fixed charges claimed for the years 2009-10 and 2010-11 respectively as against those allowed by Commission's order dated 2.7.2014 in Petition No. 236/GT/2013. In view of this, the annual fixed charges allowed for the years 2009-10 and 2010-11 in order



dated 2.7.2014 shall remain unchanged and the truing-up exercise based on actual capital expenditure is required to be undertaken for the years 2011-12 to 2013-14. The reasons submitted by the petitioner for revision of the actual expenditure allowed for the year 2011-12 shall be discussed while examining the claims of the petitioner in subsequent paragraphs. We proceed accordingly.

6. The matter was heard on 3.2.2015 and the Commission reserved its orders after directing the petitioner to submit the additional information/documents. In compliance with the above directions, the petitioner vide affidavit dated 23.3.2015 has submitted the additional information and has also enclosed the copy of the Delegation of Powers (DOP) (Revised 2012) approved of the Board of the Petitioner Corporation. The petitioner has also served copies of the additional information on the respondents. Reply has been filed by the respondent No.1, ASEB.

7. The respondent No.1, ASEB in its reply affidavit dated 6.1.2015 has submitted that the items and year-wise expenditure claimed by the petitioner are completely different from those approved by the Commission in orders dated 30.9.2011 and 2.7.2014 in Petition Nos. 297/2009 and 236/GT/2013 respectively. It has also submitted that the petitioner should have approached the Commission on this count as per proviso to Regulation 6 (1) of the 2009 Tariff Regulations prior to 2013-14. Accordingly, the respondent has submitted that any upward claim over and above the additional capital expenditure already approved by the Commission is not admissible. The petitioner has also submitted that the Commission may examine and admit the additional capital expenditure with prudence check of the claims of the petitioner.

8. The petitioner in its rejoinder affidavit dated 28.1.2015 has clarified that the additional capital expenditure claimed for 2009-13 are exactly same as those allowed



vide order dated 2.7.2014 in Petition No. 236/GT/2013, except for 2011-12 for which explanation has been submitted and thereby reducing the annual fixed charges for the said year. It has also submitted that the additional capital expenditure claimed for 2013-14 is based on actual execution and is much less in comparison to those allowed by the Commission based on projections. Accordingly, it has submitted that the petitioner is entitled for recovery for such expenditure actually incurred during the said period subject to prudence check by the Commission.

9. We have examined the matter. The 2009 Tariff Regulations envisages determination of tariff based on the projected capital expenditure as on the cut-off date and projected additional capital expenditure during the tariff period. One mid-term truing-up and final truing-up of the capital expenditure, with suitable provision for payment of interest on the excess recovery or shortfall in recovery, has been provided to balance the interest of the generating companies as well as the beneficiaries. In terms of the proviso to Regulation 6(1) of the 2009 Tariff Regulations, the generating company has the discretion to approach the Commission one more time for truing up during the tariff period. In terms of Regulation 6 (1), the Commission shall carry out truing-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. In terms of the above regulations, the annual fixed charges for the period 2009-12 had been revised by order dated 2.7.2014 in Petition No.236/GT/2013 based on the actual capital expenditure for the said period and the truing-up of expenditure for 2011-14 at the end of the tariff period is to be undertaken by this order based on submissions of the parties and after prudence check. With the provision for truing-up and the adjustment of excess recovery or shortfall as a result of such truing up at SBI



PLR rate, the concerns of the respondent, ASEB are duly taken care of. Thus, the objection of the respondent is disposed of as above. We now proceed to revise the tariff of the generating station for the period 2011-14 based on the submissions of the parties as stated in the subsequent paragraphs.

### **Capital Cost**

10. 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.”*

11. In terms of the above provision, the admitted capital cost as on 31.3.2009 is to be considered as the opening capital cost as on 1.4.2009. The Commission vide order dated 2.7.2014 in Petition No. 236/GT/2013 had approved the capital cost of ₹12170.88 lakh as on 31.3.2009 and ₹12380.34 lakh as the closing capital cost as on 31.3.2011. Accordingly, in terms of the above proviso, the capital cost of ₹12380.34 lakh as on 31.3.2011 has been considered as the opening capital cost as on 1.4.2011 for the purpose of revision of annual fixed charges for the period 2011-14.

### **Additional Capital Expenditure for 2011-14**

12. 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.*

13. The actual additional capital expenditure for the period 2009-12 and projected additional capital expenditure for the period 2012-14 allowed vide order dated 2.7.2014 in Petition No.236/GT/2013 is as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
<b>Actual</b>			<b>Projected</b>	
40.53	168.93	141.35	37.55	1282.58



14. As stated above, the Commission vide Record of the proceedings held on 3.2.2015 directed the petitioner to seek the approval of the Board of Directors to the Revised Cost Estimate (RCE) submitted to the Central Government and place same on record. The petitioner was also directed to submit the circular/ notification regarding the delegation of financial powers being followed in NEEPCO. In response, the petitioner vide affidavit dated 23.3.2015 has clarified that the commissioning cost of the project was within the administrative approval of the Petitioner Corporation and no further RCE for the generating station is pending with the Central Government. The petitioner has further submitted that the additional capital expenditure for the period 2009-14 has been incurred within the delegated powers as approved by the Board of Directors of Petitioner Corporation. In this connection, the petitioner has submitted the latest document titled "Delegation of Powers" (DOP) as approved by Board of Directors of the Petitioner Corporation. The petitioner has also submitted the list indicating the assets/works claimed during the period 2009-14, the amount capitalized, and the approving authority along with reference to the clauses in the DOP. Accordingly, the petitioner has prayed for considering the admissibility of the additional capital expenditure in terms of the provisions of the 2009 Tariff Regulations.

15. The actual additional capital expenditure claimed for the years 2011-13 to 2013-14 is as under:

	(₹ in lakh)		
	2011-12	2012-13	2013-14
<b>Additional capital expenditure as per books of accounts</b>			
Additions in books of accounts	264.31	83.64	19.75
De-capitalization as per books of accounts	0.00	(-) 278.39	(-) 2.16
<b>Net as per books of accounts</b>	<b>264.31</b>	<b>(-) 194.75</b>	<b>17.59</b>
<b>Additional capital expenditure claimed under Regulation 9(2)(iv)</b>			
Expenditure on security of the power stations as well as officials engaged in maintenance and operation which in	0.00	0.89	0.00



turn have contributed to the smooth and successful operation of the plant			
Replacement of existing damaged/obsolete assets for smooth operation of the plant	3.47	42.88	15.76
New assets installed for efficient operation of the plant (without de-capitalization)	259.17	0.00	3.99
<b>Sub-total additions claimed (a)</b>	<b>262.64</b>	<b>43.77</b>	<b>19.75</b>
De-capitalization of old assets replaced by new assets covered above	(-) 259.36	(-) 6.22	(-) 2.16
<b>Sub-total de-capitalization claimed (b)</b>	<b>(-) 259.36</b>	<b>(-) 6.22</b>	<b>(-) 2.16</b>
<b>Additional capital expenditure claimed (c)= (a)+(b)</b>	<b>3.28</b>	<b>37.55</b>	<b>17.59</b>
<b>Exclusion (Not claimed for tariff)</b>			
Not related to core activity	0.00	0.00	0.00
Minor assets	0.00	0.00	0.00
Assets of the O&M nature	0.00	0.00	0.00
Assets of the nature of stocks and spares T&P	2.61	1.10	0.00
<b>Sub-total of Exclusions (d)</b>	<b>2.61</b>	<b>1.10</b>	<b>0.00</b>
<b>Additional capital expenditure (claimed + Exclusions) (e)= (c)+(d)</b>	<b>5.89</b>	<b>38.66</b>	<b>17.59</b>
<b>Difference with books of accounts</b>	<b>258.42</b>	<b>(-) 233.41</b>	<b>0.00</b>

16. The Commission vide Record of the proceedings held on 3.2.2015 directed the petitioner to submit additional information on the following:

*“6. (a) Reasons for claiming expenditure for ₹0.95 lakh for ‘Rising spindle cast carbon steel gate valve’ during 2011-12, but capitalized during the year 2012-13;*

*(b) A detailed note ‘furnishing reasons for initially capitalizing expenditure of ₹258.82 lakh in books during 2011-12 towards Stator and later de-capitalizing the same in books during 2012-13. In this background, clarification shall be submitted as to:*

*(i) Whether the stator was capitalized on accrual basis with no corresponding cash out go. If yes, then why in the previous truing petition no un-discharged liability was shown by the petitioner during 2011-12.*

*(ii) When was job completion certificate obtained as petitioner has not capitalized the expenditure during 2013-14 subsequent to de-capitalization of the asset during 2012-13.”*

17. In response, the petitioner vide affidavit dated 23.3.2015 has submitted clarification as under:



*“The capital expenditure amounting to ₹ 94,790.00 for “Rising spindle cast carbon steel gate valve” was incurred during the financial year 2011-12, but the same was wrongly booked under the head “Maintenance of Plant & Machineries”. On detection of wrong in the aforesaid entry, rectification of the same has been made in books of Khandong during the financial year 2012-13 capitalizing the expenditure under the head “plant & machinery in Generating Station” charging depreciation with effect from the financial year 2011-12 under “prior period adjustment”. The said adjustment/rectification has been further elaborated in Annexure XII – Reconciliation of differences”.*

*The “Stator Bar” was capitalized in the books of Khandong during the financial year 2011-12 on receipt of the related materials from M/s BHEL as well as completion of the job. However, consequent to failure of the Stator during its high voltage test, the same sent back to M/s BHEL’s factory for necessary rectification. Accordingly, the expenditure has been de-capitalized during the financial year 2012-13 with depreciation adjustment under “prior period” with effect from the financial 2011-12. The said adjustment / rectification has been further elaborated in Annexure XII – Reconciliation of differences.*

*Since all payment has been made to M/s BHEL during the same year of receipt of the same, i.e., during the financial year 2011-12, no un-discharged liability has accrued/shown for the said purpose”.*

18. The difference of ₹258.42 lakh and (-)₹233.41 lakh between the additional capital expenditure as per books of accounts and the additional capital expenditure (including exclusions) claimed for the years 2011-12 and 2012-13 has been examined. It is observed that the difference in the amounts have arisen due to the shifting of certain expenditure capitalized towards replacements made and the de-capitalization in the books of accounts from the year 2012-13 to the year 2011-12 and 2010-11 for the purpose of tariff. The reconciliation of the amounts indicated by the petitioner is detailed as under:

	(₹ in lakh)	
	<b>2011-12</b>	<b>2012-13</b>
Additions as per books of accounts during the year (a)	<b>264.31</b>	<b>83.64</b>
Additions+ exclusions claimed (b)	265.25 [262.64+2.61]	44.87 [43.77+1.10]
Additions shifted from the year under consideration to previous years	0.00	0.95 [(shifted to 2011-12)+37.82 (shifted to 2010-11)]
Reconciliation of additions	<b>264.31</b> [(a)=(b)-0.95 (shifted from 2012-13)]	83.64 [(a)=(b)+0.95+37.82]
Deletions as per books of accounts during the year (c)	0.00	(-) 278.39



Deletions + exclusions claimed for the year (d)	<b>(-) 259.36</b>	<b>(-) 6.22</b>
Deletions shifted from the year to previous years	0.00	<b>(-) 272.16</b> [(-) 259.36(shifted to 2011-12) + (-) 12.49 (shifted to 2010-11)+ (-) 0.31 wrong entry in books of Khandong as it pertains to Kopili-II]
Reconciliation of deletions	0.00 [(c)=(d)- (-) 259.36 shifted from 2012-13]	<b>(-) 278.39</b> [(c)=(d)+ (-) 272.16 (shifted from 2012-13 to various years as above)]

19. It is noticed in order dated 2.7.2014 in Petition No.236/GT/2013, that the addition of ₹37.82 lakh was allowed to be shifted from the year 2012-13 to 2010-11 along with shifting of de-capitalization amounting to (-)₹12.49 lakh. As evident from the said order, the net impact for the year 2010-11 was the additional claim of ₹25.33 lakh. Thus, the claim for additional capital expenditure with respect to books of accounts has been reconciled.

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

### **2011-12**

21. The actual additional capital expenditure claimed by the petitioner under Regulation 9(2)(iv) of the 2009 Tariff Regulations is as under:

(₹ in lakh)			
Sl. No.	Assets/Works	Actual additional capital expenditure claimed	Remarks on admissibility
1	Procurement of new stator assembly	258.82	<b>Allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the asset was allowed vide order



			dated 2.7.2014 in Petition No.236/GT/2013 on the ground that the same is necessary for efficient and successful operation of the plant.
2	Replacement of damaged cast carbon steel gate valve.	0.95	This asset was allowed vide order dated 2.7.2014 in Petition No.236/GT/2013 under Regulation 9(2)(iv) of the 2009 Tariff Regulations considering the same to be necessary for efficient operation of the plant. The petitioner vide affidavit dated 23.3.2015 has submitted that the expenditure was actually incurred during the year 2011-12 but was wrongly booked under the "Maintenance of plant and Machineries". It also submitted that the mistake was rectified in books during 2012-13 and the expenditure was capitalized under the head "Plant and Machinery" charging depreciation with effect from the year 2011-12 under "Prior period adjustment". Considering the fact that the expenditure was incurred during the year 2011-12, the same is <b>allowed</b> under Regulation 9(2)(iv) as the same is necessary for efficient and successful operation of the plant.
3	Replacement of 70:30 Tubes for GT	2.52	The Commission by order dated 2.7.2014 in 236/GT/2013 had allowed the projected/actual expenditure on replacement of tubes, considering acidic nature of the water and the difficulty faced by the generating station. Hence, <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations, as the same is necessary for efficient and successful operation of the plant.
4	Construction of security wall over the Khandong dam Meghalaya bank	0.34	<b>Allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the asset was allowed vide order dated 2.7.2014 in Petition No.236 / GT/2013 on the ground that the same is necessary for security and safety of the generating station.
	<b>Total amount claimed</b>	<b>262.64</b>	
	<b>Total amount allowed</b>		<b>262.64</b>



**2012-13**

22. The details of the assets/works, the actual additional capital expenditure claimed against the works/assets along with the reasons for admissibility of the actual additional capital expenditure in terms of 2009 Tariff Regulations is as under:

(₹ in lakh)

Sl. No.	Assets/Works	Actual additional capital expenditure incurred	Remarks on admissibility
1	Construction of toilet at Security gate of Khandong Dam site	0.89	<b>Allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations as the for expenditure is necessary for the safety and benefit of the employees working in remote area of the generating station and in turn will facilitate the efficient and successful operation of the plant.
2	Replacement of seamless pipes, bends and flanges	10.42	Projected expenditure of ₹50.00 lakh on replacement of cooling water pipes with SS pipes was allowed vide order dated 30.9.2011 in Petition No.297/2009 considering the same to be necessary for efficient and successful operation of the plant. Accordingly, the actual expenditure incurred is <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the purpose of tariff.
3	Replacement of gate valves	7.33	Projected expenditure of ₹25.00 lakh on replacement of valves was allowed vide order dated 30.9.2011 in Petition No.297/2009 considering the same to be necessary for efficient and successful operation of the plant. Accordingly, the actual expenditure incurred is <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the purpose of tariff.
4	Numeric distance protection relays	11.48	Projected expenditure of ₹50.00 lakh on replacement of all electro-magnetic relays for protection of generators with new version of numeric relays was allowed vide order dated 30.9.2011 in Petition No.297/2009 considering the same to be necessary for efficient and successful operation of the plant.



			Accordingly, the actual expenditure incurred is <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the purpose of tariff.
5	Replacement of 70:30 Tubes for GT air coolers	13.65	Commission by orders dated 30.9.2011 and 2.7.2014 in Petition Nos. 297/2009 and 236/GT/2013 had allowed the expenditure on replacement of tubes on projected basis as well as on actual basis, considering the acidic nature of the water and the problems being faced by the generating station. Hence, <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the purpose of tariff..
	<b>Total amount claimed</b>	<b>43.77</b>	
	<b>Total amount allowed</b>		<b>43.77</b>

### 2013-14

23. The details of the assets/works, the actual additional capital expenditure claimed against the works/assets along with the reasons for admissibility of the actual additional capital expenditure in terms of 2009 Tariff Regulations is as under:

(₹ in lakh)			
Sl. No.	Assets/Works	Actual additional capital expenditure incurred	Remarks on admissibility
1	Multimeters	0.33	<b>Not allowed</b> as the assets are in the nature of 'Tools and Tackles'
2	Grinder	0.15	
3	Pumps (Submersible pump 2 H.P, Kirloskar Pump, KBI Pump)	3.51	The petitioner has submitted that due to acidic nature of water, leakage frequently occurs from under water parts for which pumps to save the powerhouse from flooding is required. It is observed that projected expenditure of ₹10.00 lakh towards the procurement of submersible pumps was allowed vide order dated 30.9.2011 in Petition No.297 / 2009 as the same is necessary for efficient and successful operation of the plant. Accordingly, the actual expenditure incurred is <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the



			purpose of tariff.
4	Replacement of 132 kV Circuit breaker (complete)	15.76	Projected expenditure of Rs.20.00 lakh for replacement of 132 kV MOCBs with SF6 was allowed vide order dated 30.9.2011 in Petition No.297/2009 considering the same as necessary for efficient and successful operation of the plant. Accordingly, the actual expenditure incurred for replacement of obsolete circuit breakers for which spares are not available with latest SF6 breakers is <b>allowed</b> under Regulation 9(2)(iv) of the 2009 Tariff Regulations for the purpose of tariff.
	<b>Total amount claimed</b>	<b>19.75</b>	
	<b>Total amount allowed</b>		<b>19.27</b>

## Deletions

### 2011-12

24. The petitioner has indicated an amount of (-) ₹259.36 lakh for de-capitalization of old assets replaced. The de-capitalized assets include stator assembly for (-) ₹258.82 lakh, damaged valves of (-) ₹0.15 lakh and GT tubes (-) ₹0.39 lakh. These de-capitalized assets do not render any useful service in the operation of the plant.

25. As regards 'Assets not in use', proviso to Regulation 7(1) of the 2009 Tariff Regulations provides as under:

*"Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost"*

26. Accordingly, the de-capitalization of the damaged valves and GT tubes shifted from the year 2012-13 to 2011-12 (i.e the year of capitalization of expenditure on replacement) has been considered for the purpose of tariff during 2011-12. As regards the de-capitalization of (-) ₹258.82 lakh towards Stator assembly, the petitioner vide its affidavit dated 24.3.2015 has submitted the clarification, the extract of which is quoted in para 17 above. Based on the justification submitted by the petitioner as above and



considering the fact that the petitioner has shifted the de-capitalization to the year 2011-12 for the purpose of tariff (i.e the very year during which the capitalization of the same amount was incurred/allowed), we are inclined to allow the shifting of de-capitalization of (-) ₹258.82 lakh to 2011-12 for the purpose of tariff. The net impact on tariff due to capitalization and the subsequent de-capitalization of Stator assembly is therefore "nil".

### **2012-13**

27. Against the addition capitalization of ₹43.77 lakh, the petitioner has claimed an amount of (-) ₹6.22 lakh for de-capitalization of old assets replaced. The de-capitalized assets include seamless pipes, bends, flanges, gate valves, protection relays and tubes for GT air coolers. In terms of the proviso to Regulation 7(1) of the 2009 Tariff Regulations (as quoted above), the de-capitalization of the (-) ₹6.22 lakh is considered for the purpose of tariff for 2012-13.

### **2013-14**

28. Against the replacement of Circuit breaker, Petitioner has indicated/claimed an amount of (-) ₹2.16 lakh for de-capitalization of old assets replaced..As this de-capitalized asset does not render any useful service in the operation of the generating station, the de-capitalization of the said amount for 2013-14 has been considered for the purpose of tariff, nil terms of the proviso to Regulation 7(1) of the 2009 Tariff Regulations.



## **Exclusions [2011-12 to 2013-14]**

### **Exclusions in additions (Expenditure incurred but not claimed for the purpose of tariff)**

#### **2011-12**

29. The petitioner has incurred expenses of ₹2.61 lakh for procurement of minor assets, assets of the O&M nature, spares etc. However, as the expenditure incurred towards procurement of minor assets, assets of O&M nature, Tools and tackles after the cut-off date is not permissible for the purpose of tariff in terms of the 2009 Tariff Regulations, the petitioner has not claimed the said expenditure for the purpose of tariff. Accordingly, the petitioner has considered these additions under exclusion category. As such, the exclusions of the positive entries under the head are in order and are allowed.

#### **2012-13**

30. The petitioner has incurred expenditure of ₹1.10 lakh for acquiring minor assets. However, as the expenditure incurred towards procurement/replacement of minor assets, assets of O&M nature, Tools and tackles after the cut-off date is not permissible for the purpose of tariff in terms of the 2009 Tariff Regulations, the petitioner has not claimed the said expenditure for the purpose of tariff. Accordingly, the petitioner has considered these additions under exclusion category. As such, the exclusions of the positive entries under the head are in order and are allowed.

#### **2013-14**

31. No exclusions have been indicated by the petitioner for this year.

### **Un-discharged liabilities**

32. The petitioner vide affidavit dated 23.3.2015 has submitted that there is no un-discharged liabilities in the additional capital expenditure, duly certified by Auditor.



33. Based on the above discussions, the additional capital expenditure allowed for the purpose of tariff works is as under:

(₹ in lakh)			
	2011-12	2012-13	2013-14
<b>Additions</b>			
Additional Capital Expenditure allowed under Regulation 9(2)(iv)	262.64	43.77	19.27
<b>Deletions</b>			
Deletions considered	(-) 259.36	(-) 6.22	(-) 2.16
<b>Total Additional Capital Expenditure allowed</b>	<b>3.28</b>	<b>37.55</b>	<b>17.11</b>

### Capital Cost for 2011-14

34. Accordingly, the capital cost considered for the purpose of the tariff is as under:

(₹ in lakh)			
	2011-12	2012-13	2013-14
Opening capital cost as on 1 <sup>st</sup> April of the financial year	12380.34	12383.62	12421.17
Additional Capital Expenditure allowed	3.28	37.55	17.11
<b>Capital cost as on 31<sup>st</sup> March of the financial year</b>	<b>12383.62</b>	<b>12421.17</b>	<b>12438.28</b>

### Debt-Equity

35. The petitioner has stated that the funding of additional capital expenditure has been made through internal resources and others. In line with Regulation 12 of the 2009 Tariff Regulations the debt equity ratio of 70:30 has been considered on the admitted additional capital expenditure and after adjustment of un-discharged liability.

### Return on Equity

36. In accordance with Regulation 15(3) and 15(4) of the 2009 Tariff Regulations 2009, the petitioner considered Rate of Return on Equity (ROE) as follows:

	2009-10	2010-11	2011-12	2012-13	2013-14
Base Rate	15.5%	15.5%	15.5%	15.5%/16.5%	16.5%
Effective Tax Rate	16.995%	19.931%	20.008%	20.008%	20.961%
Tax Rate	15.00%	18.00%	18.50%	18.50%	18.50%



Surcharge	10.00%	7.50%	5.00%	5.00%	10.00%
Education cess	3.00%	3.00%	3.00%	3.00%	3.00%
Rate of ROE (pre-tax)	18.674%	19.358%	19.377%	19.689%	20.876%

37. The Base Rate has been changed from 15.5% to 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage under the 2009 Tariff Regulations amended on 31.12.2012. The rate of ROE (pre-tax) for the year 2012-13 (19.689%) is the composite rate calculated for the year. The above rates have been considered in the tariff. Accordingly, the Return on Equity has been computed as follows:

	(₹ in lakh)		
	2011-12	2012-13	2013-14
Gross Notional Equity	6136.72	6137.70	6148.97
Addition due to additional capital expenditure	0.98	11.27	5.13
Closing Equity	6137.70	6148.97	6154.10
Average Equity	6137.21	6143.33	6151.53
Rate of Return on Equity	19.377%	19.689%	20.876%
<b>Return on Equity</b>	<b>1189.21</b>	<b>1209.56</b>	<b>1284.19</b>

### Interest on loan

38. The normative loan of the project has already been repaid. The normative loan on account of admitted additional capital expenditure during the respective years of the tariff period have also been considered as paid fully, as the admitted depreciation is more than the amount of normative loan in these years. As such Interest on loan during the period 2011-14 is 'nil'.

### Depreciation

39. The COD of the generating station is 4.5.1984. Since the generating station has completed 12 years of operation as on 4.5.1996, the remaining depreciable value has been spread over the balance useful life of the assets. Accordingly, depreciation has been worked out as under:



	(₹ in lakh)		
	2011-12	2012-13	2013-14
Opening gross block	12380.34	12383.62	12421.17
Additional capital expenditure	3.28	37.55	17.11
Closing gross block	12383.62	12421.17	12438.28
Average gross block	12381.98	12402.40	12429.73
Depreciable Value	10985.38	11003.76	11028.35
Balance Useful life of the asset	8.09	7.09	6.09
Remaining Depreciable Value	4254.57	3896.03	3375.08
<b>Depreciation</b>	<b>525.80</b>	<b>549.38</b>	<b>554.05</b>

40. The O&M expenses allowed vide order dated 2.7.2014 in Petition No. 236/GT/2013 has been considered as under:

(₹ in lakh)		
2011-12	2012-13	2013-14
1035.40	1094.62	1157.23

### Interest on Working Capital

41. 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.*

42. 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 1<sup>st</sup> 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.

43. 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)		
2011-12	2012-13	2013-14
472.99	490.83	515.28

(b) **Maintenance Spares:** In terms of the provisions of the above regulations, maintenance spares @ 15% of O&M expenses considered for the purpose of tariff, is as stated below:

(₹ in lakh)		
2011-12	2012-13	2013-14
155.31	164.19	173.58

(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:

(₹ in lakh)		
2011-12	2012-13	2013-14
86.28	91.22	96.44

44. 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.

45. Necessary computations in support of calculation of interest on working capital are as under:

(₹ in lakh)			
	2011-12	2012-13	2013-14
Maintenance Spares	155.31	164.19	173.58
O & M expenses	86.28	91.22	96.44
Receivables	472.99	490.83	515.28
<b>Total</b>	<b>714.58</b>	<b>746.24</b>	<b>785.30</b>
Rate of interest	12.25%	12.25%	12.25%
<b>Interest on Working Capital</b>	<b>87.54</b>	<b>91.41</b>	<b>96.20</b>



## Annual Fixed Charges

46. The annual fixed charges approved for the generating station for the period from 1.4.2011 to 31.3.2014 is summarized as under:

	<i>(₹ in lakh)</i>		
	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Return on Equity	1189.21	1209.56	1284.19
Interest on Loan	0.00	0.00	0.00
Depreciation	525.80	549.38	554.05
Interest on Working Capital	87.54	91.41	96.20
O & M Expenses	1035.40	1094.62	1157.23
<b>Total</b>	<b>2837.94</b>	<b>2944.98</b>	<b>3091.67</b>

47. The difference between the annual fixed charges recovered by the petitioner in terms of the order dated 2.7.2014 in Petition No. 236/GT/2013 and the annual fixed charges determined by this order shall be adjusted in terms of Regulation 6(6) of the 2009 Tariff Regulations.

48. Petition No.454/GT/2014 is disposed of in terms of the above.

**-Sd/-**  
**(A.S. Bakshi)**  
**Member**

**-Sd/-**  
**(A.K.Singhal)**  
**Member**

**-Sd/-**  
**(Gireesh B. Pradhan)**  
**Chairperson**

