CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 17/GT/2013

Coram: Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A.K. Singhal, Member
Smt. Neerja Mathur, Member (EO)

Date of Hearing: 15.4.2014
Date of Order: 4.12.2014

IN THE MATTER OF

Revision of Annual Fixed Charges of National Capital Thermal Power Station Stage-II (2 X 490 MW) from 31.1.2010 to 31.3.2014 after the truing up exercise

AND IN THE MATTER OF

NTPC Ltd.
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi – 110003

…Petitioner

Vs

1. Uttar Pradesh Power Corporation Limited
   Shakti Bhawan
   14, Ashok Marg
   Lucknow - 226001

2. Tata Power Delhi Distribution Ltd.
   Grid Substation, Hudson Road
   Kingsway Camp
   New Delhi – 110009

3. BSES-Rajdhani Power Ltd
   BSES Bhawan, Nehru Place
   New Delhi – 110019

4. BSES-Yamuna Power Ltd,
Shakti Kiran Building
Karkardooma,
New Delhi - 110092

… Respondents

Parties Present:

Shri Vivek Kumar, NTPC
Shri A.S. Pandey, NTPC
Shri S.K. Jain, NTPC
Shri A.K. Srivastava, NTPC
Shri R.B. Sharma, Advocate, BRPL
Shri Manish Garg, UPPCL & BYPL

ORDER

The petition has been filed for revision of the Annual Fixed Charges for National Capital Thermal Power Station, Dadri, Stage-II (2 x 490 MW) (hereinafter referred to as "the generating station") for the period from 31.1.2010 to 31.3.2014 in terms of clause (1) of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations"). The petition was initially filed based on the actual capital expenditure for the years 2009-10, 2010-11 and 2011-12 and estimated capital expenditure for the years 2012-13 and 2013-14. During pendency of the petition, accounts for the year 2012-13 were finalized and accordingly the petitioner amended its petition to claim the revised fixed charges on the basis of actual expenditure for that year too.

2. The generating station comprises of two units; first unit was declared under commercial operation on 31.1.2010 and second unit on 31.7.2010. Petition No. 14/2010 was earlier filed by the petitioner for approval of the tariff of the generating station for

the period 31.1.2010 to 31.3.2014, The Commission in its order dated 30.9.2011 approved the tariff considering the capital cost of ₹207234.32 lakh as on the date of commercial operation of Unit-I and ₹397411.26 lakh as on the date of commercial operation of Unit-II which is also the date of commercial operation of the generating station. Break-up of the capital cost up to the date of commercial operation of the generating station allowed vide order dated 30.9.2011 is as under:

(₹ in lakh)

	As on 31.1.2010 CoD of Unit-I	As on 31.7.2010 CoD of Unit-II
Gross Block	228421.89	441656.67
Less: Un-discharged liabilities included above	20444.96	43628.93
Capital Cost on Cash Basis	207976.93	398027.74
Add: Notional IDC	226.31	352.44
Add: Short Term FERV (Charged to P&L account)	-968.92	-968.92
Capital cost as on the date of commercial operation of the respective unit	207234.32	397411.26

3. The capital cost considered in the order dated 30.9.2011 in Petition No. 14/2010 for determination of tariff for the years 2009-10 to 2013-14 is summarized as under:

(₹ in lakh)

	2009-10	**2010-11**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Opening capital cost (As on 1.4.2009)	207234.32*	207234.32	397411.26#	451435.26	480776.26	493515.26
Add: Projected additional capital expenditure	0.0	0.0	54024.00	29341.00	12739.00	0.0
Closing capital cost (As on 31.3.2010)	207234.32	207234.32	451435.26	480776.26	493515.26	493515.26

** As on 31.1.2010*
 # As on 31.7.2010

4. The petitioner presently seeks revision of tariff based on the actual additional capital expenditure incurred for the years 2009-10, 2010-11, 2011-12 and 2012-13 and the revised projected estimated expenditure for the year 2013-14.

Maintainability

5. BSES Yamuna Power Limited in its affidavit dated 7.3.2013 has submitted that clause (1) of Regulation 6 of the 2009 Tariff Regulations provides for truing up of capital expenditure along with the tariff petition filed for the next period. According to BSES Yamuna Power Limited, the petitioner's request for "carrying out of truing up exercise" during current tariff period 2009-14 is not admissible and should be rejected.

6. 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."*

7. It is evident that proviso to clause (1) of Regulation 6 enables the petitioner to seek revision of tariff once before expiry of the tariff period 2009-14 on the basis of actual expenditure incurred. Therefore, the present petition is maintainable.

CAPITAL COST

8. Regulation 7 of the 2009 Tariff Regulations specifies the different elements that constitute Capital Cost for determination of tariff. These elements are:

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan,

(b) Capitalized initial spares subject to the ceiling rates specified in Regulations 8; and

(c) Additional capital expenditure determined under Regulation 9.

9. Regulation 7 ibid is extracted below:

*"7. **Capital Cost.** (1) Capital cost for a project shall include:*

(a) *the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;*

(b) *capitalized initial spares subject to the ceiling rates specified in Regulation 8; and*

(c) *additional capital expenditure determined under Regulation 9:*

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

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

Capital Cost as on COD (31.1.2010) of Unit-I and Subsequent Additional Capital Expenditure on Unit-I upto COD of Unit-I on 31.7.2010

10. The petitioner has submitted the accounts duly audited. The reconciliation of the capital cost claimed and allowed vide order dated 30.9.2011 is shown below:

(₹ in lakh)

Particulars	**Amount**
Capital cost allowed as on 31.1.2010 vide order dated 30.9.2011	207234.32
Less: Notional IDC considered in order dated 30.9.2011	226.31
Less: Short term FERV charged to revenue in order dated 30.9.2011	(-) 968.92
Add: Notional IDC	490.00
Add: Short term FERV charged to revenue now claimed	(-) 92.60
Capital cost now claimed as on 31.1.2010	**208374.33**

11. The variation in capital cost as on date of commercial operation of Unit-I as allowed in tariff order dated 30.9.2011 and as claimed in the present petition is on account of variation of notional IDC and short-term FERV.

12. The revised claim for actual additional capital expenditure on the date of commercial operation of the respective unit is as per the following details:

(₹ in lakh)

		Unit-I 31.1.2010 (as on COD of Unit-I)	**Unit-I** 1.4.2010	**Unit-II/ Generating Station (COD)** 31.7.2010
i	**Opening Capital Cost**	208374.33	215971.88	**402562.05*****
ii	**Additional Capitalization including initial spares for Unit-I**	632.63#	9394.43$	
iii	**De-Capitalization included in Additional Capitalization claimed**	-0.29	-11.26	
iv	**Discharge of liability by payment**	6964.92	118.34	
v	**Short term FERV**			-85.00
vi	**Notional IDC**			1207.00

vii	**Additional Capitalization Claimed (ii+iii+iv+v+vi)**	7597.55	9512.76	
	Capital Cost (i+vii)	215971.88	**225484.64**	**403683.84**

*Includes capitalized expenditure of ₹177077.41 lakh (including initial spares of ₹4.99 lakh) for Unit-II as on 30.7.2010.
Includes initial spares of ₹11.04 lakh.
$ Includes initial spares of ₹414.18 lakh

13. The petitioner has claimed actual additional capital expenditure of ₹632.63 lakh from 31.1.2010 (beyond COD of Unit-I i.e. 30.1.2010) to 31.3.2010. This includes expenditures on initial spares of ₹11.04 lakh. The petitioner has also claimed actual additional capitalization of ₹9394.43 lakh which includes spares of ₹414.18 lakh for Unit-I. This is capitalized in books of accounts on 30.7.2010 along with **expenditure of ₹177077.41 lakh on Unit-II**. This expenditure of Unit II capitalized on COD of Unit-II includes initial spares of ₹4.99 lakh. The actual capital expenditure on the COD of station is ₹402562.05 lakh. The total initial spares included in capital cost as on COD of Unit-II works out to ₹883.75 lakh which is about 0.219% of the capital cost as on COD of station and is well within **the ceiling limit of 2.5% of the original project cost. Further, balance additional capital expenditure of ₹621.59 lakh from 31.1.2010 to 31.3.2010 and ₹8980.25 lakh from 1.4.2010 to 30.7.2010 on Unit-1 is in the nature of expenditure on deferred works/deferred payments under the original project cost and may be allowed.** The petitioner has de-capitalised assets worth ₹0.29 lakh during 31.1.2010 to 31.3.2010 and ₹11.26 lakh from 1.4.2010 to 30.7.2010. De-capitalization claimed by the petitioner is also allowed. Accordingly, the capital cost of ₹403683.84 lakh claimed as on 31.7.2010 will be considered as the opening capital cost for the purpose of tariff as on COD of Unit-II.

IDC and FC

14. The petitioner has claimed Interest During Construction (IDC) of ₹18038.75 lakh as on the date of commercial operation of Unit-I and ₹38129.91 lakh as on the date of commercial operation of the station. However, in keeping with the methodology consistently followed by the Commission for computation of IDC, IDC up to the date of commercial operation of Unit-I i.e. 31.1.2010 is calculated as ₹17634.21 lakh and ₹37215.79 lakh upto the date of commercial operation of the generating station i.e. 31.7.2010. Further, in addition to the actual IDC and FC included in the capital cost, the petitioner has also claimed notional IDC amounting to ₹490 lakh and ₹1207 lakh as on the date of commercial operation of Unit-I and Unit-II respectively. The claim of notional IDC made is based on the premise of treating repayments during construction period as being funded by equity and treating the same as notional loan. The normative IDC has been allowed over and above the actual IDC is as ₹553.67 lakh up to the date of commercial operation of Unit-I and ₹1440.40 lakh upto the date of commercial operation of the generating station. The petitioner may submit details of treatment of normative IDC in its books of account and Income- Tax Return on the respective years along with the data at the time of Truing-up petition for the period 2009-14.

15. The Commission has considered the actual amount of loan deployed based on the details submitted by the petitioner in Form 8 and Form 14 attached to the petition. IDC on actual loan has been allowed in this petition by following the average re-payment method for the loans in line with the methodology followed by the Commission in earlier cases, though the petitioner has considered in its claim by following FIFO method of repayment for some of the loans such as SBI III, Allahabad Bank etc.

16. In view of above the capital cost for the purpose of tariff to be considered as on the date of commercial operation of both the units considering all submissions made by the petitioner works out as shown below:

(₹ in lakh)

	As on 31.1.2010	As on 31.7.2010
Capital cost on cash basis inclusive of actual IDC and FC	**207572.40**	**402769.72**
Un-discharged liabilities	20444.96	39492.01
Add: Normative IDC over and above actual IDC	553.67	1440.40
Add: Short term FERV (charged to P&L A/c)	(92.60)	(85)
Capital cost to be considered as on respective COD's	**208033.47**	**404125.12**

Initial Spares

17. The petitioner has claimed actual expenditure of ₹977.58 lakh (excluding un-discharged liabilities of ₹38.90 lakh) from 31.7.2010 to 31.3.2011, ₹5096.73 lakh (excluding un-discharged liabilities of ₹358.37 lakh) during 2011-12, ₹4135.35 lakh (excluding un-discharged liabilities of ₹27.67 lakh) during 2012-13 and projected capital expenditure of ₹1447.00 lakh during 2013-14; adding up to ₹11656.66 lakh.

18. The amount of initial spares capitalized up to 30.7.2010 is ₹883.75 lakh. Initial spares claimed for capitalization from the date of commercial operation of the generating station (31.7.2010) to extended cut-off date 31.3.2014 is ₹11656.66 lakh. Thus, the total initial spares to be capitalized up to cut-off date are of the value of ₹12540.41 lakh (₹883.75 lakh + ₹11656.66 lakh). This works out to 2.82 % of the capital cost of ₹444173.10 lakh (excluding initial spares) up to the cut-off date which is more than the ceiling limit of 2.5% specified under Regulation 8 of the 2009 Tariff

Regulations. Therefore, the initial spares are to be restricted to 2.5% i.e. ₹11104.33 lakh. The petitioner's claim involves excess capitalization of ₹1436.08 lakh (₹12540.41 lakh - ₹11104.33 lakh) of the initial spares. Accordingly, additional capital expenditure of ₹1447.00 lakh claimed for initial spares in the year 2013-14 has been restricted to ₹10.92 lakh (₹1447.00 lakh -₹1436.08 lakh).

Additional Capital Expenditure

19. Regulation 9 of the 2009 Tariff Regulations provides for additional capitalization of expenditure. Clause (1) of Regulation 9 is extracted below**:**

> *"9.* ***Additional Capitalisation.*** *(1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*
>
> *(i) Un-discharged liabilities;*
>
> *(ii) Works deferred for execution;*
>
> *(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;*
>
> *(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
>
> *(v) Change in law: Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff. (2) The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:*
>
> *(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
>
> *(ii) Change in law;*

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

(iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.

(vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations. Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

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

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

(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station

if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility."

20. Under clause (1) of Regulation 9 ibid, capitalization of the expenditure incurred after commercial operation of the generating station is permitted when the expenditure is incurred up to the cut-off date. Cut-off date is defined under the 2009 Tariff Regulations as 31st March of the year closing after two years of the year of commercial operation, and the cut-off date is 31st March of the year closing after three years of the year of commercial operation when the project is declared under commercial operation in the last quarter of a year. The generating station was declared commercially operative on 31.7.2010. Therefore, the cut-off date in the present case is 31.3.2013.

21. The petitioner has proposed capitalization of an expenditure of ₹7253.06 lakh during 2013-14, that is, beyond the cut-off date, on projection basis. Uttar Pradesh Power Corporation Ltd, Respondent No 1 in its affidavit dated 30.10.2013 has submitted that proviso to clause (2) of Regulation 15 allows for additional return of 0.5% for projects completed within the timeline. The petitioner has completed the plant within due date. However, deferred works within the original scope are required to be completed within cut-off-date which was 31.3.2013. Respondent No 1 has urged that the expenditure incurred beyond cut-off-date may not be allowed to be capitalized.

22. The petitioner has submitted that it was not able to complete deferred works amounting to ₹13421 lakh by the cut-off-date and has sought relaxation of cut-off date under Regulation 44 of the Tariff Regulations. The reasons explained by the petitioner in support of its prayer for relaxation are as under:

(a) **Main Plant Package**: During conduct of trial operation of the main plant, certain deficiencies in the system had been identified. Pending removal of defects, the Performance & Guarantee (P & G) test could not be conducted. Certain payments linked with P & G test were withheld and will be released only after successful conduct of P & G test.

(b) **Capital Spares:** Despite continuous follow up with BHEL for supply of the spares within the original scope of work before the cut-off-date at the meetings at various levels and correspondences, BHEL was unable to supply the spares worth ₹1447 lakh. Therefore, the expenditure has been deferred.

(c) **Reservoir and** M**ake up Water System**: The generating station meets its water requirement from the Ganga Canal which, as intimated by Irrigation Department of Government of Uttar Pradesh, required major repairs, affecting supply of water. To overcome the situation, construction of a reservoir was envisaged. Several challenges such as delay in land acquisition due to compensation issues, repeated hindrances in work by local villagers including theft of the material etc, and repeated water logging because of close proximity to the Ganga Canal contributed to the delay in execution of work. The petitioner was continuously taking up with the contractor, M/s Gangotri Enterprise Limited for increased mobilization of resources for timely completion of work who made repeated commitments. In spite of the repeated assurances by the contractor, the work was not completed within stipulated time. The contractor has gone for arbitration, claiming an approx amount of ₹4300 lakh, over and above the likely capitalization of ₹6145 lakh, expected by 2014-15.

(d) **Railway Siding and ST System:** The execution of work required approval of two plans namely Engineering Scale Plan (ESP) and Signal Interlocking Plans (SIP) by Indian Railways. Indian Railways accorded approval for ESP in February 2009. However, before commencement of work, around 3500 trees falling in the way of the proposed siding were required to be cut. Cutting of trees was completed after approval from the UP Forest Department which took more than 1 year. Approval for SIP was given by Indian Railways in February 2011. After ESP and SIP approvals, M/s RITES were awarded the contract. M/s RITES in turn awarded the works to its sub agencies for execution. The materials used for construction are required to be inspected by Research, Design and Standards Organization (RDSO), a body under Ministry of Railways to ensure safety of the system. RDSO undertakes enormous amount of inspection because of huge expansion works of Indian Railways and gives second priority to carry out inspection of material related to private siding works. Therefore, the completion of the works got delayed.

(e) **Miscellaneous**: The expenditure initially projected for Coal Handling Plant Packages, Ash Handling, Pre-treatment Plant, DM Plant, Township etc could not be met as there has been delay in execution of certain works relating to these packages. The Main Plant and Offsite Civil works got hampered on account of poor mobilization of the resources by the contractor, Switchyard packages balance payments could not be capitalized due to non-completion of works by the contractor within the original scope of work, Most of these works are not directly associated with the commercial operation of the generating unit/station.

23. We have considered the submissions of the petitioner. On consideration of the documents/evidences placed on record by the petitioner, it is found that the reasons for delay in P&G Test, supply of spares, completion of railway siding work, raw water reservoir etc. were beyond the control of the petitioner. We are of the view that the petitioner has shown sufficient cause and given justification for relaxation of the provisions relating to cut-off-date. Accordingly, in exercise of power under Regulation 44 of 2009 Regulations, we extend the cut-off date for the purpose of capitalization of expenditure of the generating station by one year from 31.3.2013 to 31.3.2014. A similar relaxation was given in some other cases too under almost similar circumstances.

24. The respondent, BSES Rajdhani Power Limited vide affidavit dated 4.3.2013 has submitted that the petitioner is required to furnish the actual additional capital expenditure incurred from 31.7.2010 to 31.3.2011, 2011-12 and 2012-13 duly audited and certified by the auditors as required under clause (3) of Regulation 6 of the 2009 Tariff Regulations. It has been submitted that the 2009 Tariff Regulations do not provide for reconciliation of actual expenditure incurred from the Balance Sheets which are also audited and certified by the auditors for the purpose of tariff determination. We do not find substance in the objection, the details filed by the petitioner are duly audited.

25. The petitioner has claimed the following additional capital expenditure after commercial operation of the generating station for the period 2010-11 to 2012-13 and for the year 2013-14:

(₹ in lakh)

	2010-11 (31.7.2010 to 31.3.2011) Actual	2011-12 Actual	2012-13 Actual	2013-14 Projected	Total
Works Within Approved Scope	10975.67	15045.94	19755.03	7253.06	53029.70
Liabilities Discharged	20832.27	8762.01	8514.17	0.00	38108.45
Total Addition	**31807.94**	**23807.95**	**28269.20**	**7253.06**	**91138.15**

26. The total claim of the petitioner for capitalization of the additional expenditure in the present petition is ₹ 91138.15 lakh as against the additional capital expenditure of ₹96104.45 lakh considered in the order dated 30.9.2011. There is reduction in claim of ₹4966.30 lakh (₹96104.45 lakh – ₹91138.15 lakh) during the tariff period 2009-14. The petitioner has explained the reasons for reduction which have already been taken note of while considering the petitioner's request for relaxation of the cut-off date.

27. The petitioner has claimed the actual expenditure for the years 2010-11 to 2012-13 and projected expenditure during 2013-14 as per details given below:

(₹ in lakh)

	Applicable Regulation	2010-11z (31.7.2010 to 31.3.2011) Actual	2011-12 Actual	2012-13 Actual	2013-14 Projected	Total
Works within approved cost	9(1)(ii)	10022.96	9996.29	16674.20	5806.06	41373.05
De-Capitalization included in above		(-) 14.52	(-) 47.09	(-)1054.52	0.00	
FERV before COD		(-) 10.34	0.00	0.00	0.00	
Net Add-Cap allowed on cash basis		9998.10	9949.20	15619.68	5806.06	

Initial spares	9(1)(iii)	977.57	5096.73	4135.35	1447.00	11656.65
Total Add-Cap		**10975.67**	**15045.94**	**19755.03**	**7253.06**	**53029.70**

28. The petitioner has submitted that reduction in actual expenditure is on account of loan FERV of (-) ₹10.35 lakh presently claimed, pertaining to the period prior to the commercial operation of the generating station and the reason for change in 2011-12 is on account of change in the loan FERV shown as exclusion during the period 2011-12, from ₹426.55 lakh (earlier) to ₹445.60 lakh (revised).

29. The actual net additional capital expenditure claimed by the petitioner for the period 2010-11 (31.7.2011 to 31.3.2011) to 2012-13 excluding un-discharged liabilities and projected additional capital expenditure claimed for 2013-14 and 2014-15 are being discussed in the subsequent paragraphs.

Works Deferred for Execution

30. The petitioner has claimed net actual capital expenditure of ₹10975.67 lakh (₹9998.10 lakh on works and ₹977.57 lakh on initial spares) during 2010-11 (from 31.7.2010 to 31.3.2011), ₹15045.94 lakh (₹9949.21 lakh on works and ₹5096.73 lakh on initial spares) during 2011-12, ₹19755.03 lakh (₹15619.68 lakh on works and ₹4135.35 lakh on initial spares) during 2012-13 under the Regulation 9(1)(ii) i.e. "works deferred for execution". Since the expenditure on works is within the approved cost and has sought to be capitalized within the cut-off date, the additional capital expenditure of ₹9998.10 lakh during 2010-11, ₹9949.21 lakh during 2011-12 and ₹15619.68 lakh during 2012-13 is allowed under the Regulation 9(1)(ii).

31. The petitioner has claimed projected additional capital expenditure of ₹7253.06 (₹5806.05 lakh on works and ₹1447.00 lakh on initial spares) during 2013-14 and ₹6168.35 lakh (₹6145.17 lakh on reservoir and make up system and ₹23.18 lakh on CW and make up water system) during 2014-15. The projected additional capital expenditure of ₹5806.05 lakh is on deferred works within the original scope which could not be completed by the normal cut-off-date of 31.3.2013 for various reasons already considered. As we have extended the cut-off date to 31.3.2014, the projected additional capital expenditure of ₹5806.05 lakh during 2013-14 is allowed subject to truing up based on actual expenditure. The projected additional capital expenditure of ₹6168.35 lakh during 2014-15 is not being considered at this stage .as it is outside the scope of the present petition.

32. The additional capital expenditure duly certified by auditor based on gross block claimed for tariff for the year 2010-11, 2011-12 and 2012-13 is as follows:

(₹ in lakh)

	2010-11 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**
Opening Gross Block as per audited Balance Sheet (A)	441656.66	457490.62	475955.38
Less: assets held for disposal			1.41
Opening Gross Block as on 1.4.2012			475953.98
Closing Gross Block as per audited Balance Sheet (B)	457490.62	475955.38	497888.67
Addition during the year 2009-10 C=(B-A) (as per books) including un-discharged liabilities (D)	15833.96	18464.76	21934.69
Less un-discharged Liabilities (E)	4812.74	3230.05	3037.97
Exclusions (F)	45.55	188.77	(-) 858.31
Net Add-Cap on cash basis (D-E-F)	**10975.67**	**15045.94**	**19755.03**

33. The actual additional capital expenditure claimed for tariff by the petitioner is at variance with the additional capital expenditure as per gross block. This is on account of exclusions of certain expenditure and un-discharged liabilities for the purpose of tariff. The details of exclusions claimed are discussed below:

Exclusions

34. The exclusions claimed are as under:

(₹ in lakh)

	2010-11 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**Remarks**
FERV Capitalization	45.52	445.60	585.81	Allowed
Liability reversal	(-) 1.67	(-) 255.29	(-) 1427.75	Allowed
Inter-Unit transfer	1.70	(-) 1.54	(-) 16.37	Allowed
Total Exclusions	**45.55**	**188.77**	**(-) 858.31**	

Inter Unit Transfers

35. Amounts of ₹1.70 lakh in the year 2010-11, (-)₹1.54 lakh in the year 2011-12 and (-) ₹16.37 lakh in the year 2012-13 have been excluded under this head on account of transfer of certain assets like Furniture & Office equipments, IT Equipments, Liability Reversal, FERV capitalization etc. These inter-unit transfers are indicated to be temporary. The Commission while dealing with applications for additional capitalization in respect of other generating stations of the petitioner, has decided that both positive and negative entries arising out of inter unit-transfers of temporary nature shall be ignored for the purpose of tariff. In consideration of the same, the exclusions on account of inter-unit transfer of equipment on temporary basis are also in order and may be allowed.

FERV

36. The petitioner has excluded amounts of ₹45.52 lakh in the year 2010-11, ₹445.60 lakh during 2011-12 and ₹585.81 lakh during 2012-13 on account of impact of FERV. As the petitioner has billed the said amount directly to the beneficiaries, the exclusion of FERV is in order and is allowed.

Liability Reversal

37. The petitioner has excluded amounts of (-) ₹1.67 lakh in the year 2010-11, (-) ₹255.29 lakh in the year 2011-12 and (-) ₹1427.75 lakh during 2012-13 on account of reversal of liability. The exclusion of reversal of liability is in order and is therefore, allowed.

38. The position in regard to Exclusions claimed vis-à-vis allowed is summarized as under:

(₹ in lakh)

	2010-11	**2011-12**	**2012-13**
Exclusion Claimed	45.55	188.77	(-) 858.31
Exclusion Allowed	45.55	188.77	(-) 858.31
Exclusion not allowed	0.00	0.00	0.00

39. Based on the discussions in the preceding paragraphs, the actual capital expenditure incurred on cash basis for the period 2010-11 (31.7.2010 to 31.3.2011) to 2012-13 and projected additional capital expenditure during 2013-14 is summarized below:

(₹ in lakh)

	Applicable Regulation	2010-11 31.7.2010 to 31.3.2011	2011-12	2012-13	2013-14	Total
Work within approved cost	9(1)(ii)	9998.10	9949.21	15619.68	5806.06	**41373.05**
Initial spares *	9(1)(iii)	977.57	5096.73	4135.35	10.92	**10220.57**
Total Add-Cap considered (A)		10975.67	15045.94	19755.03	5816.98	**51593.62**
Exclusions not allowed (B)		0.00	0.00	0.00	0.00	**0.00**
Net Add-cap		10975.67	15045.94	19755.03	5816.98	**51593.62**

40. In addition, the liabilities discharged by the petitioner, as per the details given below, have been allowed to be capitalized:

(₹ in lakh)

	2009-10 (31.1.2010 to 31.3.2010)	2010-11 (1.4.2010 to 30.7.2010)	2010-11 (31.7.2010 to 31.3.2011)	2011-12	2012-13	2013-14
Additional Capital expenditure excluding liabilities discharged	632.63	9394.43	10975.67	15045.94	19755.03	5816.98
Liabilities Discharged	6964.92	118.34	20832.27	8762.01	8514.17	0.00
Total Additional capital expenditure allowed	**7597.55**	**9512.76**	**31807.94**	**23807.95**	**28269.20**	**5816.98**

41. Accordingly, the following capital cost has been considered for the purpose of tariff, subject to truing up of the capital cost for the year 2013-14:

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Opening capital cost	208033.47	215631.02	404125.12	435933.06	459741.01	488010.21
Add: Actual/ Projected ACE	7597.55	9512.76	31807.94	23807.95	28269.20	5816.98
Closing capital cost	**215631.02**	**225143.78**	**435933.06**	**459741.01**	**488010.21**	**493827.19**
Average capital cost	211832.24	220387.40	420029.09	447837.04	473875.61	490918.70

Target Availability

42. The target availability of 85% has been considered for the purpose of tariff in the instant petition.

Debt- Equity Ratio

43. Clause (1) of Regulation 12 of the 2009 Tariff Regulations provides that:

> *"(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."*

44. The petitioner has considered debt-equity ratio of 70:30 as on the dates of commercial operation of both the units. The actual/ projected additional expenditure approved has also been allocated between debt and equity in the ratio of 70:30. The methodology is in order.

Return on Equity

45. Regulation 15 of the 2009 Tariff Regulations provides that 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."

46. The petitioner has claimed the additional RoE of 0.5% in accordance with proviso to clause (2) of Regulation 15. The respondent Uttar Pradesh Power Corporation Ltd has the expenditure incurred beyond cut-off date may not be allowed additional RoE of 0.5%.

47. The Commission in its order dated 30.9.2011 in Petition No. 14/2010, allowed additional RoE of 0.5% for reason of completion of the generating station within the time limits specified in Appendix-II of the 2009 Tariff Regulations. The additional capital expenditure approved, including the expenditure incurred during the extended cut-off date after relaxation, does not affect the performance of the generating station which has commercially operative since 31.7.2010. Accordingly, additional RoE of 0.5% as allowed in the order dated 30.9.2011 is being allowed. Further, RoE has been worked out based on the grossing up of the base rate with respect to actual tax rate applicable to NTPC as a generating company for the years 2009-10, 2010-11 and 2011-12 and for the rest of the years, the rate of grossing up is considered same as applicable for FY 2011-12 on the normative equity after accounting for actual/projected additional capital expenditure. The petitioner's entitlement to RoE is calculated as under:

(₹ in lakh)

	2009-10 (31.1.2010 to 31.3.2010)	**2010-11** (1.4.2010 to 30.7.2010)	**2010-11** (31.7.2010 to 31.3.2011)	**2011-12**	**2012-13**	**2013-14**
Normative Equity – Opening	62410.04	64689.31	121237.54	130779.92	137922.30	146403.06
Add: Addition to equity on account of Projected ACE	2279.27	2853.83	9542.38	7142.39	8480.76	1745.09
Normative Equity – Closing	**64689.31**	**67543.13**	**130779.92**	**137922.30**	**146403.06**	**148148.16**
Average Equity	63549.67	66116.22	126008.73	134351.11	142162.68	147275.61
Return on Equity-Base rate	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%

Tax rate of the year 2008-09	33.990%	33.218%	32.445%	32.445%	32.445%	32.445%
Rate of Return on Equity (Pre Tax)	23.481%	23.210%	22.944%	22.944%	22.944%	22.944%
Return on Equity (Pre Tax)- Annualised	**15403.81**	**15840.12**	**29843.91**	**31819.72**	**33669.81**	**34880.76**

Interest on loan

48. Regulation 16 of the 2009 Tariff Regulations lays down the methodology for computation of Interest on Loan 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."*

49. The Interest on Loan has been worked out in the manner given below:

(a) The gross normative loan corresponding to 70% of admissible capital cost works out to ₹145623.43 lakh and ₹282887.59 lakh as on 31.1.2010 and 31.7.2010, respectively.

(b) Cumulative repayment of loan up to previous year is nil.

(c) Rate of interest considered in calculation in case of all loans is on annual rest basis.

(d) Rate of interest on actual loans as prevailing on the dates of commercial operation (as furnished by the petitioner) have been used for calculations.

(e) Some of the loans are on floating basis. The applicable rate on these loan as on date of the dates of commercial operation have been used in calculations of weighted average rate of interest.

(f) Interest rates for Bonds considered in actual loan portfolio have been arrived at after considering surveillance fee of 0.03% as considered by the Commission earlier.

(g) Depreciation allowed for the period under consideration has been considered as repayment.

(h) Average net loan is calculated as average of opening and closing.

(i) The petitioner has considered FIFO method of repayment for few of the loans drawn till the date of commercial operation while working out weighted average rate of interest. However, in line with the Commission's earlier decision average method of repayment (also upheld by the Appellate Tribunal) instead of FIFO method of repayment has been considered for calculating the weighted average rate of interest.

50. The computations in support of Interest on Loan allowed are as shown below:

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011)	**2011-12**	**2012-13**	**2013-14**
Gross Opening Loan	145623.43	150941.71	282887.59	305153.14	321818.71	341607.15
Cumulative Repayment	0.00	1730.79	5351.48	19247.40	41399.90	64804.75
Net Loan Opening	**145623.43**	**149210.92**	**277536.11**	**285905.74**	**280418.81**	**276802.40**
Addition of loan due to ACE	5318.29	6658.93	22265.56	16665.57	19788.44	4071.89
Repayment of loan	1730.79	3620.69	13895.92	22152.50	23404.85	24224.77
Reduction in repayment due to De-cap	0.00	7.88	10.16	32.96	738.17	0.00
Net Loan Closing	**149210.92**	**152257.05**	**285915.90**	**280451.77**	**277540.56**	**256649.51**
Average Loan	147417.18	150733.98	281726.00	283178.75	278979.68	266725.96
Weighted Average Rate of Interest	8.7268%	8.6374%	8.8837%	9.5409%	9.6169%	9.5723%
Interest on Loan	**12864.86**	**13019.48**	**25027.58**	**27017.84**	**26829.21**	**25531.78**

Depreciation:

51. Regulation 17 of the 209 Tariff Regulations provides that:

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

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided *that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.*

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

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system.

***Provided** that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.*

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting 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."

52. Accordingly, depreciation has been calculated applying weighted average rate of depreciation of 4.9704% for the period from 31.1.2010 to 31.3.2010, 4.9558% from 1.4.2010 to 30.7.2010, 4.9489% from 31.7.2010 to 31.3.2011, 4.9466% for the year 2011-12, 4.9390% for the year 2012-13 and 4.9346% for the period the year 2013-14. Further, in the earlier petition (14/2010), the value of freehold land as considered by the petitioner was ₹8203.07 lakh (comprising of land ₹7079.89 lakh, Rehabilitation & Resettlement ₹50 lakh and Preliminary Investigation & site development amounting to ₹1073.18 lakh) as on the date of commercial operation of Unit-I and ₹9976.90 lakh (comprising of land ₹7079.89 lakh, Rehabilitation & Resettlement ₹100 lakh and Preliminary Investigation & site development amounting to ₹2797.01 lakh) as on the

date of commercial operation of the generating station on accrual basis. However, in the instant petition the petitioner has removed the cost of Rehabilitation & Resettlement and Preliminary Investigation & site development from the cost of land and reconciled the same with the balance sheet. The cost of Rehabilitation & Resettlement and Preliminary investigation & site development is not traceable from the balance sheet of the station. Thus, due to improper reconciliation of the freehold land, the value of freehold land as considered by the petitioner on cash basis has been considered. However, the petitioner is directed to furnish the proper reconciliation with justification of the same at time of truing-up. Further, the de-capitalization adjustment as claimed by the petitioner is taken as of now for the computation of the tariff.

53. The detailed calculations in support of depreciation are given below:

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Opening capital cost	208033.47	215631.02	404125.12	435933.06	459741.01	488010.21
Closing capital cost	215631.02	225143.78	435933.06	459741.01	488010.21	493827.19
Average capital cost	211832.24	220387.40	420029.09	447837.04	473875.61	490918.70
Rate of depreciation	4.9704%	4.9558%	4.9489%	4.9466%	4.9390%	4.9346%
Depreciation for the period	1730.79	3620.69	13895.92	22152.50	23404.85	24224.77
Depreciation (annualised)	10528.98	10921.91	20786.94	22152.50	23404.85	24224.77
Cumulative depreciation (at the end of the period)	1730.79	5351.48	19247.27	41399.23	64800.39	88890.43
Cumulative depreciation reduction due to de-cap	0.00	0.14	0.54	3.69	134.72	0.00
Cumulative depreciation after adjustment due to de-cap (at the end of the period)	1730.79	5351.34	19246.73	41395.54	64665.66	88890.43

O & M Expenses

54. There is no change in O&M expenses already allowed in order dated 30.9.2011, which are as under:

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
O&M Expenses (annualised)	6370.00	6732.60	13465.20	14239.40	15052.80	15915.20

Interest on Working Capital

55. Calculated in accordance with Regulation 18(1)(b) of the 2009 Tariff Regulations, the various components of Interest on Working Capital are as under:

(i) **Cost of coal**

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Cost of coal for 2 months	11843.53	11843.53	26640.84	26713.82	26640.84	26640.84

(ii) **Cost of Secondary Fuel Oil**

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Cost of Secondary Fuel Oil for 2 months	168.17	168.17	363.61	364.60	363.61	363.61

(iii) **Maintenance Spares**

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Maintenance Spares	1274.00	1346.52	2693.04	2847.88	3010.56	3183.04

(iv) **Receivables**

(₹ in lakh)

	2009-10 31.1.2010 to 31.3.2010	**2010-11 1.4.2010 to 30.7.2010**	**2010-11 31.7.2010 to 31.3.2011**	**2011-12**	**2012-13**	**2013-14**
Variable Charges -2 months	11843.53	11843.53	26640.84	26713.82	26640.84	26640.84
Fixed Charges - 2 months	8391.33	8622.56	16574.86	17619.36	18252.70	18528.21
Total	**20234.86**	**20466.09**	**43215.69**	**44333.18**	**44893.54**	**45169.04**

(v) **O&M Expenses for one month**

(₹ in lakh)

Particulars	**2009-10** 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
O&M Expenses	530.83	561.05	1122.10	1186.62	1254.40	1326.27

Rate of Interest

56. Clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, provides rate of interest on Working Capital as under:

> *"Rate of interest on working capital shall be on normative basis and shall be considered as follows:*
>
> *(i) SBI short-term Prime Lending Rate as on 01.04.2009 or on 1st April of the year in which the generating station or unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for*

the unit or station whose date of commercial operation falls on or before 30.06.2010.

(ii) SBI Base Rate plus 350 basis points as on 01.07.2010 or as on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the units or station whose date of commercial operation lies between the period 01.07.2010 to 31.03.2014.

Provided that in cases where tariff has already been determined on the date of issue of this notification, the above provisions shall be given effect to at the time of truing up."

57 Interest on Working Capital for Unit-I for the period from 31.1.2010 to 30.7.2010 has been calculated based on SBI PLR of 12.25% prevailing as on 1.4.2009 (i.e. 1st April of the year in which Unit-i has been declared under commercial operation). Interest on Working Capital for the generating station for the period from 31.7.2010 to 31.3.2014 has been calculated based on rate of interest of 11% (SBI Base Rate of 7.50% as on 1.7.2010 plus 350 basis points,).

58. The necessary details in support of calculation of interest on working capital are as under:

(₹ in lakh)

Particulars	**2009-10** 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Cost of coal for 2 months	11843.53	11843.53	26640.84	26713.82	26640.84	26640.84
Cost of secondary fuel oil for 2 months	168.17	168.17	363.61	364.60	363.61	363.61
Maintenance spares	1274.00	1346.52	2693.04	2847.88	3010.56	3183.04
Receivables	20234.86	20466.09	43215.69	44333.18	44893.54	45169.04
O&M Expenses	530.83	561.05	1122.10	1186.62	1254.40	1326.27

Total working capital	**34051.40**	**34385.37**	**74035.27**	**75446.11**	**76162.94**	**76682.79**
Rate of interest	12.25%	12.25%	11.00%	11.00%	11.00%	11.00%
Interest on working capital	**4171.30**	**4212.21**	**8143.88**	**8299.07**	**8377.92**	**8435.11**

Annual Fixed Charges

59. The Annual Fixed Charges worked out above are summarized below:

(₹ in lakh)

Particulars	**2009-10** 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
Return on Equity	15403.81	15840.12	29843.91	31819.72	33669.81	34880.76
Interest on Loan	12864.86	13019.48	25027.58	27017.84	26829.21	25531.78
Depreciation	10528.98	10921.91	20786.94	22152.50	23404.85	24224.77
Interest on Working Capital	4171.30	4212.21	8143.88	8299.07	8377.92	8435.11
O&M Expenses	6370.00	6732.60	13465.20	14239.40	15052.80	15915.20
Cost of secondary fuel oil	1009.04	1009.04	2181.64	2187.61	2181.64	2181.64
Total	**50347.98**	**51735.36**	**99449.14**	**105716.15**	**109516.23**	**111169.25**

60. The pro rata tariff is to be calculated using the bases as shown below:

Particulars	**2009-10** 31.1.2010 to 31.3.2010	**2010-11** 1.4.2010 to 30.7.2010	**2010-11** 31.7.2010 to 31.3.2011	**2011-12**	**2012-13**	**2013-14**
No of days in year	365	365	365	366	365	365
No. of days for which tariff is to be calculated	60	121	244	366	365	365

61. The order dated 30.9.2011 shall be applicable in all other respects.

62. The revised fixed charges are lower than those approved in order dated 30.9.2011. The excess charges recovered by the petitioner shall be adjusted against the future bills within three months along with interest at the rate specified under the 2009 Tariff Regulations.

63. With this order, the petition stands disposed of.

Sd/-	***Sd/-***	***Sd/-***	***Sd/-***
(Neerja Mathur)	**(A.K.Singhal)**	**(M. Deena Dayalan)**	**(Gireesh B. Pradhan)**
Member (EO)	**Member**	**Member**	**Chairperson**