CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 260/2009

Coram: Shri S. Jayaraman, Member
Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member

Date of Hearing: 15.12.2011 **Date of Order: 28.5.2012**

IN THE MATTER OF

Approval of tariff of Vindhyachal Thermal Power Station Stage-III (1000 MW) for the period from 1.4.2009 to 31.3.2014.

AND

IN THE MATTER OF

NTPC Ltd, New Delhi **…Petitioner**

Vs

1. Madhya Pradesh Power Trading Ltd, Jabalpur
2. Maharashtra State Electricity Distribution Company Ltd, Mumbai
3. Gujarat Urja Vikas Nigam Limited, Vadodara
4. Chhattisgarh State Power Distribution Company Ltd, Raipur.
5. Electricity Department, Govt. of Goa, Panaji, Goa
6. Electricity Department, Administration of Daman & Diu, Daman
7. Electricity Department Administration of Dadra and Nagar Haveli, Silvassa

….Respondents

Parties Present:

1. Shri Sachin Jain, NTPC
2. Shri A.K.Chaudhary, NTPC
3. Shri Rajesh Jain, NTPC
4. Shri G.K.Dua, NTPC
5. Shri Ajay Dua, NTPC
6. Shri S.K.Sharma, NTPC
7. Ms. Suchitra Maggon, NTPC
8. M.K.V. Rama Rao, NTPC
9. Shri Rohit Chhabra, NTPC

ORDER

This petition has been filed by the petitioner, NTPC for approval of tariff for Vindhyachal Thermal Power Station Stage-III (1000 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014, based on the Central

Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “2009 Tarff Regulations”).

2. The generating station with a capacity of 1000 MW comprises of two units of 500 MW each. The dates of commercial operation of the said units of the generating station are as under:

	Date of commercial operation
Unit-I	1.12.2006
Unit-II/Generating Station	15.7.2007

3. The tariff of the generating station for the period from the date of commercial operation i.e from 15.7.2007 to 31.3.2009 was determined by Commission’s order dated 10.2.2011 in Petition No.185/2009 after considering the additional capital expenditure incurred during the period from the date of commercial operation (COD) to 31.3.2009 based on the admitted capital cost of ₹357276.73 lakh as on 31.3.2009, subject to the final outcome of the Civil Appeals [Civil Appeal Nos. 4112-4113/2009 and Civil Appeal Nos. 6286 to 6289/2009 and other Civil Appeal Nos.5434/2007 to 5452/2007 and 5622/2007 etc] filed by the Commission against the judgments of the Appellate Tribunal for Electricity, which are pending before the Hon’ble Supreme Court. The annual fixed charges determined by order dated 10.2.2011 based on the capital cost of ₹357275.73 lakh as on 31.3.2009 are as under:

(₹ in lakh)

	2006-07 (1.12.2006 to 31.3.2007)	**2007-08 (1.4.2007 to 14.7.2007)**	**2007-08 (15.7.2007 to 31.3.2008)**	**2008-09**
Interest on loan	9923.67	10215.08	18353.69	18008.30
Interest on Working Capital	1696.18	1711.29	3960.83	4054.08
Depreciation	6797.90	6871.06	12389.53	12739.88
Advance against Depreciation	0.00	0.00	0.00	2139.84
Return on equity	7832.21	7916.50	14348.30	14754.04
O&M Expenses	5060.00	5260.00	10520.00	10950.00
Total (annualized)	**31309.96**	**31973.93**	**59572.35**	**62646.54**

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

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	18601	18807	18899	19201	19504
Interest on Loan	16979	15741	14349	13154	11942
Return on Equity	25345	25626	25751	26162	26575
Interest on Working Capital	5252	5278	5307	5335	5374
O&M Expenses	13000	13740	14530	15360	16240
Cost of secondary fuel oil	1692	1692	1697	1692	1692
Compensation Allowance	0	0	0	0	0
Special Allowance	0	0	0	0	0
Total	**80870**	**80884**	**80533**	**80904**	**81328**

5. Reply to the petition has been filed by the respondent No.1 MPPTCL.

Capital Cost as on 1.4.2009

6. Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:

> *"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;"*

7. The annual fixed charges claimed in the petition is based on the admitted capital cost of ₹357276 lakh as on 31.3.2009. The petitioner vide its affidavit dated 27.6.2011 has furnished the value of capital cost and liabilities as on 1.4.2009 as per books of accounts in Form-9A. The details of liabilities and capital cost have been reconciled with the information available with the records of the Commission and are as under:

(₹in lakh)

	As per Form-9A	As per records of Commission	Difference
Capital cost as on 1.4.2009, as per books	363209.06	363209.06	0.00
Liabilities included in the above	10609.92	10609.92	0.00

8. The total liabilities amounting of ₹10609.92 lakh (corresponding to assets/works allowed) included in the gross block as on 1.4.2009 form part of the approved capital cost of ₹357275.73 lakh.

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

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

10. Accordingly, in terms of the last proviso of Regulation 7 of the 2009 Tariff Regulations, the capital cost, after removal of un-discharged liabilities amounting to ₹10609.92 lakh works out to ₹346665.81 lakh, on cash basis, as on 1.4.2009. The liabilities discharged, if any, by the petitioner would be included in the capital base as additional capital expenditure, in the year of discharge.

11. The petitioner vide its affidavit dated 28.9.2011 has furnished the details of liabilities discharged during 2009-11. Out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged an amount of ₹516.56 lakh during 2009-10 (pertaining to liabilities corresponding to assets capitalized during the period from COD to 31.3.2009) and ₹273.67 lakh during 2010-11 (pertaining to liabilities corresponding to assets capitalized during the period from COD to 31.3.2009). The discharge of the said liabilities during 2009-10 and 2010-11 has been allowed during the respective years, as part of the additional capital expenditure allowed for the generating station.

Actual/Projected Additional Capital Expenditure during 2010-14

12. Regulation 9 of the 2009 Tariff 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.

(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."

13. The actual /projected additional capital expenditure claimed by the petitioner is as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional capital expenditure	5036	2923	632	11050	680

14. The actual expenses incurred for 2009-10 has been claimed by the petitioner and the total claim during the period 2009-14 is ₹20321 lakh. However, in the absence of balance sheet for 2009-10 and reconciliation of accounts amongst the stages of the generating station, only the items for additional capitalization have been examined on merit. The reconciliation of additional capital expenditure for 2009-10 with balance sheets shall be carried out at the time of truing up of capital cost.

15. The cut-off date for the generating station had expired on 31.3.2009. Hence, the petitioner's claim for additional capital expenditure needs to be considered in terms of Regulation 9 (2) of the 2009 Tariff Regulations. Accordingly, we examine the submissions of the petitioner on the admissibility of additional capital expenditure for 2009-14 in the subsequent paragraphs.

Submissions of the petitioner

16. In its petition, the petitioner has submitted that the estimated capital expenditure claims are of the following nature:

(i) The additional capital expenditure as per Regulation 9 (1) and 9 (2) of the Tariff Regulations, 2009 as per the original scope of work of the generating station which has been put to use;

(ii) The other additional capital expenditure in respect of the existing generating stations which have to be done on on-going basis.

17. The petitioner has also submitted the following in support of its claim in the petition and in its affidavit dated 25.3.2010.

(a) In addition to the capital expenditure covered by Regulation 9 (1) and 9 (2) and 19 (e) of the 2009 Tariff Regulations, there will be capital expenditure of different nature which would be necessary for the efficient operation of the generating station within its life time. Additional capital expenditure for this purpose had constantly been allowed by the Commission under the 2001 and 2004 tariff regulations. However, additional capital expenditure for successful and efficient operation of the generating station has not been included in Regulation 9 of the 2009 Tariff Regulations. Accordingly, the petitioner has claimed additional capital expenditure on 'works considered necessary for the efficient operation of the generating stations' in addition to those specified under Regulation 9 (1) and (2) and 19 (e) of the 2009 Tariff Regulations.

(b) Regulations 7(1), 8 and 9 of 2009 Tariff Regulations pertain to the capital cost of new generating station commissioned after 1.4.2009 and do not cover the existing projects commissioned prior to 1.4.2009. Moreover, the term 'additional capital expenditure' defined in Regulation 3 (3) refers to the additional capital expenditure incurred or projected to be incurred, after the date of commercial operation of the project and admitted by the Commission after prudence check, subject to Regulation 9. The scope and meaning of additional capitalization is not confined to Regulation 9 but subject to Regulation 9 which would mean that if additional capitalization is of the nature as referred to in Regulation 9, it would be read subject to the provisions of Regulation 9 and if the additional capitalization is not of the nature as referred to in Regulation 9, the provisions of Regulation 9 could not be applied.

(c) The last proviso to Regulation 7 is an independent provision dealing with the existing projects and additional capitalization for the existing projects is comprehensively covered by the said provision. In respect of the existing projects, the additional capital expenditure projected to be incurred from 1.4.2009 till 31.3.2014 and admitted by the Commission after prudence check would qualify to be capitalized, notwithstanding the fact that this expenditure is not covered under Regulation 9 (1) and (2).

(d) Regulation 19 (e) provides for a compensation allowance to meet the expenses of new assets of capital nature, including in the nature of minor assets and normative compensation allowance under Regulation 19 (e) has no relevance to the additional capitalization of a substantive nature incurred by the generating company from time to time. As the Regulations 9 (1) and (2) and 19 (e) do not exclude the additional capital expenditure of substantial nature in respect of the existing generating stations, the additional capital expenditure as projected by the petitioner, to be incurred during the tariff period 2009-14 for the existing generating stations, may be considered and allowed by the Commission.

(e) The additional capital expenditure claimed in the petition is necessary and expedient for the effective operation of the generating station and is not envisaged to be incurred on account of any failure or default or any other act of omission or commission on the part of the petitioner. This expenditure is such which has to be necessarily incurred in the ordinary course of running of a generating station and for operating machines and equipment for the life span of 25 years.

18. The respondent, No.1, MPPTCL vide its reply dated 16.2.2010 has submitted that the prayer of the petitioner in its petition to consider other additional capital expenditure' in addition to the capital expenditure covered under Regulations 9(1), 9(2) and 19 (e) of the 2009 regulation amounts to additional capitalization over and above the provisions under the 2009 regulations. The respondent has objected to the claims of the petitioner and has prayed that the Commission may not allow such additional capital expenditure. In response, then petitioner has submitted that the projected additional capital expenditure has been filed in accordance with the 2009 regulations and has claimed additional capital expenditure for Ash Dyke & Ash handling system and to meet the environmental norms, which are in strict conformity with the provisions of Regulation 9(2)(ii) and 9(2)(iii). It has prayed that the objection of the said respondent be rejected.

19. Similar submissions of the petitioner have been considered and disposed of by the Commission by order dated 20.4.2012 in Petition No.239/2009 (NTPC-v-UPPCL & ors) and order dated 7.5.2012 in Petition No. 256/2009 (NTPC-v-APTRANSCO & ors) as under:

"16.We have considered the submissions of the petitioner. The following two issues arise for our consideration:

(a) Whether additional capitalization projected to be incurred after the cut-off date during period 2009-14 is admissible under Regulation 9(2) of the 2009 Tariff Regulations.

(b) Whether additional capital expenditure for successful and efficient operation of the thermal generating station including the gas power stations could be admissible under Regulation 9(2) of the 2009 Tariff Regulations.

17. As regards the first issue, it is noticed that the last proviso to Regulation 7(2) of the 2009 Tariff Regulations provides that in case of existing projects, capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding the un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year and the tariff period 2009-14, as may be admitted by the Commission, shall form the basis of determination of tariff. Thus, as per the last proviso projected additional capital expenditure to be incurred for the respective years of the tariff period 2009-14 shall be considered by the Commission while determining the tariff in respect of the existing project. The said proviso does not make any distinction between the additional capital expenditure projected to be incurred before the cut-off date and additional capital expenditure projected to be incurred after the cut-off date. It therefore follows that in case of existing projects, additional capital expenditure projected to be incurred after the cut-off date can be considered by the Commission for determination of tariff. Regulation 9 of the 2009 Tariff Regulations provides for the additional capital expenditure to be admissible during the year 2009-14. While Clause (1) of Regulation 9 deals with the expenditure incurred before the cut-off date, Clause (2) of the said regulation deals with the expenditure incurred after the cut-off date. However, Clause (2) of Regulation 9 provides that only expenditure incurred after the cut-off date shall be admissible. It thus emerges that while the additional capital expenditure can be claimed under last proviso to Regulation 7(2) on projection basis, the same is not admissible under Regulation 9(2), since the expenditure has not been incurred. It is a settled principle of law that the provisions of the Act or Regulations should be read harmoniously keeping in view the objective of the legislation. During the period 2004-09, the additional expenditure was being admitted after the same was incurred. However, the Commission decided to allow additional capital expenditure on projection basis during the period 2009-14. In this connection, reference is drawn to paragraphs 10.1.3 and 10.1.4 of the Statement of Reasons to the 2009 Tariff Regulations, wherein the concept of claiming additional capitalization on projection basis has been explained in the following terms:

"10.1.3 The Commission has carefully examined the issue again and is of the view that the generating companies/transmission licensees as well as the beneficiaries should appreciate the regulation in its proper perspective. Apart from meeting the intended objective of certainty of tariff and minimal retrospective adjustments, the procedure would have following additional advantages:

(a) From beneficiaries' perspective, they would be aware of the intended additional capitalization in advance and be able to voice their concern before the Commission about the reasonableness and necessity of additional capitalization before the actual expenditure is made by the generating companies/transmission licensees. As regards their concern about the expected expenditure being considered in capital base without putting assets to use, the Commission would like to clarify that anticipated expenditure would be considered only after it is found justified and reasonable with the expectation that asset would be put to use. In the absence of expenditure actually made, the same would be taken out from the capital cost at the time of truing up exercise with appropriate

refund/adjustment with interest. Further, if the expenditure indeed materializes, the actual retrospective adjustment is expected to be bare minimum as a result of truing up exercise.

(b) From the prospective of the generating companies/transmission licensees, they would be assured of the expenditure to be admitted once accepted by the Commission in the capital cost before making the expenditure. Moreover, they would be more careful about the expenditure to be made as it would require to be justified before the Commission.

10.1.4 The Commission is of the view that the approach adopted with regard to consideration of the expenditure including additional capital expenditure projected to be incurred for the purpose of determination of capital cost is a win-win situation for all. The Commission has decided to retain the said provisions with regard to capital cost including projected additional capital expenditure in Regulations 7 and 9 of these regulations."

18. It thus emerges from the scheme of the 2009 Tariff Regulations that the additional capital expenditure projected to be incurred after the cut-off date can be admitted by the Commission after prudence check. Keeping in view the scheme of the 2009 Tariff Regulations and in order to remove the inconsistency between last proviso to Regulation 7(2) and Regulation 9(2), we have relaxed in our order dated 13.4.2012 in Petition No. 282 of 2009 the provisions of Regulation 9(2) of the 2009 Tariff Regulations in exercise of our power under Regulation 44 to allow additional capital expenditure projected to be incurred after the cut-off date. The said decision is applicable in the present case.

19. As regards the second issue, it is noticed that as per the scheme of the 2009 Tariff Regulations, additional capital expenditure incurred or projected to be incurred prior to the cut-off date and the additional capital expenditure incurred after the cut-off date is admissible under Regulation 9(1) and 9(2) of the 2009 Tariff Regulations. We have relaxed the provisions of the Regulation 9(2) to allow the expenditure on projected basis to be incurred after the cut-off date. Regulation 9(2) provides for the different provisions for admissibility of the additional capital expenditure. In respect of the hydro generating stations, Regulation 9(iv) provides for expenditure which has become necessary for successful and efficient operation of the hydro generating stations and similar provisions have been made under Regulation 9(v) in respect of the transmission systems. In case of the thermal generating stations, Regulation 19(e) provides for compensation allowance. Regulation 19(e) of 2009 Tariff Regulations is extracted as under:-

"(e) In case of coal-based or lignite-fired thermal generating station a separate compensation allowance unit-wise shall be admissible to meet expenses on new assets of capital nature including in the nature of minor assets, in the following manner from the year following the year of completion of 10, 15, or 20 years of useful life:

Years of operation	***Compensation Allowance (₹ in lakh/MW/year)***
0-10	*Nil*
11-15	*0.15*
16-20	*0.35*
21-25	*0.65*

20. It is evident from the provisions of Regulation 19(e) that the expenditure in case of coal based or lignite fired thermal generating stations is admissible to meet the expenses on new assets of capital nature including in the nature of minor assets. Correspondingly, no provision has been made to admit additional capital expenditure of capital nature for successful operation of the thermal generating station under Regulation 9(2) of the 2009 Tariff Regulations. On the other hand, clear provisions have been made for admitting the expenditure for efficient and successful operation of the hydro generating stations and transmission systems under certain conditions. The provisions of the Regulation 9(2) are clear and unambiguous in that the expenditure for successful and efficient operation of the thermal generating stations have not been provided since a normative compensation allowance has been provided under Regulation 19(e) of 2009 Tariff Regulations to meet the expenses on new assets of capital nature. In our view, last proviso to

Regulation 7(2) cannot be considered as independent of Regulation 9 of 2009 Tariff Regulations. The "additional expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission" occurring in last proviso to Regulation 7(2) have to be considered and allowed in terms of provisions of Regulation 9(2) of 2009 Tariff Regulations. The Commission after taking into account the requirements of the gas based generating stations and coal based thermal generating stations has made specific provisions under Regulation 9(2)(vi) and (viii) through second amendment to the 2009 Tariff Regulations as under:

"(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-materialization of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station."

21. Thus, the Commission has consciously provided for the expenditure of specific nature under Regulation 9(2)(vi) and (vii) which are considered necessary for the successful and efficient operation of the coal based thermal generating station and gas based stations. In other words, additional capital expenditure for successful and efficient operation of the generating stations for reasons other than those provided for under Regulation 9(2) of 2009 Tariff Regulations is not permissible.

20. In line with the above decisions, the additional capital expenditure claimed by the petitioner for the period 2009-14 in this petition, has been considered under the provisions of Regulation 9(2) of the 2009 Tariff Regulations.

21. The category-wise break-up of the claim of the petitioner for additional capital expenditure for 2009-14 is as under:

(₹ in lakh)

Sl. No.		**Regulation**	**Actual/Projected Capital Expenditure**				
			2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
A.	**Ash Handling System**						
i	Ash Dyke raising works (V-3)- I[st] raising	9(2)(iii)	0.00	0.00	0.00	0.00	450.00
ii	Ash Slurry pumps & piping System		0.00	0.00	0.00	0.00	200.00
iii	Augmentation of Dry fly ash transportation system	9(1)(ii)	440.00	0.00	0.00	0.00	0.00
iv	Civil works of Ash dyke for Lagoon V-3		1.00	0.00	0.00	0.00	0.00
	Total Ash Handling System		**441.00**	**0.00**	**0.00**	**0.00**	**650.00**
B.	**Environmental Systems**						
i	On line CO_2 monitoring	9(2)(ii)	0.00	0.00	0.00	0.00	30.00
ii	Energy management system		0.00	0.00	43.00	0.00	0.00
	Total Environmental system		**0.00**	**0.00**	**43.00**	**0.00**	**30.00**

C.	**Other Capitalization**						
i	Wagon Tippler	9(1)(ii)	0.00	0.00	0.00	11050.00	0.00
ii	Locomotive	9(1)(ii)	0.00	2923.00	0.00	0.00	0.00
iii	ICT and Shunt reactor	9(1)(ii)	0.00	0.00	450.00	0.00	0.00
iv	MGR-wagons	9(1)(ii)	0.00	0.00	75.00	0.00	0.00
	Elevator	9(1)(ii)	0.00	0.00	64.00	0.00	0.00
v	Augmentation of Railway siding & MGR system	9(1)(ii)	2473.00	0.00	0.00	0.00	0.00
vi.	Construction of boundary wall & Road in Matwai Area		155.00	0.00	0.00	0.00	0.00
vii	Construction of parking shed near gate complex		17.00	0.00	0.00	0.00	0.00
viii	Paving around ETP area and others stage-III areas		11.00	0.00	0.00	0.00	0.00
ix	Area development and horticulture works in transformer yard and cooling tower area		1.00	0.00	0.00	0.00	0.00
x	Construction of badminton hall at VEWA		30.00	0.00	0.00	0.00	0.00
xi	Supply, installation and commissioning of electronic weigh bridge		28.00	0.00	0.00	0.00	0.00
xii	Electrical works package for construction of boundary wall in Matwai area.		8.00	0.00	0.00	0.00	0.00
xiii	Electrical works for providing area lighting		8.00	0.00	0.00	0.00	0.00
xiv	Balance works	9(1)(i)	17.00	0.00	0.00	0.00	0.00
xv	Plant and machinery	9(1)(ii)	297.00	0.00	0.00	0.00	0.00
xvi	Capital spares	9(1)(iii)	1799.00	0.00	0.00	0.00	0.00
xvii	De-capitalization of capital spares	9(1)(i)	(-) 249.00	0.00	0.00	0.00	0.00
	Total-Other capitalization		4595.00	2923	589	11050	0.00
	Grand Total		**5036.00**	**2923.00**	**632.00**	**11050.00**	**680.00**

Deferred works relating to Ash handling system in the original scope of work-Regulation 9(2) (iii)

22. The petitioner has claimed the actual/projected capital expenditure of ₹441.00 lakh (₹440.01 lakh and ₹1.00 lakh) for 2009-10 towards the augmentation of dry fly ash transportation system and Civil works of Ash dyke for lagoon V-3) and ₹650.00 lakh (₹450.00 lakh and ₹200.00 lakh) for 2013-14 for Ash dyke raising works (V-3)- I[st] raising and Ash slurry pumps & piping system under Regulation 9(2)(iii) of the 2009 Tariff Regulations. The works relating to raising of Ash dykes and Ash disposal system are a normal practice and it is observed that I[st] raising is required during 2013-14 as the existing dyke would not be available for further use. The work relating to raising of Ash dykes form part of the original

approved scope of works and are normally taken up in stages as and when required. In view of this, the expenditure claimed is allowed to be capitalized under this head**.**

Environment systems-Regulation 9(2) (ii)

23. The petitioner has claimed expenditure of ₹43.00 lakh during 2011-12 for energy management system and ₹30.00 lakh during 2013-14 for on-line CO_2 monitoring system under Regulation 9(2) (ii) as per Environment consent order of the Ministry of Environment and Forests, Government of India. The justification submitted by the petitioner for additional capital expenditure of ₹43.00 lakh for 2011-12 is that the Energy management system has been installed as per guidelines of Bureau of Energy Efficiency to monitor and to optimize the auxiliary power consumption. Further, the regulations of CEA make it mandatory for installation of meters. Moreover, enhanced energy efficiency in energy intensive core sectors is also the policy of the Government of India in the National mission for enhanced energy efficiency. However, as the benefit of reduction in auxiliary power consumption is not passed on to the beneficiaries during the period 2009-14, we are of the view that said expenditure should be borne by the petitioner, Hence, the expenditure claimed is not allowed, on this count. Moreover, the expenditure of ₹30.00 lakh for 2013-14 claimed towards CO_2 monitoring system for 2013-14 has also not been allowed since no reference of this item/asset has been found in the said consent order of the Ministry of Environment and Forests, Government of India.

Other Capital expenditure

Wagon Tippler and Locomotives

24. The petitioner has claimed ₹11050.00 lakh for Wagon Tippler during 2012-13 and ₹2923.00 lakh for Locomotives during 2010-11 under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner has submitted that the daily coal consumption of this generating station has gone up to 52000 MT and presently, only 35000 MT of coal is received from NCL through Merry Go Round (MGR) and hence there is short fall of 17000 MT of coal per day. In

order to meet this shortfall, coal is being received from CCL, MCL and SECL apart from imported coal. As the generating station does not have the unloading facility of Box-N wagons, the same is being done manually. As manual unloading is hazardous and time consuming, a new wagon tippler has been planned along with the commissioning of this generating station. Though the decision for installation of Wagon tippler was taken during March, 2007, the order for the same could only be placed during June-2010 due to procedural delays. It is observed that the Wagon tippler has become necessary for coal unloading received through railways from the non-linked mines with the commissioning of this generating station. Thus, the installation of Wagon tippler is justified and the expenditure on this count is allowed under Regulation 9(2)(vii) of the 2009 Tariff Regulations**.**

25**.** As regards expenditure of ₹2923.00 lakh for Locomotives during 2010-11, the petitioner has submitted that it is a balance work as per the list submitted in Petition No. 155/2007 which was disposed of by Commission's order dated 31.7.2008. The order was placed/ tendering process was completed before the cut-off date. Since, these are proprietary items and the only source of procurement was through railways, the delivery was received during 2010-11.Keeping in view that locomotive will be required for enhancing coal receipt system through Wagon Tippler on account of deficit coal received through Railways, we allow the claim of the petitioner for an expenditure of ₹2923.00 lakh under Regulation 9(2)(vii) of the 2009 Tariff Regulations**.**

(b) **ICT & Shunt Reactor**

26. The petitioner has claimed expenditure of ₹450.00 lakh for ICT and Shunt Reactor during 2011-12 under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner in its petition (Petition No 185/2009) had earlier prayed for exclusion of this item as it was damaged due to fire/accident and had also indicated the same was under replacement/procurement. The Commission however, did not consider the exclusion and de-

capitalized the said item from the gross block. The Shunt reactor was commissioned on 19.4.2007 and had failed on 31.12.2008. The petitioner had immediately initiated procurement action and both are likely to be commissioned during 2011-12. In the above background, the petitioner has claimed the said expenditure for ICT & Shunt reactor and for MGR wagons for 2011-12.

27. It is observed that the said ICT & Shunt reactors were procured along with original main plant package. As the assets were damaged due to fire during the cut-off period and since these items were not in service, the Commission in its order had not allowed the exclusion and had de-capitalized the expenditure of ₹281.66 lakh (gross value of ICT and Shunt reactor) from the capital cost. The petitioner has submitted that both the items are under different stage of procurement and are likely to be capitalized during 2011-12 and has prayed that the Commission may allow the same as these assets are essential for safe and efficient operation of the generating station. The petitioner has also submitted that insurance amount of ₹100.00 lakh has been received from M/s Oriental Company against the damage of ICT & Shunt reactor. It has further submitted that on the damage of the asset, the book value of the damaged assets has been de-capitalized in the books of accounts and the loss of damaged assets (gross amount – accumulated depreciation) has been accounted for as loss on write-off of the assets. The insurance amount received has been accounted towards loss on write-off of the asset and the net loss (written down value of damaged asset – insurance received) has been charged to the profit & loss account. It has further been submitted that the loss on written-off asset has been excluded by the Commission for specifying the O&M expense norms for the period 2009-14 and the above loss is to be borne by the petitioner. The petitioner has further submitted that the amount received against its insurance claim cannot be considered towards capital investment for buying the new assets against replacement of the original / damaged asset. It also been submitted that the purpose of insuring an asset is only to cover the risk of capital cost in the event of damage of the

asset. The new asset purchased is for replacement of the damaged asset and the same needs to be serviced independent of insurance claim received, since the value/ capital cost of the damaged asset has already been de-capitalized from the capital base for purpose of tariff. The submissions of the petitioner have been examined. Taking into consideration that the procurement action for the said asset, which is necessarily required to operate the generating station for its useful life had been initiated before the cut-off date and since liabilities for the same are to be discharged during 2011-12, we allow the capitalization of the expenditure for the said asset. However, the expenditure towards replacement of the said assets can only be permitted after deduction of insurance amount received by the petitioner on the damaged asset and the beneficiaries cannot be burdened on this count. Hence, the capitalization of the said expenditure claimed by the petitioner (₹450.00 lakh) is allowed after deduction of the insurance amount of ₹100.00 lakh. Based on this, the capitalization of ₹350.00 lakh for 2011-12 is allowed under Regulation 9(2)(viii) of the 2009 Tariff Regulations. Since the Commission had already de-capitalized the gross value of old assets (ICT & Wagons) amounting to ₹281.66 lakh in its order dated 10.2.2011 in Petition No. 185/2009, no de-capitalization has been made for these assets in this order.

(c) MGR Wagons

28. The petitioner has claimed an expenditure of ₹75.00 lakh for MGR wagons for the year 2011-12 under Regulation 9(1)(ii) of the 2009 Tariff Regulations on the ground that the same was damaged due to derailment. In its affidavit dated 2.2.2012, the petitioner has submitted the reasons for derailment of wagons as under:

> "*It is submitted that the procurement of wagons was necessitated due to a major derailment of 3 Nos. fully loaded wagons which took place during midnight on 4.11.2007 at loading bulb area approx. 2.5 Kms. before Nigahi Silo. This resulted in the complete damage of wagons in such manner that wagons were totally capsized. The track was resorted for normal operation and the preventive actions were also taken to avoid reoccurrence of such incidents, such as installation of wireless communication with loco crew for issuing instructions for movement and connectivity with control room etc. Therefore, it is submitted that this accident may not be treated as the reason attributable to NTPC for not allowing capitalization of the replacement of*

wagons. Since the de-capitalization of damaged asset has already been given effect to, the capitalization of the replacement asset may be allowed."

29. It is noticed that the petitioner has not spelt out proper reasons for derailment of the wagons. The generating station is new and such derailment of wagons is not a common occurrence and is not due to normal wear and tear. In the circumstances, any burden on account of accidental derailment and consequential damage to wagons cannot be passed on to the beneficiaries. Accordingly, we find no justification for capitalization of the said expenditure of ₹75.00 lakh as claimed by the petitioner. Hence, the expenditure is disallowed.

(c) **Elevator**

30. The petitioner has claimed expenditure of ₹64.00 lakh during 2011-12 for this asset under Regulation 9(1)(iii) of the 2009 Tariff Regulations and has submitted that supply has been received and the commissioning work is in progress. The petitioner by its affidavit dated 2.2.2012 has submitted as under:

"It is submitted that out of the 3 nos elevators, one no elevator have been installed in power house (TG) building and the 2 nos in two ESP control rooms, one each. The installation of elevators in plant area is necessary for movement of man and machinery for timely completion of critical maintenance tasks and day to day working. It is submitted that the elevators in the building could have been installed only after completion of all building works and the same were planned and ordered accordingly. Since the buildings were completed on only in the year 2008-09, the elevators were installed in the subsequent year. The petitioner submits that the elevators are essential requirements for power house (TG) building and the 2 nos in two ESP control rooms and the same could not have been done away with. The period of about 20 months after station COD was not sufficient for completion of these buildings along with lift etc within the cut-off date. The Hon'ble Commission has also recognised this aspect and enhanced the cut-off date period upto about 39 months under the CERC Tariff Regulation 2009.It is therefore submitted that the Hon'ble Commission may be pleased to allow the same."

31. From the above submissions, it is observed that the reasons for delay in the installation of elevators have not been justified by the petitioner. Moreover, no provision exists under Regulation 9(2) of the 2009 Tariff Regulations for capitalisation of this deferred work after the cut-off date. In view of this, the capitalisation of the said expenditure is not allowed.

(d) Augmentation of Railway siding and MGR system

32. The petitioner has claimed the actual expenditure of ₹2473.00 lakh during 2009-10 for augmentation of Railway siding and MGR system under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner has submitted that this is balance work and due to reasons beyond the control of the petitioner, the delivery /execution of certain items and spares got delayed. As the order/ contract were placed before the cut-off date, the principle of continuity needs to be applied. The petitioner by its affidavit dated 2.2.2012 have furnished reasons for the delay in execution of the above system as under:

> *"It is submitted that the work got delayed due to the reasons that the required land was to be acquired from NCL and transfer of land to NTPC took considerable procedural time. The subsequent technical changes based on site conditions proposed by Consultant RITES, such as addition of one more silo at Nigahi end. Further to augment coal receipt facilities from various sources apart from linked source, various measures such as inclusion of 2 more spur lines and facilities for longer CSR (Clear Standing Rake) were included in the scope. It is further submitted that in view of coal shortage at various stations of NTPC, it was necessary to augment coal facilities for bringing coal from the sources other than linked mines and for the purpose, the length of the CSR was required to be increased from 550 meters to 720 meters to meet the railway norms. It is therefore submitted that due to the reasons explained above, the work could not have been completed within the stipulated cut-off date of the station….."*

33. From the above submissions, it is observed that the main reason for the delay was on account of the procedural delay in acquiring land from NCL and transferring the same, which was beyond the control of the petitioner. Further it is observed that the augmentation of railway siding is necessary for bringing coal from non-linked mines in view of shortage of coal. In view of the justification submitted by the petitioner, capitalisation of the said expenditure has been allowed under Regulation 9(2)(vii) of the 2009 Tariff Regulations.

(e) **Construction of Boundary wall and Road in Matwai area**

34. The petitioner has claimed expenditure of ₹155.00 lakh for the said work during 2009-10 under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner has submitted that this is balance work and due to reasons beyond the control of the petitioner, the delivery /execution of certain items and spares got delayed. As the order/ contract were placed before the cut-off date, the principle of continuity needs to be applied. It is observed that the

petitioner has not submitted any proper reason for the delay in the said work so as to take a view on the claim of the petitioner. Moreover, no provision exists under Regulation 9(2) of the 2009 Tariff Regulations for capitalisation of this deferred work, after the cut-off date. In view of this, the capitalisation of the said expenditure is not allowed.

35. The petitioner has claimed total expenditure of ₹103.00 lakh during 2009-10 towards the Construction of parking shed near gate complex (₹17.00 lakh), Paving around ETP area and other Stage-III areas (₹11.00 lakh), Area development and horticulture works in transformer yard and cooling tower area (₹1.00 lakh), Construction of badminton hall at VEWA (₹30.00 lakh), Supply, installation and commissioning of electronic weigh bridge (₹28.0 lakh), Electrical works package for construction of boundary wall in Matwai area (₹8.00 lakh) and Electricals works for providing area lighting (₹8.00 lakh), under Regulation 9(1)(ii) of the 2009 Tariff Regulations. As the expenditure claimed on these assets is in the nature of minor works, the expenditure for the same is disallowed in terms of the last proviso to Regulation 9(2) of the 2009 Tariff Regulations.

(f) **Balance works**

36. The petitioner has claimed ₹17.00 lakh during 2009-10 as adjustment against the claim/final payment of various works which have been capitalized earlier and allowed by the Commission. The petitioner has also submitted that while the capitalization against all these works during 2009-10 is ₹79.00 lakh, the payments against these works during 2009-10 is ₹17.00 lakh and for the balance items, the same will be considered on actual payments at the time of truing up. In view of this, the expenditure of ₹17.00 lakh is allowed under Regulation 9(2) (viii) of the 2009 Tariff Regulations, since these are balance payments in respect of works already allowed by the Commission.

(g) **Plant & Machinery**

37**.** The petitioner has claimed expenditure of ₹297.00 lakh during 2009-10 under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner has submitted that this is balance work and due to reasons beyond the control of the petitioner, the delivery /execution of certain items and spares got delayed. As the order/ contract were placed before the cut-off date, the principle of continuity needs to be applied. The petitioner by its affidavit dated 2.2.2012 has submitted reasons for the delay as under:

> *"It is submitted that a complete list of Plant and Machinery items is enclosed herewith. It may be noted that all the Plant and Machinery items are necessary for successful running of the plant. It may be further noted that the purchase orders for items valuing Rs 249 lakhs were placed before cut-off date i.e 31.3.2009.The details of the same are placed in Annexure-I. These plant and machinery items are necessary to have independent maintenance facilities for Stage-III and the station could not have been run without the same as with every passing years the maintenance requirement shall gradually increase. The period of about 20 months after station COD was not sufficient for identification of such items, their indenting, ordering and receipt of supplies within the cut-off date. The Hon'ble Commission has also recognized this aspect and enhanced the cut off date period upto about 39 months under the CERC Tariff Regulation 2009.It is therefore submitted that the Hon'ble Commission may be pleased to allow the same."*

38. From the details of assets under plant and machinery submitted by the petitioner its is observed that the same includes EOT cranes, spectro photometer, wire rope hoist., gasket cutting M/C, Transformer for township, chromatograph, submersible de-watering pump, portable eddi current assets/ equipments, ladder etc. These are in the nature of minor assets or of O&M nature and hence capitalization of the same is not allowed in terms of the last proviso under Regulation 9(2) of the 2009 Tariff Regulations.

Capital Spares

39**.** The petitioner has claimed expenditure of ₹1799.00 lakh towards the capitalization of spares under Regulation 9(1)(iii) of the 2009 Tariff Regulations along with the de-capitalization of spares amounting to ₹249.00 lakh during 2009-10 under Regulation 9(1)(i) of the 2009 Tariff Regulations. The petitioner has submitted that these capital spares were ordered in the year 2007-09 i.e. before the cut-off date and since the order book position of power plant equipment was full and the delivery period was around 24 months in case of original equipments manufacturers, the delivery took place during 2009-10. It has also submitted that some of these are replacement against de-capitalization done during 2008-09. Moreover, the Commission has also granted liberty to the petitioner vide its order dated 10.2.2011 in Petition No. 185/2009 to approach for capitalization of spares as and when replacements are done.

40. The submissions of the petitioner and the order dated 10.2.2011 has been examined. The value of initial spares capitalized upto 31.3.2009 is ₹8141.97 lakh. In terms of Regulation 8 of the 2009 Tariff Regulations, initial spares permitted to be capitalized for coal based generating stations is 2.5% of the original project cost, which works out to ₹8952.15 lakh up to the cut-off date i.e. 31.3.2009. Thus, the balance initial spares permissible for capitalization is ₹810.18 lakh (8952.15- 8141.97). Accordingly, the claim of the petitioner for capitalization of spares is restricted to ₹810.18 lakh (instead of ₹1550.00 lakh) and allowed.

41. Based on the above discussions, against the claim of the petitioner, the expenditure allowed on schemes other than CEA approved schemes are as follows:

(₹in lakh)

Sl. No		Actual/Projected Capital Expenditure					
		2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Amount allowed**
A	**Ash Handling System**						
i	Ash Dyke Raising Works (V-3)- Ist Raising	0.00	0.00	0.00	0.00	450.00	450.00
ii	Ash Slurry Pumps & Piping System	0.00	0.00	0.00	0.00	200.00	200.00
iii	Augmentation of Dry Fly Ash transportation system	440.00	0.00	0.00	0.00	0.00	440.00
iv	Civil Works Of Ash Dyke For Lagoon V-3	1.00	0.00	0.00	0.00	0.00	1.00
	Total Ash Handling System	**441.00**	**0.00**	**0.00**	**0.00**	**650.00**	**1091.00**
B	**Environmental System**						
i	On line CO_2 monitoring	0.00	0.00	0.00	0.00	0.00	0.00
ii	Energy management system	0.00	0.00	0.00	0.00	0.00	0.00
	Total Environmental system	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
C	**Other Capitalizations**						
i	Wagon Tippler	0.00	0.00	0.00	11050.00	0.00	**11050.00**

ii	Locomotive	0.00	2923.00	0.00	0.00	0.00	**2923.00**
iii	ICT and Shunt Reactor	0.00	0.00	350.00	0.00	0.00	**350.**00
iv	MGR-Wagons	0.00	0.00	0.00	0.00	0.00	0.00
	Elevator	0.00	0.00	0.00	0.00	0.00	0.00
v	Augmentation of Railway Sliding & MGR system	2473.00	0.00	0.00	0.00	0.00	**2473.00**
vi	Constn of B'wall & Road in Matwai Area	0.00	0.00	0.00	0.00	0.00	0.00
vii	Construction of parking shed near gate complex	0.00	0.00	0.00	0.00	0.00	0.00
viii	Paving around ETP area and others Stage-III areas	0.00	0.00	0.00	0.00	0.00	0.00
ix	Area development and horticulture works in transformer yard and cooling tower area	0.00	0.00	0.00	0.00	0.00	0.00
x	Construction of Badminton hall at VEWA	0.00	0.00	0.00	0.00	0.00	0.00
xi	Supply, installation and commissioning of Electronic weigh bridge	0.00	0.00	0.00	0.00	0.00	0.00
xii	Electrical works package for construction of boundary wall in Matwai area.	0.00	0.00	0.00	0.00	0.00	0.00
xiii	Electricals works for providing area lighting	0.00	0.00	0.00	0.00	0.00	0.00
xiv	Balance Works	17.00	0.00	0.00	0.00	0.00	17.00
xv	Plant and Machinery	0.00	0.00	0.00	0.00	0.00	0.00
xvi	Capital Spares	810.18	0.00	0.00	0.00	0.00	810.18
	Total- Other Capitalizations	**3300.18**	**0.00**	**0.00**	**0.00**	**0.00**	**3300.18**
	Grand Total	**3741.18**	**2923.00**	**350.00**	**11050.00**	**650.00**	**18714.18**
	De-capitalization of capital spares	249.00	0.00	0.00	0.00	0.00	0.00

42. The additional capital expenditure allowed for the period 2009-14 is as under:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
Additional Capital Expenditure allowed (net of de-capitalization)	3741.18	2923.00	350.00	11050.00	650.00	18714.18
De-capitalization	249.00	0.00	0.00	0.00	0.00	249.00

43. Taking into account the liabilities discharged during 2009-11, the following additional capital expenditure is approved for the purpose of tariff:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Admitted additional capitalization	3741.18	2923.00	350.00	11050.00	650.00
Liabilities discharged	516.56	273.67	0.00	0.00	0.00
Additional capitalization allowed	**4257.74**	**3196.67**	**350.00**	**11050.00**	**650.00**

44. Accordingly, the Capital cost approved for the period 2009-14 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	346665.81	350923.55	354120.22	354470.22	365520.22
Additional capitalization allowed	4257.74	3196.67	350.00	11050.00	650.00
Closing Capital cost	**350923.55**	**354120.22**	**354470.22**	**365520.22**	**366170.22**
Average Capital cost	**348794.68**	**352521.89**	**354295.22**	**359995.22**	**365845.22**

Debt- Equity Ratio

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

> *"(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.*
>
> *Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.*
>
> *Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment*.
>
> *Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system.*
>
> *(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.*
>
> *(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."*

46. The gross loan and equity amounting to ₹250093.01 lakh and ₹107182.72 lakh respectively, as on 31.3.2009 approved vide order dated 10.2.2011 in Petition No.185/2009 has been considered as gross loan and equity as on 1.4.2009. However, the un-discharged liabilities amounting to ₹10609.92 lakh deducted from the capital cost as on 1.4.2004 has been adjusted to debt and equity in the ratio of 70:30 for liabilities pertaining to period 2004-09. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹242666.07 lakh and ₹103999.74 lakh respectively. Further, the admitted additional expenditure has

been allocated in debt-equity ratio of 70:30 and the same is subject to truing-up in line with provisions contained in Regulation 6 of the 2009 Tariff Regulations.

Return on Equity

47. Regulation 15 of the 2009 Tariff Regulations amended on 21.6.2011, provides as under:

> *"(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.*
>
> *(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation.*
>
> *Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Appendix-II.*
>
> *Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.*
>
> *(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.*
>
> *(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:*
>
> *Rate of pre-tax return on equity = Base rate / (1-t)*
>
> *Where t is the applicable tax rate in accordance with clause (3) of this regulation.*
>
> *(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:*
>
> *Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."*

48. Accordingly, Return on Equity has been worked out @ 23.481% per annum on the normative equity after accounting for the projected additional capital expenditure as under:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Notional Equity- Opening	103999.74	105277.07	106236.07	106341.07	109656.07
Addition of Equity due to Additional capital expenditure	1277.32	959.00	105.00	3315.00	195.00
Normative Equity-Closing	105277.07	106236.07	106341.07	109656.07	109851.07
Average Normative Equity	104638.40	105756.57	106288.57	107998.57	109753.57

Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for the year 2008-09	33.990%	33.990%	33.990%	33.990%	33.990%
Rate of Return on Equity (Pre-Tax)	23.481%	23.481%	23.481%	23.481%	23.481%
Return on Equity (Pre-Tax)-(a**nnualised)**	**24570.14**	**24832.70**	**24957.62**	**25359.14**	**25771.23**

Interest on loan

49. Regulation 16 of the 2009 Tariff Regulations provides as under*:*

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute.

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

50. Interest on loan has been worked out as mentioned below:

(a) The gross normative loan amounting to ₹242666.07 lakh has been considered as on 1.4.2009.

(b) Cumulative repayment as on 31.3.2009 works out to ₹27929.26 lakh as per order dated 10.2.2011 in Petition No.185/2009. The same has been considered as cumulative repayment as on 1.4.2009. However, after taking in to account proportionate adjustment to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009 the cumulative repayment as on 1.4.2009 is revised to ₹27099.85 lakh.

(c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹215566.21 lakh.

(d) Addition to normative loan on account of additional capital expenditure approved above has been considered.

(e) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further proportionate adjustment has been made to the repayments corresponding to discharges of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009.

(f) In line with the provisions of the above regulations, the Weighted Average Rate of Interest (WAROI) has been calculated by applying the actual loan portfolio existing as on 1.4.2009 and is enclosed as Annexure-I to this order. For this purpose, the rate of interest corresponding to individual loans as provided by petitioner has been considered.

(g) The cumulative repayment has been adjusted @70% due to de-capitalization of assets/works.

51. The calculation for Interest on loan is as under:

(₹in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Gross opening loan	242666.07	245646.49	247884.15	248129.15	255864.15
Cumulative repayment of loan upto previous year	27099.85	44991.21	63230.50	81540.04	100144.15
Net Loan Opening	215566.21	200655.27	184653.65	166589.11	155720.00
Addition due to Additional capitalisation	2980.42	2237.67	245.00	7735.00	455.00
Repayment of loan during the year	18025.28	18217.90	18309.54	18604.11	18906.43
Add: Repayment adjustment on discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	40.38	21.39	0.00	0.00	0.00
Less: Repayment adjustment on account of de-capitalisation	174.30	0.00	0.00	0.00	0.00
Net Repayment	17891.36	18239.29	18309.54	18604.11	18906.43
Net Loan Closing	200655.27	184653.65	166589.11	155720.00	137268.58

Average Loan	208110.74	192654.46	175621.38	161154.56	146494.29
Weighted Average Rate of Interest on Loan	7.9078%	7.9147%	7.9159%	7.9093%	7.9052%
Interest on Loan	**16457.04**	**15248.08**	**13902.07**	**12746.19**	**11580.69**

Depreciation

52. Regulation 17 of the 2009 Tariff Regulations provides as under*:*

> *"(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 longterm power purchase agreement at regulated tariff.*
>
> *(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*
>
> *(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system.*
>
> *Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.*
>
> *(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance against Depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.*
>
> *(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."*

53. The cumulative depreciation as on 31.3.2009 as per order dated 10.2.2011 in Petition No.185/2009 is ₹27929.26 lakh. Further, proportionate adjustment has been made to this cumulative depreciation on account of un-discharged liabilities deducted as on 1.4.2009. Accordingly, the revised cumulative depreciation as on 1.4.2009 works out to ₹27099.85 lakh. Further, the value of freehold land is "Nil" as per order dated 10.2.2011 and the same has been retained for the purpose of calculating the depreciable value. Accordingly, the balance depreciable value (before providing depreciation) for the year 2009-10 works out to ₹286815.36 lakh. Since, the generating station is less than 12 years old as on 1.4.2009, from

the effective date of commercial operation of 24.3.2007, depreciation has been calculated by applying the weighted average rate of depreciation @ 5.1679%. Cumulative depreciation has been adjusted proportionately with reference to the life span to the assets/works de-capitalized. Further, proportionate adjustment has been made to the cumulative depreciation corresponding to liabilities discharged during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. The necessary calculations in support of depreciation are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	346665.81	350923.55	354120.22	354470.22	365520.22
Closing capital cost	350923.55	354120.22	354470.22	365520.22	366170.22
Average capital cost	348794.68	352521.89	354295.22	359995.22	365845.22
Depreciable value @ 90%	313915.21	317269.70	318865.70	323995.70	329260.70
Balance depreciable value	286815.36	272124.20	255480.92	242301.38	228962.27
Depreciation ***(annualized)***	**18025.28**	**18217.90**	**18309.54**	**18604.11**	**18906.43**
Cumulative depreciation at the end	45125.13	63363.39	81694.32	100298.43	119204.86
Add: Cumulative depreciation reduction on account of discharges out of un-discharged liabilities deducted as on 1.4.2009	40.38	21.39	0.00	0.00	0.00
Less: Cumulative depreciation reduction due to de-capitalization	20.02	-	-	-	-
Cumulative depreciation (at the end of the period)	45145.49	63384.78	81694.32	100298.43	119204.86

Operation & Maintenance Expenses

54. Clause (a) of Regulation 19 of Regulation of the 2009 Tariff Regulations provide the following O&M expense norms for Coal based and lignite fired generating stations as under:

(₹ in lakh/MW)

	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses for 500 MW units	13.00	13.74	14.53	15.36	16.24

55. The petitioner has claimed the following O&M expenses for the generating station as under:

(₹ in lakh)

	2000-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	13000	13740	14530	15360	16240

56. Based on the above norms, the O&M expenses claimed by the petitioner for the generating station is in order and hence allowed.

Normative Annual Plant Availability Factor (NAPAF)

57. The NAPAF of the generating station is considered as 85% for the period 1.4.2009 to 31.3.2014.

Interest on Working Capital

58. Regulation 18(1)(a) of the 2009 Tariff Regulations provides that the working capital for coal based generating stations shall cover:

> *(i) Cost of coal for 1.5 months for pit-head generating stations and two months for non-pithead generating stations, for generation corresponding to the normative annual plant availability factor;*
>
> *(ii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel oil, cost of fuel oil stock for the main secondary fuel oil;*
>
> *(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.*
>
> *(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor; and*
>
> *(v) O&M expenses for one month.*

59. Clause (3) of Regulation 18 of the 2009 Tariff Regulations as amended on 21.6.2011 provides 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*.

60. Working capital has been calculated considering the following elements as under:

Fuel Component in working capital

61. The cost for fuel component in working capital, based on price and GCV of coal & secondary fuel oil (HFO) procured and burnt for the preceding for preceding three months of January, 2009 to March, 2009 are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12 *(leap year)*	2012-13	2013-14
Cost of coal for 1.5 months	10898.99	10898.99	10928.85	10898.99	10898.99
Cost of secondary fuel oil (2 months)	282.06	282.06	282.83	282.06	282.06

62. The claim of the petitioner for cost of coal is found to be in order and allowed.

Maintenance Spares in working capital

63. The petitioner has claimed the maintenance spares in the working capital, as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	2600	2748	2906	3072	3248

64. The 2009 Tariff Regulations provide for maintenance spares @ 20% of the operation and maintenance expenses as specified in Regulation 19. Accordingly, the maintenance spares allowed for the purpose of tariff is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	2600	2748	2906	3072	3248

Receivables

65. Receivables have been worked out on the basis of two months of fixed and energy charges (based on primary fuel only) on normative plant availability factor as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	14531.99	14531.99	14571.81	14531.99	14531.99
Fixed Charges - 2 months	13159.66	13161.68	13110.85	13176.48	13254.65
Total	**27691.65**	**27693.67**	**27682.66**	**27708.48**	**27786.65**

O&M Expenses

66. O & M expenses for 1 month claimed by the petitioner for the purpose of working capital is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	1083	1145	1211	1280	1353

67. The Operation and Maintenance expenses for 1 month based on above norms are allowed as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	1083.33	1145.00	1210.83	1280.00	1353.33

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.5 months	10898.99	10898.99	10928.85	10898.99	10898.99
Cost of secondary fuel oil – 2 month	282.06	282.06	282.83	282.06	282.06
O&M expenses – 1 month	1083.33	1145.00	1210.83	1280.00	1353.33
Maintenance Spares	2600.00	2748.00	2906.00	3072.00	3248.00
Receivables – 2 months	27691.65	27693.67	27682.66	27708.48	27786.65
Total working capital	**42556.04**	**42767.73**	**43011.18**	**43241.53**	**43569.04**
Rate of interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	**5213.11**	**5239.05**	**5268.87**	**5297.09**	**5337.21**

Expenses on Secondary Fuel Oil

69. Clause (1) of Regulation 20 of the 2009 Tariff Regulations provides as under:

"20. Expenses on secondary fuel oil consumption for coal-based and lignite-fired generating station. (1) Expenses on secondary fuel oil in Rupees shall be computed corresponding to normative secondary fuel oil consumption (SFC) specified in clause (iii) of regulation 26, in accordance with the following formula:

SFC – Normative Specific Fuel Oil consumption in ml/kWh
= SFC x LPSFi x NAPAF x 24 x NDY x IC x 10

Where,
LPSFi – Weighted Average Landed Price of Secondary Fuel in `/ml considered initially.
NAPAF – Normative Annual Plant Availability Factor in percentage
NDY – Number of days in a year
IC - Installed Capacity in MW.

70. The petitioner has claimed cost of secondary fuel oil as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Secondary Fuel Oil	1692	1692	1697	1692	1692

71. Accordingly, the cost of secondary fuel considered for the purpose of tariff as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of secondary fuel oil	1692.37	1692.37	1697.01	1692.37	1692.37

Annual Fixed charges for 2009-14

72. The annual fixed charges for the period 2009-14 in respect of the generating station is summarized as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	18025.28	18217.90	18309.54	18604.11	18906.43
Interest on Loan	16457.04	15248.08	13902.07	12746.19	11580.69
Return on Equity	24570.14	24832.70	24957.62	25359.14	25771.23
Interest on working capital	5213.11	5239.05	5268.87	5297.09	5337.21
O & M Expenses	13000.00	13740.00	14530.00	15360.00	16240.00
Cost of secondary fuel oil	1692.37	1692.37	1697.01	1692.37	1692.37
Compensation allowance	0.00	0.00	0.00	0.00	0.00
Special Allowance	0.00	0.00	0.00	0.00	0.00
Total	**78957.95**	**78970.09**	**78665.10**	**79058.90**	**79527.92**

Note: *(i) All figures are on annualized basis*
(iii) All the figures under each head have been rounded. (ii) The figure in total column in each year is also rounded. Because of rounding of each figure the total may not be arithmetic sum of individual items in columns.

73. The recovery of the annual fixed charges shall be subject to truing up, in terms of Regulation 6 of the 2009 Tariff Regulations.

Energy Charge Rate (ECR)

74. Sub-clause (b) of clause (6) of Regulation 21 of the 2009 Tariff Regulations provides as under:

> *"Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:*
>
> *ECR = GHR x LPPF x 100 / {CVPF X (100-AUX)}*
>
> ***Where,***
>
> *AUX = Normative auxiliary energy consumption in percentage.*

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic metre, as applicable.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

75. The petitioner has claimed an Energy Charge Rate (ECR) of 125.24 paisa/kWh based on the weighted average price, GCV of fuel procured and burnt for three months of January, 2009, February, 2009 and March, 2009. The ECR of 125.239 paisa/kWh, as claimed by the petitioner based on the weighted average rate price is in order, except that the ECR calculated by the petitioner is up to two decimal places whereas, as per 2009 Tariff Regulations, ECR is to be calculated up to three (3) decimal places. Energy charge on month to month basis shall be calculated as per formula given under Regulation 21(6) (a) of 2009 Tariff Regulations.

	Unit	**2009-14**
Capacity	MW	2X500=1000
Gross Station Heat Rate	Kcal/kWh	2425
Weighted average Auxiliary Energy Consumption	%	6.50
Weighted average GCV of coal	Kcal/Kg	3528.67
Weighted average price of coal	₹/MT	1710.81
Rate of energy charge (Ex-bus)	Paisa/kWh	**125.239**

76. The petitioner shall be entitled to compute and recover the Annual Fixed Charges and Energy charges in accordance with Regulation 21 of the 2009 Tariff Regulations.

Application fee and the publication expenses

77. The petitioner has sought approval for the reimbursement of fee of ₹20.00 lakh each for the years 2009-10, 2010-11 and 2011-12 towards filing the petition and towards expenses incurred for publication of notices in connection with the petition. The petitioner by its affidavit dated 22.3.2010 has submitted an expenditure of ₹5,36,206/- has been incurred by it for publication of notice in the newspapers.

78. In terms of Regulation 42 of the 2009 Tariff Regulations and based on our decision in order dated 11.1.2010 in Petition No.109/2009, the filing fees in respect of main petitions for determination of tariff and the expenses on publication of notices are to be reimbursed. Accordingly, the expenses of ₹20.00 lakh each incurred by the petitioner on application filing fees for each of the years 2009-10, 2010-11 and 2011-12 and the expenses of ₹536206/- incurred towards publication of notices in connection with the present petition shall be directly recovered from the beneficiaries, on *pro rata* basis on production of documentary proof. The filing fees in respect of the balance years of the tariff period would be recoverable as and when paid by the petitioner in terms of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012

79. In addition to the above the prayers of the petitioner for the following reliefs have been disposed of as under:

(a) **Water Charges**: In this petition, the petitioner has claimed additional water charges due to increase in water charges by the State Government and has proposed recovery of the same directly from the beneficiaries. It is noticed that the petitioner has filed separate application (Petition No.121/2011) under Regulation 44 of the 2009 regulations read with Regulation 111 and other related regulations of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for recovery of additional cost incurred due to abnormal increase in water charges for its various generating stations. This petition is pending for consideration of the Commission and the decision taken in the said petition would be applicable to this generating station.

(a) **Recovery of RLDC Fees and Charges**: The claim for recovery RLDC Fees and Charges, is disposed of in terms of our order dated 6.2.2012 in Petition No.140/MP/2011 (NTPC-v-POSOCO Ltd & ors.

(b) **Expenditure incurred for implementation of scheme for provision of supply of electricity in 5 km area around Central Power plants**: The petitioner has submitted that in terms of the notification dated 27.4.2010 of the Government of India of a scheme for provision of supply of electricity in 5 km area around Central Power plants, the petitioner is required to create infrastructure for supply of reliable power to the rural households of the villages within a radius of 5 km of existing and new power stations and as per the scheme, the Appropriate Commission shall consider the expenditure incurred for implementation of such scheme for the purpose of determining tariff of the generating station. The petitioner has submitted that DPR for implementation of the scheme is under preparation and it was not possible to estimate the projected expenditure at this stage. The petitioner has further submitted that it would approach the Commission for consideration of the cost incurred in implementation of this scheme for tariff purpose thereafter. The petitioner is at liberty to approach the Commission through an appropriate application, which would be considered in accordance with law.

80. In addition to the above, the petitioner is entitled to recover other taxes etc levied by statutory authorities in accordance with the 2009 Tariff Regulations, as applicable.

81. The petitioner is already billing the respondent on provisional basis in accordance with the Commission's order dated 6.7.2011. The provisional billing of tariff shall be adjusted in terms of the proviso to Regulation 5(3) of the 2009 Tariff Regulations, amended on 21.6.2011.

82. This order disposes of Petition No. 260/2009.

Sd/-	***Sd/-***	***Sd/-***
[M. Deena Dayalan]	[V.S. Verma]	[S. Jayaraman]
Member	Member	Member

Annexure-I

Calculation of Weighted Average Rate of Interest on Loan

(₹ in lakh)

Sl. no.	Name of loan	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
	Euro Bond-II ($583.54 @ Rs.40.79/$ as on COD)	Net opening loan	23,802.60	23,802.60	23,802.60	23,802.60	23,802.60
		Add: Addition during the period					
		Less: Repayment during the period					
		Net Closing Loan	23,802.60	23,802.60	23,802.60	23,802.60	23,802.60
		Average Loan	23,802.60	23,802.60	23,802.60	23,802.60	23,802.60
		Rate of Interest	7.4476%	7.4476%	7.4476%	7.4476%	7.4476%
		Interest	1,772.71	1,772.71	1,772.71	1,772.71	1,772.71
2	SBP Syndicate (T1, D2)	Net opening loan	7,857.14	6,428.57	5,000.00	3,571.43	2,142.86
		Add: Addition during the period					
		Less: Repayment during. the period	1,428.57	1,428.57	1,428.57	1,428.57	1,428.57
		Net Closing Loan	6,428.57	5,000.00	3,571.43	2,142.86	714.29
		Average Loan	7,142.86	5,714.29	4,285.71	2,857.14	1,428.57
		Rate of Interest	9.2500%	9.2500%	9.2500%	9.2500%	9.2500%
		Interest	660.71	528.57	396.43	264.29	132.14
3	ICICI Bank-II (T3, D1)	Net opening loan	1,100.00	700.00	300.00	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	400.00	400.00	300.00	-	-
		Net Closing Loan	700.00	300.00	-	-	-
		Average Loan	900.00	500.00	150.00	-	-
		Rate of Interest	7.1000%	7.1000%	7.1000%	7.1000%	7.1000%
		Interest	63.90	35.50	10.65	-	-
4	Canara Bank (T1, D5)	Net opening loan	285.71	214.29	142.86	71.43	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	71.43	71.43	71.43	71.43	-
		Net Closing Loan	214.29	142.86	71.43	-	-
		Average Loan	250.00	178.57	107.14	35.71	-
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	18.13	12.95	7.77	2.59	-
5	Corp. Bank (T1, D2)	Net opening loan	4,642.86	3,928.57	3,214.29	2,500.00	1,785.71
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	714.29	714.29	714.29	714.29	714.29
		Net Closing Loan	3,928.57	3,214.29	2,500.00	1,785.71	1,071.43
		Average Loan	4,285.71	3,571.43	2,857.14	2,142.86	1,428.57
		Rate of Interest	7.2000%	7.2000%	7.2000%	7.2000%	7.2000%

		Interest	308.57	257.14	205.71	154.29	102.86
6	Indian overseas-II (T1, D2)	Net opening loan	5,000.00	4,285.71	3,571.43	2,857.14	2,142.86
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	714.29	714.29	714.29	714.29	714.29
		Net Closing Loan	4,285.71	3,571.43	2,857.14	2,142.86	1,428.57
		Average Loan	4,642.86	3,928.57	3,214.29	2,500.00	1,785.71
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	325.00	275.00	225.00	175.00	125.00
7	LIC-III (T1, D1)	Net opening loan	7,733.33	7,200.00	6,666.67	6,133.33	5,600.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	533.33	533.33	533.33	533.33	533.33
		Net Closing Loan	7,200.00	6,666.67	6,133.33	5,600.00	5,066.67
		Average Loan	7,466.67	6,933.33	6,400.00	5,866.67	5,333.33
		Rate of Interest	6.5710%	6.5710%	6.5710%	6.5710%	6.5710%
		Interest	490.63	455.59	420.54	385.50	350.45
8	LIC-III (T2, D1)	Net opening loan	17,000.00	15,000.00	13,000.00	11,000.00	9,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
		Net Closing Loan	15,000.00	13,000.00	11,000.00	9,000.00	7,000.00
		Average Loan	16,000.00	14,000.00	12,000.00	10,000.00	8,000.00
		Rate of Interest	7.6190%	7.6190%	7.6190%	7.6190%	7.6190%
		Interest	1,219.04	1,066.66	914.28	761.90	609.52
9	LIC-III (T3, D1)	Net opening loan	21,250.00	18,750.00	16,250.00	13,750.00	11,250.00
		Add: Addition during the period	-	-	-	-	
		Less: Repayment during the period	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
		Net Closing Loan	18,750.00	16,250.00	13,750.00	11,250.00	8,70.00
		Average Loan	20,000.00	17,500.00	15,000.00	12,500.00	10,000.00
		Rate of Interest	7.7320%	7.7320%	7.7320%	7.7320%	7.7320%
		Interest	1,546.40	1,353.10	1,159.80	966.50	773.20
10	LIC-III (T4, D1)	Net opening loan	1,785.00	1,575.00	1,365.00	1,155.00	945.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	210.00	210.00	210.00	210.00	210.00
		Net Closing Loan	1,575.00	1,365.00	1,155.00	945.00	735.00
		Average Loan	1,680.00	1,470.00	1,260.00	1,050.00	840.00
		Rate of Interest	8.5230%	8.5230%	8.5230%	8.5230%	8.5230%
		Interest	143.19	125.29	107.39	89.49	71.59
11	LIC-III (T4, D2)	Net opening loan	5,100.00	4,500.00	3,900.00	3,300.00	2,700.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	600.00	600.00	600.00	600.00	600.00
		Net Closing Loan	4,500.00	3,900.00	3,300.00	2,700.00	2,100.00
		Average Loan	4,800.00	4,200.00	3,600.00	3,000.00	2,400.00
		Rate of Interest	8.3150%	8.3150%	8.3150%	8.3150%	8.3150%

		Interest	399.12	349.23	299.34	249.45	199.56
12	LIC-III (T4, D3)	Net opening loan	2,975.00	2,625.00	2,275.00	1,925.00	1,575.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	350.00	350.00	350.00	350.00	350.00
		Net Closing Loan	2,625.00	2,275.00	1,925.00	1,575.00	1,225.00
		Average Loan	2,800.00	2,450.00	2,100.00	1,750.00	1,400.00
		Rate of Interest	8.2771%	8.2771%	8.2771%	8.2771%	8.2771%
		Interest	231.76	202.79	173.82	144.85	115.88
13	LIC-III (T4, D4)	Net opening loan	1,700.00	1,500.00	1,300.00	1,100.00	900.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	200.00	200.00	200.00	200.00	200.00
		Net Closing Loan	1,500.00	1,300.00	1,100.00	900.00	700.00
		Average Loan	1,600.00	1,400.00	1,200.00	1,000.00	800.00
		Rate of Interest	8.7281%	8.7281%	8.7281%	8.7281%	8.7281%
		Interest	139.65	122.19	104.74	87.28	69.82
14	LIC-III (T4, D5)	Net opening loan	2,975.00	2,625.00	2,275.00	1,925.00	1,575.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	350.00	350.00	350.00	350.00	350.00
		Net Closing Loan	2,625.00	2,275.00	1,925.00	1,575.00	1,225.00
		Average Loan	2,800.00	2,450.00	2,100.00	1,750.00	1,400.00
		Rate of Interest	8.7576%	8.7576%	8.7576%	8.7576%	8.7576%
		Interest	245.21	214.56	183.91	153.26	122.61
15	PNB (T1, D6)	Net opening loan	1,454.55	727.27	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	727.27	727.27	-	-	-
		Net Closing Loan	727.27	-	-	-	-
		Average Loan	1,090.91	363.64	-	-	-
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	79.09	26.36	-	-	-
16	PNB-II (T1, D1)	Net opening loan	700.00	650.00	550.00	450.00	350.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	50.00	100.00	100.00	100.00	100.00
		Net Closing Loan	650.00	550.00	450.00	350.00	250.00
		Average Loan	675.00	600.00	500.00	400.00	300.00
		Rate of Interest	11.0000%	11.0000%	11.0000%	11.0000%	11.0000%
		Interest	74.25	66.00	55.00	44.00	33.00
17	SBI-III (T1, D1 & 5)	Net opening loan	9,642.86	7,500.00	5,357.14	3,214.29	1,071.43
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	2,142.86	2,142.86	2,142.86	2,142.86	1,071.43
		Net Closing Loan	7,500.00	5,357.14	3,214.29	1,071.43	-
		Average Loan	8,571.43	6,428.57	4,285.71	2,142.86	535.71
		Rate of Interest	9.2500%	9.2500%	9.2500%	9.2500%	9.2500%
		Interest	792.86	594.64	396.43	198.21	49.55

18	SBT-II (T1, D2)	Net opening loan	2,142.86	1,714.29	1,285.71	857.14	428.57
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	428.57	428.57	428.57	428.57	428.57
		Net Closing Loan	1,714.29	1,285.71	857.14	428.57	0.00
		Average Loan	1,928.57	1,500.00	1,071.43	642.86	214.29
		Rate of Interest	9.2500%	9.2500%	9.2500%	9.2500%	9.2500%
		Interest	178.39	138.75	99.11	59.46	19.82
19	Syndicate Bank (T1, D1, 2 & 4)	Net opening loan	21,428.57	17,857.14	14,285.71	10,714.29	7,142.86
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	3,571.43	3,571.43	3,571.43	3,571.43	3,571.43
		Net Closing Loan	17,857.14	14,285.71	10,714.29	7,142.86	3,571.43
		Average Loan	19,642.86	16,071.43	12,500.00	8,928.57	5,357.14
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	1,424.11	1,165.18	906.25	647.32	388.39
20	UCO (T1, D5)	Net opening loan	771.43	385.71	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	385.71	385.71	-	-	-
		Net Closing Loan	385.71	-	-	-	-
		Average Loan	578.57	192.86	-	-	-
		Rate of Interest	7.3500%	7.3500%	7.3500%	7.3500%	7.3500%
		Interest	42.53	14.18	-	-	-
21	UBI	Net opening loan	1,428.57	714.29	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	714.29	714.29	-	-	-
		Net Closing Loan	714.29	-	-	-	-
		Average Loan	1,071.43	357.14	-	-	-
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	77.68	25.89	-	-	-
22	Vijaya Bank-II (T1, D1)	Net opening loan	7,200.00	7,200.00	6,171.43	5,142.86	4,114.29
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	1,028.57	1,028.57	1,028.57	1,028.57
		Net Closing Loan	7,200.00	6,171.43	5,142.86	4,114.29	3,085.71
		Average Loan	7,200.00	6,685.71	5,657.14	4,628.57	3,600.00
		Rate of Interest	8.5000%	8.5000%	8.5000%	8.5000%	8.5000%
		Interest	612.00	568.29	480.86	393.43	306.00
23	Allahabad Bank-II (T1, D3)	Net opening loan	928.57	785.71	642.86	500.00	357.14
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	142.86	142.86	142.86	142.86	142.86
		Net Closing Loan	785.71	642.86	500.00	357.14	214.29
		Average Loan	857.14	714.29	571.43	428.57	285.71
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%

		Interest	60.00	50.00	40.00	30.00	20.00
24	Bonds XVII Series	Net opening loan	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	
		Net Closing Loan	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
		Average Loan	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
		Rate of Interest	8.5100%	8.5100%	8.5100%	8.5100%	8.5100%
		Interest	425.50	425.50	425.50	425.50	425.50
25	Bonds XVIII Series	Net opening loan	13,000.00	10,400.00	7,800.00	5,200.00	2,600.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00
		Net Closing Loan	10,400.00	7,800.00	5,200.00	2,600.00	-
		Average Loan	11,700.00	9,100.00	6,500.00	3,900.00	1,300.00
		Rate of Interest	5.9800%	5.9800%	5.9800%	5.9800%	5.9800%
		Interest	699.66	544.18	388.70	233.22	77.74
26	Bonds XIX Series	Net opening loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	-
		Net Closing Loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
		Average Loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
		Rate of Interest	7.5300%	7.5300%	7.5300%	7.5300%	7.5300%
		Interest	225.90	225.90	225.90	225.90	225.90
27	Bonds XXI Series	Net opening loan	12,500.00	12,500.00	11,250.00	10,000.00	8,750.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	1,250.00	1,250.00	1,250.00	1,250.00
		Net Closing Loan	12,500.00	11,250.00	10,000.00	8,750.00	7,500.00
		Average Loan	12,500.00	11,875.00	10,625.00	9,375.00	8,125.00
		Rate of Interest	7.7425%	7.7425%	7.7425%	7.7425%	7.7425%
		Interest	967.81	919.42	822.64	725.86	629.08
28	Bonds XXII Series	Net opening loan	1,500.00	1,500.00	1,500.00	1,350.00	1,200.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	150.00	150.00	150.00
		Net Closing Loan	1,500.00	1,500.00	1,350.00	1,200.00	1,050.00
		Average Loan	1,500.00	1,500.00	1,425.00	1,275.00	1,125.00
		Rate of Interest	8.2071%	8.2071%	8.2071%	8.2071%	8.2071%
		Interest	123.11	123.11	116.95	104.64	92.33
29	Bonds XXIII Series	Net opening loan	7,700.00	7,700.00	7,700.00	6,930.00	6,160.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	770.00	770.00	770.00
		Net Closing Loan	7,700.00	7,700.00	6,930.00	6,160.00	5,390.00

		Average Loan	7,700.00	7,700.00	7,315.00	6,545.00	5,775.00
		Rate of Interest	8.4096%	8.4096%	8.4096%	8.4096%	8.4096%
		Interest	647.54	647.54	615.16	550.41	485.65
30	Bonds XXIV Series	Net opening loan	2,000.00	2,000.00	2,000.00	1,800.00	1,600.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	200.00	200.00	200.00
		Net Closing Loan	2,000.00	2,000.00	1,800.00	1,600.00	1,400.00
		Average Loan	2,000.00	2,000.00	1,900.00	1,700.00	1,500.00
		Rate of Interest	8.6377%	8.6377%	8.6377%	8.6377%	8.6377%
		Interest	172.75	172.75	164.12	146.84	129.57
31	Bonds XXVIII Series	Net opening loan	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	-
		Net Closing Loan	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
		Average Loan	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
		Rate of Interest	11.0300%	11.0300%	11.0300%	11.0300%	11.0300%
		Interest	220.60	220.60	220.60	220.60	220.60
32	SBI-IV (T , D2, 4, 5 & 6)	Net opening loan	13,200.00	11,314.29	9,428.57	7,542.86	5,657.14
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,885.71	1,885.71	1,885.71	1,885.71	1,885.71
		Net Closing Loan	11,314.29	9,428.57	7,542.86	5,657.14	3,771.43
		Average Loan	12,257.14	10,371.43	8,485.71	6,600.00	4,714.29
		Rate of Interest	10.0000%	10.0000%	10.0000%	10.0000%	10.0000%
		Interest	1,225.71	1,037.14	848.57	660.00	471.43
33	Gross Total	Net opening loan	2,08,804.05	1,86,083.44	1,61,034.26	1,36,792.36	1,12,850.45
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	22,720.61	25,049.18	24,241.90	23,941.90	22,799.05
		Net Closing Loan	186083.44	161034.26	136792.36	112850.45	90051.41
		Average Loan	1,97,443.74	1,73,558.85	1,48,913.31	1,24,821.41	1,01,450.93
		Rate of Interest	**7.9078%**	**7.9147%**	**7.9159%**	**7.9093%**	**7.9052%**
		Interest	15,613.51	13,736.72	11,787.88	9,872.50	8,019.91