CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 256/2009

Coram: 1. Dr. Pramod Deo, Chairperson
2. Shri S. Jayaraman, Member
3. Shri V.S.Verma, Member
4. Shri M.Deena Dayalan, Member

Date of Hearing: 14.6.2011 **Date of Order: 7.5.2012**

IN THE MATTER OF

Approval of tariff of Ramagundam Super Thermal Power Station, Stage-III (500 MW) for the period from 1.4.2009 to 31.3.2014

AND

IN THE MATTER OF

NTPC Ltd, New Delhi **…Petitioner**
Vs
(1) Transmission Corporation of Andhra Pradesh Ltd, Hyderabad
(2) AP Eastern Power Distribution Company Ltd, Visakhapatnam
(3) AP Southern Power Distribution Company Ltd, Tirupathi
(4) AP Northern Power Distribution Company Ltd, Warangal
(5) AP Central Power Distribution Company Ltd, Hyderabad
(6) Tamil Nadu Electricity Board, Chennai
(7) Karnataka Power Transmission Corporation Ltd, Bangalore
(8) Bangalore Electricity Supply Company Ltd, Bangalore
(9) Mangalore Electricity Supply Company Ltd, Mangalore
(10) Chamundeshwari Electricity Supply Corporation Ltd, Mysore
(11) Gulbarga Electricity Supply Company Ltd, Gulbarga
(12) Hubli Electricity Supply Company Ltd, Hubli
(13) Kerala State Electricity Board, Thiruvananthapuram
(14) Puducherry Electricity Department, Puducherry **…Respondents**

Present:

1. Shri V.K.Padha, NTPC
2. Shri Ajay Dua, NTPC
3. Shri S.K.Mondal, NTPC

ORDER

This petition has been filed by the petitioner, NTPC, for approval of tariff for Ramagundam STPS, Stage-III (500 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 "the 2009 Tariff Regulations").

2. The generating station with a capacity of 500 MW comprises of one unit and was declared under commercial operation on 25.3.2005.

3. The tariff of the generating station for the period from 25.3.2005 to 31.3.2009 was determined by Commission's order dated 15.10.2007 in Petition No. 140/2005. Subsequently, in Petition No.24/2008 filed by the petitioner, the Commission by its order dated 24.11.2008 revised the annual fixed charges on account of additional capital expenditure during the years 2004-05, 2005-06 and 2006-07 after excluding un-discharged liabilities amounting to ₹301.52 lakh and ₹45.96 lakh during 2005-06 and 2006-07, respectively and reduction in IDC of ₹13.00 lakh during 2005-06 on account of disallowance of FIFO method of repayment of loan. Against this order, the petitioner filed Appeal No. 46/2009 and the said appeal was allowed by the Appellate Tribunal for Electricity (the Tribunal) on 31.3.2010 in the light of its earlier judgments. Thereafter, Petition No. 123/2009 along with Interlocutory Application (I.A.No.37/2009) was filed by the petitioner and the Commission by its order dated 11.1.2010 revised the annual fixed charges of the generating station after for 2004-09 after accounting for additional capital expenditure incurred during 2007-08 and 2008-09. Against the order dated 11.1.2010, the petitioner filed Review Petition (R.P.No.59/2010) limited to the question of disallowance of the liabilities discharged during the years 2007-08 and 2008-09 in respect of works allowed by the Commission and by order dated 12.10.2010 allowed review of order dated 11.1.2010. The petitioner also filed Appeal No. 76/2010 before the Tribunal against the order dated 11.1.2010 and the said appeal was allowed by the Tribunal by its judgment dated 19.4.2011 in the light of its earlier judgment dated 13.6.2007 in Appeal Nos.139 to 142 etc of 2006 and the judgment dated 16.3.2009 in Appeal Nos.133, 135 etc., of 2008 of the Tribunal. Thereafter, the Commission by its order dated 12.10.2011 in Petition No.123/2009 revised the annual fixed charges of the generating station in line with the directions contained in the judgment of the Tribunal dated 19.4.2011, subject to final outcome of the Civil appeals pending before the

Hon’ble Supreme Court. The annual fixed charges determined by order dated 12.10.2011 with the capital cost of ₹158315.70 lakh as on 31.3.2009, is as under:

(₹ in lakh)

	2004-05 ***(25.3.2005 to 31.3.2005)***	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Interest on Loan	143.13	7311.36	7105.41	6472.95	5806.13
Interest on Working Capital	33.15	1660.34	1682.37	1701.69	1714.43
Depreciation	98.94	5338.87	5569.46	5655.10	5717.54
Advance Against Depreciation	89.69	2027.50	4178.68	4587.85	4970.21
Return on Equity	114.51	6179.31	6446.20	6545.33	6617.59
O & M Expenses	89.75	4865.00	5060.00	5260.00	5475.00
Total	**569.19**	**27382.38**	**30042.12**	**30222.91**	**30300.91**

4. The petition was heard on 22.4.2010 and the Commission after directing the petitioner to submit additional information on certain issues, reserved its order on the petition. The petitioner by its affidavit dated 31.5.2010 submitted additional information as sought for by the Commission. Subsequently, by affidavit dated 1.10.2010, the petitioner amended the petition, after taking into account the impact of additional capital expenditure approved by Commission's order dated 11.1.2010 in Petition No.123/2009, for the period up to 31.3.2009, in line with the directions contained in the interim order of the Commission dated 29.6.2010 in Petition No. 245/2009. Based on the directions of the Commission, additional information was also submitted by the petitioner by its affidavits dated 12.11.2010, 25.11.2010, 14.12.2010, 21.3.2011 and 10.5.2011. Thereafter, the petition was heard on 14.6.2011 and the Commission reserved its orders.

5. The annual fixed charges claimed by the petitioner for the period 2009-14, are as stated below:

(₹ in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Depreciation	8404	8453	8477	8481	8489
Interest on Loan	5282	4700	4191	3558	2926
Return on Equity	11208	11273	11305	11311	11322
Interest on Working Capital	2495	2506	2524	2529	2541
O&M Expenses	6500	6870	7265	7680	8120
Cost of secondary fuel oil	762	762	764	762	762
Total	**34651**	**34564**	**34527**	**34321**	**34159**

6. Reply to the petition has been filed by the respondent No.1, APTRANSCO (for and on behalf of respondent Nos. 2 to 5) and the respondent No.6, TNEB. The petitioner has filed its rejoinder to the replies of the said respondents and its response to the written submissions filed by respondent No. 6, TNEB.

Capital Cost

7. 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;"*

8. The annual fixed charges claimed in the petition are based on opening capital cost of ₹158647 lakh as on 1.4.2009. As stated earlier, the annual fixed charges of the generating station was revised by order dated 12.10.2011 considering the capital cost of ₹158315.70 lakh as on 31.3.2009. As such, the opening capital cost as on 1.4.2009 is ₹158315.70 lakh.

9. The petitioner vide its affidavit dated 10.5.2011 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 which have been reconciled with the records of the Commission 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	162309.35	162309.35	0.00
Liabilities included in the above	2164.58	2164.58	0.00

10. The un-discharged liabilities included in the gross block of ₹158315.70 lakh as on 1.4.2009 is ₹2164.58 lakh (pertaining to the period 2004-09).

11. 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."

12. Accordingly, in terms of the last proviso to Regulation 7 of the 2009 Tariff Regulations, the capital cost, after removal of un-discharged liabilities of `2164.58 lakh, works out to ₹156151.12 lakh, on cash basis, as on 1.4.2009. The discharge of un-discharged liabilities, if any, made by the petitioner would be included in the capital base, in the year of discharge.

13. The petitioner vide its affidavit dated 16.8.2011 has furnished the details of the liabilities discharged during 2009-11. Out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged an amount of ₹48.34 lakh during 2009-10 and ₹60.87 lakh during 2010-11 (pertaining to liabilities for the period 2004-09). The discharge of the above 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

14. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides as under**:**

*"9. **Additional Capitalisation.** (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

(i) Un-discharged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

(iii) 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."

15. 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
Actual/Projected Additional capital expenditure	916.12*	929.40	0.00	160.00	150.00

** on actual basis*

16. The cut-off date for the generating station has expired. Hence, the petitioner's claim for additional capital expenditure is required to be examined in terms of Regulation 9 (2) of the 2009 Tariff Regulations. Accordingly, we examine the submissions as regards admissibility of the additional capital expenditure for 2009-14 made by the petitioner, in the subsequent paragraphs.

Submissions of the petitioner

17. 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.

18. The petitioner has also submitted the following in support of its claim in the petition and in its affidavit dated 29.3.2010.

(a) In addition to the capital expenditure covered by Regulation 9(1) and 9(2) and 19(e) of the 2009 regulations, there will be capital expenditure of different nature which would be necessary for the efficient operation of the generating station during its life time. The incurring of additional capital expenditure from time to time towards replacement/refurbishment of old assets has been absolutely necessary to maintain higher level of performance on a sustainable basis and is in larger public interest. Additional capital expenditure for this purpose had constantly been allowed by the Commission under the 2001 and 2004 tariff regulations. However, additional capital expenditure on this head has not been included in Regulation 9 of 2009 regulations. Accordingly, the petitioner has claimed additional capital expenditure on 'works considered necessary for the efficient operation of the generating station in addition to those specified under Regulation 9 (1) and (2) and Regulation 19 (e) of the 2009 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 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.

19. The respondent, No.6, TNEB vide its reply dated 5.5.2010 has submitted that 'additional capitalization' is governed by the provisions of the 2009 Tariff Regulations which regulates expenditure incurred upto the cut-off date [(Regulation 9 (1)] and expenditure incurred after the cut-off date [(Regulation 9 (2)]. Since the cut-off date of the generating station in terms of the 2004 Tariff regulations specified by the Commission, had expired on 31.3.2007, the additional capital expenditure for the generating station is required to be regulated in terms of the provisions under Regulation 9(2) of the 2009 Tariff Regulations. The respondent has also submitted that the prayer of the petitioner to consider the additional capital expenditure which are not covered under Regulations 9(1), 9(2) and 19 (e) of the 2009 Tariff Regulations, may not be permitted and has prayed that the Commission may consider the same strictly in accordance with the regulations in force. The respondent No.1, APTRANSCO has submitted that the additional capital expenditure claimed by the petitioner during the period 2009-14 within the original scope of work, may be considered subject to prudence check. In its response, the

petitioner has objected to the submissions of the above respondents and has reiterated its submissions made in the petition and also in its affidavit dated 29.3.2010

20. 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) 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 (Rs 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."

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."

21. In line with the above decision, the additional capital expenditure claimed by the petitioner for 2009-14 in this petition, has been considered under the provisions of Regulation 9(2) of the 2009 Tariff Regulations, as stated in the subsequent paragraphs.

22. The petitioner has claimed actual capital expenditure for 2009-10 and additional capital expenditure (projected) for the years 2010-11, 2011-12, 2012-13 and 2013-14 as detailed under:

(₹ in lakh)

Sl. No.	**Head of Work/ Equipment**	**Regulations**	**Actual/Projected Capital expenditure**				
			2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1	**Ash Pond**						
a	Ash pond raisings	9(2)(iii)	10.94	558.00	0.00	0.00	0.00
b	Ash water decant channel & pump house	9(2)(iii)	0.00	0.00	0.00	160.00	0.00
c	Earth Cover	9(2)(iii)	0.00	0.00	0.00	0.00	150.00
d	Ash silo-2-Fabrication & Erection works	9(2)(iii)	171.70	0.00	0.00	0.00	0.00
	TOTAL		**182.64**	**558.00**	0.00	**160.00**	**150.00**
2	Construction of Railway siding and locos		0.00	208.70	0.00	0.00	0.00
3	CCTV	9(2)(ii)	106.31	0.00	0.00	0.00	0.00
4	Gadget for plant security	9(2)(ii)	67.09	36.70	0.00	0.00	0.00
5	BHEL main plant turnkey	Regulations 5,6& 7	0.00	126.00	0.00	0.00	0.00
6	Off-site civil works	Regulations 5,6& 7	15.12	0.00	0.00	0.00	0.00
7	Township buildings	Regulations 5,6& 7	544.96	0.00	0.00	0.00	0.00
	Total		**916.12**	**929.40**	**0.00**	**160.00**	**150.00**

Change-in-law-Regulation 9(2)(ii)

23. The petitioner has claimed expenditure of ₹106.31 lakh during 2009-10 towards installation of CCTV and ₹67.09 lakh during 2009-10 and ₹36.70 lakh during 2010-11 towards the installation of gadgets like DFMD, HHMD, trolley mirrors, CCTV cameras etc, for better plant security, as per recommendation of Intelligence Bureau (IB), Ministry of Home Affairs, Government of India, based on the security inspection report vide its letter dated 27.6.2007. The petitioner has submitted the abstract of the above report and has pointed out that the above expenditure has not been considered under O&M expenses of the generating station/its other generating stations. Considering the fact that said asset is required for safety and security of the generating station, the claim of the petitioner is allowed under this head.

Deferred works relating to Ash Pond/Ash handling system within the original scope of works-Regulation 9(2)(iii)

24. The petitioner has claimed expenditure of ₹10.94 lakh during 2009-10, ₹558.00 lakh during 2010-11, ₹160.00 lakh during 2012-13 and ₹150.00 lakh during 2013-14 towards Ash pond raisings, Ash water decant channel and pump house and earth cover, under Regulation 9(2)(iii) of the 2009 Tariff Regulations. The petitioner has submitted that these are Ash related works and form part of the original scope of work. It has also submitted that the existing Ash pond in use for Stages-I & II of the generating station is augmented for the unit of this generating station. It has also submitted that the up-gradation and sustenance of capacity are being taken up in a staggered manner and the works have been planned without affecting the generation and availability of the generating station. Regulation 9(2)(iii) provides for consideration of expenditure for deferred works related to Ash pond/ash handling system within the original scope of work. Since these works form part of the original scope of work and are taken up in stages during the life of the generating station, the capitalization of the expenditure is allowed under this head.

25. The petitioner has claimed expenditure of ₹171.70 lakh during 2009-10 towards Ash Silo-2 Fabrication & Erection works. The petitioner has submitted that the said work is to augment

the dry fly ash extraction and evacuation, consisting of Ash silo and associated equipment. It has also been submitted that the work was taken up sequentially and completed by November, 2009. It is observed that the petitioner has claimed expenditure of ₹16.89 lakh for 2009-10 vide its affidavit dated 12.4.2010, which has later been increased to ₹171.70 lakh for 2009-10 vide affidavit dated 1.10.2010. In this connection, the petitioner was directed vide letter dated 12.11.2010 to submit clarification and the petitioner by its affidavit dated 14.12.2010 has submitted its clarification on the same. From the break-up details of the expenditure submitted, it is observed that the capitalized value of Ash Silo-2 includes the construction of Ash Silo-2, utility building and miscellaneous civil works, fabrication, erection & commissioning of Ash Silo-2. The petitioner has not explained the Civil work of utility building and miscellaneous works and has also not furnished detailed justification for the expenditure of ₹171.70 lakh. As it appears that the increase in expenditure from ₹16.89 lakh to ₹171.70 lakh is mainly on account of utility building and miscellaneous works, we do not allow capitalization of the increased expenditure, under this head. However, the claim for an expenditure of ₹16.89 lakh vide affidavit dated 12.4.2010 which relate to the Construction of Ash Silo-2 is only allowed to be capitalized under this head.

Other expenditure (Regulations 5, 6 & 7)

26. The petitioner has claimed expenditure of ₹544.96 lakh during 2009-10 towards Township Building work and projected expenditure of ₹126.00 lakh and ₹208.70 lakh during 2010-11 towards BHEL main plant turnkey package and Construction of Railway siding and locos, under Regulations 5, 6 & 7 of the 2009 Tariff Regulations on the ground that these assets are necessary for efficient operation of the generating station. The petitioner has submitted that the BHEL main plant turnkey package forms part of the original scope of work of the project and was awarded to M/s BHEL which consists of ₹110.00 lakh for fire sealing compound and ₹16.00 lakh for spares, and the same was delayed. The petitioner has submitted that these works form part of the deferred work within the original scope of work. It has also submitted that due to time involvement and logistic support diverted to the main plant construction, the Township Building

work was taken up subsequently. The petitioner has further submitted that the Construction of Railway siding and locos is an approved work carried out in augmentation to the existing and working infrastructure which form part of the deferred work within the original scope of work. The respondent, TNEB has submitted that the claim of the petitioner is not in accordance with Regulation 9(2) of the 2009 Tariff Regulations and should not be permitted. From the submissions of the petitioner, it is noticed that the work of Township building and BHEL package for main plant were executed after the cut-off date and the contract for the work of Construction of Railway siding and locos was placed after the cut-off date, i.e during August 2008 i.e. Any deferred work executed after the cut-off date is not allowed to be capitalized except for works relating to ash pond or ash handling system in the original scope of work. Since, no provision exists under Regulation 9(2) of the 2009 Tariff Regulations for capitalization of such expenditure on works/assets which are necessary for efficient operation of the generating station after the cut-off date, the claim of the petitioner is disallowed.

27. The petitioner has claimed expenditure of ₹15.12 lakh during 2009-10 towards Off-site civil works. The petitioner has submitted that the said work is part of the approved project scheme awarded to M/s HSCL. Due to poor performance of the agency, the contract was cancelled and awarded to other agency at the risk and cost of M/s HSCL. After completion of package, the risk and cost amount was arrived at and due to this process, the payment was delayed. The petitioner has prayed that these are deferred works within the original scope of work and the expenditure may be allowed under this head. The expenditure incurred is towards balance payment in respect of works for which contracts were placed before the cut-off date and the delay in payments were due to contractual problems arising out of poor performance of the agency. In view of justification, the expenditure of ₹15.12 lakh for 2009-10 is allowed to be capitalized in terms of Regulation 9(2)(viii) of the 2009 Tariff Regulations, as amended on 21.6.2011.

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

(₹ in lakh)

S.No	Head of Work/ Equipment	Regulation	Actual/Projected Capital expenditure				
			2009-10	2010-11	2011-12	2012-13	2013-14
1	**Ash Pond**						
a	Ash pond raisings	9(2)(iii)	10.94	558.00	0.00	0.00	0.00
b	Ash water decant channel & pump house	9(2)(iii)	0.00	0.00	0.00	160.00	0.00
c	Earth Cover	9(2)(iii)	0.00	0.00	0.00	0.00	150.00
d	Ash silo-2 Fabrication & Erection works	9(2)(iii)	16.89	0.00	0.00	0.00	0.00
2	CCTV	9(2)(ii)	106.31	0.00	0.00	0.00	0.00
3	Gadget for plant security	9(2)(ii)	67.09	36.70	0.00	0.00	0.00
4	Off-site civil works	Regulation 5,6 & 7	15.12	0.00	0.00	0.00	0.00
	Total		**216.35**	**594.70**	**0.00**	**160.00**	**150.00**

29. The additional capital expenditure allowed for the purpose of tariff for 2009-14, including liabilities discharged, is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional capital expenditure allowed	216.35	594.70	0.00	160.00	150.00
Add: Liabilities discharged	48.34	60.87	0.00	0.00	0.00
Net Additional capital expenditure allowed	**264.69**	**655.57**	**0.00**	**160.00**	**150.00**

Capital Cost for 2009-14

30. Accordingly, the capital cost considered for the purpose of tariff for 2009-14 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	156151.12	156415.81	157071.38	157071.38	157231.38
Additional capital expenditure	264.69	655.57	0.00	160.00	150.00
Closing Capital cost	**156415.81**	**157071.38**	**157071.38**	**157231.38**	**157381.38**
Average Capital cost	**156283.46**	**156743.60**	**157071.38**	**157151.38**	**157306.38**

31. The capital cost allowed above is subject to truing-up in terms of the provisions contained in Regulation 6 of the 2009 Tariff Regulations

Debt- Equity Ratio

32. 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."

33. The gross loan and equity amounting to ₹110820.99 lakh and ₹47494.71 lakh, respectively, as on 31.3.2009 approved vide order dated 12.10.2011 in Petition No.123/2009, has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities of ₹2164.58 lakh deducted from the capital cost as on 1.4.2009 has been adjusted to debt and equity in the ratio of 70:30 as liabilities pertaining to the period 2004-09 only. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹109305.78 lakh and ₹46845.34 lakh, respectively. Further, the projected additional expenditure admitted as above has been allocated in the debt-equity ratio of 70:30. The same is subject to truing-up in terms of the provisions contained in Regulation 6 of the 2009 Tariff Regulations.

Return on Equity

34. Regulation 15 of the 2009 Tariff Regulations 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."

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

(` in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	46845.34	46924.74	47121.41	47121.41	47169.41
Addition of Equity due to Additional capital expenditure	79.41	196.67	0.00	48.00	45.00
Normative Equity-Closing	46924.74	47121.41	47121.41	47169.41	47214.41
Average Normative Equity	46885.04	47023.08	47121.41	47145.41	47191.91
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)-(***annualised)***	**11009.08**	**11041.49**	**11064.58**	**11070.21**	**11081.13**

Interest on loan

36. 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."

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

(a) The gross normative loan of ₹109305.78 lakh as on 1.4.2009 has been considered.

(b) Cumulative repayment as on 31.3.2009 works out to ₹38233.83 lakh as per order dated 12.10.2011 in Petition No.123/2009. The same has been considered as cumulative repayment as on 1.4.2009. However, after taking in to account the proportionate adjustment (taking into account the liability and debt position as on 25.3.2005 along with additions during the period 2004-09) 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 as ₹37711.08 lakh.

(c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹71594.70 lakh.

(d) Addition to normative loan to the tune of 70% of the admitted additional capital expenditure above has been considered.

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

(f) In line with the first proviso to Regulation 16(5) of the 2009 Tariff Regulations, the weighted average rate of interest has been calculated applying the actual loan portfolio existing as on 1.4.2009, for the generating station and is enclosed as Annexure –I to this order.

38. The calculations for Interest on loan are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	109305.78	109491.07	109949.97	109949.97	110061.97
Cumulative repayment of loan upto previous year	37711.08	46020.89	54320.08	62609.46	70903.05
Net Loan Opening	71594.70	63470.18	55629.88	47340.51	39158.91
Addition due to additional capitalisation	185.29	458.90	0.00	112.00	105.00
Repayment of loan during the year	8247.79	8272.08	8289.38	8293.60	8301.78
Less: Repayment adjustment on account of de-capitalisation	0.00	0.00	0.00	0.00	0.00
Add: Repayment adjustment on discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	62.01	27.12	0.00	0.00	0.00
Net Repayment	8309.81	8299.20	8289.38	8293.60	8301.78
Net Loan Closing	63470.18	55629.88	47340.51	39158.91	30962.13
Average Loan	67532.44	59550.03	51485.19	43249.71	35060.52
Weighted Average Rate of Interest on Loan	7.6771%	7.7031%	7.9257%	8.0027%	8.1100%
Interest on Loan	**5184.53**	**4587.17**	**4080.57**	**3461.14**	**2843.39**

Depreciation

39. 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."

40. Cumulative depreciation as on 31.3.2009 as per order dated 12.10.2011 in Petition No. 123/2009 is ₹38224.98 lakh. Further, proportionate adjustment has been made to the 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 ₹37702.35 lakh. The value of freehold land as considered in said order as on 31.3.2009 is `nil' and the same has been considered for the purpose of calculating depreciable value. Since, the generating station is less than 12 years old as on 1.4.2009 from the date of commercial operation i.e 25.3.2005, the depreciation has been calculated considering the weighted average rate of depreciation as 5.2775%.as against the claim of 5.282% by the petitioner. The difference is on account of the weighted average rate of 9.50% considered by the petitioner for the asset 'air conditioning & ventilation' as against the weighted average rate of 5.28% considered by the Commission. Further, proportionate adjustment has been made to the cumulative depreciation corresponding to discharges of liabilities considered 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	156151.12	156415.81	157071.38	157071.38	157231.38
Closing capital cost	156415.81	157071.38	157071.38	157231.38	157381.38
Average capital cost	156283.46	156743.60	157071.38	157151.38	157306.38
Depreciable value @ 90%	140655.12	141069.24	141364.24	141436.24	141575.74
Balance depreciable value	102952.77	95057.09	87052.91	78835.53	70681.44
Depreciation (annualized)	**8247.79**	**8272.08**	**8289.38**	**8293.60**	**8301.78**
Cumulative depreciation at the end	45950.14	54284.22	62600.71	70894.30	79196.08
Less: Cumulative depreciation adjustment on account of discharges out of un-discharged liabilities deducted as on 1.4.2009	(-) 62.00	(-) 27.11	0.00	0.00	0.00
Less: Cumulative depreciation reduction due to de-capitalization	0.00	0.00	0.00	0.00	0.00
Net Cumulative depreciation (at the end of the period)	46012.14	54311.33	62600.71	70894.30	79196.08

O & M Expenses

41. Clause (a) of Regulation 19 of Regulation of the 2009 Tariff Regulations provide the following O&M expense norms for 500 MW 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

42. The petitioner has claimed the following O&M expenses during 2009-14:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	6500	6870	7265	7680	8120

43. Based on above norms, the operation & maintenance expense claimed by the petitioner is in order and has been allowed**.**

Normative Annual Plant Availability Factor (NAPAF)

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

Interest on Working Capital

45. 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.

46. 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.

47. The respondent No. 1, APTRANSCO has submitted that the petitioner's claims for interest on working capital, the amount of variable charges of coal and the rate of interest claimed for working capital may not be considered. The respondent has submitted that cost of coal during January 2009 to March, 2009 is on the higher side and that the average coal cost of three months prior to November, 2009 (date of filing of petition) may be considered. It has also submitted that the interest on working capital adopted during 2004-09 at the rate of 10.25% may be considered instead of 12.25% claimed in the petition. The respondent has further submitted that income-tax/MAT may not be included in the receivable component of working capital every year. In response, the petitioner has submitted that the computations for working capital has been made in terms of the provisions of the 2009 Tariff Regulations and the objections of the respondent deserve to be rejected. We have considered the submissions of the parties and the components of working capital has been computed and allowed in terms of the 2009 Tariff Regulations, as discussed in subsequent paragraphs.

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

Fuel Components in working capital

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

(₹ in lakh)

	2009-10	**2010-11**	**2011-12** *(leap year)*	**2012-13**	**2013-14**
Cost of coal for two months	6313	6313	6330	6313	6313
Cost of secondary fuel oil 2 months	127	127	127	127	127

50. 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 three months of March, Feb and Jan 2009 is calculated and allowed as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal for two months	6312.88	6312.88	6330.18	6312.88	6312.88
Cost of secondary fuel oil 2 months	126.98	126.98	127.33	126.98	126.98

Maintenance Spares in working capital

51. The petitioner has claimed the following maintenance spares in the working capital.

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	1300	1374	1453	1536	1624

52. The 2009 Tariff Regulations provide for maintenance spares @ 20% of the operation and maintenance expenses as specified in Regulation 19. Accordingly, the maintenance spares claimed by the petitioner as above is allowed for the purpose of tariff.

Receivables

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	6312.88	6312.88	6330.18	6312.88	6312.88
Fixed Charges - 2 months	5698.19	5671.34	5662.64	5630.90	5606.50
Total	**12011.07**	**11984.22**	**11992.82**	**11943.78**	**11919.39**

O&M Expenses

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	542	573	605	640	677

55. However, O&M expenses for one month considered for working capital based on the provisions of the 2009 Tariff Regulations is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	541.67	572.50	605.42	640.00	676.67

56. 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 as under as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal –2 months	6312.88	6312.88	6330.18	6312.88	6312.88
Cost of secondary fuel oil – 2 month	126.98	126.98	127.33	126.98	126.98
O&M expenses – 1 month	541.67	572.50	605.42	640.00	676.67
Maintenance Spares	1300.00	1374.00	1453.00	1536.00	1624.00
Receivables – 2 months	12011.07	11984.22	11992.82	11943.78	11919.39
Total working capital	**20292.61**	**20370.59**	**20508.74**	**20559.65**	**20659.92**
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	**2485.84**	**2495.40**	**2512.32**	**2518.55**	**2530.84**

Cost of secondary fuel oil

57. 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 Rs/ml considered initially.

NAPAF – Normative Annual Plant Availability Factor in percentage

NDY – Number of days in a year

IC - Installed Capacity in MW.

58. In terms of the above, the cost of secondary fuel oil has been calculated on the normative specific fuel oil consumption, the weighted average landed price of secondary fuel price adopted and NAPF of 85%. Accordingly, the cost of secondary fuel is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of secondary fuel oil	761.89	761.89	763.98	761.89	761.89

59. The cost of secondary fuel oil arrived at as above shall be subject to fuel price adjustment at the end of each year of tariff period in terms of the proviso to Regulation 20(2) as per the following formula*:*

SFC x NAPAF x 24 x NDY x IC x 10 x (LPSFy – LPSFi)

Where,

LPSFy = The weighted average landed price of secondary fuel oil for the year in Rs./ml

Annual Fixed charges for 2009-14

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

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	8247.79	8272.08	8289.38	8293.60	8301.78
Interest on Loan	5184.53	4587.17	4080.57	3461.14	2843.39
Return on Equity	11009.08	11041.49	11064.58	11070.21	11081.13
Interest on Working Capital	2485.84	2495.40	2512.32	2518.55	2530.84
O&M Expenses	6500.00	6870.00	7265.00	7680.00	8120.00
Cost of Secondary fuel oil	761.89	761.89	763.98	761.89	761.89
Total	**34189.13**	**34028.02**	**33975.82**	**33785.39**	**33639.03**

Note: *(i) All figures are on annualized basis.(ii) 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*.

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

Energy Charge Rate (ECR)

62. 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.*

63. The petitioner has claimed an Energy Charge Rate (ECR) of 108.81 paisa/kWh considering the normative transit and handling losses of 0.2% for coal supplied through

Merry Go Round (MGR) system and 0.8% for coal supplied through Railway system. Accordingly, the weighted average price of coal works out to be ₹1611.80/MT. Based on the above weighted average rate price, GCV of fuel procured and burnt for the preceding three months of January, 2009 to March, 2009 and operational norms, the Energy Charge Rate works out to 108.811 paise/kWh. The relevant calculations are as under:

	Unit	**2009-14**
Capacity	MW	500
Gross Station Heat Rate	Kcal/kWh	2425
Auxiliary Energy Consumption	%	6.50
Weighted average price of oil	Rs/Kl	20464.35
Weighted average price of coal	Rs/MT	1611.79
Rate of energy charge ex-bus	Paise/kWh	**108.811**

64. 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.

65. The petitioner has also prayed for the following reliefs, which are disposed of as under:

(a) **Recovery of RLDC Fees and Charges**: The claim of the petitioner towards recovery of RLDC fees & charges incurred by the petitioner 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 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.

Application fee and the publication expenses

66. The petitioner has sought approval for the reimbursement of fees amounting to ₹10.00 lakh each for the years 2009-10, 2010-11 and 2011-12 towards filing the petition and for expenses incurred for publication of notices in newspapers in connection with the petition. The

petitioner by its affidavit dated 23.4.2010 has submitted that an expenditure of ₹4,39,563/- has been incurred by it for publication of notice in the newspapers.

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

68. 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.

69. The petitioner is already billing the respondents 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.

70. This disposes of Petition No.256/2009.

Sd/-	*Sd/-*	*Sd/-*	*Sd/-*
[M.DEENA DAYALAN]	**[V.S.VERMA]**	**[S.JAYARAMAN]**	**[DR.PRAMOD DEO]**
MEMBER	**MEMBER**	**MEMBER**	**CHAIRPERSON**

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
1	Bank of Punjab (HDFC Ltd.)	Net opening loan	714.29	357.14	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	357.14	357.14	-	-	-
		Net Closing Loan	357.14	-	-	-	-
		Average Loan	535.71	178.57	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%
		Interest	39.16	13.05	-	-	-
2	Canara Bank (T1, D1)	Net opening loan	857.14	642.86	428.57	214.29	-
		Add: Addition du. the period	-	-	-	-	-
		Less: Repayment during the period	214.29	214.29	214.29	214.29	-
		Net Closing Loan	642.86	428.57	214.29	-	
		Average Loan	750.00	535.71	321.43	107.14	-
		Rate of Interest	9.4000%	9.4000%	9.4000%	9.4000%	9.4000%
		Interest	70.50	50.36	30.21	10.07	-
3	Canara Bank (T1, D5)	Net opening loan	1072.57	804.43	536.29	268.14	=
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment du. the period	268.14	268.14	268.14	268.14	-
		Net Closing Loan	804.43	536.29	268.14	-	-
		Average Loan	938.50	670.36	402.21	134.07	-
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	68.04	48.60	29.16	9.72	-
4	CBI(T1,D1)	Net opening loan	600.00	400.00	200.00	-	-
		Add: Addition du. the period	-	-	-	-	-
		Less: Repayment during the period	200.00	200.00	200.00	-	-
		Net Closing Loan	400.00	200.00	-	-	-
		Average Loan	500.00	300.00	100.00	-	-
		Rate of Interest	7.2000%	7.2000%	7.2000%	7.2000%	7.2000%
		Interest	36.00	21.60	7.20	-	-
5	Citi Bank NA(T1,D1)	Net opening loan	3214.29	2500.00	1785.71	1071.43	357.14
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	714.29	714.29	714.29	714.29	357.14
		Net Closing Loan	2,500.00	1785.71	1071.43	357.14	-
		Average Loan	2857.14	2142.86	1428.57	714.29	178.57
		Rate of Interest	5.7070%	5.7070%	5.7070%	5.7070%	5.7070%
		Interest	163.06	122.29	81.53	40.76	10.19
6	Corporation Bank(T1,D1)	Net opening loan	214.29	142.86	71.43	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	71.43	71.43	71.43	-	-
		Net Closing Loan	142.86	71.43	-	-	-
		Average Loan	178.57	107.14	35.71	-	-

		Rate of Interest	8.9300%	8.9300%	8.9300%	8.9300%	8.9300%
		Interest	15.95	9.57	3.19	-	-
7	Corporation Bank(T1,D3)	Net opening loan	3,000.00	2,000.00	1,000.00	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,000.00	1,000.00	1,000.00	-	-
		Net Closing Loan	2,000.00	1,000.00	-	-	-
		Average Loan	2,500.00	,500.00	500.00	-	-
		Rate of Interest	8.1900%	8.1900%	8.1900%	8.1900%	8.1900%
		Interest	204.75	122.85	40.95	-	-
8	J& K BANK	Net opening loan	1,285.71	642.86	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	642.86	642.86	-	-	-
		Net Closing Loan	642.86	-	-	-	-
		Average Loan	964.29	321.43	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%
		Interest	70.49	23.50	-	-	-
9	PNB(T1,D4)	Net opening loan	833.33	416.67	-	-	
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	416.67	416.67	-	-	-
		Net Closing Loan	416.67	-	-	-	-
		Average Loan	625.00	208.33	-	-	
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%
		Interest	45.69	15.23	-	-	-
10	State Bank of Indore (T1,D3)	Net opening loan	428.57	214.29	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	214.29	214.29	-	-	-
		Net Closing Loan	214.29	-	-	-	-
		Average Loan	321.43	107.14	-	-	-
		Rate of Interest	7.3500%	7.3500%	7.3500%	7.3500%	7.3500%
		Interest	23.63	7.88	-	-	
11	UBI (T1,D3)	Net opening loan	857.14	428.57	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	428.57	428.57	-	-	-
		Net Closing Loan	428.57	-	-	-	-
		Average Loan	642.86	214.29	-	-	-
		Rate of Interest	7.3060%	7.3060%	7.3060%	7.3060%	7.3060%
		Interest	46.97	15.66	-	-	-
12	HDFC-III (T1,D1&D2)	Net opening loan	2,857.14	1,428.57	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,428.57	1,428.57	-	-	-
		Net Closing Loan	1,428.57	-	-	-	-
		Average Loan	2,142.86	714.29	-	-	-
		Rate of Interest	10.4000%	10.4000%	10.4000%	10.4000%	10.4000%
		Interest	222.86	74.29	-	-	-
13	SBI-I(T1,D8)	Net opening loan	1,285.71	-	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,285.71	-	-	-	-
		Net Closing Loan	-	-	-	-	-

		Average Loan	642.86	-	-	-	-
		Rate of Interest	11.6000%	11.6000%	11.6000%	11.6000%	11.6000%
		Interest	74.57	-	-	-	-
14	SBI-II (T1,D8)	Net opening loan	2,142.86	1,428.57	714.29	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	714.29	714.29	714.29	-	-
		Net Closing Loan	1,428.57	714.29	-	-	-
		Average Loan	1,785.71	1,071.43	357.14	-	-
		Rate of Interest	9.0000%	9.0000%	9.0000%	9.0000%	9.0000%
		Interest	160.71	96.43	32.14	-	
15	Karur Vysya Bank(T1,D2)	Net opening loan	2,320.00	1,760.00	1,200.00	640.00	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	560.00	560.00	560.00	640.00	-
		Net Closing Loan	1,760.00	1,200.00	640.00	-	-
		Average Loan	2,040.00	1,480.00	920.00	320.00	-
		Rate of Interest	8.0000%	8.0000%	8.0000%	8.0000%	8.0000%
		Interest	163.20	118.40	73.60	25.60	-
16	Karur Vysya Bank(T1,D3)	Net opening loan	2,900.00	2,200.00	1,500.00	800.00	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	700.00	700.00	700.00	800.00	-
		Net Closing Loan	2,200.00	1,500.00	800.00	-	-
		Average Loan	2,550.00	1,850.00	1,150.00	400.00	-
		Rate of Interest	7.3000%	7.3000%	7.3000%	7.3000%	7.3000%
		Interest	186.15	135.05	83.95	29.20	-
17	LIC-III(T1,D1)	Net opening loan	4,833.33	4,500.00	4,166.67	3,833.33	3,500.00
		Add: Addition during the period					
		Less: Repayment during the period	333.33	333.33	333.33	333.33	333.33
		Net Closing Loan	4,500.00	4,166.67	3,833.33	3,500.00	3,166.67
		Average Loan	4,666.67	4,333.33	4,000.00	3,666.67	3,333.33
		Rate of Interest	6.5710%	6.5710%	6.5710%	6.5710%	6.5710%
		Interest	306.65	284.74	262.84	240.94	219.03
18	Bonds XVIII Series	Net opening loan	2,000.00	1,600.00	1,200.00	800.00	400.00
		Add: Addition during the period	-	-	-		
		Less: Repayment during the period	400.00	400.00	400.00	400.00	400.00
		Net Closing Loan	1,600.00	1,200.00	800.00	400.00	-
		Average Loan	1,800.00	1,400.00	1,000.00	600.00	200.00
		Rate of Interest	5.9800%	5.9800%	5.9800%	5.9800%	5.9800%
		Interest	107.64	83.72	59.80	35.88	11.96
19	Bonds XVI Series	Net opening loan	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	-
		Net Closing Loan	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
		Average Loan	6,000.00	6,000.00	6,000.00	6,000.00	6,000.00
		Rate of Interest	8.0300%	8.0300%	8.0300%	8.0300%	8.0300%
		Interest	481.80	481.80	481.80	481.80	481.80
20	Vijaya Bank (T1,D2)	Net opening loan	428.57	214.29	-	-	-
		Add: Addition during the period	-	-	-	-	-

		Less: Repayment during the period	214.29	214.29	-	-	-
		Net Closing Loan	214.29	-	-	-	-
		Average Loan	321.43	107.14	-	-	-
		Rate of Interest	7.3000%	7.3000%	7.3000%	7.3000%	7.3000%
		Interest	23.46	7.82	-	-	-
21	SBI- IV (T1, D1)	Net opening loan	1,400.00	1,200.00	1,000.00	800.00	600.00
		Add: Addition during the period	-	-	-	-	
		Less: Repayment during the period	200.00	200.00	200.00	200.00	200.00
		Net Closing Loan	1,200.00	1,000.00	800.00	600.00	400.00
		Average Loan	1,300.00	1,100.00	900.00	700.00	500.00
		Rate of Interest	10.0000%	10.0000%	10.0000%	10.0000%	10.0000%
		Interest	130.00	110.00	90.00	70.00	50.00
22	SBI- IV (T1, D6)	Net opening loan	2,500.00	2,142.86	1,785.71	1,428.57	1,071.43
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	357.14	357.14	357.14	357.14	357.14
		Net Closing Loan	2,142.86	1,785.71	1,428.57	1,071.43	714.29
		Average Loan	2,321.43	1,964.29	1,607.14	1,250.00	892.86
		Rate of Interest	10.0000%	10.0000%	10.0000%	10.0000%	10.0000%
		Interest	232.14	196.43	160.71	125.00	89.29
23	CBI-II (T1, D1)	Net opening loan	1,000.00	857.14	714.29	571.43	428.57
		Add: Addition during the period	-	-	-	-	
		Less: Repayment during the period	142.86	142.86	142.86	142.86	142.86
		Net Closing Loan	857.14	714.29	571.43	428.57	285.71
		Average Loan	928.57	785.71	642.86	500.00	357.14
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	65.00	55.00	45.00	35.00	25.00
24	Euro Bonds	Net opening loan	20,714.11	20,714.11	-	-	-
	($469.4947 @ Rs.44.1200/$)	Add: Addition during the period	-	-	-	-	
		Less: Repayment during the period	-	20,714.11	-	-	-
		Net Closing Loan	20,714.11	-	-	-	-
		Average Loan	20,714.11	10,357.05	-	-	-
		Rate of Interest	6.9722%	6.9722%			
		Interest	1,444.22	722.11	-	-	-
25	Bonds XXI Series	Net opening loan	4,000.00	4,000.00	3,600.00	3,200.00	2,800.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	400.00	400.00	400.00	400.00
		Net Closing Loan	4,000.00	3,600.00	3,200.00	2,800.00	2,400.00
		Average Loan	4,000.00	3,800.00	3,400.00	3,000.00	2,600.00
		Rate of Interest	7.7425%	7.7425%	7.7425%	7.7425%	7.7425%
		Interest	309.70	294.22	263.25	232.28	201.31
26	LIC-III(T4,D1)	Net opening loan	680.00	600.00	520.00	440.00	360.00
		Add: Addition during the period					
		Less: Repayment during the period	80.00	80.00	80.00	80.00	80.00
		Net Closing Loan	600.00	520.00	440.00	360.00	280.00
		Average Loan	640.00	560.00	480.00	400.00	320.00
		Rate of Interest	8.5230%	8.5230%	8.5230%	8.5230%	8.5230%
		Interest	54.55	47.73	40.91	34.09	27.27
27	LIC-III(T4,D4)	Net opening loan	1,020.00	900.00	780.00	660.00	540.00
		Add: Addition during the period					

		Less: Repayment during the period	120.00	120.00	120.00	120.00	120.00
		Net Closing Loan	900.00	780.00	660.00	540.00	420.00
		Average Loan	960.00	840.00	720.00	600.00	480.00
		Rate of Interest	8.7281%	8.7281%	8.7281%	8.7281%	8.7281%
		Interest	83.79	73.32	62.84	52.37	41.89
28	BOND XXVII	Net opening loan	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
		Add: Addition during the period					
		Less: Repayment during the period					
		Net Closing Loan	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
		Average Loan	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
		Rate of Interest	11.2800%	11.2800%	11.2800%	11.2800%	11.2800%
		Interest	169.20	169.20	169.20	169.20	169.20
24	**Gross Total**	Net opening loan	70659.06	59595.20	28702.95	22227.19	17557.14
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	11063.86	30892.25	6475.76	4670.05	2390.48
		Net Closing Loan	59595.20	28702.95	22227.19	17557.14	15166.67
		Average Loan	65127.13	44149.08	25465.07	19892.17	16361.90
		Rate of Interest	**7.6771%**	**7.7031%**	**7.9257%**	**8.0027%**	**8.1100%**
		Interest	4999.87	3400.83	2018.29	1591.91	1326.94