CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 269/2009

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

Date of Hearing: 18.12.2012
Date of Order: 28.5.2013

In the matter of

Approval of tariff of Talcher Super Thermal Power Station, Stage-II (2000 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 Generation and Distribution Corporation Ltd, Chennai
(7) Power Company of Karnataka 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) Electricity Department, Government of Puducherry, Puducherry
(15) Grid Corporation of Orissa Ltd, Bhubaneshwar …**Respondents**

Present:
1. Shri Ajay Dua, NTPC
2. Shri C .K. Mondol, NTPC
3. Shri S .K. Mandal, NTPC
4. Shri Naresh Anand, NTPC
5. Shri Rohit Chhabra, NTPC
6. Shri G. K Dua, NTPC
7. Shri R. B. Sharma, Advocate, GRIDCO

ORDER

This petition has been filed by the petitioner, NTPC, for approval of tariff for Talcher STPS, Stage-II (2000 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 total capacity of 2000 MW comprises of four units of 500 MW each. The actual dates of commercial operation (COD) of the different units of the generating station are as under:

Units	Scheduled COD	Actual COD
Unit I	February, 2004	1.8.2003
Unit II	November, 2004	1.3.2004
Unit III	August, 2005	1.11.2004
Unit IV	May, 2006	1.8.2005

3. The tariff of the generating station for the period from 1.4.2009 to 31.3.2009 was determined by Commission's order dated 31.1.2008 in Petition No. 179/2004. Against the order dated 31.1.2008, the respondent No.2, TNEB filed Review Petition No. 47/2008 and the same was dismissed by Commission's order dated 29.5.2008 at the admission stage. Aggrieved by order dated 31.1.2008, the petitioner filed Appeal No. 66/2008 before the Appellate Tribunal for Electricity ('the Tribunal') on various issues. Subsequently, Petition No.146/2008 was filed by the petitioner for determination of impact of additional capital expenditure incurred for the generating station during the period 2004-08 and the Commission by its order dated 5.1.2010 revised the annual fixed charges for the generating station, for the period 2004-09, after excluding un-discharged liabilities and Interest During Construction (IDC). Thereafter, Petition No.138/2009 was filed by the petitioner for determination of impact of additional capital expenditure incurred in respect of the generating station during the period 2008-09 and the Commission by its order dated 19.2.2010 revised the annual fixed charges for the generating station, after exclusion of un-discharged liability of ₹1275.17 lakh. Subsequently, the Tribunal by its judgment dated 18.8.2010 allowed Appeal No. 66/2008 in part and remanded the matter

to the Commission to consider the question of relaxation of cut-off date of the generating station. Against the order dated 5.1.2010 in Petition No.146/2008, the petitioner filed Review Petition No.46/2010 and the respondent, TNEB also filed Review Petition No.139/2010 on certain issues, which were disposed of by orders dated 27.9.2011 and 30.5.2011 respectively. Against the order dated 19.2.2010 in Petition No.138/2009, the petitioner filed Review Petition No.126/2010 before the Commission against the non-consideration of un-discharged liabilities in terms of the judgment of the Tribunal dated 10.12.2008 in Appeal No.138/2008 and the liabilities discharged during the year 2008-09 amounting to ₹5.90 crore which was allowed by order dated 6.7.2011. Appeal No. 92/2010 filed by the petitioner against order dated 19.2.2010 in Petition No.138/2009 was allowed by the Tribunal excepting the prayer for de-capitalization of capital spares. However, the question of consideration of relaxation of cut-off date was remanded to the Commission in terms of the observations contained in judgment dated 18.8.2010 in Appeal No. 66/2008. Similarly, the Tribunal by its judgment dated 18.7.2011 in Appeal No. 64/2010 allowed the prayers of the petitioner in terms of its earlier judgments and remanded the matter to the Commission to consider the question of relaxation of cut-off date for additional capitalization for the generating station. In terms of the above directions of the Tribunal in Appeal Nos.66/2008, 92/2010 and 64/2010 and taking into consideration the earlier judgments of the Tribunal dated 13.6.2007 and 16.3.2009 in Appeal Nos. 139 to 142 etc of 2006 and other connected cases and Appeal Nos. 133, 135, 136 and 148/2008, the tariff of the generating station for 2004-09 was revised by Commission's order dated 29.12.2011 in Petition No. 179/2004, subject to the outcome of the Civil Appeals filed against the judgments of the Tribunal as aforesaid and pending before the Hon'ble Supreme Court. Subsequently, by order dated 21.2.2012 the tariff of the generating station was further revised after correction of certain inadvertent clerical errors in the order dated 29.12.2011.

4. The annual fixed charges allowed by order dated 21.2.2012 is as under:

(₹in lakh)

	2004-05		2005-06		2006-07	2007-08	2008-09
	1.4.2004 to 31.10.2004	1.11.2004 to 31.3.2005	1.4.2005 to 31.7.2005	1.8.2005 to 31.3.2006			
Depreciation	9424.01	13862.05	13963.75	17851.28	18000.76	18223.70	18476.94
Interest on Loan	15824.25	22387.89	21703.51	25943.54	22054.33	18621.19	14636.07
Return on Equity	10946.25	16131.73	16250.08	20827.45	21001.86	21261.97	21557.42
Advance Against Depreciation	388.61	15734.43	0.00	34281.08	16716.77	17064.96	17107.63
Interest on Working Capital	1971.62	3467.52	3162.64	5067.10	4685.90	4696.10	4682.98
O&M Expenses	9360.00	14040.00	14595.00	19460.00	20240.00	21040.00	21900.00
TOTAL	**47914.73**	**85623.62**	**69674.99**	**123430.44**	**102699.63**	**100907.92**	**98361.03**

5. This petition, filed vide affidavit dated 12.11.2009, was heard on 13.5.2010 and the Commission directed the petitioner to submit additional information on certain issues. Thereafter, the petitioner by its affidavit dated 30.9.2010 amended the petition after taking into account the impact of additional capital expenditure approved by Commission's order dated 19.2.2010 in Petition No.139/2009 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. Subsequently, by its affidavit dated 23.3.2011 the petitioner amended the said petition. Thereafter, based on the directions of the Commission, additional information was also submitted by the petitioner by its affidavits dated 15.9.2011 and 19.10.2012.The petition was finally heard on 18.12.2012 and the Commission after directing the petitioner to file certain additional submissions reserved its orders. The petitioner vide affidavit dated 24.1.2013 has filed the additional submissions as directed by the Commission on 18.12.2012.

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

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	26870	27090	27680	28175	28302
Interest on Loan	12143	10117	8421	6550	4509
Return on Equity	36478	36776	37578	38249	38422
Interest on Working Capital	9001	9053	9152	9215	9277
O&M Expenses	26000	27480	29060	30720	32480
Cost of secondary fuel oil	3049	3049	3057	3049	3049
Compensation Allowance	0	0	0	0	0
Special Allowance	0	0	0	0	0
Total	**113540**	**113564**	**114949**	**115957**	**116039**

7. Reply to the petition has been filed by APTRANSCO (respondent No.1, for and on behalf of respondent Nos. 2 to 5), TANGEDCO (respondent No.6) and GRIDCO (respondent no.15). The petitioner has filed its rejoinder to the replies of the said respondents.

Capital Cost

8. 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;"*

9. The annual fixed charges claimed in the petition are based on opening capital cost of ₹516598 lakh as on 1.4.2009 as against the approved capital cost of ₹518192.92 lakh. As stated earlier, the annual fixed charges of the generating station was revised by order dated 21.2.2012 in Petition No. 179/2004 considering the capital cost of ₹518192.92 lakh as on 31.3.2009. As such, the opening capital cost as on 1.4.2009 is ₹518192.92 lakh.

10. The petitioner vide its affidavit dated 13.1.2011 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**
Capital cost as on 1.4.2009, as per books	521128.40	521128.40
Liabilities included in the above	21248.59	21248.59

11. Out of the total liabilities amounting to ₹21248.59 lakh included in the gross block as on 1.4.2009, the approved capital cost of ₹518192.92 lakh is inclusive of un-discharged liabilities of ₹21246.06 lakh. The balance differential liabilities pertain to assets disallowed/ not claimed for capitalization.

12. 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."

13. Accordingly, in terms of the last proviso to Regulation 7 of the 2009 Tariff Regulations, the capital cost as on 1.4.2009, after removal of un-discharged liabilities of ₹21246.06 lakh, works out to ₹496946.86 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.

14. The petitioner vide its affidavit dated 15.9.2011 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 ₹618.06 lakh during 2009-10 and ₹151.72 lakh during 2010-11 respectively. 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

15. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011 and 31.12.2012, 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 or projected to be incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;

(ii) Change in law;

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

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

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

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

(vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations.

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

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

(viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc."
(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility."

16. 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	2471	6005	16752	2302	2625

17. 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

18. 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.

19. 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 Tariff 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 Tariff 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 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 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.

20. The respondent, No.15, GRIDCO has submitted that the definition of additional capitalization under Regulation 3(3) of the 2009 Tariff Regulations subjects the additional capitalization to the provisions of Regulation 9 and that the additional capitalization contained in Regulation 9 covers both existing and new generating stations coming during the tariff period 2009-14. It has also submitted that Regulation 9(2) also contained expenses for change in law and liabilities to met award of arbitration which is impossible to envisage at the time when the original scope of work is decided. The respondent, No.6,TNEB vide its reply dated 20.5.2010

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 be considered strictly in accordance with the regulations in force. 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.

21. Similar submissions of the petitioner for determination of tariff for 2009-14 in respect of its other generating stations have been considered and disposed of by the Commission by its orders dated 20.4.2012, 7.5.2012, 23.5.2012, 25.5.2012 14.6.2012 in Petition Nos. 239/2009, 256/2009, 332/2009, 279/2009 and 222/2009 respectively, observing as under:

> *"We have considered the submissions of the petitioner. The following two issues arise for our consideration:*
>
> *(a) xxxxxx.*
>
> *(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. xxxxx*
>
> *18 xxxxx*
>
> *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.

22. In line with the decision of the Commission in respect of the generating stations of the petitioner for 2009-14 in the said orders as above, we consider the additional capital expenditure claimed by the petitioner in this petition in terms of the provisions of Regulation 9(2) of the 2009 Tariff Regulations.

23. The additional capital expenditure claimed by the petitioner for the period 2009-14 vide affidavit dated 19.10.2012 is detailed as under:

(₹in lakh)

Sl. No		Regulations	Actual/Projected Capital Expenditure				
			2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1	Ash pond or ash handling system (within the original scope of work)	9(2)(iii)	675	1065	3334	2180	2580
2	Payments towards balance land for Ash Dyke		0.00	0.00	2981	0.00	0.00
3	Ambient air monitoring & control system	9(2)(ii)	0.00	100.00	0.00	0.00	0.00
4	Energy monitoring system		0.0	48.00	0.00	0.00	0.00
5	Balance off site civil works in plant, roads, boundary, drains etc.	Part of original scope of work, as per Regulation 5,6 & 7 & para 8 to17 of petition	376.00	10.00	0.00	0.00	0.00
6	MGR – Talcher connectivity	9(2)(vii)	**0.0**	**149.00**	**0.00**	**0.00**	**0.00**
7	12.5 km MGR to Kaniha Mines		**0.00**	**0.00**	**3769.00**	**0.00**	**0.00**
8	3.5 km MGR to Kaniha Mines	9(2)(vii)	0.00	767.00	0.00	0.00	0.00
9	Additional locos & wagons		0.00	2124.00	2404.00	0.00	0.00
10	Balance civil works in PTS, like boundary wall, qtrs, sewerage system, garage, park etc.	Part of original scope of work, as per Regulation 5,6 & 7 & para 8 to17 of petition	554.00	1200.00	0.00	0.00	0.00
11	Balance works of Training centre		181.00	0.00	0.00	0.00	0.00
12	Land for left out portion of MGR	9(2)(vii)	0.00	300.00	300.00	000	000
13	Supply, transport, erection, commissioning of Switchgear panels for inter connection job at 11 KV station bus level & cable laying	As per Regulation 5,6 & 7 & para 8 to17 of petition	98.00	9.00	0.00	0.00	0.00
14	CCTV for CHP	9(2)(ii)	85.00	0.00	0.00	0.00	0.00
15	Air compressors	Part of original scope of work, as per Regulation 5,6 & 7 & para 8 to17 of petition	152.00	11.00	0.00	0.00	0.00
16	Rotating element of cep. – spares		0.00	11.00	0.00	0.00	0.00
17	400 KV breaker - spares		0.00	45.00	0.00	0.00	0.00
18	CW Pump Motor – spares		0.00	146.00	0.00	0.00	0.00
19	Ballastless track	9(2)(vii)	0.00	0.00	1300	0.00	0.00
20	Generator Transformers	As per Regulation 5,6 & 7 & para 8 to17 of petition	0.00	0.00	1035	0.00	0.00

21	Construction of coal Settling Pit & RCC roads in CHP area	9(2) (ii)	0.00	0.00	1149.00	100.00	45.00
22	Construction of Firewall in Transformer Bay	As per Regulation 5,6 & 7 & para 8 to17 of petition	0.00	15.00	0.00	0.00	0.00
23	Installation of Network security hardware for Stage-II LAN system.		0.00	0.00	48.00	22.00	0.00
24	Installation of additional CCTVs at Admin. Building, IT server room, MGR wagon entrance.	9(2) (ii)	0.00	0.00	25.00	0.00	0.00
25	Installation of MI thermocouple additional conductive monitors in Stage units	As per Regulation 5,6 & 7 & para 8 to17 of petition	0.00	0.00	28.00	0.00	0.00
26	Interlocking at exchange yard	9(2) (vii)	0.00	0.00	379.00	0.00	0.00
27	Additional civil electrification equipment and other works.	As per Regulation 5,6 & 7 & para 8 to17 of petition	350.00	0.00	0.00	0.00	0.00
	Total		**2471**	**6005**	**16752**	**2302**	**2625**

24. We now examine the above claims of the petitioner, taking into consideration the submissions of the parties and after prudence check allow the claim for additional capitalization as discussed in the subsequent paragraphs.

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

25. The petitioner vide its affidavit dated 13.1.2011 has submitted the details of the expenditure along supporting documents in justification of its claim under Regulation 9(2) (ii) of the 2009 Tariff Regulations. The respondent, TNEB has submitted that the expenditure claimed by the petitioner under this head is in the nature of computer and is covered under Regulation 19(e) of the 2009 Tariff Regulations. The petitioner has claimed expenditure of ₹100.00 lakh during 2010-11 towards ambient Air monitoring & control and ₹48.00 lakh during 2010-11 towards Energy Monitoring system under this head. The petitioner has submitted that these are statutory requirement for air pollution monitoring and control and energy monitoring respectively. It has also submitted that the installation and commissioning of the ambient air monitoring & control system got delayed since the locations of the AAQMS stations are outside the main plant and commissioning could not be completed due to non availability of proper security at such distant locations. As regards Energy Monitoring System, it has been submitted

that as per CEA notification dated 17.3.2006 all LT & HT equipments need to have separate meters to measure and monitor the energy consumption of various equipments and the delay is on account of shut down required for installation. We have considered the submissions. We are of the considered view that expenditure towards Energy Monitoring System cannot be allowed and should be borne by the petitioner since the benefit of reduction in the auxiliary power consumption due to energy monitoring system is not passed on to the beneficiaries during the tariff period 2009-14. We order accordingly. However, the expenditure incurred towards ambient air monitoring is in compliance with the statutory requirements and the same is allowed to be capitalized.

26. The petitioner has also claimed expenditure of ₹85.00 lakh during 2009-10 towards installation of CCTV for monitoring of CHP. The petitioner has submitted that the material was ordered before the cut-off date and the work was delayed. It has also been submitted that this form part of the original scope of work and has been taken up as per recommendations of the Intelligence Bureau, Ministry of Home affairs, Government of India. In view of this and 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.

27. The petitioner has claimed expenditure of ₹1149.00 lakh, ₹100.00 lakh and ₹45.00 lakh during the years 2011-12, 2012-13 and 2013-14 respectively towards the construction of coal settling Pit & RCC roads in CHP area. The petitioner has submitted that this is a statutory requirement for pollution monitoring as per recommendations of the State Pollution Control Board. It has also submitted that in case of fire and for free movement of fire tender, RCC road is required. Since this is a statutory requirement as per directive of the State Pollution Control Board, Orissa, Bhubaneswar vide letter dated 15.2.2008, the expenditure claimed is allowed under this head.

28. The petitioner has also claimed expenditure of ₹25.00 lakh during 2011-12 towards the installation of additional CCTVs at administrative building, IT server room, MGR wagon

entrance etc for security of the plant based on the confidential report of the Industrial security inspection team. In this regard, the petitioner vide affidavit dated 15.3.2011 has submitted the relevant extract of the letter dated 10.9.2004 of the Government of Orissa, Home (Special section) Department justifying the expenditure under this head. In view of this, the expenditure incurred is allowed to be capitalized under this head.

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

29. The petitioner has claimed total expenditure of ₹9834 lakh during the period 2009-relating to Ash pond or Ash handling system including related infrastructure work within the original scope of work including Lagoon-I (1st to 6th raising) and Lagoon-II (2nd to 5th raising) under this head. The petitioner has submitted that these works are of a continuous nature during the operational life of the generating station and the details of the same shall be submitted at the time of truing up. The petitioner has also claimed an expenditure of ₹2981 lakh during 2011-12 as payment towards balance land for ash dyke expansion under this head. 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. The petitioner is however directed to submit the details of the expenditure and the work undertaken at the time of truing up exercise in terms of Regulation 6 of the 2009 Tariff Regulations.

Capital expenditure on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage as result of circumstances not within the control of the generating station-Regulation 9(2)(vii)

30. The following claims have been made by the petitioner under this head:

(₹ in lakh)

	2010-11	2011-12
MGR – Talcher connectivity	149.00	0.00
12.5 km MGR to Kaniha Mines	0.00	3769.00
3.5 km MGR to Kaniha Mines	767.00	0.00
Additional locos & wagons	2124.00	2404.00
Land for left out portion of MGR	300.00	300.00
Ballastless track	0.00	1300.00
Interlocking at exchange yard	0.00	379.00

31. A total expenditure of ₹4685 lakh for 2010-12 (₹149.00 lakh towards MGR–Talcher connectivity for 2010-11, ₹3769.00 lakh towards 12.5 km MGR to Kaniha Mines and ₹767.00 lakh towards 3.5 km MGR to Kaniha Mines) has been claimed for installation of MGR system. As regards MGR-Talcher connectivity, the petitioner has submitted that the work got delayed because of delay in link mine development by CIL and the revised estimate given by East Coast railway is for balance work only. With regard to the work of 12.5 km MGR to Kaniha mines, the petitioner has submitted that the delay in the work is due to problem of acquisition of land and that the linked mine developed by CIL affected the progress of the work. It has also submitted that physical possession of private land for 12.5 kms package is yet to be obtained and entire money has been submitted, the disbursement of which is going on. It has further submitted that R&R plan is yet to be approved by the State Authorities. Kaniha mines are the linked mines for the generating station. The said work is within the scope of work and the development of linked mine was delayed by CIL thereby affecting the progress of the work. Also due to problems in land acquisition for MGR system and the R&R plan yet to be approved by the State Government, the petitioner has taken all efforts to arrange coal from other sources like the IB valley through Rail network and import of coal. Considering the above facts in totality, we are of the view that the claim of the petitioner for capitalization of expenditure is justified. Hence the same is allowed in terms of Regulation 9(2)(vii) of the 2009 Tariff Regulations.

32. The petitioner has claimed total expenditure of ₹4528 lakh (₹2124 lakh for 2010-11 and ₹2404 lakh for 2011-12) towards the purchase of additional locos and wagons to reduce cycle time of rakes. The petitioner has submitted that CEA vide its letter dated 22.2.2008 had recommended the procurement of these additional wagons and locos as coal from linked mine is not available. It has also submitted de-capitalization of some old condemned wagons have been approved by the Commission. The respondent GRIDCO in its reply dated 2.6.2011 has submitted that the requisite amount of coal to the generating station would never be met from the Kaniha coal mines in the past and therefore additional assets in rolling stock would most

likely be idle assets for which beneficiaries would not like to pay. It has further submitted that CEA has incorporated the additional rolling stock under R&M and hence the petitioner is required to file a separate application under Regulation 10 of the 209 Tariff Regulations. It has thus prayed that the claim of the petitioner may be taken out of the petition. In response, the petitioner has submitted that the requirement of additional rolling stock is to cater to the increased coal requirement due to higher PLF and to meet the demand of additional power to the respondents. It has also submitted that CEA had approved the procurement and therefore Regulation 10 has no relevance. We have examined the matter. It is noticed that MGR system to Kaniha Mines is being installed to receive coal from the linked mines. With the current arrangement of coal receiving system for te generating station, it is noticed that the generating station has been achieving 85% PLF. Based on the additional capitalization allowed for MGR system to Kaniha mines as stated in the above para, the coal for the generating station would be received through MGR from the linked mines (Kaniha) in future. In view of this, we do not feel the requirement of additional rolling stock/wagons at this stage, which would only burden the beneficiaries. Accordingly, the prayer of the petitioner for capitalization of the said expenditure under this head is not allowed.

33. The petitioner has claimed total expenditure of ₹600 lakh (₹300 lakh each for the years 2010-11 and 2011-12) towards land for left out portion of MGR system. The petitioner has submitted that due to delay in land acquisition problem and mine development by CIL, the work, which is under the original scope of work and approved before cut-off date, was delayed. The work is for left out MGR line to Kaniha mines which are the linked mines for the generating station. Moreover, development of mine work by CIL and R&R problem had also delayed the said work. Since the land is required for MGR system, we allow the expenditure in terms of Regulation 9 (2)(vii) of the 2009 Tariff Regulations.

34. The petitioner has claimed expenditure of ₹1300 lakh during 2011-12 towards Ballastless track which is required to protect the track from water logging and coal sludge resulting from water sprinkling and rain and improper drainage which normally keep the track submerged. The

petitioner has also submitted that the track structure needs to be strengthened for uninterrupted coal movement from wharf wall and the proposed silos and this requirement has arisen when flooding of track and was observed during rainy period. It has further submitted that this shall abate the derailment of locos. Considering the fact that the expenditure is linked to the MGR system, we allow the same under Regulation 9(2)(vii) of the 2009 Tariff Regulations.

35. The petitioner has claimed expenditure of ₹379 lakh during 2011-12 towards interlocking at exchange yard. The petitioner has submitted that the same is required for safety of Indian Railway rakes, reduction of time to increase coal receipt without the need of banking of loco. Considering the fact that the expenditure is linked to the MGR system, we allow the same under Regulation 9(2)(vii) of the 2009 Tariff Regulations.

Other claims under Regulation 5, 6 and 7

36. The petitioner has claimed expenditure as indicated below in terms of Regulation 5, 6 and 7 of the 2009 Tariff Regulations as per submissions made in paras 8 to 17 of the petition (as referred to in para 19 above) and the same is examined hereunder.

(₹ in lakh)

		2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1	Balance off site civil works in plant, roads, boundary, drains etc.	376.00	10.00	0.00	0.00	0.00
2	Balance civil works in PTS, like boundary wall, quarters, sewerage system, garage, park etc.	554.00	1200.00	0.00	0.00	0.00
3	Balance works of Training centre	181.00	0.00	0.00	0.00	0.00
4	Supply, transport, erection, commissioning of switchgear panels for inter connection job at 11 KV station bus level & cable laying	98.00	9.00	0.00	0.00	0.00
5	Air compressors	152.00	11.00	0.00	0.00	0.00
6	Rotating element of CEP – spares	0.00	11.00	0.00	0.00	0.00
7	400 KV breaker - spares	0.00	45.00	0.00	0.00	0.00
8	CW Pump Motor – spares	0.00	146.00	0.00	0.00	0.00
9	Generator Transformers	0.00	0.00	1035	0.00	0.00
10	Construction of Firewall in Transformer Bay	0.00	15.00	0.00	0.00	0.00
11	Installation of Network security hardware for LAN system.	0.00	0.00	48.00	22.00	0.00
12	Installation of MI thermocouple additional conductive monitors in stage units	0.00	0.00	28.00	0.00	0.00
13	Additional civil electrification equipment and other works.	350.00	0.00	0.00	0.00	0.00

37. The petitioner has claimed total expenditure of ₹2321 lakh in respect of balance works (as at sl.nos 1 to 3 of the table above) namely, civil works in PTS, boundary wall, quarters, roads balance work in training center etc. which are within the original scope of work. The respondent GRIDCO has submitted that the petitioner has not submitted any document indicating that the proposed additional capitalization is part of the original scope of work and adequate amount is available to undertake the said work within the original scope. The petitioner has claimed total expenditure of ₹107 lakh (₹98 lakh in 2009-10 and ₹9 lakh in 2010-11) (as at sl.no 4 of the table above) towards the Supply, transport, erection, commissioning of switchgear panels for inter connection job at 11 KV station bus level & cable laying works which are within the original scope of work. The petitioner has claimed total expenditure of ₹365 lakh during the period 2009-11 in respect of certain assets like Air Compressor, rotating element of CEP, 400 kV Breaker and CW pump Motor (as at sl.nos 5 to 8 of the able above), which are in the nature of spares. The matter has been examined. It is observed that the Commission by its order dated 29.12.2011 in Petition No.179/2004 had extended the cut-off date of the generating station to 31.3.2008 in terms of the direction of the Tribunal after relaxation in terms of Regulation 12 of the 2004 Tariff Regulations. Also, the provisions of Regulation 9(2) of the 2009 Tariff Regulations do not provide for capitalization of these assets after the cut-off date. In view of this, the expenditure claimed as above in respect of the balance works/spares are not allowed to be capitalized.

38. The petitioner has claimed expenditure for ₹1035 lakh during 2011-12 towards the purchase of Generator Transformer (GT) (as at sl.no 10 of the table above). The petitioner has submitted that the GT got damaged during 2006-07 and the same was de-capitalized by order of the Commission dated 19.2.2010 in Petition No.146/2008. The damaged GT was replaced with the GT available at site and was not transferred from any other generating station of the petitioner. The petitioner has also submitted that the cause of failure of GT was the failure of its HV bushing due to high voltage surge originated in the grid and the same was beyond the control of the petitioner. It has further been submitted that with the procurement of GT, the

availability of energy shall be ensured for the life of the generating station. The matter has been examined. It is observed from the submissions of the petitioner that the damaged GT was replaced with spare GT which was available at the generating station and the generating station has been running successfully since the replacement of damaged GT. The procurement of new GT by the petitioner would only be used as spare in the generating station. Since the petitioner has already been allowed a spare GT and the expenditure has been considered in the capital cost, we are of the view that it would not be prudent to burden the beneficiaries by loading the cost of another spare GT specially when the generating station is operating successfully with the present arrangement. In view of this, the claim of the petitioner for spare GT is disallowed.

39. The petitioner has claimed total expenditure for ₹463 lakh for the period 2009-14 in respect of new assets like Construction of firewall in Transformer Bay, Installation of network security hardware for LAN system, Installation of MI thermocouple additional conductive monitors and additional civil electrification equipments and other works (as in sl.nos 10 to 13 of the table above). In support of the said claim, the petitioner has submitted documentary evidence in the form of a letter dated 10.9.2004 from the Government of Orissa, for earliest implementation of pending fresh security recommendations. From the perusal of the said letter it could be ascertained that these works have not been included in the said recommendations. Accordingly, the total expenditure claimed under this head is not allowed.

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

(₹in lakh)

Sl. No		**Actual/Projected Capitalization**				
		2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1	Ash pond or ash handling system (of the original scope of work)	675	1065	3334	2180	2580
2	Payments towards balance land for Ash Dyke	0.00	0.00	2981	0.00	0.00
3	Ambient air monitoring & control system	0.0	100	0.00	0.00	0.00
4	Energy monitoring system	0.0	0.00	0.00	0.00	0.00
5	Balance off site civil works in plant, roads, boundary, drains etc.	0.0	0.00	0.00	0.00	0.00

6	MGR – Talcher connectivity	0.00	149	0.00	0.00	0.00
7	12.5 Km MGR to Kaniha Mines	0.00	0.00	3769	0.00	0.00
8	3.5 Km MGR to Kaniha Mines	0.00	767	0.00	0.00	0.00
9	Addl. Locos & Wagons	0.00	0.00	0.00	0.00	0.00
10	Balance civil works in PTS, like boundary wall, quarters, sewerage system, garage, park etc.	0.0	0.00	0.00	0.00	0.00
11	Balance works of Training Centre	0.00	0.00	0.00	0.00	0.00
12	Land for left out portion of MGR	0.00	300	300	0.00	0.00
13	Supply, transport, erection, comm. Of Switchgear panels for inter connection job at 11 KV station bus level & cable laying	0.00	0.00	0.00	0.00	0.00
14	CCTV for CHP	85	0.00	0.00	0.00	0.00
15	Air compressors	0.0	0.00	0.00	0.00	0.00
16	Rotating element of cep– spares	0.00	0.00	0.00	0.00	0.00
17	400 KV breaker - spares	0.00	0.00	0.00	0.00	0.00
18	CW Pump Motor – spares	0.00	0.00	0.00	0.00	0.00
19	Ballastless track	0.00	0.00	1300	0.00	0.00
20	Generator Transformers	0.00	0.00	0.00	0.00	0.00
21	Construction of coal Settling Pit &RCC roads in CHP area	0.00	0.00	1149	1.00	0.45
22	Cons. of Firewall in Transformer Bay	0.00	0.00	0.00	0.00	0.00
23	Installation of Network security hardware for LAN system.	0.00	0.00	0.00	0.00	0.00
24	Installation of additional CCTVs at Admin. building, IT server room, MGR wagon entrance.	0.00	0.00	25	0.00	0.00
25	Ins. of MI thermocouple additional conductive monitors in Stage units	0.00	0.00	0.00	0.00	0.00
26	Interlocking at exchange yard	0.00	0.00	379	0.00	0.00
27	Additional civil electrification equipments and other works.	0.00	0.00	0.00	0.00	0.00
	Total	**76**	**2381**	**13237**	**2280**	**2625**

41. 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	760	2381	13237	2280	2625
Add: Liabilities discharged	618.06	151.72	0.00	0.00	0.00
Net Additional capital expenditure allowed	**1378.06**	**2532.72**	**13237.00**	**2280.00**	**2625.00**

Capital Cost for 2009-14

42. 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	496946.86	498324.92	500857.64	514094.64	516374.64
Additional capital expenditure	1378.06	2532.72	13237.00	2280.00	2625.00
Closing Capital cost	**498324.92**	**500857.64**	**514094.64**	**516374.64**	**518999.64**
Average Capital cost	**497635.89**	**499591.28**	**507476.14**	**515234.64**	**517687.14**

43. 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

44. 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."*

45. The gross loan and equity amounting to ₹362735.05 lakh and ₹155457.88 lakh, respectively as on 31.3.2009, approved vide order dated 21.2.2012 in Petition No.174/2004, has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities of ₹21246.06 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 such, the gross normative loan and equity as on 1.4.2009 is revised to ₹347862.80 lakh and ₹149084.06 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

46. 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."

47. 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	149084.06	149497.48	150257.29	154228.39	154912.39
Addition of Equity due to Additional capital expenditure	413.42	759.82	3971.10	684.00	787.50
Normative Equity-Closing	149497.48	150257.29	154228.39	154912.39	155699.89
Average Normative Equity	149290.77	149877.38	152242.84	154570.39	155306.14
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)	**35054.96**	**35192.71**	**35748.14**	**36294.67**	**36467.44**

Interest on loan

48. 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."*

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

(a) The gross normative loan of ₹347862.80 lakh as on 1.4.2009 has been considered.

(b) Cumulative repayment as on 31.3.2009 works out to ₹200619.45 lakh as per order dated 21.2.2012 in Petition No.179/2004. The same has been considered as cumulative repayment as on 1.4.2009. However, after taking in to account the 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 as ₹191367.85 lakh.

(c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹156494.95 lakh.

(d) Addition to normative loan on account 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 provisions 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.Further the petitioners working to arrive at the rate inform-13 has been ignored on account of the following discrepancies.

(i) LIC-III (T3,D1) –

The petitioner has considered opening balance amounting to ₹3400 lakh as on 1.4.2009 as against carrying forward the closing balance (as on 31.3.2009) of ₹2595.90 lakh.

Further, the petitioner considered ₹400 lakh p.a. as repayment during the tariff period 2009-14 as against the normal repayment of ₹305.40 lakh p.a.

As also, the petitioner has considered rate of 7.75% instead of the actual rate of 7.7320% during the tariff period 2009-14.

(j) LIC-III (T4,D1) – The petitioner has considered rate of 8.54% instead of the actual rate of 8.5230% during the tariff period 2009-14.

(k) LIC-III (T4,D4) – The petitioner has considered rate of 8.75% instead of the actual rate of 8.7281% during the tariff period 2009-14.

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

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	347862.80	348827.44	350600.35	359866.25	361462.25
Cumulative repayment of loan upto previous year	191367.85	217425.84	243405.64	269737.97	296472.87
Net Loan Opening	156494.95	131401.60	107194.71	90128.28	64989.38
Addition due to additional capitalisation	964.64	1772.91	9265.90	1596.00	1837.50
Repayment of loan during the year	25821.72	25923.19	26332.32	26734.90	26862.16
Less: Repayment adjustment on discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	(-) 236.27	(-) 56.61	0.00	0.00	0.00
Net Repayment	26058.00	25979.80	26332.32	26734.90	26862.16
Net Loan Closing	131401.60	107194.71	90128.28	64989.38	39964.72
Average Loan	143948.28	119298.15	98661.50	77558.83	52477.05
Weighted Average Rate of Interest on Loan	8.1467%	8.0909%	7.9723%	7.7610%	7.7911%
Interest on Loan	**11727.09**	**9652.34**	**7865.62**	**6019.35**	**4088.52**

Depreciation

51. 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."*

52. Cumulative depreciation as on 31.3.2009 as per order dated 21.2.2012 in Petition No. 179/204 is ₹167835.31 lakh. The cumulative depreciation as shown above has been proportionately adjusted 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 ₹161130.92 lakh. Further, the value of freehold land as considered in order dated 21.2.2012 in Petition No.179/2004 amounting to ₹767.27 lakh on cash basis, has been retained for the purpose of calculating depreciable value. 90% depreciable value has been computed on cash bais after accounting for freehold land component in the admitted capital cost. Accordingly, the balance depreciable value (before providing depreciation) for the year 2009-10 works out to ₹286570.01 lakh. Since, the life of the generating station during the period 2009-14 is within a period of 12 years from the effective date of commercial operation of the generating station i.e 16.7.2004, the depreciation has been calculated applying weighted average rate of 5.1889%. 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.

53. 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	496946.86	498324.92	500857.64	514094.64	516374.64
Closing capital cost	498324.92	500857.64	514094.64	516374.64	518999.64
Average capital cost	497635.89	499591.28	507476.14	515234.64	517687.14
Depreciable value @ 90%	447700.93	449325.78	456152.16	462999.81	465207.06
Remaining useful life at the beginning of the year	20.29	19.29	18.29	17.29	16.29
Balance depreciable value	286570.01	262172.66	243026.64	223541.96	199014.31
Depreciation (annualized)	**25821.72**	**25923.19**	**26332.32**	**26734.90**	**26862.16**
Cumulative depreciation at the end	186952.64	213076.31	239457.84	266192.75	293054.91
Add: Cumulative depreciation adjustment on account of discharges out of un-discharged liabilities deducted as on 1.4.2009	200.48	49.21	0.00	0.00	0.00
Net Cumulative depreciation (at the end of the period)	187153.12	213125.52	239457.84	266192.75	293054.91

O & M Expenses

54. 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

55. 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	26000	27480	29060	30720	32480

56. 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)

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:

Fuel Components in working capital

61. The petitioner has claimed the cost for fuel component in working capital in its petition, based on price and GCV of coal & oil 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	20005	20005	20060	20005	20005
Cost of secondary fuel oil 2 months	508	508	510	508	508

62. The cost for fuel component in working capital based on price and GCV of coal & secondary fuel oil (HFO) for the preceding three months of January, 2009 to March, 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	20004.75	20004.75	20059.56	20004.75	20004.75
Cost of secondary fuel oil 2 months	508.15	508.15	509.55	508.15	508.15

Maintenance Spares in working capital

63**.** 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	5200	5496	5812	6144	6496

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 claimed by the petitioner as above is allowed for the purpose of tariff.

Receivables

65**.** 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	26673.00	26673.00	26746.08	26673.00	26673.00
Fixed Charges - 2 months	18432.22	18380.47	18522.86	18658.33	18690.71
Total	**45105.22**	**45053.47**	**45268.93**	**45331.33**	**45363.71**

O&M Expenses

66. 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	2166.67	2290.00	2421.67	2560.00	2706.67

67. 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 –1.1/2 months	20004.75	20004.75	20059.56	20004.75	20004.75
Cost of secondary fuel oil – 2 month	508.15	508.15	509.55	508.15	508.15
O&M expenses – 1 month	2166.67	2290.00	2421.67	2560.00	2706.67
Maintenance Spares	5200.00	5496.00	5812.00	6144.00	6496.00
Receivables – 2 months	45105.22	45053.47	45268.93	45331.33	45363.71
Total working capital	**72984.79**	**73352.37**	**74071.70**	**74548.24**	**75079.28**
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	**8940.64**	**8985.67**	**9073.78**	**9132.16**	**9197.21**

Cost of secondary fuel oil

68. 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.

69. 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	3048.92	3048.92	3057.27	3048.92	3048.92

70. 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

71. 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	25821.72	25923.19	26332.32	26734.90	26862.16
Interest on Loan	11727.09	9652.34	7865.62	6019.35	4088.52
Return on Equity	35054.96	35192.71	35748.14	36294.67	36467.44
Interest on Working Capital	8940.64	8985.67	9073.78	9132.16	9197.21
O&M Expenses	26000.00	27480.00	29060.00	30720.00	32480.00
Cost of Secondary fuel oil	3048.92	3048.92	3057.27	3048.92	3048.92
Total	**110593.34**	**110282.82**	**111137.14**	**111950.01**	**112144.24**

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*.

72. 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)

73. 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.*

74. The petitioner has claimed an Energy Charge Rate (ECR) of 114.94 paisa/kWh. 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 114.937 paise/kWh. The relevant calculations are as under:

	Unit	2009-14
Capacity	MW	4 x 500
Gross Station Heat Rate	Kcal/kWh	2425
Auxiliary Energy Consumption	%	6.50
Weighted average GCV of oil	Kcal/lit	9510
Weighted average GCV of coal	Kcal/kg	3045.33
Weighted average price of oil	Rs/Kl	20473.54
Weighted average price of coal	Rs/MT	1354.88
Rate of energy charge ex-bus	Paise/kWh	**114.937**

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 respondent, GRIDCO vide its affidavit has raised the issue of power supply to housing colony or township and has submitted that the power supply made by petitioner to its housing colonies is to be accounted for and accordingly adjusted, as the entire power belongs to the beneficiaries to the extent of their respective shares. He also submitted that the undue benefit derived by the petitioner on this count at the cost of the beneficiaries and through beneficiaries the ultimate consumers is wholly unreasonable and has no legal basis. In response, the petitioner has submitted that in terms of the definition of 'generating station' under Section 2(30) of the Act, colony consumption constitutes part of Auxiliary consumption and no undue benefit is derived out of this by the petitioner. The matter has been examined. It is also noticed from the Electricity (Removal of Difficulty) Fourth order, dated 8.6.2005 issued by the Central Government that the supply of electricity by a generating company to the housing colonies of, or township housing the operating staff of its generating station will be deemed to be an integral part of it activity of generating electricity and the generating company shall not be required to obtain license under the Act for supply of electricity. Thus, the supply of electricity to the housing colony or township housing the operating staff of the generating station having deemed to form an integral part of the generating company by the said order, the submissions of the respondent GRIDCO stands rejected.

66. 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 shall be reimbursed directly by the beneficiaries in proportion of their allocation in the generating stations in terms of Regulation 42 A of the 2009 Tariff Regulations.

(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. Accordingly, Regulation 9(2) (ix) of the 2009 Tariff Regulations were also specified as under:

> *"Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility"*

It is understood that the said scheme for provision of supply of electricity in 5 km area around Central Power plants has been withdrawn by the Ministry of Power, Govt. of India vide its notification dated 25.3.2013. However, in case actual expenditure, if any, has been incurred by the petitioner, the same shall be considered in accordance with law, at the time of truing up.

(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

Application fee and the publication expenses

67. The petitioner has sought approval for the reimbursement of fee of ₹40.00 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 26.3.2010 has submitted an expenditure of ₹757607/- has been incurred by it for publication of notice in the newspapers.

68. 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 ₹40.00 lakh incurred by the petitioner on application filing fees for each of the years 2009-10, 2010-11 and 2011-12 and the expenses of ₹757607/- 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 is recoverable as paid by the petitioner in terms of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012 with effect from 1.4.2012.

69. 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.

70. 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.

71. This disposes of Petition No.269/2009.

Sd/-	***Sd/-***	***Sd/-***
[M.DEENA DAYALAN]	**[V.S.VERMA]**	**[DR.PRAMOD DEO]**
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	Euro-Bond	Net opening loan	10327.28	10327.28	-	-	-
	($235.84 @ Rs. 43.79)	Add: Addition du. the period					
		Less: Repayment du. the period		10327.28			
		Net Closing Loan	**10327.28**	**-**	**-**	**-**	**-**
		Average Loan	10327.28	5163.64	-	-	-
		Rate of Interest	6.9722%	6.9722%	6.9722%	6.9722%	6.9722%
		Interest	720.04	360.02	-	-	-
2	ICICI -II(T2, D-1,2)	Net opening loan	7500.00	2500.00	-	-	
		Add: Addition during the period					
		Less: Repayment du. the period	5000.00	2500.00			
		Net Closing Loan	**2,500.00**	**-**	**-**	**-**	
		Average Loan	5,000.00	1,250.00	-	-	
		Rate of Interest	8.9332%	8.9332%	8.9332%	8.9332%	8.9332%
		Interest	446.66	111.67	-	-	-
3	HDFC-III(T1,D3)	Net opening loan	1,000.00	500.00	-	-	
		Add: Addition du. the period					
		Less: Repayment du. the period	500.00	500.00			
		Net Closing Loan	**500.00**	**-**	**-**	**-**	**-**
		Average Loan	750.00	250.00	-	-	-
		Rate of Interest	10.0200%	9.9000%	9.9000%	9.9000%	9.9000%
		Interest	75.15	24.75	-	-	-
4	SBT (D-2,3)	Net opening loan	1,142.86	571.43			
		Add: Addition du. the period					
		Less: Repayment du. the period	571.43	571.43			
		Net Closing Loan	**571.43**	**-**	**-**	**-**	**-**
		Average Loan	857.15	285.71	-	-	-
		Rate of Interest	7.3300%	7.3300%	7.3300%	7.3300%	7.3300%
		Interest					

			62.83	20.94	-	-	-
5	Bank of India(T1,D2)	Net opening loan	1,428.57	1,071.43	714.28	357.14	
		Add: Addition du. the period					
		Less: Repayment du. the period	357.14	357.14	357.14	357.14	
		Net Closing Loan	**1,071.43**	**714.28**	**357.14**	**-**	**-**
		Average Loan	1,250.00	892.86	535.71	178.57	-
		Rate of Interest	7.5000%	7.5000%	7.5000%	7.5000%	7.5000%
		Interest	93.75	66.96	40.18	13.39	-
6	Canara Bank(T1,D1)	Net opening loan	2,000.00	1,500.00	1,000.00	500.00	-
		Add: Addition du. the period					
		Less: Repayment du. the period	500.00	500.00	500.00	500.00	
		Net Closing Loan	**1,500.00**	**1,000.00**	**500.00**	**-**	**-**
		Average Loan	1,750.00	1,250.00	750.00	250.00	-
		Rate of Interest	9.4000%	9.4000%	9.4000%	9.4000%	9.4000%
		Interest	164.50	117.50	70.50	23.50	-
7	CBI(T1,D2,D3&D4)	Net opening loan	6,000.00	4,000.00	2,000.00	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	2,000.00	2,000.00	2,000.00		
		Net Closing Loan	**4,000.00**	**2,000.00**	**-**	**-**	**-**
		Average Loan	5,000.00	3,000.00	1,000.00	-	-
		Rate of Interest	7.2000%	7.2000%	7.2000%	7.2000%	7.2000%
		Interest	360.00	216.00	72.00	-	-
8	HDFC-IV(T1,D1)	Net opening loan	1,785.71	1,428.57	1,071.42	714.28	357.14
		Add: Addition du. the period					
		Less: Repayment du. the period	357.14	357.14	357.14	357.14	357.14
		Net Closing Loan	**1,428.57**	**1,071.42**	**714.28**	**357.14**	**-**
		Average Loan	1,607.14	1,250.00	892.85	535.71	178.57
		Rate of Interest	7.3500%	7.3500%	7.3500%	7.3500%	7.3500%
		Interest	118.12	91.87	65.62	39.37	13.13
9	Indian Bank(T1, D2&D4)	Net opening loan	2,000.00	1,000.00	-		
		Add: Addition du. the period					

		Less: Repayment du. the period	1,000.00	1,000.00			
		Net Closing Loan	**1,000.00**	**-**	**-**	**-**	**-**
		Average Loan	1,500.00	500.00	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%
		Interest	109.65	36.55	-	-	-
10	IOB(T1, D1,D2 & D3)	Net opening loan	1,428.58	714.29			
		Add: Addition du. the period					
		Less: Repayment du. the period	714.29	714.29			
		Net Closing Loan	**714.29**	**-**	**-**	**-**	**-**
		Average Loan	1,071.44	357.14	-	-	-
		Rate of Interest	7.3050%	7.3050%	7.3050%	7.3050%	7.3050%
		Interest	78.27	26.09	-	-	-
11	J&K Bank (D-1,5)	Net opening loan	1,452.38	726.19			
		Add: Addition du. the period					
		Less: Repayment du. the period	726.19	726.19			
		Net Closing Loan	**726.19**	**-**	**-**	**-**	**-**
		Average Loan	1,089.28	363.10	-	-	-
		Rate of Interest	7.2600%	7.2600%	7.3100%	7.3100%	7.3100%
		Interest	79.08	26.36	-	-	-
12	LIC-III(T1,D1)	Net opening loan	8,700.00	8,100.00	7,500.00	6,900.00	6,300.00
		Add: Addition du. the period					
		Less: Repayment du. the period	600.00	600.00	600.00	600.00	600.00
		Net Closing Loan	**8,100.00**	**7,500.00**	**6,900.00**	**6,300.00**	**5,700.00**
		Average Loan	8,400.00	7,800.00	7,200.00	6,600.00	6,000.00
		Rate of Interest	6.5710%	6.5710%	6.5710%	6.5710%	6.5710%
		Interest	551.96	512.54	473.11	433.69	394.26
13	PNB(T1, D-1,2,3,5)	Net opening loan	4,894.95	2,447.48			
		Add: Addition du. the period					
		Less: Repayment du. the period	2,447.48	2,447.48			
		Net Closing Loan					

			2,447.47	**-**	**-**	**-**	**-**
		Average Loan	3,671.21	1,223.74	-	-	-
		Rate of Interest	7.2950%	7.2950%	7.2950%	7.2950%	7.2950%
		Interest	267.81	89.27	-	-	-
14	SBI-I(T1, D-6,7)	Net opening loan	857.14	-	-	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	857.14				
		Net Closing Loan	**-**	**-**	**-**	**-**	**-**
		Average Loan	428.57	-	-	-	-
		Rate of Interest	11.2200%	11.2200%	11.2200%	11.2200%	11.2200%
		Interest	48.09	-	-	-	-
15	SBI-II(T1, D-1,2,4,5,6,8)	Net opening loan	15,745.71	10,497.14	5,248.57		
		Add: Addition du. the period					
		Less: Repayment du. the period	5,248.57	5,248.57	5,248.57		
		Net Closing Loan	**10,497.14**	**5,248.57**	**-**	**-**	**-**
		Average Loan	13,121.42	7,872.85	2,624.29	-	-
		Rate of Interest	9.5800%	9.4600%	9.4600%	9.4600%	9.4600%
		Interest	1,257.03	744.77	248.26	-	-
16	South Indian Bank(T1,D1)	Net opening loan	571.43	428.57	285.72	142.86	
		Add: Addition du. the period					
		Less: Repayment du. the period	142.86	142.86	142.86	142.86	
		Net Closing Loan	**428.57**	**285.72**	**142.86**	**-**	**-**
		Average Loan	500.00	357.14	214.29	71.43	-
		Rate of Interest	9.4300%	9.4300%	9.4300%	9.4300%	9.4300%
		Interest	47.15	33.68	20.21	6.74	-
17	SBBJ(T1, D1 D2 & D3)	Net opening loan	1,285.71	642.86	-	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	642.86	642.86			
		Net Closing Loan	**642.85**	**-**	**-**	**-**	**-**
		Average Loan	964.28	321.43	-	-	-

		Rate of Interest	7.3050%	7.3050%	7.3050%	7.3050%	7.3050%
		Interest	70.44	23.48	-	-	-
18	State Bank of Mysore(T1, D1 D2 & D3)	Net opening loan	1,000.00	500.00	-	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	500.00	500.00			
		Net Closing Loan	**500.00**	**-**	**-**	**-**	**-**
		Average Loan	750.00	250.00	-	-	-
		Rate of Interest	7.3053%	7.3053%	7.3053%	7.3053%	7.3053%
		Interest	54.79	18.26	-	-	-
19	SBS(T1, D1 D2 & D3)	Net opening loan	857.14	428.57			
		Add: Addition du. the period					
		Less: Repayment du. the period	428.57	428.57			
		Net Closing Loan	**428.57**	**-**	**-**	**-**	**-**
		Average Loan	642.85	214.29	-	-	-
		Rate of Interest	7.3053%	7.3053%	7.3053%	7.3053%	7.3053%
		Interest	46.96	15.65	-	-	-
20	Karur Vysya Bank (T1, D1)	Net opening loan	571.43	428.57	285.72	142.86	
		Add: Addition du. the period					
		Less: Repayment du. the period	142.86	142.86	142.86	142.86	
		Net Closing Loan	**428.57**	**285.72**	**142.86**	**-**	**-**
		Average Loan	500.00	357.14	214.29	71.43	-
		Rate of Interest	9.4300%	9.4300%	9.4300%	9.4300%	9.4300%
		Interest	47.15	33.68	20.21	6.74	-
21	UCO BANK(T1, D2 & D3)	Net opening loan	2,857.14	1,428.57			
		Add: Addition du. the period					
		Less: Repayment du. the period	1,428.57	1,428.57			
		Net Closing Loan	**1,428.57**	**-**	**-**	**-**	**-**
		Average Loan	2,142.85	714.29	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%

		Interest	156.64	52.21	-	-	-
22	UBI(T1, D1 D2 & D3)	Net opening loan	2,142.86	1,071.43			
		Add: Addition du. the period					
		Less: Repayment du. the period	1,071.43	1,071.43			
		Net Closing Loan	**1,071.43**	**-**	**-**	**-**	**-**
		Average Loan	1,607.15	535.71	-	-	-
		Rate of Interest	7.3000%	7.3000%	7.3000%	7.3000%	7.3000%
		Interest	117.32	39.11	-	-	-
23	UBI(T1, D-2,4,5,7,8)	Net opening loan	4,096.70	2,048.35	-	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	2,048.35	2,048.35			
		Net Closing Loan	**2,048.35**	**-**	**-**	**-**	**-**
		Average Loan	3,072.52	1,024.18	-	-	-
		Rate of Interest	7.2600%	7.2600%	7.2600%	7.2600%	7.2600%
		Interest	223.07	74.36	-	-	-
24	Vijaya Bank(T1, D3 & D4)	Net opening loan	2,114.29	1,057.14			
		Add: Addition du. the period					
		Less: Repayment du. the period	1,057.14	1,057.14			
		Net Closing Loan	**1,057.15**	**-**	**-**	**-**	**-**
		Average Loan	1,585.72	528.57	-	-	-
		Rate of Interest	7.3000%	7.3000%	7.3000%	7.3000%	7.3000%
		Interest	115.76	38.59	-	-	-
25	SBH(T1, D4)	Net opening loan	1,230.77	615.38	-	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	615.38	615.38			
		Net Closing Loan	**615.39**	**-**	**-**	**-**	**-**
		Average Loan	923.08	307.69	-	-	-
		Rate of Interest	7.2100%	7.2100%	7.2100%	7.2100%	7.2100%
		Interest	66.55	22.18	-	-	-
26	CBI-II(T1,D1)	Net opening loan					

			1,500.00	1,285.71	1,071.43	857.14	642.86
		Add: Addition du. the period					
		Less: Repayment du. the period	214.29	214.29	214.29	214.29	214.29
		Net Closing Loan	**1,285.71**	**1,071.43**	**857.14**	**642.86**	**428.57**
		Average Loan	1,392.86	1,178.57	964.29	750.00	535.71
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	97.50	82.50	67.50	52.50	37.50
27	IOB-II (T1, D1)	Net opening loan	500.00	428.57	357.14	285.71	214.29
		Add: Addition du. the period					
		Less: Repayment du. the period	71.43	71.43	71.43	71.43	71.43
		Net Closing Loan	**428.57**	**357.14**	**285.71**	**214.29**	**142.86**
		Average Loan	464.29	392.86	321.43	250.00	178.57
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	32.50	27.50	22.50	17.50	12.50
28	LIC-III(T3,D1)	Net opening loan	2,595.90	2,290.50	1,985.10	1,679.70	1,374.30
		Add: Addition du. the period					
		Less: Repayment du. the period	305.40	305.40	305.40	305.40	305.40
		Net Closing Loan	**2,290.50**	**1,985.10**	**1,679.70**	**1,374.30**	**1,068.90**
		Average Loan	2,443.20	2,137.80	1,832.40	1,527.00	1,221.60
		Rate of Interest	7.7320%	7.7320%	7.7320%	7.7320%	7.7320%
		Interest	188.91	165.29	141.68	118.07	94.45
29	LIC-III(T4,D1)	Net opening loan	935.00	825.00	715.00	605.00	495.00
		Add: Addition du. the period					
		Less: Repayment du. the period	110.00	110.00	110.00	110.00	110.00
		Net Closing Loan	**825.00**	**715.00**	**605.00**	**495.00**	**385.00**
		Average Loan	880.00	770.00	660.00	550.00	440.00
		Rate of Interest	8.5230%	8.5230%	8.5230%	8.5230%	8.5230%
		Interest	75.00	65.63	56.25	46.88	37.50

30	LIC-III(T4,D4)	Net opening loan	2,465.00	2,175.00	1,885.00	1,595.00	1,305.00
		Add: Addition du. the period					
		Less: Repayment du. the period	290.00	290.00	290.00	290.00	290.00
		Net Closing Loan	**2,175.00**	**1,885.00**	**1,595.00**	**1,305.00**	**1,015.00**
		Average Loan	2,320.00	2,030.00	1,740.00	1,450.00	1,160.00
		Rate of Interest	8.7281%	8.7281%	8.7281%	8.7281%	8.7281%
		Interest	202.49	177.18	151.87	126.56	101.25
31	SBI-IV (T1, D-2,3,4)	Net opening loan	5,000.00	4,285.71	3,571.43	2,857.14	2,142.86
		Add: Addition du. the period					
		Less: Repayment du. 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	9.6200%	9.5000%	9.5000%	9.5000%	9.5000%
		Interest	446.64	373.21	305.36	237.50	169.64
32	BOND- XII	Net opening loan	21,000.00	14,000.00	7,000.00	-	-
		Add: Addition du. the period					
		Less: Repayment du. the period	7,000.00	7,000.00	7,000.00		
		Net Closing Loan	**14,000.00**	**7,000.00**	**-**	**-**	**-**
		Average Loan	17,500.00	10,500.00	3,500.00	-	-
		Rate of Interest	10.0300%	10.0300%	10.0300%	10.0300%	10.0300%
		Interest	1,755.25	1,053.15	351.05	-	-
33	BOND-XVIII	Net opening loan	6,000.00	4,800.00	3,600.00	2,400.00	1,200.00
		Add: Addition du. the period					
		Less: Repayment du. the period	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
		Net Closing Loan	**4,800.00**	**3,600.00**	**2,400.00**	**1,200.00**	**-**
		Average Loan	5,400.00	4,200.00	3,000.00	1,800.00	600.00
		Rate of Interest	5.9800%	5.9800%	5.9800%	5.9800%	5.9800%
		Interest	322.92	251.16	179.40	107.64	35.88
34	BOND-XXI	Net opening loan	28,000.00	28,000.00	25,200.00	22,400.00	19,600.00
		Add: Addition du.					

		the period					
		Less: Repayment du. the period		2,800.00	2,800.00	2,800.00	2,800.00
		Net Closing Loan	**28,000.00**	**25,200.00**	**22,400.00**	**19,600.00**	**16,800.00**
		Average Loan	28,000.00	26,600.00	23,800.00	21,000.00	18,200.00
		Rate of Interest	7.7425%	7.7425%	7.7425%	7.7425%	7.7425%
		Interest	2,167.90	2,059.51	1,842.72	1,625.93	1,409.14
35	BOND-XXVII	Net opening loan	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
		Add: Addition du. the period					
		Less: Repayment du. 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
36	Karnataka bank ltd.	Net opening loan	-	464.29	392.86	321.43	250.00
		Add: Addition du. the period	500.00				
		Less: Repayment du. the period	35.71	71.43	71.43	71.43	71.43
		Net Closing Loan	**464.29**	**392.86**	**321.43**	**250.00**	**178.57**
		Average Loan	232.14	428.57	357.14	285.71	214.29
		Rate of Interest	9.2500%	9.2500%	9.2500%	9.2500%	9.2500%
		Interest	21.47	39.64	33.04	26.43	19.82
36	**Gross Total**	Net opening loan	152486.56	114088.04	65383.67	43258.27	35381.44
		Add: Addition du. the period	500.00	-	-	-	-
		Less: Repayment du. the period	38898.52	48704.37	22125.40	7876.83	6733.97
		Net Closing Loan	114088.04	65383.67	43258.27	35381.44	28647.47
		Average Loan	133287.30	89735.85	54320.97	39319.86	32014.46
		Rate of Interest	8.1467%	8.0909%	7.9723%	7.7610%	7.7911%
		Interest	**10858.57**	**7260.47**	**4330.65**	**3051.62**	**2494.27**