

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 270/2009

**Coram: Dr. Pramod Deo, Chairperson
Shri M.Deena Dayalan, Member**

Date of Hearing: 24.1.2012

Date of Order: 23.5.2012

In the matter of

Approval of tariff of Auraiya Gas Power Station (663.36 MW) for the period from 1.4.2009 to 31.3.2014.

And

In the matter of

NTPC Ltd

.....Petitioner

Vs

1. Uttar Pradesh Power Corporation Ltd., Lucknow
2. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
3. Ajmer Vidyut Vitran Nigam Ltd., Ajmer
4. Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur
5. North Delhi Power Ltd., Delhi
6. BSES Rajdhani Power Ltd., New Delhi
7. BSES Yamuna Power Ltd., Delhi
8. Haryana Power Purchase Centre, Haryana
9. Punjab State Electricity Board, Patiala
10. Himachal Pradesh State Electricity Board, Shimla
11. Power Development Department (J&K), Government of J&K, Jammu
12. Power Department, Union Territory of Chandigarh, Chandigarh
13. Utrakhhand Power Corporation Ltd., Dehradun

.....Respondents

Parties present:

1. Shri Ajay Dua, NTPC
2. Shri C.K.Mondol, NTPC
3. Shri Naresh Anand, NTPC
4. Shri Rohit Chabra, NTPC
5. Shri Shankar Sarah, NTPC
6. Shri Sameer Aggarwal, NTPC
7. Shri V.Ramesh, NTPC
8. Shri R.B.Sharma, Advocate, BRPL
9. Shri Sanjay Srivastava, BRPL
10. Shri Jitendra Singh, BRPL
11. Shri Manish Garg, UPPCL
12. Shri Padamjit Singh, PSPCL

13. Shri T.P.S. Bawa, PSPCL
14. Shri V.K.Gupta, PSPCL

ORDER

This petitioner has been filed by the petitioner, NTPC, for approval of tariff of Auraiya Gas Power Station (663.36 MW) (hereinafter referred to as “the generating station”) for the period 2009-14 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The generating station with a capacity of 663.36 MW comprises of four Gas Turbine units of 111.19 MW each and two Steam Turbine units of 109.30 MW each. The dates of commercial operation of the different units of the generating station are as under:

	Date of commercial operation (COD)
Unit-I (GT)	1.10.1990
Unit-II (GT)	1.10.1990
Unit-III (GT)	1.11.1990
Unit-IV (GT)	1.11.1990
Unit-V (ST)	1.11.1990
UNIT-VI (ST)/ Generating station	1.12.1990

3. The tariff of the generating station for the period from 1.4.2004 to 31.3.2009 was determined by the Commission vide its order dated 9.5.2006 in Petition No.164/2004. Subsequently, the Commission vide its order dated 21.4.2011 in Petition No. 193/2009 revised the tariff of the generating station for 2004-09 considering the impact of additional capital expenditure incurred during the year 2004-09 and in the light of the judgment of the Appellate Tribunal for Electricity dated 13.6.2007 in Appeal Nos.139 to 142 etc., of 2006, 10, 11 and 23 of 2007 and the judgment dated 16.3.2009 in Appeal Nos. 133, 135, 136 and 148/2008, based on the capital cost of ₹74480.63 lakh as on 31.3.2009. The revised annual fixed charges determined by Commission's order dated 21.4.2011, subject to the outcome of Civil Appeals filed by Commission against the said judgments) pending before the Hon'ble Supreme Court are as stated overleaf:

(₹ in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan	920.82	737.17	555.67	378.72	222.08
Interest on Working Capital	2503.50	2461.89	2473.41	2491.82	2503.21
Depreciation	3003.32	0.00	0.00	32.14	210.16
Advance Against Depreciation	0.00	0.00	0.00	0.00	0.00
Return on Equity	5179.43	5179.23	5179.92	5181.49	5191.30
O & M Expenses	5174.21	5379.85	5598.76	5817.67	6049.84
Total	16781.27	13758.14	13807.75	13901.83	14176.59

4. In terms of the directions contained in the order of the Commission dated 29.6.2010 in Petition No. 245/2009, the petitioner has filed amended petition vide affidavit dated 19.6.2011 taking into consideration the revised figures as per order of the Commission dated 21.4.2011 in Petition No. 193/2009. The revised annual fixed charges claimed by the petitioner for the period 2009-14 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	45	73	180	1659	9290
Interest on Loan	160	169	205	649	2007
Return on Equity	8726	8739	8777	9189	10717
Interest on Working Capital	4155	4195	4248	4331	4596
O&M Expenses	9818	10382	10972	11602	12266
Total	22903	23557	24383	27430	38875

5. Reply to the petition has been filed by the respondents, namely, UPPCL (respondent No. 1), JVVNL (respondent No.2), AVVNL (respondent No.3) JoVVNL (respondent No.4), NDPL (respondent No.5), BRPL (respondent No.6) and PSPCL (respondent No.9). Rejoinder to the said replies has also been filed by the petitioner.

CAPITAL COST

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

“7. Capital Cost. (1) Capital cost for a project shall include: (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;”

7. The capital cost as on 31.3.2009 as per order dated 21.4.2011 is ₹74480.63 lakh. However, the annual fixed charges claimed in the petition is based on opening capital cost of ₹74427 lakh as on 1.4.2009. The petitioner vide its affidavit dated 16.6.2011 has revised the value of capital cost and liabilities as on 1.4.2009 in Form-9A as per books of accounts. The details of liabilities and capital cost have been reconciled with the information available with the Commission as under:

	(₹ in lakh)		
	As per Form-9A	As per records of Commission	Difference
Capital cost as on 1.4.2009, as per books	85311.43	85311.43	0.00
Liabilities included above	55.91	55.91	0.00

8. The total liabilities included in the gross block as on 1.4.2009 is ₹55.91 lakh. Out of this, un-discharged liabilities of ₹53.39 lakh [(₹6.52 lakh (pertaining to period prior to 1.4.2004) and ₹46.87 lakh (pertaining to the period 2004-09)] has been included in the approved capital cost of ₹74480.63 lakh (as on 31.3.2009) and the balance amount of ₹2.52 lakh correspond to assets disallowed or assets allowed as exclusion during the period 2004-09.

9. The last proviso to Clause 2 of Regulation 7 of the 2009 Tariff Regulations, amended on 21.6.2011 provides as under:

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

10. Accordingly, in terms of the last proviso to Regulation 7 read with Clause (2) of Regulation 3 of the 2009 Tariff Regulations, the capital cost as on 1.4.2009 works out to ₹74427.23 lakh, after removal of un-discharged liabilities of ₹53.39 lakh. Further, out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged liabilities amounting to ₹27.58 lakh during 2009-10 (all liabilities corresponding to assets capitalized during the period 2004-09) and ₹11.75 lakh during 2010-11 (₹5.40 lakh pertaining to assets/works capitalized during the

period prior to 1.4.2004 and ₹ 6.35 lakh pertaining to assets/works capitalized during 2004-09).

The liabilities discharged during the years 2009-10 and 2010-11 have been allowed as part of the additional capital expenditure.

Actual/Projected Additional Capital Expenditure

11. Regulation 9 of the 2009 Tariff Regulations, amended on 23.6.2011, provides as under:

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

(i) Un-discharged liabilities;

(ii) Works deferred for execution;

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

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

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff. (2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

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

(ii) Change in law;

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

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

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

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

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

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

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

(viii) Any undischarged 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.”

12. The petitioner has claimed actual/projected additional capital expenditure for the period 2009-14 as under:

		<i>(₹ in lakh)</i>					
		2009-10	2010-11	2011-12	2012-13	2013-14	Total
Additional Capital Expenditure		238	146	931	10758	32616	44689

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

Submissions of the petitioner

14. 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;

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

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

(b) Regulations 7(1), 8 and 9 of 2009 Tariff Regulations pertains 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 Commission has allowed additional capital expenditure for successful and efficient operation in case of hydro power stations and transmission systems under Regulation 9(2) (iv) and (v) of 2009 Tariff Regulations. The additional capital expenditures allowed for hydro generating station and transmission system are equally relevant in case of thermal power stations. It has been further submitted that while compensation allowance for expenditure on minor items in case of coal based station has been allowed under Regulation 19(e), no capital expenditure has been allowed to mitigate the technological obsolescence and for efficient and successful operation throughout the life of the generating station. Moreover, compensation allowance has not been allowed in case of gas based generating station during the entire life of the gas station including extended life of 25 years since it was not possible to estimate the same on normative basis. The petitioner has requested to allow capital expenditure incurred on items mentioned in Regulation 9.2(iv) and (v) in respect of hydro generating station and transmission system may be allowed for the gas based stations for successful and efficient operation of the station for 25 years.

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

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

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

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

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

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

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

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

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

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

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

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

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

20. It is evident from the provisions of Regulation 19(e) that the expenditure in case of coal based or lignite fired thermal generating stations is admissible to meet the expenses on new assets of capital nature including in the nature of minor assets. Correspondingly, no provision has been made to admit additional capital expenditure of capital nature for successful operation of the thermal generating station under Regulation 9(2) of the 2009 Tariff Regulations. On the other hand, clear provisions have been made for admitting the expenditure for efficient and successful operation of the hydro generating stations and transmission systems under certain conditions. The provisions of the Regulation 9(2) are clear and unambiguous in that the expenditure for successful and efficient operation of the thermal generating stations have not been provided since a normative compensation allowance has been provided under Regulation 19(e) of 2009 Tariff Regulations to meet the expenses on new assets of capital nature. In our view, last proviso to Regulation 7(2) cannot be considered as independent of Regulation 9 of 2009 Tariff Regulations. The "additional expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission" occurring in last proviso to Regulation 7(2) have to be considered and allowed in terms of provisions of Regulation 9(2) of 2009 Tariff Regulations. The Commission after taking into account the requirements of the gas based generating stations and coal based thermal generating stations has made specific provisions under Regulation 9(2)(vi) and (viii) through second amendment to the 2009 Tariff Regulations as under:

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

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

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

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

17. In line with the above decision, the additional capital expenditure claimed by the petitioner for 2009-14 in this petition, has been considered under the provisions of Regulation 9(2) of the 2009 Tariff Regulations. For the instant generating station, the additional expenditure required for R&M of Gas Turbines/Hot path components is as per scheme approved by the CEA and is covered under Regulation 9(2)(vi) of the 2009 Tariff Regulations. In addition to this, the claims of the petitioner for additional capital expenditure under Regulation 9(2)(ii) of the 2009 Tariff Regulations are examined as discussed in the succeeding paragraphs.

18. The category-wise break-up of the actual/projected additional capital expenditure claimed by the petitioner is as under:

Sl. No.	Description	Category	Actual/Projected additional expenditure claimed <i>(₹ in lakh)</i>				
			2009-10 (actual)	2010-11 (actual)	2011-12	2012-13	2013-14
1	Replacement of Hot gas path components with upgraded and advanced design material, installation of on line blade surface temp, monitoring system and up gradation of the existing dynamic balancing machine.	9(2)(vi)	0.00	0.00	0.00	8842.00	26525.00
2	Installation of evaporative type of inlet air cooling system	9(2)(ii)	0.00	0.00	0.00	576.00	0.00

3	Installation of on line wet washing system and on line compressor efficiency monitoring system	9(2)(ii)	178.00	8.00	0.00	0.00	0.00
4	Refurbishment of GT Rotor	9(2)(vi)	0.00	0.00	503.00	0.00	0.00
5	Replacement of obsolete DDC and MIS system	9(2)(vi)	0.00	0.00	0.00	750.00	2250.00
6	Up-gradation of the fire fighting communication system	9(2)(vi)	0.00	0.00	50.0	0.00	0.00
7	Laying of rails in transformer yard	9(2)(ii)	0.00	0.00	60.00	0.00	0.00
8	Procurement of additional excitation Transformer	9(2)(ii)	0.00	0.00	29.00	0.00	0.00
9	Procurement of one Generator rotor for Gas Turbine and One Generator rotor for Steam Turbine	9(2)(ii)	0.00	0.00	0.00	0.00	3241.00
10	Renovation of GT cooling towers	9(2)(vi)	24.00	0.00	0.00	0.00	0.00
11	Phasing out of Halon fire fighting System from GT enclosure and central control room	9(2)(ii)	0.00	0.00	241.00	0.00	0.00
12	Procurement of predictive and diagnostic maintenance equipments	9(2)(ii)	14.00	19.00	48.00	0.00	0.00
13	Expenditure on 5 Km scheme as notified by Min of Power.	9(2)(ii)	0.00	0.00	0.00	590	600
	Sub Total		216.00	27.00	931.00	10758.00	32616.00
14	Crane discarded		(-) 7.00	0.00	0.00	0.00	0.00
15	AAQMS (Ambient Air Quality Monitoring System)	9(2)(ii)	2.00	0.00	0.00	0.00	0.00
16	Energy management system	9(2)(ii)	0.00	12.00	0.00	0.00	0.00
17	Direct Chemical Power (DCP) fire tenders	9(2)(vi)	0.00	29.00	0.00	0.00	0.00
18	De-capitalisation of fire tenders		0.00	(-) 8.00	0.00	0.00	0.00
19	Boring of tube well	9(2)(ii)	0.00	72.00	0.00	0.00	0.00
20	Hydra mobile crane of 12 tons capacity		0.00	11.00	0.00	0.00	0.00
21	Old vehicles discarded		0.00	(-) 9.00	0.00	0.00	0.00
22	Sub total		(-)5	107	0.00	0.00	0.00
23	Discharges of liability outstanding as on 31.3.2009		28	12	0.0	0.00	0.00
	Grand Total		238	146	931.00	10758.00	32616.00

19. It is noticed from the above table that the total additional capital expenditure claimed by the petitioner is ₹44689.00 lakh during 2009-14. This additional capital expenditure of ₹44689.00 lakh includes major capital expenditure of ₹353.67 lakh for CEA approved Renovation & Modernization (R&M) schemes for Gas Turbine and Hot Gas Path components. The petitioner has submitted that the R&M of Gas Turbines (GTs) of the generating station has been undertaken based on the recommendations of the Original Equipment Manufacturer (OEM) as all the GTs are in operation for more than 15 years and have clocked more than 100000 Equivalent Operating Hours (EOH) and the complete replacement of Hot Gas Path components in the R&M work shall extend the life of all GTs for another 10 years or 100000 EOH.

20. The learned counsel for the respondent, BRPL has submitted that the claim of the petitioner for additional capital expenditure under Regulation 9(2) of the 2009 Tariff Regulations on the ground that the said expenditure is permissible only when the expenditure is incurred and at the discretion of the Commission. Since, the petitioner has not incurred the said expenditure the claim for capitalization cannot be entertained at this stage. He also submitted that as the proposed works intended to be undertaken by the petitioner are in the nature of R&M works, the approval of the Commission as per Regulation 10(1) of the 2009 Tariff Regulations was required to be taken by the petitioner. The learned counsel also pointed out that the petitioner has not furnished the list of assets forming part of the project, but not in use, in terms of proviso to Regulation 7(1)(c) of the 2009 Regulations and hence directions be issued to the petitioner accordingly. The learned counsel further submitted that supply of power to housing colonies or township of the generating station is to be accounted for and accordingly adjusted as the petitioner was deriving huge benefits on this account. Similar submissions have also been made by the respondent, PSPCL. In response, the petitioner has objected to the above submissions of the respondent and has reiterated its submissions made in its petition and its affidavit dated 29.3.2010 as regards the admissibility of additional capital expenditure in the case of existing generating stations. It has also submitted that the expenditure claimed for Auraiya falls under

Regulation 9(2)(vi) and therefore the contention of the respondent was not valid. The petitioner has also submitted that assets which have become unserviceable are taken out of gross block and not considered for the purpose of tariff and the details of such assets can only be furnished during the truing up exercise. As regards supply of power to housing colonies, the petitioner has submitted that in that in terms of the definition of 'generating station' under Section 2(30) of the Act and the Electricity (Removal of Difficulties) Order, 2005, colony consumption form part of auxiliary energy consumption and no undue benefit is derived out of this by the petitioner.

21. We have considered the submissions of the parties and the documents available on record. The projected capital expenditure under Regulation 9(2) has been considered in accordance with the decision of the Commission in paragraph 15 and 16 of this order. As regards supply to housing colonies, the observations of the Commission in paragraph 73 of the order dated 13.4.2012 in Petition No. 282/2009 is adopted in the present case. The relevant portion is extracted as under:

"....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 its 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."

22. Based on prudence check, the admissibility of R&M Expenditure for life extension of GTs in terms of Regulation 9(2)(vi) and additional capital expenditure claimed under Regulation 9(2)(ii) of the 2009 Tariff Regulations are discussed in subsequent paragraphs.

Additional Capital Expenditure of R&M of GTs

23. The R&M expenditure for Hot Gas path components mainly includes expenditure on compressor components, combustion chamber components, Gas Turbine components, assembly materials, couplings, tools, insulation etc. Expenditure on insulation, tools, and part expenditure on assembly materials, couplings, combustion chambers, and Gas Turbine initial

stage blades etc, which form part of major overhauls are covered under the normative O&M expenses specified by the Commission under the 2009 Tariff Regulations. As such, capitalization of the expenditure on replacement of Hot Gas path components under R&M would require the adjustment of the expenditure covered under O&M expenses allowed to the generating station during 2009-14.

24. In response to the directions of the Commission to furnish the detailed cost break-up of the expenditure of ₹35367 lakh claimed for R&M of GTs, the petitioner vide its affidavit dated 17.11.2011 has submitted that no detailed cost break-up was available with regard to approval of R&M expenditure by CEA. From the CEA approval dated 11.12.2007, it is observed that the approval for an expenditure of ₹35367 lakh was accorded for replacement of Hot Gas path components based on the budgetary offer of ₹41323.00 lakh from M/s Mitsubishi Heavy Industries Ltd (MHI). However, from the bill of quantities furnished by the petitioner, it is noticed that the requirement for combustion liners, transition piece, cross fire tubes, Nozzles, buckets and Shrouds etc., depended upon the replacement interval after definite number of Combustion Inspection (CI) and Hot Gas Path Inspections (HGPI) of GT components. The purchase of Hot Gas path components as proposed by the petitioner also includes certain capital spares in case of Stages- I to V nozzle, Stages I to V buckets & shrouds etc, which are to be used in future. Since the R&M on GTs would be in the nature of major overhaul, suitable adjustment of capital spares included in the normative operation and maintenance expenses is required to be undertaken.

25. Hence, in order to arrive at the cost of Hot Gas path components covered under O&M expenses allowed to the generating station during 2009-14, we examine the provisions of Regulation 19(c) of the 2009 Tariff Regulations, 2009 which specifies the O&M expense norms for the gas based generating stations, as under:

(₹ in lakh/MW)					
2009-10	2010-11	2011-12	2012-13	2013-14	Total
14.80	15.65	16.54	17.49	18.49	82.97

26. The O&M expense norms allowed for the period 2009-14 (₹82.97 lakh) includes about 35% for Repair Maintenance, Stores & Capital spares and the same works out to ₹29.04 lakh/MW during the 5 year period, which includes one Major Inspection (MI), one Hot Gas path Inspection (HGPI) and three Combustion Inspections (CI) for each GTs. Considering the weightage of cost of 1, 1.5 & 2 respectively in the above inspections, the same would translate into the cost of capital spares in Major Inspection/Overhaul as ₹8.94 lakh/MW [(29.04/26*8)].

The relevant calculations are as under:

Nature of Inspections	No of inspections in each GT	Weightage of Cost / Inspection /GT	Total weightage of 4 GTs
CI	3	1	12
HGPI	1	1.5	6
MI	1	2	8
		Total	26

- Cost of capital spares in Major Inspection = $\frac{29.04 \times 8}{26}$ = ₹8.94 lakh/MW
- Total capacity of the generating station = 663.36 MW
- Thus, the total cost of capital spars included in Major Inspection in normative O&M = 8.94 x 663.36 = ₹5930.40 lakh

27. Based on the above, the amount of ₹5930.40 lakh is deducted from the additional expenditure of ₹35367.00 lakh claimed during the years 2012-13 and 2013-14 for R &M of GTs and Hot Gas path components. Hence, against the claim for ₹35367.00 lakh, the additional capital expenditure considered for R&M of GTs during the period 2009-14 works out to ₹29436.60 lakh (35367.00-5930.40). Thus, the total amount allowed for R&M of GTs is ₹ 29436.60 lakh, subject to de-capitalization of the gross value of the old assets replaced.

Basis adopted by petitioner for arriving at the value of de-capitalization

28. The petitioner had vide its affidavit dated 8.6.2010 submitted that the estimated de-capitalization value may be considered as 12.79% of the replacement cost which works out to

₹4523 lakh. Subsequently, the petitioner vide its affidavit dated 17.11.2011 has submitted the value of de-capitalization as ₹5334 lakh. The percentage of the components covered under R&M is 35.13% and accordingly, the petitioner has computed the value of de-capitalization as 35.13% of the gross block of ₹15184 lakh for GTs as on 31.3.2011. In view of this, the de-capitalization value of ₹5334 lakh is found to be in order and is considered for the purpose of tariff. Accordingly, the expenditure allowed for R&M of GTs after de-capitalization of ₹5334.00 lakh is ₹24103 lakh (29437-5334).

29. Based on the above, the additional capital expenditure (*pro rata*) allowed for R&M of GTs is ₹ 6025.92 lakh for the year 2012-13 and ₹18077.08 lakh for 2013-14.

R&M activities other than Hot Gas path component of GTs

30. In addition to capital expenditure for R&M of Hot Gas path components of GTs as above, the petitioner has claimed additional capital expenditure under Regulation 9(2)(vi) of the 2009 Tariff Regulations, in respect of assets/items approved by CEA is discussed below.

Expenditure on Refurbishment of Gas Turbine rotors-Regulation 9(2)(vi)

31. The petitioner has claimed an amount of ₹503.00 lakh during 2011-12 under Regulation 9(2)(vi) for refurbishment of GT rotors. The justification for the said claim, submitted by the petitioner is as under:

" As per OEM, the expected life of the rotor 100000 operation hours and the rotor has exceeded that life. As per experience of OEM, after 100000 operating hours of running life of rotor there is chance of failures of welding joints of welded discs and if these welding defects originate, due to high speed of running etc., the same may lead to catastrophic failure of the rotor and thus the turbine as a whole. To avoid this, OEM have recommended to recondition the GT rotor at 100000 operating hours so as to further enhance their operation life to 100000 operating hours. Under reconditioning work the Compressor portion of the Rotor has been reconditioned whereas the turbine portion has been cut and removed as this portion cannot be reconditioned due to continuous operation at high temperatures. "

32. It is observed that the refurbishment of rotor has become necessary after 100000 EOH as the said asset is exposed to very high temperatures. Moreover, the expenditure on the said

asset do not form part of O&M expenses and hence capitalization of the same is allowed as part of R&M of GT components.

Replacement of obsolete DDC and MIS system

33. The petitioner has claimed expenditure of ₹750.00 lakh during 2012-13 and ₹2250.00 lakh during 2013-14 for replacement of obsolete DDC and MIS system. Since, the present systems were installed and commissioned as part of original main plant package, the Original Equipment Manufacturer (OEM) has declared all these systems as obsolete and the spares for the same are no more available. In view of this, the claim of the petitioner is found justified and is allowed to be capitalized along with corresponding de-capitalization. It is noticed that the petitioner has not submitted the de-capitalization value of DDC and MIS system. However, from the de-capitalization value of GT components on which R&M has been carried out, it is found that the estimated value of original component is about 15% of the value of new assets. Accordingly, the de-capitalization value of DDC & MIS system works out to ₹112.50 (750.00 x 0.15) during 2012-13 and ₹337.50 lakh (2250.00 x 0.15) during 2013-14. In view of this, the additional capital expenditure of ₹637.50 lakh (750.00 –112.50) during 2012-13 and ₹1912.50 lakh (2250.00-337.50) during 2013-14 is allowed for capitalization.

Up-gradation of the fire fighting communication system

34. The petitioner has claimed an expenditure of ₹50.00 lakh during 2011-12 for up-gradation of the fire fighting communication system. The petitioner has submitted that the fire fighting communication system needs up-gradation in order to ensure the safety of the plant. The justification submitted by the petitioner has been examined and on prudence check it is found that the said asset is required for efficient and successful operation of the plant including the safety of personnel. Hence, the said expenditure is allowed.

Renovation of GT Cooling Tower

35. The petitioner has claimed expenditure for ₹24.00 lakh during 2009-10 for the said asset and has submitted that as all the GTs have operated for more than 100000 EOH and the cooling tower performance has also deteriorated with reduced cooling effect. From the submissions of the petitioner, it could not be ascertained as to the nature of work undertaken for renovation of Cooling Tower for GTs. Also, the petitioner's submission linking the cooling tower performance to 100000 EOH of GTs cannot be appreciated. Since, expenditure associated with cooling towers is generally in the nature of O&M expenses, the capitalization of the said expenditure is not allowed.

Additional Capital Expenditure under Regulation 9(2)(ii)

Installation of Online Compressor Cleaning System and Evaporative type of inlet air cooling system

36. The petitioner has claimed expenditure of ₹178.00 lakh during 2009-10 and ₹8.00 lakh during 2010-11 towards Installation of Online compressor cleaning system and ₹576.00 lakh during 2012-13 for Evaporative type of inlet air cooling system. The petitioner has submitted that these assets are required for improvement of the availability of the generating station in order to achieve the Normative Annual Plant Availability norms specified by the Commission for the period 2009-14 under the 2009 Tariff Regulations. Apart from the increase in the availability, by installation of Online compressor cleaning system and Evaporative system, the performance of GTs would also improve. However, the benefit of such improvement in efficiency of the generating station is to be retained by the generator. Hence, we are of the view that it would not be prudent to allow such expenditure, in the absence of any commitment by the petitioner to pass on the benefits of improvement in efficiency to the beneficiaries. The expenditures claimed are disallowed on this count.

Laying of rails in transformer yard

37. The petitioner has claimed expenditure of ₹60.00 lakh during 2011-12 towards the laying of rails in transformer yard for the purpose of maintenance. The petitioner has submitted that the said item/work would further reduce the downtime for maintenance of transformers which in turn would improve the availability of the generating station. As the asset is required for ease of maintenance and reduce the downtime for maintenance of transformers, we are of the view that the expenditure should be borne by the petitioner from the O&M expenses allowed to the generating station. Hence, the claim of the petitioner on this count is not allowed for capitalization.

Procurement of additional Excitation Transformer and one generator rotor each for GT and ST

38. The petitioner has claimed expenditure of ₹29.00 lakh during 2011-12 towards procurement of additional Excitation Transformer and ₹3241.00 lakh during 2013-14 for procurement of one generator rotor each for GT and ST. The petitioner in its justification has submitted that there is no standby Excitation Transformer and Rotors in order to meet any emergency situation for sustenance of availability. As the assets claimed are in the nature of spares, the same is not allowed to be capitalized.

Phasing out of Halon system fire fighting system

39. The petitioner has claimed expenditure for ₹241.00 lakh during 2011-12 for replacement of Halon system for protection of ozone layer. As the asset is required as statutory compliance under National Fire Protection Association Standard on Clean Agent Fire Extinguishing system (NFPA-2001), the claim of the petitioner is allowed along with the corresponding de-capitalization. It is noticed that the petitioner has not submitted the de-capitalization value of Halon system. However, from the de-capitalization value of GT components on which R & M has been carried out, it is found that the estimated value of original component is about 15% of the value of new asset. Accordingly, the de-capitalization value of Halon system works out to

₹36.15 lakh (241.00 x 0.15). Based on this, the expenditure of ₹204.85 lakh is allowed for capitalization.

Procurement of predictive and diagnostic maintenance equipments

40. The petitioner has claimed expenditure of ₹14.00 lakh during 2009-10, ₹19.00 lakh during 2010-11 and ₹48.00 lakh during 2011-12 for procurement of predictive and diagnostic maintenance equipments for monitoring the health of the equipments. The petitioner in its justification for these expenditure has submitted that with the availability of these instruments there would be reduction in the forced outage of transformers, motors, passing of valves etc, which would help improvement in the availability of the generating station in order to achieve the increased availability. We are of the view that the expenditure involved is minor in nature and hence capitalization of the same is not allowed.

Additional capital expenditure for other than R&M activities

Direct Chemical Power (DCP) Fire tenders

41. The petitioner has claimed expenditure of ₹29.00 lakh during 2010-11 for the procurement of new Direct Chemical Power (DCP) fire tenders for use during chemical and electricity fire. The petitioner has submitted that the old fire tenders have become unserviceable as they have outlived their useful life and new fire tenders are being purchased in place of old fire tenders essentially required during chemical and electricity fire for safety and security of human life including the generating station. Considering the submissions made by the petitioner and since the asset is essentially required for the safety of the generating station, we allow the expenditure under Regulation 9(2)(vi) of the 2009 Tariff Regulations, along with the corresponding de-capitalization value of the old fire tenders amounting to ₹8.00 lakh. Based on this, the expenditure of ₹21.00 lakh (29.00–8.00) is allowed to be capitalized.

Ambient air Quality measurement system

42. The petitioner has claimed ₹2.00 lakh during 2009-10 towards Ambient Air Quality Management System (AAQMS) in order to fulfill the statutory compliance of the directions of the State Pollution Control Board. In view of this, the expenditure is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Energy Management System

43. The petitioner has claimed expenditure of ₹12.00 lakh during 2010-11 towards Energy Management System under the Energy Conservation System in order to monitor the Auxiliary Power consumption of the generating station. As the expenditure is required in compliance with the requirements under the CEA Installation & Operation of Meters, Regulations, 2006, the said expenditure is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Boring of Tube well

44. The petitioner has claimed expenditure of ₹72.00 lakh during 2010-11 towards boring of tube well for more water supply for operation of the generating station. The petitioner has submitted that during summer seasons, the Irrigation Department of the State of Uttar Pradesh, closes the water supply for purpose of maintenance and diverts the said water for the purpose of irrigation. This causes reduction in water supply to the generating station which results in very low water levels at the reservoir. Consequently, the operation of the generating station is at risk, due to non availability of water, and could also result in the shutdown of the generating station. We are of the view that the diversion of water during summer by the State Government indicates a change in the policy of the said government and the same is beyond the control of the petitioner for which the petitioner should not be burdened. Considering the same to be in the nature of change in law, the expenditure claimed is allowed to be capitalized under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Hydra Mobile Crane of 12 tons capacity

45. The petitioner has claimed expenditure of ₹11.00 lakh during 2010-11 towards the procurement of Hydra mobile crane of 12 tons capacity. The petitioner has submitted that new crane is necessary for lifting of equipments, heavy materials and metals and for their movements during plant operation and overhauling. It is observed that the installation of this crane would form part of R&M activities of GT, as the same would facilitate overhauling works during R&M of GTs. Accordingly, the expenditure is allowed to be capitalized, along with the corresponding de-capitalization of old crane amounting to ₹7.00 lakh. Based on this, the expenditure of ₹4.00 lakh (11-7) is allowed to be capitalized under Regulation 9 (2) (vi) of the 2009 Tariff Regulations.

Expenditure incurred for implementation of scheme for provision of supply of electricity in 5 km area around Central Power plants

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

47. Based on the above discussions, the additional capital expenditure allowed for the purpose of tariff for the period 2009-14 is as under:

Sl. No.	Regulation	Actual/Projected additional expenditure allowed					
		2009-10	2010-11	2011-12	2012-13	2013-14	
1	Replacement of Hot gas path components with upgraded and advanced design material, installation of on line blade surface temp, monitoring system and up gradation of the existing dynamic balancing machine.	9(2)(vi)	0.00	0.00	0.00	6025.92	18077.08
2	Installation of evaporative type of inlet air cooling system	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
3	Installation of on line wet washing system and on line compressor efficiency monitoring system	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
4	Refurbishment of GT Rotor	9(2)(vi)	0.00	0.00	503.00	0.00	0.00
5	Replacement of obsolete DDC and MIS system	9(2)(vi)	0.00	0.00	0.00	637.50	1912.50
6	Up-gradation of the fire fighting communication system	9(2)(vi)	0.00	0.00	50.00	0.00	0.00
7	Laying of rails in transformer yard	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
8	Procurement of additional Excitation Transformer	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
9	Procurement of one Generator Rotor for Gas Turbine and One Generator Rotor for Steam Turbine		0.00	0.00	0.00	0.00	0.00
10	Renovation of GT cooling towers	9(2)(vi)	0.00	0.00	0.00	0.00	0.00
11	Phasing out of Halon fire fighting system from GT enclosure and central control room	9(2)(ii)	0.00	0.00	204.85	0.00	0.00
12	Procurement of predictive and diagnostic maintenance equipments	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
13	Expenditure on 5 Km scheme as notified by MOP	9(2)(ii)	0.00	0.00	0.00	0.00	0.00
	Sub-total		0.00	0.00	758.00	6663.42	19989.58
14	Crane Discarded		(-) 7.00	0.00	0.00	0.00	0.00
15	AAQMS (Ambient Air Quality Monitoring)	9(2)(ii)	2.00	0.00	0.00	0.00	0.00

	System)						
16	Energy management system	9(2)(ii)	0.00	12.00	0.00	0.00	0.00
17	Direct chemical power (DCP) fire tenders	9(2)(vi)	0.00	29.00	0.00	0.00	0.00
18	De-capitalisation of fire tenders		0.00	(-) 8.00	0.00	0.00	0.00
19	Boring of Tube well	9(2)(ii)	0.00	72.00	0.00	0.00	0.00
20	Hydra mobile crane of 12 tons capacity		0.00	11.00	0.00	0.00	0.00
21	Old vehicles discarded		0.00	(-) 9.00	0.00	0.00	0.00
	Sub-Total		(-) 5.00	107.00	0.00	0.00	0.00
	Grand Total		(-) 5.00	107.00	758.00	6663.42	19989.58

Balance useful life of the generating station as on 1.4.2009 after R&M for the purpose of Depreciation

48. The details of the date of commercial operation of the different units of the generating station, the period of operation up to 1.4.2009 and 1.4.2014 (completion of major R&M works) and the extended life after R&M of GT and their weighted average period of operation on above dates and weighted average life are as under:

Description	Capacity MW	COD	Elapsed life up to 31.3.2009	Extension of life of 15 years for GTs	Balance life as on	
					1.4.2009	1.4.2014
GT-I	111.19	1.10.1990	18.50	23.50		
GT-II	111.19	1.10.1990	18.50	23.50		
GT-III	111.19	1.11.1990	18.42	23.42		
GT-IV	111.19	1.11.1990	18.42	23.42		
ST-I	109.3	1.11.1990	18.42	23.42		
ST-II	109.3	1.12.1990	18.33	23.33		
Total	663.36		18.43	23.43	15.59	10.59

49. The weighted average of the elapsed life (period of operation) of the generating station, as on 1.4.2009 works out to 18.43 years. The major expenditure on R&M of the GTs are allowed for enhancing the life of the generating station by 1,00,000 Equivalent Operating Hours (EOH) which translates into 15 years, considering the low PLF of the generating station. The major part of R&M works would be completed by 31.3.2014. The weighted average of the period of operation of the generating station as on 31.3.2014 works out to 23.43 years. Considering the life extension of GTs by 15 years from 1.4.2014, the weighted average life of the generating station after R&M of GTs works out to 34.02 years in relation to the date of commercial

operation of the respective units of the generating station, as stated above. Accordingly, the balance useful life of the generating station works out to 15.59 years as on 1.4.2009 and 10.59 years as on 1.4.2014.

50. Considering the actual liabilities discharged, the revised additional capital expenditure allowed for the purpose of tariff is as under:

	(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Additional capital expenditure allowed	(-) 5.00	107.00	758.00	6663.42	19989.58	27513.00
Liabilities discharged	27.58	11.75	0.00	0.00	0.00	39.33
Net Additional capital expenditure allowed	22.58	118.75	758.00	6663.42	19989.58	27552.33

Capital Cost for 2009-14

51. Based on the above, 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	74427.23	74449.81	74568.56	75326.56	81989.98
Additional capital expenditure	22.58	118.75	758.00	6663.42	19989.58
Closing Capital cost	74449.81	74568.56	75326.56	81989.98	101979.56
Average Capital cost	74438.52	74509.19	74947.56	78658.27	91984.77

Debt Equity Ratio

52. Regulation 12 of the 2009 Tariff Regulations provides that:

“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(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.

53. The gross loan and equity amounting to ₹37337.13 lakh and ₹37143.49 lakh respectively as on 31.3.2009, approved *vide* order dated 21.4.2011 in Petition No.193/2009 has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹53.39 lakh deducted from the capital cost as on 1.4.2009 has been adjusted to debt and equity in the ratio of 50:50 for liabilities pertaining to the period prior to 1.4.2004 and in the ratio of 70:30 for liabilities pertaining to the period 2004-09. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹37301.06 lakh and ₹37126.17 lakh, respectively. Further, the projected additional expenditure admitted above is allocated in debt-equity ratio of 70:30, which is subject to truing up in terms of Regulation 6 of the 2009 Tariff Regulations.

Return on Equity

54. Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides that:

“(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 charges 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 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.”

55. Accordingly, return on equity has been worked out @23.481% per annum on the normative equity after accounting for the additional capital expenditure.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	37126.17	37132.94	37168.57	37395.97	39395.00
Addition of Equity due to Additional capital expenditure	6.77	35.63	227.40	1999.03	5996.87
Normative Equity-Closing	37132.94	37168.57	37395.97	39395.00	45391.87
Average Normative Equity	37129.56	37150.76	37282.27	38395.48	42393.43
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)	8718.39	8723.37	8754.25	9015.64	9954.40

Interest on Loan

56. Regulation 16 of the 2009 Tariff Regulations provides that:

“(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.

57. The interest on loan has been worked out as under:

- (i) The gross normative loan of ₹37301.06 lakh as on 1.4.2009 has been considered.
- (ii) Cumulative repayment of loan of ₹36250.69 lakh as on 31.3.2009 as considered in order dated 21.4.2011 in Petition No. 193/2009 has been considered as cumulative repayment as on 1.4.2009. However, after taking into 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 to ₹36219.42 lakh.
- (iii) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹1081.64 lakh.
- (iv) Addition to normative loan to the tune of 70% of additional capital expenditure approved above has been considered on year to year basis.
- (v) The actual loan portfolio (represented by bonds) for the generating station was repaid during 2007-08. Accordingly, the actual loan at the beginning of the financial year 2009-10 is 'nil'. Further, the petitioner in its affidavit dated 19.7.2011 has indicated that it has not raised any fresh loans to meet the actual capital expenditure incurred during the years 2009-11. As such, the actual loan portfolio at the beginning of the years 2009-10, 2010-11 and 2011-12 does not exist. In the absence of the same, the petitioner has considered originally contracted GOI loans, treating the same as actual loan portfolio for the purpose of calculating the weighted average rate of interest. However, these GOI loans were refinanced with Bonds earlier. As such, the Bonds represented the actual loan portfolio. Even these bonds got fully repaid during 2007-08. Accordingly, in line with the first proviso to Regulation 16 (5) (as quoted above), the last available weighted average rate of interest (in this case it is 2007-08) of actual loan portfolio represented by Bonds has been considered for calculating interest on normative loan. In case, any actual loan is raised by the petitioner for incurring additional capital expenditure for the

period 2011-14, the same will be treated as actual loan portfolio and the weighted average rate for the said period shall be re-calculated at the time of truing up.

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

58. The necessary calculations for interest on loan is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	37301.06	37316.87	37399.99	37930.59	42594.99
Cumulative repayment of loan upto previous year	36219.42	36243.75	36254.08	36273.97	35574.79
Net Loan Opening	1081.64	1073.12	1145.91	1656.62	7020.20
Addition due to Additional capitalisation	15.81	83.13	530.60	4664.39	13992.71
Repayment of loan during the year	12.69	15.81	45.20	313.04	1460.18
Less: Repayment adjustment on account of de-capitalization	4.90	11.90	25.31	1012.23	3036.57
Add: Repayment adjustment on account of discharges / reversals corresponding to un-discharged liabilities deducted as on 1.4.2009	16.53	6.43	0.00	0.00	0.00
Net Repayment	24.32	10.34	19.89	-699.19	-1576.40
Net Loan Closing	1073.12	1145.91	1656.62	7020.20	22589.30
Average Loan	1077.38	1109.52	1401.27	4338.41	14804.75
Weighted Average Rate of Interest on Loan	8.0800%	8.0800%	8.0800%	8.0800%	8.0800%
Interest on Loan	87.05	89.65	113.22	350.54	1196.22

Depreciation

59. Regulation 17 of the 2009 Tariff Regulations provides that:

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

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

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

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

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

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

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

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting 3[the cumulative depreciation including Advance against Depreciation] as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

60. The cumulative depreciation as on 31.3.2009 as per order dated 21.4.2011 in Petition No. 193/2009 is ₹66004.67 lakh. Further, proportionate adjustment has been made to this cumulative depreciation on account of un-discharged liabilities deducted as on 1.4.2009. Accordingly, the revised cumulative depreciation as on 1.4.2009 works out to ₹65957.35 lakh. Further, the values of freehold land as considered in the said order as on 31.3.2009 is ₹932.76 lakh. As such, considering the additional capital expenditure approved for the year 2009-10 above, the balance depreciable value (before depreciation) for the year 2009-10 works out to ₹197.84 lakh. Since, the generating station is more than 12 years old as on 1.4.2009, from the effective date of commercial operation (i.e 26.10.1990) depreciation has been calculated by spreading over the balance depreciable value. The balance useful life as on 1.4.2009 as per order dated 21.4.2011 in Petition No.193/2009 is 2.66 years. However, since the balance useful life of the generating station has been extended to 15.59 years, as on 1.4.2009, the same has been considered for calculation of depreciation. Cumulative depreciation has been adjusted @ 90% of value of de-capitalized assets/works. Further, proportionate adjustment has been made to the cumulative depreciation on account of de-capitalization of assets considered for the purpose of tariff as well as discharges/reversal of liabilities out of un-discharged liabilities deducted from capital cost as on 1.4.2009. The necessary calculations in support of depreciation are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	74427.23	74449.81	74568.56	75326.56	81989.98
Closing capital cost	74449.81	74568.56	75326.56	81989.98	101979.56
Average capital cost	74438.52	74509.19	74947.56	78658.27	91984.77
Depreciable value @ 90%	66155.19	66218.79	66613.32	69952.96	81946.81
Remaining useful life at the beginning of the year (revised)	15.59	14.59	13.59	12.59	11.59
Balance depreciable value	197.84	230.60	614.22	3941.20	16923.44
Depreciation (annualized)	12.69	15.81	45.20	313.04	1460.18
Cumulative depreciation at the end	65970.04	66003.99	66044.30	66324.81	66483.55
Less: Cumulative depreciation reduction due to de-capitalization	6.30	15.30	32.54	1301.44	3904.16
Add: Cumulative depreciation adjustment on account of discharges / reversal of liabilities out of liabilities deducted as on 1.4.2009	24.44	10.41	0.00	0.00	0.00
Net Cumulative depreciation (at the end of the period)	65988.18	65999.10	66011.76	65023.37	62579.38

O&M Expenses

61. Clause (c) of Regulation 19 of Regulation of the 2009 Tariff Regulations provide the following O&M expense norms for Open Cycle Gas Turbine / Combined Cycle generating stations as under:

	(₹ in lakh/MW)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expense for Gas Turbines/ Combined cycle generating stations	14.80	15.65	16.54	17.49	18.49

62. 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	9818	10382	10972	11602	12266

63. Based on above norms, the O&M expense claimed by the petitioner is allowed considering the value up to two decimal places, as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	9817.73	10381.58	10971.97	11602.17	12265.53

Normative Annual Plant Availability Factor (NAPAF)

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

Interest on Working Capital

65. Regulation 18 (1) (b) of the 2009 Tariff Regulations provides that the working capital for Open-cycle Gas Turbine/Combined Cycle thermal generating stations shall cover:

“(i) Fuel cost for one month corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Liquid fuel stock for ½ month corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel.

(iii) Maintenance spares @ 30% 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, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel, and

(v) Operation and maintenance expenses for one month.

66. 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.

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

68. The petitioner has claimed the cost for fuel component in working capital based on the price and GCV of APM, RLNG gas and Naphtha for preceding three months from January, 2009 to March, 2009. The petitioner has submitted that there was no use of LNG in January, 2009.

The mode of operation between APM, RLNG gas and Naphtha as achieved by the generating station during the year 2008-09 was 82.90%, 4.50% and 12.60% respectively and the same has been considered to arrive at the Fuel component (one month), Liquid fuel cost for i/2 month Naphtha) and Energy Charges (for two months) for the purpose of working capital. Accordingly, the fuel cost, liquid fuel cost and Energy charges (for two months) is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Fuel Cost (one month)	8253.15	8253.15	8275.77	8253.15	8253.15
Liquid fuel stock (1/2 month) (Naphtha)	1574.15	1574.15	1578.47	1574.15	1574.15
Energy charges (2 months)	16506.31	16506.31	16551.53	16506.31	16506.31

69. The claim of the petitioner for the cost of fuel is found to be in order and has been considered for the purpose of tariff.

Maintenance Spares

70. 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	2945	3114	3292	3481	3680

71. The 2009 Tariff Regulations provide for maintenance spares @ 30% of the operation & maintenance expenses specified in Regulation 19. Accordingly, the maintenance spares @ 30% worked out, as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	2945.32	3114.48	3291.59	3480.65	3679.66

Receivables

72. Receivables have been worked out on the basis of two months of fixed and energy charges as shown below:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	16506.31	16506.31	16551.53	16506.31	16506.31

Fixed Charges - 2 months	3798.00	3900.26	4021.20	4262.37	4879.31
Total	20304.31	20406.57	20572.73	20768.68	21385.62

O&M Expenses

73. O&M expenses for 1 month for the purpose of working capital is allowed as under.

	(₹ in lakh)				
	2009-10	2010-2011	2011-12	2012-13	2013-14
O& M for 1 month	818.14	865.13	914.33	966.85	1022.13

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

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Fuel cost (APM, RLNG & Naptha) – 1 month	8253.15	8253.15	8275.77	8253.15	8253.15
Liquid fuel stock – 1/2 month	1574.15	1574.15	1578.47	1574.15	1574.15
Maintenance Spares	2945.32	3114.48	3291.59	3480.65	3679.66
O&M expenses – 1 month	818.14	865.13	914.33	966.85	1022.13
Receivables – 2 months	20304.31	20406.57	20572.73	20768.68	21385.62
Total working capital	33895.08	34213.49	34632.88	35043.49	35914.72
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	4152.15	4191.15	4242.53	4292.83	4399.55

Annual Fixed charges for 2009-14

75. 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	12.69	15.81	45.20	313.04	1460.18
Interest on Loan	87.05	89.65	113.22	350.54	1196.22
Return on Equity	8718.39	8723.37	8754.25	9015.64	9954.40
Interest on Working Capital	4152.15	4191.15	4242.53	4292.83	4399.55
O&M Expenses	9817.73	10381.58	10971.97	11602.17	12265.53
Total	22788.01	23401.56	24127.17	25574.22	29275.88

76. The annual fixed charges allowed as above shall be subject to truing up as per Regulation 6 of the 2009 Tariff Regulations.

Energy Charge Rate

77. Sub-clause (a) of clause (6) of Regulation 21 of the 2009 Tariff Regulations provides that the Energy Charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the formulae as under:

For gas and liquid fuel based stations

$$ECR = \{(GHR \times LPPF \times 100 / \{CVPF \times (100 - Aux)\})\}$$

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.

78. The petitioner has claimed Energy Charge Rate (ECR) of 206.71 paisa/kWh based on the weighted average rate price, GCV of fuel procured and burnt for the preceding three months of January, 2009, February, 2009 and March, 2009 and as per operational norms specified by the Commission. The Energy Charge Rate is worked out as under and the same is allowed for the purpose of tariff:

	Unit	2009-14		
Capacity	MW	663.36		
Gas		APM	RLNG	Naphtha
Normative Heat Rate	Kcal/kWh	2100	2100	2100
Auxiliary Energy Consumption	%	3	3	3
Weighted average rate of fuel	₹/1000SCM	5280.64	22785.90	32802.49
Weighted average GCV of fuel	Kcal/SCM	9154.49	9124.65	11347.77
Rate of energy charge ex-bus	Paise/kWh	101.235	470.571	570.294
Mode of Operation on fuel during 2008-09 (% of schedule generation)	%	82.90	4.50	12.60
ESO in one month @ 85% PLF	Paise/kWh	208.75	11.23	32.43
Weighted average cost of fuel in 2008-09 (Ex-bus)	Paise/kWh	206.708		

79. 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.

80. The petitioner has also prayed for the following reliefs in this petition, which are disposed of as under:

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

(b) **Recovery of additional cost due to increase in water charges over and above the O&M expenses:** The petitioner has submitted that there has been manifold increase in the water charges levied by the State Governments /State Government agencies and the O&M expense norms for 2009-14 notified by the Commission cannot cover any abnormal/unnatural increase in any cost component which is beyond the control of the utility. The petitioner has further submitted that the additional cost incurred in respect of the increase in water charges over and above the O&M expenses be permitted to be billed and recovered additionally from the beneficiaries. We notice that the petitioner has filed Petition No.121/2011 claiming the same relief and the matter has been heard on 13.10.2011. Accordingly, the relief prayed for in this petition would be governed by the final decision to be taken by the Commission in Petition No. 121/2011.

Application fee and the publication expenses

81. The petitioner has sought approval for the reimbursement of fee of ₹1326720/- each for the years 2009-10, 2010-11 and 2011-12 paid by it towards filing of the petition and ₹723407/- for the expenses incurred for publication of notices in connection with the petition. The petitioner by its affidavit dated 25.2.2010 has submitted the original copies of the publication of notice made in the newspapers and by affidavit dated 21.4.2010 has submitted the amount incurred towards publication of the said notice.

82. 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 ₹1326720/- incurred by the petitioner on application filing fees for each of the years 2009-10, 2010-11 and 2011-12 and the expenses of ₹723407/- incurred towards publication of notices in connection with the present petition shall be directly recovered from the beneficiaries, on *pro rata* basis on production of documentary proof. The filing fees in respect of the balance years of the tariff period would be recoverable as and when paid by the petitioner in terms of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012.

83. 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.

84. 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 accordance with the proviso to Regulation 5 (3) of the 2009 Tariff Regulations.

85. This disposes of Petition No.270/2009.

Sd/-
[M.DEENA DAYALAN]
MEMBER

Sd/-
[DR.PRAMOD DEO]
CHAIRPERSON