CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 281/2009

Coram 1. Dr. Pramod Deo, Chairperson
2. Shri S.Jayaraman, Member

Date of Hearing: 20.12.2011 Date of order: 7.9.2012

IN THE MATTER OF

Approval of tariff of Rajiv Gandhi Combined Cycle Power Project, Stage-I (359.58 MW) for the period from 1.4.2009 to 31.3.2014.

AND

IN THE MATTER OF

NTPC Ltd, New Delhi ……Petitioner

Vs

1. Kerala State Electricity Board, Thiruvananthapuram
2. Tamil Nadu Electricity Board, Chennai ….Respondents

Parties present

1. Shri Sameer Aggarwal, NTPC
2. Shri C.K.Mondol, NTPC
3. Shri Ajay Dua, NTPC
4. Shri Rohit Chhabra, NTPC
5. Shri G.Sreenivasan, KSEB

ORDER

The petitioner, NTPC has filed this petition for approval of tariff of Rajiv Gandhi Combined Cycle Power Project, Stage-I (359.58 MW) (hereinafter referred to as "the generating station") for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The generating station with a capacity of 359.58 MW comprises of two Gas Turbine (GT) units of 116.6 MW each and one Steam Turbine (ST) unit of 126.38 MW. The dates of commercial operation of the different units of the generating station are as under:

	Date of commercial operation (COD)
GT-I	1.1.1999
GT-II	1.5.1999
ST/Generating station	1.3.2000

3. The tariff of the generating station for the period 1.4.2004 to 31.3.2009 was determined by the Commission vide its order dated 9.5.2006 in Petition No.147/2004. Aggrieved by the said order, the petitioner filed Appeal No.144/2006 before the Appellate Tribunal for Electricity ('the Tribunal') and the Tribunal by its common judgment dated 13.6.2007 in Appeal Nos. 139 to 142 etc of 2006 and 10, 11, 23 of 2007) allowed the prayers of the petitioner and remanded the matters for re-determination by the Commission. Against the judgment dated 13.6.2007, the Commission appeal (Civil Appeal No.5434/2007) on certain issues and the same is pending. The tariff of the generating station was revised by order dated 9.6.2009 in Petition No. 139/2008 after accounting for the capital cost of the switchyard transferred from Power Grid Corporation of India Ltd (PGCIL) to NTPC. Subsequently, the tariff of the generating station was revised vide orders dated 23.12.2009 and 30.12.2009 in Review Petition Nos. 172/2009 and 175/2009 (in Petition No. 139/2008) filed by the respondents, TNEB and KSEB respectively. Thereafter, by order dated 12.10.2011 in Petition No. 139/2008, the tariff of the generating station was revised in the light of the judgment dated 13.6.2007 of the Tribunal in Appeal Nos.139 to 142 etc., of 2006, 10, 11 and 23 of 2007 and the judgment dated 1.9.2010 in Appeal No. 58/2010, considering the capital cost of ₹127103.13 lakh as on 31.3.2009. The annual fixed charges for 2004-09 determined by order dated 12.10.2011 is as under:

(₹ in lakh)

	2004-05	2005-06	2006-07	2007-08		2008-09
				1.4.2007 to 31.8.2007	1.9.2007 to 31.3.2008	
Interest on loan	3278.48	2794.83	2294.53	1915.09	1985.54	1760.05
Interest on Working Capital	2780.13	2789.17	2796.20	2845.19	2827.07	2797.60
Depreciation	5273.45	5273.45	5273.45	5273.45	5661.40	5661.40
Advance Against Depreciation	1745.53	2050.97	2214.70	3755.32	1946.59	0.00
Return on Equity	4972.51	4972.51	4972.51	4972.51	5279.86	5279.86
O & M Expenses	2804.72	2916.19	3034.86	3153.52	3153.52	3279.37
Total	20854.82	20797.12	20586.25	21915.07	20853.99	18778.28

4. 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	6293	6300	6308	2017	2017
Interest on Loan	1107	721	381	156	57
Return on Equity	8857	8867	8879	8882	8883
Interest on Working Capital	4823	4836	4863	4781	4803
O&M Expenses	5322	5627	5947	6289	6649
Total	26402	26351	26378	22126	22409

5. Reply to the petition has been filed by the respondents and the petitioner has filed its rejoinder to the said replies.

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 annual fixed charges claimed in the petition are based on the opening capital cost of ₹127104 lakh as on 1.4.2009. The annual fixed charges of the generating station approved by order dated 12.10.2011 is based on the capital cost of ₹127103.13 lakh as on 31.3.2009. As such, the opening capital cost as on 1.4.2009 is ₹127103.13 lakh.

8. The petitioner vide its affidavit dated 27.10.2011 has furnished the details of capital cost and liabilities as on 1.4.2009 as per books of accounts in Form-9A. The details of liabilities and capital cost have been reconciled with the information available with the records of the Commission as under:

(₹ in lakh)

	As per Form-9A	As per records of Commission	Difference
Capital cost as on 1.4.2009 as per books of accounts	120539.67	120891.36	(-) 351.69
Liabilities included	1039.84	1039.84	0.00

9. Out of the total liabilities of ₹1039.84 lakh included in the gross block as on 1.4.2009, the approved capital cost of ₹127103.13 lakh is inclusive of un-discharged liabilities amounting to ₹176.21 lakh (all pertaining to capitalization allowed prior to 1.4.2004). The balance differential liabilities pertain to assets disallowed/not claimed for capitalization.

10. The last proviso of 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."*

11. Accordingly, the capital cost as on 1.4.2009 works out to ₹126926.92 lakh, after removal of un-discharged liabilities of ₹176.21 lakh. Further, out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged liabilities amounting to ₹25.27 lakh and ₹19.61 lakh during the years 2009-10 and 2010-11 respectively and has reversed ₹69.35 lakh during 2009-10 and ₹7.99 lakh during 2010-11. The discharge of liabilities during the years 2009-10 and 2010-11 lakh respectively, have been allowed during the respective years, as part of the additional capital expenditure allowed for the generating station.

12. From the table under para 8 above, a difference of (-) ₹351.69 lakh, between the gross block as per Form-9A and gross block as per details available with the Commission (after taking in to account the exclusions on account of FERV and additions for land during the period 2004-09) is observed. Since, the petitioner has not claimed any additional capital expenditure during the period 2004-09 and the exclusions on account of FERV and land additions during the period 2004-09 had already been considered, the de-capitalization of ₹351.69 lakh appears to be in respect of assets already allowed by the Commission for the purpose of tariff as on 1.4.2004. In line with our decision not to allow tariff on assets not in service, the amount of ₹351.69 lakh has been deducted from the approved capital cost as on 31.3.2009, in order to arrive at the admissible capital cost as on 1.4.2009, for the purpose of tariff. The net capital addition of

₹351.69 lakh could be a combination of both, positive capital additions and de-capitalization. Accordingly, we direct the petitioner to furnish the asset-wise and yearly break-up for the amount of ₹351.69 lakh, at the time of truing-up of the expenditure in terms of Regulation 6 of the 2009 Tariff Regulations. As such, the capital cost on cash basis works out to ₹126575.23 lakh as on 1.4.2009 and the same is considered.

Actual/ Projected Additional Capital Expenditure for 2009-14

13. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011, 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, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff. (2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:*
>
> *(I) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
>
> *(ii) Change in law;*
>
> *(iii) Deferred works relating to ash pond or ash handling system in the original scope of work;*
>
> *(iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and*
>
> *(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:*
>
> *Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans,*

washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.

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

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

(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialization 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."

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

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capital Expenditure	40.00	241.00	100.00	0.00	0.00

15. 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 submissions made by the petitioner on the admissibility of additional capital expenditure for 2009-14 in the subsequent paragraphs.

Submissions of the petitioner

16. The submissions of the petitioner in support of its claim vide affidavit dated 29.3.2010, is summarized as under:

(a) The capital expenditure estimated to be incurred for various works during 2009-14 and included in the capital cost for tariff may not be considered as the ceiling expenditure. Regulation 9 deals with additional capital expenditure in the context of such capital expenditure being incurred after the date of commercial operation upto the cut-off date and thereafter from cut-off date. Regulation 9 does not provide for any specific limitation or restriction on the admissibility of other additional capitalization apart from those covered by Regulation 9(1) and (2), even in respect of new station which comes into commercial operation after 1.4.2009. It does not impose any restriction or limitation on the additional capitalization in respect of existing projects, since Regulation 9 does not deal with existing projects and Regulation 9 does not specify that besides Regulation 9(1) and (2) no other capitalization shall be admissible.

(b) In case of existing projects substantial additional capital expenditure stands admitted by the Commission in respect of those expenditure which are within the original scope of work as well as those expenditure which were incurred on an on-going basis after the cut-off date subject however, to prudence check by the Commission. Regulations 7 (1), 8 and 9 of the 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 was 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 was 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.

17. Similar submissions of the petitioner have already 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 224/2009 respectively, pertaining to determination of tariff some of the generating stations of the petitioner for 2009-14 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.

18. In line with the above decision in the said orders, we consider the additional capital expenditure claimed by the petitioner for 2009-14 in this petition, under the provisions of Regulation 9 (2) of the 2009 Tariff Regulations.

19. The category-wise break-up of the additional capital expenditure is as under:

(₹ in lakh)

Head of work/ Equipment	Regulation	Actual / Projected additional capital expenditure				
		2009-10	2010-11	2011-12	2012-13	2013-14
Replacement of Freon based HVAC system with vapor absorption system	9(2)(ii)	0.00	0.00	100.00	0.00	0.00
Construction of boundary wall around Naptha storage facilities as per IB recommendation		0.00	191.00	0.00	0.00	0.00
Installation of CCTV facilities as per IB recommendation works		40.00	50.00	0.00	0.00	0.00
Total		40.00	241.00	100.00	0.00	0.00

20. Based on the submission of the parties and the documents available on record, the claims of the petitioner for additional capitalization has been examined as discussed in the succeeding paragraphs.

Regulation 9(2)(ii)

(a) Construction of Boundary wall around Naphtha tank & Installation of CCTV camera.

21. The petitioner has claimed a total expenditure of ₹191.00 lakh during 2010-11 towards the Construction of boundary wall around Naphtha storage facilities and a total expenditure of ₹90.00 lakh (₹40.00 lakh in 2009-10 and ₹50.00 lakh in 2010-11) towards the installation of CCTV facilities under this head. The petitioner has submitted that this expenditure incurred is based on the recommendations of IB and for security reasons. The respondent No.1, KSEB has submitted that the O&M expenses allowed to the generating station cover all works proposed under additional capitalization and has prayed that the expenditure claimed under this head may not be allowed. In response to this, the petitioner has clarified that the expenditure of capital nature in compliance with changed legal framework has been claimed in line with the provisions of the 2009 Tariff Regulations and the O&M expenses allowed for 2009-14 are based on actual of the previous period and do not include the servicing of such capital expenditure. The respondent No.2, TNEB has submitted that the petitioner has not furnished a copy of the recommendations of IB nor has cited the relevant regulations for claiming the same under this head. It has therefore prayed that the said expenditure may not be considered. In response, the petitioner has submitted the extract of the Industrial Security Inspection Team, Intelligence Bureau, Ministry of Home Affairs, Government of India, on the security arrangement of the generating station in respect of Construction of Boundary wall around Naphtha tank and Installation of CCTV cameras. It has also submitted that in compliance with the statutory obligations the above additional works are required and such works are covered under Regulation 9(2)(ii) of the 2009 Tariff Regulations. Keeping in view the recommendations of the Intelligence Bureau, Ministry of Home Affairs, Government of India as regards security of the generating station and considering the fact that the Commission had in its order dated 11.3.2011 in Petition No. 299/2009 (NEEPCO-v- ASEB & ors) pertaining to determination of tariff of Agartala Gas Turbine Power Project for 2009-14, allowed the similar claim of

NEEPCO during 2011-12, we allow the capitalization of the expenditure claimed by the petitioner under this head.

(b) Replacement of Freon based HVAC system with Vapor absorption system

22. The petitioner has claimed expenditure of ₹ 100.00 lakh during 2011-12 under this head towards the Replacement of Freon based HVAC system with Vapor absorption system. The petitioner has submitted that in order to reduce the production and consumption of Ozone Depleting Substances (ODS) is to be phased out as per schedule specified in the Montreal protocol ratified by India. It has also submitted that in view of this, the Ministry of Environment & Forests, Govt. of India has notified the Capital ODS (Regulation & Control Rules, 2000 and a copy of the said notification has been enclosed with affidavit dated 3.5.2010. The petitioner has further submitted that the Freon gas used for HVAC system is therefore required to be phased out and the expenditure claimed may be allowed to be capitalized. The respondents have objected to the capitalization of this asset. ***Considering the submissions of the petitioner and since the asset is required in terms of the GOI notification dated 17.7.2000, we allow the capitalization of this asset for ₹75.46 lakh after considering the de-capitalized value of ₹24.54 lakh of the existing vapor compression system, under this head.***

23. Based on the above discussions, the additional capitalization allowed for capitalization during the period 2009-14 is as given below:

(₹ in lakh)

Head of work/ Equipment	Regulation	Actual / Projected additional capital expenditure				
		2009-10	2010-11	2011-12	2012-13	2013-14
Replacement of Freon based HVAC system with vapor absorption system	9(2)(ii)	0.00	0.00	75.46	0.00	0.00
Construction of boundary wall around Naptha storage facilities as per IB recommendation		0.00	191.00	0.00	0.00	0.00
Installation of CCTV facilities as per IB recommendation works		40.00	50.00	0.00	0.00	0.00
Total		40.00	241.00	75.46	0.00	0.00

24. Taking into account discharge of liabilities made during the period 2009-11 the additional capital expenditure allowed is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Additional capital expenditure allowed	40.00	241.00	75.46	0.00	0.00
Liabilities discharged	25.27	19.61	0.00	0.00	0.00
Additional capital expenditure allowed	65.27	260.61	75.46	0.00	0.00

Capital Cost for 2009-14

25. 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	126575.23	126640.50	126901.12	126976.58	126976.58
Additional capital expenditure	65.27	260.61	75.46	0.00	0.00
Closing Capital cost	126640.50	126901.12	126976.58	126976.58	126976.58
Average Capital cost	126607.87	126770.81	126938.85	126976.58	126976.58

Debt-Equity Ratio

26. 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 modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

27. The gross loan and equity amounting to ₹89389.82 lakh and ₹37713.32 lakh, respectively, as approved as on 31.3.2009 vide order dated 12.10.2011 in Petition No.139/2008 has been considered as

gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹176.21 lakh included from capital cost as on 1.4.2009 has been adjusted to debt and equity in the ratio of 70:30. Similar adjustment has been made to debt and equity on account of de-capitalization of ₹351.69 lakh during the period 2004-09. As such the gross normative loan and equity as on 1.4.2009 is revised to ₹89020.28 lakh and ₹37554.95 lakh respectively. Further, the admitted additional expenditure has been allocated in debt-equity ratio of 70:30 and the same is subject to truing up in terms of Regulation 6 of the 2009 Tariff Regulations.

Return on Equity

28. 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."*

29. 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	37554.95	37574.53	37652.71	37675.35	37675.35
Addition of Equity due to additional capital expenditure	19.58	78.18	22.64	0.00	0.00
Normative Equity-Closing	37574.53	37652.71	37675.35	37675.35	37675.35
Average Normative Equity	37564.74	37613.62	37664.03	37675.35	37675.35
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)	8820.58	8832.05	8843.89	8846.55	8846.55

Interest on loan

30**.** 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 <u>actual loan portfolio</u> 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.

31. Interest on loan has been worked out as under:

(i) The gross normative loan amounting to ₹89020.28 lakh has been considered as on 1.4.2009.

(ii) Cumulative repayment of loan as on 31.3.2009 is ₹66971.70 lakh as per order dated 12.10.2011 in Petition No.139/2008 and the same has been considered as cumulative repayment as on 1.4.2009. However, after taking into account the proportionate adjustment (duly taking into account the liability and debt position as on 1.4.2004 along with additions during the period 2004-09) to the cumulative repayment due to un-discharged liabilities deducted from capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised to ₹66631.89 lakh.

(iii) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹22388.39 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) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further, proportionate adjustment has been made to the repayments on account of de-capitalization considered in the admitted additional capital expenditure as well as discharges/reversal of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009.

(vi) Weighted average rate of interest has been calculated applying the actual rate of interest as specified in the petition, corresponding to actual loan portfolio.

32. The necessary calculations for interest on loan are mentioned overleaf:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	89020.28	89065.97	89248.40	89301.23	89301.23
Cumulative repayment of loan up to previous year	66631.89	72949.00	79238.57	85504.61	87533.16
Net Loan Opening	22388.39	16116.97	10009.83	3796.61	1768.07
Addition due to Additional capitalisation	45.69	182.43	52.82	0.00	0.00
Repayment of loan during the year	6266.84	6274.90	6283.22	2028.54	1768.07
Less: Repayment adjustment on account of de-capitalization	0.00	0.00	17.18	0.00	0.00
Add: Repayment adjustment on account of discharges of liabilities	50.27	14.67	0.00	0.00	0.00
Net Repayment	6317.11	6289.57	6266.04	2028.54	1768.07
Net Loan Closing	16116.97	10009.83	3796.61	1768.07	0.00
Average Loan	19252.68	13063.40	6903.22	2782.34	884.04
Weighted Average Rate of Interest on Loan	5.7645%	5.5439%	5.5950%	5.8203%	6.7510%
Interest on loan	1109.83	724.22	386.23	161.94	59.68

Depreciation

33. 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."

34. The cumulative depreciation as on 31.3.2009 as per order dated 21.8.2012 in Petition No.141/2009 is ₹66860.25 lakh has been considered. Further, proportionate adjustment has been made to this cumulative depreciation on account of un-discharged liabilities deducted as on 1.4.2009. Further, as the actual year of de-capitalization of ₹351.69 lakh is not available, corresponding proportionate adjustment to depreciation has been made assuming the de-capitalization as on 1.4.2004. Accordingly, the revised cumulative depreciation as on 1.4.2009 works out to ₹66683.04 lakh. Further, the value of freehold land considered is ₹4261.71 lakh as on 31.3.2009. As such, considering the capital cost admitted for the year 2009-10 as shown above, the balance depreciable value before depreciation for the year 2009-10 works out to ₹43660.50 lakh. Since, as on 1.4.2009 the life of generating station is 9.73 years i.e. less than 12 years old from the effective date of commercial operation of the generating station i.e 8.7.1999, depreciation has been calculated considering weighted average rate of depreciation as 4.9498% upto 31.3.2012 and for the period 2012-14, depreciation has been spread over the balance useful life of the generating station. Further, proportionate adjustment has been made to the cumulative depreciation corresponding to discharges/reversals of liabilities considered during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. Further, necessary adjustment has been made to the cumulative depreciation on account of de-capitalization of assets considered for the purpose of tariff during the tariff period 2009-14, after taking into account year of put to use, actual gross block and rate of depreciation during the respective periods. The necessary calculations in support of depreciation are as shown below:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	126575.23	126640.50	126901.12	126976.58	126976.58
Closing capital cost	126640.50	126901.12	126976.58	126976.58	126976.58
Average capital cost	126607.87	126770.81	126938.85	126976.58	126976.58
Depreciable value @ 90%	110111.54	110258.19	110409.42	110443.38	110443.38
Remaining useful life at the beginning of the year	15.27	14.27	13.27	12.27	11.27
Balance depreciable value	43428.50	37258.54	31120.35	24885.25	22856.80
Depreciation (annualized)	6266.84	6274.90	6283.22	2028.45	2028.45

Cumulative depreciation at the end	72949.88	79274.55	85572.29	87586.58	89615.03
Less: Cumulative depreciation reduction due to de-capitalization	0.00	0.00	14.16	0.00	0.00
Add: Cumulative depreciation adjustment on account of discharges	(-)49.77	(-)14.52	0.00	0.00	0.00
Cumulative depreciation after adjustment due to de-capitalization (at the end of the period)	72999.65	79289.07	85558.13	87586.58	89615.03

Operation & Maintenance expenses

35. 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 expenses for Gas Turbine/ Combined cycle generating stations	14.80	15.65	16.54	17.49	18.49

36. 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	5322	5627	5947	6289	6649

37. The O&M expenses claimed by the petitioner are found to be in order and have been allowed.

Normative Plant Availability Factor (NAPAF)

38. The Normative Plant Availability Factor of the generating station is considered as 85% for the period 1.4.2009 to 31.3.2014.

Interest on Working Capital

39. 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.

40. 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."

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

Fuel cost and Energy charges

42. The petitioner has claimed the cost for fuel component in working capital in the petition based on price and GCV of Naphtha for preceding three months from January, 2009 to March, 2009. The same has been used to arrive at the Fuel component (for one month) and Energy Charges (for two months) for the purpose of working capital. Accordingly, the fuel components (one month) 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 for one month	9408	9408	9434	9408	9408
Liquid fuel stock (Naphtha) for 1/2 month	4704	4704	4717	4704	4704
Energy charges for 2 months	18816.33	18816.33	18867.88	18816.33	18816.33

43. The cost of fuel and energy charge computed as above has been considered for the purpose of tariff.

Maintenance Spares

44. 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	1597	1688	1784	1887	1995

45. The 2009 Tariff Regulations provide for maintenance spares @ 30% of the operation & maintenance expenses specified under Regulation 19. Accordingly, the maintenance spares claimed by the petitioner is allowed for the purpose of tariff.

O&M Expenses

46. O&M expenses for 1 month for the purpose of working capital are allowed as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O& M for 1 month	443	469	496	524	554

Receivables

47. 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	18816.34	18816.34	18867.89	18816.34	18816.34
Fixed Charges- 2 months	4397.18	4389.18	4394.07	3690.90	3737.76
Total	23213.51	23205.51	23261.96	22507.24	22554.10

48. 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) - 1 month	9408.17	9408.17	9433.94	9408.17	9408.17
Liquid Fuel (Naphtha) Cost - 1/2 month	4704.08	4704.08	4716.97	4704.08	4704.08
Maintenance Spares	1596.54	1688.23	1784.24	1886.72	1994.59
O&M expenses – 1 month	443.48	468.95	495.62	524.09	554.05
Receivables – 2 months	23206.41	23198.58	23254.94	22500.74	22547.39
Total working capital	39358.68	39468.01	39685.71	39023.79	39208.29
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	4821.44	4834.83	4861.50	4780.41	4803.02

Annual Fixed charges for 2009-14

49. 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	6266.84	6274.90	6283.22	2028.45	2028.45
Interest on Loan	1109.83	724.22	386.23	161.94	59.68
Return on Equity	8820.58	8832.05	8843.89	8846.55	8846.55
Interest on Working Capital	4821.44	4834.83	4861.50	4780.41	4803.02
O&M Expenses	5321.78	5627.43	5947.45	6289.05	6648.63
Total	26340.46	26293.44	26322.30	22106.41	22386.33

Note: (a) All figures are on annualized basis.(b) All the figures under each head have been rounded.
(b)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.

Energy Charge Rate (ECR)

50. The petitioner has claimed an Energy Charge rate (ECR) (ex-bus) of 434.71 paisa/kWh for Naphtha based on the weighted average price, GCV of fuel procured and burnt for the preceding three months from January, 2009 to March, 2009 and as per operational norms specified under the 2009 Tariff Regulations. The Energy Charge Rate based on the operational norms specified by the Commission works out as under, and the same is allowed in the working capital.

	Unit	20009-10 to 2013-14
Capacity	MW	359.580
Normative PLF /Availability	Hours/kW/year	7446.00
Normative Heat Rate	Kcal/kWh	2000
Aux. Energy Consumption	%	3.00
GCV of Naphtha	Kcal/kg	11334.33
Price of Naphtha	₹/MT	23896.47
Rate of energy charge from Naphtha	paise/kWh	421.67
Rate of energy charge (ex-bus) sent on Naphtha	paise/kWh	434.71

51. Energy Charge rate (ECR) in ₹/kWh on ex-power plant on month to month basis shall be calculated up to three decimal places in accordance with the formulae under Regulation 21(6)(b) of the 2009 Tariff Regulations is as under:

For gas and liquid fuel based stations

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.

CVSF = Calorific value of secondary fuel, in kCal per ml.

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

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

LC = Normative limestone consumption in kg per kWh.

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg,

52. The respondent No.1, KSEB has submitted that the installed capacity of the generating station is 359.59 MW. However, the highest capacity declared by the petitioner is less than 95% till date and the beneficiaries have been paying the fixed cost for the installed capacity.

53. We are of the opinion that in terms of the 2009 Tariff Regulations, full fixed charge is payable by a beneficiary based on the Normative Plant Availability Factor (NAPAF) of 85% of the generating capacity at the generator terminals which depends on the availability of the machine as well as availability of primary fuel and if the NAPAF falls below 85%, there would be pro-rata reduction in the fixed cost. Since tariff of the generating station is determined based on the provisions of the 2009 Tariff Regulations, the issue raised by the respondent do not pertain to determination of tariff and hence the same has not been considered in this petition.

Application fee and the publication expenses

54. The petitioner has sought approval for the reimbursement of fee of ₹719160/- each for the years 2009-10, 2010-11 and 2011-12 paid by it for filing the petition and for the expenses incurred for publication of notices in connection with the petition. The petitioner by its affidavit dated 26.4.2010 has submitted an amount of ₹251913/- has been incurred by it for publication of notice in the newspapers.

55. 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 incurred by the petitioner on application filing fees for the years 2009-10, 2010-11 and 2011-12 and expenses 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.

56. The claim of the petitioner towards recovery of RLDC fees & charges is disposed of in terms of the Commission's order dated 6.2.2012 in Petition No. 140/MP/2011.

57. 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.

58. 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.

59. This order disposes of Petition No. 281/2009.

Sd/-	*Sd/-*
[S. Jayaraman]	[Dr. Pramod Deo]
Member	Chairperson

ANNEXURE-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹in lakh)

Sl. no.	Name of loan		2009-10	2010-11	2011-12	2012-13	2013-14
1	IBRD - Main	Net opening loan	16,734.56	13,786.52	10,615.37	7,204.03	3,534.50
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	2,948.04	3,171.15	3,411.34	3,669.53	3,534.50
		Net Closing Loan	13,786.52	10,615.37	7,204.03	3,534.50	-
		Average Loan	15,260.54	12,200.94	8,909.70	5,369.26	1,767.25
		Rate of Interest	4.2900%	4.2900%	4.2900%	4.2900%	4.2900%
		Interest	654.68	523.42	382.23	230.34	75.82
2	Euro Bond-5.50%	Net opening loan	65.58	65.58	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	65.58	-	-	-
		Net Closing Loan	65.58	-	-	-	-
		Average Loan	65.58	32.79	-	-	-
		Rate of Interest	6.9700%	6.9700%	6.9700%	6.9700%	6.9700%
		Interest	4.57	2.29	-	-	-
3	SBI (T1,D2&D4)	Net opening loan	1,571.43	-	-	-	
		Add: Addition during the period	-	-	--		-
		Less: Repayment during the period	1,571.43	-	-	-	-
		Net Closing Loan	-	-	-	-	-
		Average Loan	785.71	-	-	-	-
		Rate of Interest	11.6500%	11.6500%	11.6500%	11.6500%	11.6500%
		Interest	91.54	-	-	-	-
4	SBI-II (T1,D3)	Net opening loan	471.43	314.29	157.14	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	157.14	157.14	157.14	-	-
		Net Closing Loan	314.29	157.14	-	-	-
		Average Loan	392.86	235.71	78.57	-	-
		Rate of Interest	11.6500%	11.6500%	11.6500%	11.6500%	11.6500%
		Interest	45.77	27.46	9.15	-	-
5	Indian Bank(T1,D2)	Net opening loan	142.86	71.43	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	71.43	71.43	-	-	-
		Net Closing Loan	71.43	-	-	-	-
		Average Loan	107.14	35.71	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%

		Interest	7.83	2.61	-	-	-
6	LIC-III(T1,D1)	Net opening loan	483.33	450.00	416.67	383.33	350.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	33.33	33.33	33.33	33.33	33.33
		Net Closing Loan	450.00	416.67	383.33	350.00	316.67
		Average Loan	466.67	433.33	400.00	366.67	333.33
		Rate of Interest	6.5710%	6.5710%	6.5710%	6.5710%	6.5710%
		Interest	30.66	28.47	26.28	24.09	21.90
7	SBI-IV(T1,D4)	Net opening loan	3,800.00	3,257.14	2,714.29	2,171.43	1,628.57
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	542.86	542.86	542.86	542.86	542.86
		Net Closing Loan	3,257.14	2,714.29	2,171.43	1,628.57	1,085.71
		Average Loan	3,528.57	2,985.71	2,442.86	1,900.00	1,357.14
		Rate of Interest	10.0000%	10.0000%	10.0000%	10.0000%	10.0000%
		Interest	352.86	298.57	244.29	190.00	135.71
8	Gross Total	Net opening loan	23,269.19	17,944.96	13,903.47	9,758.79	5,513.07
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	5,324.23	4,041.49	4,144.67	4,245.72	4,110.69
		Net Closing Loan	17,944.96	13,903.47	9,758.79	5,513.07	1,402.38
		Average Loan	20,607.07	15,924.21	11,831.13	7,635.93	3,457.73
		Rate of Interest	5.7645%	5.5439%	5.5950%	5.8203%	6.7510%
		Interest	1,187.91	882.82	661.95	444.44	233.43