

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 189/GT/2013

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri M.Deena Dayalan, Member

Shri A.K. Singhal, Member

Date of Hearing: 19.11.2013

Date of Order: 26.2.2014

In the matter of

Revision of tariff of Ramagundam Super Thermal Power Station, Stage-I & II (2100 MW) for the period from 1.4.2009 to 31.3.2014- Truing up of tariff determined by order dated 31.8.2012 in Petition No. 278/2009.

And

In the matter of

NTPC Ltd
NTPC Bhawan,
Core-7, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003

...Petitioner

Vs

1. Transmission Corporation of Andhra Pradesh Ltd,
Vidyut Soudha
Khairatabad, Hyderabad-500082
2. Andhra Pradesh Eastern Power Distribution Company Ltd.
Sai Shakthi Bhavan
30-14-09, Near Saraswati Park
Visakhapatnam -530020 (AP)
3. Andhra Pradesh Southern Power Distribution Company Ltd.
H.No. 193-93(M) Upstairs
Renigunta Road
Tirupathi-517501(AP)
4. Andhra Pradesh Northern Power Distribution Company Ltd,
H.No. 1-1-504, Opp: NIT Petrol Pump
Chaitanyapuri,
Warangal-506 004(AP)
5. Andhra Pradesh Central Power Distribution Company Ltd,
Singareni Bhavan
Red Hills, Hyderabad (AP)



6. Tamil Nadu Generation & Distribution Corporation Ltd
144, Anna Salai
Chennai-600002

7. Power Company of Karnataka Ltd.(PCKL)
Kaveri Bhawan, K.G. Road
Bangalore-560009

8. Bangalore Electricity Supply Company Ltd.
Krishna Rajendra Circle
Bangalore-560009

9. Mangalore Electricity Supply Company Ltd.
Paradigm plaza, A.B. Shetty Circle
Mangalore-575001

10. Chamundeshwari Electricity Supply Corp. Ltd.
Corporate office, 927, L.J. Avenue,
New Kantharajours Road, Saraswati Puram
Mysore-570009

11. Gulbarga Electricity Supply Company Ltd.
Main road, Gulbarga, Karnataka,
Gulbarga-585102

12. Hubli Electricity Supply Company Ltd,
Corporate Office, P.B.Road,
Navanagar,
Hubli – 580025

13. Kerala State Electricity Board,
Vaidyuthi Bhavanam, Pattom
Thiruvananthapuram- 695004

14. Electricity Department,
Govt. of Puducherry,
137, NSC Bose Salai,
Puducherry-605001

15. Electricity Department,
Govt. of Goa,
Vidyut Bhavan, Panaji,
Goa-403001

....Respondents

Parties Present:

For Petitioner: Shri Ajay Dua, NTPC
Shri S.K.Mondal, NTPC
Shri Y.R. Dhingra, NTPC
Shri Vinay Garg, NTPC

For Respondent: None



ORDER

This petition has been filed by the petitioner, NTPC, for revision of tariff of Ramagundam Super Thermal Power Station, Stage-I & II (2100 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014 in terms of the proviso to Regulation 6 (1) of 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 2100 MW comprises of six units, three units of 200 MW each and three units of 500 MW each. The dates of commercial operation of different units of the instant station are as under:

Units	Dates of commercial operation
Unit-I	1.3.1984
Unit-II	1.11.1984
Unit-III	1.5.1985
Unit-IV	1.11.1988
Unit-V	1.9.1989
Unit-VI / Generating Station	1.4.1991

3. Petition No. 278/2009 was filed by the petitioner for determination of tariff of the generating station for the period from 1.4.2009 to 31.3.2014 and the Commission by its order dated 31.8.2012 determined the annual fixed charges for the generating station. The capital cost considered by the Commission for the purpose of determination of annual fixed charges for 2009-14 by order dated 31.8.2012 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	229359.10	229558.93	231561.50	236429.28	237004.28
Additional capital expenditure	199.84	2002.57	4867.78	575.00	328.57
Closing Capital cost	229558.93	231561.50	236429.28	237004.28	237332.85
Average Capital cost	229459.02	230560.22	233995.39	236716.78	237168.57

4. Based on the above, the annual fixed charges for the generating station for 2009-14 determined by order dated 31.8.2012 in Petition No. 278/2009 is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	46.27	294.21	1378.20	2702.12	2703.41
Interest on Loan	131.56	173.97	289.91	292.07	120.34
Return on Equity	26827.42	26905.00	27146.98	27338.68	27370.51
Interest on Working Capital	10347.41	10476.30	10658.42	10781.61	10898.75
O&M Expenses	30420.00	32154.00	33999.00	35946.00	38004.00
Cost of Secondary fuel oil	3199.93	3199.93	3208.70	3199.93	3199.93
Compensation Allowance	935.00	955.00	975.00	975.00	975.00
Special Allowance	1000.00	2114.40	3353.01	3544.80	3747.57
Total	72907.58	76272.80	81009.21	84780.22	87019.51

5. The petitioner presently seeks revision of the annual fixed charges based on the actual additional capital expenditure incurred for the years 2009-10, 2010-11 and 2011-12 and the projected additional capital expenditure for the years 2012-13 and 2013-14 based on the latest estimates and the status of work, in accordance with clause (1) of Regulation 6 of the 2009 Tariff Regulations.

6. Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

7. The annual fixed charges claimed by the petitioner in this petition are as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	46	61	128	2155	5477
Interest on Loan	128	126	131	265	216
Return on Equity	26827	26525	26236	26523	26802
Interest on Working Capital	10347	10463	10610	10753	10947
O&M Expenses	30420	32154	33999	35946	38004
Cost of secondary fuel oil	3200	3200	3209	3200	3200
Compensation Allowance	935	955	975	975	975
Special Allowance	1000	2114	3353	3545	3748
Total	72904	75598	78642	83361	89367

8. None of the respondents have filed reply in the matter. We now consider the prayer for revision of annual fixed charges tariff for the generating station taking into consideration the documents on record as stated in the subsequent paragraphs:

Capital cost

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

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

10. Accordingly, the capital cost as on 1.4.2009, after removal of un-discharged liabilities amounting to ₹123.12 lakh, works out to ₹229359.10 lakh, on cash basis. The discharge of liabilities, made during the years would be included in the capital base as additional capital expenditure, in the year of discharge.

11. The petitioner vide Annexure-6 of the petition has furnished the details of discharges of liabilities during the period 2009-12. Out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged an amount of ₹41.05 lakh in 2009-10, ₹2.56 lakh in 2010-11 and ₹0.70 lakh in 2011-12. Further, the petitioner has also discharged ₹4.51 lakh and ₹5.54 lakh during the years 2010-11 and 2011-12 respectively out of un-discharged liability corresponding to additional capital expenditure approved for the year 2009-10. The discharges of liability corresponding to the allowed assets/works has been allowed during the respective years in addition to the admissible additional capital expenditure

Actual/ Projected Additional Capital Expenditure during 2009-14

12. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011 and 31.12.2012, provides as under:

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

- (i) Un-discharged liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;*

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

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

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

(ii) Change in law;

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

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

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

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

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

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

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

(viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.

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

13. The additional capital expenditure claimed by the petitioner for 2009-14 in Petition No 278/2009 and those allowed by order dated 31.8.2012 is summarized as under:

(₹ in lakh)					
	2009-10 Actual	2010-11 Projected	2011-12 Projected	2012-13 Projected	2013-14 Projected
Additional Capital Expenditure claimed	291.43	2029.00	5143.02	1055.0	540.00
Additional Capital Expenditure allowed	158.78	2000.00	4867.78	575.00	328.57

14. The break-up of the additional capital expenditure allowed by the Commission in its order dated 31.8.2012 in 278/2009 is summarized as under:

(₹ in lakh)					
Package Name	Actual	Projected Capital Expenditure			
	2009-10	2010-11	2011-12	2012-13	2013-14
Ash Pond					
Ash Pond	0.00	0.00	395.00	0.00	178.57
Raising of N1 Ash Pond	0.00	0.00	0.00	0.00	150.00
Re-routing of roads as required for Ash Pond Management	0.00	0.00	0.00	50.00	0.00
Total Ash Pond	0.00	0.00	395.00	50.00	328.57
Dry Ash Extraction System (DAES)					
DAES-M/S RITES	0.00	0.00	507.00	0.00	0.00
DAES-M/S Driplex	0.00	2000.00	3700.0	0.00	0.00
Decant line diversification	0.00	0.00	37.78	0.00	0.00
Civil Works for evacuation of Dry Ash through Ash Tanker	0.00	0.00	0.00	525.00	0.00
Total Dry Ash Extraction System (DAES)	0.00	2000.00	4244.80	525.00	0.00
Environmental					
AAQMS	88.99	0.00	0.00	0.00	0.00
Railway Wagons	0.00	0.00	228.00	0.00	0.00
Township Metering	69.79	0.00	0.00	0.00	0.00
Grand Total	158.78	2000.00	4867.8	575.00	328.57

15. The petitioner, vide Form-9 of its affidavit dated 26.12.2012 has submitted the break-up of additional capital expenditure for 2009-14 in this petition, as under:

(₹ in lakh)						
Package Name	Actual			Projected Capital Expenditure		Total
	2009-10	2010-11	2011-12	2012-13	2013-14	
Ash Pond						
Ash Pond	0.00	0.00	420.24	684.70	0.00	1104.94
Raising of N1 Ash Pond	0.00	0.00	0.00	0.00	200.00	200.00
Re-routing of roads as required for Ash Pond Management	0.00	0.00	0.00	0.00	0.00	0.00
Total Ash Pond	0.00	0.00	420.24	684.7	200.00	1304.94

Dry Ash Extraction System (DAES)						
DAES-M/S RITES	0.00	0.00	0.00	507.00	0.00	507.00
DAES-M/S Driplex	0.00	0.00	0.00	5700.00	0.00	5700.00
Decant line diversification	0.00	0.00	0.00	39.90	0.00	39.90
Civil Works for evacuation of Dry Ash through Ash Tanker	0.00	0.00	0.00	0.00	0.00	0.00
Total Dry Ash Extraction System (DAES)	0.00	0.00	0.00	6246.90	0.00	6246.90
Environmental						
AAQMS	88.99	0.00	0.00	0.00	0.00	88.89
Railway Wagons	0.00	0.00	0.00	228.00	0.00	228.0
Township Metering	69.79	0.00	0.00	0.00	0.00	69.79
Total (A+B+C+D+E)	158.78	0.00	420.24	7159.60	200.00	7938.52
New Claims						
Weigh Bridge for Stores & MGR	0.00	0.00	0.00	39.00	0.00	39.00
Bus Reactor package	0.00	0.00	0.00	702.00	0.00	702.00
Land Compensation	0.00	2.72	3.15	0.00	0.00	5.87
Sub-Total	0.00	2.72	3.15	741.00	0.00	746.87
Total Additional Capital Expenditure	158.78	2.72	423.40	7900.60	200.00	8685.50

16. It is observed from the above that the actual/ projected additional capital expenditure for the period 1.4.2009 to 31.3.2014 claimed by the petitioner is ₹7938.52 lakh as against the admitted additional capital expenditure of ₹7930.03 lakh allowed vide order dated 31.8.2012 in Petition No.278/2009. The petitioner has further claimed expenditure of ₹746.87 lakh towards new claims thereby leading to a total claim of ₹8685.50 lakh.

17. We now examine the claim of the petitioner for actual capital expenditure during 2009-12 as under:

Ash Pond

18. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed the projected expenditure of ₹395.00 lakh in 2011-12 and ₹178.57 lakh in 2013-14 for Ash Pond work. The petitioner in this petition has claimed actual expenditure of ₹420.24 lakh in 2011-12 and projected expenditure of ₹684.70 lakh in 2012-13. The petitioner has submitted that Ash Pond management is of a dynamic nature with respect to geographic usage and involves modification such as raising pond height, re-routing of roads, relocating piping, re-aligning spraying requirements etc. It has also submitted that a rolling plan for certain activities like ash dyke raising, pipe re-routing etc. are needed and are revised periodically. The generating station

comprise of two stages viz Stage-I & Stage-II and the Ash Pond and Ash handling system is a common facility for both stages. Since Stage-I (600 MW) had completed useful life of 25 years during May, 2010, Special allowance (for R&M) was allowed which also included the work of Ash handling system. Based on this, the Commission vide its order dated 31.8.2012 had allowed expenditure of ₹395.00 lakh in 2011-12 and ₹178.57 lakh in 2013-14 after apportionment of expenditure between Stage-I and Stage-II in the ratio of their capacity. The petitioner has now claimed actual expenditure of ₹420.24 lakh in 2011-12 and the projected expenditure of ₹684.70 lakh in 2012-13. The petitioner has not submitted proper justification with details for the enhancement of the estimated expenditure from ₹178.57 lakh to ₹684.70 lakh. Further, it is also not clear as to whether the projected expenditure claimed for ₹684.70 lakh pertain only to Stage-II or for Stage-I & II combined. In view of this, the actual expenditure of ₹420.24 lakh in 2011-12 and the projected expenditure of ₹178.57 lakh in 2012-13 has only been allowed instead of ₹684.70 lakh under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Re-routing of roads for Ash Pond Management

19. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed the projected expenditure of ₹50.00 lakh in 2012-13 for Re-routing of roads as required for Ash Pond Management. However, the petitioner in this petition has not claimed this expenditure. Hence, not considered.

Raising of N1 Ash Pond

20. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed the projected expenditure of ₹150.00 lakh in 2013-14 for raising of N1 Ash Pond work. The petitioner in this petition has claimed projected expenditure of ₹200.00 lakh in 2013-14. In justification of its claim, the petitioner has submitted that at the time of filing the original petition, the projected expenditure of ₹150.00 lakh was considered towards earth cover only. It has also submitted that after latest review and study, considering that the same Ash dyke could be further used for ash disposal, earth cover work was not taken up and instead raising of dyke for capacity

enhancement by raising of height has been planned at an estimated expenditure of ₹200.00 lakh. The petitioner has contended that only after filling of N1 Ash Pond, earth cover would be required. Accordingly, the petitioner has submitted that the projected capital expenditure is at variance with the projection made in the original petition. Considering the justification of the petitioner, we allow the projected additional capital expenditure of ₹200.00 lakh in 2013-14 claimed towards raising of N1 Ash Pond work under Regulation 9(2)(iii) of the 2009 Tariff Regulations. However, we direct the Petitioner to furnish the details of the expenditure incurred on this count at the time of truing-up in terms of Regulation 6 of the 2009 Tariff Regulations.

Dry Ash Extraction System- M/S RITES

21. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed the projected expenditure of ₹507.00 lakh in 2011-12 for Dry Ash Extraction System (DAES) work. The petitioner in this petition has claimed projected expenditure of ₹507.00 lakh in 2012-13 for the same work. Since the projected expenditure as claimed has already been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹507.00 lakh claimed has been allowed under Regulation 9(2)(ii) by shifting from 2011-12 to 2012-13.

Dry Ash Extraction System- M/S Driplex

22. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed projected expenditure of ₹2000.00 lakh in 2010-11 and ₹3700 lakh in 2011-12 for Dry Ash Extraction System (DAES) work. The petitioner in this petition has claimed projected expenditure of ₹ 5700.00 lakh in 2012-13 for the same work. The petitioner has submitted that the units of the generating station have been running continuously and the work needs to be carried out while units are in service requiring part isolations with careful execution. It has also submitted that part isolations of the system with unit in service take extra time for execution of the work. Accordingly, the petitioner has shifted the projection for capitalization of the work. Since the projected expenditure claimed has already been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹5700.00 lakh has been allowed under Regulation 9(2)(ii).

Decant line diversification

23. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed projected expenditure of ₹37.78 lakh in 2011-12 for Decant line diversification work. The petitioner in this petition has claimed projected expenditure of ₹39.90 lakh in 2012-13 for the same work. Since the projected expenditure claimed has already been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹39.90 lakh has been allowed under Regulation 9(2)(ii).

Ambient Air Quality management System (AAQMS)

24. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed actual expenditure of ₹88.99 lakh in 2009-10 for AAQMS. The petitioner in this petition has claimed the actual expenditure of ₹88.99 lakh in 2009-10 for the same work. The petitioner has submitted that the said work is mandatory to monitor ambient air quality in and around the generating station and is in line with the requirement of the Andhra Pradesh Pollution Control Board (APPCB). Since the actual expenditure claimed in this petition has been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹88.99 lakh claimed has been allowed under Regulation 9(2)(ii).

Railway Wagons

25. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed the projected expenditure of ₹228.00 lakh in 2011-12 for procurement of Railway Wagons in. The petitioner in this petition has claimed projected expenditure of ₹228.00 lakh in 2013-14 for the same work. As the expenditure claimed in this petition has been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹228.00 lakh in 2011-12 is allowed under Regulation 5, 6 & 7 of the 2009 Tariff Regulations for the reasons stated therein. The same has been shifted from 2011-12 to 2013-14.

Township Metering

26. The Commission in its order dated 31.8.2012 in Petition No. 278/2012 had allowed actual expenditure of ₹69.79 lakh in 2009-10 for Township Metering. The petitioner in this petition has claimed actual expenditure of ₹69.79 lakh in 2009-10 for the same work. As the expenditure claimed in this petition has been approved by the Commission in order dated 31.8.2012, the additional capital expenditure of ₹69.79 lakh is allowed under Regulation_9(2)(ii).

New Claims

Weigh Bridge for Stores & MGR

27. The petitioner has claimed projected expenditure of ₹39.00 lakh in 2013-14 for installation of Weigh Bridge for Stores & MGR for coal weighment of coal. The petitioner has stated that there was no technical feasibility for weighment of coal earlier in the vicinity of track. It has also submitted that after study, the place was identified for weighment of coal. The submission of the petitioner has been examined. The Commission in its order dated 31.8.2012 had allowed the generating station an amount of ₹4815.00 lakh for 2013-14 as Compensation Allowance under Regulation 19 (e) of the 2009 Tariff Regulations. Accordingly, we are of the considered view that such expenses should be met from the Compensation allowance allowed in tariff. Hence, the capitalization of ₹39.00 lakh claimed by the petitioner has not been allowed.

Bus Reactor package

28. The petitioner has claimed projected expenditure of ₹702.00 lakh in 2013-14 under "Change in law" to have Reactors at various locations. The petitioner has submitted that the generating station has six units and the feasibility of bay allocation for bus reactor was received based on space availability and techno-economic point of view and place for reactor bay was accordingly identified. The petitioner while pointing out that that bus reactor and bay extension work for reactor was executed in separate packages, has submitted that the bus reactor package awarded to M/s BHEL, was delivered only in December'2012. It has further submitted that the cost of bay extension work being small, the response was very poor even after bid extension and

accordingly, the capitalization of bus reactor was not projected at the time of filing the original petition. The petitioner has submitted that subsequent to the 23rd Meeting of Standing Committee held on 22.1.2007, the installation of reactors for voltage improvement was further deliberated in the 5th meeting of Southern Region Power Committee (SRPC) held at Thiruvananthapuram on 25.8.2007 where the installation of reactors was accepted by the Committee. The submissions of the petitioner have been considered. We find no justification in the claim of the petitioner for the expenditure under Change-in-law considering the fact that the Bus Reactor package is an operational requirement as form part of the integrated grid system. The petitioner has been allowed Compensation allowance of ₹4815.00 lakh under Regulation 19 (e) to meet expenditure on new capital nature assets including minor assets, as stated above and also Special allowance for ₹13759.78 lakh under Regulation 10(4) for Renovation & Modernization activities. We are of the view that any expenditure required for modification or improvement in the operation of generating station should be met from the Special allowance and /or the Compensation allowance allowed to the generating station as above. In view of this, capitalization of ₹702.00 lakh for 'Bus Reactors' has not been allowed.

Land Compensation

29. The petitioner has claimed actual expenditure of ₹ 2.72 lakh in 2010-11 and ₹3.15 lakh in 2011-12 for land compensation. The capitalization of expenditure towards land compensation is as per decree of Court dated 22.3.2010 and the order dated 20.3.2012 of the Revenue department, Government of Andhra Pradesh. In the light of the above, the total expenditure of ₹5.87 lakh for the said years has been allowed

30. The reconciliation of the actual capital expenditure with that of the books of accounts for the years 2009-10, 2010-11 and 2011-12 as submitted by the petitioner is as under:

		(₹ in lakh)		
		2009-10	2010-11	2011-12
1	Opening Gross Block of the year	230998.24	232378.88	231370.71
2	Closing Gross Block of the year	232378.88	231370.71	233119.59
3	Additional capitalization as per the books (2 -1)	1380.64	(-) 1008.17	1748.88

4	Exclusions for additional capitalization as per books of accounts.	1031.59	(-) 1010.88	1324.681
5	Additional capitalization not claimed for tariff disallowed earlier	139.73	0.00	0.0
6	Additional capitalization allowed including liability (3-4-5)	209.32	2.72	424.19
7	Un-discharged liability in Sl. no. 6	50.54	0.00	0.80
8	Additional Capital Expenditure claimed excluding liability (6-7)	158.78	2.72	423.39
9	Discharge out of Un-discharged liability added after 1.4.2009	0.0	4.51	5.54
	Total additional capitalization	158.78	7.23	428.93
10	Un-discharged liability discharged as on 31.3.2009	41.05	2.56	0.70
11	Total Additional Capital Expenditure claimed (8+9+10)	199.83	9.79	429.63

Exclusions

31. The summary of exclusions claimed as per books of accounts is as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	Total
Capitalization of spares	2430.64	512.52	1467.58	4410.74
De- capitalization of spares	(-) 1332.80	(-) 1512.49	(-) 167.75	(-) 3013.04
Capitalization of MBOA items	0.60	0.00	0.00	0.60
De- capitalization of MBOA items	(-) 32.46	(-) 15.71	(-)101.95	(-) 150.12
FERV	(-) 32.99	4.80	20.93	(-) 7.26
Inter-unit transfers	(-) 1.40	0.00	0.00	(-) 1.40
Items disallowed	0.00	0.00	105.94	105.94
Reversal of liability	0.00	0.0	(-) 0.069	(-) 0.069
Total Exclusions	1031.59	(-) 1010.90	1324.68	1345.39

32. We consider the exclusions for the years 2009-10, 2010-11 and 2011-12 as under:

Capitalization of spares

33. The petitioner has procured spares amounting to ₹2430.64 lakh during 2009-10, ₹512.52 lakh during 2010-11 and ₹1467.58 lakh during 2011-12 for maintaining stock of necessary spares. As capitalization of spares over & above the initial spares procured after cut-off date are not allowed for the purpose of tariff as they form part of O&M expenses as and when consumed, the petitioner has excluded the said amount. Accordingly, the exclusion of the said amount under this head is in order and is allowed.

De-capitalization of spares

34. The petitioner has de-capitalized capital spares amounting to (-)₹1332.80 lakh during 2009-10, (-)₹1512.49 lakh during 2010-11 and (-)₹167.75 lakh during 2011-12 in books of accounts on these spares becoming unserviceable. The petitioner has sought exclusion of these de-capitalization spares for purpose of tariff on the ground that the capitalization of such assets after cut-off date is not permissible and as such reduced from the capital cost as these assets need to be serviced over the life of the generating station. The arguments of the petitioner are not acceptable. These spares which form part of the capital cost allowed in tariff and on these spares becoming unserviceable are taken out from the capital cost. Hence, exclusion sought for de-capitalization of spares for (-)₹1332.80 lakh in 2009-10, (-)₹1512.49 lakh during 2010-11 and (-)₹167.75 lakh during 2011-12 has not been allowed

Capitalization of Miscellaneous Bought Out Assets (MBOA)

35. The petitioner has capitalized MBOA items in books of accounts amounting to ₹0.60 lakh during 2009-10. Since capitalization of minor assets after cut-off date is not allowed, the exclusion of ₹0.60 lakh during 2009-10, is in order and is allowed.

De-Capitalization of Miscellaneous Bought Out Assets (MBOA)

36. The petitioner has de-capitalized Miscellaneous Bought Out Assets amounting to (-)₹ 32.46 lakh during the year 2009-10, (-)₹15.71 lakh during the year 2010-11 and (-)₹101.95 lakh during the year 2011-12 which are in the nature of minor items in the books of accounts on these assets becoming unserviceable. After examining the exclusions sought on de-capitalization of MOBA, it is noticed that an amount of (-)₹20.27 lakh in 2009-10, (-)₹10.19 lakh in 2010-11 and (-)₹101.95 lakh in 2011-12 pertains to MBOA which were part of the capital cost of the generating station for the purpose of tariff. Hence, exclusion on account of de-capitalization of these spares is not justifiable and has not been allowed for the purpose of tariff. It is pertinent to mention that the claim of the petitioner for exclusion of de-capitalization of MBOA of ₹55.27 lakh (as per Annexure-D of the affidavit of petitioner dated 18.7.2013) for 2011-12 has been considered as de-capitalization during

2011-12 in this order. However, as the year of capitalization of this amount has been indicated by the petitioner as 1997-2009, the correspondening adjustment in repayment of loan and cumulative depreciation could not be made. In this regard, the petitioner is directed to furnish the year-wise details, for consideration of the same at the time of truing-up in terms of Regulation 6 of the 2009 Tariff Regulations.

37. Other de-capitalized MBOA amounting to (-)₹12.19 lakh in 2009-10 and (-)₹5.52 lakh in 2010-11 do not form part of capital cost and had been earlier disallowed by the Commission vide its orders dated 9.10.2002, 3.5.2005, 30.7.2008 and 11.1.2010 in Petition Nos. 29/2002, 173/2005, 29/2007 and 103/2009 in respect of this generating station for capitalization. In view of this, exclusion of de-capitalization of these assets is in order and has been allowed.

FERV

38. The petitioner has excluded an amount of (-) ₹32.99 lakh during 2009-10, ₹4.80 lakh during 2010-11 and ₹20.93 lakh 2011-12 on account of impact of FERV. As the petitioner bills FERV directly on the beneficiaries, the exclusion of FERV is in order and has been allowed.

Items disallowed

39. The petitioner has excluded an amount of ₹105.94 lakh during 2011-12 on account of On-line Power Consumption monitoring system which had been disallowed by the Commission in its order dated 31.8.2012 in Petition No. 278/2009. As such, exclusion of the said amount is in order and has been allowed.

Inter-unit transfer

40. An amount of (-) ₹1.40 lakh during 2009-10 has been excluded under this head on account of transfer of certain assets like office furniture & computers. These are temporary inter-unit transfers. The Commission while dealing with petitions for additional capitalization in respect of other generating stations of the petitioner, had decided that both positive and negative entries arising out of inter unit-transfers of temporary nature shall be ignored for the purpose of tariff. In

consideration of the same, the exclusion of the amount of (-) ₹1.40 lakh during 2009-10 on account of inter-unit transfer of equipment on temporary basis is in order and has been allowed.

Reversal of Liabilities

41. The petitioner has excluded an amount of (-) ₹0.069 lakh in the year 2011-12 on account of reversal of liability against the work awarded to Chemtrols Engineers for Ambient Air Quality Monitoring System. As this liability has been created during the year 2009-10, the same was not considered for tariff in 2009-10. Hence, exclusion is allowed.

42. Based on the above, the summary of exclusions allowed and not admissible for the purpose of tariff is as under:

	(₹ in lakh)			
	2009-10	2010-11	2011-12	Total
Exclusions allowed				
Capitalization of spares	2430.64	512.52	1467.58	4410.74
MBOA items	0.60	0.00	0.00	0.60
De-capitalization of MBOA items	(-) 12.19	(-) 5.52	0.00	17.71
FERV	(-) 32.99	4.80	20.93	(-) 7.26
Inter-unit transfer	(-) 1.40	0.00	0.00	(-) 1.40
Items disallowed	0.00	0.00	105.45	105.94
Reversal of liabilities	0.00	0.50	(-) 0.0061	(-) 0.069
Total Exclusion admissible (A)	2384.66	511.80	1593.38	4490.04
(B) Exclusions not admissible				
De- capitalization of spares	(-) 1332.80	(-) 1512.49	(-) 167.75	(-) 3013.04
De- capitalization of MBOA items	(-) 20.27	(-) 10.19	(-) 101.95	(-) 132.41
Exclusion not admissible (B)	(-) 1353.07	(-) 1522.68	(-) 269.70	(-) 3145.45

43. Based on the above deliberations, the additional capital expenditure allowed for the period 2009-14 is as under:

		(₹ in lakh)					
Sl. No	Head of Work/Equipment	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13	2013-14	Total
A	Ash Handling System						
1	Ash Pond	0.00	0.00	420.24	178.57	0.00	598.81
2	Raising of N1 Ash Pond	0.00	0.00	0.00	0.00	200.00	200.00
	Total Ash Pond	0.00	0.00	420.24	178.57	200.00	798.81
B	Dry Ash Extraction System (DAES)						
i	DAES-M/S RITES	0.00	0.00	0.00	507.00	0.00	507.00
ii	DAES-M/S Driplex	0.00	0.00	0.00	5700.00	0.00	5700.00
iii	Decant line diversification	0.00	0.00	0.00	39.90	0.00	39.90

iv	Civil Works for evacuation of dry ash through Ash tanker	0.00	0.00	0.00	0.00	0.00	0.00
	Total Dry Ash Extraction System (DAES)	0.00	0.00	0.00	6246.90	0.00	6246.90
C	Other Capital Works						
	Environmental						
i	AAQMS	88.99	0.00	0.00	0.00	0.00	88.99
ii	Railway Wagons	0.00	0.00	0.00	228.00	0.00	228.0
ii	Township Metering	69.79	0.00	0.00	0.00	0.00	69.79
	Total (A+B+C)	158.78	0.00	420.24	6653.47	200.00	7432.49
D	New Claims						
i	Weigh Bridge for stores & MGR	0.00	0.00	0.00	0.00	0.00	0.00
ii	Bus Reactor package	0.00	0.00	0.00	0.00	0.00	0.00
ii	Land Compensation.	0.00	2.72	3.15	0.00	0.00	5.87
iv	Sub-Total	0.00	2.72	3.15	0.00	0.00	5.87
E	Total Additional Capitalization	158.78	2.72	423.39	6653.47	200.00	7438.36
F	Add: Exclusions not allowed	(-)1353.07	(-) 1522.68	(-) 269.70	0.00	0.00	(-) 3145.45
	Total Additional Capitalization allowed (E+F)	(-) 1194.29	(-) 1519.96	153.69	6653.47	200.00	4292.91

44. The additional capital expenditure after considering the discharge of liabilities is allowed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Admitted additional capital expenditure allowed	(-) 1194.29	(-) 1519.96	153.69	6653.47	200.00
Add: Discharges of liabilities	41.05	7.07	6.24	0.00	0.00
Total additional capital expenditure allowed	(-) 1153.24	(-) 1512.89	159.93	6653.47	200.00

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

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	229359.10	228205.86	226692.97	226852.90	233506.37
Additional capital expenditure allowed	(-) 1153.24	(-) 1512.89	159.93	6653.47	200.00
Closing Capital cost	228205.86	226692.97	226852.90	233506.37	233706.37
Average Capital cost	228782.48	227449.41	226772.94	230179.64	233606.37

Debt-Equity Ratio

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

(a) 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.

47. Accordingly, gross loan and equity amounting to ₹115207.62 lakh and ₹114274.60 lakh, respectively as on 31.3.2009 as allowed in order dated 7.7.2011 in Petition No.142/2009 has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹123.12 lakh deducted from capital cost as on 1.4.2004 has been adjusted in the debt-equity 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 tariff period 2004-09 only. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹115137.45 lakh and ₹114221.65 lakh, respectively. Further, the admitted actual/ projected additional expenditure as above has been allocated in debt-equity ratio of 70:30. This is subject to truing-up in terms of Regulation 6 of the 2009 Tariff Regulations.

Return on Equity

48. 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.”

49. Accordingly, return on equity after accounting for projected additional capital expenditure is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	114221.65	113875.68	113421.81	113469.79	115465.83
Addition of Equity due to additional capital expenditure	(-) 345.97	(-) 453.87	47.98	1996.04	60.00
Normative Equity-Closing	113875.68	113421.81	113469.79	115465.83	115525.83
Average Normative Equity	114048.67	113648.75	113445.80	114467.81	115495.83
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for the year 2008-09	33.990%	33.218%	32.445%	32.445%	32.445%
Rate of Return on Equity (Pre Tax)	23.481%	23.210%	22.944%	22.944%	22.944%
Return on Equity (Pre Tax)- (annualised)	26779.77	26377.87	26029.01	26263.50	26499.36

Interest on loan

50. 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.

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

(a) The gross normative loan of ₹115137.45 lakh has been considered as on 1.4.2009.

(b) Cumulative repayment as on 31.3.2009 amounting to ₹113403.97 lakh as considered in order dated 7.7.2011 in Petition No. 142/2009 has been considered as cumulative repayment as on 1.4.2009. However, after taking into account proportionate adjustment (considering the liability and debt position as on 1.4.2004 (along with additions during the tariff period 2004-09) to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised to ₹113337.44 lakh

- (c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹1800.01 lakh.
- (d) Addition to normative loan on account of additional capital expenditure approved above has been considered.
- (e) In line with the provisions of the Regulation 16(5) stated above, the weighted average rate of interest has been calculated considering the actual loan portfolio during the respective years.
- (f) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further, proportionate adjustment has been made to the repayments corresponding to discharges of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009.

52. The necessary calculation for interest on loan is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	115137.45	114330.18	113271.16	113383.11	118040.54
Cumulative repayment of loan upto previous year	113337.44	112410.79	111346.18	111247.98	113059.94
Net Loan Opening	1800.01	1919.38	1924.97	2135.12	4980.60
Addition due to Additional capitalisation	(-) 807.27	(-) 1059.02	111.95	4657.43	140.00
Repayment of loan during the year	0.00	0.00	51.46	1811.25	4624.19
Less: Repayment adjustment on account of de-capitalization	947.15	1065.88	150.10	0.00	0.00
Add: Repayment adjustment on account of discharges / reversals corresponding to un-discharged liabilities deducted as on 1.4.2009	20.51	1.26	0.44	0.00	0.00
Net Repayment	(-) 926.65	(-) 1064.61	(-) 98.20	1811.95	4624.22
Net Loan Closing	1919.38	1924.97	2135.12	4980.60	496.39
Average Loan	1859.70	1922.18	2030.05	3557.86	2738.50
Weighted Average Rate of Interest on Loan	6.9779%	6.8385%	6.8983%	7.2012%	7.9944%
Interest on Loan	129.77	131.45	140.04	256.21	218.93

Depreciation

53. 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.”

54. The cumulative depreciation as on 31.3.2009 as per order dated 7.7.2011 in Petition No.142/2009 works out to ₹204022.57 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 ₹203913.11 lakh. The value of the freehold land as considered in the said order as on 31.3.2009 is ₹2639.56 lakh and the same has been considered for the purpose of calculating depreciable value. Accordingly, the balance depreciable value (before providing depreciation) for the year 2009-10 works out to ₹206.10 lakh. Since, as on 1.4.2009 the generating station is more than 12 years old from the effective COD of the generating station (12.6.1988), the depreciation has been calculated applying spreading over of the balance depreciable value. The balance useful life as on 1.4.2009, as per order dated 7.7.2011 in Petition No.142/2009 works out to 4.85 years. Further, proportionate adjustment has been made to the cumulative depreciation corresponding to discharges of liabilities considered during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. The necessary calculations in support of depreciation are as shown below:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	229359.10	228205.86	226692.97	226852.90	233506.37
Closing capital cost	228205.86	226692.97	226852.90	233506.37	233706.37
Average capital cost	228782.48	227449.41	226772.94	230179.64	233606.37
Depreciable value @ 90%	203528.63	202327.65	201716.17	204780.78	207864.85
Remaining useful life at the beginning of the year	4.85	3.85	2.85	1.85	0.85
Balance depreciable value	0.00	0.00	146.67	3352.11	4624.22
Depreciation (annualized)	0.00	0.00	51.46	1811.95	4624.22
Cumulative depreciation at the end	203913.11	202937.63	201620.96	203240.63	207864.85
Less: Cumulative depreciation reduction on account of discharges out of un-discharged liabilities deducted as on 1.4.2009	(-) 36.50	(-) 2.28	(-) 0.62	0.00	0.00
Less: Cumulative depreciation reduction due to de-capitalization	1011.98	1370.41	192.90	0.00	0.00
Cumulative depreciation (at the end of the period)	202937.63	201569.50	201428.68	203240.63	207864.85

O&M Expenses

55. O&M expenses as considered in order dated 31.8.2012 in Petition No. 278/2009 as stated below has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	30420.00	32154.00	33999.00	35946.00	38004.00

Cost of Secondary Fuel

56. The cost of secondary Fuel as allowed in order dated 31.8.2012 in Petition No. 278/2009 as stated below has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of secondary fuel oil	3199.93	3199.93	3208.70	3199.93	3199.93

Interest on Working Capital

57. Cost of coal for 1.5 months and cost of secondary fuel for two months as considered in order dated 31.8.2012 in Petition No. 278/2009 as stated below, has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.5 months	27070.74	27070.74	27144.90	27070.74	27070.74
Cost of secondary fuel oil – 2 months	533.32	533.32	534.78	533.32	533.32

58. Maintenance spares as considered in order dated 31.8.2012 in Petition No. 278/2009 as stated below, has been considered.

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	6084.00	6430.80	6799.80	7189.20	7600.80

59. Receivables have been worked out on the basis of two months of fixed and energy charges as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	36094.31	36094.31	36193.20	36094.31	36094.31
Fixed Charges - 2 months	12134.98	12565.16	13060.09	13789.55	14698.62
Total	48229.29	48659.47	49253.30	49883.86	50792.93

60. O&M expenses for 1 month for the purpose of working capital as allowed in order dated 31.8.2012 in Petition No. 278/2009 has been considered.

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	2535.00	2679.50	2833.25	2995.50	3167.00

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

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.5 months	27070.74	27070.74	27144.90	27070.74	27070.74
Cost of secondary fuel oil – 2 month	533.32	533.32	534.78	533.32	533.32
O&M expenses – 1 month	2535.00	2679.50	2833.25	2995.50	3167.00
Maintenance Spares	6084.00	6430.80	6799.80	7189.20	7600.80
Receivables – 2 months	48229.29	48659.47	49253.30	49883.86	50792.93
Total working capital	84452.35	85373.83	86566.03	87672.61	89164.78
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	10345.41	10458.29	10604.34	10739.90	10922.69

62. Compensation Allowance and Special Allowance as allowed in order dated 31.8.2012 in Petition No. 278/2009 has been considered.

Annual Fixed Charges for 2009-14

63. 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	0.00	0.00	51.46	1811.95	4624.22
Interest on Loan	129.77	131.45	140.04	256.21	218.93
Return on Equity	26779.77	26377.87	26029.01	26263.50	26499.36
Interest on Working Capital	10345.41	10458.29	10604.34	10739.90	10922.69
O&M Expenses	30420.00	32154.00	33999.00	35946.00	38004.00
Cost of Secondary fuel oil	3199.93	3199.93	3208.70	3199.93	3199.93
Compensation Allowance	935.00	955.00	975.00	975.00	975.00
Special allowance	1000.00	2114.40	3353.01	3544.80	3747.57
Total	72809.88	75390.94	78360.56	82737.29	88191.64

Note: (i) All figures are on annualized basis. (ii) All the figures under each head have been rounded. (iii) 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

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

65. The difference in the annual fixed charges determined by order dated 31.8.2012 and those determined by this order shall be adjusted in accordance with Regulation 6 (6) of the 2009 Tariff Regulations.

66. Petition No. 189/GT/2013 is disposed of in terms of the above.

Sd/-
[A.K.Singhal]
Member

Sd/-
[M. Deena Dayalan]
Member

Sd/-
[Gireesh B.Pradhan]
Chairperson