

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 137/GT/2013

Coram:

**Shri V.S.Verma, Member
Shri M.Deena Dayalan, Member**

Date of Hearing: 8.8.2013

Date of Order: 4.2.2014

In the matter of

Revision of tariff of Ramagundam Super Thermal Power Station, Stage-III (500 MW) for the period from 1.4.2009 to 31.3.2014- Truing up of tariff determined by order dated 7.5.2012 in Petition No. 256/2009.

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

....Respondents

Parties present:

Shri S.K.Mandal, NTPC
Shri Vinay Garg, NTPC

ORDER

This petition has been filed by the petitioner, NTPC, for revision of tariff of Ramagundam Super Thermal Power Station, Stage-III (500 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. Petition No. 256/2009 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 7.5.2012 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 7.5.2012 is as under:

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

3. Based on the above, the annual fixed charges for the generating station for 2009-14 determined by order dated 7.5.2012 in Petition No. 256/2009 is as under:

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

4. 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."

5. The annual fixed charges claimed by the petitioner in this petition is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	8248	8262	8293	8320	8342
Interest on Loan	5154	4546	4169	3550	2920
Return on Equity	11009	10896	10797	10818	10847
Interest on Working Capital	2485	2491	2509	2516	2528
O&M Expenses	6500	6870	7265	7680	8120
Cost of secondary fuel oil	762	762	764	762	762
Total	34158	33827	33797	33645	33519

6. None of the respondents have filed reply in the matter.

7. The petitioner in this petition has claimed revision of tariff for the period 2009-14 on the actual additional capital expenditure incurred during the years 2009-10, 2010-11 and 2011-12 along with new claims and has also revised the projections for additional capital expenditure for the years 2012-13 and 2013-14. We now consider the prayer for revision of annual fixed charges tariff for the generating station as under:

Capital cost

8. 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.”

9. Accordingly, the capital cost as on 1.4.2009, after removal of un-discharged liabilities amounting to ₹2164.58 lakh, works out to ₹156151.12 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.

10. The petitioner vide Annexure-B of the petition has furnished the details of discharge of liabilities during the period 2009-12. Out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged ₹48.34 lakh in 2009-10, ₹60.86 lakh in 2010-11 and ₹58.88 lakh in 2011-12. Further, the petitioner has also reversed liabilities amounting to ₹208.44 lakh in 2009-10, ₹51.43 lakh in 2010-11 and ₹15.69 in 2011-12 (all pertains to tariff period 2004-09). Further, the petitioner has also discharged ₹0.87 lakh and ₹0.10 lakh during the years 2010-11 and 2011-12 respectively out of un-discharged liabilities corresponding to the admitted additional capital expenditure 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

11. 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.”

12. The additional capital expenditure claimed by the petitioner for 2009-14 in Petition No 256/2009 is summarized as under:

	(₹ in lakh)					
	2009-10 (actual)	2010-11 (Projected)	2011-12 (Projected)	2012-13 (Projected)	2013-14 (Projected)	Total
Actual/Projected Additional Capital Expenditure	916.12	929.40	0.00	160.00	150.00	2155.52

13. Out of the above, the break-up of the additional capital expenditure allowed by the Commission in its order dated 7.5.2012 in 256/2009 is summarized as under:

		(₹ in lakh)					
		Actual expenditure	Projected Capitalization				Total
		2009-10	2010-11	2011-12	2012-13	2013-14	
A	Ash Handling System						
a	Ash Pond Raising Works.	10.94	558.0	0.00	0.00	0.00	568.94
b	Ash water decant channel & pump house	0.00	0.00	0.00	160.0	0.00	160.00
c	Earth Cover	0.00	0.00	0.00	0.00	150.0	150.00
d	Ash Silo-2 Fabrication & Erection work	16.89	0.0	0.00	0.00	0.00	16.89
	Total	27.83	558.00	0.00	160.00	150.00	895.83
B	Other Assets						
2	CCTV	106.31	0.00	0.00	0.00	0.00	106.31
3	Gadget for Plant Security	67.09	36.70	0.00	0.00	0.00	103.79
4	Off site Civil Work	15.12	0.00	0.00	0.00	0.00	15.12
	Total	188.52	36.70	0.00	0.00	0.00	225.22
	Grand Total	216.35	594.70	0.00	160.00	150.00	1121.05

14. The petitioner, vide Form-9 of its affidavit dated 8.8.2012 has submitted the break-up of additional capital expenditure for 2009-14 in this petition, as under:

(₹ in lakh)						
	Actual expenditure			Projected Capital Expenditure		Total
	2009-10	2010-11	2011-12	2012-13	2013-14	
Ash Handling System						
Ash Pond Raising Works.	10.94	13.33	547.08	0.00	0.00	571.35
Ash water decant channel & pump house	0.00	0.00	0.00	0.00	0.00	0.00
Earth Cover	0.00	0.00	0.00	0.00	0.00	0.00
Ash Silo-2 Fabrication & Erection work	16.89	0.00	0.00	0.00	0.00	16.89
Total	27.83	13.33	547.08	0.00	0.00	588.64
Other Assets						
CCTV	106.31	0.00	9.09	0.00	0.00	115.40
Gadget for Plant Security	67.09	58.45	1.79	0.00	0.00	127.33
Off site Civil Work	15.12	0.00	0.00	0.00	0.00	15.12
Total	188.52	58.45	10.88	0.00	0.00	257.85
Grand Total	216.35	71.78	557.96	0.00	0.00	846.09
New Claim						
Provision for supply of electricity in 5 Km area around generating station	0.00	0.00	0.00	0.00	840.30	840.30
Grand Total	216.35	71.78	557.96	0.00	840.30	1686.39
Discharge of un-discharged liability after 1.4.2009	0.00	0.87	0.10	0.00	0.00	0.97
Discharge of un-discharged liability as on 31.3.2009	48.34	60.86	58.88	0.00	0.00	168.08
Grand Total	264.69	133.51	616.94	0.00	840.30	1855.44

15. It is observed that against the additional capital expenditure of ₹1121.05 lakh allowed vide Order dated 7.5.2012 in Petition No. 256/2009, the petitioner has claimed the actual/projected additional capital expenditure of ₹846.09 lakh for the period 1.4.2009 to 31.03.2014. However, with the new claim for a projected expenditure of ₹ 840.30 lakh during 2013-14 towards the scheme for supply of electricity in 5 KM area around station, the total additional capital expenditure claimed during 2009-14 is ₹1686.39 lakh.

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

Ash Handling System

17. The Commission by order dated 7.5.2012 in Petition No. 256/2009, had allowed an expenditure of ₹895.83 lakh for Ash Handling system during 2009-14. This included an

expenditure of ₹568.94 lakh during 2009-11 for Ash Pond Raising works, ₹160.00 lakh during 2012-13 for Ash water decant channel & Pump house, ₹150.00 lakh during 2013-14 for Earth Cover for and ₹16.89 lakh during 2009-10 for Ash Silo-2 Fabrication & Erection work. The petitioner in this petition has claimed actual expenditure of ₹588.64 lakh during 2009-14 for Ash handling system, which includes actual expenditure of ₹571.35 lakh in 2009-12 for Ash Pond raising works and ₹16.89 lakh in 2009-10 for Ash Silo-2 Fabrication & Erection work. As stated, the actual/projected expenditure of ₹895.83 lakh for Ash handling system for 2009-14 was allowed by the Commission in its order dated 7.5.2012 based on prudence check after considering the justification submitted by the petitioner for the said expenditure. It is observed that the petitioner has now claimed actual capital expenditure for Ash Pond raising work & Ash Silo-2 Fabrication & Erection work only and other works under Ash handling system namely, Ash Water decant channel & Pump house and Earth cover work have been deferred beyond March' 2014, the reasons for which have been furnished by the petitioner as under:

(a) **Ash Water Decant Channel:** The Ash water discharge and decant line laying works involves frequent pipe line changes in order to strike a balance between active dykes and dykes under maintenance. During the operation of Ash pond, it was observed that strengthening of Ash dyke is required urgently and only after finishing the strengthening work the Ash water decant channel work can be taken up. Hence, this work would be capitalized after March, 2014. Accordingly, the petitioner has prayed that the reasons for deferring the expenditure may be accepted.

(b) **Earth Cover Work:** Ash dyke height activity is planned based on the life of dyke. The height raising work is taken up in steps. Earth Cover was planned as per earlier ash dyke height. The height of Ash Dyke was further increased thereby extending the life of the dyke. Earth cover work is required only after ash dyke is filled completely with ash. Hence, this work would be capitalized after March, 2014. Accordingly, the petitioner has prayed that the reasons for deferring the expenditure may be accepted.

18. It is observed that the actual capital expenditure of ₹571.35 lakh for 2009-12 (₹10.94 lakh in 2009-10, ₹13.33 lakh in 2010-11 and ₹ 547.08 lakh in 2011-12) incurred towards Ash Pond Raising work is marginally higher than the projected capital expenditure of ₹568.94 lakh for 2009-11 allowed by the Commission in its order dated 7.5.2012 in Petition No. 256/2009. However, considering the submissions of the petitioner, we allow the actual additional capital expenditure of ₹571.35 lakh during 2009-12 incurred towards Ash Pond raising work and ₹16.89 lakh during 2009-10 incurred towards Ash Silo-2 Fabrication & Erection work under Regulation 9(2)(iii) of the 2009 Tariff Regulations.

CCTV

19. The Commission by order dated 7.5.2012 in Petition No. 256/2009 had allowed the actual expenditure of ₹106.31 lakh for CCTV during 2009-10 as per recommendation of Intelligence Bureau (IB), Ministry of Home Affairs, GOI. It is noticed that the petitioner in this petition has claimed the actual capital expenditure of ₹106.31 lakh during 2009-10 and ₹9.09 lakh in 2011-12 towards CCTV. The details of assets capitalized under the expenditure of ₹9.09 lakh are CCTV Camera with PAN tilt zoom, Wireless Communication system etc. Considering the fact that said asset is required for safety and security of the generating station, the claim of the petitioner as per recommendation of Intelligence Bureau (IB), Ministry of Home Affairs, GOI is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Gadget for Plant Security

20. The Commission by its order dated 7.5.2012 in Petition No. 256/2009 had allowed expenditure of ₹103.79 lakh for 2009-11 (₹ 67.09 lakh for 2009-10 and ₹ 36.70 lakh during 2010-11) towards Gadget for Plant Security as per recommendation of Intelligence Bureau (IB), Ministry of Home Affairs, GOI. The petitioner in this petition has claimed actual expenditure of ₹127.33 lakh during 2009-12 (₹67.09 lakh for 2009-10, ₹58.45 lakh during 2010-11 and ₹1.79 lakh during 2011-12) for Gadget for plant security. The petitioner has submitted that the difference in projection of expenditure and the actual expenditure towards

the said asset is due to the fact that the projections are generally cost estimates based on budgetary offers from the vendors, past data and experience available in NTPC whereas, the actual expenditure is based on actual cash flow showing expenditure incurred based on the letter of awards placed after tendering and negotiation process, actual progress of work at site and final adjustments. In consideration of the submission of the petitioner, the additional capital expenditure of ₹127.33 lakh (₹67.09 lakh in 2009-10, ₹58.45 lakh in 2010-11 and ₹1.79 lakh in 2011-12) incurred as per recommendation of Intelligence Bureau (IB), Ministry of Home Affairs, GOI is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Off-site Civil Work

21. An expenditure of ₹15.12 lakh during 2009-10 towards Off-site civil works was allowed by the Commission in order dated 7.5.2012 in Petition No. 256/2009 under Regulation 9(2)(viii) of the 2009 Tariff Regulations considering the fact that the expenditure incurred was towards balance payment in respect of works for which contracts were placed before the cut-off date and the delay in payments were due to contractual problems arising out of poor performance of the agency. The petitioner in this petition has also claimed the actual expenditure of ₹15.12 lakh during 2009-10 for Off-site civil work. In view of this, the actual expenditure claimed is allowed.

Scheme for supply of power within 5 Km radius

22. In addition to the above, the petitioner in this petition has claimed projected expenditure of ₹840.30 lakh during 2013-14 towards electrification of villages within 5 KM radius around the generating station. As the said scheme for supply of electricity within 5 KM radius around Central Power Plants has been withdrawn as per notification dated 25.3.2013 of the Ministry of Power, Government of India, the projected expenditure of ₹840.30 lakh for 2013-14 as claimed by the petitioner has not been allowed.

23. 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	162309.35	161215.87	161678.05
2	Closing Gross Block of the year	161215.87	161678.05	163871.41
3	Additional capitalization as per the books (2 - 1)	(-) 1093.48	462.18	2193.37
4	Exclusions for additional capitalization as per books of accounts.	(-) 2013.38	225.34	915.45
5	Additional capitalization not claimed for tariff disallowed earlier	702.58	163.90	719.95
6	Additional capitalization allowed including liability (3-4-5)	217.32	72.94	557.96
7	Un-discharged liability in Sl. no. 6	0.97	1.16	0.0
8	Additional Capital Expenditure claimed excluding liability (6-7)	216.35	71.78	557.96
9	Discharge out of Un-discharged liability added after 1.4.2009	0.00	0.87	0.10
10	Un-discharged liability discharged as on 31.3.2009	48.34	60.86	58.88
11	Total Additional Capital Expenditure claimed (8+9+10)	264.69	133.51	616.94

Exclusions

24. 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	96.04	162.97	362.52	621.53
MBOA items	355.58	339.79	288.46	983.83
FERV	(-) 2969.09	(-) 301.43	280.40	(-) 2990.12
Inter unit transfer	504.09	(-) 20.54	(-) 0.50	483.05
Other Works	0.00	44.55	0.26	44.81
Reversal of Liability	0.00	0.00	(-) 15.69	(-) 15.69
Total Exclusions	(-) 2013.38	225.34	915.45	(-) 872.59

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

Capitalization of spares

26. The petitioner has procured spares amounting to ₹96.04 lakh during 2009-10, ₹162.97 lakh during 2010-11 and ₹362.52 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 and since they form part of O&M expenses when consumed, the petitioner has excluded the said amount from tariff. Accordingly, the exclusion of the said amount under this head is in order and is allowed.

Capitalization of Miscellaneous Bought Out Assets (MBOA)

27. The petitioner has capitalized MBOA items in books of accounts amounting to ₹355.58 lakh during 2009-10, ₹339.79 lakh during 2010-11 and ₹288.46 lakh during 2011-12

Since capitalization of minor assets after cut-off date is not allowed, the exclusion of ₹355.58 lakh during 2009-10, ₹339.79 lakh during 2010-11 and ₹288.46 lakh during 2011-12 is in order and is allowed.

Loan FERV

28. The petitioner has excluded an amount of (-) ₹2760.66 lakh during 2009-10 and (-) ₹250.01 lakh during 2010-11 on account of impact of FERV. Since, the said amount had been billed directly to the beneficiaries in accordance with the 2004 Tariff Regulations, the exclusion of FERV is in order and has been allowed.

Package FERV

29. The petitioner has excluded an amount of (-) ₹208.44 lakh during 2009-10 and (-) ₹51.43 lakh during 2010-11 on account of impact of FERV. This is liability adjustment on account of FERV gain. Since the capital cost for purpose of tariff is on cash basis, the exclusion has been allowed. The petitioner has excluded an amount of ₹280.41 lakh during 2009-10 towards liability adjustment but on account of FERV loss. However, the same should have been claimed as addition with the corresponding liability for said amount. Even on this count, the net addition on cash basis would be 'nil'. Accordingly, the exclusion of the amounts has been allowed.

Reversal of Liability

30. The petitioner has excluded an amount of (-) ₹15.69 lakh during 2011-12 on account of reversal of liability against the work awarded to Hindustan Steel Works Construction Ltd. Since the capital cost for the purpose of tariff corresponding to the above amount is on cash basis, the exclusion of the reversal of liability has been allowed.

Inter-unit transfer

31. An amount of ₹504.09 lakh during 2009-10, (-) ₹20.54 lakh during 2010-11, and (-) ₹0.50 lakh has been excluded under this head on account of transfer of certain assets. 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 ₹504.09 lakh during 2009-10, (-) ₹20.54 lakh during 2010-11, and (-) ₹0.50 lakh during 2011-12 on account of inter-unit transfer of equipment on temporary basis is in order and has been allowed.

Other Works

32. The petitioner has excluded an expenditure of ₹44.55 lakh during 2010-11 and ₹0.26 lakh during 2011-12 on account other works (Sewerage works). As such, exclusion on this account is in order and has been allowed.

33. The summary of exclusions allowed for the purpose of tariff is as under:

	(₹ in lakh)			
	2009-10	2010-11	2011-12	Total
Capitalization of spares	96.04	162.97	362.52	621.53
MBOA items	355.58	339.79	288.46	983.83
FERV	(-) 2969.09	(-) 301.43	280.40	(-) 2990.12
Inter unit transfer	504.09	(-) 20.54	(-) 0.50	483.05
Other Works	0.00	44.55	0.26	44.81
Reversal of Liability	0.00	0.00	(-) 15.69	(-) 15.69
Total	(-) 2013.38	225.34	915.45	(-) 872.59

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

	(₹ in lakh)				
Head of Work/Equipment	2009-10 (actual)	2010-11 (actual)	2011-12 (actual)	2012-13	2013-14
Ash Pond Raising Works.	10.94	13.33	547.08	0.00	0.00
Ash Silo-2 Fabrication & Erection work	16.89	0.00	0.00	0.00	0.00
CCTV	106.31	0.00	9.09	0.00	0.00
Gadget for Plant Security	67.09	58.45	1.79	0.00	0.00
Off -site Civil Work	15.12	0.00	0.00	0.00	0.00
Scheme for supply of electricity within 5 km area	0.00	0.00	0.00	0.00	0.00
Total	216.35	71.78	557.96	0.00	0.00

34. The petitioner has submitted the details of de-capitalization of MBOA & Spares vide Annexure-4 of the additional submissions vide affidavit dated 5.11.2012, which has not been considered under exclusions. The petitioner has clarified that the additions for the year 2009-10 and exclusion for the year 2011-12 includes de-capitalization of building for ₹2.58

lakh and ₹50.23 lakh, respectively and the figures shown in the petition is on net basis. As such, for the time being, these assets have been considered to form part of the capital cost and accordingly considered as de-capitalization for the purpose of tariff. Since details like, the actual year of capitalization, the depreciation recovered so far, etc., in respect of these de-capitalization have not been furnished by the petitioner, the corresponding adjustment in the repayment of loan and the cumulative depreciation could not be made. The admissibility of these de-capitalizations and the corresponding adjustments to cumulative depreciation as well as repayment of loan can only be considered at the time of truing up, subject to the petitioner furnishing appropriate details therein.

35. Based on the above discussions, the additional capital expenditure after considering de-capitalization and discharge of liabilities is allowed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Admitted additional capital expenditure allowed	216.35	71.78	557.96	0.00	0.00
Less: De-capitalization	64.31	38.59	89.32	0.00	0.00
Add: Discharges of liabilities	48.34	61.73	58.99	0.00	0.00
Total additional capital expenditure allowed	200.38	94.92	527.63	0.00	0.00

36. 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	156151.12	156351.50	156446.42	156974.05	156974.05
Additional capital expenditure allowed	200.38	94.92	527.63	0.00	0.00
Closing Capital cost	156351.50	156446.42	156974.05	156974.05	156974.05
Average Capital cost	156251.31	156398.96	156710.24	156974.05	156974.05

Debt-Equity Ratio

37. 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.

38. Accordingly, gross loan and equity amounting to ₹110820.99 lakh and ₹47494.71 lakh, respectively as on 31.3.2009 as allowed in order dated 12.10.2011 in Petition No.123/2009 has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹2164.58 lakh deducted from capital cost as on 1.4.2004 has been adjusted in the debt-equity ratio of 70:30 as the liabilities pertaining to tariff period 2004-09 only. As such the gross normative loan and equity as on 1.4.2009 is revised to ₹109305.78 lakh and ₹46845.34 lakh, respectively. Further, the 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

39. 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.”

38. 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	46845.34	46905.45	46933.93	47092.22	47092.22
Addition of Equity due to additional capital expenditure	60.11	28.48	158.29	0.00	0.00
Normative Equity-Closing	46905.45	46933.93	47092.22	47092.22	47092.22
Average Normative Equity	46875.39	46919.69	47013.07	47092.22	47092.22
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)	11006.81	10890.06	10786.68	10804.84	10804.84

Interest on loan

39. 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.

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

- (a) The gross normative loan of ₹109305.78 lakh has been considered as on 1.4.2009.
- (b) Cumulative repayment as on 31.3.2009 amounting to ₹38233.83 lakh as considered in order dated 12.10.2011 in Petition No. 123/2009 has been considered as cumulative repayment as on 1.4.2009. However, after taking into account proportionate adjustment to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised to ₹37711.08 lakh
- (c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹71594.70 lakh.
- (d) Addition to normative loan 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.

41. 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	109305.78	109446.05	109512.49	109881.84	109881.84
Cumulative repayment of loan upto previous year	37711.08	45975.98	54234.16	62510.26	70819.79
Net Loan Opening	71594.70	63470.07	55278.33	47371.57	39062.04
Addition due to Additional capitalisation	140.27	66.45	369.34	0.00	0.00
Repayment of loan during the year	8246.10	8257.87	8285.43	8309.53	8309.53
Less: Repayment adjustment on account of de-capitalization	43.21	27.01	27.36	0.00	0.00
Add: Repayment adjustment on account of discharges / reversals	62.01	27.33	18.04	0.00	0.00

corresponding to un-discharged liabilities deducted as on 1.4.2009					
Net Repayment	8264.90	8258.19	8276.10	8309.53	8309.53
Net Loan Closing	63470.07	55278.33	47371.57	39062.04	30752.52
Average Loan	67532.39	59374.20	51324.95	43216.81	34907.28
Weighted Average Rate of Interest on Loan	7.6295%	7.6497%	8.1110%	8.1642%	8.2502%
Interest on Loan	5152.41	4541.95	4162.98	3528.30	2879.92

Depreciation

42. 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.”

43. The cumulative depreciation as on 31.3.2009 as per order dated 12.10.2011 in Petition No.123/2009 works out to ₹38224.98 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 ₹37702.35 lakh. The value of the freehold land as considered in the said order as on 31.3.2009 is 'nil' and the same has been considered for the purpose of calculating

depreciable value. Since, the generating station is less than 12 years old from the effective station COD of 25.3.2005, depreciation has been calculated considering the weighted average rate of depreciation for respective 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	156151.12	156351.50	156446.42	156974.05	156974.05
Closing capital cost	156351.50	156446.42	156974.05	156974.05	156974.05
Average capital cost	156251.31	156398.96	156710.24	156974.05	156974.05
Depreciable value @ 90%	140626.18	140759.06	141039.21	141276.65	141276.65
Balance depreciable value	102923.83	94762.11	86765.71	78710.50	70400.97
Depreciation (annualized)	8246.10	8257.87	8285.43	8309.53	8309.53
Cumulative depreciation at the end	45948.44	54254.82	62558.93	70875.68	79185.20
Less: Cumulative depreciation- Adjustment on account of discharges of un-discharged liabilities deducted as on 1.4.2009	(-) 62.00	(-) 27.32	(-) 18.03	0.00	0.00
Less: Cumulative depreciation reduction due to de-capitalization	13.49	8.64	10.82	0.00	0.00
Net Cumulative depreciation (at the end of the period)	45996.95	54273.50	62566.15	70875.68	79185.20

O&M Expenses

44. O&M expenses as considered in order dated 7.5.2012 in Petition No. 256/2009 as stated below has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	6500.00	6870.00	7265.00	7680.00	8120.00

Cost of Secondary Fuel

45. The cost of secondary Fuel as allowed in order dated 7.5.2012 in Petition No. 256/2009 as stated below has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of secondary fuel oil	761.89	761.89	763.98	761.89	761.89

Interest on Working Capital

46. Cost of coal for two months and cost of secondary fuel for two months as considered in order dated 7.5.2012 in Petition No. 256/2009 as stated below, has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 2 months	6312.88	6312.88	6330.18	6312.88	6312.88
Cost of secondary fuel oil – 2 months	126.98	126.98	127.33	126.98	126.98

47. Maintenance spares as considered in order dated 7.5.2012 in Petition No. 256/2009 as stated below, has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1300.00	1374.00	1453.00	1536.00	1624.00

48. 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	6312.88	6312.88	6330.18	6312.88	6312.88
Fixed Charges - 2 months	5692.05	5635.46	5628.70	5599.89	5567.03
Total	12004.93	11948.35	11958.88	11912.77	11879.91

49. O&M expenses for 1 month for the purpose of working capital as allowed in order dated 7.5.2012 in Petition No. 256/2009 has been considered.

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

50. 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 – 2 months	6312.88	6312.88	6330.18	6312.88	6312.88
Cost of secondary fuel oil – 2 month	126.98	126.98	127.33	126.98	126.98
O&M expenses – 1 month	541.67	572.50	605.42	640.00	676.67
Maintenance Spares	1300.00	1374.00	1453.00	1536.00	1624.00
Receivables – 2 months	12004.93	11948.35	11958.88	11912.77	11879.91
Total working capital	20286.47	20334.71	20474.81	20528.64	20620.45
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
Interest on working capital	2485.09	2491.00	2508.16	2514.76	2526.00

Annual Fixed Charges for 2009-14

51. 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	8246.10	8257.87	8285.43	8309.53	8309.53
Interest on Loan	5152.41	4541.95	4162.98	3528.30	2879.92
Return on Equity	11006.81	10890.06	10786.68	10804.84	10804.84
Interest on Working Capital	2485.09	2491.00	2508.16	2514.76	2526.00
O&M Expenses	6500.00	6870.00	7265.00	7680.00	8120.00
Cost of secondary fuel oil	761.89	761.89	763.98	761.89	761.89
Total	34152.29	33812.77	33772.23	33599.32	33402.18

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

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

53. The difference in the annual fixed charges determined by order dated 7.5.2012 and those determined by this order shall be adjusted in accordance with Regulation 6 (6) of the 2009 Tariff Regulations.

54. Petition No. 137/GT/2013 is disposed of in terms of the above.

Sd/-
[M.Deena Dayalan]
Member

Sd/-
[V. S. Verma]
Member