CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 306/GT/2014

Coram:

Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Dr. M.K. Iyer, Member

Date of Hearing: 19.04.2016
Date of Order : 05.12.2016

In the matter of

Revision of tariff of Vindhyachal Super Thermal Power Station, Stage-I (1260 MW) for the period from 1.4.2009 to 31.3.2014- Truing up of tariff determined by order dated 7.8.2014 in Petition No.182/GT/2013

And in the matter of

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

Vs

1. Madhya Pradesh Power Management Company Limited
Shakti Bhavan, Vidyut Nagar, Jabalpur-482 008

2. Maharashtra State Electricity Distribution Company Limited
'Prakashgard', Bandra(East)
Mumbai-400 051

3. Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhawan
Race Course, Baroda – 390007

4. Chhattisgarh State Power Distribution Company Ltd
Dhagania, Raipur-492 013

5. Electricity Department, Govt. of Goa,
Vidyut Bhavan, Panaji, Goa

6. Electricity Department
Administration of Daman & Diu (DD)
Daman-396 210

7. Electricity Department
Administration of Dadra and Nagar Haveli (DNH)
Silvassa **...Respondents**

Parties present:

For Petitioner: Shri Ajay Dua, NTPC
Shri Nishant Gupta, NTPC
Shri Bhupinder Kumar, NTPC
Shri Rajeev Choudhary, NTPC

For Respondents: Shri Rishabh Singh, Advocate, MPPMCL

ORDER

This petition has been filed by the petitioner, NTPC for revision of the annual fixed charges in respect of Vindhyachal Super Thermal Power Station, Stage-I (1260 MW) ('the generating station') for the period from 1.4.2009 to 31.3.2014 in terms of clause (1) of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations').

2. The generating station (Stage I) with a capacity of 1260 MW comprises of six units of 210 MW each. The dates of commercial operation (COD) of the different units of the generating station are as under:

Unit	COD
Unit-I	1.9.1988
Unit-II	1.1.1989
Unit-III	1.2.1990
Unit-IV	1.9.1990
Unit-V	1.4.1991
Unit-VI	1.2.1992

3. Petition No. 227/2009 was filed by the petitioner for approval of tariff of the generating station for the period 2009-14 and the Commission by its order dated 12.9.2012 had approved the annual fixed charges of the generating station tariff based on the capital cost of ₹ 148042.37 lakh, after deducting the un-discharged liabilities amounting to ₹445.60 lakh as on 1.4.2009. Thereafter, in Petition No. 182/GT/2013, the Commission vide order dated 7.8.2014 had revised the annual fixed

charges of the generating station based on the actual additional capital expenditure incurred for the years 2009-10, 2010-11, and 2011-12 and projected additional capital expenditure for the year 2012-13 and 2013-14, based on the latest estimates and status of works. The annual fixed charges allowed in order dated 7.8.2014 are as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	369.48	379.02	383.27	445.25	558.37
Interest on Loan	242.16	197.29	172.11	161.71	157.60
Return on Equity	17278.11	17069.61	16863.28	16876.06	16907.03
Interest on Working Capital	5895.56	5965.53	6052.98	6127.03	6217.16
O&M Expenses	22932.00	24242.40	25628.40	27102.60	28652.40
Secondary fuel oil cost	2132.38	2132.38	2138.23	2132.38	2132.38
Compensation Allowance	567.00	630.00	756.00	819.00	819.00
Total	**49416.70**	**50616.23**	**51994.26**	**53664.03**	**55443.95**

4. The Regulation 6 of the 2009 Tariff Regulations which 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 petitioner presently seeks revision of the annual fixed charges based on the actual additional capital expenditure incurred for the years 2012-13 and 2013-14 in accordance with Regulation 6 (1) of 2009 Tariff Regulations. Accordingly, the capital cost and the annual fixed charges claimed by the petitioner for the years 2012-13 and 2013-14 are as under:

Capital Cost

(₹in lakh)

	2012-13	2013-14
Opening Capital Cost	149225.36	150552.59
Add: Additional capital expenditure	1327.23	2513.71
Closing Capital Cost	**150552.59**	**153066.30**
Average Capital Cost	149888.98	151809.45

Annual Fixed Charges

(₹ in lakh)

	2012-13	2013-14
Depreciation	675.12	1188.87
Interest on Loan	192.17	286.03
Return on Equity	17012.80	17546.26
Interest on Working Capital	6164.34	6275.32
O&M Expenses	27102.60	28652.40
Secondary fuel oil cost	2132.38	2132.38
Compensation Allowance	819.00	819.00
Total	**54099.41**	**56900.27**

6. In compliance with the directions of the Commission, the petitioner has filed additional information and has served copies on the respondents. The respondent MPPMCL has filed its reply and the petitioner has filed its rejoinder to the reply. We now proceed to examine the claim of the petitioner based on the submissions of the parties and the documents available on record, as discussed in the subsequent paragraphs.

Capital Cost

7. 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."*

8. The petitioner has claimed annual fixed charges for the years 2012-13 and 2013-14 based on the admitted opening capital cost of ₹148042.37 lakh, as on 1.4.2009 in terms of the Commission's order dated 12.9.2012 in Petition No. 227/2009. The opening capital cost as on 1.4.2009 approved by the Commission in order dated 7.8.2014 in Petition No. 182/GT/2013 is ₹148042.37 lakh after deduction of un-discharged liabilities amounting to ₹445.60 lakh (₹40.49 lakh for the period prior to 1.4.2004 and ₹405.11 lakh pertaining to period 2004-09).

9. In terms of the last proviso to Regulation 7 of the 2009 Tariff Regulations, the capital cost as on 1.4.2009, after removal of un-discharged liabilities, is considered at ₹148042.37 lakh, on cash

basis. Further, out of the un-discharged liabilities of ₹445.60 lakh deducted as on 1.4.2009, the petitioner has discharged amounts of ₹13.07 lakh, ₹4.83 lakh and ₹39.08 lakh (all liabilities corresponding to assets prior to period 1.4.2009) in 2009-10, 2010-11, and 2012-13 respectively. Further, amounts of ₹46.42 lakh, ₹20.96 lakh, ₹12.49 lakh, and ₹12.82 lakh have been reversed by the petitioner during the years 2009-10, 2010-11, 2011-12 and 2012-13 respectively. The discharges of liabilities along with discharges corresponding to assets admitted on cash basis, during the period 2009-14 has been allowed as additional capital expenditure during the respective years.

Actual Additional Capital Expenditure

10. Clause (2) of Regulation 9 of the 2009 Tariff Regulations provides as under**:**

> *"9. (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."

11**.** The break-up details of the actual/ projected additional capital expenditure allowed by Commission's order dated 7.8.2014 in Petition No. 182/GT/2013 for the period 2009-14 are as under:

(₹ in lakh)

	Head of work / Equipment	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
			(Actual)		**(Projected)**		
A	**Ash Handling System**						
1	Ash Dyke Raising Works. (V-1) 2nd Raising	1.00	0.00	0.00	0.00	0.00	1.00
2	Ash Dyke Raising Works. (V-1) 3rd Raising	0.00	0.00	0.00	500.00	0.00	500.00
3	Ash Dyke Pipe Garlanding System	0.00	0.00	0.00	0.00	0.00	0.00
4	Weigh Bridge for Ash Disposal	0.00	0.00	0.00	0.00	0.00	0.00
5	Ash Brick Manufacturing Machine	0.00	0.00	0.00	0.00	0.00	0.00
6	Ash Slurry Pumps & Piping system.	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	**1.00**	**0.00**	**0.00**	**500.00**	**0.00**	**501.00**
B	**Environmental Activities**						
1	Replacement of Halon System Stage.-I	0.00	0.00	0.00	0.00	300.00	300.00
2	Near Zero discharge of water	0.00	0.00	0.00	0.00	0.00	0.00
3	SOx-NOx & Analyser	0.00	0.00	0.00	0.00	100.00	100.00
4	Ambient Air Quality Monitoring System.	108.00	0.00	0.00	0.00	0.00	108.00
5	Energy Management System for Stage-I	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	**108.00**	**0.00**	**0.00**	**0.00**	**400.00**	**508.00**
C	**Other Capital Works**						
1	R&M of DDC-MIS Package for Stage-I	13.00	0.00	0.00	0.00	0.00	13.00
2	COLTS Gea Energy	55.00	4.00	0.00	0.00	0.00	59.00
3	Online Bunker Monitoring System	21.00	0.00	0.00	0.00	0.00	21.00
	Sub-total	**89.00**	**4.00**	**0.00**	**0.00**	**0.00**	**93.00**
D	**New Claims**						
1	Generator Transformer	0.00	0.00	0.00	0.00	0.00	0.00
2	De-capitalization of GT	0.00	0.00	0.00	0.00	0.00	0.00
3	Generator Transformer	0.00	0.00	0.00	0.00	0.00	0.00
4	DVR in Units I&III	0.00	0.00	0.00	0.00	0.00	0.00

	Head of work / Equipment	2009-10	2010-11	2011-12	2012-13	2013-14	Total
5	Replacement of PLCC sys of VJ1 & VJ2 lines	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-total	0.00	0.00	0.00	0.00	0.00	0.00
E	**Total (A to D)**	**198.00**	**4.00**	**0.00**	**500.00**	**400.00**	**1102.00**
F	Add : Exclusions not allowed	(-)290.10	(-)206.62	(-)143.86	0.00	0.00	(-)640.58
	Total Additional capitalization allowed (E+F)	(-)**92.10**	(-)**202.62**	(-)**143.86**	**500.00**	**400.00**	**461.42**
	Discharges of liabilities	13.07	20.42	15.15	0.00	0.00	48.64
	Actual/ Projected additional capital expenditure allowed	(-)**79.03**	(-)**182.20**	(-)**128.71**	**500.00**	**400.00**	**510.06**

12. As stated, the annual fixed charges for the period 2009-12 were revised based on actual additional capital expenditure for the years 2009-10, 2010-11 and 2011-12 vide order dated 7.8.2014. The petitioner has revised the additional capital expenditure for 2012-13 and 2013-14 on actual basis against as allowed on projected basis in the order dated 7.8.2014 in Petition No. 182/GT/2013. Hence, the actual additional capital expenditure incurred during the years 2012-13 and 2013-14 has only been considered in this order.

13. The break-up details of the actual additional capital expenditure claimed for the years 2012-13 and 2013-14 are as under:

(₹in lakh)

Sr. No.	**Head of Work/Equipment**	**Regulations under which claimed**	**Additional capital expenditure**		**Total**
			2012-13	**2013-14**	
A.	**Ash Handling System**				
1	Ash Dyke Raising & associated works	9(2)(iii)	579.93	90.86	670.79
2	Garlanding of Ash Dyke	9(2)(iii)	464.78	0.34	465.12
3	Ash Brick Manufacturing Machine	9(2)(ii)	40.58	0.00	40.58
	Total Ash Handling System		**1085.29**	**91.20**	**1176.49**
B	**Other Capital Works**				
1	Building Permission Fees	9(2)(ii)	269.38	0.00	269.38
2	De-capitalisation of Generator Transformer	9(2) with Regulation 44	(-)173.03	0.00	(-)173.03
3	Generator Transformer		0.00	905.43	905.43
4	DVR in Units 1 & 3	9(2)(ii)	93.65	117.95	211.60
5	Electrification under GoI 5 KM scheme	9(2)(ix)	0.00	1375.07	1375.07
	Total (Other Capital Works)		**190.00**	**2398.46**	**2588.46**
	Total Additional capital expenditure		**1275.29**	**2489.66**	**3764.95**
C	Discharge of Liability	9(2)(viii)	**39.08**	**0.00**	**39.08**

Sr. No.	Head of Work/Equipment	Regulations under which claimed	Additional capital expenditure		Total
	(Corresponding to admitted liability prior to 1.4.2009)				
D	Discharge of Liability (admitted after 1.4.2009)		**12.85**	**24.05**	**36.90**
	Total		**1327.23**	**2513.71**	**3840.94**
	Summary				
	Total Additional capital expenditure		1448.32	2489.66	3937.98
	De-capitalisation		(-)173.03	0.00	(-)173.03
	Liabilities Discharged		51.93	24.05	75.98
	Total		1327.23	2513.71	3840.94

14. The petitioner has claimed additional capital expenditure of ₹1059.08 lakh in 2012-13 and ₹2513.71 lakh in 2013-14 as against the estimated additional capital expenditure of ₹500.00 lakh and ₹400.00 lakh allowed in order dated 7.8.2014. The increase in the expenditure claimed by the petitioner is mainly on account of the claim for ₹465.12 lakh towards garlanding of Ash Dyke, ₹905.43 lakh for procurement of Generator Transformer, and ₹1375.07 lakh for expenditure on electrification under Govt. of India (GoI) 5 KM scheme. We now examine the claim of the petitioner and their admissibility, on prudence check, based on available records as stated in the subsequent paragraphs.

Ash Handling System

15. The petitioner has claimed a total actual additional capital expenditure of ₹1176.49 lakh in 2012-14 towards Ash handling system. This includes capital expenditure of ₹670.79 lakh (₹579.93 lakh in 2012-13 and ₹90.86 lakh in 2013-14) towards Ash dyke raising works, ₹465.12 lakh towards Ash dyke pipe garlanding system, and 40.58 lakh towards ash brick manufacturing machine. The petitioner has submitted that the expenditure towards Ash dyke raising works was incurred / projected to be incurred for 2nd raising & 3rd raising of Ash dyke in the year 2009-10 & 2012-13 respectively and the spill-over work was completed in 2013-14 with expenditure of ₹90.86 lakh only. As regards, Ash pipe garlanding system, the petitioner has submitted that garlanding is the associated job of Ash Dyke raising, wherein ash disposal pipelines are rearranged and elevated all around the ash dyke to facilitate multi-point discharge of ash slurry into the ash dyke. It has

submitted that this work is carried out for effective and uniform filling of ash dyke, thereby making most economic use of the space available in the dyke. It has further submitted that this is an essential activity with respect to the ash dyke raising & without it, raised part of dyke cannot be put to use. Accordingly, the petitioner has prayed that the actual capital expenditure claimed may be allowed.

16. The respondent, MPPMCL has objected to the claims of the petitioner and has submitted that the Ash related works claimed by the petitioner during the period 2009-14 tariff period is not covered under the original scope of works as per Regulation 9(2)(iii) and thus be disallowed. It has submitted that the additional capital expenditure allowed by the Commission vide order dated 7.8.2014 towards Ash handling system may be reconsidered since the petitioner has not submitted any documentary evidence to justify that the Ash handling related works were part of original scope of work.

17. We have examined the matter. The Commission in its order dated 12.9.2012 had allowed the projected additional capital expenditure of ₹835.00 lakh for Ash Handling System during the period 2009-14 which included expenditure of ₹635.00 lakh for Ash Dyke Raising works (2nd & 3rd raising) in 2012-13. Thereafter, the Commission in the order dated 7.8.2014 had allowed the projected expenditure of ₹500.00 lakh during 2012-13 pertaining to works related to 3rd raising of Ash dyke. The expenditure for Ash handling system had been allowed by the Commission after prudence check in its order dated 12.9.2012 and 7.8.2014 based on the requirement and the justification submitted by the petitioner. Though there is increase in actual expenditure from ₹500.00 lakh to ₹670.79 lakh towards Ash dyke raising works, the increase in expenditure claimed in this petition is on account of the estimated cost considered in order dated 7.8.2014 in Petition No. 182/GT/2013 as against the actual cost incurred on the works undertaken. Accordingly, we allow the actual additional capital expenditure of ₹670.79 lakh as claimed by the petitioner for 2012-14 under Regulations

9(2)(iii) of the 2009 Tariff Regulations. As regards the claim towards Ash pipe garlanding system, the observations of the Commission in the order dated 7.8.2014 are as under:

> *"However, the expenditure of ₹200.00 lakh in 2012-13 claimed in this petition for Ash Dyke pipe garlanding system has not been allowed as no proper justification has been furnished. However, liberty is granted to the petitioner to claim the said expenditure with proper justification at the time of truing-up in terms of Regulation 6(1) of the 2009 Tariff Regulations."*

18. In terms of the liberty granted, the petitioner has submitted detailed justifications in support of its claim for the garlanding system. Since the garlanding system would facilitate in economic use of the ash dyke space, we are inclined to allow the expenditure of ₹465.12 lakh during the period 2012-14 in terms of Regulation 9(2)(iii) of the 2009 Tariff Regulations. It is further observed that the expenditure claimed towards ash brick manufacturing machine has been disallowed by the Commission in order dated 7.8.2014. The observations of Commission in this regards are extracted as under:

> *"It is noticed that the petitioner is earning revenue by selling of fly ash to outside agencies as a part of 100% ash utilization target in terms of the notification of the Ministry of Environments & Forests, GOI. Accordingly, we are of the view that the expenditure towards Weigh Bridge and Ash Brick Manufacturing Machine shall be met from such revenue earned by the petitioner. Accordingly, the expenditure of `25.00 lakh for Weigh Bridge and `30.00 lakh for Ash Brick Manufacturing Machine has been disallowed."*

19. In line with the said decision, the claim towards ash brick manufacturing machine in 2012-13 is disallowed.

Other Capital Works

20. The petitioner has claimed de-capitalization of (-) ₹173.03 lakh in 2012-13 and capitalization of ₹905.43 lakh in 2013-14 towards Spare Generator Transformer under Regulation 9(2) read with Regulation 44 of the 2009 Tariff Regulations. The petitioner has submitted that if no spare transformer is available, the failure of Generator Transformer leads to unit outage for long duration thereby depriving the beneficiaries of a substantial capacity of power since the lead time for procurement of Generator Transformer is 15-24 months (approx). The petitioner has further submitted that considering the age of the existing Generator Transformer, its indispensability and

the increased availability norms specified under the 2009 Tariff Regulations, availability of spare Transformer is necessary for the generating station. The petitioner has also submitted that the spare transformer is necessary not only for carrying out the long duration maintenance of ageing fleet of Transformers, but also to counter the threat to grid security due to the sudden failure of the transformer.

21. We have examined the matter. It is observed that the Commission had disallowed the expenditure claimed by the petitioner for spare Generator Transformer in the order dated 7.8.2014. The relevant portion of the order is extracted as under:

> *"21. The petitioner has also claimed projected expenditure of `900.00 lakh in year 2013-14 for purchase of spare Generator Transformer. The petitioner has submitted that if no spare transformer is available, the failure of Generator Transformer leads to unit outage for long duration thereby depriving the beneficiaries of a substantial capacity of power since the lead time for procurement of Generator Transformer is 15-24 months (approx). The petitioner has further submitted that considering the age of the existing Generator Transformer, its indispensability and the increased availability norms specified under the 2009 Tariff Regulations, availability of spare Transformer is necessary for the generating station. The petitioner has also submitted that the spare transformer is necessary not only for carrying out the long duration maintenance of ageing fleet of Transformers, but also to counter the threat to grid security due to the sudden failure of the transformer.*
>
> *22. We have examined the submissions of the petitioner. It is observed that the generating station has been granted Compensation Allowance of `3591.04 lakh in terms of Regulation 19(e) of the 2009 Tariff Regulations by Commission's order dated 12.9.2012 in order to meet the expenses of capital nature of assets including minor assets. In view of this, the claim of the petitioner for `886.00 lakh and `900.00 lakh for the years 2010-11 and 2013-14 respectively has not been allowed."*

22. On an appeal filed by the petitioner, the Appellate Tribunal for Electricity vide judgement dated 30.9.2015 in Appeal No. 251 of 2014 has affirmed the said order of the Commission. The relevant portion is extracted as under:

> *"…….*
> *11.3 The Counsel for the Appellant submitted that the Generator Transformer is an essential item in the Generating Section and further stated that in the event of failure of the same, it will lead to shut down of the plant and thereby the Generation of the plant is affected and hence keeping a Generator Transformer as spare will serve useful purpose. Further, when the Generator Transformer of Unit IV is failed on 16.10.2011, due to availability of spare transformer procured during 2010-11 was kept in place of the failed transformer thereby save the long outage.*

11.4 The contention of the Appellant/Petitioner is lucrative but spending huge capital expenditure on the Generator Transformer as a spare will lead to increase in capital cost of the project and thereby the cost of Generation will increase. This leads to burden to the consumers at large.

11.5 We feel that purchasing of spare generator transformer for each generating station is not advisable as it leads to increasing the capital expenditure of the Generating Station and it leads thereby higher generation cost and finally the consumers are burdened with higher tariff.

11.6 Thus, the Central Commission in the Impugned Order has legally and correctly disallowed the expenditure on the same GT and the relevant portion of the order is quoted below:

....

11.10 In view of the above discussions, the action of the Central Commission in disallowing the additional capital expenditure of Rs.1786 Lakhs towards purchase of Generator Transformer as a spare is affirmed and the issue is decided against the Appellant/Petitioner."

23. Accordingly, in line with above decisions we find no reason to allow the additional capital expenditure in exercise of the Power to relax under Regulation 44 of 2009 Tariff Regulations. Accordingly, the claim of the petitioner for additional capital expenditure of ₹905.43 lakh in 2012-13 towards generator transformer is not allowed. However, as the asset has become obsolete and is not in use, the de-capitalization of gross value of (-) ₹173.03 lakh related to the asset already included in base rate and considered for tariff has been adjusted in the capital cost.

DVR in Units I & III

24. The petitioner has claimed additional capital expenditure of ₹211.60 lakh (₹93.65 lakh in 2012-13 and ₹117.95 lakh in 2013-14) for installation of DVR in Units I & III under Regulation 9(2)(ii). In justification, the petitioner has submitted that Units-I and III of the generating station has USSR make Generator Excitation system with single channel AVR and as per CEA (Technical standards for connectivity of the grid) Regulations 2007, the generators above 100 MW shall have automatic voltage regulator with two separate channels having independent inputs and automatic changeover. The petitioner has also submitted that for a generating station of 3260 MW capacity it is necessary to have strongly reliable generator excitation system for all units as per norms, to have similar kind of response from all units AVRs to control the reactive power. The petitioner has further submitted that as all other units have DAVR, it is desirable to replace the existing USSR make single auto

channel AVRs of Units-I and III. The petitioner has stated that the non-availability of spares for these old designs based on discrete electronic component has reduced the reliability of these AVR and response of these AVRs is slower than the new generation DAVR.

25. We have examined the matter. It is observed that the Commission vide order dated 7.8.2014 in Petition No. 182/GT/2013 had disallowed the expenditure ₹160.00 lakh towards Digitally controlled AVR for the period 2012-14 in respect the generating station. On an appeal filed by the petitioner, the Appellate Tribunal for Electricity vide its judgement dated 30.9.2015 in Appeal No. 251 of 2014 has affirmed the said order of the Commission. The relevant portion is extracted as under:

> *"…….*
> *15.7 The Digital Voltage Regulators is a new asset in capital in nature and as per Regulation 19(e) of the Tariff Regulations, 2009; Appellant/Petitioner can meet the expenditure under Compensation Allowance as Rs.3594.04 Lakhs granted in the order dated 12.9.2012.*
>
> *15.8 Thus, the decision of the Central Commission in disallowing the additional expenditure on Digital Voltage Regulators in the Impugned Order dated 7.8.2014 is affirmed.*
>
> *15.9 Accordingly, this issue is decided against the Appellant."*

26. Accordingly, in line with the above decisions, the claim of the petitioner for additional capital expenditure of ₹211.60 lakh (₹93.65 lakh in 2012-13 and ₹117.95 lakh in 2013-14) for installation of DVR in Units I & III towards Digitally controlled AVR in 2013-14 is not allowed. The petitioner shall meet the same from the Compensation Allowance allowed in terms of Regulation 19(e) of the 2009 Tariff Regulations.

Building permission fees

27. The petitioner has claimed the actual additional capital expenditure of ₹269.38 lakh (₹1.23 lakh as additional capital expenditure and ₹268.15 as the expenditure 'transferred to Revenue account' in 2012-13) for payment made to the State authorities due to the order of High Court under Regulation 9(2)(ii). The petitioner has submitted that construction activities of building for the generating station were taken up during the erection & commissioning period of Stage-I units in the period 1983-92. It has also submitted that the Municipal Corporation of Singrauli raised a demand of

44,13,40,000/- vide Notice 911/MC/99 dated 31.5.1999 towards building permission fees including compounding fees thereon stating the reason that the building was illegally constructed without permission. The petitioner has submitted that it had filed an appeal before the High Court of Madhya Pradesh against the order of the Municipal Corporation of Singrauli and in terms of the order dated 6.3.2012 of the High Court, an amount of ₹269.38 lakh was paid to the State authorities on 16.8.2012. Accordingly, the petitioner has prayed that the Commission may allow the capitalisation of the said expenditure as the same was deposited due to order/direction of the High Court. The petitioner has further submitted that due to accounting policy it has shown the amount ₹268.15 lakh in profit and loss account and the remaining ₹1.23 lakh in the additional capital expenditure.

28. The respondent, MPPMCL has submitted that the petitioner has not paid the required building permission fees in time and resultantly, for the default on the part of the petitioner, liability has reached to such a high amount. It has prayed that the petitioner may be directed to submit the head-wise details of the amount being claimed as to show the amount payable towards building permission fees and payable towards compounding and delayed payment surcharge etc.

29. We have examined the matter. It is noticed that the petitioner has claimed additional capital expenditure under Regulation 9(2)(ii) of the 2009 Tariff Regulations. However, the change in law which has necessitated the capitalisation of the said expenditure has not been pointed out/justified by the petitioner. The petitioner has also submitted that an amount of ₹269.38 lakh was paid to the State authorities on 16.8.2012 as per the order/direction of the High Court. However, the petitioner has not submitted any documentary evidence i.e. the copy of Court order etc., in order to substantiate/justify that the expenditure claimed has been paid in terms of the direction of the Court. In the absence of any proper justification, we find no reason to allow the capitalisation of the expenditure claimed by the petitioner. Accordingly, the additional capital expenditure of ₹269.38 lakh claimed by the petitioner is not allowed.

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Scheme for supply of Electricity within 5 km radius

30. The petitioner has claimed additional capital expenditure of ₹1375.07 lakh in 2013-14 towards Implementation of the scheme for creating infrastructure for reliable supply of electricity within the 5 KM radius of the generating station under Regulation 9(2)(ix) of the 2009 Tariff Regulations. In justification of the same, the petitioner has submitted that the expenditure for creating infrastructure for the supply of reliable power to rural households within 5 KM radius of the generating station has been undertaken on the basis of GoI scheme. It has submitted that the Ministry of Power (MOP), GOI vide its letter dated 5.3.2014 had conveyed its approval for completing the works and to capitalize the expenditure through CERC as per provisions of the scheme. The petitioner has enclosed the letter of communication with the MOP and has further submitted that despite its best efforts to hand over all the assets pertaining to the scope of work under this scheme during 2009-14 to the respective discoms, few balance assets could not be handed over during this period and these balance assets are being handed over in the period 2014-19. Accordingly, the petitioner has requested to allow the expenditure incurred on this head in 2013-14 and to grant liberty to approach for claim of these minor balance assets during the period 2014-19.

31. The respondent, MPPMCL has submitted that though this expenditure can be allowed by the Commission in view of provisions contained in amendment Regulation 9(2)(ix), yet the expenditure of this nature has to be borne by the petitioner under its corporate social responsibilities. It has further submitted that the Unit- I & II have already completed their useful life and other units are also on the verge of completion of their useful life within a year or two and, there appears no justification in loading the burden of rural electrification on beneficiaries at this stage of the plant and such expense should be borne by the petitioner under its CSR obligation.

32. The matter has been examined. The scheme for supply of electricity within 5 KM radius around Central Power Plants was withdrawn vide Ministry of Power, Government of India notification dated 25.3.2013. However, it is noticed that the Ministry of Power, GOI by letter dated 8.3.2014 has

granted exemption in respect of 8 ongoing projects around the generating stations of the petitioner, including this generating station, under the erstwhile scheme and has conveyed the approval for capitalization of expenditure for this generating station also as per provisions of the said scheme, subject to orders of this Commission. It is noticed that the petitioner had claimed projected expenditure of ₹1502.00 lakh in 2013-14 in Petition No. 182/GT/2013 and the Commission in its order dated 7.8.2014 had observed as under:

> *"27. We have examined the submissions of the petitioner. By order dated 12.9.2012, the petitioner was granted liberty to approach the Commission to claim the expenditure under this head. Accordingly, the petitioner had awarded the work for execution in respect of this generating station on 20.3.2012 and has sought the capitalization of the projected expenditure during 2013-14. Though the said scheme was earlier withdrawn by MOP, GOI by notification dated 25.3.2013, subsequently, by notification dated 5.3.2014 the MOP, GOI has granted exemption from withdrawal of the said scheme in respect of eight generating stations of the petitioner, including this generating station and has observed that capitalization of the said expenditure shall be made through the Commission as per provisions of the scheme. Regulation 9(2)(ix) of the 2009 Tariff Regulations, as amended on 31.12.2012 provides that the Commission in its discretion, may consider the "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". Considering the fact that the 2009 Tariff Regulations provides for additional capitalization of the expenditure towards supply of power within a radius of (five) 5 km and since considerable work has been done in this project, we are of the view that the additional capital expenditure shall be admissible to the petitioner. However, the expenditure on this scheme shall be considered at the time of final determination of tariff by which time the actual cost of the scheme and the completion certificate including the certificate to the effect that assets have been taken over by the distribution company will be available to the petitioner. We direct accordingly."*

33. In terms of the liberty granted, the petitioner has claimed the actual additional capital expenditure of ₹1375.07 lakh in 2013-14 and has prayed that the same may be allowed. The petitioner has submitted vide affidavit dated 4.3.2016, the copies of certificates for handover of the assets to Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd. (MPPKVVCL), Singrauli. Similar claim of the petitioner was considered by the Commission in Petition No. 315/GT/2014 (revision of tariff of Singrauli STPS (2000 MW) for 2009-14] and the Commission vide order dated 21.12.2015 had allowed the said claim observing as under:

> *"23. We are of the considered view that since the petitioner has incurred the expenditure for creation of the infrastructure, the same should be allowed. However, instead of servicing the same as part of the capital cost, we are of the view that the said expenditure should be reimbursed by the beneficiaries in proportion to their share, in the remaining three years of the tariff period 2014-19, in equal monthly instalments beginning from April, 2016, along with*

regular bills, with the weighted average rate of interest on loan applicable for the relevant years as indicated in the table under para 54 of this order. The reimbursement directed as above is in relaxation of Regulation 9 (2) (ix) of the 2009 Tariff Regulations and shall not be cited as precedent in future"

34. In line with the above decision of the Commission and since the expenditure has been incurred and capitalized by the petitioner for creation of the infrastructure, we are of the view that the said expenditure should be reimbursed by the beneficiaries in proportion to their share, in the remaining three years of the tariff period 2014-19, in equal monthly instalments beginning from October, 2016, along with regular bills, with the weighted average rate of interest on loan applicable for the relevant years as indicated in the table under Para 52 of this order, till the date of capitalization of asset. The reimbursement directed as above is in relaxation of Regulation 9 (2) (ix) of the 2009 Tariff Regulations and shall not be cited as precedent in future.

Exclusions

35. It is noticed from the above that the actual additional capital expenditure claimed by the petitioner is at variance with the additional capital expenditure as per books of accounts. This is on account of exclusion of certain expenditure and un-discharged liabilities for the purpose of tariff. The summary of exclusions claimed as per books of accounts is examined as under:

(₹in lakh)

Exclusions	**2012-13**	**2013-14**
Capitalisation of Capital spares	922.99	926.01
Decapitalisation part of capital cost	(-)23.93	(-)503.21
Decapitalisation not part of capital cost	(-)388.78	(-)4.10
Liability Reversal	(-)12.82	0.00
Inter-unit transfers	0.00	(-)19.45
Plant and machinery	0.00	45.60
FERV	65.58	69.49
Total Exclusions (i to o)	**563.03**	**514.34**

Capitalization of spares

36. The petitioner has procured spares amounting to ₹922.99 lakh during 2012-13 and ₹926.01 lakh during 2013-14 for maintaining stock of necessary spares. Since capitalization of capital spares over and 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 exclusion of the said amount during 2012-13 and 2013-14 is in order and hence allowed.

Reversal of Liability

37. The petitioner has excluded an amount of (-)₹12.82 lakh during 2012-13 on account of reversal of liability out of un-discharged liability as on 1.4.2009. Since the admitted capital base as on 31.3.2009 has already been reduced by excluding the un-discharged liability as on 1.4.2009, the exclusion of reversal of liability has been allowed.

Inter-unit transfer

38. An amount of (-) ₹19.45 lakh in 2013-14 has been excluded under this head on account of transfer of certain assets. These inter-unit transfers are stated to be of temporary nature. The Commission while dealing with applications 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 exclusions of the amount of (-) ₹19.45 lakh in the year 2013-14 on account of inter-unit transfers of on temporary basis is in order and has been allowed.

Capitalization of Miscellaneous Bought Out Assets (MBOA)

39. The petitioner has capitalized MBOA items of the nature of plant and machinery in books of accounts amounting to ₹45.60 lakh during 2013-14. Since the capitalization of minor assets is not allowed after cut-off date, the exclusions of the said amounts during 2013-14 is in order and has been allowed.

De- capitalization of Capital Spares, MBOA and tools and plants

40. The petitioner has de-capitalized in books of accounts capital spares amounting to (-) ₹4.10 lakh in 2012-13 and (-) ₹388.78 lakh in 2013-14 on account of consumption of these items. The petitioner has submitted that these are not part of capital cost. The exclusion sought on de-capitalization of these items has been examined and it is noticed that they do not form part of capital

cost of the generating station. Hence, exclusion of de-capitalization of assets amounting to (-) ₹4.10 lakh in 2012-13 and (-) ₹388.78 lakh in 2013-14 which do not form part of capital cost is in order is allowed.

41. The petitioner has de-capitalized in books of accounts MBOA and capital spares amounting to (-) ₹23.93 lakh in 2012-13 and (-) ₹503.21 lakh in 2013-14 on account of consumption of these items. The petitioner has submitted that these are part of capital cost. The exclusion sought on de-capitalization of these items has been examined and it is noticed that they form part of capital cost of the generating station. Hence, exclusion of de-capitalization of assets amounting to (-) ₹23.93 lakh in 2012-13 and (-) ₹503.21 lakh in 2013-14 which form part of capital cost is not in order and thus not allowed.

FERV

42. The petitioner has excluded an amount of ₹65.58 lakh in 2012-13, and ₹69.49 lakh in 2013-14 on account of impact of FERV. As the petitioner has billed FERV directly on the beneficiaries, the exclusion of FERV is in order and has been allowed

43. Based on the above, the summary of exclusions allowed and disallowed for the period 2009-14 is as under:

(₹ in lakh)

Exclusion allowed	586.96	1017.55
Exclusion claimed	563.03	514.34
Exclusion not allowed	(-) 23.93	(-) 503.21

44. Accordingly, the actual additional capital expenditure allowed for the period 2012-14 is summarised as under:

(₹ in lakh)

Sr. No.	**Head of Work/Equipment**	**Additional capital expenditure**		**Total**
		2012-13	**2013-14**	
A.	**Ash Handling System**			
1	Ash Dyke Raising & associated works	579.93	90.86	670.79

Sr. No.	Head of Work/Equipment	Additional capital expenditure		Total
2	Garlanding of Ash Dyke	464.78	0.34	465.12
3	Ash Brick Manufacturing Machine	0.00	0.00	0.00
	Total Ash Handling System	**1044.71**	**91.20**	**1135.91**
B	**Other Capital Works**			
1	Building Permission Fees	0.00	0.00	0.00
2	De-capitalisation of Generator Transformer	(-)173.03	0.00	(-)173.03
3	Generator Transformer	0.00	0.00	0.00
4	DVR in Units 1 & 3	0.00	0.00	0.00
5	Electrification under GoI 5 KM scheme	0.00	0.00	0.00
	Total (Other Capital Works)	**(-)173.03**	**0.00**	**(-)173.03**
	Net Additional capital expenditure	**871.68**	**91.20**	**962.88**
	Exclusion Not allowed	**(-)23.93**	**(-)503.21**	**(-)527.13**
	Total Additional capital expenditure	**847.75**	**(-)412.01**	**435.75**

45. The reconciliation of the actual additional capital expenditure for 2012-13 and 2013-14 with books of accounts as submitted by the petitioner is as under:

(₹in lakh)

		2012-13	2013-14
a	Opening Gross Block as per Balance sheet	151978.09	153574.14
b	Less: unserviceable assets	8.33	0.00
c	Opening Gross Block as per Balance sheet	151969.76	153574.14
d	Closing Gross Block as per Balance sheet	153574.14	156955.98
e	Net Additional capitalization	1604.39	3381.84
f	Add Cap claimed as per Form-9	1327.23	2513.71
g	Less: Discharge of liability	51.93	24.05
h	Additional capital exp. claimed on cash basis	1275.30	2489.66
i	Add: Un-discharged liabilities in additional capital expenditure	34.20	377.84
j	Total additional capital expenditure claimed on Gross Basis (h+i)	1309.50	2867.50
	<u>Exclusion</u>		
k	Capitalisation of Capital spares	922.99	926.01
l	De-capitalisation part of capital cost	(-)23.93	(-)503.21
m	De-capitalisation not part of capital cost	(-)388.78	(-)4.10
n	Liability Reversal	(-)12.82	0.00
o	Inter-unit transfers	0.00	(-)19.45
p	Plant and machinery	0.00	45.60
q	FERV	65.58	69.49
	Total Exclusions (k to q)	**563.03**	**514.34**
	Total Additional capital expenditure	**1872.54**	**3381.84**
	Net Additional capital expenditure	**1604.39***	**3381.84**

**The expenditure of ₹268.15 'transferred to Revenue account' during 2012-13 has not been considered for reconciliation purpose.*

Un-discharged liabilities

46. Out of the un-discharged liabilities deducted as on 1.4.2009, the petitioner has discharged an amount of ₹13.07 lakh, ₹4.83 lakh, and ₹39.08 lakh during the year 2009-10, 2010-11, and 2012-13 respectively and reversed amounts of ₹46.42 lakh, ₹20.96 lakh, ₹12.49 lakh, and ₹12.82 lakh during the year 2009-10, 2010-11, 2011-12 and 2012-13, respectively. The above discharges of liabilities have been allowed during respective years in addition to the admitted additional capital expenditure for the said years.

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Un-discharged liabilities as on 1.4.2009 (corresponding to allowed assets)- A	**445.60**				
Discharges during the period out of liabilities as on 1.4.2009 (corresponding to allowed assets)- B	13.07	4.83	0.00	39.08	0.00
Reversals during the period out of liabilities as on 1.4.2009 (corresponding to allowed assets)- C	46.42	20.96	12.49	12.82	0.00
Addition during the period 2009-14 (corresponding to allowed assets)- D	43.96	0.67	8.54	30.20	222.72
Discharges during the period out of liabilities added during 2009-14 (corresponding to allowed assets)- E	0.00	15.59	15.15	7.32	24.05
Reversal of liabilities out of liabilities added during 2009-14 (corresponding to allowed assets)- F	0.00	0.53	0.00	0.00	0.00
Discharges of liabilities for the period (B+E)	**13.07**	**20.42**	**15.15**	**46.40**	**24.05**

Actual Additional Capital Expenditure:

47. Considering the discharges of liabilities during the period 2009-14, the net additional capital expenditure allowed is as under:

(₹in lakh)

	2012-13	2013-14	Total
Admitted Additional capital expenditure	**871.68**	**91.20**	**962.88**
Discharge of liabilities	46.40	24.05	70.45
Exclusions not allowed	(-)23.93	(-)503.21	(-)527.13
Total Additional capital expenditure allowed	**894.16**	**(-)387.96**	**506.20**

48. Accordingly, the capital cost considered for the purpose of tariff for the period 2012-14 is as under:

(₹ in lakh)

	2012-13	2013-14
Opening Capital Cost	147652.43	148546.59
Add: Additional capital expenditure	894.16	(-)387.96
Closing Capital Cost	**148546.59**	**148158.63**
Average Capital Cost	**148099.51**	**148352.61**

Debt-Equity Ratio

49. In terms of the provisions of Regulation 12 of the 2009 Tariff Regulations gross loan and equity amounting to ₹74447.14 lakh and ₹73595.23 lakh, respectively has been considered after taking into account the position of un-discharged liabilities as on 1.4.2009. Further, the actual/projected additional expenditure approved above has been allocated in debt-equity ratio of 70:30.

Return on Equity

50. The petitioner has considered pre tax ROE of 23.481% for 2013-14. The respondents objected to petitioner's claim. MPPMCL has requested that the petitioner may be directed to submit the information regarding applicable income tax rate as per the income tax act 1961 of the respective financial year & refund of excess annual fixed charges recovered from the beneficiaries.

In response, the petitioner submitted that RoE claim of petitioner is strictly as per Regulation 15(3) of the 2009 Tariff Regulations. In view of the fact that pre-tax ROE works out to 23.481%, considering the actual tax rate for 2013-14, the same has been considered. Accordingly, return on equity is worked out as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	73595.23	73571.52	73516.86	73478.25	73746.50
Addition of Equity due to additional capital expenditure	(-)23.71	(-)54.66	(-)38.61	268.25	(-)116.39
Normative Equity-Closing	73571.52	73516.86	73478.25	73746.50	73630.11
Average Normative Equity	73583.38	73544.19	73497.55	73612.37	73688.30
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
Tax Rate for the year	33.990	33.218	32.445	32.445	33.990
Rate of Return on Equity (Pre Tax)	23.481	23.210	22.944	22.944	23.481
Return on Equity(Pre Tax) annualised	**17278.11**	**17069.61**	**16863.28**	**16889.62**	**17302.75**

Interest on loan

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

(a) The gross normative loan of ₹74447.14 lakh as on 1.4.2009 has been considered.

(b) Cumulative repayment as on 1.4.2009 amounting to ₹70110.06 lakh as considered in order dated 7.8.2014 in Petition No. 182/GT/2013 has been considered as cumulative repayment as on 1.4.2009.

(c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹4337.08 lakh.

(d) Addition to normative loan to the tune of 70% of additional capital expenditure approved above has been considered on year to year basis.

(e) In line with the provisions of Regulation 16(5), the weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.4.2009 along with subsequent additions during the period 2009-14, if any. In case of loans carrying floating rate of interest, the rate of interest as provided by the petitioner has been considered for the purpose of tariff. However, in case of LIC (T4 D1, T4 D4), it is observed that petitioner has claimed additional interest of 0.02206% and .01697% towards upfront fees. It is observed that the claim of the petitioner towards upfront fees had been disallowed by the Commission while working out the weighted average rate of interest on loan in respect of Badarpur TPS vide tariff order dated 15.5.2014 in Petition No. 304/2009. In line with this decision and for the purpose of consistency, the claim of the petitioner towards upfront fees for this generating station has not been allowed.

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

52. The necessary calculations for interest on loan are given as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	74447.13	74391.81	74264.27	74174.17	74800.08
Cumulative repayment of loan upto previous year	70110.06	70289.41	70529.39	70814.67	71170.34
Net Loan Opening	4337.07	4102.40	3734.88	3359.50	3629.74
Addition due to additional capital expenditure	(-)55.32	(-)127.54	(-)90.10	625.91	(-)271.57
Repayment of loan during the year	369.48	379.02	383.27	483.97	541.64
Less: Repayment adjustment on account of de-capitalization	203.07	144.63	100.70	137.87	352.24
Add: Repayment adjustment on account of discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	12.93	5.60	2.71	9.57	0.00
Net Repayment	179.34	239.99	285.28	355.67	189.39
Net Loan Closing	4102.40	3734.88	3359.50	3629.74	3168.78
Average Loan	4219.73	3918.64	3547.19	3494.62	3399.26
Weighted Average Rate of Interest of loan	5.7244	5.0208	4.7922	4.7251	4.8904
Interest on Loan	**241.56**	**196.75**	**169.99**	**165.12**	**166.24**

Depreciation

53. The cumulative depreciation as on 31.3.2009 as per order dated 7.8.2014 in Petition No. 182/GT/2013 works out to ₹128151.13 lakh, after taking into account the undischarged liabilities as on 1.4.2009. The cumulative depreciation has been adjusted for de-capitalization, if any, considered during the period 2009-14. Necessary calculations in support of depreciation are as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	148042.37	147963.34	147781.14	147652.43	148546.59
Add: Additional Capital Expenditure	(-)79.03	(-)182.20	(-)128.71	894.16	(-)387.96
Closing Capital Cost	147963.34	147781.14	147652.43	148546.59	148158.63
Average Capital Cost	148002.86	147872.24	147716.79	148099.51	148352.61
Balance useful life	7.58	6.58	5.58	4.58	3.58
Depreciable value (excluding land)@ 90%	130951.81	130834.26	130694.35	131038.80	131266.59
Balance depreciable Value	2800.68	2493.95	2138.65	2216.60	1939.06
Depreciation (annualized)	**369.48**	**379.02**	**383.27**	**483.97**	**541.64**
Cumulative depreciation at the end	128520.61	128719.33	128938.97	129306.18	129869.17
Less: Cumulative Depreciation adjustment on account of un-discharged liabilities	51.50	22.32	10.81	44.93	0.00
Less: Cumulative Depreciation reduction due to de-capitalization	231.80	185.95	127.58	23.58	452.89
Cumulative depreciation (at the end of the period)	128340.31	128555.70	128822.21	129327.53	129416.28

O&M Expenses

54. O&M expenses as considered in order dated 7.8.2014 in Petition No. 182/GT/2013 has been considered as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	22932.00	24242.40	25628.40	27102.60	28652.40

Interest on Working Capital

55. Regulation 18(1)(a) of the 2009 Tariff Regulations provides that the working capital for coal based generating stations shall cover:

(i) Cost of coal for 1.5 months for pit-head generating stations and two months for non-pithead generating stations, for generation corresponding to the normative annual plant availability factor;

(ii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.

(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor; and

(v) O&M expenses for one month.

56. Clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

"Rate of interest on working capital shall be on normative basis and shall be considered as follows:

(i) SBI short-term Prime Lending Rate as on 01.04.2009 or on 1st April of the year in which the generating station or unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the unit or station whose date of commercial operation falls on or before 30.06.2010.

(ii) SBI Base Rate plus 350 basis points as on 01.07.2010 or as on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the units or station whose date of commercial operation lies between the period 01.07.2010 to 31.03.2014.

Provided that in cases where tariff has already been determined on the date of issue of this notification, the above provisions shall be given effect to at the time of truing up.

Fuel Component in working capital

57. Fuel component in the working capital as considered in order dated 7.8.2014 in Petition No. 182/GT/2013 has been considered as under:

(` in lakh)

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Cost of coal – 1-1/2 months	14159.17	14159.17	14197.96	14159.17	14159.17
Cost of secondary fuel oil – two months	355.40	355.40	356.37	355.40	355.40

Maintenance spares

58. Maintenance spares as allowed in order dated 7.8.2014 in Petition No. 182/GT/2013 as stated has been considered as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
4586.40	4848.48	5125.68	5420.52	5730.48

Receivables

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 (two months)	18878.90	18878.90	18930.62	18878.90	18878.90
Fixed Charges (two months)	8236.01	8435.95	8665.35	8953.48	9306.61
Total	**27114.91**	**27314.84**	**27595.97**	**27832.38**	**28185.50**

O&M Expenses

60. O&M expenses for 1 month as allowed in order dated 7.8.2014 is allowed as under:

(₹ in lakh)

2009-10	2010-11	2011-12	2012-13	2013-14
1911.00	2020.20	2135.70	2258.55	2387.70

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 as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Coal Stock- 1-1/2 months	14159.17	14159.17	14197.96	14159.17	14159.17
Oil stock-2 months	355.40	355.40	356.37	355.40	355.40
O&M expenses - 1 month	1911.00	2020.20	2135.70	2258.55	2387.70
Maintenance Spares	4586.40	4848.48	5125.68	5420.52	5730.48
Receivables- 2 months	27114.91	27314.84	27595.97	27832.38	28185.50
Total Working Capital	**48126.88**	**48698.09**	**49411.68**	**50026.02**	**50818.25**
Rate of Interest	12.25	12.25	12.25	12.25	12.25
Total Interest on working capital	**5895.54**	**5965.52**	**6052.93**	**6128.19**	**6225.24**

Compensation Allowance

62. The Compensation allowance as allowed in order dated 7.8.2014 remain unchanged.

Annual Fixed Charges

63. Accordingly, the annual fixed charges allowed for the period 2009-14 are summarized as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	369.48	379.02	383.27	483.97	541.64
Interest on Loan	241.56	196.75	169.99	165.12	166.24
Return on Equity	17278.11	17069.61	16863.28	16889.62	17302.75
Interest on Working Capital	5895.54	5965.52	6052.93	6128.19	6225.24
O&M Expenses	22932.00	24242.40	25628.40	27102.60	28652.40
Secondary fuel oil cost	2132.38	2132.38	2138.23	2132.38	2132.38
Compensation Allowance	567.00	630.00	756.00	819.00	819.00
Total	**49416.08**	**50615.67**	**51992.09**	**53720.89**	**55839.65**

64. The difference in the annual fixed charges determined by order dated 7.8.2014 and those determined by this order shall be adjusted in accordance with Regulation 6 (6) of the 2009 Tariff Regulations.

65. Petition No. 306/GT/2014 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-
(Dr. M.K.Iyer)	**(A.K.Singhal)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Chairperson**