

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 233/GT/2013**

**Coram:**

Shri Gireesh B. Pradhan, Chairperson

Shri M. Deena Dayalan, Member

Shri A.K.Singhal, Member

Ms. Neerja Mathur, Member (EO)

**Date of Hearing: 06.03.2014**

**Date of Order: 12.11.2014**

**In the matter of**

Revision of tariff of Farakka Super Thermal Power Station, Stage-I & II (1600 MW) for the period from 1.4.2009 to 31.3.2014 –Truing up of tariff determined by order dated 14.6.2012 in Petition No. 222/2009.

**And**

**In the matter of**

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

**....Petitioner**

**Vs**

1. West Bengal State Electricity Distribution Co. Ltd.  
Vidyut Bhawan, Block – DJ,  
Sector – II, Salt Lake City, Kolkata - 700091

2. Bihar State Power Holding Company (BSEB)  
Vidyut Bhawan, Bailey Road,  
Patna – 800001

3. Jharkhand State Electricity Board  
Engineering Bhawan, Heavy Engineering Corporation,  
Dhurwa, Ranchi – 834004

4. Grid Corporation of Orissa Ltd.,  
Vidyut Bhawan, Janpath  
Bhubaneswar – 751007



5. Damodar Valley Corporation,  
DVC Towers, VIP Road  
Kolkata – 700054
6. Power Department  
Govt. of Sikkim, Kazi Road  
Gangtok, Sikkim – 737101
7. Tamil Nadu Electricity Board  
NRKPRP Maaligai,  
800, Anna Salai  
Chennai – 600002
8. Union of Territory of Puducherry  
Electricity Department  
58, Subhash Chandra Bose Salai,  
Pondicherry – 605001
9. Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow – 226001
10. Power Development Department  
Govt. of J&K Secretariat  
Srinagar
11. Power Department,  
Union Territory of Chandigarh  
Addl. Office Building, Sector –9 D  
Chandigarh
12. BSES Rajdhani Power Ltd.  
BSES Bhawan, Nehru Place,  
New Delhi – 110019
13. BSES Yamuna Power Ltd.,  
Shakti Kiran Building, Karkardooma  
Delhi
14. Tata Power Delhi Distribution Limited  
33KV Sub Station Building,  
Hudson Lane, Kingsway Camp  
New Delhi
15. Madhya Pradesh Power Trading Company Ltd.  
Shakti Bhawan, Vidyut Nagar,  
Jabalpur – 482008
16. Gujarat Urja Vikas Nigam Ltd.,  
Sardar Patel Vidyut Bhawan  
Race Course, Baroda – 390007

17. Electricity Department  
Administration of Daman & Diu (DD)  
Daman – 396210

18. Electricity Department  
Administration of Dadar and Nagar Haveli (DNH)  
Silvassa, via VAPI

19. Maharashtra State Electricity Distribution Company Ltd.,  
'Prakashgad' Bandra (East)  
Mumbai – 400051

...Respondents

**Parties present:**

**For Petitioner:** Shri Ajay Dua, NTPC  
Shri A.S.Pandey, NTPC  
Shri Umesh Ambati, NTPC

**For Respondents:** Shri Manish Garg, UPPCL & BYPL  
Shri Sameer Singh, BYPL  
Shri R.B.Sharma, Advocate, BRPL and GRIDCO

**ORDER**

This petition has been filed by the petitioner, NTPC for revision of tariff of Farakka Super Thermal Power Station, Stage-I & II (1600 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014 in terms of the proviso to Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The generating station with a capacity of 1600 MW comprises of three units of 200 MW each and two units of 500 MW each. The dates of commercial operation (COD) of the different units of the generating station are as under:

	<b>COD</b>
Unit-I	1.11.1986
Unit-II	1.10.1987
Unit-III	1.9.1988
Unit-IV	1.7.1996
Unit-V	1.4.1995

3. Petition No. 222/2009 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 14.6.2012 approved the annual fixed charges of the generating station tariff based on the capital cost of ` 310919.13 lakh, after removing the undischarged liabilities amounting to ` 2579.17 lakh as on 1.4.2009. Thereafter, the Commission by its order dated 19.6.2013 in Petition No. 24/RP/2012 revised the annual fixed charges of the generating station after correction of certain errors in the order dated 14.6.2012 in Petition No.222/2009.

4. The petitioner presently seeks revision of the annual fixed charges based on the actual additional capital expenditure incurred for the years 2009-10, 2010-11 and 2011-12 and revised projected estimated expenditure for the years 2012-13 and 2013-14 in accordance with clause (1) of Regulation 6 of the 2009 Tariff Regulations. Clause (1) of 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. In terms of the above, the petitioner vide affidavit dated 27.4.2013 has filed this petition for revision of tariff of the generating station for the period 2009-14. Subsequently, the petitioner vide affidavit dated 28.10.2013 has revised its claim for annual fixed charges for the period 2009-14 as under:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	7143.13	7732.28	8072.37	8055.42	8109.03
Interest on Loan	158.87	19.90	0.00	0.00	0.00
Return on Equity	36360.96	36331.38	36124.65	36135.55	36157.81
Interest on Working Capital	11196.20	11287.36	11395.73	11480.34	11593.10
O&M Expenses	23920.00	25284.00	26734.00	28266.00	29884.00
Secondary Fuel Oil Cost	2300.68	2300.68	2306.98	2300.68	2300.68
Compensation Allowance	540.00	640.00	640.00	610.00	480.00
Special Allowance	0.00	0.00	0.00	1181.60	2498.38
<b>Total</b>	<b>81619.85</b>	<b>83595.59</b>	<b>85273.73</b>	<b>88029.60</b>	<b>91023.00</b>

6. The petitioner has filed additional information as directed by the Commission and had served copies of the same on the respondents. The respondents, UPPCL, BRPL, BYPL, GRIDCO and MSEDCL have filed their replies and the petitioner has filed its rejoinder to the said replies. Based on the submissions of the parties and the documents available on record, we proceed to consider the claims of the petitioner as stated 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 admitted capital cost as on 31.3.2009 is `313498.30 lakh as approved by order dated 21.3.2012 in Review Petition No.11/2011 in Petition No.150/2009. The opening capital cost as on 1.4.2009 works out to `310881.81 lakh after removing un-discharged liabilities amounting to `2616.49 lakh (`2285.90 lakh pertaining to period prior to 1.4.2004 and `330.59 pertaining to period 2004-09). The increase in the liability amount from `2579.17 lakh to `2616.49 lakh is on account of the amount for `37.31 lakh corresponding to capitalization of SAP license under DAP implementation, which was inadvertently left out while determining tariff in order dated 14.6.2012 in Petition No. 222/2009.

### **Actual/ Projected Additional Capital Expenditure**

9. 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.”

10. The additional capital expenditure allowed by the order dated 14.6.2012 in Petition No. 222/2009 is as under:

( ` in lakh)

Sl. No	Head of work/ Equipment	Actual/Projected Capital Expenditure					
		2009-10 (Actual)	2010-11	2011-12	2012-13	2013-14	Total
<b>A</b>	<b>Environment system-Dry Ash extraction system</b>						
I	Up gradation of ESP	0.00	0.00	0.00	0.00	0.00	0.00
II	Dry ash extraction for Stage-I&II	0.00	0.00	0.00	0.00	14000.00	14000.00
III	Construction of Road from DAETP to NH-34	0.00	0.00	0.00	0.00	500.00	500.00
IV	Construction of Rail from DAETP to Tildanga gate	0.00	0.00	0.00	0.00	500.00	500.00
	<b>Sub-Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>15000.00</b>	<b>15000.00</b>
<b>B</b>	<b>Ash Handling related works</b>						
i	Ash handling/ Ash Dyke work	0.00	966.71	0.00	693.0	2192.00	3851.71
<b>C</b>	<b>Other Capital Works</b>						
i	Wagon tippler & associated system	5220.29	4437.74	0.00	0.00	0.00	9658.03
ii	Lift pumps	0.00	0.00	0.00	0.00	6810.00	6810.00
iii	Ambient air monitoring system	93.91	0.00	0.00	0.00	0.00	93.91
	<b>Sub-Total</b>	<b>5314.20</b>	<b>4437.74</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>16561.94</b>
I	De-capitalization	(-)158.00	(-) 4.04	0.00	0.00	0.00	0.00
ii	Total Additional capitalization allowed (excluding liabilities)	<b>5156.00</b>	<b>5400.41</b>	<b>0.00</b>	<b>693.00</b>	<b>24002.00</b>	<b>35251.61</b>
	Discharge of liabilities allowed	103.08	330.99	0.00	0.00	0.00	0.00
	Total Additional capital expenditure allowed (including liabilities)	<b>5259.28</b>	<b>5731.40</b>	<b>0.00</b>	<b>693.00</b>	<b>24002.00</b>	<b>35685.67</b>

11. The actual additional capital expenditure for the period 2009-12 and projected additional capital expenditure for the years 2012-13 and 2013-14 claimed by the petitioner vide affidavit dated 28.10.2013 is summarized as under:

Sl. No	Head of work/ Equipment	Actual/ Projected Additional Capital expenditure					Total
		2009-10 (Actual)	2010-11 (Actual)	2011-12 (Actual)	2012-13 (Proj)	2013-14 (Proj)	
<b>A</b>	<b>Ash Handling System</b>						
1	Ash Dyke Raising, Stage-1	-	498.28	-	-	-	498.28
2	Ash Dyke Raising, Stage-2	-	465.87	-	-	646.80	1112.67
A1	<b>Sub Total</b>	0.00	964.15	0.00	0.00	646.30	<b>1610.95</b>
<b>B</b>	<b>Environment System</b>						
	AAQMS	93.91	-	-	-	-	93.91
<b>C</b>	<b>Other Capital Works</b>						
1	Wagon Tippers associated system	5220.29	4437.73	-	-	-	9658.03
2.	Lift Pump	11.97	-	0.14	-	-	12.11
3	Extension of portion of Plant boundary	-	13.31	-	-	-	13.31
<b>D</b>	<b>Sub Total</b>	5232.26	4451.04	0.14	0.00	0.00	<b>9683.44</b>
	<b>Grand Sub Total</b>	<b>5326.17</b>	<b>5415.19</b>	<b>0.14</b>	<b>0.00</b>	<b>646.80</b>	<b>11388.30</b>
	Discharge of liabilities created prior to 2004	-	259.01	298.50	-	-	557.51
	Discharge of liabilities created during 2004-09	103.08	33.67	13.03	-	-	149.78
	Discharge of liabilities created 2009-10	-	88.56	5.17	-	-	93.73
D1	Discharge of liabilities	103.08	381.24	316.70	0.00	0.00	801.02
E1	Total de-capitalization of assets	-	(-) 21.73	-	-	-	<b>(-) 21.73</b>
	<b>Grand Total</b>	<b>5429.25</b>	<b>5774.69</b>	<b>316.84</b>	<b>0.00</b>	<b>646.80</b>	<b>12167.58</b>

12. It is noticed from the above that the projected additional capital expenditure of `6810 lakh allowed for the year 2013-14 towards Lift pumps in order dated 14.6.2012 has not been claimed by the petitioner during the tariff period vide affidavit dated 28.10.2013. The additional capital expenditure allowed during 2009-10 to 2013-14 in the order dated 14.6.2012 was `35251.61 lakh. However, the additional capital expenditure claimed in this petition is `18977.58 lakh including liabilities discharged for `801.02 lakh. Accordingly, there is a decrease of `16274.03 lakh in the claim made by the petitioner. The additional capital expenditure claimed has been further reduced to `12167.58 lakh as against the original additional capital expenditure of `35251.61 lakh allowed by order dated 14.6.2012. Accordingly, there is a total decrease of `23084.03 lakh in the said claim of the petitioner for capitalization and the same is on account of (a) claim of `15000.00 lakh under Environment System (dry ash extraction system) and (b)



less claim of ` 1610.95 lakh on Ash Handling System and (c) expenditure of ` 6810 lakh for Lift Pump allowed earlier has not been claimed by petitioner during this tariff period. We consider the claim of the petitioner towards additional capitalization as stated in the subsequent paragraphs:

**Deferred works relating to Ash Pond or Ash Handling System-Regulation 9(2)(iii)**

13. The Commission by order dated 14.6.2012 had allowed expenditure of ` 3851.71 lakh towards Ash handling/Ash dyke work which includes expenditure of ` 966.71 lakh during 2010-11 for 1<sup>st</sup> raising of Malancha Ash dyke lagoon and 3<sup>rd</sup> raising of Nishindra Ash dyke for Stage-II, ` 693.00 lakh during 2012-13 for 4<sup>th</sup> raising of Nishindra Ash dyke lagoon I & II and ` 2192.00 lakh during 2013-14 for Starter Ash dyke lagoon-III and drainage channel. The petitioner in this petition has claimed total actual additional capital expenditure of ` 964.15 lakh during 2010-11 for Ash Dyke raising (which includes ` 498.28 lakh for Stage-I and ` 465.87 lakh for Stage-II). The petitioner has also claimed projected expenditure of ` 646.80 lakh during 2013-14 for Ash dyke raising for Stage-II. The respondent, UPPCL has submitted that the additional capital expenditure claimed by the petitioner which is common for all the units shall be *pro rated* over all units and expenditure pertaining to units which have completed initial useful life should be settled from the Special Allowance claimed by the petitioner.

14. The matter has been examined. Regulation 9(2)(iii) of the 2009 Tariff Regulations provides for consideration of additional capital expenditure after the cut-off date in respect of deferred works related to ash pond or ash handling system within the original scope of work. It is noticed that the petitioner, in terms of Regulation 10(4) of the 2009 Tariff Regulations, has opted for Special Allowance of ` 3679.98 lakh during 2012-14 and the same is admissible to the two units of Stage-I of the generating station. As the useful life of the said two units of Stage-I have expired during this tariff period, we do not find any justification to allow the additional capital expenditure for the said units towards deferred work on Ash handling system during 2010-11 as the same should be met from the Special Allowance. In view of this,

the actual additional capital expenditure of `498.28 lakh for Stage-I claimed under Regulation 9(2)(iii) has not been allowed. However, the actual expenditure of `465.87 lakh during 2010-11 and the projected expenditure of `646.80 lakh during 2013-14 towards Ash Dyke raising claimed in respect of Stage-II of the generating station has been allowed under Regulation 9(2)(iii) of the 2009 Tariff Regulations.

### **Environment System**

15. The Commission by order dated 14.6.2012 had allowed projected expenditure of `15000.00 lakh during 2013-14 towards Environment System which includes the projected expenditure of `14000.00 lakh towards Dry Ash Extraction for Stage-I & II and `500.00 lakh each for Construction of road from DAETP to NH-34 and Construction of rail line from DAETP to Tildanga gate during 2013-14. The petitioner has not claimed any expenditure towards Dry Ash Extraction under Environmental Systems in this petition. However, it is noticed that an expenditure for `93.91 lakh claimed by the petitioner towards Ambient Air Quality Monitoring System (AAQMS) under the head "Other Works" in Petition No. 222/2009 was allowed by the Commission vide order dated 14.6.2012 under Regulation 9(2) (ii) of the 2009 Tariff Regulations, considering the fact that the expenditure incurred was in compliance with the statutory guidelines of the Central Pollution Control Board, which mandates continuous monitoring of various environmental parameters at the generating station. In view of this, the claim of the petitioner for `93.91 lakh on AAQMS under this head during 2009-10 is allowed.

### **Other Capital Works**

16. The claim of the petitioner under this head is examined as under:

#### **Wagon Tippler (2 nos), Associated Conveying system and Procurement of 3 nos. locos**

17. The petitioner has claimed actual total expenditure of `9658.03 lakh (`5220.29 lakh during 2009-10 and `4437.73 lakh during 2010-11) for Wagon Tipplers under Regulation 9(2)(vii) of the 2009 Tariff

Regulations. The Commission in order dated 14.6.2012 in Petition No.222/2009 while allowing the expenditure on this count, had observed as under:

*"It is observed that substantial quantity of coal was being received through Railway in Box-N Wagons. From the above table, it is evident that this generating station was in operation with target availability of 84-85% (approx) during 2005-08 even without a wagon tippler. However, considering the fact that installation of Wagon tipplers would bring about reduction in unloading time of coal rakes and is more environmental friendly (avoid undue exposure to hazardous fugitive emissions) the claim of the petitioner is justified. Further, the receipt of coal through railways has significantly increased from 2009-10 because of less receipt through MGR. In order to take care of the concerns of the beneficiaries, it needs to be ensured that the petitioner is able to arrange coal for generation up to NAPAF of 85% and recover the full fixed charges including the impact of cost of wagon tippler. Moreover, the utilities are also resorting to blending of imported coal taking into account the overall shortage of coal in the country. Considering the above factors in totality, we allow the expenditure claimed by the petitioner for Wagon Tippler and its associated works, under Regulation 9 (2)(vii) of the 2009 Tariff Regulations."*

18. In consideration of the above, the actual expenditure of ` 5220.29 lakh and ` 4437.73 lakh incurred during 2009-10 and 2010-11 respectively towards Wagon tipplers is allowed under Regulation 9(2)(vii) of the 2009 Tariff Regulations.

### **Lift Pumps**

19. The petitioner has claimed expenditure of ` 11.97 in 2009-10, ` 0.14 lakh in 2011-12 and ` 6810.00 lakh during 2013-14 towards lift pumps. However, vide affidavit dated 28.10.2013, the petitioner has not claimed the said expenditure for the year 2013-14 towards lift pumps.

20. It is observed that the Commission in order dated 14.6.2012 in Petition No. 222/2009 had considered the claim of the petitioner for capitalization of ` 6810.00 lakh during 2013-14 towards Lift pumps and the same was allowed under Regulation 9(2)(ii) as under:

*"29....Thus, taking into consideration that the requirement of this work is on account of diversion of water as per revised Indo-Bangla river water agreement, the expenditure claimed is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations*

21. The petitioner vide affidavit dated 28.10.2013 had submitted that Lift Pump House is located at the bank of Ganga Feeder canal, outside the premises of the plant and in order to facilitate the execution of works of lift pump house, proper approach road was required for movement of material/equipments. The petitioner has also submitted that the above said approach road has been constructed and capitalized

and accordingly, the claim for capitalization of `11.97 lakh in 2009-10 and `0.14 lakh in 2011-12 is towards the capitalization of construction of approach road for Lift Pump house.

22. The petitioner has further submitted that the expenditure of `6810 lakh was projected to be incurred in 2013-14 towards installation of lift pumps was approved by the Commission in order dated 14.6.2013 based on the progress of erection activities. The petitioner has also submitted that in March 2013 while civil works related to this package were being carried out, there was sudden ingress of sub-soil water from nearby Farakka feeder canal to lift pump house area and due to this unforeseen incident the excavation work of lift pump house was affected adversely due to flooding and was stopped. The petitioner has stated that after detailed investigation and deliberation with M/s IVRCL, the executing agency it was been decided to modify the deep dewatering system and also provide one row of sheet pile along feeder canal bank to stop recurrence of such incidence in future. The petitioner has submitted that the design of sheet pile are being finalized and the erection work can start only after dewatering of the lift pump house area and completion of civil work of lift pump house. Accordingly, the petitioner has submitted that the capitalization of lift pump scheme amounting to `6810 lakh may not be possible during 2013-14.

23. We have considered the submissions of the petitioner. The generating station has been allowed an amount of `2910.00 lakh as Compensation Allowance in terms of Regulation 19(e) of the 2009 Tariff Regulations, since many of the units are in operation for more than 10 to 25 years from its COD. As the Compensation allowance granted to the generating station is for meeting expenses towards assets of capital nature including assets of minor nature, we are of the view that the expenditure towards construction of approach road to Lift pump house, even presuming that the Lift pump would be installed, in future, should be met from Compensation Allowance allowed to the generating station. Accordingly,

the claim of the petitioner for capitalization of ` 11.97 lakh in 2009-10 and ` 0.14 lakh in 2011-12 towards construction of approach road has not been allowed.

### **Extension of portion of Plant Boundary**

24. The petitioner has claimed additional capital expenditure for ` 13.31 lakh during 2010-11 towards the work of extension of portion of plant boundary to cover MGR system. The petitioner has submitted that the generating station is very near the international border (20 kms from Bangladesh border) and is sensitive from security point of view. The petitioner has further submitted that during security review by team of Intelligence Bureau officials in 2004 and 2007, MGR was identified as key vulnerable points. In order to accommodate the assets of wagon tippler inside the plant boundary, NTPC Engineering suggested extension of the existing boundary wall. The matter has been examined. We notice that the petitioner has claimed the expenditure of ` 13.31 lakh during 2010-11 on the grounds of security, after more than three years. Considering the fact that reviews made by IB had identified MGR as one of the key vulnerable point from security point of view during 2004 and 2007 itself, it defies logic that the petitioner is claiming capitalization of expenditure belatedly. Also, no reasons have been furnished by the petitioner as to why such claim has been preferred after elapse of more than three years. In this background, we do not find any justifiable necessity for incurring such expenditure by the petitioner. However, as the generating station has been granted Compensation Allowance under Regulation 19(e) of the 2009 Tariff Regulations, the expenditure for ` 13.31 lakh should be met from the same. Accordingly, the expenditure claimed for extension of plant boundary wall has not been allowed for capitalization.

25. The petitioner has reconciled the actual additional capital expenditure for the period 2009-10 to 2011-12 with the books of accounts as under:

(` in lakh)

Sl. No	Particulars	2009-10	2010-11	2011-12
a	Opening Gross Block as per audited Balance Sheet	316379.09	324088.84	330818.00
b	Closing Gross Block as per audited Balance Sheet	324088.84	330818.00	333391.02
c	Addition during the year ( as per books) Stage-I & Stage-II (b-a)	7709.74	6729.16	2573.02
e	Exclusions	1429.33	1197.90	2195.56
f	Additional capitalization claimed (e-f)	6280.41	5531.26	377.46
g	Other capital works / CEA approved R&M schemes not allowed	859.81	5.20	377.31
h	Un-discharged liabilities	94.44	132.62	0.00
i	Net additional capitalization (f-g-h)	5326.16	5393.44	0.15
j	Liabilities discharged	103.08	381.24	316.70
k	<b>Total Additional capitalization (i+j)</b>	<b>5429.24</b>	<b>5774.68</b>	<b>316.85</b>

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

(` in lakh)

Sl. No.	Name of work	Capitalization / De-capitalization		
		2009-10	2010-11	2011-12
1	Loan FERV	(-) 35.89	(-) 0.16	25.12
2	Package ERV	(-) 258.94	32.97	145.94
3	Capitalisation of Spares	2166.88	2220.37	2044.43
4	Capital Spares de-capitalized	(-) 118.92	(-) 516.31	(-) 975.78
5	Capitalization of MBOA Items	5.45	2.47	2.92
4	De-capitalized MBOA	(-) 43.32	(-) 2.44	(-) 18.18
5	Inter-unit Transfer	(-)137.56	(-) 97.89	0.00
6	De-capitalization of 12 wagons	(-)157.95	0.00	0.00
7	De-capitalization of construction equipment, T&P etc.	0.00	(-) 441.83	0.00
8	Other Works (Extension of LAN)	9.57	0.72	0.00
9	Capitalisation of Wagons disallowed	0.00	0.00	971.11
	<b>Total Exclusions</b>	<b>1429.33</b>	<b>1197.90</b>	<b>2195.56</b>

## Exclusions

27. We consider the exclusions for the years 2009-10, 2010-11 and 2011-12 under different heads in the claim for the purpose of tariff as discussed in subsequent paragraphs:

## Loan FERV

28. The petitioner has excluded an amount of (-) ` 35.89 lakh in 2009-10, (-) ` 0.16 lakh in 2010-11 and ` 25.12 lakh in 2011-12 on account of impact of FERV. As the petitioner has billed the said amount directly to the beneficiaries in accordance with the 2004 Tariff Regulations, the exclusion of FERV of (-) `

35.89 lakh during 2009-10, (-) ` 0.16 lakh during 2010-11 and ` 25.12 lakh during 2011-12 are in order and is allowed.

### **Package ERV**

29. The petitioner has excluded an amount of (-) ` 258.94 lakh (including un-discharged liabilities of ` 258.94 lakh) in 2009-10, ` 32.97 lakh in 2010-11 and ` 145.94 lakh in 2011-12 on account of impact of FERV. This pertains to reinstatement of liability on account of exchange rate variation. The exclusion of Package ERV of (-) ` 258.94 lakh during 2009-10, ` 32.97 lakh during 2010-11 and ` 145.94 lakh during 2011-12 are in order and hence allowed.

### **Capitalization of spares**

30. The petitioner has capitalized capital spares in books of accounts amounting to ` 2166.88 lakh (including un-discharged liabilities of ` 30.08 lakh) in 2009-10, ` 2220.37 lakh in 2010-11 and ` 2044.43 lakh in 2011-12. Since the capitalization of capital spares over and above initial spares procured after cut-off date are not allowed for the purpose of tariff as they form part of O&M expenses when consumed, the exclusion of ` 2166.88 lakh during 2009-10, ` 2220.37 lakh during 2010-11 and ` 2044.43 lakh during 2011-12 is in order and is allowed.

### **De-capitalization of Capital spares and Miscellaneous Bought Out Assets (MBOA)**

31. The petitioner has de-capitalized capital spares amounting to (-) ` 118.92 lakh in books of accounts in 2009-10, (-) ` 516.31 lakh in 2010-11 and (-) ` 975.78 lakh in 2011-12 on these spares becoming unserviceable. Similarly, the petitioner has excluded de-capitalized MBOA items in books of accounts amounting to (-) ` 43.32 lakh in 2009-10, (-) ` 2.44 lakh in 2010-11 and (-) ` 18.18 lakh in 2011-12 on these assets becoming unserviceable.

32. The petitioner vide affidavit dated 23.4.2013 has claimed exclusion of Spares/ MBOA assets and has made the following submissions:

*"that new assets on account of MBOA and Spares are not being allowed in tariff period 2009-14. As such since replacement is not being allowed, the de-capitalization of old assets of MBOA and Spares should not be considered for reduction of capital cost and instead be allowed under exclusion."*

*Further, the petitioner in the details of depreciation recovered on the de-capitalized assets given in Annexure- IV-A, IV-B & IV-C has furnished Spares and MBOA assets which were allowed/ not allowed by the Commission in the tariff.*

33. Subsequently, the petitioner vide affidavit 17.9.2013 has certified that the de-capitalization of spares and MBOA assets indicated under exclusions for the years 2009-10., 2010-11 and 2011-12 is on account of consumption of those Spares/ MBOA assets which have not been allowed in tariff. The petitioner has also pointed out that on similar certification, the Commission in Petition No.150/2009 had allowed the de-capitalization of spares / MBOA under exclusion during the period 2006-09.

34. In the light of the submissions made by the petitioner, the matter has been examined. It is observed that the amount of ` 118.92 lakh in 2009-10, ` 516.31 lakh in 2010-11 and ` 54.07 lakh in 2011-12 towards de-capitalized Spares form part of the capital cost and hence cannot be allowed under exclusion. Accordingly, only an amount of ` 921.71 lakh in 2011-12 has been allowed under exclusion. Similarly, as regards MBOA assets, an amount of ` 42.32 lakh in 2009-10, ` 2.44 lakh in 2010-11 and ` 16.05 lakh in 2011-12 were found to be part of the capital cost. Hence, the said amounts cannot be allowed under exclusion. In view of this, the amounts for ` 1.00 lakh in 2009-10 and ` 2.13 lakh in 2011-12 have only been allowed under exclusion.

### **Capitalization of MBOA items**

35. The petitioner has capitalized MBOA items in books of accounts amounting to ` 5.45 lakh in 2009-10, ` 2.47 lakh in 2010-11 and ` 2.92 lakh in 2011-12. The capitalization of MBOA items after the cut-off-date has not been allowed for the purpose of tariff. Thus, the exclusion of ` 5.45 lakh in 2009-10, ` 2.47 lakh in 2010-11 and ` 2.92 lakh in 2011-12 are found to be in order and has been allowed.



### **Inter Unit Transfers**

36. An amount of (-) ` 137.56 lakh in 2009-10 and (-) ` 97.89 lakh in 2010-11 has been excluded under this head on account of transfer of certain assets. These inter-unit transfers are indicated to be temporary. The Commission while dealing with applications for additional capitalization in respect of other generating stations of the petitioner, has 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 (-) ` 137.56 lakh in 2009-10 and (-) ` 97.89 lakh in 2010-11 on account of inter-unit transfer has been allowed.

### **De-capitalization unserviceable Wagons (12 No)**

37. The petitioner has excluded an amount of (-) ` 157.95 lakh in 2009-10 towards de-capitalization of 12 wagons on the basis that the capitalization of new wagons in lieu of damaged/obsolete wagons were disallowed by the Commission. The submission of the petitioner is not acceptable since the assets have been taken out from service and do not render any useful service to the generating station. Accordingly, the exclusion of (-) ` 157.95 lakh in 2009-10 towards the de-capitalization of wagons has not been allowed.

### **Other Works**

38. The petitioner has capitalized MBOA items in books of accounts amounting to ` 9.57 lakh (for LAN) in 2009-10 for increase in network communication effectiveness and ` 0.72 lakh (portable sound level meter) in 2010-11 for environment monitoring. The capitalizations of other works of such nature after the cut-off date has not been allowed for the purpose of tariff. Accordingly, the exclusion of ` 9.57 lakh in 2009-10 and ` 0.72 lakh in 2010-11 are in order and has been allowed.

### **Capitalisation of MGR Wagons**

39. The petitioner has excluded an amount of ` 971.11 lakh (including liabilities of ` 43.60 lakh) in 2011-12 towards capitalization of new MGR wagons as replacement. The petitioner has submitted that

since capitalization of new wagons was not allowed by the Commission, the same is claimed as exclusion. In view of this, the exclusion of ` 971.11 lakh in 2011-12 is in order and has been allowed.

#### **De-capitalization of Construction Equipments, T&P etc**

40. The petitioner has sought exclusion of (-) ` 441.83 lakh in 2010-11 towards de-capitalization of Construction Equipments, T&P with the justification that these have been notionally de-capitalized and reinstated in service at Written Down Value (WDV) as per the observations of the Govt. Auditor for accounting purposes. There is no merit in the submissions of the petitioner since (i) these equipments/assets were capitalized prior to 2001 (during the period from 1979 to 2001) and form part of capital cost approved in tariff (ii) the construction equipments and T&P are in service for about 11 to 31 years as per the submission of the petitioner. Considering the fact that useful life of Construction equipments & T&P is about five (5) years, the cost of the assets had already been recovered through tariff. Hence, there is no justification for the petitioner to keep Construction equipments as a fixed asset even after expiry of 11 to 31 years from the date of its capitalization on the ground that these assets still provide useful service to the generating station. In view of this, the exclusion of (-) ` 441.83 lakh by the petitioner on this count has not been allowed.

41. The details of exclusions claimed *vis-à-vis* allowed (on cash basis) is summarized as under:

	(` in lakh)		
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
Exclusions allowed (A)	1748.51	2158.48	2265.68
Exclusions claimed (B)	1429.33	1197.90	2195.56
<b>Exclusions not allowed (A-B)</b>	<b>319.19</b>	<b>960.58</b>	<b>70.12</b>

42. Based on the above discussions, the actual additional capital expenditure for the period 2009-12 and the projected additional capital expenditure during the years 2012-13 and 2013-14 are allowed as under:

(` in lakh)

Sl. No	Head of work/ Equipment	Actual/ Projected Additional Capital expenditure				
		2009-10 (Actual)	2010-11 (Actual)	2011-12 (Actual)	2012-13 (Proj)	2013-14 (Proj)
<b>A</b>	<b>Ash Handling System</b>					
1	Ash Dyke Raising, Stage-1	0.00	0.00	0.00	0.00	0.00
2	Ash Dyke Raising, Stage-2	0.00	465.87	0.00	0.00	646.80
<b>A1</b>	<b>Sub Total</b>	<b>0.00</b>	<b>465.87</b>	<b>0.00</b>	<b>0.00</b>	<b>646.80</b>
<b>B</b>	<b>Environment System</b>					
	AAQMS	93.91	0.00	0.00	0.00	0.00
<b>B1</b>	<b>Sub Total</b>	<b>93.91</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>C</b>	<b>Other Capital Works</b>					
1	Wagon Tipplers associated system	5220.29	4437.73	0.00	0.00	0.00
2.	Lift Pump	0.00	0.00	0.00	0.00	0.00
3	Extension of portion of Plant Boundary	0.00	0.00	0.00	0.00	0.00
<b>C1</b>	<b>Sub Total</b>	<b>5220.29</b>	<b>4437.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>D</b>	<b>Grand Sub Total</b>	<b>5314.20</b>	<b>4903.60</b>	<b>0.00</b>	<b>0.00</b>	<b>646.80</b>
<b>E1</b>	<b>Total de-capitalization of assets</b>	0.00	(-) 21.73	0.00	0.00	0.00
<b>F</b>	<b>Grand Total (D+E1)</b>	<b>5314.20</b>	<b>4881.87</b>	<b>0.00</b>	<b>0.00</b>	<b>646.80</b>
<b>G</b>	<b>Exclusions not allowed</b>	319.19	960.58	70.12	0.00	0.00
<b>H</b>	<b>Net Additional capitalization allowed excluding discharge of liabilities (F-G)</b>	<b>4995.01</b>	<b>3921.29</b>	<b>(-) 70.12</b>	<b>0.00</b>	<b>646.80</b>

### Un-discharged liabilities

43. Out of the un-discharged liabilities deducted as on 1.04.2009, the petitioner has discharged an amount of ` 103.08 lakh, ` 292.68 lakh and ` 311.53 lakh and reversed ` 265.09 lakh, ` 47.06 lakh and ` 53.62 lakh during the years 2009-10, 2010-11 and 2011-12 respectively. In addition to above discharges and reversals, the petitioner has also discharged amounts of ` 88.56 lakh and ` 3.47 lakh during the years 2010-11 and 2011-12 respectively (all pertaining to period 2009-14) and reversed ` 0.70 lakh during the year 2011-12. The above discharges of liabilities have been allowed during respective years in addition to the additional capital expenditure allowed.

(` 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	2616.49					
Discharges during the period out of liabilities as on 1.4.2009 (corresponding to allowed assets)- B		103.08	292.68	311.53	0.00	0.00
Reversals during the period out of liabilities as on 1.4.2009 (corresponding		265.09	47.06	53.62	0.00	0.00

to allowed assets)- C						
Addition during the period 2009-14 (corresponding to allowed assets)- D		92.73	106.00	145.94	0.00	0.00
Discharges during the period out of liabilities added during 2009-14 (corresponding to allowed assets)- E		0.00	88.56	3.47	0.00	0.00
Reversal of liabilities out of liabilities added during 2009-14 (corresponding to allowed assets)- F		0.00	0.00	0.70	0.00	0.00
<b>Discharges of liabilities for the period (B+E)</b>		<b>103.08</b>	<b>381.24</b>	<b>315.00</b>	<b>0.00</b>	<b>0.00</b>

#### Actual/Projected Additional Capital Expenditure:

44. The actual/projected additional capital expenditure allowed, after adjustment of discharges of liabilities is as under:

	(` in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Net Additional capitalization allowed excluding discharge of liabilities	4995.01	3921.29	(-) 70.12	0.00	646.80	9492.98
Discharges of liabilities	103.08	381.24	315.00	0.00	0.00	799.32
<b>Actual/ Projected Additional capital Expenditure allowed</b>	<b>5098.09</b>	<b>4302.53</b>	<b>244.88</b>	<b>0.00</b>	<b>646.80</b>	<b>10292.30</b>

45. Based on the above, the capital cost considered for the purpose of tariff for 2009-14 is as under:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2019-14
Opening Capital cost	310881.81	315979.90	320282.43	320527.31	320527.31
Additional capital expenditure allowed	5098.09	4302.53	244.88	0.00	646.80
<b>Closing capital cost</b>	<b>315979.90</b>	<b>320282.43</b>	<b>320527.31</b>	<b>320527.31</b>	<b>321174.11</b>
Average Capital cost	313430.86	318131.17	320404.87	320527.31	320850.71

#### Debt-Equity Ratio

46. In terms of the provisions of Regulation 12 of the 2009 Tariff Regulations gross loan and equity amounting to ` 156843.53 lakh and ` 154038.29 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. This is subject to truing-up in terms of Regulation 6 of the 2009 Tariff Regulations.

## Return on Equity

47. In terms of the provisions of Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011, Return on equity has been worked out based on the grossing up of the base rate with respect to actual tax rate applicable to the petitioner as a generating company for the years 2009-10, 2010-11 and 2011-12 and for the balance years, the rate of grossing up as applicable for the year 2011-12 per annum has been considered on the normative equity after accounting for actual/projected additional capital expenditure. Accordingly, return on equity worked out is as given under:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Notional Equity- Opening	154038.29	155567.71	156858.47	156931.94	156931.94
Addition of equity due to additional capital expenditure	1529.43	1290.76	73.46	0.00	194.04
Normative Equity-Closing	155567.71	156858.47	156931.94	156931.94	157125.98
Average Normative Equity	154803.00	156213.09	156895.20	156931.94	157028.96
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%
<b>Return on Equity(Pre Tax)- Annualised</b>	<b>36349.29</b>	<b>36257.06</b>	<b>35998.04</b>	<b>36006.46</b>	<b>36028.72</b>

## Interest on loan

48. In terms of Regulation 16 of the 2009 Tariff Regulations, Interest on loan has been worked out as under:

- (a) The gross normative loan of ` 156843.53 lakh as on 1.4.2009 has been considered.
- (b) Cumulative repayment amounting to ` 152811.99 lakh as on 1.4.2009 has been considered after taking into account the revised position of liabilities as on 1.4.2009.
- (c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ` 4031.54 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) Weighted average rate of interest has been calculated by applying the actual rate of interest as applying the actual loan portfolio existing as on 01.04.2009. For this purpose the rate of interest corresponding to individual loans as provided by petitioner has been considered, except to the extent stated below in respect of LIC-III (T4,D1) and LIC-III (T4,D4):

(i) **LIC-III (T4, D1)** - The petitioner has calculated WAROI considering rate of 8.54% on this loan. This claim is inclusive of 0.20% of Upfront fees which was earlier disallowed vide order dated 19.06.2013 in Review Petition No. 24/2012 in Petition No. 222/2009. The same view has taken in respect of upfront fees.

(ii) **LIC-III (T4, D4)** - The petitioner has calculated WAROI considering rate of 8.75% on this loan. This claim is inclusive of 0.20% of Upfront fees which was earlier disallowed vide order dated 19.06.2013 in Review Petition No. 24/2012 in Petition No. 222/2009. The same view has taken in respect of upfront fees.

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

49. 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	156843.53	160412.19	163423.96	163595.38	163595.38
Cumulative repayment of loan upto previous year	152811.99	159906.59	163423.96	163595.38	163595.38
Net Loan Opening	4031.54	505.60	0.00	0.00	0.00
Addition due to Additional capitalisation	3568.66	3011.77	171.42	0.00	452.76
Repayment of loan during the year	7127.32	4035.47	40.55	0.00	452.76
Less: Repayment adjustment on account of de-capitalization	223.43	687.62	49.09	0.00	0.00
Add: Repayment adjustment on account of discharges / reversals corresponding to un-discharged liabilities deducted as on 1.4.2009	190.71	169.53	179.95	0.00	0.00
Net Repayment	7094.60	3517.37	171.42	0.00	452.76
Net Loan Closing	505.60	0.00	0.00	0.00	0.00
<b>Average Loan</b>	2268.57	252.80	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan	6.8094%	6.3567%	6.3293%	6.4167%	6.4969%
<b>Interest on Loan</b>	<b>154.48</b>	<b>16.07</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Depreciation

50. In terms of Regulation 17 of the 2009 Tariff Regulations the cumulative depreciation as on 1.4.2009 works out to `214154.99 lakh after accounting for adjustment of un-discharged liabilities. After considering the approved additional capital expenditure for the year 2009-10 above, the balance depreciable value, before providing depreciation for the year 2009-10 works out to `67210.67 lakh. The life of the generating station as on 1.4.2009 is 9.43 years as considered in order dated 19.6.2013 has been unchanged. Depreciation has been calculated by spreading over of the balance depreciation over

the remaining useful life of the generating station. The petitioner is directed to submit the stage-wise reconciliation of freehold land as well as leasehold land at the time of truing-up of tariff of the generating station, with respect to value of their assets in the balance sheet and the value claimed for the purpose of tariff in respect of the Stages I, II and III. Further, proportionate adjustment has been made to the cumulative depreciation on account of de-capitalization of assets and also on account of discharges/reversal of liabilities out of un-discharged liabilities deducted from capital cost as on 1.4.2009.

The necessary calculations in support of depreciation are as shown below:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	310881.81	315979.90	320282.43	320527.31	320527.31
Closing capital cost	315979.90	320282.43	320527.31	320527.31	321174.11
Average capital cost	313430.86	318131.17	320404.87	320527.31	320850.71
Depreciable value @ 90%	281365.66	285595.94	287642.28	287752.48	288043.54
Balance Useful life of the station	9.43	8.43	7.43	6.43	5.43
Balance depreciable value	67210.67	64313.63	59348.61	51263.47	43581.98
<b>Depreciation (annualized)</b>	<b>7127.32</b>	<b>7629.14</b>	<b>7987.70</b>	<b>7972.55</b>	<b>8026.15</b>
Cumulative depreciation at the end	221282.32	228911.45	236281.37	244461.55	252487.70
Less: Cumulative depreciation reduction due to de-capitalization	253.63	851.82	43.90	0.00	0.00
Add: Cumulative depreciation adjustment on account of discharges / reversal of liabilities out of liabilities deducted as on 1.4.2009	253.62	234.04	251.54	0.00	0.00
Net Cumulative depreciation (at the end of the period)	221282.31	228293.67	236489.01	244461.55	252487.70

### O&M Expenses

51. O&M expenses as considered in order dated 14.6.2012 as stated below have been considered:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	23920.00	25284.00	26734.00	28266.00	29884.00

### Interest on Working Capital

52. Cost of coal for 1.1/2 months and Cost of secondary fuel oil for 2 months as considered in order dated 14.6.2012 as stated below, has been considered:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.5 months	30205.93	30205.93	30288.69	30205.93	30205.93
Cost of secondary fuel oil – 2 month	383.45	383.45	384.50	383.45	383.45

53. Maintenance Spares as considered in order dated 14.6.2012 as stated below have been considered:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	4784.00	5056.80	5346.80	5653.20	5976.80

54. 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	40274.57	40274.57	40384.92	40274.57	40274.57
Fixed Charges - 2 months	13598.78	13998.42	14343.51	14816.43	15837.26
<b>Total</b>	<b>53873.36</b>	<b>54272.99</b>	<b>54728.42</b>	<b>55091.00</b>	<b>56111.84</b>

55. O&M Expenses for 1 month are same as allowed in order dated 14.6.2012 has been considered as under:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	1993.33	2107.00	2227.83	2355.50	2490.33

56. SBI PLR of 12.25% has been considered in the computation for interest on working capital as claimed by the petitioner. Accordingly, Interest on working capital has been computed as shown below:

	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.1/2 months	30205.93	30205.93	30288.69	30205.93	30205.93
Cost of secondary fuel oil – 2 month	383.45	383.45	384.50	383.45	383.45
Maintenance Spares	4784.00	5056.80	5346.80	5653.20	5976.80
O&M expenses – 1 month	1993.33	2107.00	2227.83	2355.50	2490.33
Receivables – 2 months	53873.36	54272.99	54728.42	55091.00	56111.84
<b>Total working capital</b>	<b>91240.07</b>	<b>92026.17</b>	<b>92976.24</b>	<b>93689.08</b>	<b>95168.35</b>
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
<b>Interest on working capital</b>	<b>11176.91</b>	<b>11273.21</b>	<b>11389.59</b>	<b>11476.91</b>	<b>11658.12</b>



## Annual Fixed Charges for 2009-14

57. The annual fixed charges of the generating station allowed for the period 2009-14 is summarized as under:

	(in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	7127.32	7629.14	7987.70	7972.55	8026.15
Interest on Loan	154.48	16.07	0.00	0.00	0.00
Return on Equity	36349.29	36257.06	35998.04	36006.46	36028.72
Interest on Working Capital	11176.91	11273.21	11389.59	11476.91	11658.12
O&M Expenses	23920.00	25284.00	26734.00	28266.00	29884.00
Cost of secondary fuel oil	2300.68	2300.68	2306.98	2300.68	2300.68
Compensation Allowance	540.00	640.00	640.00	610.00	480.00
Special allowance	0.00	0.00	0.00	1181.60	2498.38
<b>Total</b>	<b>81568.68</b>	<b>83400.15</b>	<b>85056.31</b>	<b>87814.21</b>	<b>90876.06</b>

**Note:** (1) All figures are on annualized basis. (2) All the figures under each head have been rounded. 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.

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

59. The difference in the annual fixed charges determined by order dated 14.6.2012 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

60. Petition No. 233/GT/2013 is disposed of in terms of the above.

Sd/-  
(Neerja Mathur)  
Member (EO)

Sd/-  
(A.K.Singhal)  
Member

Sd/-  
(M. Deena Dayalan)  
Member

Sd/-  
(Gireesh B. Pradhan)  
Chairperson