

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 320/GT/2013**  
**with**  
**Petition No. 208/GT/2014**

**Coram:**  
**Shri Gireesh B. Pradhan, Chairperson**  
**Shri A.K. Singhal, Member**  
**Shri A.S. Bakshi, Member**

**Date of Hearing: 25.11.2014**  
**Date of Order: 26.08.2015**

**In the matter of**

**Petition No. 320/GT/2013**

Revision of tariff of Talcher Super Thermal Power Station, Stage-II (2000 MW) for the period from 1.4.2009 to 31.3.2014 after truing-up exercise based on actual additional capital expenditure for the years 2009-12 and projected additional capital expenditure for the period 2012-14.

**And in the matter of**

**Petition No. 208/GT/2014**

Revision of tariff of Talcher Super Thermal Power Station, Stage-II (2000 MW) for the period from 1.4.2009 to 31.3.2014 after truing-up exercise based on actual additional capital expenditure incurred for the period 2009-14.

**And**

**In the matter of**

NTPC Limited,  
Core-7, Scope Complex, 7,  
Institutional Area, Lodhi Road,  
New Delhi -110003

**...Petitioner**

**Vs**

1. Transmission Corporation of Andhra Pradesh Limited  
Vidyut Soudha, Khairatabad,  
Hyderabad-500082
2. Andhra Pradesh Eastern Power Distribution Company Ltd.  
P&T Colony, Seemandhara,  
Vishakapatnam, Andhra Pradesh



3. Andhra Pradesh Southern Power Distribution Company Ltd.  
Srinivassa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta,  
Tirupati- 517501
4. Andhra Pradesh Northern Power Distribution Company Ltd.  
Opp.NIT Petrol Pump, Chaitanapuri,Kaize  
Warangal-506004
5. Andhra Pradesh Central Power Distribution Company Ltd.  
Mint Compound,  
Hyderabad-500063
6. Tamil Nadu Generation and Distribution Corporation Ltd.  
NPKRR Maaligai, 144, Anna Salai,  
Chennai-600 002
7. Power Company of Karnataka Ltd,  
Corporate Office, Kaveri Bhavan,  
Bengaluru – 560 009
8. Bangalore Electricity Supply Company  
K.R. Circle,  
Bangalore-506001
9. Mangalore Electricity Supply Company Paradigm Plaza,  
AB Shetty Circle, Mangalore-575001
10. Chamundeshwari Electricity Supply Corporation  
927, L J Avenue, GF, New Kantharaj Urs Road,  
Saraswatipuram,  
Mysore-570009
11. Gulbarga Electricity Supply Corporation  
Station Road, Gulbarga,  
Karnataka
12. Hubli Electricity Supply Company  
Navanagar, PB Road, Hubli,  
Karnataka
13. Kerala State Electricity Board  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram 695 004
14. Electricity Department,  
Govt. of Pondicherry,  
Pondicherry – 605 001
15. Grid Corporation of Orissa Ltd.,  
Janpath, Bhubaneswar-751 022

**...Respondents**



**Parties present:**

For Petitioner: Shri Ajay Dua, NTPC  
Shri Sunit Kumar, NTPC

For Respondents: Shri R. B. Sharma, Advocate, GRIDCO

**ORDER**

Petition No. 320/GT/2013 has been filed by the petitioner for revision of the tariff determined by order dated 28.5.2013 in Petition No. 269/2009 in respect of Talcher Super Thermal Power Station, Stage-II (2000 MW) (the generating station) for the period 2009-14, after truing-up exercise based on the actual additional capital expenditure incurred for the period 2009-12 and the projected additional capital expenditure for 2012-14 in accordance with the proviso to Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations').

2. During the pendency of the above petition, the petitioner filed Petition No. 208/GT/2014 for revision of tariff in respect of the generating station for the period 2009-14 after truing-up in accordance with Regulation 6(1) of the 2009 Tariff Regulations, based on the actual additional capital expenditure incurred during the period 2009-14.

3. The generating station with a total capacity of 2000 MW comprises of four units of 500 MW each. The actual dates of commercial operation (COD) of the different units of the generating station are as under:

<b>Units</b>	<b>Scheduled COD</b>	<b>Actual COD</b>
Unit I	February, 2004	1.8.2003
Unit II	November, 2004	1.3.2004
Unit III	August, 2005	1.11.2004
Unit IV	May, 2006	1.8.2005

4. The annual fixed charges determined by order dated 28.5.2013 in Petition No.269/2009 is as under:



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	25821.72	25923.19	26332.32	26734.90	26862.16
Interest on Loan	11727.09	9652.34	7865.62	6019.35	4088.52
Return on Equity	35054.96	35192.71	35748.14	36294.67	36467.44
Interest on Working Capital	8940.64	8985.67	9073.78	9132.16	9197.21
O&M Expenses	26000.00	27480.00	29060.00	30720.00	32480.00
Cost of Secondary fuel oil	3048.92	3048.92	3057.27	3048.92	3048.92
<b>Total</b>	<b>110593.34</b>	<b>110282.82</b>	<b>111137.14</b>	<b>111950.01</b>	<b>112144.24</b>

5. 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."*

6. The capital cost and the annual fixed charges claimed by the petitioner in this petition are as under:

**Capital Cost**

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	496946.86	498354.97	500874.30	504653.97	513812.43
Additional capital expenditure	1408.11	2519.33	3779.68	9158.46	16537.89
<b>Closing Capital Cost</b>	<b>498354.97</b>	<b>500874.30</b>	<b>504653.97</b>	<b>513812.43</b>	<b>530350.33</b>
<b>Average Capital Cost</b>	<b>497650.92</b>	<b>499614.63</b>	<b>502764.14</b>	<b>509233.20</b>	<b>522081.38</b>

**Annual Fixed Charges**

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	25822.61	25908.02	26055.25	26380.83	27056.35
Interest on Loan	11631.24	9598.95	7821.15	5834.02	4147.24
Return on Equity	35056.02	34788.17	34606.26	35051.54	36776.98
Interest on Working Capital	8938.70	8975.83	9043.30	9095.03	9208.95
O&M Expenses	26000.00	27480.00	29060.00	30720.00	32480.00
Cost Of Secondary Fuel Oil	3048.92	3048.92	3057.27	3048.92	3048.92
<b>Total</b>	<b>110497.49</b>	<b>109799.48</b>	<b>109643.23</b>	<b>110130.33</b>	<b>112718.44</b>

7. Reply to the petition has been filed by the respondents, KSEB and GRIDCO and the petitioner has filed its rejoinder to the said replies. The petitioner has also filed additional



information in compliance with the directions of the Commission. We now proceed to examine the claim of the petitioner in the petitions above, on prudence check, based on the submissions of the parties and the documents available on records, as stated in the subsequent paragraphs.

### **Capital Cost as on 1.4.2009**

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

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

9. The annual fixed charges claimed in the petition is based on opening capital cost of ₹496946.86 lakh, after removal of un-discharged liabilities amounting to ₹21246.06 lakh as on 1.4.2009) as considered in order dated 28.5.2013 in Petition No. 269/2009. The petitioner vide its affidavit dated 29.4.2014 has furnished the value of capital cost and liabilities as on 1.4.2009 as per books of accounts in Form-9A. The details of liabilities and capital cost have been reconciled with the information available with the records of the Commission as under:

	<i>(₹ in lakh)</i>	
	<b>As per Form-9A</b>	<b>As per records of Commission</b>
Capital cost as on 1.4.2009, as per books	521128.40	521128.40
Liabilities included above	21248.59	21248.59

10. It is evident from the above that there is no variation in the capital cost and liabilities position as on 1.4.2009 as per books and the details available with the Commission. Further, out of un-discharged liabilities amounting to ₹21248.59 lakh included in gross block as on 1.4.2009, the approved capital cost of ₹518192.92 lakh as on 31.3.2009 is inclusive of undischarged liabilities amounting to ₹21246.06 lakh only (all pertaining to tariff period 2004-09). The balance differential liability pertains to assets disallowed/ not claimed for the purpose of tariff. Out of un-discharged liabilities amounting to ₹21246.06 lakh deducted as on 1.4.2009,



the petitioner has discharged ₹650.17 lakh, ₹161.31 lakh, ₹242.74 lakh, ₹ 838.20 lakh and ₹11106.30 lakh during the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively. These discharges along with the discharges corresponding to assets admitted on cash basis during the tariff period 2009-14 is allowed as additional capital expenditure during the respective years.

### **Actual Additional Capital Expenditure**

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

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

(i) *Un-discharged liabilities;*

(ii) *Works deferred for execution;*

(iii) *Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;*

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

(v) *Change in law:*

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

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

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

(ii) *Change in law;*

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

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



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

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

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

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

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

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

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

12. The actual/ projected additional capital expenditure claimed by the petitioner in Petition No. 269/2009 and allowed by the Commission in order dated 28.5.2013 is as under:

		(₹ in lakh)					
		2009-10 Actual	2010-11 Projected	2011-12 Projected	2012-13 Projected	2013-14 Projected	Total
Additional Capital Expenditure claimed (excluding liabilities)		2471	6005	16752	2302	2625	<b>30155</b>
Additional Capital Expenditure allowed (excluding discharge of liabilities)		760	2381	13237	2280	2625	<b>21283</b>



13. The actual additional capital expenditure (excluding discharge of liabilities) claimed by the petitioner for the period 2009-14 vide affidavit dated 4.8.2014 in Petition No.208/GT/2014 is as under:

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
760.33	2358.02	3529.74	8197.91	4195.90

14. The break-up of the above actual additional capital expenditure claimed for the period 2009-14 is as under:

Sl. No.	Package Name	(₹ in lakh)				
		Actual Additional Capital Expenditure				
		2009-10	2010-11	2011-12	2012-13	2013-14
1	Ash pond or ash handling system.	675.00	1677.00	1876.00	5666.00	1703.00
2	Payments towards balance land for Ash dyke	0.00	0.00	0.00	0.00	0.00
3	Ambient Air Monitoring & Control System.	0.00	90.00	0.00	2.00	<b>57.00</b>
4	Energy Monitoring System	0.00	0.00	0.00	0.00	0.00
5	Balance off site civil works in plant, roads, boundary, drains etc.	0.00	0.00	0.00	0.00	0.00
6	MGR- Talcher connectivity	0.00	174	0.00	0.00	<b>0.00</b>
7	12.5 Km MGR to Kaniha Mines	0.00	0.00	0.00	0.00	0.00
8	3.5 Km MGR to Kaniha Mines	0.00	0.00	0.00	2355	<b>378.00</b>
9	Additional Locos & Wagons	0.00	0.00	0.00	0.00	0.00
10	Balance civil works in PTS like boundary wall quarters, sewerage sys. garage, park etc.	0.00	0.00	0.00	0.00	0.00
11	Balance works of Training centre	0.00	0.00	0.00	0.00	0.00
12	Land for left out portion of MGR	0.00	0.00	60.00	9.00	<b>451.00</b>
13	Supply, transport, erection, commissioning of Switchgear panels for inter connection job at 11 kV station bus level & cable laying	0.00	0.00	0.00	0.00	0.00
14	CCTV for CHP	85.00	0.00	(-) 4.00	0.00	<b>0.00</b>
15	Air Compressor	0.00	0.00	0.00	0.00	0.00
16	Rotating element of cep-spares	0.00	0.00	0.00	0.00	0.00
17	400 kv breakers spares	0.00	0.00	0.00	0.00	0.00
18	CW Pump motor- spares	0.00	0.00	0.00	0.00	0.00
19	Ballastess track	0.00	417.00	326.00	46.00	<b>0.00</b>
20	Generator Transformers	0.00	0.00	0.00	0.00	0.00
21	Construction of coal Pit & RCC roads in CHP area	0.00	0.70	1272.00	120.00	47.00
22	Cons. of Firewall in Transformer Bay	0.00	0.00	0.00	0.00	0.00
23	Installation of Network security hardware for LAN system.	0.00	0.00	0.00	0.00	0.00
24	Installation of additional CCTV at Admin. building, IT server room MGR wagon entrance	0.00	0.00	0.00	0.00	<b>10.00</b>
25	Installation of MI thermocouple	0.00	0.00	0.00	0.00	0.00





	additional conductive monitors in stage units					
26	Interlocking at exchange yard	0.00	0.00	0.00	0.00	0.00
27	Additional civil electrification equipments & other works	0.00	0.00	0.00	0.00	0.00
	<b>Sub-Total (1to 27)</b>	<b>760.00</b>	<b>2358.00</b>	<b>3530.00</b>	<b>8198.00</b>	<b>2647.00</b>
	<b>New Items/Assets</b>					
28	Replacement of MS Ash Slurry Pipes with Basalt Pipes	0.00	0.00	0.00	0.00	1876.00
29	Construction of Road under Bridge under MGR track	0.00	0.00	0.00	0.00	163.00
	<b>Sub-Total (28 + 29)</b>	0.00	0.00	0.00	0.00	2039.00
	<b>Sub-Total (1 to 29)</b>	760.33	2358.02	3529.74	8197.91	<b>4685.00</b>
30	Refund on contract closing in C&I package	0.00	0.00	0.00	0.00	(-) 146.00
31	De-capitalization of MS Pipe	0.00	0.00	0.00	0.00	(-) 343.00
	<b>Sub-Total (30+31)</b>	0.00	0.00	0.00	0.00	(-) 489.00
	Total Additional Capital Expenditure (including de-capitalization)	<b>760.33</b>	<b>2358.02</b>	<b>3529.74</b>	<b>8197.91</b>	<b>4195.90</b>

15. It is observed from the above that the actual additional capital expenditure claimed for the period 2009-14 is ₹17492.00 lakh as against the additional capital expenditure of ₹21283.00 lakh allowed vide order dated 28.5.2013 in Petition No. 269/2009. The petitioner has further claimed expenditure for ₹2039.00 lakh towards 'New claims' as mentioned above. Accordingly, the total claim of the petitioner towards additional capitalization for 2009-14 is ₹19041.00 lakh.

### **Ash Pond or Ash handling system**

16. The Commission in order dated 28.5.2013 in Petition No.269/2009 had allowed expenditure of ₹ 675.00 lakh in 2009-10, ₹1065.00 lakh in 2010-11, ₹3334.00 lakh in 2011-12, ₹ 2180.0 lakh in 2012-13 and ₹ 2580.00 in 2013-14 pertaining to the work of Ash Pond or Ash handling system under the original scope of work under Regulation 9(2)(iii). The petitioner has now claimed actual expenditure of ₹ 675.00 lakh in 2009-10, ₹ 1677.00 lakh in 2010-11, ₹ 1876.00 lakh in 2011-12, ₹ 5666.00 lakh in 2012-13 and ₹1703.00 lakh in 2013-14 for the said work and has submitted that the works related to Ash handling system are of a continuous nature during the operational life of the generating station. The petitioner has also submitted there has been variation in the actual expenditure with respect to the amount approved based



on projections and that the projections are generally cost estimates based on budgetary offers from vendors, whereas actual expenditure depends upon actual progress of work, site conditions etc. The petitioner has further submitted there has been all round increase in cost of civil works on the various components, viz., material cost, labour cost etc., site soil condition also forced some modifications, which has resulted in increase of sand bed depth etc., and that there was considerable escalation in price of sand and other construction material also during the period. Apart from this, the petitioner has submitted that certain modifications were necessitated as per directives of the Orissa State Pollution Control Board, which has resulted in the variation of the actual expenditure from the projected expenditure allowed. The respondent, KSEB has objected to the capitalization of the said expenditure and has submitted that the petitioner while preparing the estimate ought to have taken into consideration the escalation in the price of materials and planned the capital expenditure based on this. The respondent has also submitted that the additional expenditure over the approved cost is consequent to the non satisfactory performance of the generating station with regard to ash handling system and hence cannot be allowed as a pass through to the beneficiaries. In response the petitioner has reiterated the submissions made in the petition. It has also stated all procedures regarding operation and Maintenance of ash ponds, recommendations of OEMs and design requirements have been strictly followed and there has been no laxity on the part of the petitioner. The respondent, GRIDCO has submitted that since no proper justification has been submitted by the petitioner, the additional capitalization under this head may be restricted to the projected expenditure allowed vide order dated 28.5.2013.

17. We have examined the matter. It is observed that the Commission in order dated 28.5.2013 had approved the expenditure in respect of works related to Ash Pond and Ash handling system based on the actual expenditure for 2009-10 and projected expenditure for 2010-11, 2011-12, 2012-13 and 2013-14 respectively. We are of the considered view that the works relating to ash dykes/ash handling system form part of the original scope of work and are normally taken up in stages as and when required. These are normal activities done in



phases depending upon the requirement with the passage of time, during the useful life of the plant and is covered under the original scope of work. Considering the fact that modifications were required to be made in compliance with the directives of the Orissa State Pollution Control Board and continue with the generation of electricity for the benefit of the beneficiaries, the actual expenditure of ₹675.00 lakh in 2009-10, ₹1677.00 lakh in 2010-11, ₹1876.00 lakh in 2011-12, ₹5666.00 lakh in 2012-13 and ₹1703.00 lakh in 2013-14 is in order and accordingly allowed under Regulation 9(2)(iii) of the 2009 Tariff Regulations.

### **Ambient Air Quality Monitoring System**

18. The Commission in order dated 28.5.2013 had allowed the expenditure of ₹100.00 lakh in 2010-11 towards Ambient Air Quality Monitoring System, under Regulation 9(2) (ii) of the 2009 Tariff Regulations. The petitioner has now claimed the actual expenditure of ₹90.00 lakh in 2010-11, ₹2.00 lakh in 2012-13 and ₹57.00 lakh in 2013-14 on the said item/asset. Since the expenditure incurred is in compliance with the statutory requirement under the Environmental laws and is as per directives of the Orissa State Pollution Control Board dated 13.1.2012, the the additional capital expenditure of ₹90.00 lakh in 2010-11, ₹2.00 lakh in 2012-13 and ₹57.00 lakh in 2013-14 is in order and allowed under Regulation 9 (2)(ii).

### **MGR-Talcher Connectivity**

19. The Commission in order dated 28.5.2013 had allowed the additional capital expenditure of ₹149.00 lakh in 2010-11 for MGR Talcher connectivity under Regulation 9(2)(vii). The petitioner has now claimed the actual expenditure of ₹174.00 lakh in 2010-11 for the said item/asset. The petitioner has submitted that the projected expenditure was based on the estimates by East Coast Railways. It has also submitted that the actual expenditure claimed varies from the projected expenditure allowed on account of R&R problems and the overall increase in price in such an inflationary period. In consideration of the submissions of the petitioner, we allow the additional capital expenditure of ₹174.00 lakh in 2010-11 under Regulation 9(2)(vii) of the 2009 Tariff Regulations.



### **MGR to Kaniha Mines (3.5 Km)**

20. The Commission in order dated 28.5.2013 had allowed expenditure of ₹767.00 lakh in 2010-11 under Regulation 9(2) (vii) for 3.5 Km MGR to Kaniha Mines. The petitioner has now claimed actual expenditure of ₹2355.00 lakh in 2012-13 and ₹378.00 lakh in 2013-14 for this item and has submitted justification as under:

*“The subject package was awarded in the year 2004 at a value of ₹7.67crore (including ₹0.67 crore as IRCON fees @ 9.5%) as per DSR’ 97 specification and the prevailing market rates. Since there was substantial delay in the development of Kaniha mines, hence the work on the said job could be started only in the year 2011 matching with the schedule of development of the said mines. Thus, due to the high inflationary period there is difference between projected and actual expenditure.*

*During the period between 2004-2011, the captive road of NTPC was declared as National Highway and National Highway Authority of India (NHAI) and NH authorities advised to re-grade the road as per Ministry of Road Transport and Highways (MORTH) specifications and provide mild slopes in either side of level crossing. Actual expenditure as submitted in the instant petition is based on the MORTH specification and current market rates, whereas earlier projection was based on the estimate furnished by RITES during 2004 as per DSR’ 97 specifications and prevailing market rates.*

*Further, there has been a wide variation in earth work quantity based on actual site conditions. In the original estimate in 2004, the re-grading of road envisaged was for a small length on either side of level crossing just to match the rail track level. However, in order to accommodate the mildness in road slope (1 in 100) as per NH advice, it required around 1 km of re-grading. In addition to this neither diversion road nor any widening of road and extension of culverts near level crossing location were envisaged in the earlier estimates since the road was NTPC’s captive approach road to Talcher Kaniha. Now NHAI’s norms have necessitated provision of widening of roads, extension of culverts and diversion road as per guidelines for NHAI to avoid any traffic disruption. Due to the above, there was difference in actual expenditure from projected expenditure which may please be allowed by the Hon’ble Commission.”*

21. The respondent, KSEB has submitted that the petitioner’s claim for additional capital expenditure incurred for adoption of MORTH specifications is not in line with the Regulation 9(2) of the 2009 Tariff Regulations which stipulates the additional capital expenditure after the cut-off date and hence may be disallowed. In response, the petitioner has clarified that since the delay in execution of the said works is not in attributable to the petitioner and also MORTH specification for re-grading of road were adopted subsequent to the declaration of NTPCs captive road as National Highway by NHAI, the claim may be considered under Regulation 9(2)(ii) in addition to Regulation 9(2)(vii) of the 2009 Tariff Regulations as approved by the Commission. The respondent, GRIDCO has submitted that no justification has been submitted by the petitioner for the increased claim. It has also submitted that the amount may be



restricted to the expenditure allowed by the Commission in order dated 28.5.2013 since the same was allowed after securing all facts and figures from the petitioner.

22. We have carefully examined the matter. The Commission in order dated 28.5.2013 while allowing the claim of the petitioner for 3.5 Km MGR-Kaniha Mines had observed as under:

*“31.....Kaniha mines are the linked mines for the generating station. The said work is within the scope of work and the development of linked mine was delayed by CIL thereby affecting the progress of the work. Also due to problems in land acquisition for MGR system and the R&R plan yet to be approved by the State Government, the petitioner has taken all efforts to arrange coal from other sources like the IB valley through Rail network and import of coal. Considering the above facts in totality, we are of the view that the claim of the petitioner for capitalization of expenditure is justified. Hence the same is allowed in terms of Regulation 9(2)(vii) of the 2009 Tariff Regulations.”*

23. It is observed that the MGR package was awarded in 2004 at a value of ₹767.00 lakh and there was substantial delay in the development of Kaniha mines. Accordingly, the work could be started only in the year 2011 matching with the schedule for development of Kaniha mines. Further, due to MORTH specification for re-grading of road subsequent to the declaration of captive road of NTPC as National Highway by NHAI, there has been additional work like re-grading of road up to a distance of 1 Km, widening of road, construction of culvert in the captive road declared as National Highway. Thus, due to the high inflationary period and as the development of National Highway as per the MORTH specification did not emerge at the time of original projection, there is difference between the projected and the actual expenditure. Therefore, the claim of the petitioner is justified. In view of this, the actual expenditure of ₹2355.00 lakh in 2012-13 and ₹378.00 lakh in 2013-14 is in order and is allowed under Regulation 9(2) (vii) of the 2009 Tariff Regulation.

#### **Land for left out portion of MGR**

24. An expenditure of ₹300.00 lakh each during 2010-11 and 2011-12 had been allowed under Regulation 9(2)(vii) towards Land for left out portion of MGR in Commission's order dated 28.5.2013. The petitioner has now claimed actual expenditure of ₹60.00 lakh in 2011-12, ₹9.00 lakh in 2012-13 and ₹451.00 lakh in 2013-14 pertaining to the said item. The petitioner has submitted that due to the delay in land acquisition, Special LAO, Govt. of Odisha has only



handed over possession to the extent of 80 acre in respect of 6 villages, out of remaining 11 villages. It has also submitted that the Special LAO is taking action to hand over possession of the remaining 39 acre with respect to 5 villages and the same may be completed in next tariff period (2014-19). Since the land is required for MGR system, we allow the actual expenditure in terms of Regulation 9 (2)(vii) of the 2009 Tariff Regulations

### **CCTV for CHP**

25. The Commission in order dated 28.5.2013 had allowed the expenditure of ₹85.00 lakh in 2009-10 towards installation of CCTV for monitoring of CHP under Regulation 9(2)(ii) of the 2009 Tariff Regulations. The petitioner has now claimed the actual expenditure of ₹85.00 lakh in 2009-10, and (-)₹4.00 lakh in 2011-12 for the said asset. As the expenditure has been approved by order dated 28.5.2013, the net claim of the petitioner for ₹81.00 lakh (85.00-4.00) has been allowed under Regulation 9 (2) (ii).

### **Ballastless track**

26. The Commission in order dated 28.5.2013 had allowed projected expenditure of ₹1300 lakh during 2011-12 towards Ballastless track under Regulation 9(2) (vii) considering the fact that the expenditure is linked to the MGR system. The petitioner has now claimed the actual expenditure of ₹ 417.00 lakh in 2010-11, ₹326.00 lakh in 2011-12, ₹46.00 lakh in 2012-13 for the said item under Regulation 9(2) (vii) of the 2009 Tariff Regulations. As the expenditure has been approved by order dated 28.5.2013, the total claim of the petitioner for ₹789.00 lakh for 2010-13 has been allowed under Regulation 9(2) (vii) of the 2009 Tariff Regulations.

### **Construction of Coal Pit & RCC roads in CHP area**

27. The Commission in order dated 28.5.2013 had allowed the projected expenditure of ₹ 1149.00 lakh in 2011-12, ₹100.00 lakh in 2012-13 and ₹45.00 lakh in 2013-14 under Regulation 9(2) (ii) towards the Construction of coal pit & RCC roads in CHP area on the ground that it is a statutory requirement as per directive of the State Pollution Control Board,



Orissa. The petitioner has now claimed the actual expenditure of ₹0.70 lakh in 2010-11, ₹1272.00 lakh in 2011-12, ₹120.00 lakh in 2012-13 and ₹47.00 lakh in 2013-14 for the said item/work on the ground that the said expenditure is based on the recommendations of the Orissa State Pollution Control Board. It has also submitted that in case of fire, the free movement of fire tender, RCC road is also required and the State Pollution Control Board has reiterated to make the coal settling pit operational. In view of the submissions and as the expenditure claimed had been approved by Commission's order dated 28.5.2013, the said expenditure incurred for 2010-14 is allowed under Regulation 9 (2) (ii) of the 2009 Tariff Regulations.

**Installation of additional CCTV at admin building, IT server room, MGR wagon entrance**

28. The Commission in order dated 28.5.2013 had allowed the projected expenditure of ₹25.00 lakh in 2011-12 under Regulation 9(2) (ii) for Installation of additional CCTV at admin building, IT server room, MGR wagon entrance based on the confidential report of the Industrial security inspection team. The petitioner has now claimed the actual expenditure of ₹10.00 lakh in 2013-14 for this item. As the expenditure claimed has been approved by the Commission in order dated 28.5.2013 based on the justification submitted by the petitioner, the additional capital expenditure of ₹10.00 lakh for 2013-14 is allowed under Regulation 9 (2) (ii) of the 2009 Tariff Regulations.

**New Items**

29. In addition to the items allowed by the Commission for capitalization of expenditure in the order dated 28.5.2013, the petitioner in Petition No. 320/GT/2013 has claimed the new items under Regulation 9(2) (ii) for capitalization during 2013-14 which are examined as under:

**Replacement of MS Ash Slurry Pipes with Basalt Pipes**

30. The petitioner has claimed the actual expenditure of ₹1876.00 lakh in 2013-14 under Regulation 9(2) (ii) towards Replacement of MS Ash slurry pipes with Basalt Pipes. The petitioner has submitted that Orissa State Pollution Control Board (OSPCB) vide its letters



dated 28.1.2010, 12.7.2011 and 13.1.2012 had directed to replace the MS Ash slurry pipelines with Basalt pipelines and in compliance with the directions of the OSPCB, the first phase of replacement work was executed in 2013-14. It has also submitted that since Basalt pipes are much heavier than the MS pipes, RCC pedestal holding the corresponding MS pipes were also replaced and the replaced MS pipes were de-capitalized in 2013-14. The respondent, KSEB has submitted that since the directives of OSPCB was consequent to the non satisfactory performance of the generating station with regard to ash handling system, the additional claim over and above the approved claim may not be allowed as a pass through. In response, the petitioner has stated that the said work was not part of the original scope of work and was necessitated for compliance with the directives of OSPCB and cannot be construed as laxity on the part of the petitioner. The respondent, GRIDCO has submitted that there is no document or notification as required under Regulation 3(9) of the 2009 Tariff Regulations indicating the existence of any Change in law. It has also submitted that the issue cannot be linked with environmental concerns and the amount should be expended from the O&M expenses allowed to the generating station. In response, the petitioner has reiterated that the direction of the OSPCB had to be complied with for protection of environment and the work was necessarily required to be executed. The petitioner has also submitted that procedures regarding operation and maintenance of ash ponds/ash pipelines, all design requirements and recommendations of OEM are strictly followed and cannot be construed as laxity on the part of the petitioner.

31. The matter has been examined. From the letters of the OSPCB referred above, it emerges that the directions issued by the OSPCB relate to the compliance to be made by the petitioner for prevention and control of Air and Water pollution under the respective Acts. Since the petitioner has undertaken the works in compliance with said directions of the OSPCB for protection of environment, we allow the capitalization of expenditure of ₹1876.00 lakh in 2013-14 under Regulation 9(2) (ii) of the 2009 Tariff Regulations.





### **Construction of Road under Bridge (RUB) on MGR track**

32. The petitioner has claimed actual expenditure of ₹163.00 lakh in 2013-14 under Regulation 9(2)(ii) of the 2009 Tariff Regulations towards the Construction of Road Under Bridge (RUB) on MGR track. The petitioner has submitted that the East Coast Railway (ECR) vide letters dated 30.10.2010 and 29.03.2011 had directed the construction of two RUBs at the crossings of MGR track. It has also submitted that new Talcher-Bimlagarh broad gauge line being constructed by East Coast railway runs near the MGR track and since the East Coast Railway were constructing RUBs at two crossings and the distance between MGR and Railway lines is only 30 to 35 meters, the petitioner was directed to construct the RUBs on MGR track to ensure safe and secure commutation of road users. The respondent, KSEB has pointed out that the said claim of the petitioner do not fall under any of the provisions of Regulation 9(2) of the 2009 Tariff Regulations. In response, the petitioner has clarified that these works were not previously envisaged and the construction of RUBs was carried out as per directions of the ECR. The respondent, GRIDCO has pointed out that since the construction of RUBs is for the convenience of road users and as MGR track is catering coal supply to both stages (Stage-I and II), the expenditure should be utilized from the O&M expenses or the compensation allowance allowed under Regulation 19(e) of the 2009 Tariff Regulations. It has also submitted that there is no notification indicating the occurrence of change in law and hence the claim of the petitioner may not be permitted. In response, the petitioner has clarified that these works were not previously envisaged and were executed as per the directions of the ECR. It has also stated that in terms of Regulation 19(e) the compensation allowance is admissible for units which have completed more than 10 years of life and hence no compensation allowance has been claimed. Accordingly, the petitioner has prayed for approval of the said expenditure.

33. The matter has been examined. From the documentary evidence furnished by the petitioner it is noticed that the ECR authorities have specifically directed the petitioner to construct the RUB on MGR track for the safe movement of men and material in the unmanned



level crossing. In view of the above, we allow the capitalization of additional expenditure of ₹ 163.00 lakh in 2013-14 under Regulation 9(2) (ii) of the 2009 Tariff Regulations.

34. The petitioner has reconciled the actual additional capital expenditure for the period 2009-10 to 2013-14 with the books of accounts as under:

(₹ in lakh)						
		2009-10	2010-11	2011-12	2012-13	2013-14
1	Opening Gross Block of the year	521128.40	521998.83	528681.24	536544.29	549692.56
2	Closing Gross Block of the year	521998.83	528681.24	536544.29	549692.56	551793.70
3	Additional Capitalization as per the books ( 2 - 1 )	870.43	6682.41	7863.05	13148.27	2101.15
4	Exclusions for additional capitalization as per the books of Accounts.	1866.57	4019.14	2132.83	3826.63	(-) 2346.52
5	Additional capitalization claimed including un-discharged liability (3-4)	(-) 996.14	2663.26	5730.22	9321.63	4447.67
6	Un-discharged liability (in Sl. no. 5 above)	(-) 1756.47	305.27	2200.48	1123.72	251.77
7	Additional Capital Expenditure claimed excluding liabilities (5-6)	760.33	2358.02	3529.74	8197.91	4195.90
8	Discharge out of Un-discharged liability	647.78	161.31	249.94	960.55	12342.00
9	Total Additional Capital Expenditure claimed including discharge of un-discharged liabilities (7+8)	<b>1408.11</b>	<b>2519.33</b>	<b>3779.67</b>	<b>9158.46</b>	<b>16537.89</b>

## Exclusions

35. The details of exclusions claimed as per books of accounts are as under:

(₹ in lakh)						
	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Capitalization of spares	1169.51	1164.94	1577.76	1725.0	1382.58	<b>7019.79</b>
De-capitalization of spares	(-)169.67	(-)76.66	(-)66.41	(-)54.28	(-)67.06	<b>(-)434.08</b>
Capitalization of MBOA items	103.89	260.83	180.26	301.51	400.24	<b>1246.73</b>
De-capitalization of MBOA items	0.00	0.00	0.00	0.00	(-)98.36	<b>(-)98.36</b>
De-capitalization of admitted items	0.00	(-)59.05	(-)293.24	(-)415.89	(-)105.61	<b>(-)879.81</b>
De-capitalization of non-admitted items	(-)6.02	(-)2.58	(-)34.43	(-)24.72	0.00	<b>(-)61.73</b>
Inter-unit transfer	292.42	14.43	(-)0.86	1015.98	14.39	<b>1336.36</b>
Loan ERV	(-)1386.74	(-)125.58	0.00	0.00	0.00	<b>(-)1512.32</b>



Disallowed items	1917.48	2899.91	678.42	2538.40	156.19	<b>8190.4</b>
Other Miscellaneous Works	30.50	50.25	158.21	189.19	83.91	<b>512.06</b>
Reversal of Liability	(-)84.80	(-)107.34	(-)66.88	(-)1448.56	(-)4112.81	<b>(-)5820.39</b>
<b>Total Exclusions</b>	<b>1866.57</b>	<b>4019.14</b>	<b>2132.83</b>	<b>3826.63</b>	<b>(-)2346.52</b>	<b>9498.66</b>

36. We consider the exclusions for the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 under different heads in the claim for the purpose of tariff as discussed in subsequent paragraphs.

### **Capitalization of Spares**

37. The petitioner has procured spares amounting to ₹1169.51 lakh during 2009-10, ₹1164.94 lakh during 2010-11, ₹1577.76 lakh during 2011-12, ₹1725.0 lakh during 2012-13 and ₹1382.58 lakh during 2013-14 for maintaining stock of necessary spares. Since capitalization of 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 as and when consumed, the petitioner has accordingly excluded the said amounts from tariff. The exclusion of the said amounts under this head is in order and has been allowed.

### **De-capitalization of Spares**

38. The petitioner has excluded de-capitalized spares in books of accounts amounting to (-)₹169.67 lakh during 2009-10, (-)₹76.66 lakh during 2010-11, (-)₹66.41 lakh during 2011-12, (-) ₹54.28 lakh during 2012-13 and (-)₹67.06 lakh during 2013-14 on these spares becoming unserviceable. After examining the exclusions on account of de-capitalization of spares it is found that an amount of (-)₹ 169.67 lakh in 2009-10, (-)₹76.66 lakh in 2010-11, (-)₹66.41 lakh in 2011-12, (-)₹54.28 lakh during 2012-13 and (-)₹ 67.06 lakh 2013-14 pertains to spares which were part of the capital cost of the generating station for the purpose of tariff. Hence, exclusion on account of de-capitalization of these spares is not justified and has not been allowed for the purpose of tariff. The capital spares admitted by the Commission shall be taken out from the capital base once these spares are de-capitalized on beomi unserviceable irrespective of the



fact that such spares are not allowed after the cut-off date. Hence, the exclusion of de-capitalization of these spares is not allowed.

### **Capitalization of Miscellaneous Bought Out Assets (MBOA)**

39. The petitioner capitalized MBOA items in books of accounts amounting to ₹103.89 lakh during 2009-10, ₹ 260.83 lakh during 2010-11, ₹180.26 lakh during 2011-12, ₹301.51 lakh during 2012-13 and ₹400.24 lakh during 2013-14 which includes expenditure towards Furniture and Fixtures, other office equipments, EDP, WP machines and SACOM equipments, Vehicles including speed boats, Communication Equipment, Hospital items and Software. Since the capitalization of minor assets is not allowed after cut-off date, the exclusion of the said amounts during the respective years is in order and has been allowed.

### **De-capitalization of MBOA items**

40. The petitioner has excluded de-capitalized MBOA items in books of accounts amounting to (-)₹98.36 lakh during the year 2013-14 on these MBOA becoming unserviceable. After examining the exclusions sought on de-capitalization of MBOA, it is found that these MBOA were part of the capital cost of the generating station for the purpose of tariff. Since these MBOA items were allowed in the capital cost, same is required to be deducted from the capital base on its de-capitalization. Hence, exclusion on account of de-capitalization of these assets is not justified and has accordingly not been allowed for the purpose of tariff.

### **De-capitalization of other non-admitted items**

41. The petitioner has excluded de-capitalization of non-admitted items in books of accounts amounting to (-)₹6.02 lakh during 2009-10, (-)₹2.58 lakh during 2010-11, (-)₹34.43 lakh during 2011-12 and (-)₹24.72 lakh during 2012-13 on these items becoming unserviceable. We have examined the exclusions sought on de-capitalization of MBOA and it is noticed that the same were not allowed by the Commission and do not form part of the capital cost considered for

purpose of tariff. Hence, exclusion of de-capitalization of these MBOA is in order and is allowed.

### **De-capitalization of admitted items**

42. The petitioner has excluded de-capitalization of admitted items in books of accounts amounting to (-)₹59.05 lakh during 2010-11, (-)₹293.24 lakh during 2011-12, (-)₹415.89 lakh during 2012-13 and (-)₹105.61 lakh during 2013-14 on these items becoming unserviceable. On scrutiny of the exclusions sought on de-capitalization of these items, it is noticed that the same was allowed by the Commission and forms part of the capital cost considered for purpose of tariff. Since these assets have been capitalized and form part of the capital cost for purpose of tariff, the same is required to be removed from the capital base once these assets are de-capitalized. Hence, exclusion of de-capitalization of these items is not allowed.

### **Loan ERV**

43. The petitioner has excluded an amount of (-)₹1386.74 lakh in 2009-10 and ₹125.58 lakh in 2010-11 on account of impact of ERV. As the petitioner shall recover the said amount directly from the beneficiaries in accordance with the 2009 Tariff Regulations, the exclusion of Loan ERV is in order and is allowed.

### **Reversal of Liabilities**

44. The petitioner has excluded amounts of (-)₹84.80 lakh in 2009-10, (-)₹107.34 lakh in 2010-11, (-)₹66.88 lakh in 2011-12, (-)₹1448.56 lakh in 2012-13, and (-) ₹4112.81 lakh in 2013-14 on account of reversal of liabilities out of the un-discharged liabilities as on 1.4.2009. The admitted capital base as on 31.3.2009 has been reduced by excluding the un-discharged liability to arrive at the capital cost (for the purpose of tariff) as on 1.4.2009. Since capitalization of the assets has been considered in the capital cost, on cash basis, the exclusion of corresponding reversal of liability has been allowed.



### **Inter-unit transfer**

45. An amount of ₹292.42 lakh in the year 2009-10, ₹14.43 lakh in the year 2010-11, (-)₹0.86 lakh in the year 2011-12 , ₹1015.98 lakh in year 2012-13 and ₹14.39 lakh in the year 2013-14 has been excluded under this head on account of inter unit 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, 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 ₹292.42 lakh in 2009-10, ₹14.43 lakh in 2010-11, (-)₹0.86 lakh in the year 2011-12 , ₹1015.98 lakh in year 2012-13 and ₹14.39 lakh in 2013-14 on account of inter-unit transfers of equipment on temporary basis is found to be in order and allowed.

### **Items disallowed**

46. The petitioner has excluded amounts of ₹1917.48 lakh during 2009-10, ₹2899.91 lakh during 2010-11, ₹678.42 lakh during 2011-12, ₹2538.40 lakh during 2012-13 and ₹156.19 lakh during 2013-14 on account of various assets which had been disallowed by the Commission in its order dated 28.5.2013 in Petition No. 269/2009. As such, the exclusion of the said amounts for the purpose of tariff is in order and is allowed.

### **Other Miscellaneous works disallowed**

47. The petitioner has excluded amounts of ₹30.50 lakh during 2009-10, ₹50.25 lakh during 2010-11, ₹158.21 lakh during 2011-12, ₹189.19 lakh during 2012-13 and ₹83.91 lakh during 2013-14 on account of various miscellaneous works which had been disallowed by the Commission. Since the capitalization of minor assets after cut-off date is not permissible, the exclusion of the said amounts is in order and is allowed.

48. Based on the above discussions, the summary of exclusions allowed and disallowed is as under:



(₹ in lakh)							
Sl. No.	Heads	2009-10	2010-11	2011-12	2012-13	2013-14	Total
<b>A</b>	<b>Exclusions allowed under different heads</b>						
1	Capitalization of Spares	1169.51	1164.94	1577.76	1725.0	1382.58	<b>7019.79</b>
2	Capitalization of MBOA items	103.89	260.83	180.26	301.51	400.24	<b>1246.73</b>
4	De-capitalization of non-admitted items	(-)6.02	(-)2.58	(-)34.43	(-)24.72	0.00	<b>(-)61.73</b>
5	Inter-unit transfer	292.42	14.43	(-)0.86	1015.98	14.39	<b>1336.36</b>
6	Loan ERV	(-)1386.74	(-)125.58	0.00	0.00	0.00	<b>(-)1512.32</b>
7	Items Disallowed	1917.48	2899.91	678.42	2538.40	156.19	<b>8190.40</b>
8	Other Miscellaneous Works	30.50	50.25	158.21	189.19	83.91	<b>512.06</b>
9	Reversal of Liability	(-)84.80	(-)107.34	(-)66.88	(-)1448.56	(-)4112.81	<b>(-)5820.39</b>
	<b>Exclusion allowed (A)</b>	<b>2036.24</b>	<b>4154.86</b>	<b>2492.48</b>	<b>4296.8</b>	<b>(-)2075.49</b>	<b>10910.90</b>
<b>B</b>	<b>Exclusions not allowed under different heads</b>						
10	De-capitalization of Spares	(-)169.67	(-)76.66	(-)66.41	(-)54.28	(-)67.06	<b>(-)434.08</b>
11	De-capitalization of MBOA items	0.00	0.00	0.00	0.00	(-)98.36	<b>(-)98.36</b>
12	De-capitalization of admitted items	0.00	(-)59.05	(-)293.24	(-)415.89	(-)105.61	<b>(-)873.79</b>
	<b>Exclusions not allowed (B)</b>	<b>(-)169.67</b>	<b>(-)135.72</b>	<b>(-)359.65</b>	<b>(-)470.17</b>	<b>(-)271.02</b>	<b>(-)1406.20</b>
	<b>Total Exclusions</b>	<b>1866.57</b>	<b>4019.15</b>	<b>2132.83</b>	<b>3826.63</b>	<b>(-)2346.53</b>	<b>9498.66</b>

49. Based on the above discussions, the additional capital expenditure is allowed, excluding discharge of un-discharged liabilities, is as under:

(₹ in lakh)						
Sl. No	Head of Work/Equipment	2009-10 Actual	2010-11 Actual	2011-12 Actual	2012-13 Actual	2013-14 Actual
<b>A</b>						
1	Ash Pond or Ash handling system.	675.00	1677.00	1876.00	5666.00	1703.00
2	Ambient Air Quality Monitoring & Control System.	0.00	90.00	0.00	2.00	57.00
3	MGR-Talcher connectivity	0.00	174.00	0.00	0.00	0.00
4	3.5 Km MGR to Kaniha Mines	0.00	0.00	0.00	2355	378
5	Land for left out portion of MGR	0.00	0.00	60.00	9.00	451
6	CCTV for CHP	85.00	0.00	(-)4.00	0.00	0.00
7	Ballastless Track	0.00	417.00	326.00	46.00	0.00
8	Construction of coal Pit & RCC roads in CHP area	0.00	0.70	1272.00	120.00	47.00
9	Installation of additional CCTV at admin. building, IT server room MGR wagon entrance	0.00	0.00	0.00	0.00	10.00
10	Replacement of MS Ash Slurry Pipes with Blast pipes	0.00	0.00	0.00	0.00	1876.00
11	Road Under Bridge (RUB) on MGR Track	0.00	0.00	0.00	0.00	163.00
	<b>Total-A (1 to 11)</b>	<b>760.33</b>	<b>2358.02</b>	<b>3529.75</b>	<b>8197.91</b>	<b>4685.00</b>
12	Refund on contract closing in C&I package	0.00	0.00	0.00	0.00	(-)146.00
13	De-capitalization of MS Pipe	0.00	0.00	0.00	0.00	(-)343.00
<b>C</b>	<b>Sub-Total (12+13)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>(-)489.00</b>
<b>D</b>	<b>Total (B+C)</b>	<b>760.33</b>	<b>2358.02</b>	<b>3529.74</b>	<b>8197.91</b>	<b>4195.90</b>
<b>E</b>	<b>Add : Exclusions not allowed</b>	<b>(-)169.67</b>	<b>(-)135.72</b>	<b>(-)359.65</b>	<b>(-)470.17</b>	<b>(-)271.02</b>
	<b>Total Additional Capital Expenditure allowed (D+E)-</b>	<b>590.66</b>	<b>2222.30</b>	<b>3170.09</b>	<b>7727.73</b>	<b>3924.87</b>



50. The net additional capital expenditure allowed after considering the discharges of liabilities is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Additional Capital Expenditure allowed (excl discharges)	590.66	2222.30	3170.09	7727.73	3924.87
Add: Discharges of liabilities (against allowed assets / works)	650.17	161.31	249.22	960.55	12340.19
<b>Net Additional Capital Expenditure</b>	<b>1240.83</b>	<b>2383.61</b>	<b>3419.31</b>	<b>8688.28</b>	<b>16265.06</b>

51. 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	2013-14
Opening Capital Cost	496946.86	498187.69	500571.30	503990.61	512678.89
Add: Additional Capital Expenditure	1240.83	2383.61	3419.31	8688.28	16265.06
<b>Closing Capital Cost</b>	<b>498187.69</b>	<b>500571.30</b>	<b>503990.61</b>	<b>512678.89</b>	<b>528943.95</b>
<b>Average Capital Cost</b>	<b>497567.28</b>	<b>499379.49</b>	<b>502280.95</b>	<b>508334.75</b>	<b>520811.42</b>

### Debt-Equity Ratio

52. The gross loan and equity amounting to ₹362735.05 lakh and ₹155457.88 lakh, respectively as on 31.3.2009 as considered in orders dated 29.12.2011 and 21.2.2012 in Petition No.179/2004 has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹21246.06 lakh deducted from the capital cost as on 1.4.2009 has been adjusted in the debt-equity ratio of 70:30. As such, the gross normative loan and equity as on 1.4.2009 is revised to ₹347862.80 lakh and ₹149084.06 lakh respectively. Further, the additional capital expenditure approved above has been allocated in debt-equity ratio of 70:30.

### Return on Equity

53. Regulation 15 of the 2009 Tariff Regulations provides as under:

*“15. **Return on Equity.** (1)Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.*





(2) Return on Equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1<sup>st</sup> April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be tried up in accordance with Regulation 6 of these regulations.

54. 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	149084.06	149456.31	150171.39	151197.18	153803.67
Addition of Equity due to Additional Capital Expenditure	372.25	715.08	1025.79	2606.48	4879.52
Normative Equity - Closing	149456.31	150171.39	151197.18	153803.67	158683.18
Average Normative Equity	149270.18	149813.85	150684.29	152500.42	156243.43
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for respective years	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%
<b>Return on Equity (Pre Tax)- Annualized</b>	<b>35050.13</b>	<b>34771.79</b>	<b>34573.00</b>	<b>34989.70</b>	<b>36687.52</b>

## Interest on loan

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

- i) The gross normative loan amounting to ₹347862.80 lakh has been considered as on 1.4.2009.
- ii) Cumulative repayment amounting to ₹200619.45 lakh as on 31.3.2009 as considered in orders dated 29.12.2011 and 21.2.2012 in Petition No.179/2004 has been considered as on 1.4.2009. However, after taking in to account the proportionate adjustment to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised to ₹192394.00 lakh.
- iii) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹155468.81 lakh.
- iv) Addition to normative loan on account of additional capital expenditure approved above has been considered.
- v) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further, proportionate adjustment has been made to the repayments corresponding to discharges and reversals of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009. As also repayments has been adjusted for de-capitalization of assets considered for the purpose of tariff.

56. In line with the provisions of the Regulation stated above, 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, for the generating station. 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-III (T3,D1), (T4,D1&4), it is observed that petitioner has claimed additional interest of 0.0221% towards upfront fee. These loans have been allocated to various other generating stations of NTPC, namely Barh STPS, FGUTPS –I & III, Koldam HPS, Kahalgaon STPS-II, Rihand STPS-II, Sipat TPS-I&II, Vindhyachal STPS-I & III, Farakka TPS-I&II, Ramagundam STPS-I,II&III, Singrauli STPS,



Talcher TPS, Anta GPS, Badarpur TPS, Korba STPS-I&II & Tanda TPS. It is observed that petitioner has not claimed any upfront fee towards aforementioned LIC-III loans in the respective final true-up petitions (like Sipat TPS-II, Vindhyachal STPS-I&III, Kahalgaon STPS-II, Ramagundam STPS-III, Anta GPS, Korba STPS-I&II). 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. This is however subject to the final decision of the Appellate Tribunal for Electricity in the Appeals filed by the petitioner in respect of other generating stations on this count.

57. Necessary calculation for interest on loan is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	347862.80	348731.38	350399.91	352793.42	358875.22
Cumulative repayment of loan upto previous year / period	192394.00	218377.94	244282.95	270170.28	296947.33
<b>Net Loan Opening</b>	<b>155468.81</b>	<b>130353.45</b>	<b>106116.95</b>	<b>82623.14</b>	<b>61927.89</b>
Addition due to Additional Capital Expenditure	868.58	1668.52	2393.52	6081.80	11385.54
Repayment of loan during the year	25818.16	25896.01	26030.01	26334.14	26990.51
Less: Repayment adjustment on account of de-capitalization	118.77	95.00	254.78	329.12	430.07
Add: Repayment adjustment on discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	284.55	104.01	112.10	772.03	6083.61
Net Repayment	25983.94	25905.02	25887.33	26777.05	32644.05
Net Loan Closing	130353.45	106116.95	82623.14	61927.89	40669.38
Average Loan	142911.13	118235.20	94370.05	72275.52	51298.63
Weighted Average Rate of Interest on Loan	8.1474%	8.1287%	8.3021%	8.1002%	8.1383%
<b>Interest on Loan</b>	<b>11643.49</b>	<b>9610.96</b>	<b>7834.73</b>	<b>5854.50</b>	<b>4174.83</b>

## Depreciation

58. In terms of Regulation 17 of the 2009 Tariff Regulations, the cumulative depreciation as on 31.3.2009, as considered in orders dated 29.12.2011 and 21.2.2012 in Petition



No.179/2004 is ₹167835.31 lakh. Further, proportionate adjustment has been made to this cumulative depreciation on account of un-discharged liabilities deducted as on 1.4.2009. Accordingly, the revised cumulative depreciation as on 1.4.2009 works out to ₹161130.92 lakh. Further, the value of freehold land as on 1.4.2009 along with additions during the tariff period 2009-14 has been considered for the purpose of calculating depreciable value. Accordingly, the balance depreciable value (before providing depreciation) for the year 2009-10 works out to ₹286508.26 lakh. Since, the used life of the station (i.e. 4.71 years) as on 1.4.2009 is less than 12 years from the effective date of commercial operation of the generating station (16.7.2004), the depreciation has been calculated applying weighted average rate of depreciation of 5.1889% for the year 2009-10, 5.1856% for year 2010-11, 5.1824% for year 2011-12, 5.1805% for year 2012-13 & 5.1824% for the year 2013-14, respectively. Further, proportionate adjustment has been made to the cumulative depreciation corresponding to discharges and/or reversal of liabilities considered during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. As also cumulative depreciation has been adjusted for de-capitalisation considered during tariff period 2009-14. The necessary calculations in support of depreciation are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital Cost	496946.86	498187.69	500571.30	503990.61	512678.89
Add: Additional Capital Expenditure	1240.83	2383.61	3419.31	8688.28	16265.06
Closing Capital Cost	498187.69	500571.30	503990.61	512678.89	528943.95
Average Capital Cost	497567.28	499379.49	502280.95	508334.75	520811.42
Depreciable value @ 90%	447639.18	449270.18	451809.43	457181.86	468203.88
Remaining useful life at the beginning of the year	20.29	19.29	18.29	17.29	16.29
Balance depreciable value	286508.26	262109.30	238709.14	218055.82	202182.72
<b>Depreciation (annualized)</b>	<b>25818.16</b>	<b>25896.01</b>	<b>26030.01</b>	<b>26334.14</b>	<b>26990.51</b>
Cumulative depreciation at the end	186949.08	213056.88	239130.30	265460.19	293011.67
Less: Cumulative depreciation adjustment on account of de-capitalization	26.61	43.74	65.74	85.85	111.51
Add: Cumulative	238.40	87.14	61.49	646.83	5097.01



depreciation adjusted on account of discharges out of un-discharged liabilities deducted as on 1.4.2009					
Cumulative depreciation (at the end of the period)	187160.87	213100.29	239126.04	266021.16	297997.17

### Normative Annual Plant Availability Factor (NAPAF)

59. The NAPAF of 85% as considered in order dated 28.5.2013 in Petition No. 269/2009 has been considered for the purpose of tariff.

### O&M Expenses

60. O&M expenses as considered in order dated 28.5.2013 in Petition No. 269/2009 as stated below has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	26000	27480	29060	30720	32480

### Interest on Working Capital

#### Fuel Component

61. The fuel component in the working capital as considered in order dated 28.5.2013 is considered as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal for 1.5 months	20004.75	20004.75	20059.56	20004.75	20004.75
Cost of secondary fuel oil 2 months	508.15	508.15	509.55	508.15	508.15

### Maintenance Spares

62. The maintenance spares as considered in order dated 28.5.2013 is allowed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	5200	5496	5812	6144	6496

### Receivables

63. Receivables have been worked out on the basis of two months of fixed and energy charges (based on primary fuel only) as under:



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges - for two months	26673.00	26673.00	26746.08	26673.00	26673.00
Fixed Charges – for two months	18416.57	18297.19	18266.23	18340.07	18764.68
<b>Total</b>	<b>45089.57</b>	<b>44970.19</b>	<b>45012.30</b>	<b>45013.07</b>	<b>45437.67</b>

### O&M Expenses for one month

64. The O&M expenses for one month as considered in order dated 28.5.2013 has been considered.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	2166.67	2290.00	2421.67	2560.00	2706.67

65. Accordingly, SBI PLR of 12.25% has been considered for the purpose of calculating interest on working capital. The 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
Cost of coal – 1.5 months	20004.75	20004.75	20059.56	20004.75	20004.75
Cost of secondary fuel oil – Two months	508.15	508.15	509.55	508.15	508.15
Maintenance Spares	5200.00	5496.00	5812.00	6144.00	6496.00
Receivables – Two months	45089.57	44970.19	45012.30	45013.07	45437.67
O&M expenses – One month	2166.67	2290.00	2421.67	2560.00	2706.67
<b>Total Working Capital</b>	<b>72969.14</b>	<b>73269.09</b>	<b>73815.07</b>	<b>74229.97</b>	<b>75153.24</b>
Rate of Interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
<b>Interest on Working Capital</b>	<b>8938.72</b>	<b>8975.46</b>	<b>9042.35</b>	<b>9093.17</b>	<b>9206.27</b>

### Annual Fixed Charges

66. The Annual Fixed Charges based on above deliberations work out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	25818.16	25896.01	26030.01	26334.14	26990.51
Interest on Loan	11643.49	9610.96	7834.73	5854.50	4174.83
Return on Equity	35050.13	34771.79	34573.00	34989.70	36687.52
Interest on Working Capital	8938.72	8975.46	9042.35	9093.17	9206.27
O&M Expenses	26000.00	27480.00	29060.00	30720.00	32480.00
Cost of Secondary Fuel Oil	3048.92	3048.92	3057.27	3048.92	3048.92
<b>Total</b>	<b>110499.43</b>	<b>109783.15</b>	<b>109597.35</b>	<b>110040.43</b>	<b>112588.05</b>

**Note:** (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such, the sum of individual items may not be equal to the arithmetic total of the column.



67. The Energy Charge Rate of 114.937 paisa/kWh as determined by order dated 28.5.2013 shall remain unchanged.

68. The difference in the annual fixed charges determined by order dated 28.5.2013 and those determined by this order shall be adjusted in accordance with Regulation 6 (6) of the 2009 Tariff Regulations.

69. Petition Nos. 320/GT/2013 and 208/GT/2014 are disposed of in terms of the above.

**Sd/-**  
**(A.S. Bakshi)**  
**Member**

**Sd/-**  
**(A. K. Singhal)**  
**Member**

**Sd/-**  
**(Gireesh B. Pradhan)**  
**Chairperson**

