

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 208/GT/2013

with

Petition No. 305/GT/2014

Coram:

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

Date of Hearing: 11.11.2014

Date of Order: 31.08.2015

Petition No. 208/GT/2013

In the matter of

Revision of tariff of Korba Super Thermal Power Station, Stage-III (500 MW) from 21.3.2011 to 31.3.2014 after truing-up

Petition No. 305/GT/2014

And in the matter of

Revision of tariff of Korba Super Thermal Power Station, Stage-III (500 MW) from 21.3.2011 to 31.3.2014 after truing-up

And

In the matter of

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

...Petitioner

Vs

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhavan, Vidyut Nagar,
Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, Bandra (East),
Mumbai-400051



3. Gujarat Urja Vikas Nigam Ltd,
Sardar Patel Vidyut Bhawan,
Race Course, Vadodara-390007

4. Chhattisgarh State Power Transmission Co. Ltd.
Danganiya, Raipur-492013

5. Goa Electricity Department Government of Goa,
Vidyut Bhawan, 3rd Floor, Panaji, Goa-403001

6. Electricity Department
Administration of Daman & Diu,
Daman-396210

7. Electricity Department Administration of
Dadra Nagar Haveli, Silvassa-396230

...Respondents

Parties present

For Petitioner : Shri Ajay Dua, NTPC
Shri A.K. Chaudhary, NTPC
Shri Rajesh Jain, NTPC
Ms. Suchitra Maggon, NTPC
Shri Parimal Piyush, NTPC
Shri Sachin Jain, NTPC
Shri I. Uppal, NTPC
Shri Bhupinder Kumar, NTPC

For Respondents : Shri Anurag Naik, MPPMCL
Shri Arvind Banerjee, CSPDCL

ORDER

Petition No. 208/GT/2013 has been filed by the petitioner for revision of tariff determined by order dated 3.5.2012 in Petition No. 247/2010 and order dated 9.4.2013 in Review Petition No. 16/RP/2012 in respect of Korba Super Thermal Power Station Stage-III (500 MW) (“the generating station”) for the period 2009-14, after truing up exercise based on the actual additional capital expenditure for the years 2010-11 (21.3.2011 to 31.3.2011), 2011-12 and 2012-13 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. 305/GT/2014 for revision of tariff in respect of the generating station for the period from 21.3.2011 to 31.3.2014 after truing-up, based on the actual additional capital expenditure incurred for the said period.

3. The tariff of the generating station for the installed capacity of 500 MW was determined by the Commission for the period from 21.3.2011 to 31.3.2014 by order dated 3.5.2012 in Petition No.247/2010. However, the tariff determined by the said order was made applicable for 425 MW sold through long term PPAs to the distribution licensees. Against the said order dated 3.5.2012 the petitioner filed Petition No.16/RP/2012 on the issue of (i) Delay in the commissioning of the project not allowing time overrun and (ii) Adjustment of Interest During Construction prior to commercial operation of the project. The Commission by order dated 9.4.2013 allowed the said review petition and revised the tariff of the generating station for the period from 21.3.2011 to 31.3.2014 as under:

| | <i>(₹ in lakh)</i> | | | |
|--------------------------------|---|-----------------|-----------------|-----------------|
| | 2010-11 (21.3.2011 to 31.3.2011) | 2011-12 | 2012-13 | 2013-14 |
| Return on Equity | 15310.85 | 15940.86 | 17082.25 | 17953.51 |
| Interest on Loan | 13871.18 | 13881.02 | 13755.03 | 13302.13 |
| Depreciation | 11608.53 | 12086.21 | 12951.60 | 13612.18 |
| Interest on Working Capital | 2093.71 | 2137.20 | 2190.55 | 2232.89 |
| O&M Expenses | 6870.00 | 7265.00 | 7680.00 | 8120.00 |
| Cost of secondary fuel oil | 1448.75 | 1452.72 | 1448.75 | 1448.75 |
| Total | 51203.02 | 52763.00 | 55108.19 | 56669.45 |



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

Capital Cost

| | (₹ in lakh) | | | |
|--------------------------------|--|------------------|------------------|------------------|
| | 2010-11 (21.3.2011 to 31.3.2011) | 2011-12 | 2012-13 | 2013-14 |
| Opening Capital Cost | 216757.35 | 219046.90 | 231022.05 | 239476.45 |
| Additional capital expenditure | 2289.55 | 11975.14 | 8454.40 | 11,787.62 |
| Closing Capital Cost | 219046.90 | 231022.05 | 239476.45 | 251264.07 |
| Average Capital Cost | 216757.35 | 219046.90 | 231022.05 | 239476.45 |

Annual Fixed Charges

| | (₹ in lakh) | | | |
|-----------------------------|--|-----------------|-----------------|-----------------|
| | 2010-11 (21.3.2011 to 31.3.2011) | 2011-12 | 2012-13 | 2013-14 |
| Depreciation | 11431.15 | 11807.47 | 12162.39 | 12712.63 |
| Interest on Loan | 13969.04 | 14449.99 | 13995.35 | 13636.89 |
| Return on Equity | 15172.53 | 15489.57 | 16192.68 | 17284.65 |
| Interest on Working Capital | 2089.64 | 2134.19 | 2163.68 | 2209.85 |
| O&M Expenses | 6870.00 | 7265.00 | 7680.00 | 8120.00 |
| Cost of secondary Fuel Oil | 1448.75 | 1452.72 | 1448.75 | 1448.75 |
| Total | 50981.10 | 52598.94 | 53642.85 | 55412.77 |

5. Reply to the petition has been filed by the respondents, MPPMCL, MSEDCL and CSPDCL 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, 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

6. 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.”

7. The capital cost as on 21.3.2011 allowed for the purpose of tariff in order dated 9.4.2013 in Petition No.16/RP/2012 is as under:

| <i>(₹ in lakh)</i> | |
|--|------------------------|
| | As on 21.3.2011 |
| Gross block | 233709.97 |
| Less: Un-discharged liabilities included | 17689.96 |
| Capital cost on cash basis | 216020.01 |
| Add: Notional IDC | 0.00 |
| Less: FERV gain charged to P&L account | (-) 141.61 |
| Capital cost | 215878.40 |

8. The break-up of the actual capital cost of ₹216757.35 lakh claimed by the petitioner as on 21.3.2011 is as under:

| <i>(₹ in lakh)</i> | |
|---|------------------------|
| | As on 21.3.2011 |
| Hard cost | 200053.31 |
| Add: IDC& FC | 33471.88 |
| Add: FERV loan (gain/loss) | 184.78 |
| Capital cost as per audited statement (on accrual basis) | 233709.97 |
| Less: Un-discharged liabilities included | 17689.96 |
| Capital cost as per audited statements (on cash basis) | 216020.01 |
| Add: Notional IDC | 879.00 |
| Less: FERV charged to revenue (gain/loss) | (-) 141.66 |
| Capital cost as on COD | 216757.35 |

9. The capital cost of ₹200053.31 lakh (inclusive of FC) and excluding IDC and FERV as on 21.3.2011 has been considered. On scrutiny of the petitioners claim for IDC of ₹33471.88 lakh, it is noticed that in most of the loans, the petitioner has adopted FIFO method of repayment as against the average method of repayment considered by the Commission in its various orders determining tariff of the generating stations of the petitioner for 2009-14 which had been confirmed by the Appellate Tribunal for Electricity. Accordingly, considering the repayment of loan on



average basis, the admissible IDC works out to ₹34131.51 lakh and the same has been allowed. Also, the petitioner claim for FERV for ₹184.78 lakh is in order and has been allowed. Similarly, the short term FERV gain (charged to P&L account in books) amounting to (-)₹141.66 lakh as on 21.3.2011 has been allowed for the purpose of tariff.

Notional IDC

10. The petitioner's claim for Notional IDC amounting to ₹879 lakh has not been allowed as the provisions of the 2009 Tariff Regulations do not provide for the same. However, in terms of clause (a) of Regulation 7 of the 2009 Tariff Regulations, the Normative IDC over and above the actual IDC has been worked out as ₹567.97 lakh, considering the quarterly debt position corresponding to actual cash expenditure. This has been allowed for the purpose of tariff.

11. Based on the above discussions, the capital cost as on 21.3.2011 considered and allowed for the purpose of tariff is detailed as under:

| | (₹ in lakh) |
|--|------------------------|
| | As on 21.3.2011 |
| Capital cost before IDC (inclusive of FC) & FERV | 200053.31 |
| IDC (inclusive of FC) | 34131.51 |
| FERV | 184.78 |
| Capital cost (on accrual basis) | 234369.60 |
| Less: Un-discharged liabilities included | 17689.96 |
| Capital cost (on cash basis) | 216679.64 |
| Add: Normative IDC (over & above actual IDC) | 567.97 |
| Add: Short term FERV gain (charged to P&L A/c) | (-)141.66 |
| Capital cost allowed | 217105.95 |

Actual Additional Capital Expenditure

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



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

(i) *Un-discharged liabilities;*

(ii) *Works deferred for execution;*

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

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

(v) *Change in law:*

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

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

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

(ii) *Change in law;*

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

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

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

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

(vi) *In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of*



operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations.

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

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

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

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

13. The actual/ projected additional capital expenditure claimed by the petitioner (excluding liabilities) in Petition No. 247/2010 and those allowed by the Commission (excluding liabilities) in order dated 3.5.2012 are as under:

| | (₹ in lakh) | | | | |
|--|---|------------------------------|------------------------------|------------------------------|-----------------|
| | 21.3.2011 to 31.3.2011 Projected | 2011-12 Projected | 2012-13 Projected | 2013-14 Projected | Total |
| Additional Capital Expenditure claimed | 1006.63 | 6868.85 | 10128.58 | 6947.69 | 24951.75 |
| Additional Capital Expenditure allowed | 1006.63 | 6868.85 | 10128.58 | 6947.69 | 24951.75 |

14. The petitioner vide affidavit dated 11.10.2013 had claimed the following additional capital expenditure for the period 2010-11 to 2013-14 as under:

| | (₹ in lakh) | | | | |
|--|--|---------------------------|---------------------------|------------------------------|-----------------|
| | 21.3.2011 to 31.3.2011 Actual | 2011-12 Actual | 2012-13 Actual | 2013-14 Projected | Total |
| Additional Capital Expenditure (excluding liabilities) | 59.80 | 5603.27 | 6132.70 | 9070.71 | 20866.48 |



15. As regards the actual additional capital expenditure claimed in 2010-11 (21.3.2011 to 31.3.2011), the petitioner vide affidavit dated 20.3.2013 has submitted that the variation in the said claim as against those allowed by the Commission during 2010-11 is on account of advance payments made on cash outflow basis and not on capitalization basis. Thereafter, the petitioner vide affidavit dated 8.8.2014 in Petition No.305/GT/2014 has revised its claim based on actual additional capital expenditure for the period 2010-11 to 2013-14 as detailed under:

| (₹ in lakh) | | | | | |
|---|--|---------------------------|---------------------------|---------------------------|-----------------|
| | 21.3.2011 to 31.3.2011 Actual | 2011-12 Actual | 2012-13 Actual | 2013-14 Actual | Total |
| Additional Capital Expenditure(excluding liabilities) | 59.80 | 5603.27 | 6132.70 | 9070.71 | 20866.48 |

16. The break-up of the above actual additional capital expenditure claimed during 2010-14(21.3.2011 to 31.3.2014) in Petition No.305/GT/2014 is as under:

| (₹ in lakh) | | | | | | |
|-------------|--------------------------------------|---------------------------------------|----------------|----------------|----------------|----------------|
| Sl. No | Package Name | Actual additional capital expenditure | | | | Total |
| | | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | |
| 1 | Land | 0.00 | 1576.68 | 19.67 | 0.00 | 1596.35 |
| 2 | Roads& Drains-Civil Works | 0.00 | 2.58 | 0.00 | 44.94 | 47.52 |
| 3 | MGR & Marshalling yard | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | Other enabling work | 0.00 | 0.72 | 3.06 | 94.18 | 97.96 |
| 5 | Main Plant Civil Work | 0.00 | 504.24 | 793.80 | 662.39 | 1960.43 |
| 6 | Township & Colony | 0.00 | 0.00 | 11.55 | 2380.40 | 2391.95 |
| 7 | SG & TG | 0.00 | 249.85 | 992.81 | 1.73 | 1244.39 |
| 8 | Condensate polishing plant | 0.00 | 1291.02 | 0.00 | 50.01 | 1341.03 |
| 9 | EOT Crane | 0.00 | 0.00 | 0.03 | 0.00 | 0.03 |
| 10 | C&I Package | 0.00 | 92.0 | 0.69 | 0.10 | 92.79 |
| 11 | Locomotive | 0.00 | 4.13 | 0.00 | 0.00 | 4.13 |
| 12 | Rolling Stock wagons | 0.00 | 2.18 | 0.00 | 0.00 | 2.18 |
| 13 | Ash disposal area development | 0.00 | 0.00 | 1087.93 | 2907.37 | 3995.30 |
| 14 | Ash Handling system-Civil works | 0.00 | 0.00 | 142.50 | 306.13 | 448.63 |
| 15 | Ash Handling system-Mechanical works | 0.00 | 67.64 | 28.71 | 0.00 | 96.35 |
| 16 | CW system & Offsite area | 0.00 | 55.75 | 64.92 | 0.66 | 121.33 |



| | | | | | | |
|----|---|--------------|----------------|----------------|----------------|-----------------|
| | -Civil work | | | | | |
| 17 | CW system & Equipment package | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18 | Cooling tower -Civil works | 0.00 | 0.23 | 8.52 | 0.00 | 8.75 |
| 19 | DM Plant-Civil works | 0.00 | 22.60 | 10.4 | 0.00 | 33.00 |
| 20 | Hydrogen Generation Plant | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21 | HP/LP Piping | 0.00 | 27.42 | 1.17 | 18.87 | 47.46 |
| 22 | Fire Fighting systems | 0.00 | 26.54 | 43.67 | 4.30 | 74.51 |
| 23 | Air-Conditioning | 0.00 | 2.08 | 0.05 | 1.40 | 3.53 |
| 24 | Ventilation system | 0.00 | 6.14 | 10.22 | 3.59 | 19.95 |
| 25 | Transformer package | 0.00 | 37.58 | 12.87 | 0.00 | 50.45 |
| 26 | Switchgear package | 0.00 | 9.51 | 26.05 | 20.61 | 56.17 |
| 27 | Cables | 0.00 | 3.68 | 0.00 | 0.00 | 3.68 |
| 28 | IT &Communication | 0.00 | 0.00 | 0.00 | 63.88 | 63.88 |
| 29 | Workshop & Laboratory | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30 | Establishment & MBOA Assets | 59.80 | 339.91 | 341.40 | 243.78 | 984.89 |
| 31 | Initial Spares | 0.000 | 1147.66 | 2369.70 | 2247.50 | 5764.86 |
| | Sub-Total | 59.80 | 5470.13 | 5969.69 | 9051.86 | 20551.48 |
| | New Claims | | | | | |
| 32 | Gen. Bus Duct &Associated Equipments (C&S) | 0.00 | 0.00 | 7.46 | 0.00 | 7.46 |
| 33 | 400 kV Switchyard package | 0.00 | 0.00 | 0.00 | 3.56 | 3.56 |
| 34 | Chimney Civil | 0.00 | (-) 2.33 | 75.60 | 15.29 | 88.56 |
| 35 | Coal Handling-Turnkey | 0.00 | 121.72 | 0.00 | 0.00 | 121.72 |
| 36 | Station Lighting System | 0.00 | 6.02 | 24.19 | 0.00 | 30.21 |
| 37 | Tools & Plant | 0.00 | 0.00 | 55.76 | 0.00 | 55.76 |
| 38 | Ash Recirculation System | 0.00 | 7.73 | 0.00 | 0.00 | 7.73 |
| | Sub-Total (New claims) | 0.00 | 133.14 | 163.01 | 18.85 | 315.00 |
| | Total Additional Capital Expenditure | 59.80 | 5603.37 | 6132.70 | 9070.71 | 20866.48 |

17. It is observed from the above that the actual additional capital expenditure claimed for the period 21.3.2011 to 31.3.2014 is ₹20551.48 lakh as against the additional capital expenditure of ₹24951.75 lakh allowed under Regulation 9(1) of the 2009 Tariff Regulations vide order dated 3.5.2012 in Petition No. 247/2010. The petitioner has further claimed expenditure for ₹315.00 lakh towards 'New claims' as mentioned above. Accordingly, the total claim of the petitioner towards additional capitalization for the period from 21.3.2011 to 31.3.2014 is ₹20866.48 lakh. We proceed to examine the additional capital expenditure based on the submissions of



the parties and the documents available on record and allow the same on prudence check, as stated in the subsequent paragraphs.

18. Before proceeding, it is noticed that the petitioner in Form-9 of the affidavit dated 8.8.2014 has included certain items/assets like Package FERV, Railway Siding for Ash Silo, Hydrogen Generation Building & Hydrogen generation plant, Service Building and Permanent Township (PTS) as balance works within the original scope of the project and had claimed the same under Regulation 9(1)(ii) of the 2009 Tariff Regulations. The petitioner has also submitted detailed justification in Annexure-II of the said affidavit and has indicated that these works are expected to be completed during 2014-15 or thereafter. It has further submitted that the balance works got delayed due to reasons not attributable to the petitioner and the spillover of such works has not impacted the beneficiaries. Accordingly, the petitioner has prayed that the Commission may condone the delay in completion of the above works and allow the capitalization of these assets/items for the purpose of tariff by relaxing the cut-off date for two years beyond 31.3.2014, in exercise of Power to relax under Regulation 44 of the 2009 Tariff Regulations.

19. The respondent, MPPMCL while objecting to the extension of cut-off date has submitted that the cut-off date of the project is 31.3.2014 and any expenditure beyond 31.3.2014 is to be dealt with in accordance the provisions of the 2014 Tariff Regulations applicable for the period from 1.4 2014 to 31.3.2019. The respondent, CSPDCL has submitted that the expenditure incurred towards these works is not eligible to be capitalized as per Regulation 9(2) of the 2009 Tariff Regulations. The petitioner in its rejoinder affidavit dated 25.11.2014 has submitted that 99% of the



expenditure has been capitalized before the cut-off date and that works amounting to 1% of the approved cost has been delayed for reasons not attributable to the petitioner. The petitioner in the said affidavit has also prayed for allowance of the spillover works to be executed during the next tariff period (2014-19) under Regulation 54 of the 2014 Tariff Regulations applicable for the period 2014-19.

20. We have examined the matter. From the justification submitted by the petitioner in respect of these balance works, it is noticed that the balance works in respect of these items/assets are likely to be completed beyond 31.3.2014 i.e during the tariff period 2014-19. Considering the fact that these works are likely to be completed only during the tariff period 2014-19, any additional capital expenditure during the said period is to be governed by the provisions of the 2014 Tariff Regulations. In this background, except for the actual additional capital expenditure incurred, we find no reason to allow the capitalization of the balance works by extension of the cut-off date beyond 31.3.2014 as prayed for by the petitioner. However, any capitalization of additional expenditure beyond the period 31.3.2014 shall be governed by the provisions of the 2014 Tariff Regulations applicable for the period 2014-19 and shall be dealt with accordingly based on the petition filed by the petitioner. The prayer of the petitioner is disposed of as above.

Land

21. The Commission in order dated 3.5.2012 in Petition No. 247/2010 had allowed the projected expenditure of ₹250.00 lakh in 2010-11, ₹1000.00 lakh in 2011-12, ₹1500.00lakh in 2012-13 and ₹860.73 lakh in 2013-14 towards Land compensation under Regulation 9(1) of 2009 Tariff Regulations. The petitioner has now claimed the



actual expenditure of ₹1576.68 lakh in 2011-12 and ₹19.67 lakh in 2012-13 towards Land compensation under Regulation 9(1)(ii) of the 2009 Tariff Regulations and has submitted that the same is within the original scope of work. It has also submitted that the expenditure of ₹250.00 lakh allowed in 2010-11 by order dated 3.5.2012 is towards advance payments made based on cash outflow and not on capitalization basis. The petitioner has further submitted that as against the projected expenditure of ₹1000 lakh for 2011-12 allowed in order dated 3.5.2012, the actual additional capital expenditure for ₹1576.68 lakh for 2011-12 claimed is based on audited accounts and relate to the expenditure on R&R activities for project affected people. The cut-off date of the generating station is 31.3.2014 and the work is within the original scope of the project. It is also noticed that the actual additional capital expenditure claimed is less than the expenditure allowed on projection basis. In view of this, the actual additional capital expenditure claimed for 2011-13 is allowed under Regulation 9(1)(ii) of the 2009 Tariff Regulations.

MGR & Marshalling Yard

22. The Commission in order dated 3.5.2012 in Petition No. 247/2010 had allowed the projected expenditure of ₹50.00 lakh in 2011-12 and ₹224.68 lakh in 2012-13 towards MGR & Marshalling Yard. The petitioner in this petition has not claimed any amount under this head. In view of this, no additional capital expenditure has been allowed under this head. However, in respect of the work of Railway siding for Ash silo awarded to M/s RITES for ₹8.68 crore, it is noticed that the work is expected to be completed only by December, 2015. However, the claim of the petitioner shall be considered as per observations made in para 20 above.



Main Plant Civil Work

23. The Commission in order dated 3.5.2012 had allowed the projected expenditure of ₹254.00 lakh in 2010-11, ₹500.00 lakh in 2011-12 and ₹509.82 in 2012-13 towards Main Plant Civil Work. The petitioner has claimed actual additional capital expenditure of ₹504.24 lakh in 2011-12, ₹793.80 lakh in 2012-13 and ₹662.39 lakh in 2013-14 for the said work. The petitioner has submitted that the actual additional capital expenditure of ₹254.00 lakh as allowed by the Commission for Main Plant Civil Works is on cash flow basis and not on capitalization basis. It has also submitted that against the projected capitalization of ₹500.00 lakh allowed vide order dated 3.5.2012 an expenditure of ₹504.24 lakh for 2011-12 has been claimed based on the actual capitalization as per books of accounts. The petitioner has further submitted that the projected expenditure allowed for 2012-13 and 2013-14 have been revised from ₹509.82 lakh to 793.78 lakh in 2012-13 and from 0.00 lakh to ₹662.39 lakh in 2013-14 on account of the pendency of Arbitration case between the petitioner and M/s SPML and the delay has resulted in the shifting of projected capitalization. It has also stated that some of the works are now off loaded to other agencies for execution and the capitalization for Main Plant Civil Works has been revised accordingly. It has also stated that due to offloading of work as above, some of the balance works will be completed after the cut-off date and will be capitalized during 2014-15. Accordingly, the petitioner has prayed that the actual expenditure of ₹1960.43 lakh during 2011-14 may be allowed as these works are part of original scope of the project.

24. We have examined the matter. It is observed from the justifications submitted by the petitioner that the pendency of arbitration case between NTPC and the contractor had resulted in the revision and shifting of the projections for capitalization



for the years 2012-13 and 2013-14 respectively. As already stated in para 20 above, the expenditure in respect of balance works which are to be completed after 31.3.2014 cannot be considered for capitalization under the 2009 Tariff Regulations and will be governed by the provisions of the 2014 Tariff Regulations only. In view of this, only the actual capital expenditure of ₹504.24 lakh in 2011-12, ₹793.80 lakh in 2012-13 and ₹662.39 lakh in 2013-14 in respect of these works, within the original scope of project has only been allowed.

Township & Colony

25. The Commission in order dated 3.5.2012 had allowed the projected additional capital expenditure of ₹382.51 lakh in 2010-11, ₹750.00 lakh in 2011-12, ₹1200.00 in 2012-13 and ₹1188.69 lakh in 2013-14 pertaining to Township & Colony. The petitioner has not claimed any amount for 2010-11 and 2011-12, but has claimed the actual expenditure of ₹11.55 lakh during 2012-13 and ₹2380.40 lakh during 2013-14 towards Township & Colony. The petitioner has submitted that the major work of Township & Colony consists of the construction of C & D Type quarters and extension of guest house. It has also submitted that the work got delayed due to delay in forest clearance and non availability of sand due to ban imposed on sand mining by the District administration. It has further stated that a major portion of this work (85%) has already been executed and out of 74-D type quarters, 64 nos have already been handed over. It has stated that the work on balance quarters is near completion with final finishing jobs pending and the same is expected to be completed during 2014-15. The petitioner has added that an amount of ₹382.51 lakh allowed as actual capitalization for 2010-11 pertains to cash out flow and is not based on capitalization in the books of accounts.



26. It is observed that the expenditure claimed in respect of these works which are under the original scope of work had been approved by the Commission in order dated 3.5.2012 after prudence check. Accordingly, the actual expenditure of ₹11.55 lakh in 2012-13 and ₹2380.40 lakh in 2013-14 has only been allowed.

SG & TG Work

27. The Commission in order dated 3.5.2012 had allowed the projected additional capital expenditure of ₹1837.35 lakh in 2011-12 and ₹224.00 lakh in 2012-13 pertaining to SG & TG Work. The petitioner in this petition has claimed the actual additional capital expenditure of ₹249.85 lakh in 2011-12, ₹992.81 lakh in 2012-13 and ₹1.73 lakh in 2013-14 for SG & TG Work. The petitioner has submitted that the projected additional capital expenditure of ₹2061.35 lakh for SG & TG works for 2011-13 allowed by the Commission mainly pertains to PG test payments for major systems of SG and TG. It has also submitted that as the PG tests got delayed, it has projections of additional capitalization has been revised.

28. We have examined the matter. It is observed that the expenditure claimed in respect of these works had been approved by the Commission in order dated 3.5.2012 after prudence check. Accordingly, the actual additional capital expenditure of ₹249.85 lakh in 2011-12, ₹992.81 lakh in 2012-13 and ₹1.73 lakh in 2013-14 has only been allowed.

Condensate Polishing plant

29. The Commission in order dated 3.5.2012 had allowed the projected additional capital expenditure of ₹61.19 lakh in 2010-11, ₹276.94 lakh in 2011-12 and ₹105.00



lakh in 2012-13 towards Condensate Polishing plant. The petitioner in this petition has claimed the actual additional capital expenditure of ₹1291.02 lakh in 2011-12 and ₹50.01 lakh in 2013-14 for the said item. The petitioner has submitted that an amount of ₹61.19 lakh pertains to cash outflow only and was not part of the actual capitalization as per books of accounts for 2010-11. It has also submitted that there is no actual additional capitalization as per audited accounts during 2010-11 and for an expenditure of ₹1291.02 lakh in 2011-12 has been claimed as actual additional capitalization based on books of accounts, on cash basis. It has further submitted that the additional capital expenditure projected for 2012-13 and 2013-14 has been revised based on the revised estimates of capitalization for the said period which mainly pertain to PG test payments. The submission of the petitioner has been examined. Considering the fact that the expenditure claimed on the works / assets were approved by the Commission, on prudence check, in order dated 3.5.2012, the actual additional capital expenditure of ₹1291.02 lakh in 2011-12 and ₹50.01 lakh in 2013-14 is allowed.

Ash Disposal Area development

30. The Commission in order dated 3.5.2012 had allowed the projected additional capital expenditure of ₹400.00 lakh in 2011-12, ₹2000.00 lakh in 2012-13 and ₹2000.00 lakh in 2013-14 towards Ash Disposal Area development. The petitioner has claimed the actual additional capital expenditure of ₹1087.93 lakh in 2012-13 and ₹2907.37 in 2013-14 towards the said work/item. The petitioner has submitted that the work got delayed due to the delay in acquisition of land for Ash disposal as the matter was *sub judice*. It has also submitted that in view of the delay in acquisition of land, the petitioner has revised the projections for capitalization of the said work and



has projected the capitalization of the said item/work in 2012-14. The submissions of the petitioner are accepted. As the expenditure projected to be capitalized has been shifted for the reasons stated above and capitalized, the actual capitalization is found justified and the accordingly the actual additional expenditure of ₹1087.93 lakh in 2012-13 and ₹2907.37 in 2013-14 is allowed.

CW System and Offsite Civil Works

31. The Commission in order dated 3.5.2012 had allowed the projected additional capital expenditure of ₹132.14 lakh in 2011-12, ₹200.00 lakh in 2012-13 and ₹306.79 in 2013-14 pertaining to CW System and Offsite Civil Works. The petitioner has now claimed actual expenditure of ₹55.75 lakh in 2011-12, ₹64.92 in 2012-13 and ₹0.66 in 2013-14 for the said work. The petitioner has submitted that the work of CW System and Offsite Civil Works was awarded to M/S SPML for execution and various contractual issues arose leading to arbitration. It has also stated that the associated works like Civil work of Hydrogen Plant as well as subsequent installation of Hydrogen generation machinery got delayed. It has also submitted that an actual additional expenditure of ₹55.75 lakh was capitalized in the books of accounts in 2011-12. The submissions made by the petitioner have been examined. The expenditure as claimed by the petitioner was approved by the Commission in order dated 3.5.2012 considering the fact that these works were part of original scope of work and was required for the generating station. In view of this, the actual additional capital expenditure of ₹55.75 lakh in 2011-12, ₹64.92 in 2012-13 and ₹0.66 lakh in 2013-14 is found to be in order and hence allowed.



Initial Spares

32. The Commission in order dated 3.5.2012 had allowed the capitalization of expenditure on spares amounting to ₹1800.00 lakh as on the COD of the generating station and the projected capitalization of initial spares for ₹4400.00 lakh up to the cut-off date on the ground that the same is within the ceiling limit of 2.5 % of original project cost. The petitioner has claimed actual additional capital expenditure of ₹5764.86 lakh for the years 2010-11, 2011-12, 2012-13 and 2013-14 respectively towards procurement of capital spares and has submitted that it had projected the capitalization of capital spares based on the tentative date of delivery as committed by the vendor during the placement of award and the present claim is based on the actual receipt of the capital spares at the generating station.

33. It is observed that the capitalization of spares claimed by the petitioner constitutes 3.19% of the capital cost up to the cut-off date including the initial spares of ₹1800.00 lakh allowed up to COD of the generating station. As initial spares up to cut-off date is more than specified limit of 2.5% allowed as per the 2009 Tariff Regulations, initial spares has been worked out @2.5% of the capital cost, on cash basis, which works out to ₹5918.60 lakh. Out of ₹5918.60 lakh permitted to be capitalized up to 31.3.2014 as per the 2009 Tariff Regulations, the petitioner has capitalized initial spares amounting to ₹1800 lakh as on date of COD and only the remaining initial spares amounting to ₹4118.61 (5918.60-1800.00) is to be considered for the purpose of tariff. Accordingly, in consideration of the submissions of the petitioner, spares amounting ₹1147.66 lakh in 2010-11, ₹2369.70 lakh in 2012-13 and ₹601.25 lakh in 2013-14 has been permitted to be capitalized.



New Claims

34. The petitioner has claimed additional capital expenditure of 315.00 lakh for the period 2011-14 as "New Claims" towards Generator Bus Duct & Associated Equipments (C&S), 400kV Switchyard packages, Chimney Civil, Coal Handling-Turnkey, Station Lighting System, Tools & Plant and Ash Recirculation system. The petitioner has submitted that these works are part of original Scope of work. In view of the submissions of the petitioner and since these works have been executed within the cut-off date, the additional capital expenditure in respect of new claims has been allowed.

35. 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) | | | | |
|---|--|---------------------------|-----------------|----------------|-----------------|-----------------|
| | | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | Total |
| 1 | Opening Gross Block of the year | 233709.97 | 233726.19 | 243063.81 | 249839.18 | 960339.20 |
| 2 | Closing Gross Block of the year | 233726.19 | 243063.81 | 249839.18 | 260660.95 | 987290.10 |
| 3 | Additional Capitalization as per the books (2-1) | 16.21 | 9337.62 | 6775.37 | 10821.77 | 26950.97 |
| 4 | Exclusions for Additional Capitalization as per books of Accounts. | (-)72.14 | 965.99 | 454.43 | 810.44 | 2158.73 |
| 5 | Additional Capitalization claimed as allowed by including liability(3-4) | 88.36 | 8371.63 | 6320.95 | 10011.33 | 24792.27 |
| 6 | Un-discharged liability included in the above | 28.55 | 2768.36 | 188.26 | 940.62 | 3925.79 |
| 7 | Additional Capital Expenditure on cash basis (5-6) | 59.80 | 5603.27 | 6132.69 | 9070.71 | 20866.47 |
| 8 | Discharge of Un-discharged liabilities as per Form 9-(F) | 2229.75 | 6371.88 | 2321.70 | 2716.91 | 13640.24 |
| 9 | Additional Capital Expenditure Claimed (7+8) | 2289.55 | 11975.15 | 8454.39 | 11787.62 | 34506.71 |



Exclusions

36. The summary of exclusions as per books of accounts are as under:

| (₹ in lakh) | | | | | | |
|-------------|-------------------------------------|------------------------------|---------------|---------------|---------------|----------------|
| | | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | Total |
| 1 | De-Capitalization of spares | 0.00 | 0.00 | (-)149.88 | 0.00 | (-)149.88 |
| 2 | De-Capitalization MBOA items | 0.00 | 0.00 | 0.00 | (-)2.67 | (-)2.67 |
| 3 | De-Capitalization Plant & Machinery | 0.00 | 0.00 | 0.00 | (-)134.13 | (-)134.13 |
| 4 | FERV | (-)72.14 | 1288.66 | 657.31 | 1120.92 | 3541.76 |
| 5 | Inter Unit Transfer | 0.00 | 0.00 | (-)0.50 | (-)16.32 | (-)16.32 |
| 6 | Reversal of Liability | 0.00 | (-)322.67 | (-)52.51 | (-)157.36 | (-)793.3 |
| | Total Exclusions | (-)72.14 | 965.99 | 454.43 | 810.44 | 2158.73 |

37. We consider the exclusions for the years 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.

De-capitalization of Capital Spares

38. The petitioner has de-capitalized capital spares in books of accounts amounting to (-)₹149.88 lakh during 2012-13 on these spares becoming unserviceable. The petitioner has submitted that capital spares after cut-off date are not allowed and has accordingly prayed for exclusion of capital spares de-capitalized in the books of accounts. The matter has been considered. The prayer of the petitioner for exclusion of capital spares de-capitalized in the books of accounts is not acceptable as any assets which form part of capital cost for the purpose of tariff should be taken out of the capital cost once these assets become unserviceable. In view of this, the exclusion of de-capitalization of spares of (-)₹149.88 lakh cannot be allowed.



De-capitalization of Miscellaneous Bought Out Assets (MBOA)

39. The petitioner has excluded de-capitalized MBOA items in books of accounts amounting to (-) ₹2.67 lakh during 2013-14 on these spares becoming unserviceable. The petitioner has submitted that MBOA are not allowed and after cut-off date and has accordingly prayed for exclusion of MBOA de-capitalized in the books of accounts. The matter has been examined. Considering the fact that MBOA items after the cut-off date are not allowed as any assets which form part of capital cost for the purpose of tariff should be taken out of the capital cost once these assets become unserviceable, the exclusion on account of de-capitalization of these assets amounting to (-) ₹2.67 lakh is not justified and has accordingly not been allowed for the purpose of tariff.

Plant & Machinery

40. The petitioner has excluded plant and machinery amounting to (-) ₹134.13 lakh during 2013-14 in books of accounts on these spares becoming unserviceable. The petitioner has submitted that Plant and Machinery items after cut-off date are not allowed and has accordingly prayed for exclusion of the same. The submission has been examined. Considering the fact that capital spares are not allowed after cut-off date and assets which were part of capital cost for purpose of tariff should be taken out from capital base once these assets become unserviceable, the exclusion of de-capitalization of plant and machinery for (-) ₹134.13 lakh is not allowed.

FERV

41. The petitioner has excluded amounts of (-) ₹72.14 lakh in 2010-11 and ₹1282.56 lakh in 2011-12, ₹657.31 lakh in 2012-13 and ₹1120.92 lakh in 2013-14 on account



of impact of FERV. As the petitioner has billed the said amount directly on the beneficiaries in accordance with the 2009 Tariff Regulations, the exclusion of FERV is in order and has been allowed.

Inter-Unit transfer

42. An amount of (-)₹0.50 lakh in 2012-13 and (-)16.32lakh in 2013-14 has been excluded under this head on account of transfer of certain assets like office equipments, Kitchen equipments, EDP, WP machines & SATCOM equipments. It is observed that the Commission in some of the tariff orders relating to the additional capital expenditure 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 purposes of tariff. In line with the said decisions, the exclusion of the amounts of (-)₹0.50 lakh in 2012-13 and (-)₹16.32 lakh in 2013-14 on account of inter-unit transfer of equipment on temporary basis, is in order and has been allowed.

Reversal of Liability

43. The petitioner has excluded amounts of (-)₹322.67 lakh in 2011-12, (-)₹52.51 lakh in 2012-13 and (-)₹157.36 lakh in 2013-14 on account of reversal of liability from the un-discharged liability as on 21.3.2011. The admitted capital cost as on 21.3.2011 has already been reduced by excluding the un-discharged liabilities as on 21.3.2011.

44. The summary of exclusions allowed and disallowed is as under:



| Sl. No. | Head | (₹ in lakh) | | | | Total |
|----------|--|------------------------|---------------|------------------|------------------|------------------|
| | | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | |
| A | Exclusions allowed | | | | | |
| 1 | FERV | (-)72.14 | 1288.66 | 657.31 | 1120.92 | 2994.75 |
| 2 | Inter Unit Transfer | 0.00 | 0.00 | (-)0.50 | (-)16.32 | (-)16.82 |
| 3 | Reversal of Liability | 0.00 | (-) 322.67 | (-)52.51 | (-)157.36 | (-)532.54 |
| | Sub Total Exclusions allowed (A) | (-)72.14 | 965.99 | 604.30 | 947.24 | 2445.39 |
| B | Exclusions not allowed | | | | | |
| 4 | De-Capitalization of spares | 0.00 | 0.00 | (-)149.88 | 0.00 | (-)149.88 |
| 5 | De-Capitalization MBOA items | 0.00 | 0.00 | 0.00 | (-)2.67 | (-)2.67 |
| 6 | De-Capitalization Plant & Machinery | 0.00 | 0.00 | 0.00 | (-)134.13 | (-)134.13 |
| | Sub-Total of Exclusions not allowed (B) | 0.00 | 0.00 | (-)149.88 | (-)136.80 | (-)286.68 |
| | Total Exclusions (A+B) | (-)72.14 | 966.00 | 454.43 | 810.44 | 2158.73 |

45. Based on the above discussions, the actual additional capital expenditure allowed for the years 2010-11 (21.3.2011 to 31.3.2011), 2011-12, 2012-13 and 2013-14 is summarized as under:

| Sl. No. | Package Name | (₹ in lakh) | | | | Total |
|---------|--------------------------------------|------------------------|---------|---------|---------|---------|
| | | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | |
| 1 | Land | 0.00 | 1576.68 | 19.67 | 0.00 | 1596.35 |
| 2 | Roads& Drains-Civil Works | 0.00 | 2.58 | 0.00 | 44.94 | 47.52 |
| 3 | MGR & Marshalling yard | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | Other enabling work | 0.00 | 0.72 | 3.06 | 94.18 | 97.96 |
| 5 | Main Plant Civil Work | 0.00 | 504.24 | 793.80 | 662.39 | 1960.43 |
| 6 | Township & Colony | 0.00 | 0.00 | 11.55 | 2380.40 | 2391.95 |
| 7 | SG & TG | 0.00 | 249.85 | 992.81 | 1.73 | 1244.39 |
| 8 | Condensate polishing plant | 0.00 | 1291.02 | 0.00 | 50.01 | 1341.03 |
| 9 | EOT Crane | 0.00 | 0.00 | 0.03 | 0.00 | 0.03 |
| 10 | C&I Package | 0.00 | 92.00 | 0.69 | 0.10 | 92.79 |
| 11 | Locomotive | 0.00 | 4.13 | 0.00 | 0.00 | 4.13 |
| 12 | Rolling Stock wagons | 0.00 | 2.18 | 0.00 | 0.00 | 2.18 |
| 13 | Ash Disposal Area development | 0.00 | 0.00 | 1087.93 | 2907.37 | 3995.30 |
| 14 | Ash Handling system-Civil works | 0.00 | 0.00 | 142.50 | 306.13 | 448.63 |
| 15 | Ash Handling system-Mechanical works | 0.00 | 67.64 | 28.71 | 0.00 | 96.35 |



| | | | | | | |
|----|--|--------------|----------------|----------------|----------------|-----------------|
| 16 | CW system & Offsite area –Civil work | 0.00 | 55.75 | 64.92 | 0.66 | 121.33 |
| 17 | CW system & Equip. package | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18 | Cooling tower -Civil works | 0.00 | 0.23 | 8.52 | 0.00 | 8.75 |
| 19 | DM Plant-Civil works | 0.00 | 22.60 | 10.40 | 0.00 | 33.00 |
| 20 | Hydrogen Generation Plant | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21 | HP/LP Piping | 0.00 | 27.42 | 1.17 | 18.87 | 47.46 |
| 22 | Fire Fighting systems | 0.00 | 26.54 | 43.67 | 4.30 | 74.51 |
| 23 | Air-Conditioning | 0.00 | 2.08 | 0.05 | 1.40 | 3.53 |
| 24 | Ventilation system | 0.00 | 6.14 | 10.22 | 3.59 | 19.95 |
| 25 | Transformer package | 0.00 | 37.58 | 12.87 | 0.00 | 50.45 |
| 26 | Switchgear package | 0.00 | 9.51 | 26.05 | 20.61 | 56.17 |
| 27 | cables | 0.00 | 3.68 | 0.00 | 0.00 | 3.68 |
| 28 | IT+ Communication | 0.00 | 0.00 | 0.00 | 63.88 | 63.88 |
| 29 | workshop & Lab. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30 | Establishment & MBOA Assets | 59.80 | 339.91 | 341.40 | 243.78 | 984.89 |
| 31 | Initial Spares | 0.00 | 1147.66 | 2369.70 | 601.25 | 4118.61 |
| A | Sub-Total (1to 31) | 59.80 | 5470.16 | 5969.72 | 7405.59 | 18905.27 |
| 32 | General Bus Duct & Associated Equipments (C&S) | 0.00 | 0.00 | 7.46 | 0.00 | 7.46 |
| 33 | 400 kV Switchyard package | 0.00 | 0.00 | 0.00 | 3.56 | 3.56 |
| 34 | Chimney Civil | 0.00 | (-)2.33 | 75.60 | 15.29 | 88.56 |
| 35 | Coal Handling-Turnkey | 0.00 | 121.72 | 0.00 | 0.00 | 121.72 |
| 36 | Station Lighting Sys. | 0.00 | 6.02 | 24.19 | 0.00 | 30.21 |
| 37 | Tools & Plant | 0.00 | 0.00 | 55.76 | 0.00 | 55.76 |
| 38 | Ash Recirculation System | 0.00 | 7.73 | 0.00 | 0.00 | 7.73 |
| B | Sub-Total (New claims) (32 to 38) | 0.00 | 133.14 | 163.01 | 18.85 | 315.00 |
| C | Total Additional Capitalization (A+B) | 59.80 | 5603.30 | 6132.73 | 7424.48 | 19220.33 |
| D | Add: Exclusions not allowed | 0.00 | 0.00 | (-) 149.88 | (-)136.80 | (-)286.68 |
| | Total Additional Capitalization allowed (C+D) | 59.80 | 5603.30 | 5982.85 | 7287.68 | 18933.65 |

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



| | (₹ in lakh) | | | |
|--|---------------------------|-----------------|----------------|-----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Additional capital expenditure (excluding discharges) | 59.80 | 5603.30 | 5982.85 | 7287.68 |
| Add: Discharges of liabilities (against allowed assets / works) | 2229.75 | 6371.88 | 2321.70 | 2716.91 |
| Total additional capital expenditure allowed | 2289.55 | 11975.14 | 8304.51 | 10004.55 |

47. Based on the above, the capital cost considered for the purpose of tariff for 2010-14 is as under:

| | (₹ in lakh) | | | |
|--|---------------------------|------------------|------------------|------------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Opening capital cost | 217105.95 | 219395.51 | 231370.65 | 239675.16 |
| Add: Additional capital expenditure | 2289.55 | 11975.14 | 8304.51 | 10004.55 |
| Closing capital cost | 219395.51 | 231370.65 | 239675.16 | 249679.71 |
| Average capital cost | 218250.73 | 225383.08 | 235522.91 | 244677.44 |

Debt- Equity Ratio

48. The petitioner has considered the debt-equity ratio of 70:30 for the period 2009-14 as per the Regulation 12 of the 2009 Tariff Regulations. However, considering the cumulative cash expenditure as on COD of the generating station COD, the debt equity ratio works out to 70.99:29.01 and the same is not in consonance with the normative debt equity ratio of 70:30. As such, the debt-equity ratio of 70.99:29.01 has been considered for the purpose of tariff as on COD of the generating station COD. Similarly, the debt-equity ratio after the COD of the generating station as on 31.3.2011 and 31.3.2012 is 72.47:27.53 and 70.33:29.67 respectively and is also not in conformity with the normative debt equity ratio of 70:30. However, the debt equity ratio as on 31.3.2013 and 31.3.2014 is in line with the normative debt equity ratio of 70:30. As such, for the purpose of additional capital expenditure, the debt-equity ratio



of 72.47:27.53, as on 31.3.2011, 70.33:29.67 as on 31.3.2012, 70:30 as on 31.3.2013 and 31.3.2014 respectively has been considered.

Return on Equity

49. The petitioner has considered Return on Equity considering the base rate of 15.50% and the actual tax rate for the respective years. Accordingly, in terms of Regulation 15 of the 2009 Tariff Regulations, return on equity has been worked out as under:

| | (₹ in lakh) | | | |
|--|-----------------------------------|-----------------|-----------------|-----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Normative Equity -Opening | 62990.08 | 63620.34 | 67173.94 | 69665.29 |
| Add: Addition to equity on account of Additional Capital Expenditure | 630.26 | 3553.60 | 2491.35 | 3001.37 |
| Normative Equity - Closing | 63620.34 | 67173.94 | 69665.29 | 72666.66 |
| Average Equity | 63305.21 | 65397.14 | 68419.62 | 71165.98 |
| Return on Equity (Base Rate) | 15.50% | 15.50% | 15.50% | 15.50% |
| Tax rate | 33.218% | 32.445% | 32.445% | 33.990% |
| Rate of Return on Equity (Pre Tax) | 23.210% | 22.944% | 22.944% | 23.481% |
| Return on Equity (Pre Tax) - Annualised | 14693.14 | 15004.72 | 15698.20 | 16710.48 |

Normative Annual Plant Availability Factor

50. The Normative Annual Plant Availability Factor of 85% as considered in order dated 3.5.2012 has been considered for the purpose of tariff.

Interest on loan

51. The Commission in order dated 3.5.2012 in Petition No.247/2010 had allowed the weighted average rate of interest on loan as under:

| 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
|-----------------------------------|----------------|----------------|----------------|
| 9.1275% | 9.1315% | 9.1192% | 9.0978% |



52. The respondent, CSPDCL has submitted that revision of rate of interest on loan by inclusion of high interest bearing bond series XXXVIII is not justified and no further fund is required by the petitioner. It has also submitted that the overall interest component has also increased as compared to the interest on loan allowed by order dated 9.4.2013 in Petition No. 16/RP/2012 and since the petitioner had already tied-up the entire loan prior to the filing of the review petition and weighted average rate of interest has been allowed by the Commission, the amount of interest on loan may also not be increased.

53. We have considered the matter. In terms of Regulation 16 of the 2009 Tariff Regulations, Interest on loan has been worked out as under:

- (a) The gross normative loan corresponding to 70.99% of admissible capital cost on works out to ₹154115.87 lakh as on 21.3.2011.
- (b) The net loan opening as on 21.3.2011 is same as the gross loan. Hence, cumulative repayment of loan up to previous year/period is nil.
- (c) Depreciation allowed for the period under consideration has been considered as repayment.
- (d) Average net loan is calculated as average of opening and closing.
- (e) Weighted average rate of interest has been calculated considering draws up to 31.3.2014.

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

| | <i>(₹ in lakh)</i> | | | |
|---|-----------------------------------|----------------|----------------|----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Gross Opening Loan | 154115.87 | 155775.17 | 164196.71 | 170009.87 |
| Cumulative Repayment of Loan | - | 345.08 | 12170.84 | 24242.90 |
| Net Loan Opening | 154115.87 | 155430.09 | 152025.87 | 145766.97 |
| Addition of loan due to projected Additional Capital Expenditure | 1659.30 | 8421.55 | 5813.16 | 7003.19 |
| Repayment of loan (Normative) | 345.08 | 11825.76 | 12176.98 | 12675.75 |



| | | | | |
|--|-----------------|-----------------|-----------------|-----------------|
| Repayment adjustment on account of de-cap considered for the purpose of tariff | - | - | 104.91 | 95.76 |
| Net Repayment | 345.08 | 11825.76 | 12072.07 | 12579.99 |
| Net Loan Closing | 155430.09 | 152025.87 | 145766.97 | 140190.16 |
| Average Loan | 154772.98 | 153727.98 | 148896.42 | 142978.56 |
| Weighted Average Rate of Interest on Loan | 9.16% | 9.55% | 9.55% | 9.66% |
| Interest on Loan | 14181.50 | 14675.66 | 14220.61 | 13804.74 |

Depreciation

55. The petitioner has claimed depreciation considering the weighted average rate of depreciation of 5.246% from 21.3.2011 to 31.3.2011, 5.247% in 2011-12, 5.17% in 2012-13 and 5.1806% in 2013-14. However, considering the rate of depreciation in terms of Appendix-III to the 2009 Tariff Regulations, the Weighted Average Rate of depreciation works out to 5.2464% in 21.3.2011 to 31.3.2011, 5.2470% in 2011-12, 5.1702% in 2012-13 and 5.1806% in 2013-14. The necessary calculations in support of depreciation are as under:

| | (₹ in lakh) | | | |
|--|------------------------|-----------------|-----------------|-----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Average Capital Cost | 218250.73 | 225383.07 | 235522.90 | 244677.44 |
| Value of land included above | 735.54 | 1523.99 | 2477.74 | 2792.52 |
| Rate of Depreciation | 5.25% | 5.25% | 5.17% | 5.18% |
| Depreciable Value | 195763.67 | 201473.18 | 209740.65 | 217696.42 |
| Remaining Depreciable Value | 195763.67 | 201128.10 | 197569.81 | 193360.58 |
| Depreciation (for the period) | 345.08 | 11825.76 | 12176.98 | 12675.75 |
| Depreciation (annualized) | 11450.32 | 11825.76 | 12176.98 | 12675.75 |
| Cumulative Depreciation (at the end of the period) | 345.08 | 12170.84 | 24347.82 | 37011.59 |
| Cumulative Depreciation reduction due to De-capitalization | - | - | 11.98 | 18.01 |
| Cumulative Depreciation after adjustment due to De-capitalization (at the end of the period) | 345.08 | 12170.84 | 24335.84 | 36993.58 |



56. The O&M expenses allowed by order dated 9.4.2013 in Petition No.16/RP/2012 is considered as under:

| (₹ in lakh) | | | |
|-------------|---------|---------|---------|
| 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| 6870.00 | 7265.00 | 7680.00 | 8120.00 |

Interest on Working Capital

Fuel Component

57. The fuel component (cost of coal for one and half months) in the working capital as considered in order dated 3.5.2012 in Petition No. 247/2010 has been considered as under:

| (₹ in lakh) | | | | |
|---|---------------------------|---------|---------|---------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Cost of coal for 1 ¹ / ₂ months | 3562.26 | 3572.02 | 3562.26 | 3562.26 |

Cost of Secondary Fuel Oil

58. The cost of secondary fuel oil for two months as considered in order dated 3.5.2012 in Petition No. 247/2010 has been considered as under:

| (₹ in lakh) | | | | |
|---|---------------------------|---------|---------|---------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Cost of secondary fuel oil for two months | 241.46 | 242.12 | 241.46 | 241.46 |

Maintenance Spares

59. Maintenance spares as considered in order dated 3.5.2012 in Petition No. 247/2010 has been considered as under:

| (₹ in lakh) | | | | |
|--------------------|---------------------------|---------|---------|---------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance spares | 1374.00 | 1453.00 | 1536.00 | 1624.00 |



Receivables

60. 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) | | | |
|----------------------------|-----------------------------------|-----------------|-----------------|-----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Variable Charges -2 months | 4749.68 | 4762.70 | 4749.68 | 4749.68 |
| Fixed Charges - 2 months | 8454.79 | 8725.59 | 8897.25 | 9160.22 |
| Total | 13204.47 | 13488.29 | 13646.93 | 13909.90 |

O&M Expenses (1 month)

61. O&M expenses as considered in order dated 3.5.2012 in Petition No. 247/2010 has been considered for the purpose of tariff as under:

| | (₹ in lakh) | | | |
|-----------------------------------|----------------|----------------|----------------|--|
| 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 | |
| 572.50 | 605.42 | 640.00 | 676.67 | |

62. Accordingly, SBI PLR of 11% (SBI Base Rate of 7.50% as on 1.7.2010 plus 350 basis points) 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) | | | |
|---|-----------------------------------|-----------------|-----------------|-----------------|
| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
| Cost of coal for 1.1/2 months | 3562.26 | 3572.02 | 3562.26 | 3562.26 |
| Cost of secondary fuel oil for 2 months | 241.46 | 242.12 | 241.46 | 241.46 |
| O&M Expenses | 572.50 | 605.42 | 640.00 | 676.67 |
| Maintenance Expenses | 1374.00 | 1453.00 | 1536.00 | 1624.00 |
| Receivables | 13204.47 | 13488.29 | 13646.93 | 13909.90 |
| Total working capital | 18954.69 | 19360.85 | 19626.65 | 20014.29 |
| Rate of interest | 11.00% | 11.00% | 11.00% | 11.00% |
| Interest on working capital | 2085.02 | 2129.69 | 2158.93 | 2201.57 |



Annual Fixed Charges for 2010-14

63. The annual fixed charges for the period 2010-14 in respect of the generating station (500 MW) are summarized as under:

| | 21.3.2011 to 31.3.2011 | 2011-12 | 2012-13 | 2013-14 |
|--------------------------------|---------------------------|-----------------|-----------------|-----------------|
| Return on Equity | 14693.14 | 15004.72 | 15698.20 | 16710.48 |
| Interest on Loan | 14181.50 | 14675.66 | 14220.61 | 13804.74 |
| Depreciation | 11450.32 | 11825.76 | 12176.98 | 12675.75 |
| Interest on Working Capital | 2085.02 | 2129.69 | 2158.93 | 2201.57 |
| O&M Expenses | 6870.00 | 7265.00 | 7680.00 | 8120.00 |
| Cost of secondary fuel oil | 1448.75 | 1452.72 | 1448.75 | 1448.75 |
| Total | 50728.72 | 52353.55 | 53383.47 | 54961.30 |

Note: (i) All figures are on annualized basis for the installed capacity of 500 MW

(ii) All the figures under each head have been rounded. (ii) The figure in total column in each year is also rounded. Because of rounding of each figure the total may not be arithmetic sum of individual items in columns.

64. Energy Charge Rate of 81.867 paise/kwh as determined in order dated 3.5.2012 in Petition No.247/2010 shall remain unaltered.

65. The difference between the annual fixed charges determined by order dated 3.5.2012 and those determined by this order shall be adjusted in accordance with Regulation 6 (6) of the 2009 Tariff Regulations.

66. Petition Nos. 208/GT/2013 and 305/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

