

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 282/GT/2014

Coram:

Shri A.S. Bakshi, Member

Dr. M. K. Iyer, Member

Date of Hearing: 20.5.2016

Date of Order : 24.8.2016

In the matter of

Revision of tariff of Farakka Super Thermal Power Station Stage – III (1 X 500 MW) for the period from 4.4.2012 (COD) to 31.3.2014-Truing up of order dated 21.1.2014 in Petition No. 204/GT/2011

And in the matter of

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

.....Petitioner

Vs

1. West Bengal State Electricity Distribution Company Limited
Vidyut Bhawan, Block-DJ,
Sector-II, Salt Lake City
Kolkata – 700 091

2. Bihar State Power Holding Company Limited
(erstwhile Bihar State Electricity Board)
Vidyut Bhawan, Bailey Road
Patna – 800 001

3. Jharkhand State Electricity Board,
Engineering Building,
HEC, Dhurwa, Ranchi – 834004

4. GRIDCO Limited
24, Janpath,
Bhubaneswar – 751007

5. Damodar Valley Corporation
DVC Towers, VIP Road
Kolkata-700054



6. Power Department
Govt. of Sikkim, Kazi Road,
Gangtok, Sikkim-737101

...Respondents

Parties present:

For Petitioner: Shri Bhupinder Kumar, NTPC
Shri Rajeev Chaudhary, NTPC
Shri Ajay Dua, NTPC
Shri T. Vinodh Kumar, NTPC
Shri Umesh Ambali, NTPC

For Respondents: Shri R. B. Sharma, Advocate, GRIDCO, BSPHCL & BRPL
Shri Abhishek Srivastava, BYPL
Shri Kanishk Khetrapal, BRPL
Shri Nishant Grover, BYPL

ORDER

This petition has been filed by the petitioner, NTPC for revision of the annual fixed charges in respect of Farakka Super Thermal Power Station Stage-III (500 MW) ('the generating station') for the period from 4.4.2012 to 31.3.2014 in terms of clause (1) of Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations').

2. The generating station is an expansion project of the petitioner company in the existing Farakka Stage-I (600 MW) and Stage-II (1000 MW) located in the State of West Bengal. The generating station achieved commercial operation on 4.4.2012.

3. The Commission vide order dated 21.1.2014 in Petition No. 204/GT/2011 had approved the tariff of the generating station from the actual COD (4.4.2012) to 31.3.2014 considering the opening capital cost of ₹212177.16 lakh as on COD (after removal of un-discharged liabilities of ₹9919.25 lakh as on 4.4.2012). Aggrieved by the said order dated 21.1.2014, the petitioner filed review petition (9/RP/2014) and the same was disallowed by the Commission vide order dated 17.12.2014 on the ground of "sharing the impact of cost over-run for the delay of 14 months, not allowing the delay of one month on account of the Parliamentary Elections in 2009, non-consideration of the delay of 2 months due to the



damaged sluice gate as a force majeure event, disallowance due to escalation of cost for the period of delay of 14 months for the main plant turnkey package and the main plant civil work package, disallowance towards Interest During Construction & Financing Charges, non-consideration of the start date for interest calculation in Bond Series, consideration of the weighted average rate of coal, non-consideration of the increase in Water charges, non-consideration of relaxation of Target Availability to 80%, and disallowance of ₹760.18 lakh (50% of ₹1520.36 to be shared equally between NTPC and the beneficiaries) as cost overrun due to time overrun for Incidental Expenditure During Construction." Accordingly, the annual fixed charges allowed in order dated 21.1.2014 are as follows:-

| | (₹ in lakh) | |
|-----------------------------|------------------------------------|-----------------|
| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| Depreciation | 11294.56 | 11973.47 |
| Interest on Loan | 14886.98 | 14579.15 |
| Return on Equity | 15240.44 | 16156.54 |
| Interest on Working Capital | 6009.09 | 6066.06 |
| O&M Expenses | 7680.00 | 8120.00 |
| Secondary fuel oil cost | 1766.75 | 1766.75 |
| Total | 56877.81 | 58661.97 |

4. Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

5. The petitioner has sought the revision of the annual fixed charges based on the actual additional capital expenditure incurred for the years 2012-13 and 2013-14 in accordance with clause (1) of Regulation 6 of the 2009 Tariff Regulations. The Commission had decided in the order dated 21.1.2014 that the effect of time overrun



disallowed by the Commission shall be shared by the petitioner and beneficiaries in the ratio 50:50. The Commission's observations in the order dated 21.1.2014 were as below:

"35....As decided above, the time overrun of 3 months has been allowed/condoned and the time overrun for the remaining 14 months has been found not fully attributable the petitioner. Hence, it is decided that the corresponding escalation in prices, IEDC, IDC, FC should also be equally shared by the petitioner with the respondents in the ratio of 50:50 for the purpose of tariff.

36...As the petitioner has been directed to equally share with the respondents the amount received towards recovery of LD from the contractors, in the ratio of 50:50, the details regarding the status of LD recovered shall also be furnished at the time of truing up."

6. The petitioner was directed by the Commission in order dated 21.1.2014 to submit following additional information:

"i) Unit-wise, asset wise details in respect of all the six units of Farakka Station separately at the time of truing up as on 03.04.2012 with clear confirmation as to whether the allowed/claimed asset or disallowed asset belongs to Katwa project.

ii) Clarify as to whether any value of land has been allocated to Stage-III and also submit details of the land cost allocated between the individual units of Stage-1, II and III respectively.

iii) The details of the year-wise allocation of interest between gross block and CWIP till the date of actual COD along with the splitting up to 5.2.2011 and thereafter.

iv) Details of LD recovered from contractors for sharing the same in the ratio 50:50 with respondents as directed in the said order.

v) Form - 14A to be furnished consisting cash expenditure up to 04 04.2012 by splitting the 4th quarter of 2010-11 up to 05.02.2011 and thereafter .

vi) The unit-wise computation of Short Term FERV claim in order to reconcile with the amount specified in Schedule 7 of the combined balance sheet as on 03.04.2012."

In response, the petitioner has submitted vide affidavit dated 12.8.2014 in the present petition that many of the assets/ common facilities are used for all the six units and similarly some assets are common for Stage-I and Stage-II Units. Accordingly, the petitioner has submitted stage wise, asset wise details and has annexed the audited stage wise gross block and extracts of Balance Sheet as on 3.4.2012. The petitioner has



submitted that the assets procured for Katwa Project are maintained in Fixed Assets Register of Farakka Station under Katwa Cost Centre and accordingly combined Balance Sheet is prepared. It has submitted that no assets claimed/ allowed/ disallowed in the instant petition belong to Katwa Project, as clearly brought out in details enclosed with the petition. As regards land, it has submitted that no additional land was proposed to be acquired for installation of the plant. However, an expenditure of ₹521.30 lakh (shown in Form – 5B of amended tariff petition filed vide affidavit dated 7.9.2012) was estimated to be incurred for acquiring about 100 acres of additional land for linking the Brahmini coal mine with Indian Railways network for transportation of coal to the station. The petitioner has clarified that no land is allocated to Farakka - III as on COD i.e. 4.4.2012, which is reflected in the Stage wise, asset wise Gross Block statement as on 3.4.2012. The petitioner has further submitted that the linked Brahmini mine has not yet been developed and may take some more time for production of coal and based on the assessment of the status of mine development, the petitioner plans to acquire land matching with development of the Brahmini mines. The petitioner has sought liberty to approach the Hon'ble Commission when the said land is acquired and capitalized for transportation of coal.

7. Accordingly, the capital cost and the annual fixed charges claimed by the petitioner for the said years are as under:

| | <i>(₹ in lakh)</i> | |
|-------------------------------------|--------------------|----------------|
| | 2012-13 | 2013-14 |
| Opening Capital Cost | 212178.46 | 222578.17 |
| Add: Additional capital expenditure | 10399.71 | 15161.37 |
| Closing Capital Cost | 222578.17 | 237739.53 |
| Average Capital Cost | 217378.31 | 230158.85 |

Annual Fixed Charges

| | <i>(₹ in lakh)</i> | |
|------------------|--------------------|----------------|
| | 2012-13 | 2013-14 |
| Depreciation | 11088.64 | 11777.90 |
| Interest on Loan | 14400.94 | 14196.92 |



| | 2012-13 | 2013-14 |
|-----------------------------|-----------------|-----------------|
| Return on Equity | 14962.58 | 16213.08 |
| Interest on Working Capital | 6052.05 | 6119.34 |
| O&M Expenses | 7680.00 | 8120.00 |
| Secondary fuel oil cost | 1766.76 | 1766.76 |
| Total | 55950.98 | 58194.01 |

8. In compliance with the directions of the Commission, the petitioner has filed additional information and has served copies on the respondents. Respondent No. 4, GRIDCO has filed their reply in the matter and the petitioner has also filed its rejoinder. We now proceed to examine the claim of the petitioner based on the submissions of the parties and the documents available on record, as discussed in the subsequent paragraphs.

Commissioning Schedule, Time and Cost Overrun

9. The details of the actual COD of the units of the generating station as against the scheduled COD are as under:

| Date of Investment approval | COD as per investment approval | Actual COD | Time over-run (months) |
|------------------------------------|---------------------------------------|-------------------|-------------------------------|
| 30.10.2006 | 6.11.2010 | 4.4.2012 | 17 |

10. The Commission in order dated 21.1.2014 had examined the reasons for the delay in the commissioning of the project and had concluded that the impact of time and cost overrun of 14 months (6.2.2011 to 4.4.2012) leading to the said delay should be borne equally in the ratio of 50:50 by the petitioner and the respondents. The relevant portion of the order is extracted as under:

" 16.....Even though the petitioner cannot absolve itself of its responsibility for the delay due to non performance of the contractors, it is necessary to consider as to whether there was slackness on the part of the petitioner to coordinate with the contractor or to take prudent steps to prevent the delay in completion of the project. It is evident from the above



submissions that the delay of 14 months (excluding 3 months due to rainfall) in the completion of the project is due to the non-mobilisation of resources on the part of M/s BHEL, delay due to technical flaws in Bottom Ash hopper, failure of the instrument air and service air compressor motors, etc., It is noticed that Boiler Erection activities came to a standstill after four months from start of work due to non mobilization of Heavy lift crawler crane by M/s BHEL and the petitioner had continuously followed up with M/s BHEL for mobilization of high capacity crawler crane. This issue was finally resolved in a meeting between the petitioner and BHEL on 2.9.2008 wherein it was decided that the petitioner would hire High Capacity Crane as per technical specifications of BHEL and provide the same to BHEL on rental basis as a unique and special initiative. The petitioner had placed LOI on 27.10.2008 on the agency for mobilisation of High capacity crane at site and with all efforts and initiative, the high capacity crane was made available to BHEL at the earliest possible time at site by 4.12.2008 after load test. Thus, with all efforts taken by the petitioner, and optimum use of resources, drum lifting could be completed during February, 2009 i.e with a delay of 12 months. Also, BHEL was finding it difficult to finalise qualified sub-vendor for boiler erection due to non-participation of qualified vendors in the bidding process and ultimately, one bidder qualified with its financial offer being too high. BHEL could not award the contract and on persistent follow up by the petitioner, short term contract, to start boiler erection was resorted to avoid further delay and M/s Golden Edge Engineering was engaged by BHEL as makeshift agency to complete the work up to drum lifting which took one and half months to mobilise its resources at site. Similarly, in the course of commissioning, bottom ash handling system consistent operation could not be established due to major and critical technical flaws in the various associated components as mentioned earlier. It is observed that these problems were resolved only after several meetings between M/s Indure and NTPC on various dates i.e on 25.9.2011, 25.11.2011 and 30.12.2011 respectively. Pursuant to this, the operation of Bottom ash handling system could be established in January, 2012 after carrying out various modifications. It is evident from the above that there has been no imprudence on the part of the petitioner in the selection of M/s BHEL as the principal contractor or in the execution of contractual agreements or any delay in awarding of contracts or any slackness in project monitoring. However, there has been delay in the completion of project due to various reasons like the non participation of qualified vendors in bidding process, the non mobilisation of resources at site, technical flaws in bottom Ash system and Instrumentation Air system etc. It is observed that the petitioner was constantly monitoring and co-ordinating the activities of the principal contractor/subcontractors and had initiated various steps to mitigate the delay in the completion of the project as narrated above. Despite reasonable efforts on the part of the petitioner, there has been delay in the completion of the project. This in our view cannot be fully attributable to the petitioner. Accordingly, we are of the considered view, that the principle to be applied in terms of the situation (i) and (ii) as laid down in the judgment of the Tribunal referred to in para 12 above, is not attracted in the instant case. However, the delay in the completion of the project had occurred due to the failure on the part of contractor/sub-contractors to carry out the works as per schedule, despite reasonable efforts taken by the petitioner. This, in our view, cannot fully absolve the petitioner and the respondents cannot also be asked to carry the entire burden on account of the said delay. Keeping in view that time is the essence of the contract in respect of the project work, and considering the fact that delay in the completion of the project is not fully attributable to the petitioner, we conclude that the principle laid down in situation (iii) of the judgment of the Tribunal as referred to in para 12 above is applicable in the instant case. Accordingly, we direct that the impact of time and cost overrun of 14 months should be borne equally in the



ratio of 50:50 by the petitioner and the respondents. Moreover, the additional cost due to time overrun including the Liquidated damages and insurance proceeds, if any, received from the contractor should be shared between the generating company and the respondents/consume`"

11. As regards cost overrun due to delay in commissioning of the generating station, the Commission's observations are as below:

"30. The increase in the main plant turnkey package works out to ₹9925 lakh based on actual capital expenditure of ₹124311 lakh against the awarded value of ₹114386 lakh. Similarly there is increase of ₹9556 lakh under the main plant civil work package where the actual capital expenditure is ₹18756 lakh as against the awarded value of ₹9200 lakh. The increase in other packages is minor and is expected to be completed well before the synchronization of the unit.

31. In the light of above, the pro rata increase in the contract price due to escalation of cost for the period of delay of 14 months is worked out for main plant turnkey package and main plant civil work package on pro rata basis as ₹2105 lakh and ₹2152 lakh respectively. As such, an amount of ₹4262 lakh is to be shared in the ratio of 50:50 by the petitioner and the respondents. In view of this, ₹2132 lakh has been reduced from the actual expenditure of ₹176541 lakh on this count, as on 4.4.2012."

12. The disallowance of time overrun of 14 months was applied in the order dated 21.1.2014 and the IDC, IEDC and cost overrun on account of the aforesaid period was disallowed accordingly.

Capital Cost

13. Regulation 7(1) of the 2009 Tariff Regulations, provides as under:

"The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan- (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (i) being equal to the actual amount of loan in the event of the actual equal less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

Capitalized initial spares subject of the ceiling rates specified in regulation 8; and

Additional capital expenditure determined under regulation 9:



Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff;

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time.

14. The Commission vide order dated 21.1.2014 in Petition No. 204/GT/2011 had approved the capital cost of ₹212177.16 lakh (cash basis) including IDC, Financing Charges and ERV adjustments as on COD. The break-up of the capital cost as on COD allowed vide order dated 21.1.2014 is as under:

| <i>(₹ in lakh)</i> | |
|--|------------------|
| Capital cost allowed excluding IDC & FC (on cash basis) after deducting liabilities of ₹9919.25 lakh | 180381.82 |
| Add: IDC & FC allowed including the interest on normative loan | 31799.07 |
| Add: Short term FERV Loss/(Gain) | (-) 3.73 |
| Capital cost on cash basis allowed for the purpose of tariff | 212177.16 |

15. The petitioner in this petition has claimed capital cost based on the admitted capital cost as on 4.4.2012 and the actual capital expenditure (on cash basis) for the years 2012-13 (4.4.2012 to 31.3.2013) and 2013-14. The capital cost claimed is as summarized under:

| <i>(₹ in lakh)</i> | | |
|---|---------------------------------|----------------|
| Capitalization as on COD on cash basis including notional IDC | 212180.89 | |
| FERV Charged to P&L A/c as on 3.4.2012 | (-) 3.73 | |
| Add: 50% of LD recovered in EOT for TG Hall on account of delay | 1.30 | |
| Opening capital cost on COD 3.4.2012 | 212178.46 | |
| Additional Capital Expenditure | 2012-13 (4.4.2012 to | 2013-14 |



| | | |
|--|-------------------|------------------|
| | 31.3.2013) | |
| Add: Additional Capital Expenditure (actual) | 10399.71 | 15161.37 |
| Closing Capital cost | 222578.17 | 237739.53 |

16. The opening Capital cost of ₹212178.46 lakh as on COD as per the affidavit dated 12.8.2014 includes an amount of ₹31799.07 lakh as IDC & FC including the notional IDC allowed vide order dated 21.1.2014. In the present petition, the petitioner has revised the claim for capital cost on COD after accounting for the 50% of LD recovered in Electric Overhead Travelling (EOT) for TG Hall in addition to the total Capital Cost as on COD approved to arrive at the capital cost of ₹212178.46 lakh as on COD. With respect to the LD recovered amounting to ₹2.60 lakh, the petitioner has referred to affidavit dated 17.12.2012, where the petitioner has submitted that LD of ₹2.60 lakh has been recovered for TG Hall EOT package on account of delay and the amount has already been adjusted in the capital cost as on COD i.e. 4.4.2012. The petitioner has submitted that this LD of ₹2.60 lakh has to be shared 50:50 with the respondents, which was earlier adjusted fully in the capital cost, as per the direction of the Commission. Accordingly, the petitioner has claimed the capital cost as on COD in the instant petition as ₹212178.46 lakh (i.e. 212177.16 + 1/2 of 2.60) for computation of tariff.

17. Respondent GRIDCO has submitted that the information filed by the petitioner regarding the details of capital expenditure and additional capital expenditure incurred for the period 2012-13 and 2013-14 are not in accordance with the requirements of Regulation 6(3) of the Tariff Regulations, 2009 and accordingly the petition is incomplete due to lack of statutory information required for the purpose of carrying out the truing up exercise.



18. The petitioner in its rejoinder to the reply filed by GRIDCO has submitted that the Auditor Certificates for the actual expenditure incurred for the years 2012-13 (4.4.2012 to 31.3.2013) and 2013-14 have been submitted vide affidavit dated 30.9.2014 in accordance with provisions of Regulation 6 (3), a copy of which has been given to all the Respondents including GRIDCO.

19. We observe that the petitioner has submitted the Auditor Certificates vide affidavit dated 7.9.2012 in Petition No. 204/GT/2011 in justification of the Gross Block on COD, actual cash expenditure up to COD, undischarged liabilities as on 4.4.2012, and the details of IDC. Further, the petitioner has submitted the details of actual additional capital expenditure during 2012-14 and the liabilities discharged during the period, vide affidavit dated 30.9.2014. The submission of petitioner in respect of notional IDC, IDC & FC and FERV has been examined as under.

IDC, FC and FERV

20. The details of IDC & FC, notional IDC and FERV allowed by the Commission vide order dated 21.1.2011, are as below:

| | <i>(₹ in lakh)</i> As on COD |
|---|--|
| IDC & FC including notional IDC (considering up to 3 rd quarter 2010-11) | 31799.07 |
| FERV | (-) 3.73 |

21. While disallowing the IDC & FC for the time overrun of 14 months from 6.2.2011 to 3.4.2012, the Commission had considered IDC, FC and notional IDC for the complete 4th quarter 1.1.2011- 31.3.2011 of 2010-11 as the details pertaining to IDC were not available at the time. The relevant clause with Commission's observations is as below:



“IDC & FC Cost overrun due to Time overrun

39. For the purpose of computation of time overrun, the zero date and the scheduled COD has been considered as 7.2.2007 and 6.11.2010 respectively. As stated, the time overrun of 3 months has been allowed/condoned in the instant case. Therefore the actual IDC & FC has been allowed up to 5.2.2011 (i.e. scheduled COD 6.11.2010 plus 3 months time-overrun). In case of interest on normative loan, the normative interest from 1.1.2011 to 5.2.2011 could not be computed as the details of cash expenditure up to 5.2.2011 is not available in this petition. Therefore, the interest on normative loan has been allowed only up to 3rd quarter of 2010-11. The interest on normative loan for the period from 1.1.2011 to 5.2.2011 (4th Quarter) would be considered at the time of truing-up on filing of relevant information from the petitioner.

41.....Since the details of cash expenditure and loan balance are not available up to the date 5.2.2011, the entire 4th Quarter has been considered for the above analysis.
42. Therefore, IDC & FC, including interest on normative loan for the period from 6.2.2011 to 4.4.2012 (actual COD) amounting to `15841.04 lakh (after capitalization) has been treated as cost overrun due to time overrun and the same is subject to truing-up.”

Accordingly, the petitioner was directed to submit supporting information as below:

“(i) The COD of the generating station is 4.4.2012, whereas, the details in Form 14 A furnished are only up to 31.3.2012. Hence, the petitioner shall clarify as to whether the cash expenditure as on 31.3.2012 would remain the same as on 4.4.2012. In case of any difference, the petitioner shall submit revised Form 14A consisting of cash expenditure upto 4.4.2012. The petitioner shall also provide details in Form 14A by splitting the 4th Quarter of 2010-11 up to 5.2.2011 and thereafter.

“(ii) The details of the year-wise allocation of interest between gross block and CWIP till the date of actual COD along with the splitting up to 5.2.2011 and thereafter.”

22. The petitioner has submitted the information in respect of IDC vide affidavit dated 12.8.2014 in the present petition, as below :

| Particulars | (₹ in lakh) |
|--|------------------------------|
| | Interest during construction |
| IDC up to 2009-10 | 14852.92 |
| IDC for 2010-11 (up to 5.2.2011) | 9659.68 |
| IDC for 2010-11 (from 6.2.2011 to 31.3.2011) | 1677.24 |
| IDC from 2011-12 to COD | 14787.21 |
| Total IDC | 40977.05 |
| IDC on Gross Block as on COD 3.4.2012 | 38974.61 |
| IDC in CWIP as on 3.4.2012 | 2002.44 |



In respect of the expenditure incurred between 31.3.2012 and the COD 4.4.2012 and the notional IDC, the petitioner has submitted as below:

*"It is submitted that there is no cash expenditure during the period from 1.4.2012 to 4.4.2012 (COD of the Unit) and the cash expenditure of Rs. 2445.11 Crs as on 31.03.2012 remain same as on 04.04.2012. Further as per the direction of Hon'ble Commission contained in the order dated 21.01.2014, details of cash expenditure of Rs. 168.78 Crs for the 4th quarter of 2010-11 (indicated in Form- 14A as on COD, attached to **Appendix - 1** of the instant petition for ready reference) of the instant station is split from 01.01.2011 to 05.02.2011 and from 06.02.2011 to 31.03.2011 as per the details below:*

| 4th Quarter of 2010-11 (1.1.2011 - 31.3.2011) | Cash expenditure (Rs. crores) |
|---|--------------------------------------|
| 1.1.2011- 5.2.2011 | 51.24 |
| 6.2.2011-31.3.2011 | 117.54 |
| Total | 168.78 |

23. With regard to Short Term FERV of (-) ₹3.73 lakh allowed by the Commission in the order dated 21.1.2011, the petitioner has submitted that this ERV corresponds to the Fourth Quarter ended 31.03.2011 only, pertaining to the Stage-III of the instant generating station. The submission in respect of notional IDC, IDC & FC and FERV has been examined as under:

- (a) Notional IDC- The petitioner has submitted the break-up of cash expenditure from 1.1.2011 to 5.2.2011 and from 6.2.2011 to 31.3.2011. However, we observe that the petitioner has not submitted the break-up in respect of debt or equity during the aforesaid period. In absence of the information pertaining to cumulative debt during the aforesaid period, the interest on normative loan cannot be computed during 1.1.2011 to 5.2.2011. Accordingly, normative IDC allowed is 813.00 lakh which is same as allowed in the order dated 21.1.2014, considering the quarterly debt-equity position corresponding to actual cash expenditure. This has been allowed for the purpose of tariff.
- (b) IDC & FC- The petitioner has submitted the year wise IDC allocation between Gross Block and CWIP with split on 5.2.2011 and thereafter up to the actual COD of 4.2.2012. Petitioner's submission under this head has been scrutinized. As depicted in the para 19, the total IDC up to 5.2.2011 works out to ₹24512.60 lakh and the IDC from 6.2.2011 to the actual COD 4.2.2012 works out to ₹16464.45 lakh. Further, as decided, the IDC during the disallowed period 6.2.2011 to 4.4.2012 shall be equally shared between the petitioner and the respondents in



the ratio of 50:50. Accordingly, the allowable IDC & FC including the notional IDC is worked out as below:

(₹ in lakh)

| Particulars | Expenditure | |
|--|--------------------|----------------------------------|
| IDC & FC up to 5.2.2011 | 24512.60 | |
| 50% of IDC & FC from 6.2.2011 to 4.4.2012 | 8232.23 | |
| Total IDC & FC allowed | 32744.82 | |
| | Gross Block | Capital Works in progress |
| GB-CWIP | 31144.67 | 1600.15 |
| Notional IDC | 813.00 | |
| Total IDC & FC allowed including notional IDC for tariff purpose | 31957.67 | 1600.15 |

Accordingly, the total IDC & FC allowed up to 4.4.2012 works out to ₹32744.82 lakh. The calculated IDC of ₹32744.82 lakh has been apportioned in the ratio of Gross Block and CWIP as on 4.4.2012 and accordingly ₹31957.67 lakh has been considered for capitalisation on 4.4.2012.

- (c) Short term FERV – The petitioner has clarified vide affidavit dated 12.8.2014 that entire ERV of (-)₹3.73 lakh corresponds to the fourth quarter ended 31.3.2011 only, pertaining to the generating station. The petitioner's claim of FERV has been found to be in order and hence allowed.

Capital Cost as on COD

24. The recovery of 50% of LD towards EOT for TG Hall on account of delay has been considered for capitalisation up to COD 4.4.2012. The capital cost after considering the admitted IDC & FC, FERV and deduction of liabilities un-discharged is worked out and allowed as under:

(₹ in lakh)

| Particulars | Amount |
|---|------------------|
| Total Capital cost allowed vide order dated without IDC (on cash basis) | 180381.82 |
| Add: IDC & FC allowed including interest on notional loan | 31957.67 |
| Add: Short term FERV loss/(gain) | (-) 3.73 |
| Capital cost on cash basis allowed for the purpose of tariff | 212335.76 |
| Add: 50% of LD recovered in EOT for TG Hall on account of delay | 1.30 |
| Capital cost on cash basis allowed for the purpose of tariff | 212337.06 |
| Liabilities as on COD of the generating station | 9919.25 |



Actual Additional Capital Expenditure from COD to 31.3.2014

25. Clause (2) of Regulation 9 of the 2009 Tariff Regulations 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;*

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

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

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

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

(ii) *Change in law;*

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

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

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

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

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



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

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

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

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

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

26. The claim of the petitioner for total projected additional capital expenditure of ₹26618.43 lakh for 2012-14 had been allowed by Commission's order dated 21.1.2014 in Petition No. 204/GT/2011 in terms of the provisions of Regulation 9(1) of the 2009 Tariff Regulations as under:

(₹ in lakh)

| Details of work | Regulation | 2012-13 | 2013-14 | Total |
|---|------------|-----------------|----------------|-----------------|
| Works deferred for execution under Original Scope | 9(1)(ii) | 10094.23 | 7207.25 | 17301.48 |
| Capital Spares | 9(1)(iii) | 2571.64 | 90.76 | 2662.40 |
| Discharge of liabilities | 9(1)(i) | 5809.83 | 844.72 | 6654.55 |
| Total | | 18475.70 | 8142.73 | 26618.43 |

27. The break-up of the projected additional capital expenditure allowed by order dated 21.1.2014 and the actual additional capital expenditure claimed in this petition is detailed as under:

(₹ in lakh)

| S.No | Package Name | Projected Additional Capital expenditure allowed by order dated 21.1.2014 in Petition No. 201/GT/2014 | | | Actual Additional Capital expenditure claimed in petition | | |
|------|-------------------------|---|---------|---------|---|---------|---------|
| | | 2012-13 | 2013-14 | Total | 2012-13 | 2013-14 | Total |
| 1 | Steam Gen., Turbine and | 3512.77 | 154.89 | 3667.66 | 1674.52 | 1850.65 | 3525.17 |



| S.No | Package Name | Projected Additional Capital expenditure allowed by order dated 21.1.2014 in Petition No. 201/GT/2014 | | | Actual Additional Capital expenditure claimed in petition | | |
|----------|---|---|----------------|-----------------|---|-----------------|-----------------|
| | | 2012-13 | 2013-14 | Total | 2012-13 | 2013-14 | Total |
| | generator island | | | | | | |
| 2 | BOP mechanical | 1390.52 | 843.55 | 2234.07 | 2321.31 | 4049.11 | 6370.42 |
| 3 | BOP Electrical | 339.51 | 60.68 | 400.19 | 1093.65 | 259.88 | 1353.52 |
| 4 | Civil works | 4306.77 | 5666.76 | 9973.53 | 435.47 | 2445.27 | 2880.74 |
| 5 | C&I Package | 73.80 | 38.88 | 112.68 | 0.00 | 147.05 | 147.05 |
| 6 | T&P Equipments etc | 129.17 | 320.73 | 449.90 | 547.38 | 98.80 | 646.18 |
| 7 | Workshop and Lab eqpts. | 100.00 | 19.45 | 119.45 | 139.69 | 12.14 | 151.84 |
| 8 | MBOA | 241.69 | 102.31 | 344.00 | 774.68 | 343.08 | 1117.76 |
| 9 | Capitalization of Spares | 2571.64 | 90.76 | 2662.40 | 1684.45 | 1712.69 | 3397.14 |
| A | Total Capitalization | 12665.87 | 7298.01 | 19963.88 | 8671.17 | 10918.67 | 19589.83 |
| 10 | De-capitalisation of Spares | 0.00 | 0.00 | 0.00 | -108.57 | -149.22 | -257.80 |
| 11 | De-capitalisation of MBOA | 0.00 | 0.00 | 0.00 | -5.14 | -13.44 | -18.58 |
| B | Subtotal De-capitalisation of assets | 0.00 | 0.00 | 0.00 | -113.72 | -162.66 | -276.38 |
| 12 | Less : Recovery from Vendors | 0.00 | 0.00 | 0.00 | 0.00 | -1.12 | -1.12 |
| 13 | LD (Decap on account of LD and Risk & Cost recovery from contractors) | 0.00 | 0.00 | 0.00 | 0.00 | -1354.87 | -1354.87 |
| C | Total Additional capital expenditure Claimed | 0.00 | 0.00 | 0.00 | 8557.45 | 9400.01 | 17957.46 |
| 14 | Add: 50% of LD and Risk & Cost recovery from contractors | 0.00 | 0.00 | 0.00 | 1.84 | 677.44 | 679.28 |
| 15 | Discharge of Undischarged Liability | 5809.83 | 844.72 | 6654.55 | 1840.42 | 5083.92 | 6924.34 |
| D | Total | 18475.70 | 8142.73 | 26618.43 | 10399.71 | 15161.37 | 25561.07 |

28. Respondent GRIDCO has submitted that although the additional capital expenditure claimed by the petitioner is less than the amount allowed by the Commission in its order



dated 21.1.2014 in Petition No. 204/G-T/2011, the petitioner has not disclosed if the balance part of the work left, under this head consists of works deferred for execution under original scope as the cut off date for this generating station will be expiring on 31.3.2015. GRIDCO has requested that the petitioner may file the required details of the works included in the original scope of works along with estimates of expenditure, un-discharged liabilities and the works deferred for execution along with the application for determination of tariff consequent upon truing up the additional capitalization in accordance with the proviso to Regulation 9(1)(v) of the tariff Regulations, 2009. With respect to the discharge of liabilities, GRIDCO has submitted that the claimed amount is ₹269.79 lakh more than the amount approved by the Commission for discharge of liabilities and the petitioner has not submitted any reasons for increase in the discharge of liabilities and the same is beyond comprehension. It has further submitted that petitioner has claimed a total amount of ₹3397.14 lakh as an additional capitalization for the year 2012-13 and 2013-14 as against the total approved expenditure of ₹2662.40 lakh by the Commission for Capitalization of spares. The amount is ₹734.74 lakh more than the amount approved by the Commission for capital spares and no reasons have been furnished in the petition for increase in the capital spares. GRIDCO has requested that the capitalization of the spares be checked based on the norms prescribed under Regulations 8 of the Tariff Regulations, 2009. GRIDCO has submitted that in view of petitioner's submission that the Brahmi mine, which is the linked mine for this project, has not yet developed and may take some more time for production of coal, the petitioner ought to have clarified how he intends to meet the requirement of the coal for this generating station. It has submitted that the additional capitalisation claimed on account of LD/risk and cost recovered has been kept under exclusion and the same needs to be justified by the petitioner.



29. The petitioner has submitted vide rejoinder dated 13.1.2015 that the claim of additional capitalization is less than the additional capitalization allowed by the Commission in the tariff order dated 21.1.2014 and the variation in the overall claim of additional capitalization with respect to the approved additional capitalization for the period 2012-14 is minimal. As regards balance works, the petitioner has submitted that the details of balance works which are admissible in original scope of work under various packages to be carried beyond 31.3.2014 and up to cut-off date i.e. 31.3.2015 has already been projected in Petition No. 280/GT/2014 for 2014-19 tariff period, as per 2014 Tariff Regulations, based on latest estimates available. The petitioner has submitted that the initial projections for discharge of liability was based on estimated payments to be released to contractors/vendors depending upon the status of works and fulfilment of certain conditions of contracts and success of equipment type tests after the equipments/works had been capitalized on COD and the same can be assessed only after completion of work and fulfilling all terms of contract, not on issuance of Letter of Award or during the work under progress as contended by the respondent. It is submitted that the initial projection of spares to be capitalized in the year 2012-13 and 2013-14 was based on estimates depending upon the various orders placed/ to be placed at the time of COD of the station. The exact assessment of spares capitalization can be done on receipt of the spares at petitioner's site not at the time of placing purchase order. However the total spares capitalized till 31.3.2014 is within the ceiling limit of 2.5% of total capital cost as per Regulation (8) of Tariff Regulation 2009. With respect to the Liquidated damages, it is submitted that the LD/Risk and Cost recovered from contractors are required to be shared in the ratio of 50:50 with the respondents as per order dated 21.1.2014 in Petition No. 204/GT/2011, and the same has been given effect in the capital cost and has been kept under exclusion in additional capitalisation. As regards the procurement of coal, the petitioner has submitted that the coal for the instant station is being arranged largely from ECL and various other sources including other coal mines of CIL and the variable cost of



generation as mentioned in the instant petition is derived based on the various provisions of Tariff Regulations 2009.

30. The matter has been examined. The COD of the generating station is 4.4.2012 and hence the cut-off date of the generating station in terms of the 2009 Tariff Regulations is 31.3.2014. The Commission in order dated 21.1.2014 in Petition No. 201/GT/2014 has allowed additional capital expenditure of ₹26618.43 lakh for the period from 4.4.2012 to 31.3.2014. The petitioner has now claimed additional capital expenditure of ₹26514.17 lakh from 4.4.2012 to 31.3.2014 towards similar items like plant & machinery, civil works, office equipments, capital spares etc., de-capitalisation of (-)₹276.38 lakh and has adjusted recovery/LD from the contractors amounting to (-)₹676.72 lakh. The net additional capital expenditure claimed by the petitioner during 2012-14 is ₹25561.07 lakh. Considering the fact that the cut-off date of the generating station is 31.3.2014, the admissibility of the additional capital expenditure claimed is to be considered in terms of the provisions of Regulation 9(1) of the 2009 Tariff Regulations. We do so accordingly, based on prudence check and the submissions and documents available on record.

31. The actual additional capital expenditure incurred by the petitioner is in respect of works/assets which are within the original scope of the project and the same had been allowed on projected basis by order dated 21.1.2014. Moreover, the total actual additional capital expenditure claimed for the period from 4.4.2012 to 31.3.2014 is based on actual execution and is within the expenditure allowed by the Commission based on projections. Taking into consideration the submissions of the parties and the documents available on record, the claim of the petitioner for total additional capital expenditure of for 2012-14 has been allowed on prudence check, in terms of the provisions of Regulation 9(1) of the 2009 Tariff Regulations. Accordingly, the additional capital expenditure from S.No.1-9 depicted in table in para 27 is allowed in terms of Regulation 9(1) (ii) of the 2009 Tariff Regulations.



32. Further, the Recovery from Vendors amounting to ₹1.12 lakh during 2012-13 has been considered for reduction from the capital expenditure. Since the recovery of ₹3.67 lakh during 2012-13 was in the form of undischarged liability, the same has been considered under exclusion during 2012-13 and included ₹1.84 lakh (50% of 3.67 lakh) in the additional capital expenditure during 2012-13. The recovery on account of Liquidated Damages and Risk & Cost recovery from contractors during 2013-14 has been duly adjusted in the additional capital expenditure.

Capitalization of Initial Spares

33. As regards the capitalization of initial spares, the Commission in its order dated 21.1.2014 had allowed the capitalization of ₹3078.36 lakh (₹415.96 lakh as on 4.4.2012 and ₹2662.40 lakh from COD to cut-off date of 31.3.2014) towards initial spares, as claimed by the petitioner. In the present petition, the petitioner has claimed initial spares of ₹3397.14 lakh from COD (4.4.2012) to 31.3.2014 (cut-off date) in this petition. Thus, the total initial spares up to cut-off date works out to ₹3813.10 lakh. This constitutes 1.61% (approx) of the capital cost as on 31.3.2014 (cut-off date). Since the expenditure on initial spares is within the ceiling limit of 2.5% of the capital cost as specified under Regulation 8 of the 2009 Tariff Regulations, the same is allowed to be capitalized.

De-capitalization of Spares and MBOA items

34. The petitioner has considered the de-capitalization of spares of ₹108.57 lakh and ₹149.22 lakh in 2012-13 and 2013-14 respectively and de-capitalization of MBOA of ₹5.14 lakh and ₹13.44 lakh in 2012-13 and 2013-14 respectively. The same is in order and has been allowed.

35. The petitioner vide affidavit dated 30.9.2014 has submitted the reconciliation statement of the actual additional capital expenditure from COD to 31.3.2014 with the books of accounts as detailed under:



| (₹ in lakh) | | | |
|-------------|---|-----------------|-----------------|
| S.No. | | 2012-13 | 2013-14 |
| a | Opening Gross Block as per Audited Balance Sheet | 232168.52 | 241143.94 |
| b | Closing Gross Block as per Audited Balance Sheet | 241143.94 | 251207.61 |
| 1 | Additional capitalisation as per audited accounts (b -a) | 8975.42 | 10063.67 |
| 2 | Add/de-cap claimed as per form-9 | 10399.71 | 15161.37 |
| i | Less: Sharing of LD | 1.84 | 677.44 |
| ii | Less: discharge of liability claimed | 1840.42 | 5083.92 |
| iii | Add cap/ de-cap claimed on cash basis (i-ii) for stage -i | 8557.45 | 9400.01 |
| iv | Add un-discharged liabilities in add cap claimed | 620.92 | 665.06 |
| A | Total add cap/de-cap claimed gross basis (iii+iv) | 9178.36 | 10065.06 |
| 3 | Exclusion items | | |
| | Liability reversal | -3.68 | -0.15 |
| | Inter unit transfer | 0.00 | -1.25 |
| | Decap of Construction Equipments as per Accounting Circular | -199.27 | 0.00 |
| B | Total exclusions | -202.95 | -1.40 |
| | Add. Cap. (A+B) | 8975.42 | 10063.67 |

Exclusions

36. The summary of exclusions claimed for the period from 2012-14 under different heads for the purpose of tariff has been discussed in subsequent paragraphs:

Reversal of liability

37. The petitioner has sought the exclusion amounting to (-) ₹3.68 lakh in 2012-13 and (-) ₹0.15 lakh in 2013-14. The net additional capitalization during 2012-13 and 2013-14 is "nil" against reversal of liability. In view of the submission of the petitioner that tariff is on cash basis, the reversal of liability is allowed.

Inter-Unit transfers

38. The petitioner has excluded an amount of (-) ₹1.25 lakh in 2013-14 under this head on account of inter-unit transfer of certain assets. These inter-unit transfers are temporary in nature. The Commission while dealing with applications for additional capitalization, has decided that both positive and negative entries arising out of inter unit-transfers of temporary nature shall be ignored for the purpose of tariff. In consideration of the same, the exclusions of the amount of (-) ₹1.25 lakh in 2013-14 on account of inter-unit transfer of equipment on temporary basis is in order and is allowed.



Decap of Construction Equipments

39. The petitioner has sought the exclusion amounting to (-) ₹199.27 lakh in 2012-13 towards de-capitalisation of Construction Equipments. The petitioner has claimed this amount as exclusion. However, vide affidavit dated 20.6.2016, the petitioner has mentioned same as construction equipment de-capitalization. As the petitioner has submitted that amount of ₹199.27 lakh in 2012-13 is de-capitalized and as it forms a part of capital cost, the same has been allowed as de-capitalisation of construction equipments.

40. Accordingly, the exclusions claimed vis-à-vis allowed is summarized as under:

| | 2012-13 | 2013-14 |
|---------------------------|----------------|----------------|
| Exclusions claimed | -202.95 | -1.40 |
| Exclusions not allowed | -199.27 | 0.00 |
| Exclusions allowed | -3.68 | -1.40 |

Liabilities

41. The petitioner has excluded liabilities in additional capitalization amounting to ₹620.91 lakh during the period from 4.4.2012 to 31.3.2013, ₹665.05 lakh in 2013-14. The petitioner has claimed discharge of liabilities on actual basis for ₹1840.42 lakh and ₹5083.92 lakh during 2012-13 and 2013-14 respectively. It is observed that against a projection of ₹6654.55 lakh, the actual discharge of liabilities has increased by 4% (approx.).The discharge of liabilities is allowed under Regulation 9(1)(i) of the 2009 Tariff Regulations.

42. Based on the above discussions, the actual additional capital expenditure allowed for the period from 4.4.2012 to 31.3.2014 is summarized as under:



(₹ in lakh)

| S.No. | Head of Work/ Equipment | Actual Additional capital expenditure | | Total allowed |
|----------|--|---------------------------------------|-----------------|-----------------|
| | | 2012-13 | 2013-14 | |
| 1 | Steam Gen., Turbine and generator island | 1674.52 | 1850.65 | 3525.17 |
| 2 | BOP mechanical | 2321.31 | 4049.11 | 6370.42 |
| 3 | BOP Electrical | 1093.65 | 259.88 | 1353.52 |
| 4 | Civil works | 435.47 | 2445.27 | 2880.74 |
| 5 | C&I Package | 0.00 | 147.05 | 147.05 |
| 6 | T&P Equipments etc | 547.38 | 98.80 | 646.18 |
| 7 | Workshop and Lab equipment | 139.69 | 12.14 | 151.84 |
| 8 | MBOA | 774.68 | 343.08 | 1117.76 |
| 9 | Capitalization of Spares | 1684.45 | 1712.69 | 3397.14 |
| A | Total capitalization in original scope of work | 8671.17 | 10918.67 | 19589.83 |
| 10 | De-capitalisation of Spares | -108.57 | -149.22 | -257.80 |
| 11 | De-capitalisation of MBOA | -5.14 | -13.44 | -18.58 |
| B | Subtotal de-capitalisation of assets | -113.72 | -162.66 | -276.38 |
| 12 | Less : Recovery from Vendors | 0.00 | -1.12 | -1.12 |
| 13 | LD and Risk & Cost recovery from contractors | 0.00 | -1354.87 | -1354.87 |
| C | Total ADD CAP Claimed | 8557.45 | 9400.01 | 17957.46 |
| 14 | Add: 50% of LD and Risk & Cost recovery from contractors | 1.84 | 677.44 | 679.28 |
| 15 | Discharge of Undischarged Liability | 1840.42 | 5083.92 | 6924.34 |
| 16 | Exclusions not allowed | -199.27 | 0.00 | 0.00 |
| D | Total Additional capital expenditure allowed | 10200.44 | 15161.37 | 25361.80 |

43. Accordingly, the capital cost allowed for the purpose of tariff is as under:

(₹ in lakh)

| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|-------------------------------------|---------------------------------|------------------|
| Opening Capital Cost | 212337.06 | 222537.50 |
| Add: Additional capital expenditure | 10200.44 | 15161.37 |
| Closing Capital Cost | 222537.50 | 237698.86 |
| Average Capital Cost | 217437.28 | 230118.18 |

44. The interest on normative loan allowed as on COD of the generating station is to be treated as income in the Financial Statements i.e. Profit and Loss A/c and Balance Sheet



of the petitioner as the same forms part of capital cost for the purpose of tariff determination.

Debt-Equity Ratio

45. The petitioner has submitted that there is no cash expenditure during the period from 1.4.2012 to 4.4.2012 (COD of the Unit) and the cash expenditure as on 31.3.2012 has remained same on 4.4.2012. Considering the details of the cumulative cash expenditure as submitted at Form-14A of the petition along with net loan position as on COD of the generating station, the debt-equity ratio as on the COD works out to 68.49:31.51. As such, the debt-equity ratio of 70:30 has been considered for the purpose of tariff as on the COD of the units till 31.3.2014 in terms of Regulation 12 of the 2009 Tariff Regulations.

Return on Equity

46. Return on equity has been worked out considering the base rate of 15.5% and the tax rate applicable to petitioner for respective years in terms of Regulation 15 of the 2009 Tariff Regulations, as amended. Accordingly, return on equity has been worked out after accounting for actual additional capital expenditure as given under:

| | (₹ in lakh) | |
|------------------------------------|--|-----------------|
| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| Notional Equity- Opening | 63653.54 | 66713.67 |
| Addition of Equity due to ACE | 3060.13 | 4548.41 |
| Normative Equity-Closing | 66713.67 | 71262.08 |
| Average Normative Equity | 65183.60 | 68987.87 |
| Return on Equity (Base Rate) | 15.500 | 15.500 |
| Tax Rate for respective years | 32.445 | 33.990 |
| Rate of Return on Equity (Pre Tax) | 22.944 | 23.481 |
| Return on Equity (Pre Tax) | 14832.80 | 16199.04 |



Interest on loan

47. 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% of admissible capital cost is ₹148524.92 lakh as on 4.4.2012.
- b. Net loan opening as on 4.4.2012 i.e. as on COD is same as gross loan. Accordingly, the Cumulative repayment of loan up to previous year/period is 'nil'.
- c. Addition to normative loan on account of additional capital expenditure approved above has been considered.
- d. Depreciation allowed for the period under consideration has been considered as repayment. Further, repayments has been adjusted for de-caps considered during the tariff period.
- e. Average net loan is calculated as average of opening and closing.
- f. Weighted average rate of interest has been calculated considering the details of actual loan portfolio till 31.3.2014. The calculations for weighted average rate is enclosed as Annexure-I to this order

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

(₹ in lakh)

| Particulars | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|--|---------------------------------------|-----------------|
| Gross opening loan | 148635.94 | 155776.25 |
| Cumulative repayment of loan upto previous year | 0.00 | 10558.29 |
| Net Loan Opening | 148635.94 | 145217.96 |
| Addition due to additional capital expenditure | 7140.30 | 10612.96 |
| Repayment of loan during the year | 10996.47 | 11775.82 |
| Adj. due to de-capitalisation during the year / period | 219.09 | 113.86 |
| Net Repayment | 10777.38 | 11661.96 |
| Net Loan Closing | 144998.87 | 144168.96 |
| Average Loan | 146817.41 | 144693.46 |
| Weighted Average Rate of Interest of loan | 9.8157 | 9.8326 |
| Interest on Loan | 14292.64 | 14227.07 |



Depreciation

49. The petitioner has claimed depreciation considering the weighted average rate of depreciation of 5.1011% and 5.1173% for the period from COD to 31.3.2013 and 2013-14 respectively. The rate of depreciation is in order and has been considered for the purpose of tariff calculation. Accordingly, depreciation has been worked out as under:

| Particulars | (₹ in lakh) | |
|--|---------------------------------|-----------------|
| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| Opening Capital Cost | 212178.46 | 222537.50 |
| Add: Additional Capital Expenditure | 10200.44 | 15161.37 |
| Closing Capital Cost | 222537.50 | 237698.86 |
| Average Capital Cost | 217357.98 | 230118.18 |
| Depreciable value @ 90% | 195622.18 | 207106.36 |
| Balance depreciable value | 195622.18 | 196109.89 |
| Rate of Depreciation (%) | 5.1011 | 5.1173 |
| Depreciation | 10996.47 | 11775.82 |
| Cumulative depreciation at the end | 10996.47 | 22772.29 |
| Less: Cumulative Depreciation reduction due to de-capitalization | 0.00 | 4.17 |
| Cumulative depreciation (at the end of the period) | 10996.47 | 22768.12 |

O & M Expenses

50. O & M expenses as claimed by the petitioner and allowed for the purpose of tariff in order dated 21.1.2014 in Petition No. 204/GT/2011 has been allowed as under:

| (₹ in lakh) | |
|---------------------------------|---------|
| 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| 7616.88 | 8120.00 |

Interest on Working Capital

Maintenance Spares

51. The maintenance spares in the working capital as allowed in order dated 21.1.2014 is allowed as under:



| <i>(₹ in lakh)</i> | |
|--|----------------|
| 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| 1523.38 | 1624.00 |

Fuel Components in Working Capital

52. The fuel components in the working capital for the preceding three months from COD of the generating station worked out and allowed based on the operational norms in order dated 21.1.2014 is allowed as under:

| <i>(₹ in lakh)</i> | | |
|---|--|----------------|
| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| Cost of coal for 2 months | 16280.84 | 16280.84 |
| Cost of Secondary fuel oil for 2 months | 294.46 | 294.46 |

Receivables

53. Receivables have been worked out on the basis of two months of fixed and energy charges and allowed as under:

| <i>(₹ in lakh)</i> | | |
|-----------------------------|--|----------------|
| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
| Variable Charges - 2 months | 9238.43 | 9699.00 |
| Fixed Charges - 2 months | 16280.84 | 16280.84 |
| Total | 25519.27 | 25979.85 |

54. Based on O & M expense norms, the year-wise O & M expenses for the generating station of allowed for calculation of working capital in order dated 21.1.2014 is allowed as under:



(₹ in lakh)

| 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|---------------------------------|---------|
| 634.74 | 676.67 |

55. Interest on working capital has been calculated considering rate of interest of 13.50 % (i.e. SBI base rate of 10.00% as on 1.4.2012 plus 350 bps) for the period from COD to 31.3.2014. Necessary computations in support of calculation of interest on working capital are given as under:

(₹ in lakh)

| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|---|---------------------------------|----------------|
| Cost of coal for 2 months | 16280.84 | 16280.84 |
| Cost of Secondary fuel oil for 2 months | 294.46 | 294.46 |
| Maintenance Spares | 634.74 | 676.67 |
| O & M expenses for 1 month | 1523.38 | 1624.00 |
| Receivables for 2 months | 25519.27 | 25979.85 |
| Total Working Capital | 44252.69 | 44855.82 |
| Rate of interest | 13.50 | 13.50 |
| Interest on working capital | 5925.01 | 6055.54 |

Normative Annual Plant Availability Factor

56. The Normative Annual Plant Availability factor of 85% has been considered for the purpose of tariff.

Annual Fixed Charges

57. Accordingly, the annual fixed charges allowed from COD to 31.3.2014 is summarized as under:

(₹ in lakh)

| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|-----------------------------|---------------------------------|----------|
| Depreciation | 10996.47 | 11775.82 |
| Interest on loan | 14292.64 | 14227.07 |
| Return on Equity | 14832.80 | 16199.04 |
| Interest on Working Capital | 5925.01 | 6055.54 |



| | 2012-13 (4.4.2012 to 31.3.2013) | 2013-14 |
|----------------------------|--|-----------------|
| O & M Expenses | 7616.88 | 8120.00 |
| Cost of Secondary fuel oil | 1766.76 | 1766.76 |
| Total | 55430.57 | 58144.23 |

58. The difference in the annual fixed charges determined by order dated 21.1.2014 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

59. Petition No. 282/GT/2014 is disposed of in terms of the above.

**Sd/-
(Dr. M.K.Iyer)
Member**

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



Annexure-I

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)

(₹ in lakh)

| | Interest Rate (%) | | Net opening Loan | Additions during the tariff period | Repayment during the tariff period | Total |
|-----------------------------------|-------------------|---------|------------------|------------------------------------|------------------------------------|----------|
| | 2012-13 | 2013-14 | | | | |
| Allahabad Bank- III- T1D1 | 10.6012 | 10.2000 | 2000.00 | 0.00 | 142.86 | 1857.14 |
| Central Bank of India-III- T1D3 | 10.9599 | 10.2260 | 6500.00 | 0.00 | 2000.00 | 4500.00 |
| Corporation Bank-II-T1D3 | 7.2000 | 7.2000 | 1000.00 | 0.00 | 571.42 | 428.58 |
| IDFC -II- T1D2 | 10.3253 | 10.2700 | 7000.00 | 0.00 | 1225.00 | 5775.00 |
| Life Insurance of India-III T2D4 | 8.3150 | 8.3150 | 4950.00 | 0.00 | 1800.00 | 3150.00 |
| LIC -IV- T1D1 | 9.6400 | 9.6400 | 4000.00 | 0.00 | 1142.86 | 2857.14 |
| Oriental Bank of Commerce T1D1 | 10.7778 | 10.2500 | 3428.57 | 0.00 | 1142.86 | 2285.71 |
| Punjab National Bank -II T1D2 | 10.6215 | 10.3726 | 3214.29 | 0.00 | 1428.58 | 1785.71 |
| State Bank of India- IV T1D2 | 11.0573 | 10.8326 | 1714.29 | 0.00 | 857.14 | 857.15 |
| State Bank of India- IV T2D3 | 11.0573 | 10.8326 | 2571.43 | 0.00 | 1285.72 | 1285.71 |
| Vijaya Bank -III T1 D4 | 10.7874 | 10.2000 | 8571.43 | 0.00 | 2857.14 | 5714.29 |
| State Bank of India-VI | 11.0402 | 10.8326 | 2500.00 | 0.00 | 714.28 | 1785.72 |
| United Bank of India –II | 10.4385 | 10.2822 | 2571.43 | 0.00 | 857.14 | 1714.29 |
| State Bank of India -V T1D1 | 11.0573 | 10.8326 | 8571.43 | 0.00 | 2857.14 | 5714.29 |
| State Bank of India -V T1D2 | 11.0573 | 10.8326 | 7285.71 | 0.00 | 2428.58 | 4857.13 |
| Punjab &Sind Bank -I | 10.4972 | 10.2500 | 2000.00 | 0.00 | 428.57 | 1571.43 |
| SBI -VII D-6 | 10.2016 | 10.0901 | 0.00 | 1500.00 | 0.00 | 1500.00 |
| SBI -VII D-8 | 9.9575 | 10.0901 | 0.00 | 2700.00 | 0.00 | 2700.00 |
| SBI -VII D-12 | 0.0000 | 10.1488 | 0.00 | 3500.00 | 0.00 | 3500.00 |
| Power Finance Corporation V T1D22 | 8.8900 | 9.2066 | 2500.00 | 0.00 | 156.25 | 2343.75 |
| Power Finance Corporation V T1D2 | 9.9700 | 9.9700 | 5000.00 | 0.00 | 312.50 | 4687.50 |
| Power Finance Corporation V T1D4 | 8.1700 | 9.6600 | 7000.00 | 0.00 | 437.50 | 6562.50 |
| Power Finance Corporation V T1D11 | 8.0600 | 9.3200 | 5000.00 | 0.00 | 312.50 | 4687.50 |
| Power Finance Corporation V T1D13 | 8.2800 | 9.3667 | 3000.00 | 0.00 | 187.50 | 2812.50 |
| Power Finance Corporation V T1D1 | 9.9500 | 9.9400 | 2500.00 | 0.00 | 156.25 | 2343.75 |
| Power Finance Corporation V T1D23 | 9.3600 | 9.4933 | 1500.00 | 0.00 | 93.75 | 1406.25 |
| Power Finance Corporation V T1D33 | 9.9400 | 9.9300 | 13100.00 | 0.00 | 818.75 | 12281.25 |



| | Interest Rate (%) | | Net opening Loan | Additions during the tariff period | Repayment during the tariff period | Total |
|-----------------------------------|-------------------|---------|------------------|------------------------------------|------------------------------------|------------------|
| Power Finance Corporation V T1D34 | 9.9700 | 9.9700 | 2300.00 | 0.00 | 143.75 | 2156.25 |
| Power Finance Corporation V T1D31 | 9.8700 | 9.8700 | 4800.00 | 0.00 | 300.00 | 4500.00 |
| Power Finance Corporation V T1D32 | 10.0300 | 10.0300 | 4200.00 | 0.00 | 262.50 | 3937.50 |
| Power Finance Corporation V T1D38 | 10.0700 | 10.0700 | 4500.00 | 0.00 | 281.25 | 4218.75 |
| Power Finance Corporation V T1D29 | 9.8600 | 9.8600 | 9000.00 | 0.00 | 562.50 | 8437.50 |
| Power Finance Corporation V T1D20 | 7.8200 | 8.6300 | 2000.00 | 0.00 | 125.00 | 1875.00 |
| BOND XXII Series | 8.2071 | 8.2071 | 630.00 | 0.00 | 140.00 | 490.00 |
| BOND XXIII Series | 8.4100 | 8.4100 | 1260.00 | 0.00 | 280.00 | 980.00 |
| BOND XXV Series | 9.4000 | 9.4000 | 2500.00 | 0.00 | 715.00 | 1785.00 |
| BOND XXVI Series | 9.0900 | 9.0900 | 4000.00 | 0.00 | 1144.00 | 2856.00 |
| BOND XXVIII Series | 11.0300 | 11.0300 | 7500.00 | 0.00 | 0.00 | 7500.00 |
| BOND XXX Series | 7.9200 | 7.9200 | 5000.00 | 0.00 | 0.00 | 5000.00 |
| BOND X L I I Series | 9.0300 | 9.0300 | 7000.00 | 0.00 | 0.00 | 7000.00 |
| Bond XXIX Series | 8.6800 | 8.6800 | 1200.00 | 0.00 | 0.00 | 1200.00 |
| Bond XXXII Series | 8.8793 | 8.8793 | 1000.00 | 0.00 | 0.00 | 1000.00 |
| Bond XXXIV Series | 8.7400 | 8.7400 | 1200.00 | 0.00 | 0.00 | 1200.00 |
| Bond XXXVII Series | 8.9600 | 8.9600 | 3000.00 | 0.00 | 0.00 | 3000.00 |
| Bond XXXVIII Series | 9.2000 | 9.2000 | 100.00 | 0.00 | 0.00 | 100.00 |
| Total | | | 168668.58 | 7700.00 | 28168.29 | 148200.29 |

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

| | (₹ in lakh) | |
|---|------------------|------------------|
| Summary | 2012-13 | 2013-14 |
| Net opening | 168668.58 | 161089.79 |
| Add cap drawal | 4200.00 | 3500.00 |
| Net loan Opening | 172868.58 | 164589.79 |
| Increase /Decrease due to ACE/Drawl during the Period | 0.00 | 0.00 |
| Less: Repayments of Loan during the year | 11778.79 | 16389.50 |
| Net Closing Loan | 161089.79 | 148200.29 |
| Average Net Loan | 166979.19 | 156395.04 |
| Rate of Interest on Loan (%) | 9.8157 | 9.8326 |
| Interest on Loan | 16390.10 | 15377.63 |

