

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 316/2009**

**Coram: 1. Dr. Pramod Deo, Chairperson  
2. Shri S. Jayaraman, Member  
3. Shri V.S.Verma, Member  
4. Shri M.Deena Dayalan, Member**

**[Date of Hearing: 14.6.2011]**

**[Date of Order: 20.1.2012]**

**IN THE MATTER OF**

Approval of tariff of Sipat Super Thermal Power Station, Stage-II (1000 MW) for the period from 1.4.2009 to 31.3.2014

**AND**

**IN THE MATTER OF**

NTPC Ltd, New Delhi

**...Petitioner**

Vs

- (1) Madhya Pradesh Power Trading Company Ltd, Jabalpur
- (2) Maharashtra State Electricity Distribution Co. Ltd, Mumbai
- (3) Gujarat Urja Vikas Nigam Ltd, Vadodara
- (4) Chhattisgarh State Power Distribution Co. Ltd, Raipur
- (5) Electricity Department, Govt. of Goa, Goa
- (6) Electricity Department, Administration of Daman & Diu, Daman
- (7) Electricity Department, Administration of Dadra and Nagar Haveli, Silvassa

**...Respondents**

**Parties present:**

- 1. Shri A.S.Pandey, NTPC
- 2. Shri V.K.Padha, NTPC
- 3. Shri Ajay Dua, NTPC
- 4. Shri V.Ramesh, NTPC
- 5. Shri N.A.Ramakrishnan, NTPC

**ORDER**

This petition has been filed by the petitioner, NTPC for approval of tariff for Sipat Super Thermal Power Station, Stage-II (2 x 500 MW) (hereinafter referred to as “the generating station”) for the period from 1.4.2009 to 31.3.2014, based on the

Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 regulations”).

2. The generating station with a capacity of 1000 MW comprises of two units of 500 MW each. The dates of commercial operation of different units of the generating station are as under:

	<b>Date of commercial operation (COD)</b>
Unit-I	20.6.2008
Unit-II / Generating station	1.1.2009

3. The tariff of the generating station for the period from the date of commercial operation to 31.3.2009, was determined by the Commission by its order dated 10.12.2009 in Petition No.63/2009 and Petition No.140/2009, after considering the additional capital expenditure for the period from 1.1.2009 to 31.3.2009, based on the capital cost of ₹380035.72 lakh as on 31.3.2009. Subsequently, by order dated 30.9.2011 in Petition No.63/2009 and Petition No.140/2009, the annual fixed charges for the generating station was revised after taking into consideration the judgments of the Appellate Tribunal for Electricity dated 31.5.2011 in Appeal No.59/2010, subject to the final outcome of the Civil Appeals (C.A. Nos. 5434/2007 to 5452/2007, 5622/2007 etc), C.A Nos.4112-4113/2009 and C.A Nos.6286 to 6288/2009 and other connected appeals) pending before the Hon'ble Supreme Court, based on the capital cost of ₹402432.24 lakh as on 31.3.2009. The annual fixed charges determined by the Commission by its order dated 30.9.2011 was as under:

	<i>(₹ in lakh)</i>	
	<b>2008-09</b>	
	<b>20.6.2008 to 31.12.2008</b>	<b>1.1.2009 to 31.3.2009</b>
Depreciation	8479.27	14063.99
Interest on Loan	11661.01	19024.26
Return on Equity	10307.51	16779.08
Advance Against Depreciation	7698.85	0.00
Interest on Working Capital	2150.90	3640.75
O & M Expenses	5475.00	10950.00
<b>Total</b>	<b>45772.55</b>	<b>64458.07</b>

4. The annual fixed charges claimed by the petitioner for 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	21030	21568	21888	22045	22045
Interest on Loan	17813	14939	16175	15449	14350
Return on Equity	28935	29674	30114	30331	30331
Interest on Working Capital	3861	3870	3960	3995	4022
O&M Expenses	13000	13740	14530	15360	16240
Cost of secondary fuel oil	1415	1415	1419	1415	1415
<b>Total</b>	<b>86054</b>	<b>85206</b>	<b>88086</b>	<b>88595</b>	<b>88403</b>

5. Reply to the petition has been filed by the respondent No.1, MPPTCL

### **CAPITAL COST**

6. Regulation 7 (1) (a) of the 2009 regulations provides as under:

*“7. **Capital Cost.** (1) Capital cost for a project shall include: (a) 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 (ii) being equal to the actual amount of loan in the event of the actual equity 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;”*

7. The annual fixed charges claimed in the petition are based on opening capital cost of ₹403427 lakh as on 1.4.2009. As stated, the annual fixed charges of the generating station was revised based on the judgments dated 13.6.2007 and 16.3.2009 of the Tribunal, considering the capital cost of ₹402432.24 lakh as on 31.3.2009. As such, the opening capital cost as on 1.4.2009 is ₹402432.24 lakh. The petitioner vide its affidavit dated 15.6.2010 has furnished the value of capital cost and liabilities as on 1.4.2009 as per books of accounts in Form-9A. The details of liabilities and capital cost which have been reconciled with the records of the Commission are as under:

	(₹ in lakh)		
	As per Form-9A	As per records of Commission	Difference
Capital cost as on 1.4.2009, as per books	408300.00	408300.67	(-)0.67
Liabilities included in the above	17875.73	17876.00	0.27

8. The difference in the capital cost of (-) ₹0.67 lakh and liabilities of ₹0.27 lakh is on account of rounding off the amounts. As such, the figures as per records of the Commission have been considered for the purpose of tariff.

9. The total liabilities included in the gross block, as on 1.4.2009 is ₹17875.73 lakh. Out of this, un-discharged liabilities of ₹17549.32 lakh (corresponding to period 2004-09) has been included in the admitted capital cost of ₹402432.24 lakh (as on 31.3.2009) and the balance differential liabilities pertain to assets disallowed/ not claimed for capitalization.

10. The last proviso to Regulation 7 of the 2009 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"*

11. Clause (2) of Regulation 3 of the 2009 regulations define the term 'expenditure incurred' as under:

*"expenditure incurred means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released"*

12. Accordingly, in terms of the last proviso to Regulation 7 read with Clause (2) of Regulation 3 of the 2009 regulations, as stated herein before, the capital cost, after removal of un-discharged liabilities of ₹17549.32 lakh, works out to ₹384882.92 lakh, on cash basis, as on 1.4.2009. The discharge of un-discharged liabilities, if any, made by the petitioner would be included in the capital base as additional capital expenditure, in the year of discharge.

13. Out of the un-discharged liabilities of ₹17549.32 lakh deducted as on 1.4.2009, the petitioner has discharged liabilities of ₹8775.22 lakh and ₹1732.48

lakh during the years 2009-10 and 2010 respectively. Accordingly, the liabilities discharged amounting to ₹8775.22 lakh and ₹1732.48 lakh is allowed during the years 2009-10 and 2010-11, in addition to the projected additional capital expenditure.

### **Projected Additional Capital Expenditure**

14. Regulation 9 of the 2009 regulations, as amended on 21.6.2011, 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 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.”*

15. The projected additional capital expenditure claimed by the petitioner is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Projected Additional capital expenditure	14641	6359	6136	0	0

16. The generating station was declared under commercial operation on 1.1.2009. Hence, the cut-off date of the generating station is 31.3.2010. We now examine the submissions of the petitioner as regards its claim for admissibility of additional capital expenditure under the 2009 regulations, in the subsequent paragraphs.

### **Submissions of the petitioner**

17. In its petition, the petitioner has submitted that the projected capital expenditure considered in the capital cost is on account of the following:

- (a) *Change in law;*

- (i) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (ii) *Work deferred for execution; and*
- (iii) *Procurement of initial spares.*

18. Reiterating the written submissions made by it as regards the admissibility of additional capitalization for 2009-14 in the case of existing generating stations as per provisions of the 2009 regulations, the petitioner has submitted that in case of existing generating stations, the generating companies are entitled to claim additional capitalization based on actual capital expenditure incurred subject to prudence check, notwithstanding the provisions of Regulation 19(e) of the 2009 regulations. It has also submitted that Regulation 19(e) dealing with compensation allowance is in the context of minor assets and the like which are added as a matter of course every year and it does not deal with additional capitalization of substantial nature and are generally done not on year to year basis but having enduring benefit. The normative compensation allowance has no relevance to the additional capitalization of a substantial nature incurred by the generating company from time to time. The petitioner has further submitted that the life of the generating station being 25 years there will be a necessity to undertake additional capital works from time to time. Thus, the petitioner has submitted that the 2009 regulations clearly envisage and permit the Commission to entertain the claim for additional capitalization and allow the same subject to prudence check notwithstanding the provisions of Regulations 19(e). The petitioner has also prayed that in order to avoid technical arguments of the respondents on the scope of the provisions of the 2009 regulations *vis a vis* Regulation 19(e), the Commission, if considered appropriate, additionally exercise the power to remove difficulties and/or power to relax.

19. The respondent, No.1, MPPTCL vide its reply dated 16.2.2010 has submitted that the prayer of the petitioner in its petition to consider other additional capital expenditure' in addition to the capital expenditure covered under Regulations 9(1), 9(2) and 19 (e) of the 2009 regulation amounts to additional capitalization over and above the provisions under the 2009 regulations. The respondent has objected to the claims of the petitioner and has prayed that the Commission may not allow such additional capital expenditure. In response, then petitioner has submitted that the projected additional capital expenditure has been filed in accordance with the 2009 regulations and has claimed additional capital expenditure for Ash Dyke & Ash handling system to meet the environmental norms, which are in strict conformity with the provisions of Regulation 9(2)(ii) and 9(2)(iii). It has prayed that the objection of the said respondent be rejected.

**Analysis**

20. Similar submissions of the petitioner, as regards the admissibility of additional capital expenditure under the 2009 regulations had already been dealt with and disposed of by the Commission in its order dated 26.12.2011 in Petition No. 258/2009.

21. However, in the present case, the petitioner by its affidavit dated 4.1.2011 has submitted that the additional capitalization for the works for the period 2009-14 is mostly in the nature of balance works under different heads and are within the original scope of work. Also, certain works for which payment has been withheld will be released after defect rectification or completion of left out finishing work. It has also been submitted that some of the payment in respect of civil works of SG, TG, CW system, FOPH and WTP are within the original scope of work or for defect rectification/finishing work which were left out and are yet to be completed. It has

further been submitted that all these works are in the advanced stage of completion and every effort was being put to complete them in the current year.

22. The category-wise break-up details of the projected additional capital expenditure claimed by the petitioner during 2009-14 is as under:

Head of work/ Equipment	Actual / Projected additional capital expenditure claimed					Justification
	2009-10	2010-11	2011-12	2012-13	2013-14	
<b>(₹ in lakh)</b>						
<b>Works deferred for Execution</b>						
Merry Go Round (MGR) (including rolling stock)	244	0	0	0	0	MGR system is under operation. The payments envisaged are balance ongoing work as per original scope of contract like supply of equipment for MGR workshop, weigh bridge etc.
Steam Generator-Civil works	474	0	17	0	0	The payments are related to left out works, which are off-loaded/ under execution within original scope of contract awarded initially by CC
Turbine Generator - Civil works	252	0	10	0	0	
Off-site Civil & Mechanical	463	1188	1238	0	0	M/s HSCL abandoned works. The same is split into different works and awarded separately, which are different stages execution. These works like MGR workshop/ canteen/ Fire station/Drainage/Plant Road etc work are within original scope of contract.
Chimney	22	0	0	0	0	Some left out finishing jobs within the scope of original contract.
Steam Generator	1212	329	0	0	0	The works are completed. Payments envisaged towards Progressive payments for completion of pending works/defect liquidation, balance supply of spares.
Turbine Generator	422	181	0	0	0	
Station C&I	101	209	5	0	0	Balance supply of spares.
Coal Handling Plant	69	50	0	0	0	Some left out finishing jobs within scope of original contract
Fuel Oil Handling Plant	47	0	0	0	0	
Cooling water - Civil works	38	0	0	0	0	Payments envisaged towards defect rectification/ finishing works & Supply of spares.
Cooling water - Mechanical works	0	60	2	0	0	
Raw Water Reservoir	0	0	35	0	0	
Water Treatment Plant	10	123	103	0	0	Payments envisaged towards defect rectification/finishing works & Supply of spares.
De-Mineralization	2	2	0	0	0	Some left out finishing jobs within scope of original

Plant						contract.
Cooling Tower – Civil works	9	0	0	0	0	Some left out finishing jobs within scope of original contract.
Cooling Tower – Mechanical works	0	0	153	0	0	Payments envisaged towards defect rectification/ finishing works
Condensate Polishing Unit	74	0	0	0	0	Balance supply of spares
Fire Detection Protection System	123	210	34	0	0	Payments envisaged towards defect rectification/ finishing works
Air Conditioning	0	106	0	0	0	Payments envisaged towards defect rectification/ finishing left out works
Ventilation	9	45	0	0	0	
Generator Bus duct	8	0	0	0	0	
LT Control cables	28	0	0	0	0	
Cabling	165	186	0	0	0	Payments envisaged towards balance work which could not be completed by the agency due to offloading of few off site building not completed. It is within original scope of contract and approved cost
Power Transformer	0	35	0	0	0	Balance supply of spares
Construction of maintenance/ storage facilities in Stage-II	20	0	0	0	0	Payments envisaged towards defect rectification/ finishing works
Other deposit works	3682	0	0	0	0	Ongoing works which was started prior to commercial operation of stage II but completed in the year 2009-10 and capitalized as per accounting standard. It is within approved cost and detail work wise justification has already been submitted.
Tools & Plant	728	0	0	0	0	
Township Construction	4752	330	0	0	0	It was on-going T/ship works which is completed in the year 2009-10 and likely to be completed in the year 2010-11 like residential Quarters/ Sewerage system etc Moreover it is within approved cost.
<b>Works relating to Ash dyke and Ash handling system</b>						
Ash Handling Plant	638	619	0	0	0	Payments envisaged are towards execution of dry ash system works and balance PG test. <i>*Dry ash system works are still under execution due to delay in execution of works by M/s Indure.</i>
Ash Dyke	91	60	0	0	0	Balance finishing work of main ash dyke and within original scope of contract.
Ash Water Recirculation	235	0	0	0	0	Balance left over work against main contract.

System						
<b>Capital Spares</b>				0	0	
Spares	721	2626	4539	0	0	It is cost of spares within 2.5 % of capitalized cost for which POs placed by site and under execution stage.
<b>Total Additional capitalization claimed</b>	<b>14641</b>	<b>6359</b>	<b>6136</b>	<b>0</b>	<b>0</b>	<b>27136 .00</b>

23. As stated in paragraph 16 above the generating station was commissioned on 1.1.2009 and the cut-off date as per the provisions of the 2004 Tariff Regulations is 31.3.2010. It is noticed that most of the works which are within the original scope of work have been taken up for execution prior to the cut-off date and are at an advanced stage of completion. In some of the works, payments have been deferred for defect rectification. In consideration of the above, and keeping in view that disallowance of these expenditures would cause hardship to the petitioner at this stage, we feel that it is a fit case for relaxation of cut-off date of the generating station from 31.3.2010 to 31.3.2012. Accordingly, we in exercise of the 'Power to relax' in terms of Regulation 44 of the 2009 regulations, direct the relaxation of cut-off date of the generating station for a period of two years i.e from 31.3.2010 to 31.3.2012, for the purpose of additional capitalization. In view of this, the capitalization of expenditure is examined in terms of Regulation 9(1) of the 2009 regulations. We however make it clear that relaxation of cut-off date for this generating station has been allowed as a special case and is not to be taken as precedent in future.

24. Based on prudence check, the additional expenditure has been allowed as discussed in the subsequent paragraphs:

**Works deferred for Execution-Regulation 9(1)(ii)**

25. The petitioner has claimed additional capital expenditure of ₹14641.00 lakh for 2009-10, ₹6359.00 lakh for 2010-11 and ₹6136.00 lakh for 2011-12 under this

head. It is observed from the justification furnished by the petitioner, that the additional capital expenditure claimed during the years 2009-10, 2010-11 and 2011-12 are in respect of balance works under different heads which are within the original scope of work. Since the cut-off date of the generating station has been extended upto 31.3.2012, the claim of the petitioner has been examined under Regulation 9(1)(ii) of the 2009 regulations. On prudence check, expenditure for ₹12956.00 lakh for 2009-10, ₹3054.00 lakh for 2010-11 and ₹1597.00 lakh for 2011-12, is allowed for capitalization.

**Procurement of Initial Capital Spares within the original scope of work, subject to the provision of regulation 8-Regulation 9(1)(iii)**

26. The petitioner has claimed initial spares to the tune of ₹7886.00 lakh and has submitted that these expenditures are towards procurement of capital spares within 2.5% of the capitalized cost for which purchase orders have been placed and delivery was expected in the respective years. The Commission has already admitted initial spares of ₹1118.74 lakh in the admitted capital cost of ₹402432.24 lakh, as on 31.3.2009. Taking into account the initial spares already admitted and the initial spares claimed during the years 2009-10, 2010-11 and 2011-12, the percentage of initial spares works out to 2.13% of the original project cost. In terms of Regulation 8 of the 2009 regulations, the ceiling norms for initial spares to be capitalized as a percentage of original project cost is 2.5% for coal based/lignite fired thermal generating stations. Considering the fact that the orders for procurement of these initial spares were placed before the original cut-off date and since the percentage of total initial spares claimed is within the limit of 2.5% as per regulation the claim of the petitioner towards expenditure on initial spares for ₹7886 lakh for 2009-14 is allowed under this head.

### **Works relating to Ash dyke and Ash handling system**

27. The expenditure regarding Ash Handling plant corresponds to balance works and the PG test of Dry Ash handling system which could not be completed within the date of commercial operation of the generating station. The works related to Ash water recirculation system (AWRS) and Ash dykes payment relate to balance left over works which are within the scope of the original contract and are in an advanced stage of completion. The claim of the petitioner is for the period 2009-10 and 2010-11 i.e within the original cut-off date of the generating station. The cut-off date for the generating station has been extended upto 31.3.2012, as above. In view of this, the expenditure for deferred works relating to ash pond or ash handling system in the original scope of work has been considered in terms of Regulation 9(1)(ii) of the 2009 regulations. Accordingly, on prudent check, the expenditure of ₹964.00 lakh for 2009-10 and ₹679.00 lakh for 2010-11 is allowed to be capitalized.

28. Based on the above discussions, the projected additional capital expenditure of ₹14641.00 lakh during 2009-10, ₹6359.00 lakh during 2010-11 and ₹6136.00 lakh during 2011-12 claimed by the petitioner is allowed for capitalization.

29. Taking in to account the discharges of liabilities during the year 2009-10 and 2010-11, the additional capital expenditure allowed for the purpose of tariff is as under:

	<i>(₹ in lakh)</i>				
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Additional capital expenditure allowed	14641.00	6359.00	6136.00	0.00	0.00
Discharges of liabilities	8775.22	1732.48	0.00	0.00	0.00
Additional capital expenditure	<b>23416.22</b>	<b>8091.48</b>	<b>6136.00</b>	<b>0.00</b>	<b>0.00</b>

## Capital Cost for 2009-14

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

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Capital cost	384882.92	408299.14	416390.62	422526.62	422526.62
Projected Additional capital expenditure	23416.22	8091.48	6136.00	0.00	0.00
Closing Capital cost	<b>408299.14</b>	<b>416390.62</b>	<b>422526.62</b>	<b>422526.62</b>	<b>422526.62</b>
Average Capital cost	<b>396591.03</b>	<b>412344.88</b>	<b>419458.62</b>	<b>422526.62</b>	<b>422526.62</b>

31. The capital cost allowed above is subject to true-up in terms of the provisions contained in Regulation 6 of the 2009 regulations

## Debt- Equity Ratio

32. Regulation 12 of the 2009 regulations provides as under:

*“(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.*

*Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.*

*Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.*

*Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system.*

*(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.*

*(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”*

33. The gross loan and equity amounting to ₹281702.57 lakh and ₹120729.67 lakh, approved as on 31.3.2009, vide order dated 30.9.2011 in Petition No. 63 & 140/2009 has been considered as gross loan and equity as on 1.4.2009. However, un-discharged liabilities amounting to ₹17549.32 lakh deducted from the capital cost as on 1.4.2009 has been adjusted to debt and equity in the ratio of 70:30. As

such the gross normative loan and equity as on 1.4.2009 is revised to ₹269418.04 lakh and ₹115464.88 lakh, respectively. Further, the projected additional expenditure approved above has been allocated in the debt-equity ratio of 70:30. The same is subject to truing-up in terms of the provisions contained in Regulation 6 of the 2009 regulations.

### **Return on Equity**

34. Regulation 15 of the 2009 regulations provides as under:

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

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

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

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

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

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

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

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

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

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

35. Return on equity has been worked out @23.481% per annum on the normative equity after accounting for the admitted additional capital expenditure.

	<i>(₹ in lakh)</i>				
	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Notional Equity- Opening	115464.88	122489.74	124917.18	126757.98	126757.98
Addition of Equity due to Additional capital expenditure	7024.87	2427.44	1840.80	0.00	0.00
Normative Equity-Closing	122489.74	124917.18	126757.98	126757.98	126757.98

Average Normative Equity	118977.31	123703.46	125837.58	126757.98	126757.98
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate for the year 2008-09	33.990%	33.990%	33.990%	33.990%	33.990%
Rate of Return on Equity (Pre Tax)	23.481%	23.481%	23.481%	23.481%	23.481%
Return on Equity(Pre Tax)- <b>(annualised)</b>	<b>27937.06</b>	<b>29046.81</b>	<b>29547.92</b>	<b>29764.04</b>	<b>29764.04</b>

### Interest on loan

36. Regulation 16 of the 2009 regulations provides as under:

*(1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.*

*(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.*

*3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year.*

*(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.*

*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project.*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered.*

*Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*

*(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

*(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute.*

*Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”*

37. Interest on loan has been worked out as mentioned below:

(a) The gross normative loan of ₹269418.04 lakh as on 1.4.2009 has been considered.

(b) Cumulative repayment as on 31.3.2009 works out to ₹11687.38 lakh as per order dated 30.9.2011 in Petition Nos.63/2009 and140/2009. The same has been considered as cumulative repayment as on 1.4.2009. However, after taking in to account the proportionate adjustment to the cumulative repayment on account of un-discharged liabilities deducted from the capital cost as on 1.4.2009, the cumulative repayment as on 1.4.2009 is revised as ₹11177.71 lakh.

(c) Accordingly, the net normative opening loan as on 1.4.2009 works out to ₹258240.33 lakh.

(d) Addition to normative loan on account of admitted additional capital expenditure above has been considered.

(e) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2009-14. Further, proportionate adjustment has been made to the repayments corresponding to discharges of liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009.

(f) The weighted average rate of interest has been calculated applying the actual loan portfolio existing as on 1.4.2009, for the generating station and is enclosed as Annexure –I to this order.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross opening loan	269418.04	285809.40	291473.43	295768.63	295768.63
Cumulative repayment of loan upto previous year	11177.71	31727.10	52878.11	74342.84	95964.56
Net Loan Opening	258240.33	254082.30	238595.32	221425.79	199804.07
Addition due to additional capitalisation	16391.35	5664.04	4295.20	0.00	0.00
Repayment of loan during the year	20294.54	21100.70	21464.73	21621.72	21621.72
Less: Repayment adjustment on discharges corresponding to un-discharged liabilities deducted as on 1.4.2009	254.85	50.31	0.00	0.00	0.00
Net Repayment	20549.39	21151.01	21464.73	21621.72	21621.72
Net Loan Closing	254082.30	238595.32	221425.79	199804.07	178182.34
Average Loan	256161.32	246338.81	230010.56	210614.93	188993.21
Weighted Average Rate of Interest on Loan	6.6304%	6.5879%	6.8311%	7.1389%	7.4527%
<b>Interest on Loan</b>	<b>16984.56</b>	<b>16228.50</b>	<b>15712.34</b>	<b>15035.49</b>	<b>14085.02</b>

## **Depreciation**

38. Regulation 17 of the 2009 regulations provides as under:

*“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.*

*(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

*Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.*

*Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under longterm power purchase agreement at regulated tariff.*

*(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

*(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system.*

*Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.*

*(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance against Depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.*

*(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”*

39. The Cumulative depreciation as on 31.3.2009 as per order dated 30.9.2011 in Petition Nos. 63/2009 and 140/2009 is ₹12110.84 lakh. Further, proportionate adjustment has been made to the cumulative depreciation on account of un-discharged liabilities deducted as on 1.4.2009. Accordingly, the revised cumulative depreciation as on 1.4.2009 works out to ₹11582.71 lakh. The value of freehold land as considered in said order as on 31.3.2009 is ₹4872.52 lakh and the same has been considered for the purpose of calculating depreciable value. Accordingly, the balance depreciable value (before providing depreciation) for the year 2009-10 works out to ₹340963.95 lakh. Weighted average rate of depreciation of 5.1172% has been considered to calculate depreciation for the period 2009-14. In addition, proportionate adjustment has been made to the cumulative depreciation

corresponding to liabilities discharged during the respective years on account of cumulative depreciation adjusted as on 1.4.2009. The depreciation has been calculated as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	384882.92	408299.14	416390.62	422526.62	422526.62
Closing capital cost	408299.14	416390.62	422526.62	422526.62	422526.62
Average capital cost	396591.03	412344.88	419458.62	422526.62	422526.62
Depreciable value @ 90%	352546.66	366725.12	373127.49	375888.69	375888.69
Remaining useful life at the beginning of the year	24.48	23.48	22.48	21.48	20.48
Balance depreciable value	340963.95	334583.80	319833.33	301129.80	279508.07
<b>Depreciation (annualized)</b>	<b>20294.54</b>	<b>21100.70</b>	<b>21464.73</b>	<b>21621.72</b>	<b>21621.72</b>
Cumulative depreciation at the end	31877.24	53242.03	74758.89	96380.62	118002.34
Cumulative depreciation reduction on account of discharges out of undischarged liabilities deducted as on 1.4.2009	(-)264.08	(-)52.14	0.00	0.00	0.00
Cumulative depreciation (at the end of the period)	32141.33	53294.16	74758.89	96380.62	118002.34

### O & M Expenses

40. Clause (a) of Regulation 19 of Regulation of the 2009 regulations provide the following O&M expense norms for 500 MW units for coal based generating stations as under:

	(₹ in lakh/MW)				
	2009-10	2010-11	2011-12	2012-13	2013-14
<b>O&amp;M expenses for 500 MW units</b>	<b>13.00</b>	<b>13.74</b>	<b>14.53</b>	<b>15.36</b>	<b>16.24</b>

41. The petitioner has claimed the following O&M expenses during 2009-14:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses	13000	13740	14530	15360	16240

42. The operation & maintenance expense claimed by the petitioner based on above norms are in order and has been allowed.

### Target Availability

43. The Target Availability of the generating station is considered as 85% for the period 1.4.2009 to 31.3.2014.

## **Interest on Working Capital**

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

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

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

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

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

*(v) O&M expenses for one month.*

45. Clause (3) of Regulation 18 of the 2009 regulations, as amended on 21.6.2011 provides as under:

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

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

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

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

## **Operational norms**

46. The petitioner has adopted the following operational norms for 500 MW units with induced draft cooling towers & Steam Driven Boiler Feed Pump in terms of the provisions of the 2009 regulations, for calculation of Fuel component in Working Capital and Energy Charge Rate:

Secondary Oil Consumption	ml/kWh	1.00
Auxiliary Consumption	%	6.5
Heat Rate	Kcal/kWh	2425.00

47. Working capital has been calculated considering the following elements:

**Fuel cost and cost of secondary fuel oil**

48. The petitioner has claimed the cost for fuel component in working capital in the petition, based on the price and GCV of coal for preceding three months of January, 2009, February, 2009 and March, 2009 and HFO price & GCV for the month of March, 2009. The fuel cost component in working capital based on the price and GCV of coal for preceding three months of January, 2009, February, 2009 and March, 2009 and HFO (secondary fuel oil) for latest procurement (March, 2009) price & GCV is allowed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12 (leap year)	2012-13	2013-14
Cost of coal – 1.1/2 months	5682.21	5682.21	5697.77	5682.21	5682.21
Cost of secondary fuel oil – 2 month	235.82	235.82	236.47	235.82	235.82

**Maintenance Spares in working capital**

49. The petitioner has claimed the following maintenance spares in the working capital.

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of maintenance spares	2600	2748	2906	3072	3248

50. The 2009 regulations provide for maintenance spares @ 20% of the operation and maintenance expenses as specified in Regulation 19. Accordingly, the maintenance spares for the purpose of tariff claimed by the petitioner is in order and allowed.

## Receivables

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

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Variable Charges -2 months	7576.27	7576.27	7597.03	7576.27	7576.27
Fixed Charges - 2 months	13906.48	14234.09	14433.97	14526.98	14520.19
<b>Total</b>	<b>21482.76</b>	<b>21810.37</b>	<b>22031.00</b>	<b>22103.26</b>	<b>22096.47</b>

## O&M Expenses

52. O&M expense for 1 month claimed by the petitioner as under for the purpose of working capital is found to be in order and allowed:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
O & M for 1 month	1083.33	1145.00	1210.83	1280.00	1353.33

53. SBI PLR of 12.25% has been considered in the computation of the interest on working capital. Necessary computations in support of calculation of interest on working capital are as under as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of coal – 1.1/2 months	5682.21	5682.21	5697.77	5682.21	5682.21
Cost of secondary fuel oil – 2 month	235.82	235.82	236.47	235.82	235.82
O&M expenses – 1 month	1083.33	1145.00	1210.83	1280.00	1353.33
Maintenance Spares	2600.00	2748.00	2906.00	3072.00	3248.00
Receivables – 2 months	21482.76	21810.37	22031.00	22103.26	22096.47
<b>Total working capital</b>	<b>31084.12</b>	<b>31621.39</b>	<b>32082.08</b>	<b>32373.29</b>	<b>32615.83</b>
Rate of interest	12.2500%	12.2500%	12.2500%	12.2500%	12.2500%
<b>Interest on working capital</b>	<b>3807.80</b>	<b>3873.62</b>	<b>3930.05</b>	<b>3965.73</b>	<b>3995.44</b>

## Expenses on secondary Fuel Oil consumption for coal based generating station

54. Regulation 20 of the 2009 regulations provides for the computation of expenses on secondary fuel oil consumption for coal-based and lignite-fired generating stations as under:

“(1) Expenses on secondary fuel oil in Rupees shall be computed corresponding to normative secondary fuel oil consumption (SFC) specified in clause (iii) of regulation 26, in accordance with the following formula:

$$= SFC \times LPSFi \times NAPAF \times 24 \times NDY \times IC \times 10$$

**Where,**

SFC – Normative Specific Fuel Oil consumption in ml/kWh

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

NAPAF – Normative Annual Plant Availability Factor in percentage

NDY – Number of days in a year

IC - Installed Capacity in MW.

(2) Initially, the landed cost incurred by the generating company on secondary fuel oil shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the year. The secondary fuel oil expenses shall be subject to fuel price adjustment at the end of the each year of tariff period as per following formula:

$$SFC \times NAPAF \times 24 \times NDY \times IC \times 10 \times (LPSFy - LPSFi)$$

Where,

LPSFy = The weighted average landed price of secondary fuel oil for the year in Rs./ml

55. In terms of the above, the cost of secondary fuel oil has been calculated on the normative specific fuel oil consumption, the weighted average landed price of secondary fuel price adopted and NAPF of 85%. Accordingly, the cost of secondary fuel is as under:

	<b>(₹ in lakh)</b>				
	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Cost of secondary fuel oil	1414.92	1414.92	1418.80	1414.92	1414.92

**Annual Fixed charges for 2009-14**

56. The annual fixed charges for the period 2009-14 in respect of the generating station are summarized as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	20294.54	21100.70	21464.73	21621.72	21621.72
Interest on Loan	16984.56	16228.50	15712.34	15035.49	14085.02
Return on Equity	27937.06	29046.81	29547.92	29764.04	29764.04
Interest on Working Capital	3807.80	3873.62	3930.05	3965.73	3995.44
O&M Expenses	13000.00	13740.00	14530.00	15360.00	16240.00
Cost of Secondary fuel oil	1414.92	1414.92	1418.80	1414.92	1414.92
<b>Total</b>	<b>83438.88</b>	<b>85404.56</b>	<b>86603.84</b>	<b>87161.91</b>	<b>87121.15</b>

**Note:** (i) All figures are on annualized basis. (ii) All the figures under each head have been rounded. (iii) 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.

57. The recovery of the annual fixed charges shall be subject to truing up, in terms of Regulation 6 of the 2009 regulations.

### Energy Charge Rate (ECR)

58. Sub-clause (a) of clause (6) of Regulation 21 of the 2009 regulations provides as under:

*“Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:*

$$ECR = \{(GHR-SFC \times CVSF) \times LPPF / CVPF + LC \times LPL\} \times 100 / (100-AUX)$$

**Where,**

*AUX = Normative auxiliary energy consumption in percentage.*

*CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic metre, as applicable.*

*CVSF = Calorific value of secondary fuel, in kCal per ml.*

*ECR = Energy charge rate, in Rupees per kWh sent out.*

*GHR = Gross station heat rate, in kCal per kWh.*

*LC = Normative limestone consumption in kg per kWh.*

*LPL = Weighted average landed price of limestone in Rupees per kg.*

*LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.*

*SFC = Specific fuel oil consumption, in ml per kWh.*

59. The Energy Charge Rate has been computed on the operational norms as under:

Description	Unit	2009-10 to 2013-14 (except 2011-12)	2011-12 (leap year)
Capacity	MW	1000	1000
Operational hours at corresponding PLF	85.00%	7446.00	7466.40
Gross Station Heat Rate	Kcal/kWh	2425.00	2425.00
Specific Fuel oil consumption	ml/kWh	1.00	1.00
Aux. Energy Consumption	%	6.50	6.50
Weighted average GCV of oil	Kcal/l	9980.00	9980.00

Weighted average GCV of coal	Kcal/kg	3493.743	3493.743
Weighted average price of oil	Rs/Kl	19002.47	19002.47
Weighted average price of coal	Rs/MT	883.19	883.19
Heat contributed from HFO	Kcal/kWh	9.98	9.98
Heat contributed from Coal	Kcal/kWh	2415.02	2415.02
Specific oil consumption	Kg/kWh	0.69	0.69
Rate of energy charge from coal	Paise/kWh	61.05	61.05
Rate of energy charge ex-bus	Paise/kWh	<b>65.294</b>	<b>65.294</b>

60. Energy Charge Rate on month to month basis for calculating the total energy charge for the energy scheduled during a calendar month on ex-power plant basis shall be calculated as per the formula given under Regulation 21(6)(a) of the 2009 regulations.

### **Application fee and the publication expenses**

61. The petitioner has sought approval for the reimbursement of fees amounting to ₹20.00 lakh each for the years 2009-10, 2010-11 and 2011-12 towards filing the petition and for the expenses incurred for publication of notices in connection with the petition. The petitioner by its affidavit dated 19.4.2010 has submitted that an expenditure of ₹316821/- has been incurred by it for publication of notice in the newspapers.

62. Regulation 42 of the 2009 regulations provides as under:

*“The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the transmission customers, as the case may be.”*

63. In terms of our decision contained in order dated 11.1.2010 in Petition No.109/2009, the expenses towards filing of tariff application and the expenses incurred on publication of notices are to be reimbursed. Accordingly, the expenses incurred by the petitioner for petition filing fees for the years 2009-10, 2010-11 and for publication of notices in connection with the present petition shall be directly recovered from the beneficiaries, on *pro rata* basis. The filing fees in respect of the balance years would be recoverable as and when paid in terms of the Central

Electricity Regulatory Commission (Payment of Fees) Regulations, 2008 and /or its amendments thereof.

64. The petitioner has also prayed for the following reliefs, which are disposed of as under:

(a) **Recovery of RLDC Fees and Charges:** The claim of the petitioner towards recovery of RLDC fees & charges incurred by the petitioner pursuant to the notification of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009, has not been considered at this stage and the same would be dealt with separately in accordance with law.

(b) **Expenditure incurred for implementation of scheme for provision of supply of electricity in 5 km area around Central Power plants:** The petitioner has submitted that in terms of the notification dated 27.4.2010 of the Government of India of a scheme for provision of supply of electricity in 5 km area around Central Power plants, the petitioner is required to create infrastructure for supply of reliable power to the rural households of the villages within a radius of 5 km of existing and new power stations and as per the scheme, the Appropriate Commission shall consider the expenditure incurred for implementation of such scheme for the purpose of determining tariff of the generating station. The petitioner has submitted that DPR for implementation of the scheme is under preparation and it was not possible to estimate the projected expenditure at this stage. The petitioner has further submitted that it would approach the Commission for consideration of the cost incurred in implementation of this scheme for tariff purpose thereafter. The petitioner is at liberty to approach the Commission through an appropriate application, which would be considered in accordance with law.

(c) **Recovery of additional cost due to increase in water charges over and above the O&M expenses:** The petitioner has submitted that there has been manifold increase in the water charges levied by the State Governments /State Government agencies and the O&M expense norms for 2009-14 notified by the Commission cannot cover any abnormal/unnatural increase in any cost component which is beyond the control of the utility. The petitioner has further submitted that the additional cost incurred in respect of the increase in water charges over and above the O&M expenses be permitted to be billed and recovered additionally from the beneficiaries. We notice that the petitioner has filed Petition No.121/2011 claiming the same relief and the matter has been heard on 13.10.2011. Accordingly, the relief prayed for in this petition would be governed by the final decision to be taken by the Commission in Petition No. 121/2011.

65. In addition to the above, the petitioner is entitled to recover other taxes etc levied by statutory authorities in accordance with the 2009 regulations, as applicable.

66. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's order dated 6.7.2011. The provisional tariff shall be adjusted in terms of the proviso to Regulation 5(3) of the 2009 regulations, amended on 21.6.2011.

67. This order disposes of Petition No.316/2009.

Sd/-  
**[M.DEENA DAYALAN]**  
**MEMBER**

sd/-  
**[V.S.VERMA]**  
**MEMBER**

sd/-  
**[S.JAYARAMAN]**  
**MEMBER**

sd/-  
**[DR.PRAMOD DEO]**  
**CHAIRPERSON**

**Annexure-I**

**Calculation of Weighted Average Rate of Interest on Loan**

Sl. no.	Name of loan	Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
1	Euro Bonds-I (5.5%)	Net opening loan	6644.17	6644.17	-	-	-
	(\$13554000 @ Rs.49.02/\$)	Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	6644.17	-	-	-
		<b>Net Closing Loan</b>	<b>6644.17</b>	-	-	-	-
		Average Loan	6644.17	3322.09	-	-	-
		Rate of Interest	6.9722%	6.9722%	6.9722%	6.9722%	6.9722%
		Interest	463.24	231.62	-	-	-
2	Euro Bonds-I(5.875%)	Net opening loan	32985.56	32985.56	32985.56	32985.56	32985.56
	(\$67290000 @ Rs.49.02/\$)	Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	-
		<b>Net Closing Loan</b>	<b>32985.56</b>	<b>32985.56</b>	<b>32985.56</b>	<b>32985.56</b>	<b>32985.56</b>
		Average Loan	32,985.56	32,985.56	32,985.56	32,985.56	32,985.56
		Rate of Interest	7.4476%	7.4476%	7.4476%	7.4476%	7.4476%
		Interest	2,456.62	2,456.62	2,456.62	2,456.62	2,456.62
3	Swedish Loan (3.85%)	Net opening loan	13,974.04	9,981.46	5,988.87	1,996.29	-
	(\$28506811.73 @ Rs.49.02/\$)	Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	3,992.58	3,992.58	3,992.58	1,996.29	-
		<b>Net Closing Loan</b>	<b>9981.46</b>	<b>5988.87</b>	<b>1996.29</b>	-	-
		Average Loan	11,977.75	7,985.17	3,992.58	998.15	-
		Rate of Interest	3.9035%	3.9035%	3.9035%	3.9035%	3.9035%
		Interest	467.55	311.70	155.85	38.96	-
4	ADB II Tranche A	Net opening loan	11,869.85	11,869.85	11,869.85	11,869.85	11,869.85
	(\$24214300 @ Rs.49.02/\$)	Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	2,637.74
		<b>Net Closing Loan</b>	<b>11869.85</b>	<b>11869.85</b>	<b>11,869.85</b>	<b>11869.85</b>	<b>9232.11</b>
		Average Loan	11869.85	11869.85	11869.85	11869.85	10550.98
		Rate of Interest	1.7860%	1.0320%	1.0320%	1.0320%	1.0320%
		Interest	212.00	122.50	122.50	122.50	108.89
5	ADB II Tranche B	Net opening loan	37,420.40	37,420.40	26,728.86	16,037.31	5,345.77
	(\$76337000 @ Rs.49.02/\$)	Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	10,691.54	10,691.54	10,691.54	5,345.77
		<b>Net Closing Loan</b>	<b>37420.40</b>	<b>26728.86</b>	<b>16037.31</b>	<b>5345.77</b>	-
		Average Loan	37,420.40	32,074.63	21,383.08	10,691.54	2,672.89
		Rate of Interest	1.6330%	0.8790%	0.8790%	0.8790%	0.8790%
		Interest	611.08	281.94	187.96	93.98	23.49
6	SBP Syndicate (T1,D3&D4)	Net opening loan	7,857.14	6,428.57	5,000.00	3,571.43	2,142.86
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,428.57	1,428.57	1,428.57	1,428.57	1,428.57
		<b>Net Closing Loan</b>	<b>6428.57</b>	<b>5000.00</b>	<b>3571.43</b>	<b>2142.86</b>	<b>714.29</b>
		Average Loan	7,142.86	5,714.29	4,285.71	2,857.14	1,428.57

		Rate of Interest	8.8700%	8.7500%	8.7500%	8.7500%	8.7500%
		Interest	633.57	500.00	375.00	250.00	125.00
7	Allahabad bank-II(T1,D1)	Net opening loan	9,285.71	7,857.14	6,428.57	5,000.00	3571.43
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period-	1,428.57	1,428.57	1,428.57	1,428.57	1428.57
		<b>Net Closing Loan</b>	<b>7857.14</b>	<b>6428.57</b>	<b>5000.00</b>	<b>3571.43</b>	<b>2142.86</b>
		Average Loan	8,571.43	7,142.86	5,714.29	4,285.71	2,857.14
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	600.00	500.00	400.00	300.00	200.00
8	Bank of Maharashtra-II (T1,D1)	Net opening loan	680.00	520.00	-	-	-
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	160.00	520.00	-	-	-
		<b>Net Closing Loan</b>	<b>520.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
		Average Loan	600.00	260.00	-	-	-
		Rate of Interest	7.3100%	7.3100%	7.3100%	7.3100%	7.3100%
		Interest	43.86	19.01	-	-	-
9	Canara Bank(T1,D3)	Net opening loan	4,000.00	2,986.67	1,983.33	980.00	0.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,013.33	1,003.33	1,003.33	980.00	-
		<b>Net Closing Loan</b>	<b>2986.67</b>	<b>1983.33</b>	<b>980.00</b>	<b>0.00</b>	<b>0.00</b>
		Average Loan	3,493.33	2,485.00	1,481.67	490.00	0.00
		Rate of Interest	7.2500%	7.2500%	7.2500%	7.2500%	7.2500%
		Interest	253.27	180.16	107.42	35.53	0.00
10	CBI-II(T1,D2)	Net opening loan	6,000.00	5,142.86	4,285.71	3428.57	2571.43
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	857.14	857.14	857.14	857.14	857.14
		<b>Net Closing Loan</b>	<b>5142.86</b>	<b>4285.71</b>	<b>3428.57</b>	<b>2571.43</b>	<b>1714.29</b>
		Average Loan	5,571.43	4,714.29	3,857.14	3,000.00	2,142.86
		Rate of Interest	7.0000%	7.0000%	7.0000%	7.0000%	7.0000%
		Interest	390.00	330.00	270.00	210.00	150.00
11	CBI-III (T1,D2)	Net opening loan	2,500.00	2,500.00	2,500.00	2,142.86	1,785.71
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	357.14	357.14	357.14
		<b>Net Closing Loan</b>	<b>2,500.00</b>	<b>2,500.00</b>	<b>2,142.86</b>	<b>1785.71</b>	<b>1428.57</b>
		Average Loan	2,500.00	2,500.00	2,321.43	1,964.29	1,607.14
		Rate of Interest	8.7500%	8.7500%	8.7500%	8.7500%	8.7500%
		Interest	218.75	218.75	203.13	171.88	140.63
12	LIC-III(T1,D1)	Net opening loan	3,383.33	3,149.93	2,916.55	2,683.17	2,449.79
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	233.40	233.38	233.38	233.38	233.38
		<b>Net Closing Loan</b>	<b>3149.93</b>	<b>2916.55</b>	<b>2683.17</b>	<b>2449.79</b>	<b>2216.41</b>
		Average Loan	3,266.63	3,033.24	2,799.86	2,566.48	2,333.10
		Rate of Interest	6.5710%	6.5710%	6.5710%	6.5710%	6.5710%
		Interest	214.65	199.31	183.98	168.64	153.31
13	LIC-III(T2,D1)	Net opening loan	8,500.00	7,500.00	6,500.00	5,500.00	4,500.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
		<b>Net Closing Loan</b>	<b>7500.00</b>	<b>6500.00</b>	<b>5500.00</b>	<b>4500.00</b>	<b>3500.00</b>
		Average Loan	8,000.00	7,000.00	6,000.00	5,000.00	4,000.00
		Rate of Interest	7.6190%	7.6190%	7.6190%	7.6190%	7.6190%
		Interest	609.52	533.33	457.14	380.95	304.76
14	LIC-III(T3,D1)	Net opening loan	12,750.00	11,250.00	9,750.00	8,250.00	6,750.00

		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00
		<b>Net Closing Loan</b>	<b>11250.00</b>	<b>9750.00</b>	<b>8250.00</b>	<b>6750.00</b>	<b>5250.00</b>
		Average Loan	12,000.00	10,500.00	9,000.00	7,500.00	6,000.00
		Rate of Interest	7.7320%	7.7320%	7.7320%	7.7320%	7.7320%
		Interest	927.84	811.86	695.88	579.90	463.92
15	LIC-III(T4,D2)	Net opening loan	17,000.00	15,000.00	13,000.00	11,000.00	9,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
		<b>Net Closing Loan</b>	<b>15000.00</b>	<b>13000.00</b>	<b>11000.00</b>	<b>9000.00</b>	<b>7000.00</b>
		Average Loan	16,000.00	14,000.00	12,000.00	10,000.00	8,000.00
		Rate of Interest	8.3150%	8.3150%	8.3150%	8.3150%	8.3150%
		Interest	1,330.40	1,164.10	997.80	831.50	665.20
16	LIC-III(T4,D5)	Net opening loan	10,200.00	9,000.00	7,800.00	6,600.00	5,400.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
		<b>Net Closing Loan</b>	<b>9,000.00</b>	<b>7,800.00</b>	<b>6,600.00</b>	<b>5400.00</b>	<b>4200.00</b>
		Average Loan	9,600.00	8,400.00	7,200.00	6,000.00	4,800.00
		Rate of Interest	8.7576%	8.7576%	8.7576%	8.7576%	8.7576%
		Interest	840.73	735.64	630.55	525.46	420.36
17	SBI-III(T1,D3)	Net opening loan	4,821.43	3,750.00	2,678.57	1,607.14	535.71
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	1,071.43	1,071.43	1,071.43	1,071.43	535.71
		<b>Net Closing Loan</b>	<b>3750.00</b>	<b>2678.57</b>	<b>1607.14</b>	<b>535.71</b>	<b>-</b>
		Average Loan	4,285.71	3,214.29	2,142.86	1,071.43	267.86
		Rate of Interest	8.8700%	8.7500%	8.7500%	8.7500%	8.7500%
		Interest	380.14	281.25	187.50	93.75	23.44
18	SBI-IV(T1,D5&D6&D7)	Net opening loan	22,000.00	18,857.14	15,714.29	12,571.43	9,428.57
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	3,142.86	3,142.86	3,142.86	3,142.86	3,142.86
		<b>Net Closing Loan</b>	<b>18857.14</b>	<b>15714.29</b>	<b>12571.43</b>	<b>9428.57</b>	<b>6285.71</b>
		Average Loan	20,428.57	17,285.71	14,142.86	11,000.00	7,857.14
		Rate of Interest	9.6200%	9.5000%	9.5000%	9.5000%	9.5000%
		Interest	1,965.23	1,642.14	1,343.57	1,045.00	746.43
19	LIC-IV(T1,D1)	Net opening loan	3,000.00	3,000.00	3,000.00	3,000.00	2,571.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	429.00	429.00
		<b>Net Closing Loan</b>	<b>3000.00</b>	<b>3000.00</b>	<b>3000.00</b>	<b>2571.00</b>	<b>2142.00</b>
		Average Loan	3,000.00	3,000.00	3,000.00	2,785.50	2,356.50
		Rate of Interest	9.6400%	9.6400%	9.6400%	9.6400%	9.6400%
		Interest	289.20	289.20	289.20	268.52	227.17
20	LIC-IV(T1,D2)	Net opening loan	5,000.00	5,000.00	5,000.00	5,000.00	4,285.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	715.00	715.00
		<b>Net Closing Loan</b>	<b>5000.00</b>	<b>5000.00</b>	<b>5000.00</b>	<b>4285.00</b>	<b>3570.00</b>
		Average Loan	5,000.00	5,000.00	5,000.00	4,642.50	3,927.50
		Rate of Interest	9.7700%	9.7700%	9.7700%	9.7700%	9.7700%
		Interest	488.50	488.50	488.50	453.57	383.72
21	BOND XXII series	Net opening loan	4,200.00	4,200.00	4,200.00	3,780.00	3,360.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	420.00	420.00	420.00
		<b>Net Closing Loan</b>	<b>4200.00</b>	<b>4200.00</b>	<b>3780.00</b>	<b>3360.00</b>	<b>2940.00</b>
		Average Loan	4,200.00	4,200.00	3,990.00	3,570.00	3,150.00
		Rate of Interest	8.2071%	8.2071%	8.2071%	8.2071%	8.2071%

		Interest	344.70	344.70	327.46	292.99	258.52
22	Bond XXIII series	Net opening loan	6,800.00	6,800.00	6,800.00	6,120.00	5,440.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	680.00	680.00	680.00
		<b>Net Closing Loan</b>	<b>6800.00</b>	<b>6800.00</b>	<b>6120.00</b>	<b>5440.00</b>	<b>4760.00</b>
		Average Loan	6,800.00	6,800.00	6,460.00	5,780.00	5,100.00
		Rate of Interest	8.4096%	8.4096%	8.4096%	8.4096%	8.4096%
		Interest	571.85	571.85	543.26	486.07	428.89
23	Bond XXVII series	Net opening loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	-	-	-
		<b>Net Closing Loan</b>	<b>3000.00</b>	<b>3000.00</b>	<b>3000.00</b>	<b>3000.00</b>	<b>3000.00</b>
		Average Loan	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
		Rate of Interest	11.2800%	11.2800%	11.2800%	11.2800%	11.2800%
		Interest	338.40	338.40	338.40	338.40	338.40
24	OBC	Net opening loan	4,000.00	4,000.00	4,000.00	3,428.57	2,857.14
		Add: Addition during the period	-	-	-	-	-
		Less: Repayment during the period	-	-	571.43	571.43	571.43
		<b>Net Closing Loan</b>	<b>4000.00</b>	<b>4000.00</b>	<b>3428.57</b>	<b>2857.14</b>	<b>2285.71</b>
		Average Loan	4,000.00	4,000.00	3,714.29	3,142.86	2,571.43
		Rate of Interest	8.2500%	8.2500%	8.2500%	8.2500%	8.2500%
		Interest	330.00	330.00	306.43	259.29	212.14
25	SBI-VI	Net opening loan		5,000.00	5,000.00	5,000.00	5,000.00
		Add: Addition during the period	5,000.00	-	-	-	-
		Less: Repayment during the period	-	-	-	-	714.29
		<b>Net Closing Loan</b>	<b>5000.00</b>	<b>5000.00</b>	<b>5000.00</b>	<b>5000.00</b>	<b>4285.71</b>
		Average Loan	2,500.00	5,000.00	5,000.00	5,000.00	4,642.86
		Rate of Interest	10.0000%	10.0000%	10.0000%	10.0000%	10.0000%
		Interest	250.00	500.00	500.00	500.00	464.29
26	Andhra Bank	Net opening loan		7,500.00	7,500.00	7,500.00	6,428.57
		Add: Addition during the period	7,500.00	-	-	-	-
		Less: Repayment during the period	-	-	-	1071.43	1,071.43
		<b>Net Closing Loan</b>	<b>7500.00</b>	<b>7500.00</b>	<b>7500.00</b>	<b>6428.57</b>	<b>5357.14</b>
		Average Loan	3,750.00	7,500.00	7,500.00	6,964.29	5,892.86
		Rate of Interest	8.6500%	8.6500%	8.6500%	8.6500%	8.6500%
		Interest	324.38	648.75	648.75	602.41	509.73
27	<b>Gross Total</b>	Net opening loan	237871.63	231343.74	194630.16	163052.18	131278.40
		Add: Addition during the period	12500.00	-	-	-	-
		Less: Repayment during the period	19027.89	36713.58	31577.98	31773.78	26268.04
		<b>Net Closing Loan</b>	<b>231343.74</b>	<b>194630.16</b>	<b>163052.18</b>	<b>131278.40</b>	<b>105010.36</b>
		Average Loan	234607.69	212986.95	178841.17	147165.29	118144.38
		Rate of Interest	6.6304%	6.5879%	6.8311%	7.1389%	7.4527%
		Interest	15555.46	14031.32	12216.88	10505.91	8804.90