

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 136/TT/2011

**Coram: Dr. Pramod Deo, Chairperson
Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member**

Date of Hearing: 28.11.2011

Date of Order:28.5.2012

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 for determination of transmission tariff for ICT III at Raipur S/S along with bay extension (anticipated date of commercial operation : 1.7.2011) under WRSS-VI scheme for tariff block 2009-14 period in Western Region.

And

In the matter of:

Power Grid Corporation of India Ltd., GurgaonPetitioner
Vs	
Chhatisgarh State Electricity BoardRespondent

The following were present:

1. Shri S.S. Raju, PGCIL
2. Shri Sudhir Agrawal, PGCIL
3. Shri M. M. Mondal, PGCIL



ORDER

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of transmission tariff for ICT-III at Raipur sub-station along with bay extension (anticipated date of commercial operation:1.7.2011) WRSS VI scheme (hereinafter referred to as "transmission assets") for tariff block 2009-14 period in Western Region under Regulation 86 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 (hereinafter referred to as "2009 regulations").

2. The Investment Approval for the Western Region System Strengthening Scheme VI (WRSS-VI) was accorded by Board of Directors of PGCIL vide their letter C/CP/WRSS-VI dated 25.2.2008 at an estimated cost of ₹34072 lakh including IDC of ₹2617 lakh based on 3rd Quarter 2007 price level.

3. The scope of work of WRSS-VI covered under the instant petition includes construction of following sub-stations:-

Transmission Line

Dehgam-Pirana line

Sub-stations

- a. Establishment of new 400/220 kV, 2X315 MVA sub-station at Pirana
- b. Augmentation of 400/220 kV POWERGRID sub stations at Wardha, Pune, Gwalior, Raipur and Bina each by 1X315 MVA transformer capacity along with associated bays.
- c. Extension of Dehgam (POWERGRID) sub-station by 400kV line bays.



4. The details of transmission assets covered in the instant petition are as follows:-

Sr. No.	Sub-Station/ Bay:	Date of commercial operation	No. of Bays
	Raipur Sub-Station		
1	400 kV ICT-III Bay	1.7.2011	1
2	220 kV ICT-III Bay	1.7.2011	1
3	220 kV Doma-I , Bay	1.7.2011	1
4	220 kV Doma-II, Bay	1.7.2011	1

5. The petitioner has initially claimed the tariff for the transmission assets as per anticipated date of commercial operation i.e. 1.7.2011. The petitioner has submitted, vide affidavit dated 2.8.2011, that the actual date of commercial operation was 1.7.2011. The petition covers determination of tariff based on estimated expenditure incurred up to date of commercial operation and estimated additional capital expenditure projected to be incurred from date of commercial operation to 31.3.2012 for the transmission assets.

6. The details of apportioned approved cost, capital expenditure incurred upto date of commercial operation and projected additional capital expenditure for the transmission assets covered in the instant petition, claimed by the petitioner, are as given overleaf:-

(₹ in lakh)

Name of asset	Apportioned approved cost	Estimated capital expenditure incurred up to date of commercial operation	Projected additional capital expenditure from date of commercial operation to 31.3.2012	Total estimated completion cost
ICT III at Raipur Sub-Station along with bay extension 400/220 kV, 315 MVA ICT (herein after referred as Asset)	2486.10	2414.02	227.87	2641.89

The estimated capital expenditure incurred up to the date of commercial operation is inclusive of initial spares amounting to ₹92.27 lakh pertaining to sub-station.

7. Total estimated completion cost of the transmission asset exceeds the apportioned approved cost. The petitioner, vide affidavit dated 29.11.2011, has submitted that the tariff petitions for all the assets covered under WRSS VI Scheme has been filed vide Petition No. 56/TT/2011, Petition No. 109/TT/2012 and in current petition. Petitioner has further submitted that the overall estimated completion cost i.e. ₹27579 lakh, of WRSS VI Scheme is within the apportioned approved cost of ₹34072 lakh. Further, Petitioner has prayed to allow total estimated completion cost of ₹2641.89 lakh for ICT-III at Raipur sub-station which is an element of WRSS-VI Scheme.

8. Details of the transmission charges claimed by the petitioner are given overleaf:-

(₹ in lakh)

Asset	2011-12	2012-13	2013-14
Depreciation	97.58	136.08	136.08
Interest on Loan	113.82	148.47	136.43
Return on equity	99.43	138.55	138.55
Interest on Working Capital	14.12	19.57	19.89
O & M Expenses	136.18	191.94	202.92
Total	461.13	634.61	633.87

9. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder :-

(₹ in lakh)

Asset	2011-12	2012-13	2013-14
Maintenance Spares	27.24	28.79	30.44
O & M expenses	15.13	16.00	16.91
Receivables	102.47	105.77	105.65
Total	144.84	150.56	153.00
Interest	14.12	19.57	19.89
Rate of Interest	13.00%	13.00%	13.00%

10. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003. The respondent Chhatisgarh State Electricity Board has not filed any reply to the petition.

11. Having heard the representatives of the parties and perused the material on records, we proceed to dispose of the petition.

TIME OVER RUN

12. The investment approval for the WRSS-VI was accorded by the Board of Directors of the petitioner company on 30.1.2008. The schedule date of



commissioning of the assets was within 33 months from the date of investment approval. Thus, the schedule date of commissioning works out to 1.11.2010. However, the actual date of commercial operation of the project was 1.7.2011. Therefore, there was a delay of 8 months. The petitioner in its reply vide affidavit dated 2.8.2011 has submitted the following reasons for time over run:-

- (a) The delay was on account of the failure of the ICT during short-circuit testing. The short-circuit test is a type test and is required to be conducted on any one the transformer of this rating. In the instant case, 400/220 kV, 315 MVA Auto Transformer awarded to M/s AREVA was selected for short circuit testing.
- (b) For short circuit testing, regular rigorous follow up were made with M/s AREVA. Short circuit test facility for auto transformer of this rating is not available in India as on date and testing facility available abroad is generally over booked. Besides, a lot of logistics and coordination is involved in the dispatch and short circuit testing for such a large piece of costly equipment.
- (c) The short circuit testing is required to ensure enhanced equipment life. The need for reliability and availability of a large population of ICTs in PGCIL's system made it imperative that this exercise was duly taken up.
- (d) The cost of repairing, re-transporting and retesting of the failed transformers which is very high compared to the equipment cost shall be borne by the supplier. The process involved additional delivery time for the equipment and consequential delay in the project. The petitioner anticipated delay on

account of failure in short circuit test, diverted another short circuit tested transformer from Gaya sub-station to complete the project.

(e) Such sustained efforts by the petitioner to ensure development of robust transformers would take care of the system disturbances and provide reliable supply of power to the beneficiaries. Therefore, delay be condoned since the efforts are in the interest of beneficiaries.

13. We expect the petitioner to install good quality equipment with rigorous testing so that the equipment installed does not fail while operating. The Commission is not averse to allow the cost on account of procurement of quality equipment. However, it is the responsibility of the petitioner to install appropriately tested and quality equipment. In the instant case, the ICT failed during type-testing, which means that the ICT supplied by the M/s AREVA was not of required quality to stand the rigor of type test.

14. We are of the view that the type test failure and the subsequent delay on this account is a bilateral issue between the petitioner and the supplier, M/s AREVA. The beneficiaries should not be saddled with any additional cost by way of capitalization of enhanced IDC and IEDC for the period of delay, throughout the life of the equipment. Hence, the reasons advanced by the petitioner for condoning the delay due to failure of the transformer during short circuit test are not found acceptable. Further, the petitioner has not submitted details about the date of testing and has also not submitted any documentary evidence regarding testing. The petitioner may

claim liquidated damages from the supplier for the delay in installation of the ICT. Accordingly, the delay of 8 months on account of the failure of the ICT during short-circuit test is not condoned and the IDC and IEDC for the said period has been disallowed as under:-

(₹ in lakh)		
Detail of IDC and IEDC as per chartered accountant certificate dated 26.4.2011		
	IDC	IEDC
Up to 31.03.2011	38.68	23.84
From 1.4.2011-30.6.2011	39.24	3.01
Total IDC and IEDC Claimed	77.92	26.85
Detail of IDC & IEDC Disallowed for 8 months		
From November 2010 to March 2011 (for 5 months)	5.23	3.22
From April 2011 to June 2011 (for 3 months)	39.24	3.01
Total Disallowed IDC (for 8 months)	44.47	6.23

15. The IDC and IEDC disallowed above have been proportionally deducted from the capital cost of the elements (excluding land) of the transmission asset. Details of the admissible capital cost:-

(₹ in lakh)			
Particulars	Capital cost as on date of commercial operation as per CA certificate dated 26.4.2011	Apportioned Disallowed IDC and IEDC	Capital Cost as on date of commercial operation after deducting disallowed IDC & IEDC
	(a)	(b)	(c)= (a)-(b)
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	171.94	(3.61)	168.33
Transmission Line	0.00	0.00	0.00
Sub-Station	2242.08	(47.09)	2194.99
PLCC	0.00	0.00	0.00
Total	2414.02	(50.70)	2363.32

COST OVER RUN

16. In the instant petition the total estimated completion cost of asset is ₹2641.89 lakh against the apportioned approved cost of ₹2486.10 lakh. Thus, there is a variation of ₹155.79 lakh (6.26%) in cost.

17. The petitioner was directed to justify the variation in cost of ICT- III at Raipur sub-station especially when it is installed in the existing Raipur sub-station.

18. The petitioner, vide affidavit dated 2.8.2011 has submitted the following reasons for cost over-run:-

(a) The third ICT at Raipur was planned as an Extension work under WRSS- VI. As per the scheme, it was planned in the already leveled area of existing switchyard at 400/220 kV Raipur sub-station. During detailed engineering and finalization of working drawing, it was found that ICT-III and its 400 kV bay can be accommodated in existing leveled area, but 220 kV bays and associated 2 nos. of lines could not be accommodated within this area and additional area was required. Further, there was a level difference of (+) 4 m with respect to existing level and nearby area. Accordingly, additional work of leveling and site preparation of 220 kV area, along with associated drains and road in it was added as per actual site requirement.

(b) There was provision of grounding system in FR, however the cost of 40 mm MS ROD for Earth mat pertaining to grounding system was included in the head

“structure for Switchyard” in the FR and hence there was additional expenditure of ₹23.52 lakh upto date of commercial operation.

(c) The cost estimate is broad indicative cost which has been worked out generally on the basis of average unit rates of recently awarded contracts. For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/ services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon the prevailing market conditions. In the instant case the awarded prices were above the estimated FR rates in substation items like Switchgear (CT, PT, Circuit breaker, Isolator etc), transformers, Bus bars/ conductors/insulators, grounding system, structure for switchyard and auxiliary system. However, there is overall reduction in cost of various assets of WRSS-VI scheme.

(d) Apart from above, switchgear (CT, PT, Circuit breaker, Isolators etc), transformer, bus-bars, conductors/ insulators, grounding system, structure for switchyard and auxiliary system is inclusive of cost for the part of equipment civil works of ₹79.70 lakh apportioned pro-rata of items which has caused variation in actual cost as compared to apportioned FR cost.

19. The petitioner was directed to furnish the breakup of increase in cost and cost breakup of items under switchgear (CT, PT, Circuit breaker, Isolators etc), transformer, bus-bars, conductors/ insulators, grounding system, structure for switchyard. The petitioner has not submitted the information alongwith documentary

evidence. In the absence of any documentary evidence for increased cost of these items, we are not inclined to allow the increase in cost. However, the petitioner is granted liberty to approach the Commission with suitable documentary evidence at the time of truing up.

TREATMENT OF INITIAL SPARES

20. The petitioner has claimed initial spares of ₹92.27 lakh pertaining to sub-station corresponding to capital cost of ₹2465.89 lakh as on the cut-off date. In the absence of RCE, the capital cost pertaining to sub-station has been restricted to ₹2315.58 lakh (excluding disallowed IDC and IEDC).

21. Accordingly, the initial spare has been allowed as under:-

(₹ in lakh)

Particulars	Capital cost pertaining to substation upto cutoff date claimed	Initial spares claimed	Proportionate capital cost pertaining to substation after deducting corresponding IDC and IEDC+ additional capital expenditure upto cutoff date	Proportionate initial spares Claimed	Ceiling limits as per Regulation 8 2009 regulations	Initial spares worked out	Excess initial spares claimed
Sub-Station	2465.89	92.27	2344.92*	87.74	2.50%	57.88	(29.87)

*Inclusive additional capital expenditure up to cut-off date i.e. ₹149.93 lakh

CAPITAL COST

22. As regards capital cost, Regulation 7(1) (a) of the 2009 regulations provides that:-

“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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.”

23. The petitioner has claimed capital cost of ₹2414.02 lakh as on date of commercial operation vide Chartered Accountant's certificate dated 26.4.2011. However, capital cost of ₹2333.45 lakh (excluding excess initial spares claimed) as on date of commercial operation has been considered for the purpose of tariff calculation.

24. The capital cost after deduction of excess initial spares claimed is as follows:-

(₹ in lakh)

Particulars	Capital cost as on date of commercial operation after deducting IDC&IEDC	Excess initial spares claimed	Capital cost considered for tariff calculation as on date of commercial operation after deducting excess initial spares
	(a)	(b)	(c)=(a) –(b)
Asset	2363.32	(29.87)	2333.45

PROJECTED ADDITIONAL CAPITAL EXPENDITURE

25. As per Regulation 9 (1) of 2009 regulations

“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) Undischarged liabilities;
- (ii) XXX
- (iii) XXX
- (iv) XXX
- (v) XXX”

26. As per Regulations 2009,

“cut-off date means 31st march of the year closing after 2 years of the year of commercial operation of the project, and in-case of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after 3 years of the year of commercial operation”.

Therefore, cut-off date for the above mentioned assets is 31.3.2014.

27. The petitioner has claimed projected additional capital expenditure of ₹4.06 lakh and ₹223.81 lakh pertaining to building and sub-station respectively for 2011-12 period (date of commercial operation to 31.3.2012).

28. The total completion cost i.e. ₹2561.33 lakh exceeds the apportioned approved capital cost of ₹2486.10 lakh. Therefore, in the absence of RCE, capital cost is restricted upto apportioned approved capital cost i.e. ₹2486.10 lakh. Accordingly, projected additional capital expenditure of ₹152.65 lakh (₹2486.10-₹2333.45), out of 227.87 lakh claimed by the petitioner, has been considered for the purpose of tariff calculation.

29. Details of additional capital expenditure are as follows:-

(₹ in lakh)					
Particulars	Capital cost considered as on date of commercial operation as shown in capital cost	Projected additional capital expenditure claimed for 2011-12	Total capital cost as on 31.3.2014	Proportionate projected additional capital expenditure allowed for 2011-12	Admitted cost as on 31.3.2014
	(a)	(b)	(c)=(a)+(b)	(d)	(a)+(d)
Asset	2333.45	227.87	2561.33	152.65	2486.10

DEBT- EQUITY RATIO

30. Regulation 12 of the 2009 regulations provides that,

"(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.

(2) XXX."

31. The details of debt-equity of asset considered for the purpose of tariff calculation as on the date of commercial operation is given overleaf:-

(₹ in lakh)		
Particulars	Capital cost as on anticipated date of commercial operation (1.7.2011)	
	Amount	%
Debt	1633.42	70.00
Equity	700.04	30.00
Total	2333.45	100.00

32. Detail of debt-equity ratio as on 31.3.2014 are given overleaf:-

(₹ in lakh)

Capital cost as on 31.3.2014		
Particulars	Amount	%
Debt	1740.27	70.00
Equity	745.83	30.00
Total	2486.10	100.00

33. Details of debt - equity ratio for projected additional capital expenditure are given hereunder:-

(₹ in lakh)

2011-12	Additional capital expenditure for 2011-12	
Particulars	Amount	%
	Normative	
Debt	106.85	70.00
Equity	45.79	30.00
Total	152.65	100.00

RETURN ON EQUITY

34. Regulation 15 of the 2009 regulations provides that:-

“15. (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. The petitioner's prayer to allow grossing up the base rate of return on equity based on tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of 2009 regulations.

36. Accordingly, the following has been considered for calculation of return of equity:-

(₹ in lakh)

Description	Equity on date of commercial operation/ Notional date of commercial operation	Notional equity due to additional capital expenditure for the period 2011-12	Total equity considered for tariff calculations for the period 2011-12	Equity due to additional capital expenditure for the period 2012-14	Total equity considered for tariff calculations for the period 2012-14
Asset	700.04	45.79	722.93	0.00	745.83

37. In view of the above, the following amount of equity has been considered for calculation of return of equity:-

(₹ in lakh)

Particulars	2011-12 (pro-rata)	2012-13	2013-14
Opening Equity	700.04	745.83	745.83
Addition due to Additional Capitalisation	45.79	0.00	0.00
Closing Equity	745.83	745.83	745.83
Average Equity	722.93	745.83	745.83
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre-Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre-Tax)	94.78	130.38	130.38

INTEREST ON LOAN

38. Regulation 16 of the 2009 regulations provides that-

"16. (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.”

39. In these calculations, interest on loan has been worked out as detailed are as given overleaf:-

- (i) Gross amount of loan, repayment of installments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;
- (ii) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period;
- (iii) Moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed and
- (iv) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

40. Detailed calculation of the weighted average rate of interest has been annexed to this order.

41. Details of the interest on loan worked on the above basis are given as under:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Gross Normative Loan	1633.42	1740.27	1740.27
Cumulative Repayment upto previous year	0.00	92.96	220.91
Net Loan-Opening	1633.42	1647.31	1519.36
Addition due to additional capital expenditure	106.85	0.00	0.00
Repayment during the year	92.96	127.95	127.95
Net Loan-Closing	1647.31	1519.36	1391.42
Average Loan	1640.36	1583.34	1455.39
Weighted Average Rate of Interest on Loan	8.8190%	8.8179%	8.8155%
Interest	108.50	139.62	128.30

DEPRECIATION

42. Regulation 17 (4) of the 2009 regulations provides as under:-

"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 31th 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 asset".

43. Transmission assets in the instant petition were put under commercial operation on 1.7.2011 and accordingly will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of 2009 regulations.

44. Details of the depreciation worked out are as follows:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Opening Gross Block	2333.45	2486.10	2486.10
Addition during 2009-14 due to projected additional capital expenditure	152.65	0.00	0.00
Closing Gross Block	2486.10	2486.10	2486.10
Average Gross Block	2409.78	2486.10	2486.10
Rate of Depreciation	5.1434%	5.1465%	5.1465%
Depreciable Value	2168.80	2237.49	2237.49
Remaining Depreciable Value	2168.80	2144.53	2016.58
Depreciation	92.96	220.91	348.85

OPERATION & MAINTENANCE EXPENSES

45. The petitioner has submitted that the O&M expenses for 2009-14 tariff block had been arrived on the basis of normalized actual O&M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O&M expenses for tariff period 2009-14. The petitioner has submitted that it would approach the Commission for suitable revision in the norms for O&M expenses in case the impact of wage hike w.e.f 1.1.2007 is more than 50%.

46. Clause (g) of Regulation 19 of the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. The norms for the assets covered in the instant petition are as follows:-

Element	2011-12	2012-13	2013-14
400 kV Bay (₹ in lakh/ bay)	58.57	61.92	65.46
220 kV Bay (₹ in lakh/ bay)	41.00	43.34	45.82

47. In accordance with the above mentioned norms the O & M expenses for the assets covered in this petition are allowed as under:-

Element	(₹ in lakh)		
	2011-2012 (pro-rata for 9 months)	2012-13	2013-14
1 No. 400 kV bay (₹ in lakh/ bay)	43.93	61.92	65.46
3 Nos. 220 kV bays (₹ in lakh/ bay)	92.25	130.02	137.46
Total	136.18	191.94	202.92

INTEREST ON WORKING CAPITAL

48. As per the 2009 regulations the components of the working capital and the interest thereon are discussed are given as under:-

(i) Receivables: As per Regulation 18 (1) (c) (i) of the 2009 regulations, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance spares: Regulation 18 (i) (c) (ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O& M expenses from 1.4.2009. The value of maintenance spares has been worked out accordingly.

(iii) O & M expenses: Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for one month of the respective year .This has been considered in the working capital.

(iv) Rate of interest on working capital: In the calculations, as per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 dated 21.6.2011, SBI Base Rate (8.25%) Plus 350Bps i.e. 11.75% has been considered as the rate of interest on working capital.

49. Necessary computations in support of interest on working capital are appended hereunder:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	27.24	28.79	30.44
O & M expenses	15.13	16.00	16.91
Receivables	98.86	101.17	101.17
Total	141.23	145.96	148.51
Interest	12.45	17.15	17.45

TRANSMISSION CHARGES

50. The transmission charges being allowed for the transmission lines are summarized below:-

Particulars	(₹ in lakh)		
	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	92.96	127.95	127.95
Interest on Loan	108.50	139.62	128.30
Return on equity	94.78	130.38	130.38
Interest on Working Capital	12.45	17.15	17.45
O & M Expenses	136.18	191.94	202.92
Total	444.86	607.03	607.00

FILING FEE AND THE PUBLICATION EXPENSES:-

51. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiary on *pro-rata* basis.

LICENCE FEE

52. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner's prayer for licence fee shall be dealt with in accordance with our order dated 25.10.2011 in Petition No. 21/2011 and 22/2011.

SERVICE TAX

53. The petitioner has prayed that it be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. We consider the prayer of the petitioner pre-mature and accordingly this prayer is rejected.

SHARING OF TRANSMISSION CHARGES

54. The billing, collection & disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (sharing of inter-state transmission charges and losses) Regulations, 2010 as amended from time to time.

55. This order disposes of Petition No.136/TT/2011.

Sd/-

(M. Deena Dayalan)
Member

Sd/-

(V.S. Verma)
Member

Sd/-

(Dr. Pramod Deo)
Chairperson



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹in lakh)

Details of Loan	2011-12	2012-13	2013-14
Bond XXXIV			
Gross loan opening	989.80	989.80	989.80
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	989.80	989.80	989.80
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	989.80	989.80	989.80
Average Loan	989.80	989.80	989.80
Rate of Interest	8.84%	8.84%	8.84%
Interest	87.50	87.50	87.50
Rep Schedule	12 Annual instalments from 21.10.2014		
Bond XXXIII			
Gross loan opening	400.00	400.00	400.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	400.00	400.00	400.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	400.00	400.00	400.00
Average Loan	400.00	400.00	400.00
Rate of Interest	8.64%	8.64%	8.64%
Interest	34.56	34.56	34.56
Rep Schedule	12 Annual instalments from 08.07.2014		
Bond XXIX			
Gross loan opening	50.00	50.00	50.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	4.17
Net Loan-Opening	50.00	50.00	45.83
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	4.17	4.17

Net Loan-Closing	50.00	45.83	41.67
Average Loan	50.00	47.92	43.75
Rate of Interest	9.20%	9.20%	9.20%
Interest	4.60	4.41	4.03
Rep Schedule	12 Annual instalments from 12.03.2013		
Bond XXVIII			
Gross loan opening	50.00	50.00	50.00
Cumulative Repayment upto DOCOP/previous year	0.00	0.00	4.17
Net Loan-Opening	50.00	50.00	45.83
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	4.17	4.17
Net Loan-Closing	50.00	45.83	41.67
Average Loan	50.00	47.92	43.75
Rate of Interest	9.33%	9.33%	9.33%
Interest	4.67	4.47	4.08
Rep Schedule	12 Annual instalments from 07.12.2010		
Bond XXXI			
Gross loan opening	100.00	100.00	100.00
Cumulative Repayment upto DOCOP/previous year	0.00	0.00	0.00
Net Loan-Opening	100.00	100.00	100.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	8.33
Net Loan-Closing	100.00	100.00	91.67
Average Loan	100.00	100.00	95.83
Rate of Interest	8.90%	8.90%	8.90%
Interest	8.90	8.90	8.53
Rep Schedule	12 Annual instalments from 25.02.2014		
Bond XXX			
Gross loan opening	100.00	100.00	100.00
Cumulative Repayment upto DOCOP/previous year	0.00	0.00	0.00
Net Loan-Opening	100.00	100.00	100.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	8.33
Net Loan-Closing	100.00	100.00	91.67
Average Loan	100.00	100.00	95.83

Rate of Interest	8.80%	8.80%	8.80%
Interest	8.80	8.80	8.43
Rep Schedule	12 Annual instalments from 29.09.2013		
Total Loan			
Gross loan opening	1689.80	1689.80	1689.80
Cumulative Repayment upto DOCOP/previous year	0.00	0.00	8.33
Net Loan-Opening	1689.80	1689.80	1681.47
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	8.33	25.00
Net Loan-Closing	1689.80	1681.47	1656.47
Average Loan	1689.80	1685.63	1668.97
Weighted Average Rate of Interest	8.8190%	8.8179%	8.8155%
Interest	149.02	148.64	147.13