

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

Petition No. 169/2009

Coram:

1. Shri S.Jayaraman, Member
2. Shri V.S.Verma, Member

DATE OF HEARING: 19.11.2009

DATE OF ORDER:25.1.2010

**In the matter of**

Determination of final transmission tariff and additional capitalization up to 31.3.2009 for (i) 315 MVA 400/220 kV ICT-I along with associated bays and two No. 220 kV line bays at Kankroli sub-station; (ii) 50 MVAR Bus reactor along with associated bays at Kankroli sub-station under RAPP 5 & 6 Transmission system in Northern Region from the date of commercial operation to 31.3.2009.

**And in the matter of**

Power Grid Corporation of India Limited, Gurgaon ..**Petitioner**  
Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
3. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jodhpur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Govt. of J&K, Jammu
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Delhi Transco Ltd, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Ltd., New Delhi
14. Chandigarh Administration, Chandigarh
15. Uttarakhand Power Corporation Ltd, Dehradun
16. North Central Railway, Allahabad
17. New Delhi Municipal Council, New Delhi .....**Respondents**

**The following were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M.Mondal, PGCIL
3. Shar Rakesh Prasad, PGCIL

### **ORDER**

This petition has been filed for approval of transmission charges for (i) 315 MVA 400/220 kV ICT-I along with associated bays and two No. 220 kV line bays at Kankroli sub-station (Asset-I), (ii) 50 MVAR Bus reactor along with associated bays at Kankroli sub-station (Asset-II) under RAPP 5 & 6 Transmission system (the transmission system) in Northern Region from the date of commercial operation to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations") after accounting for additional capitalization during 2008-09. The petitioner has also prayed for reimbursement, from the beneficiaries, of the expenditure incurred towards publishing of notices in newspapers and the petition filing fee.

2. The investment approval for the transmission system was accorded by Ministry of Power vide its letter dated 3.6.2005 at an estimated cost of Rs. 49945 lakh, including IDC of Rs 2238 lakh. Subsequently, Board of Directors vide memorandum dated 29.12.2008 approved revised cost estimate at an estimated cost of Rs. 62665 lakh which includes IDC of Rs. 4088 lakh.

3. The provisional transmission charges for the transmission assets were approved by the Commission vide order dated 9.1.2009 in Petition No. 151/2008 for asset-I and order dated 9.6.2009 in Petition No. 94/2009 for Asset-II.

4. The date of commercial operation of the transmission assets, their apportioned approved cost and estimated completion cost, etc. are as under:

(Rs in lakh)

S. No.	Name of Asset	Date of commercial operation	Apportioned approved cost	Expenditure up to the date of commercial operation	Expenditure from the date of commercial operation to 31.3.2009	Balance Estimated Expenditure
1.	Asset-I	1.8.2008	3312.36	2834.97	27.61	456.18
2.	Asset-II	1.1.2009	1432.39	1247.28	63.75	126.75

5. The petitioner has claimed the transmission charges as under:

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>
	<b>2008-09</b>	<b>2008-09</b>
	<b>(Pro rata)</b>	<b>(Pro rata)</b>
Depreciation	66.71	11.35
Interest on Loan	122.16	20.75
Return on Equity	79.81	13.43
Advance against Depreciation	0	0.00
Interest on Working Capital	<b>10.71</b>	1.60
O & M Expenses	87.73	8.23
<b>Total</b>	<b>367.12</b>	<b>55.36</b>

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

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>
	<b>(Pro-rata)</b>	<b>(Pro-rata)</b>
	<b>2008-09</b>	<b>2008-09</b>
	<b>(Pro rata)</b>	<b>(Pro rata)</b>
Maintenance Spares	28.35	12.47
O & M expenses	10.97	2.74
Receivables	91.78	36.91
<b>Total</b>	<b>131.10</b>	<b>52.12</b>
Rate of Interest	12.25%	12.25%
Interest	10.71	1.60

7. The reply to the petition has been filed by Uttar Pradesh Power Corporation Ltd. (UPPCL). In response to the public notices published by the

petitioner in accordance with the procedure specified by the Commission, no comments have been received from the general public.

### **CAPITAL COST**

8. As per clause (1) of Regulation 52 of the 2004 regulations, subject to prudence check, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm of 1.5% of original project cost. The regulation is applicable in case of the transmission system declared under commercial operation on or after 1.4.2004.

9. The petitioner has claimed tariff after accounting for additional capitalization in respect of Asset-I and Asset-II from the date of commercial operation up to 31.3.2009 as given in the table below para 4 above.

### **ADDITIONAL CAPITALIZATION 2008-09**

10. Clause (1) of Regulation 53 of the 2004 regulations provides-

“(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of works subject to the ceiling norm specified in regulation 52;
- (iv) Liabilities to meet award of arbitration or compliance of the order or decree of a court; and
- (v) On account of change in law:

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff:

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the transmission system.”

11. The details submitted by the petitioner in support of its claim for additional capital expenditure for Asset-I and Asset-II are given hereunder:

Asset-I			Asset-II		
Year	Amount (Rs. in lakh)	Nature and details of expenditure	Year	Amount (Rs. in lakh)	Nature and details of expenditure
2008-09	Building and works : Rs. 13.02 lakh Sub-Station: Rs. 14.59 lakh	Balance and retention payments	2008-09	Building and works : Rs. 1.21 lakh Sub-Station: Rs 62.54 lakh	Balance and retention payments
Total	Rs. 27.61 lakh		Total	Rs.63.75 lakh	

12. The additional capital expenditure claimed is within the original scope of work and is found to be in order as it was against the committed liability. Accordingly, capitalization of the additional expenditure claimed by the petitioner has been allowed for the transmission Asset-I and Asset-II, respectively.

### **Initial spares**

13. Clause (1) of the Regulation 52 of the 2004 regulations *inter alia* provides that,-

“ (1) Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the

transmission system and shall include capitalized initial spares subject to a ceiling norm as 1.5% of original project cost”.

14. The details of actual expenditure incurred and spares included therein by the petitioner as per original scope of project up to 31.3.2009 are as under:-

	Particulars	Capital Expenditures (Rs in lakh)				Remarks
		Up to the date of commercial operation	From the date of commercial operation to 31.3.2009	Total	Initial Spares included therein	
1	315 MVA 400/220 Kv ICT –I along with associated bays & two no. 220 Kv line bays at Kankroli sub-station (the date of commercial operation 1.8.2008)	2834.97	27.61	2862.58	37.55	Included in this petition
2	50 MVAR Bus reactor along with associated bays at Kankroli sub-station (the date of commercial operation 1.1.2009)	1247.28	63.75	1311.03	37.02	Included in this petition
3.	400 kV D/C RAPP-Kankaroli transmission along with associated bays and 400/220 kV 315 MVA ICT-II along with associated bays & 2 no. 220 kV line bays at Konkroli sub-station (date of commercial operation 1.4.2008)	26590.85	Not included in petition	26590.85	109.03	Final Transmission Tariff allowed vide petition No. 96/2008
4.	RAPP-Kota 400 kV S/C transmission line (includes 28 km on multi ckt towers) with associated bays and 2 nos. ICTS at Kota (new sub-station) (date of commercial operation 1.4.2009)	Not included in petition	----	----	----	Cost Data is under compilation and tariff petition is to be filed.

15. The cost details of the last asset (S. No. 4 above) declared under commercial operation on 1.4.2009 is under compilation by the petitioner and petition is yet to be filed by the petitioner. Regarding total actual expenditure incurred by the petitioner, for assets at Sl. No. 1 and 2 up to 31.3.2009 and for asset No. 3 up to 31.3.2008 and total capital expenditure is Rs. 30764.46 lakh . The cost without initial spares is Rs. 30580.86 lakh and cost of spares included therein is Rs. 183.60 lakh which is found within the ceiling of 1.5% as per the 2004 regulations. As tariff petition of the asset No. 4 is yet to be filed, the

overall ceiling limit as per the original scope of project shall be reviewed when the tariff petition for the same is filed by the petitioner.

#### **Time over-run**

16. As per the investment approval, the transmission assets were scheduled to be commissioned by March 2008. However, transmission Asset-I and Asset-II have been declared under commercial operation on 1.8.2008 and 1.1.2009, respectively. Therefore, there is a time delay of about 5 and 9 months in the commissioning of the transmission assets. The petitioner has submitted that the delay was due to global shortage of CRGO steel.

17. During the hearing, the petitioner was directed to submit terms and conditions of the tenders in respect of supply schedule and liquidated damages and action taken for delay in supply with full justification.

18. The petitioner vide its affidavit dated 10.12.2009 has submitted the terms and conditions of the letter of award in respect of supply schedule and liquidated damages with full justification.

19. In respect of the Asset-I, the petitioner has submitted that the original transformer earmarked for Kankroli substation was ready to be delivered on time by the supplier. However, in the larger interest of consumers the same was diverted to Patna sub-station under Kahalgaon stage-II phase-I in order to avoid hampering of evacuation of power from Kahalgaon generation project. Incidentally, there was delay in the RAPP 5 and 6 generation, hence this diversion had not affected the power evacuation of RAPP 5 and 6.

Subsequently, the ICT earmarked for Patna substation was diverted to Kankroli substation. It has already been elaborated in the petition that the ICT-II at Patna got delayed by the supplier due to global shortage of CRGO. Against the original delivery schedule of March 2006 under Kahalgaon-II Phase-I, the transformer was supplied at Kankroli in February 2008.

20. The petitioner has submitted that similar diversion was done in the past also in the larger interest of the consumers to take care of the urgent requirement of ICT at Moga sub-station by diverting ICT earmarked for Bahadurgarh sub-station.

21. The petitioner has further submitted that the process of imposition of liquidated damages on the supplier of transformer for delay in supply of transformer has been initiated which is in the process. The petitioner has submitted that as and when the process is completed, the amount of liquidated damages to be recovered from the supplier shall be adjusted against the capital cost. It has also been submitted by the petitioner that the final completion cost of this asset is yet to be determined. In view of clarification made by the petitioner, the objection raised by UPPCL is overruled.

22. It is noted that the final completion cost of the Asset-I is yet to be determined as there is balance estimated expenditure of Rs. 456.18 lakh pending as per the current petition, the amount of liquidated damages to be recovered from the supplier shall be adjusted against the capital cost.

23. In respect of Asset-II, the petitioner has submitted that the reason for delay in commissioning have been illustrated in the petition. The petitioner has further submitted that liquidated damages for delay in supply of equipment has been imposed on the supplier and adjusted against the capital expenditure as per the terms of contract.

24. The Justification submitted by the petitioner has been found in order. Hence delay is condoned.

### **TOTAL CAPITAL COST**

25. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission assets, after allowing additional capitalization on works as claimed by the petitioner, which is within the limits of apportioned approved cost:

(Rs. in lakh)			
Name of the asset	Admitted capital cost as on the date of commercial operation	Additional capital expenditure up to 31.3.2009	Total Capital expenditure as on 1.4.2009
Asset-I	2834.97	27.61	2862.58
Asset-II	1247.28	63.75	1311.03
Total	<b>4082.25</b>	<b>91.36</b>	<b>4173.61</b>

26. UPPCL has, vide its reply dated 12.11.2009 pointed out that the capital cost of the two assets were shown as Rs. 2828.81 lakh and Rs. 1236.61 lakh, respectively in the orders of the Commission awarding provisional tariff for the two assets. We have satisfied ourselves that while awarding provisional tariff, audited figures was available only for the capital cost up to the date of the commercial operation. However, in the present petition, the petitioner has submitted auditor certificate in respect of the expenditure up to 31.3.2009.

Accordingly, the capital cost as mentioned in the table in the table in para 25 above is considered for the computation of tariff.

### **DEBT- EQUITY RATIO**

27. Clause (1) of Regulation 54 of the 2004 regulations *inter alia* provides that,-

“(1) In case of the existing projects, debt-equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 01.04.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 53, equity in the additional capitalisation to be considered shall be :-

- (a) 30% of the additional capital expenditure admitted by the Commission, or
- (b) equity approved by the competent authority in the financial package, for additional capitalisation, or
- (c) actual equity employed,

whichever is the least:

Provided further that in case of additional expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the transmission licensee is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public.”

28. Note 1 below Regulation 53 of the 2004 regulations lays down that any expenditure on account of committed liabilities within the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.

29. The petitioner has considered debt-equity ratio of 69.98:30.02 and 69.99:30.01 for Asset-I and Asset-II respectively, as actually deployed on the date of commercial operation. The petitioner has further considered the amount of additional capitalization in the debt-equity ratio of 70.:30 for both Asset-I and Asset-II. As per the petition, in case of Asset-I and Asset-II equity claimed by the petitioner as on date of the commercial operation is slightly in excess of 30% (i.e. 30.02% and 30.01% ). The same has been restricted to 30% for the purpose of tariff calculations. The additional capital expenditure approved in the ratio of 70:30 has been considered in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:

(Rs. in lakh)

Assets	Equity on the date of commercial operation	Notional equity due to additional capital expenditure for the period 2008-09	Average equity for 2008-09
Asset-I	850.49	8.28	854.77
Asset-II	374.18	19.13	383.75

**RETURN ON EQUITY**

30. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

31. Equity has been considered as on the date of commercial operation as given in the table in para 29 above. However, tariff for the period from date of commercial operation to 31.3.2009 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity of Rs. 79.77 lakh and Rs.13.43 lakh on pro rata basis for Asset-I and Asset-II respectively.

### **INTEREST ON LOAN**

32. Clause (i) of regulation 56 of the 2004 regulations *inter alia* provides that,-

“(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 54.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The transmission licensee shall not make any profit on account of re-financing of loan and interest on loan;

(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest."

33. In our calculation, the interest on loan has been worked out as detailed below:

(a) Gross amount of loan, repayment of instalments and rate of interest submitted by the petitioner have been used to work out weighted average rate of interest on actual loan.

(b) Notional loan arising out of additional capitalisation from date of commercial operation to 31.3.2009 has been added in loan amount as on date of commercial operation to arrive at total Notional loan. This adjusted Gross loan is considered as normative loan for tariff calculations.

(c) Tariff has been worked out considering normative loan and normative repayment. Normative repayments are worked out by the following formula:

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

(d) Moratorium in repayment of loan is considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation including Advance Against Depreciation during the year, then depreciation including Advance Against

Depreciation during the year is deemed as normative repayment of loan during the year.

(e) Weighted average rate of interest on actual loan worked out as per (a) above is applied on the notional average loan during the year to arrive at the interest on loan.

(f) Short-term Bank of Baroda loan was replaced by Bond XXVIII w.e.f. 15.12.2008. Weighted average rate of interest for 2008-09 has been considered based on number of days.

34. Based on the above, the year-wise details of interest worked out are given hereunder:

	(Rs. in lakh)	
	<b>Asset-I</b>	<b>Asset-II</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)
Gross Normative Loan	1984.48	873.10
Cumulative Repayment up to Previous Year/date of commercial operation	0.00	0.00
Net Loan-Opening	1984.48	873.10
Addition due to Additional Capitalisation	19.33	44.63
Repayment during the year	66.71	11.35
Net Loan-Closing	1937.09	906.37
Average Loan	1960.79	889.73
Weighted Average Rate of Interest on Loan	9.35%	9.33%
Interest	<b>122.19</b>	<b>20.75</b>

35. The detailed calculations in support of the weighted average rate of interest in respect of asset-I and asset-II are contained in Annexure-I and Annexure-II respectively attached to this order.

## **DEPRECIATION**

36. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

- “ (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
- (ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.
- (iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
- (iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

37. Based on the above, depreciation allowed has been worked out as below:

(Rs. in lakh)

	<b>Asset-I</b>	<b>Asset-II</b>
	<b>2008-09</b>	<b>2008-09</b>
	<b>(Pro rata)</b>	<b>(Pro rata)</b>
Gross block as on the date of commercial operation	2834.97	1247.28
Addition due to Additional Capitalisation during 2008-09	27.61	63.75
Gross Block at the end of the year	2862.58	1311.03
Rate of Depreciation	3.5126%	3.5496%
Depreciable Value	2531.30	1143.09
Balance Useful life of the asset	-	-
Remaining Depreciable Value	2531.30	1143.09
Depreciation	<b>66.71</b>	<b>11.35</b>

### **ADVANCE AGAINST DEPRECIATION**

38. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is

entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

39. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

40. The petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

#### **OPERATION & MAINTENANCE EXPENSES**

41. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90

42. The petitioner has claimed O & M expenses for four bays for Asset-I and one bay for Asset- II which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

Asset-I		Asset-II	
	2008-09 (Pro rata)		2008-09 (Pro rata)
O&M expenses for 4 bays	87.73	O&M expenses for 1 bay	8.23
<b>Total</b>	<b>87.73</b>	<b>Total</b>	<b>8.23</b>

43. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, according to the petitioner, O & M expenses should be subject to revision on account of revision of employee cost from that date. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actual based on the auditor's certificate for such extra employee cost. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for relief in this regard at an appropriate stage in accordance with law.

#### **INTEREST ON WORKING CAPITAL**

44. The components of the working capital and the interest thereon are discussed hereunder:

##### **(i) Maintenance spares**

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. In this manner, the value of maintenance spares works out to Rs. 28.35

lakh and Rs. 12.47 lakh for Asset-I and Asset-II, respectively as on date of commercial operation. The necessary details are given hereunder:

Transmission assets	Date of commercial operation	Capital Expenditure on the date of commercial operation (Rs. in lakh)	Cost of maintenance spares as on the date of commercial operation (Rs. in lakh)
Asset- I	1.8.2008	2834.97	28.35
Asset-II	1.1.2009	1247.28	12.47

**(ii) O & M expenses**

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

**(iii) Receivables**

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. 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.

**(iv) Rate of interest on working capital**

As per Regulation 56(v) (2) of the 2004 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004

or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2008, which is in accordance with the 2004 regulations and has been allowed.

45. The necessary computations in support of interest on working capital are appended herein below:

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>
	<b>2008-09 (Pro rata)</b>	<b>2008-09 (Pro rata)</b>
Maintenance Spares	28.35	12.47
O & M expenses	10.97	2.74
Receivables	91.78	36.91
Total	131.09	52.12
Rate of Interest	12.25%	12.25%
Interest	<b>10.71</b>	<b>1.60</b>

### **TRANSMISSION CHARGES**

46. The transmission charges being allowed for the two transmission assets are summarised below:

(Rs. in lakh)

	<b>Asset-I</b>	<b>Asset-II</b>
	<b>2008-09 (Pro rata)</b>	<b>2008-09 (Pro rata)</b>
Depreciation	66.71	11.35
Interest on Loan	122.19	20.75
Return on Equity	79.77	13.43
Advance against Depreciation	0.00	0.00
Interest on Working Capital	10.71	1.60

O & M Expenses	87.73	8.23
Total	<b>367.10</b>	<b>55.36</b>

47. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

48. The petitioner has sought approval for the reimbursement of expenditure of Rs. 3,58,166/- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of transmission charges.

49. The reimbursement of filing fee is not being allowed in terms of the Commission's order dated 11.9.2008 in Petition No. 129/2005.

50. Transmission charges for Asset-I shall be shared by the respondents 1 to 4 as per order dated 9.1.2009 in petition No. 151/2008 in line with order dated 28.3.2008 in Petition No. 85/2007 and charges for Asset-II shall be shared by all the Northern Regional beneficiaries as per the provisions of the 2004 regulations.

51. This order disposes of Petition No. 169/2008.

Sd/-  
**(V.S.VERMA)**  
MEMBER

sd/-  
**(S.JAYARAMAN)**  
MEMBER



## Annexure-I

315 MVA 400/220 kV ICT-I along with associated bays and two no. 220 kV line bays at Kankroli sub-station

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
		(Rs. in lakh)
	Details of Loan	2008-09
<b>1</b>	<b>Bond-XIX</b>	
	Gross Loan opening	50.00
	Cumulative Repayment upto the date of commercial operation/previous year	0.00
	Net Loan-Opening	50.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	50.00
	Average Loan	50.00
	Rate of Interest	9.25%
	Interest	4.63
	Repayment Schedule	12 Annual instalments from 24.7.2010
<b>2</b>	<b>Bond-XX</b>	
	Gross Loan opening	250.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	250.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	250.00
	Average Loan	250.00
	Rate of Interest	8.93%
	Interest	22.33
	Repayment Schedule	12 Annual instalments from 7.9.2010
<b>3</b>	<b>Bond-XXI</b>	
	Gross Loan opening	150.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	150.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	150.00
	Average Loan	150.00
	Rate of Interest	8.73%
	Interest	13.10
	Repayment Schedule	12 Annual instalments from 11.10.2010
<b>4</b>	<b>Bond-XXII</b>	
	Gross Loan opening	300.00

	Cumulative Repayment upto the date of commercial operation /previous year		0.00
	Net Loan-Opening		300.00
	Additions during the year		0.00
	Repayment during the year		0.00
	Net Loan-Closing		300.00
	Average Loan		300.00
	Rate of Interest		8.68%
	Interest		26.04
	Repayment Schedule	12 Annual instalments from 7.12.2010	
<b>5</b>	<b>Bond-XXIV</b>		
	Gross Loan opening		250.00
	Cumulative Repayment upto the date of commercial operation /previous year		0.00
	Net Loan-Opening		250.00
	Additions during the year		0.00
	Repayment during the year		0.00
	Net Loan-Closing		250.00
	Average Loan		250.00
	Rate of Interest		9.95%
	Interest		24.88
	Repayment Schedule	12 Annual instalments from 26.3.2011	
<b>6</b>	<b>Bond-XXV</b>		
	Gross Loan opening		350.00
	Cumulative Repayment upto the date of commercial operation /previous year		0.00
	Net Loan-Opening		350.00
	Additions during the year		0.00
	Repayment during the year		0.00
	Net Loan-Closing		350.00
	Average Loan		350.00
	Rate of Interest		10.10%
	Interest		35.35
	Repayment Schedule	12 Annual instalments from 12.6.2011	
<b>7</b>	<b>Bond-XXVI</b>		
	Gross Loan opening		634.00
	Cumulative Repayment upto the date of commercial operation /previous year		0.00
	Net Loan-Opening		634.00
	Additions during the year		0.00
	Repayment during the year		0.00
	Net Loan-Closing		634.00
	Average Loan		634.00
	Rate of Interest		9.30%
	Interest		58.96
	Repayment Schedule	12 Annual instalments from 7.3.2012	

8	<b>Bond XXVIII for ACE (STBL from BOB 29.09.2008 to 14.12.2008 @12.5% replaced by BOND XXVIII @ 9.33% from 15.12.2008)</b>	
	Gross Loan opening	0.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	27.61
	Repayment during the year	0.00
	Net Loan-Closing	27.61
	Average Loan	13.81
	Rate of Interest	10.66%
	Interest	1.47
	Repayment Schedule of Bond XXVIII	12 Annual instalments from 15.12.2012
	<b>Total Loan</b>	
	Gross Loan opening	1984.00
	Cumulative Repayment upto the date of commercial operation	0.00
	Net Loan-Opening	1984.00
	Additions during the year	27.61
	Repayment during the year	0.00
	Net Loan-Closing	2011.61
	Average Loan	1997.81
	Rate of Interest	9.35%
	<b>Interest</b>	186.74

## Annexure-II

50 MVAR Bus reactor along with associated bays at Kankroli sub-station

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
		(Rs. in lakh)
	Details of Loan	2008-09
<b>1</b>	<b>Bond-XIX</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	<b>9.25%</b>
	Interest	9.25
	Repayment Schedule	12 Annual instalments from 24.7.2010
<b>2</b>	<b>Bond-XX</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	<b>8.93%</b>
	Interest	8.93
	Repayment Schedule	12 Annual instalments from 7.9.2010
<b>3</b>	<b>Bond-XXI</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	<b>8.73%</b>
	Interest	8.73
	Repayment Schedule	12 Annual instalments from 11.10.2010
<b>4</b>	<b>Bond-XXII</b>	
	Gross Loan opening	100.00

	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	8.68%
	Interest	8.68
	Repayment Schedule	12 Annual instalments from 7.12.2010
<b>5</b>	<b>Bond-XXIV</b>	
	Gross Loan opening	160.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	160.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	160.00
	Average Loan	160.00
	Rate of Interest	9.95%
	Interest	15.92
	Repayment Schedule	12 Annual instalments from 26.3.2011
<b>6</b>	<b>Bond-XXV</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	10.10%
	Interest	10.10
	Repayment Schedule	12 Annual instalments from 12.6.2011
<b>7</b>	<b>Bond-XXVI</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	9.30%
	Interest	9.30
	Repayment Schedule	12 Annual instalments from

		7.3.2012
<b>8</b>	<b>BOND XXVIII</b>	
	Gross Loan opening	113.00
	Cumulative Repayment upto the date of commercial operation /previous year	0.00
	Net Loan-Opening	113.00
	Additions during the year	63.75
	Repayment during the year	0.00
	Net Loan-Closing	176.75
	Average Loan	144.88
	Rate of Interest	9.33%
	Interest	13.52
	Repayment Schedule	12 Annual instalments from 15.12.2012
	<b>Total Loan</b>	
	Gross Loan opening	873.00
	Cumulative Repayment upto the date of commercial operation	0.00
	Net Loan-Opening	873.00
	Additions during the year	63.75
	Repayment during the year	0.00
	Net Loan-Closing	936.75
	Average Loan	904.88
	Rate of Interest	9.33%
	<b>Interest</b>	84.43