

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

- 1. Dr. Pramod Deo, Chairperson**
- 2 Shri R.Krishnamoorthy, Member**
- 3. Shri S.Jayaraman, Member**
- 4. Shri V.S.Verma, Member**

**Petition No. 134/2008**

**In the matter of**

Determination of final transmission tariff up to the date of commercial operation and additional capitalization from the date of commercial operation to 31.3.2008 for (i) 50 MVAR Bus Reactor at Hissar sub-station, (ii) LILO of 400 KV Moga-Hissar line, ICT-I at Fatehabad sub-station, 4 nos 220 kV line bays (feeders from Fatehabad-1 and Fatehabad-2) and 50 MVAR Bus Reactor bay along with associated bays at Fatehabad sub-station. (iii) 315 MVA, 400/220 kV ICT-II along with associated bays at 400/220 kV Fatehabad sub-station under Northern Region System Strengthening Scheme-III in Northern Region for tariff block 2004-09 period..

**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. Chief Engineer, Chandigarh Administration, Chandigarh
15. Uttaranchal Power Corporation Ltd, Dehradun
16. North Central Railway, Allahabad

**.....Respondents**

**The following were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri Prashant Sharma, PGCIL
3. Ms. Sangeeta Edwards, PGCIL
4. Shri R.Prasad, PGCIL
5. Shri Harmeet Singh, PGCIL
6. Shri M.M.Mondal, PGCIL
7. Shri S.N.Singh, UPPCL

**ORDER**  
**(DATE OF HEARING: 26.3.2009)**

This petition has been filed for approval of transmission charges for (i) 50 MVAR Bus Reactor at Hissar sub-station. (ii) LILO of 400 KV Moga- Hissar line, ICT-I at Fatehabad sub-station, 4 nos 220 kV line bays (feeders from Fatehabad-1 and Fatehabad-2) and 50 MVAR Bus Reactor bay along with associated bays at Fatehabad sub-station. (iii) 315 MVA, 400/220 kV ICT-II along with associated bays at 400/220 kV Fatehabad sub-station (the transmission assets) under Northern Region System Strengthening Scheme–III (the transmission scheme) from the date of commercial operation of the respective transmission asset 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 2007-08 for the Asset-I and Asset-II. The petitioner has also prayed for reimbursement of expenditure from the beneficiaries incurred towards publishing of notices in newspapers and the petition filing fee.

2. The investment approval for implementation of transmission scheme was accorded by Board of Directors of the petitioner company vide Memorandum dated 13.7.2004 at an estimated cost of Rs. 23052 lakh, which included IDC of Rs.1477 lakh. Subsequently, the approval for revised cost estimate was accorded by Board of Directors vide Memorandum dated 26.2.2008 at an estimated cost of Rs. 32690 lakh includes IDC of Rs. 1826 lakh.

3. The details of transmission assets and their dates of commercial operation as indicated by the petitioner are as under:

S. No.	Name of the assets	Date of commercial operation
1.	50 MVAR Bus Reactor at Hissar sub-station ( <b>Asset-I</b> )	1.7.2007
2.	LILO of 400 KV Moga- Hissar line, ICT-I at Fatehabad	1.2.2008

	sub-station, 4 nos 220 kV line bays (feeders from Fatehabad-1 and Fatehabad-2) and 50 MVAR Bus Reactor bay along with associated bays at Fatehabad sub-station <b>(Asset-II)</b>	
3.	315 MVA, 400/220 kV ICT-II along with associated bays at 400/220 kV Fatehabad sub-station <b>(Asset-III)</b>	1.4.2008

4. The provisional transmission charges for Asset-I were approved by the Commission in its order dated 29.11.2007 in Petition No. 130/2007.

5. The details of the apportioned approved cost, the estimated completion cost, etc. of the transmission assets noted at para 3 above are as under:

(Rs. in lakh)

Name of the assets	Apportioned approved cost (as per revised cost estimate)	Capital expenditure as on the date of commercial operation	Capital Expenditure from the date of commercial operation to 31.3.2008	Capital expenditure up to 31.3.2008	Balance estimated Expenditure	Total estimated completion cost
Asset- I	268.91	118.74	19.09	137.83	18.99	156.82
Asset-II	10619.50	9227.36	216.62	9443.98	923.94	10367.92
Asset-III	2340.65	1001.53	0.00	1001.53	518.20	1519.73
<b>Total</b>	<b>13229.06</b>	<b>10347.63</b>	<b>235.71</b>	<b>10583.34</b>	<b>1461.13</b>	<b>12044.47</b>

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

(Rs.in lakh)

	Asset- I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Depreciation	3.64	5.21	50.33	306.93	36.06
Interest on Loan	6.01	8.24	101.69	600.42	63.05
Return on Equity	4.05	5.81	65.35	396.67	42.07
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.14	1.58	8.01	48.58	6.25
O & M Expenses	23.72	32.90	49.93	311.65	65.80
<b>Total</b>	<b>38.56</b>	<b>53.74</b>	<b>275.31</b>	<b>1664.25</b>	<b>213.23</b>

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

(Rs. in lakh)

	Asset- I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Maintenance Spares	1.19	1.24	92.27	93.20	10.02
O & M expenses	2.64	2.74	24.96	25.97	5.48
Receivables	8.57	8.96	275.31	277.37	35.54
<b>Total</b>	<b>12.40</b>	<b>12.94</b>	<b>392.55</b>	<b>396.54</b>	<b>51.04</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
<b>Interest</b>	<b>1.14</b>	<b>1.58</b>	<b>8.01</b>	<b>48.58</b>	<b>6.25</b>

8. 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**

9. 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 as 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.

10. 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 31.3.2008 as given in the table below para 5 above.

### **ADDITIONAL CAPITALIZATION 2007-08**

11. 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.”

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

<b>Asset-I</b>				<b>Asset-II</b>		
Sl. No.	Year	Amount	Nature and details of expenditure	Year	Amount	Nature and details of expenditure
	2007-08	Sub-station=Rs. 18.67 lakh PLCC=Rs.0.42 lakh	Balance/ retention payments	2007-08	Building= Rs.38.41 lakh Sub-station=Rs.130.57 lakh Transmission line= Rs. 47.64 lakh	Balance/ retention Payments
	<b>Total</b>	<b>Rs. 19.09 lakh</b>		<b>Total</b>	<b>Rs 216.62 lakh</b>	

13. 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.

#### **Cost over-run**

14. The apportioned approved cost has been considered on the basis of revised cost estimate approved by the Board of Directors of the petitioner` company. In this regard, the petitioner has explained that there has been an increase in the cost of the transmission scheme. It has been explained that the contracts for various packages under the scheme were awarded to the lowest evaluated and responsive bidder, on the basis of domestic competitive bidding. Thus, the award prices represented the lowest prices available at the time of bidding of various packages. The petitioner has further submitted that during the period from 4<sup>th</sup> Quarter 2003 to 2<sup>nd</sup> Quarter 2007, ( price level at REC preparation) there had been inflationary trend in the prices of various input items. Thus, according to the petitioner, the price variation during execution of the project was attributable to the

inflationary trends. Due to these reasons, the petitioner has explained, revised cost estimate was prepared and approved by the Board.

15. In particular, in respect of Asset-III, the petitioner has submitted that the auto transformer meant for installation at Fatehabad (ICT-II) was diverted to Moga due to burning of ICT-II at Moga (associated with augmentation of Amritsar and Moga scheme). For installation of ICT-II at Fatehabad, transformer was diverted from Sasan project to Fatehabad on loan basis. The difference of cost, that is, the cost of Fatehabad transformer less Sasan transformer was shown as balance expenditure. The capital expenditure as on the date of commercial operation for Fatehabad transformer was the cost of Sasan transformer. The petitioner has clarified neither any tariff petition has been filed nor have the transmission charges been claimed for Sasan project. The petitioner has further requested to allow tariff for Asset-III based on the transformer cost of Rs. 793 lakh as on the date of the commercial operation.

16. As the cost on date of commercial operation is less than the apportioned approved cost based on the revised cost estimates approved by the Board of Directors of the petitioner's company, capital expenditure as on the date of commercial operation has been considered for the purpose of tariff.

### **TOTAL CAPITAL COST**

17. 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 Element	Admitted capital cost as on the date of commercial operation	Additional capital expenditure up to 31.3.2008	Total Capital expenditure as on 1.4.2008
Asset-I	118.74	19.09	137.83
Asset-II	9227.36	216.62	9443.98
Asset-III	1001.53	0.00	1001.53
Total	<b>10347.63</b>	<b>235.71</b>	<b>10583.34</b>

### DEBT- EQUITY RATIO

18. 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.”

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

20. The petitioner has considered debt-equity ratio of 69.90:30.10, 70:30 and 69.99:30.01 for Asset-I, Asset-II and Asset-III 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 the transmission Asset-I and Asset-II. In our calculations, debt-equity ratio of 70:30 has been considered as on the date of commercial operation and for also the additional capital expenditure approved in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:

(Rs. in lakh)

	Equity as on date of commercial operation	Notional additional equity during 2007-08	Average equity for 2007-08	Equity as on 1.4.2008
Asset- I	35.62	5.73	38.49	41.35
Asset-II	2768.21	64.99	2800.70	2833.19
Asset-III	300.46	0.00	-	300.46

### **RETURN ON EQUITY**

21. 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.

22. Equity has been considered as on the date of commercial operation and as on 1.4.2007 onwards as given in the table in para 20 above. However, tariff for the period from date of commercial operation to 31.3.2008 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

(Rs. in lakh)

Name of the asset	Return on equity	
	2007-08 (Pro rata)	2008-09
Asset-I	4.04	5.79
Asset-II	65.35	396.65
Asset-III	-	42.06



## **INTEREST ON LOAN**

23. 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.”

24. The petitioner has claimed interest on loan in the following manner:

(i) Gross loans opening has been considered from 2006-07;

(ii) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years;

(iii) Gross loan at (i) above have been considered along with the loan utilised after date of commercial operation and the weighted average rate of interest on loan for respective years as per above has been multiplied to arrive at interest on loan, considering as repayment.

25. 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 have been used to work out weighted average rate of interest on actual loan.

(b) Notional loan arising out of additional capital expenditure 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 repayments. Normative repayments are worked out by the following formula :

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

(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 (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

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

(Rs. in lakh)

Details	Asset-I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Gross Normative Loan	83.12	96.48	6459.15	6610.79	701.07
Cumulative Repayment up to Previous Year/date of commercial operation	0.00	3.64	0.00	50.60	0.00
Net Loan-Opening	83.12	92.84	6459.15	6560.18	701.07
Addition due to Additional Capitalisation	13.36		151.63		0.00
Repayment during the year	3.64	5.21	50.60	306.93	36.06
Net Loan-Closing	92.84	87.63	6560.18	6253.25	665.02
Average Loan	87.98	90.23	6509.67	6406.72	683.04
Weighted Average Rate of Interest on Loan	9.13%	9.14%	9.37%	9.37%	9.23%
Interest	6.02	8.25	101.69	600.41	63.06

27. The detailed calculations in support of the weighted average rate of interest are contained in Annexure-I, Annexure-II and Annexure-III attached.

### **DEPRECIATION**

28. 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.

29. Depreciation allowed has been worked out as below:

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Gross block as on the date of commercial operation	118.74	137.83	9227.36	9443.98	1001.53
Additional Capitalisation during 2007-08	19.09		216.62		0.00
Gross Block at the end of the year	137.83	137.83	9443.98	9443.98	1001.53
Rate of Depreciation	3.7871%	3.7778%	3.2523%	3.2500%	3.6000%
Depreciable Value	115.46	124.05	8270.84	8368.32	901.38
Balance Useful life of the asset	-	-	-	-	-
Remaining Depreciable Value	115.46	120.40	8270.84	8317.71	901.38
Depreciation	3.64	5.21	50.60	306.93	36.06
Cumulative Depreciation/ Advance against Depreciation	3.64	8.85	50.60	357.54	36.06

### **ADVANCE AGAINST DEPRECIATION**

30. 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

31. 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.

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

### **OPERATION & MAINTENANCE EXPENSES**

33. 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

34. The petitioner has claimed O & M expenses one bay for Asset-I and 58.452 ckt km and 9 bays for Asset-II and 2 bays for Asset-III 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		Asset-III		
	2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09
	-	-	O&M expenses for 58.452 ckt km	2.48	15.55		-	-
O&M expenses for 1 bay	23.72	32.90	O&M expenses for 9 bays	47.44	296.10	O&M expenses for 2 bays	-	65.80
<b>Total</b>	<b>23.72</b>	<b>32.90</b>	<b>Total</b>	<b>49.92</b>	<b>311.65</b>			<b>65.80</b>

35. 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 actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

**INTEREST ON WORKING CAPITAL**

36. 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. 1.19 lakh and Rs. 92.27 lakh and Rs. 10.02 lakh for Asset-I, Asset-II and Asst-III respectively as on date of commercial operation. The necessary details are given hereunder:

Transmission assets	Date of Commercial Operation	Capital Expenditure (Rs. in lakh) on the date of commercial operation	Cost of maintenance spares as on 1.4.2004 the date of commercial operation (Rs. in lakh)
Asset- I	1. 7.2007	118.74	1.19
Asset-II	1. 2.2008	9227.36	92.27
	1. 4.2008	1001.53	10.02

**(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 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 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 1.4.2007/1.4.2008, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Maintenance Spares	1.19	1.24	92.27	93.20	10.02
O & M expenses	2.64	2.74	24.96	25.97	5.48
Receivables	8.57	8.96	275.59	277.37	35.54
Total	12.39	12.94	392.83	396.54	51.04
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	1.14	1.58	8.02	48.58	6.25

### TRANSMISSION CHARGES

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

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2008-09
Depreciation	3.64	5.21	50.60	306.93	36.06
Interest on Loan	6.02	8.25	101.69	600.41	63.06
Return on Equity	4.04	5.79	65.35	396.65	42.06
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.14	1.58	8.02	48.58	6.25
O & M Expenses	23.72	32.90	49.93	311.65	65.80
<b>Total</b>	<b>38.57</b>	<b>53.73</b>	<b>275.59</b>	<b>1664.21</b>	<b>213.23</b>

39. 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.

40. The petitioner has sought approval for the reimbursement of expenditure of Rs. 2, 56,784/- 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. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.

41. This order disposes of Petition No. 134/2008.

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

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

sd/-  
**(R.KRISHNAMOORTHY)**  
MEMBER

sd/-  
**(DR.PRAMOD DEO)**  
CHAIRPERSON

New Delhi dated the 20<sup>th</sup> April 2009



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

50 MVAR Bus Reactor at Hissar sub-station

(Rs. in lakh)

	Details of Loan	2007-08 ( pro-rata)	2008-09
<b>1</b>	<b>Bond XXII</b>		
	Gross Loan opening	55.00	55.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	55.00	55.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	55.00	55.00
	Average Loan	55.00	55.00
	Rate of Interest	8.68%	8.68%
	Interest	4.77	4.77
	Repayment Schedule	12 Annual instalments from 7.12.2010	
<b>2</b>	<b>Bond-XXIV</b>		
	Gross Loan opening	28.00	28.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	28.00	28.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	28.00	28.00
	Average Loan	28.00	28.00
	Rate of Interest	9.95%	9.95%
	Interest	2.79	2.79
	Repayment Schedule	12 Annual instalments from 26.3.2011	
<b>3</b>	<b>Bond-XXVI</b>		
	Gross Loan opening	0.00	0.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	19.00
	Additions during the year	19.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	19.00	19.00
	Average Loan	9.50	19.00
	Rate of Interest	9.30%	9.30%
	Interest	0.88	1.77
	Repayment Schedule	12 Annual instalments from 7.3.2012	
	<b>Total Loan</b>		
	Gross Loan opening	83.00	102.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	83.00	102.00
	Additions during the year	19.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	102.00	102.00
	Average Loan	92.50	102.00
	Rate of Interest	9.13%	9.14%
	<b>Interest</b>	8.44	9.33

## Annexure-II

LILO of 400 KV Moga- Hissar line, ICT-I at Fatehabad sub-station, 4 nos 220 kV line bays (feeders from Fatehabad-1 and Fatehabad-2) and 50 MVAR Bus Reactor bay along with associated bays at Fatehabad sub-station

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>Bond-XX</b>		
	Gross Loan opening	2500.00	2500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2500.00	2500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2500.00	2500.00
	Average Loan	2500.00	2500.00
	Rate of Interest	8.93%	8.93%
	Interest	223.25	223.25
	Repayment Schedule	12 Annual instalments from 7. 9.2010	
<b>2</b>	<b>Bond-XXI</b>		
	Gross Loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	8.73%	8.73%
	Interest	43.65	43.65
	Repayment Schedule	12 Annual instalments from 11.10.2010	
<b>3</b>	<b>Bond-XXII</b>		
	Gross Loan opening	700.00	700.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	700.00	700.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	700.00	700.00
	Average Loan	700.00	700.00
	Rate of Interest	8.68%	8.68%
	Interest	60.76	60.76
	Repayment Schedule	12 Annual instalments from 7.12.2010	
<b>4</b>	<b>Bond-XXIV</b>		
	Gross Loan opening	600.00	600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	600.00	600.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	600.00	600.00
	Average Loan	600.00	600.00
	Rate of Interest	9.95%	9.95%
	Interest	59.70	59.70
	Repayment Schedule	12 Annual instalments from 26. 3.2011	
<b>5</b>	<b>Bond-XXV</b>		

	Gross Loan opening	2159.00	2159.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2159.00	2159.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2159.00	2159.00
	Average Loan	2159.00	2159.00
	Rate of Interest	10.10%	10.10%
	Interest	218.06	218.06
	Repayment Schedule	12 Annual instalments from 12 6.2011	
<b>6</b>	<b>Bond-XXVI for add cap</b>		
	Gross Loan opening	0.00	152.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	152.00
	Additions during the year	152.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	152.00	152.00
	Average Loan	76.00	152.00
	Rate of Interest	9.30%	9.30%
	Interest	7.07	14.14
	Repayment Schedule	12 Annual instalments from 7. 3.2012	
	<b>Total Loan</b>		
	Gross Loan opening	6459.00	6611.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	6459.00	6611.00
	Additions during the year	152.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	6611.00	6611.00
	Average Loan	6535.00	6611.00
	Rate of Interest	9.37%	9.37%
	<b>Interest</b>	612.49	619.56

315 MVA, 400/220 kV ICT-II along with associated bays at 400/220 kV Fatehabad sub-station

(Rs. in lakh)

	Details of Loan	2008-09
<b>1</b>	<b>Bond-XX</b>	
	Gross Loan opening	200.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.93%
	Interest	17.86
	Repayment Schedule	10 Annual instalments from 7. 9.2010
<b>2</b>	<b>Bond-XXI</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto DOCO/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	8.73%
	Interest	8.73
	Repayment Schedule	12 Annual instalments from 11.10.2010
<b>3</b>	<b>Bond-XXII</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto DOCO/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>4</b>	<b>Bond- XXIV</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto DOCO/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	9.95%
	Interest	9.95
	Repayment Schedule	12 Annual instalments from 26. 3.2011
<b>5</b>	<b>Bond- XXV</b>	
	Gross Loan opening	100.00
	Cumulative Repayment upto DOCO/previous	0.00

	year	
	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>6</b>	<b>Bond-XXVI</b>	
	Gross Loan opening	101.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	101.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	101.00
	Average Loan	101.00
	Rate of Interest	9.30%
	Interest	9.39
	Repayment Schedule	12 Annual instalments from 7. 3.2012
	<b>Total Loan</b>	
	Gross Loan opening	701.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	701.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	701.00
	Average Loan	701.00
	Rate of Interest	9.23%
	<b>Interest</b>	64.71