

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

1. **Shri Bhanu Bhushan, Member**
2. **Shri R.Krishnamoorthy, Member**

Petition No.133/2007

In the matter of

Determination of final transmission tariff and additional capitalization from DOCO to 31.3.2007 for system strengthening scheme in Northern Region (formerly part of Tala Supplementary Scheme) for the block 2004-2009.

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 Vidyut Prasaran Nigam Ltd, 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 Ltd., Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Limited, 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 V.V.Sharma, PGCIL
2. Shri U.K.Tyagi, PGCIL
3. Shri B.C.Pant, PGCIL
4. Shri A.K.Nagpal, PGCIL
5. Shri M.M.Mondal, PGCIL
6. Shri C.Kannan, PGCIL
7. Shri S.Raju, PGCIL
8. Ms. Sangeeta, PGCIL
9. Shri S.N.Singh, UPPCL
10. Shri T.P.S.Bawa, PSEB

ORDER
(DATE OF HEARING: 17.1.2008)

This petition has been filed for approval of transmission charges for system strengthening scheme (hereinafter referred to as `the scheme`) in Northern Region (formerly part of Tala Supplementary Scheme) 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 2006-07. 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 provisional transmission charges for the transmission assets covered under the transmission scheme were approved by the Commission in its order dated 15.3.2007 in Petition No.20/2007. The details of transmission assets and their dates of commercial operation are as under:

S. No.	Name of the assets	Date of commercial operation
1.	400 kV S/C Jalandhar-Amritsar transmission line along with associated bays at Amritsar and Jalandhar, ICT-I along with associated bays at Amritsar sub-station and 220 kV Verpal feeder bays I&II at Amritsar sub-station (Asset-I)	1.5.2006
2.	315 MVA 400 kV/220 kV ICT-II at Gorakhpur sub-station along with associated bays (including 2 nos. 220 kV transmission line bays) (Asset-II)	1.8.2006
3.	LILO of Bawana-Bhiwani transmission line along with associated bays at Bahadurgarh, 315 MVA ICT-I along with associated bays at Bahadurgarh sub-station and 220 kV Nuna Majra Feeder bays at Bahadurgarh sub-station (Asset-III)	1.11.2006

3. The administrative approval and expenditure sanction for the transmission scheme was accorded by the Board of Directors of the petitioner company vide its Memorandum dated 25.2.2003 at an estimated cost of Rs. 14329 lakh, which included IDC of Rs.1761 lakh. Subsequently, the approval for the revised cost estimate for the

transmission scheme was accorded by the Board of Directors vide its Memorandum dated 7.12.2007 at an estimated cost of Rs. 15408 lakh, including IDC of Rs.1232 lakh.

4. The details of the apportioned approved cost, the estimated completion cost, etc. of the transmission assets are stated to be as under:

(Rs. in lakh)

Name of the assets	Apportioned approved cost	Capital expenditure as on the date of commercial operation	Capital Expenditure from the date of commercial operation to 31.3.2007	Balance Expenditure	Total estimated completion cost
Asset- I	8091.00	7133.00	483.75	476.50	8093.25
Asset-II	1301.00	1051.09	34.33	173.14	1258.56
Asset-III	6016.00	5148.13	200.31	350.30	5698.74

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

(Rs.in lakh)

	Asset- I			Asset-II			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	197.12	221.67	221.67	25.64	39.08	39.08	67.81	166.10	166.10
Interest on Loan	379.40	421.01	402.12	39.89	58.18	54.99	130.61	309.36	294.84
Return on Equity	294.47	331.40	331.40	29.98	45.69	45.69	94.98	232.15	232.15
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	26.90	30.64	31.03	4.52	6.96	7.11	9.45	23.19	23.49
O & M Expenses	180.77	205.01	213.28	81.12	126.52	131.60	79.57	198.55	206.54
Total	1078.66	1209.72	1199.51	181.15	276.43	278.47	382.42	929.35	923.13

6. 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-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Maintenance Spares	73.75	80.22	85.04	10.68	11.28	11.96	52.48	54.80	58.08
O & M expenses	16.43	17.08	17.77	10.14	10.54	10.97	15.91	16.55	17.21
Receivables	196.12	201.62	199.92	45.29	46.07	46.41	152.97	154.89	153.85
Total	286.30	298.93	302.73	66.11	67.90	69.34	221.37	226.23	229.15
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	26.90	30.64	31.03	4.52	6.96	7.11	9.45	23.19	23.49

7. The reply to the petition has been filed by Uttar Pradesh Power Corporation Ltd. 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 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.

9. The petitioner has claimed tariff after accounting for additional capitalization up to 31.3.2007 as given in the table below para 4 above.

ADDITIONAL CAPITALIZATION 2006-07

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 are given hereunder:

Asset-I	Asset-II	Asset-III
Nature of expenditure	Nature of expenditure	Nature of expenditure
Building = Rs. 126.46 lakh Sub-station = Rs. 175.63 lakh Transmission line = Rs. 181.66 lakh Total = Rs. 483.75 lakh	Sub-station = Rs. 34.33 lakh Total = Rs. 34.33 lakh	Sub-station = Rs. 151.27 lakh Transmission line = Rs.49.04 lakh Total = Rs. 200.31 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 assets.

Time Over-run

13. As per the original approval, the transmission scheme was scheduled to be commissioned by September 2006. Asset-I was commissioned 4 months ahead of schedule which was agreed to in 1st commercial sub-committee meeting of NRLDC held on 24.5.2006. The commissioning of Asset-II is in accordance with the time scheduled. Asset-III was commissioned after 2 months of the scheduled date. It has been explained that M/s Triveni Educational and Social Welfare Society sought stay order from High Court against construction of transmission tower at location 5/2 for Asset-III, falling in the middle of land purchased by them. The petitioner filed a petition before the Hon`ble Supreme Court on 3.4.2006. Based on the Hon`ble Supreme Court order dated 12.5.2006, the petitioner and M/s Triveni Educational and Social Welfare Society agreed to resolve the issue mutually for shifting of tower location 5/2. The Hon`ble Supreme Court vide its judgment dated 14.7.2006

disposed of the appeal and subsequently, transmission line was completed and declared under commercial operation along with sub-station on 1.11.2006.

14. We have considered the matter very carefully. There is satisfactory explanation from the petitioner for the delay in completion of the transmission line. The delay was unintentional and beyond the control of the petitioner and the petitioner cannot be blamed for the delay in any manner. Therefore, the delay in commissioning of line is condoned.

OTHER COST RELATED ISSUE

15. UPPCL in its reply stated that in Form 5B of Asset-III, the quantity of tower steel is more than double of the estimated value. It is noted from the petition that the line length of LILO has increased from 9 km to 17.189 km. In this regard, petitioner has submitted that as per original approval, LILO of 400 kV Bawana-Bhiwani transmission line Bahdurgarh was proposed from location No. 55 to Kahairpur village. Subsequently, the sub-station location had to be changed from Kahairpur village to Daboda Khurd village, as the land proposed at Kahairpur village was low lying area and had poor approach. Because of this, LILO was made from location No. 84, leading to increase in line length to 17.189 kms and the number of towers. This explains the increase in the quantity of steel.

TOTAL CAPITAL COST

16. 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)

	Expenditure as on the date of commercial operation	Additional capital expenditure up to 31.3.2007	Total capital expenditure
Asset- I	7133.00	483.75	7616.75
Asset-II	1051.09	34.33	1085.42
Asset-III	5148.13	200.31	5348.44
Total	13332.22	718.39	14050.61

DEBT- EQUITY RATIO

17. 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.”

18. 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.

19. The petitioner has considered debt-equity ratio of 68.85:31.15, 69.93:30.07 and 68.96:31.04 for the transmission assets, 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. In our calculations, debt-equity ratio of 70:30 has been considered as on the date of commercial operation and for the additional capital expenditure approved in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, debt and equity considered for the transmission assets is as under:

(Rs. in lakh)

	Capital cost as on date of commercial operation	Equity on the date of commercial operation	Additional capital expenditure during 2006-07	Capital cost as on 1.4.2007	Addition of equity	Equity considered as on 1.4.2007
Asset- I	7133.00	2139.90	483.75	7616.75	145.13	2285.03
Asset-II	1051.09	315.33	34.33	1085.42	10.30	325.63
Asset-III	5148.13	1544.44	200.31	5348.44	60.09	1604.53
Total	13332.22	3999.67	718.39	14050.61	215.52	4215.19

RETURN ON EQUITY

20. 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.

21. Equity has been considered as on the date of commercial operation and as on 1.4.2007 onwards as given in the table below para 19 above. However, tariff for the period from date of commercial operation to 31.3.2007 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

(Rs. in lakh)

Name of the assets	Equity as on the date of commercial operation	Addition due to additional capitalization	Average equity	Return on equity		
				2006-07 (Pro rata)	2007-08	2008-09
Asset- I	2139.90	145.13	2212.46	283.93	319.90	319.90
Asset- II	315.33	10.30	320.48	29.91	45.59	45.59
Asset-III	1544.44	60.09	1574.40	91.84	224.63	224.63

INTEREST ON LOAN

22. 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.”

23. 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) For Asset-I short term bridge loan from Canara Bank has been utilised which has been replaced by Bond XIX;
- (iv) Gross loans at (i) above has been considered and the weighted average rate of interest on loan for respective years as per above has been has been multiplied to arrive at interest on loan, considering (depreciation + AAD) as repayment.

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

- (i) 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.
- (ii) Notional loan arising out of additional capitalization from date of commercial operation to 31.3.2007 has been added in loan amount as on date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculations
- (iii) Tariff has been worked out considering normative loan and normative repayments. Once the normative loan has been arrived at, it has been considered for all purposes in the tariff. Normative repayment has been worked out by the following formula :

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$
- (iv) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is

less than the depreciation during the year, it has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.

- (v) Weighted average rate of interest on actual loan worked out as per (i) above has been applied on the average loan during the year to arrive at the interest on loan.
- (vi) For Asset-I, short-term bridge loan from Canara Bank has been replaced by Bond XIX. In this case, for calculating the interest for the year 2006-07, weighted average rate of interest based number of days has been considered.

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

(Rs. in lakh)

Details of loan	Asset-I			Asset-II			Asset-III		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Opening Gross Loan	4993.10	5331.73	5331.73	735.76	759.79	759.79	3603.69	3743.91	3743.91
Cumulative Repayment	0.00	197.12	418.79	0.00	25.64	64.71	0.00	67.81	233.91
Net Loan-Opening	4993.10	5134.61	4912.93	735.76	734.16	695.08	3603.69	3676.10	3510.00
Additions due to Additional Capitalisation	338.63	-	-	24.03	-	-	140.22	-	-
Repayment during the year	197.12	221.67	221.67	25.64	39.08	39.08	67.81	166.10	166.10
Net Loan-Closing	5134.61	4912.93	4691.26	734.16	695.08	656.01	3676.10	3510.00	3343.90
Average Loan	5063.85	5023.77	4802.10	734.96	714.62	675.54	3639.89	3593.05	3426.95
Weighted Average Rate of Interest on Loan	8.38%	8.52%	8.52%	8.15%	8.15%	8.15%	8.74%	8.74%	8.74%
Interest	389.19	428.00	409.12	39.93	58.24	55.06	132.56	314.05	299.53

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

DEPRECIATION

27. 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.

28. Depreciation allowed has been worked out as calculated below:

(Rs.in lakh)

Details of Depreciation	Asset-I			Asset-II			Asset-III		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Gross block as on the date of commercial operation	7133.00	7616.75	7616.75	1051.09	1085.42	1085.42	5148.13	5348.44	5348.44
Additional Capitalisation during the period	483.75	-	-	34.33	-	-	200.31	-	-
Gross Block at the end of the period	7616.75	7616.75	7616.75	1085.42	1085.42	1085.42	5348.44	5348.44	5348.44
Rate of Depreciation	2.9158%	2.9103%	2.9103%	3.2910%	3.6000%	3.6000%	3.1010%	3.1056%	3.1056%
Depreciable Value (90%)	6436.28	6653.97	6653.97	961.43	976.88	976.88	4610.16	4700.30	4700.30
Remaining Depreciable Value	6436.28	6456.85	6235.18	961.43	951.24	912.16	4610.16	4632.48	4466.38
Depreciation	197.12	221.67	221.67	25.64	39.08	39.08	67.81	166.10	166.10

ADVANCE AGAINST DEPRECIATION

29. 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:

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

30. 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.

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

OPERATION & MAINTENANCE EXPENSES

32. 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

33. The petitioner has claimed O & M expenses for 59.708 Ckt.km and 6 bays for Asset-I, 4 bays for Asset - II and 34.378 Ckt. Km and 6 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)

	2006-07 (Pro rata)	2007-08	2008-09		2006-07 (Pro rata)	2007-08	2008-09		2006-07 (Pro rata)	2007-08	2008-09
O&M expenses for 59.708 Ckt km	13.46	15.23	15.88	-	-	-	-	O&M expenses for 34.378 Ckt km	3.52	8.77	9.140
O&M expenses for 6 bays	167.31	189.78	197.40	O&M expenses for 4 bays	81.12	126.52	131.60	O&M expenses for 6 bays	76.05	189.78	197.40
Total	180.77	205.01	213.28	Total	81.12	126.52	131.60	Total	79.57	198.55	206.54

34. 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

35. 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. 71.33 lakh, Rs.10.51 lakh and Rs. 51.48 lakh for Asset-I, Asset-II and Asset-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	Escalated spares Cost as on 1.4.2004 (Rs. in lakh)
Asset- I	1.5.2006	7133.00	71.33
Asset-II	1.8.2006	1051.09	10.51
Asset-III	1.11.2006	5148.13	51.48

(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 @ 10.25% based on SBI PLR as on 1.4.2006, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	Asset-I			Asset-II			Asset-III		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Maintenance Spares	71.33	75.25	79.77	10.51	10.93	11.59	51.48	52.77	55.93
O & M expenses	16.43	17.08	17.77	10.14	10.54	10.97	15.91	16.55	17.21
Receivables	195.94	200.77	199.06	45.28	46.06	46.40	152.47	154.38	153.34
Total	283.70	293.11	296.60	65.93	67.53	68.95	219.87	223.69	226.48
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	26.66	30.04	30.40	4.51	6.92	7.07	9.39	22.93	23.21

TRANSMISSION CHARGES

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

(Rs. in lakh)

	Asset- I			Asset-II			Asset-III		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	197.12	221.67	221.67	25.64	39.08	39.08	67.81	166.10	166.10
Interest on Loan	389.19	428.00	409.12	39.93	58.24	55.06	132.56	314.05	299.53
Return on Equity	283.93	319.90	319.90	29.91	45.59	45.59	91.84	224.63	224.63
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	26.66	30.04	30.40	4.51	6.92	7.07	9.39	22.93	23.21
O & M Expenses	180.77	205.01	213.28	81.12	126.52	131.60	79.57	198.55	206.54
Total	1077.67	1204.63	1194.38	181.11	276.35	278.39	381.18	926.27	920.02

38. 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.

39. The petitioner has sought approval for the reimbursement of expenditure of Rs.2,11,461/- 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.

40. This order disposes of Petition No. 133/2007.

sd/-
(R.KRISHNAMOORTHY)
MEMBER
New Delhi dated the 19th May 2008

sd/-
(BHANU BHUSHAN)
MEMBER

400 kV S/C Jalandhar-Amritsar transmission line along with associated bays at Amritsar and Jalandhar, ICT-I along with associated bays at Amritsar sub-station and 220 kV Verpal feeder bays I&II at Amritsar sub-station

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in Lakh)

Details of Loan	2006-07	2007-08	2008-09
1 Bond XVIII			
Gross Loan opening	3261.00	3261.00	3261.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	3261.00	3261.00	3261.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	3261.00	3261.00	3261.00
Average Loan	3261.00	3261.00	3261.00
Rate of Interest	8.15%	8.15%	8.15%
Interest	265.77	265.77	265.77
Repayment Schedule	12 Annual installments w.e.f. 9.3.2010		
2 Bond XIX (Short term Bridge Loan from Canara Bank from 10.05.06 to 23.07.06 and replaced by Bond XIX from 24.07.06)			
Gross Loan opening	1650.00	1650.00	1650.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	1650.00	1650.00	1650.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	1650.00	1650.00	1650.00
Average Loan	1650.00	1650.00	1650.00
Rate of Interest	8.85%	9.25%	9.25%
Interest	145.98	152.63	152.63
Repayment Schedule	12 Annual installments w.e.f. 24.7.2010		
Gross Loan opening	4911.00	4911.00	4911.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	4911.00	4911.00	4911.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	4911.00	4911.00	4911.00
Average Loan	4911.00	4911.00	4911.00
Rate of Interest	8.38%	8.52%	8.52%
Interest	411.75	418.40	418.40

**315 MVA 400 kV/220 kV ICT-II at Gorakhpur sub-station along with associated bays
(including 2 nos. 220 kV transmission line bays)**

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in Lakh)

Details of Loan	2006-07	2007-08	2008-09
1 Bond XVIII			
Gross Loan opening	735.00	735.00	735.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	735.00	735.00	735.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	735.00	735.00	735.00
Average Loan	735.00	735.00	735.00
Rate of Interest	8.15%	8.15%	8.15%
Interest	59.90	59.90	59.90
Repayment Schedule	12 Annual installments w.e.f. 9.3.2010		
Gross Loan opening	735.00	735.00	735.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	735.00	735.00	735.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	735.00	735.00	735.00
Average Loan	735.00	735.00	735.00
Rate of Interest	8.15%	8.15%	8.15%
Interest	59.90	59.90	59.90

LILO of Bawana-Bhiwani transmission line along with associated bays at Bahadurgarh, 315 MVA ICT-I along with associated bays at Bahadurgarh sub-station and 220 kV Nuna Majra Feeder bays at Bahadurgarh sub-station

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in Lakh)

	2006-07	2007-08	2008-09
1			
Bond XVIII (Date of Drawl 09.03.06)			
Gross Loan opening	1325.00	1325.00	1325.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	1325.00	1325.00	1325.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	1325.00	1325.00	1325.00
Average Loan	1325.00	1325.00	1325.00
Rate of Interest	8.15%	8.15%	8.15%
Interest	107.99	107.99	107.99
Repayment Schedule	12 Annual installments w.e.f. 9.3.2010		
2			
Bond XIX (Date of Drawl 24.07.06)			
Gross Loan opening	1550.00	1550.00	1550.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	1550.00	1550.00	1550.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	1550.00	1550.00	1550.00
Average Loan	1550.00	1550.00	1550.00
Rate of Interest	9.25%	9.25%	9.25%
Interest	143.38	143.38	143.38
Repayment Schedule	12 Annual installments w.e.f. 24.7.2010		
3			
Bond XXI (Date of Drawl 11.10.06)			
Gross Loan opening	675.00	675.00	675.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	675.00	675.00	675.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	675.00	675.00	675.00
Average Loan	675.00	675.00	675.00
Rate of Interest	8.73%	8.73%	8.73%
Interest	58.93	58.93	58.93
Repayment Schedule	12 Annual installments w.e.f. 11.10.2010		
Gross Loan opening	3550.00	3550.00	3550.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	3550.00	3550.00	3550.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	3550.00	3550.00	3550.00
Average Loan	3550.00	3550.00	3550.00
Rate of Interest	8.74%	8.74%	8.74%
Interest	310.29	310.29	310.29