

**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.136/2008

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) Two nos 400 kV bays at Kanpur sub-station associated with Kanpur-Auraiya transmission line, (ii) LILO of 400 kV D/C Bareilly-Mandola transmission line at Bareilly and Bus Reactor at Bareilly, (iii) LILO of 400 kV S/C Lucknow-Moradabad transmission line at Bareilly and (iv) LILO of 400 kV Lucknow (UPPCL)-Sultanpur (UPPCL) transmission line at Lucknow (Power Grid) under Northern Region system strengthening scheme-I in Northern Region for the period 2004-09.

And in the matter of

Power Grid Corporation of India Limited, Gurgaon
Vs

..Petitioner

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 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) Two nos 400 kV bays at Kanpur sub-station associated with Kanpur-Auraiya transmission line, (ii) LILO of 400 kV D/C Bareilly-Mandola transmission line at Bareilly and Bus Reactor at Bareilly, (iii) LILO of 400 kV S/C Lucknow-Moradabad transmission line at Bareilly and (iv) LILO of 400 kV Lucknow (UPPCL)-Sultanpur (UPPCL) transmission line at Lucknow (Power Grid) (the transmission assets) under Northern Region System Strengthening Scheme-I (the transmission scheme) in Northern Region 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. The petitioner has also prayed for reimbursement of expenditure by the beneficiaries, incurred by it towards publishing of notices in newspapers and the petition filing fee.

2. 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.	Two nos 400 kV bays at Kanpur sub-station associated with Kanpur-Auraiya transmission line (Asset-I)	1.6.2007
2.	LILO of 400 kV D/C Bareilly-Mandola transmission line at Bareilly and Bus Reactor at Bareilly (Asset-II)	1.8.2007
3.	LILO of 400 kV S/C Lucknow-Moradabad transmission line at Bareilly (Asset-III)	1.9.2007
4.	LILO of 400 kV Lucknow (UPPCL)-Sultanpur (UPPCL) transmission line (Asset-IV)	1.1.2008

3. The investment approval for the transmission scheme was accorded by Board of Directors of the petitioner company vide its letter dated 25.2.2004 at an

estimated cost of Rs. 27180 lakh, which includes IDC of Rs. 1421 lakh. Subsequently, approval for the revised cost estimate was accorded by Board of Directors under its letter dated 21.10.2008 at an estimated cost of Rs. 35084 lakh, which includes IDC of Rs. 1584 lakh.

4. The provisional transmission charges for the transmission assets were approved by the Commission in its order dated 26.12.2007 in Petition No. 150/2007 (for Asset-I and Asset-II), order dated 20.2.2008 in Petition No. 165/2007 (for Asset- III) and order dated 26.5.2008 in Petition No. 51/2008 (for Asset-IV).

5. The details of the apportioned approved cost, the estimated completion cost, etc. of the transmission assets noted at opening para of this order, as per details furnished 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 as on 31.3.2008	Estimated Balance Expenditure	Total estimated completion cost
Asset- I	972.46	698.00	4.21	702.21	270.26	972.47
Asset-II	7357.02	5800.10	62.75	5862.85	1494.17	7357.02
Asset-III	4242.50	3647.18	60.50	3707.68	534.82	4242.50
Asset-IV	5742.39	5431.65	14.41	5446.06	296.32	5742.38
Total	18314.37	15576.93	141.87	15718.8	2595.57	18314.37

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

(Rs. in lakh)

	Asset- I		Asset-II		Asset-III		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Depreciation	22.41	26.96	124.55	187.65	61.67	106.74	398.27	488.92
Interest on Loan	35.40	40.42	238.15	345.30	123.90	220.05	797.11	953.80
Return on Equity	24.57	29.58	163.29	246.25	90.10	155.73	626.08	768.30

Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.09	4.99	20.61	31.29	9.76	17.20	59.73	73.47
O & M Expenses	52.72	65.80	153.86	240.09	43.37	77.36	114.13	142.67
Total	139.19	167.75	700.45	1050.58	328.80	577.08	1995.31	2427.17

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		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Maintenance Spares	6.98	7.33	58.00	60.32	36.47	37.75	174.61	183.34
O & M expenses	5.27	5.48	19.23	20.01	6.2	6.45	11.41	11.89
Receivables	27.84	27.96	175.11	175.10	93.94	96.18	399.06	404.53
Total	40.09	40.77	252.35	255.42	136.61	140.37		
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	4.09	4.99	20.61	31.29	9.76	17.20	59.73	73.47

8. The reply to the petition has been filed by Ajmer Vidyut Vitran Nigam Ltd., Jaipur Vidyut Vitran Nigam Ltd, Jodhpur Vidyut Vitran Nigam Ltd and 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

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 transmission assets up to 31.3.2008 as given in the table below para 5 above.

Time over- run

11. As per the original approval, the transmission scheme was scheduled to be commissioned by July 2007. However, Asset-III and Asset-IV were commissioned with delay of 1 and 5 months respectively. For Asset-III, the petitioner has submitted that delay was mainly due to construction of transmission line involving one no. of railway crossing and two nos road crossing, which had taken more time in getting clearances from the concerned authorities. As regards Asset-IV, the petitioner has submitted that severe “Right of Way” problems were encountered during construction of the transmission line. There was a court case for section between NH Lucknow- Faizabad road crossing. Further, villagers did not allow work for some time as they were claiming higher compensation. As such, it took more time to in solving ROW problems with the help of Police/district authorities and Ministry at various levels.

12. We have considered the matter. There is satisfactory explanation from the petitioner for the entire delay in completion of the transmission assets in question. Therefore, the delay in commissioning of Asset-III and Asset-IV is considered to be beyond the control of the petitioner and is condoned

Cost over-run

13. There was cost over-run in comparison to original investment approval. The main reasons for cost over-run are stated to be on account of variation in estimated and award cost (L-I) which emerged out of “Domestic Competitive Route” with fair amount of participation by the bidders. Therefore, the increase in expenditure based on fair bidding process cannot be attributed to the petitioner.

14. As the cost as on 31.3.2008, is less than the apportioned approved cost based on the revised cost estimates approved by the Board of Director's of the petitioner company that cost has been considered for the purpose of tariff.

ADDITIONAL CAPITALIZATION 2007-08

15. 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.”

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

Asset-I	Asset-II	Asset-III	Asset-IV
Nature of expenditure	Nature of expenditure	Nature of expenditure	Nature of expenditure
Sub-station=Rs. 4.21 lakh	Transmission lines=Rs.18.16 lakh Sub-station=Rs. 21.36 lakh Building and Civil works= Rs. 23.23 lakh	Transmission lines= Rs. 34.74 lakh Sub-station=Rs. 25.57 lakh Civil works=Rs. 0.19 lakh	Transmission line= Rs. 1.23 lakh Sub-station=Rs. 4.94 lakh PLCC= Rs. 8.16 lakh
Total = 4.21 lakh	Total = Rs.62.75 lakh	Total = Rs. 60.50 lakh	Total= 14.41 lakh

17. 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.

TOTAL CAPITAL COST

18. 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 31.3.2008	Total capital expenditure
Asset-I	698.00	4.21	702.21
Asset-II	5800.10	62.75	5862.85
Asset-III	3647.18	60.50	3707.68
Asset-IV	5431.65	14.41	5446.06
Total	15576.93	141.87	15718.80

DEBT- EQUITY RATIO

19. 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.”

20. 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.

21. The petitioner has considered debt-equity ratio of 69.91:30.09 for Asset-I and 70:30 for Asset-II, Asset-III and Asset-IV, as actually deployed on the date of commercial operation. The petitioner has further considered the amount of additional capitalization during 2007-08 in the debt-equity ratio of 70:30. The capital expenditure on the date of commercial operation and additional capital expenditure approved has been considered in the ratio of 70:30 in accordance with the 2004 regulations Accordingly, for the purpose of tariff, 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	National additional equity during 2007-08	Average equity for 2007-08	Equity as on 1.4.2008
Asset- I	698.00	209.40	1.26	210.03	210.66
Asset-II	5800.10	1740.03	18.83	1749.44	1758.86
Asset-III	3647.18	1094.15	18.15	1103.23	1112.30
Asset-IV	5431.65	1629.50	4.32	1631.66	1633.82

RETURN ON EQUITY

22. 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.

23. Equity as given the table under para 21 above has been considered. However, tariff for the year of additional capital expenditure approved has been

allowed on average equity. Accordingly, return on equity allowed is given as under:

(Rs. in lakh)

	Return on equity	
	2007-08	2008-09
Asset-I	24.50 (pro rata)	29.49
Asset-II	163.28 (pro rata)	246.24
Asset-III	90.10 (pro rata)	155.72
Asset-IV	57.11 (pro rata)	228.73

INTEREST ON LOAN

24. 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.”

25. The petitioner has claimed interest on loan in the following manner:
- (i) 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;
 - (ii) Gross loan at (i) above have been considered along with the loan utilised after date of commercial operation and weighted average rate of interest on loan for respective year as per above has been has been multiplied to arrive at interest on loan considering Deprecation as repayment.
 - (iii) For Asset-III and Asset-IV, bridge loan from ICICI has been replaced by Bond XXVI.

26. The petitioner has not utilised any actual loan for the additional capital expenditure incurred during 2007-08. However, 70% of the additional capital expenditure has been considered as notional loan.

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

- (i) Gross amount of loan and repayment of instalments submitted by the petitioner have been used to work out weighted average rate of interest on actual loan.
- (ii) Notional loan arising out of additional capital expenditure has been added in loan amount as on the date of commercial operation to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for the purpose of 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 :

Actual repayment of actual loan during the year

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

- (iv) Moratorium in repayment of loan has been considered with reference to normative loan and in case the normative repayment of loan during the year is less than the depreciation during the year, depreciation during the year has been deemed as normative repayment of loan.
- (v) Weighted average rate of interest on actual loan worked out as per (i) above has been applied on the notional average loan during the year to arrive at the interest on loan .

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

(Rs. in lakh)

	Asset- I		Asset-II		Asset-III		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Opening Gross Loan	488.60	491.55	4060.07	4104.00	2553.03	2595.38	3802.16	3812.24
Cumulative Repayment	0.00	22.41	0.00	124.55	0.00	61.67	0.00	37.02
Net Loan-Opening	488.60	469.14	4060.07	3979.45	2553.03	2533.71	3802.16	3775.23
Additions due to Additional Capitalisation	2.95	-	43.93	-	42.35	-	10.09	-
Repayment during the year	22.41	26.96	124.55	187.65	61.67	106.74	37.02	148.42
Net Loan-Closing	469.14	442.18	3979.45	3791.80	2533.71	2426.96	3775.23	3626.81
Average Loan	478.87	455.66	4019.76	3885.62	2543.37	2480.33	3788.69	3701.02
Weighted Average Rate of Interest on Loan	8.88%	8.88%	8.89%	8.89%	8.35%	8.87%	8.63%	8.93%
Interest	35.45	40.48	238.15	345.31	123.92	220.05	81.78	330.35

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

DEPRECIATION

30. 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.

31. Depreciation allowed has been worked out as below:

(Rs. in lakh)

Details of Depreciation	Asset- I		Asset-II		Asset-III		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Gross block as on the date of commercial operation	698.00	702.21	5800.10	5862.85	3647.18	3707.68	5431.65	5446.06
Additional Capitalisation during 2007-08	4.21	-	62.75	-	60.50	-	14.41	-
Gross Block at the end of the year	702.21	702.21	5862.85	5862.85	3707.68	3707.68	5446.06	5446.06
Rate of Depreciation	3.8404%	3.8397%	3.2037%	3.2006%	2.8748%	2.8790%	2.7224%	2.7252%
Depreciable Value (90%)	630.09	631.99	5248.33	5276.57	3309.69	3336.91	4894.97	4901.45

Remaining Depreciable Value	630.09	609.58	5248.33	5152.02	3309.69	3275.24	4894.97	4864.44
Depreciation	22.41	26.96	124.55	187.65	61.67	106.74	37.02	148.42

ADVANCE AGAINST DEPRECIATION

32. 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

33. 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.

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

OPERATION & MAINTENANCE EXPENSES

35. 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

36. The petitioner has claimed O & M expenses for 2 bays for Asset-I, 36.8 ckt.km and 7 bays for Asset-II, 43.46 ckt.km and 2 bays for Asset-III and 82.234

ckt. km and 2 bays for Asset-IV 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			Asset-IV		
	2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09		2007-08	2008-09
			O&M expenses for 36.08 ckt km	6.26	9.79	O&M expenses for 43.46 ckt km	4.46	11.56	O&M expenses for 82.234 ckt km	5.35	21.90
Rs in lakh per bay for 2 bays	52.72	65.80	Rs in lakh per bay for 7bays	147.61	230.30	Rs in lakh per bay for 2 bays	36.90	65.80	Rs in lakh per bay for 2 bays	15.82	65.80
Total	52.72	65.80	Total	153.87	240.09	Total	43.36	77.36	Total	21.06	87.70

37. 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

38. 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. 6.98 lakh, Rs. 58.00 lakh Rs. 36.47 lakh and Rs. 54.32 lakh for Asset-I, Asset-II, Asset-III and Asset-IV 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	1.6.2007	698.00	6.98
Asset-II	1.8.2007	5800.10	58.00
Asset-III	1.9.2007	3647.18	36.47
Asset-IV	1.1.2008	5431.65	54.32

(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 the 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Maintenance Spares	6.98	7.33	58.00	60.32	36.47	37.75	54.32	55.13
O & M expenses	5.27	5.48	19.23	20.01	6.20	6.45	7.02	7.31
Receivables	27.83	27.95	175.11	175.10	93.95	96.18	135.33	136.60
Total	40.08	40.77	252.35	255.42	136.61	140.37	196.67	199.04
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	4.09	4.99	20.61	31.29	9.76	17.20	6.02	24.38

TRANSMISSION CHARGES

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

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III		Asset-IV	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Depreciation	22.41	26.96	124.55	187.65	61.67	106.74	37.02	148.42
Interest on Loan	35.45	40.48	238.15	345.31	123.92	220.05	81.78	330.35
Return on Equity	24.50	29.49	163.28	246.24	90.10	155.72	57.11	228.73
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.09	4.99	20.61	31.29	9.76	17.20	6.02	24.38
O & M Expenses	52.72	65.80	153.86	240.09	43.37	77.36	21.06	87.70
Total	139.17	167.73	700.45	1050.57	328.81	577.08	202.99	819.59

41. 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.

42. The petitioner has sought approval for the reimbursement of expenditure of Rs. 3,63,007/- 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.

43. This order disposes of Petition No. 136/2008.

sd/-	sd/-	sd/-	sd/-
(V.S.VERMA)	(S.JAYARAMAN)	(R.KRISHNAMOORTHY)	(DR.PRAMOD DEO)
MEMBER	MEMBER	MEMBER	CHAIRPERSON
New Delhi dated the 22nd April 2009			

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Two nos 400 kV bays at Kanpur sub-station associated with Kanpur-Auraiya transmission line

(Rs. in lakh)

Details of Loan		2007-08	2008-09
1	Bond-XX		
	Gross Loan opening	260.00	260.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	260.00	260.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	260.00	260.00
	Average Loan	260.00	260.00
	Rate of Interest	8.93%	8.93%
	Interest	23.22	23.22
	Repayment Schedule	12 Annual instalments from 7.9.2010	
2	Bond-XXI		
	Gross Loan opening	20.00	20.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	20.00	20.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	20.00	20.00
	Average Loan	20.00	20.00
	Rate of Interest	8.73%	8.73%
	Interest	1.75	1.75
	Repayment Schedule	12 Annual instalments from 11.10.2010	
3	Bond-XXII		
	Gross Loan opening	150.00	150.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	150.00	150.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	150.00	150.00
	Average Loan	150.00	150.00
	Rate of Interest	8.68%	8.68%
	Interest	13.02	13.02
	Repayment Schedule	12 Annual instalments from 7.12.2010	
4	Bond-XXIII		
	Gross Loan opening	58.00	58.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	58.00	58.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	58.00	58.00
	Average Loan	58.00	58.00
	Rate of Interest	9.25%	9.25%
	Interest	5.37	5.37
	Repayment Schedule	12 Annual instalments from 9.2.2011	
	Total Loan		
	Gross Loan opening	488.00	488.00

	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	488.00	488.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	488.00	488.00
	Average Loan	488.00	488.00
	Rate of Interest	8.88%	8.88%
	Interest	43.35	43.35

LILO of 400 kV D/C Bareilly-Mandola transmission line at Bareilly and Bus Reactor at Bareilly

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
1	Bond-XVII		
	Gross Loan opening	370.00	370.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	370.00	370.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	370.00	370.00
	Average Loan	370.00	370.00
	Rate of Interest	7.39%	7.39%
	Interest	27.34	27.34
	Repayment Schedule	10 Annual instalments from 22.9.2009	
2	Bond-XIX		
	Gross Loan opening	365.00	365.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	365.00	365.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	365.00	365.00
	Average Loan	365.00	365.00
	Rate of Interest	9.25%	9.25%
	Interest	33.76	33.76
	Repayment Schedule	12 Annual instalments from 24.7.2010	
3	Bond-XX		
	Gross Loan opening	2300.00	2300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2300.00	2300.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2300.00	2300.00
	Average Loan	2300.00	2300.00
	Rate of Interest	8.93%	8.93%
	Interest	205.39	205.39
	Repayment Schedule	12 Annual instalments from 07.09.2010	
4	Bond-XXI		
	Gross Loan opening	59.00	59.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	59.00	59.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	59.00	59.00
	Average Loan	59.00	59.00
	Rate of Interest	8.73%	8.73%
	Interest	5.15	5.15
	Repayment Schedule	12 Annual instalments from 11.10.2010	
5	Bond-XXII		
	Gross Loan opening	35.00	35.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00

	Net Loan-Opening	35.00	35.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	35.00	35.00
	Average Loan	35.00	35.00
	Rate of Interest	8.68%	8.68%
	Interest	3.04	3.04
	Repayment Schedule	12 Annual instalments from 7.12.2010	
6	Bond-XXIII		
	Gross Loan opening	931.00	931.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	931.00	931.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	931.00	931.00
	Average Loan	931.00	931.00
	Rate of Interest	9.25%	9.25%
	Interest	86.12	86.12
	Repayment Schedule	12 Annual instalments from 9.2.2011	
	Total Loan		
	Gross Loan opening	4060.00	4060.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4060.00	4060.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4060.00	4060.00
	Average Loan	4060.00	4060.00
	Rate of Interest	8.89%	8.89%
	Interest	360.80	360.80

LILO of 400 kV S/C Lucknow-Moradabad transmission line at Bareilly

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
1	Bond-XVII		
	Gross Loan opening	550.00	550.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	550.00	550.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	550.00	550.00
	Average Loan	550.00	550.00
	Rate of Interest	7.39%	7.39%
	Interest	40.65	40.65
	Repayment Schedule	10 Annual instalments from 22.9.2009	
2	Bond-XIX		
	Gross Loan opening	550.00	550.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	550.00	550.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	550.00	550.00
	Average Loan	550.00	550.00
	Rate of Interest	9.25%	9.25%
	Interest	50.88	50.88
	Repayment Schedule	12 Annual instalments from 24.7.2010	
3	Bond-XXIII		
	Gross Loan opening	297.00	297.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	297.00	297.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	297.00	297.00
	Average Loan	297.00	297.00
	Rate of Interest	9.25%	9.25%
	Interest	27.47	27.47
	Repayment Schedule	12 Annual instalments from 9.2.2011	
4	Bond- XXVI w.e.f 7.03.08 in replacenment of 8.00% bridge loan from ICICI bank w.e.f 20.8.2007		
	Gross Loan opening	1156.00	1156.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1156.00	1156.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1156.00	1156.00
	Average Loan	1156.00	1156.00
	Rate of Interest	8.15%	9.30%
	Interest	94.24	107.51
	Repayment Schedule	12 Annual instalments from 7-3-2012	
	Total Loan		
	Gross Loan opening	2553.00	2553.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00

	Net Loan-Opening	2553.00	2553.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2553.00	2553.00
	Average Loan	2553.00	2553.00
	Rate of Interest	8.35%	8.87%
	Interest	213.24	226.50

LILO of 400 kV Lucknow (UPPCL) – Sultanpur (UPPCL) transmission line

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
1	Bond-XVII		
	Gross Loan opening	698.00	698.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	698.00	698.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	698.00	698.00
	Average Loan	698.00	698.00
	Rate of Interest	7.39%	7.39%
	Interest	51.58	51.58
	Repayment Schedule	10 Annual instalments from 22.9.2009	
2	Bond-XIX		
	Gross Loan opening	1906.00	1906.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1906.00	1906.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1906.00	1906.00
	Average Loan	1906.00	1906.00
	Rate of Interest	9.25%	9.25%
	Interest	176.31	176.31
	Repayment Schedule	12 Annual instalments from 24.7.2010	
3	Bond-XVII		
	Gross Loan opening	0.00	0.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	39.00
	Additions during the year	39.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	39.00	39.00
	Average Loan	19.50	39.00
	Rate of Interest	9.47%	9.47%
	Interest	1.85	3.69
	Repayment Schedule	12 Annual instalments from 31.3.2012	
4	Bond- XXVI w.e.f 7.03.08 in replacenment of 8.00% bridge loan from ICICI bank w.e.f 20.8.2007		
	Gross Loan opening	1159.00	1159.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1159.00	1159.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1159.00	1159.00
	Average Loan	1159.00	1159.00
	Rate of Interest	8.36%	9.30%
	Interest	96.86	107.79
	Repayment Schedule	12 Annual instalments from 7-3-2012	
	Total Loan		
	Gross Loan opening	3763.00	3802.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3763.00	3802.00

	Additions during the year	39.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3802.00	3802.00
	Average Loan	3782.50	3802.00
	Rate of Interest	8.63%	8.93%
	Interest	326.59	339.37