# 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. 3/2009

#### 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)765 S/C Bina-Gwalior transmission line along with Gwalior sub-station and associated 400 kV bays at Bina (Power Grid) sub-station, (ii) 315 MVA, 400/220/33 kV Auto Transformer along with associated bays at Gwalior sub-station and (iii) LILO of 400 kV S/C Korba-Raipur transmission line at Bhatapara sub-station along with associated bay equipment including ICT- I of Bhatapara sub-station under Sipat-II Transmission System in Western Region for tariff block 2004-09 period.

#### And in the matter of

Power Grid Corporation of India Limited, Gurgaon

..Petitioner

Vs

- 1. Madhya Pradesh Power Trading Company Ltd., Jabalpur
- 2. Maharashtra State Electricity Distribution Co. Ltd., Mumbai
- 3. Gujarat Urja Vikas Nigam Ltd., Vadodara
- 4. Electricity Deptt., Govt., of Goa, Panaji
- 5. Electricity Department, Administration of Daman and Diu, Daman
- 6. Electricity Department, Administration of Dadra Nagar Haveli, Silvassa
- 7. Chhattisgarh State Electricity Board, Raipur
- 8. Madhya Pradesh Audyogik Kendra, Indore

.....Respondents

# The following were present:

- 1. Shri U.K.Tyaqi, PGCIL
- 2. Shri Prashant Sharma, PGCIL
- 3. Shri V.V.Sharma, PGCIL
- 4. Shri S.K. Niranjan, PGCIL
- 5. Shri M.M.Mondal, PGCIL

# ORDER (DATE OF HEARING: 23.4.2009)

This petition has been filed for approval of transmission charges for (i) 765 S/C Bina-Gwalior transmission line along with Gwalior sub-station and associated 400 kV bays at Bina (Power Grid) sub-station, (ii) 315 MVA, 400/220/33 kV Auto Transformer along with associated bays at Gwalior sub-station and (iii) LILO

of 400 kV S/C Korba-Raipur transmission line at Bhatapara sub-station along with associated bay equipment including ICT- I of Bhatapara sub-station (the transmission assets) under Sipat-II Transmission System (the transmission system) 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 respective transmission assets. The petitioner has also prayed for reimbursement of expenditure from the beneficiaries incurred towards publishing of notices in newspapers and the petition filling fee.

- 2. The investment approval for the transmission system was accorded by Ministry of Power vide letter dated 23.8.2004 at an estimated cost of Rs. 60190 lakh, which included IDC of Rs. 4199 lakh. Subsequently, the approval for revised cost estimate was accorded by Ministry of Power vide letter dated 26.12.2008 at an estimated cost of Rs. 79351 lakh which included IDC of Rs. 3788 lakh
- 3. The details of transmission assets and their dates of commercial operation as indicated by the petitioner are as under:

S.	Name of the assets	Date of commercial
No.		operation
1.	765 S/C Bina-Gwalior transmission line along with	1.4.2007
	Gwalior sub-station and associated 400 kV bays at	
	Bina (Power Grid) sub-station (Asset-I)	
2.	315 MVA, 400/220/33 kV Auto Transformer along with	1.5.2007
	associated bays at Gwalior sub-station (Asset-II)	
3.	LILO of 400 kV S/C Korba-Raipur transmission line at	1.12.2007
	Bhatapara sub-station along with associated bay	
	equipment including ICT- I of Bhatapara sub-station	
	(Asset-III)	

4. The provisional transmission charges were approved by the Commission in its order dated 19.9.2007 in Petition No. 106/2007 (for Asset-I), order dated 31.10.2007

in Petition No. 119/2007 (for Asset-II) and order dated 16.5.2008 in Petition No. 35/2008 (for Asset-III).

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	36950.88	29668.65	4291.03	33959.68	2717.07	36676.75
Asset-II	2152.63	1857.65	40.37	1898.02	246.03	2144.05
Asset-III	6569.07	4849.81	602.52	5452.33	1081.92	6534.25
Total	45672.58	36376.11	4933.92	41310.03	4045.02	45355.05

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

(Rs.in lakh)

	Ass	et- I	Asset-II		Asset-III	
	2007-08	2008-09	<b>2007-08</b> (Pro rata)	2008-09	<b>2007-08</b> (Pro rata)	2008-09
Depreciation	838.29	896.90	61.97	68.33	58.30	184.42
Interest on Loan	1897.91	1953.28	106.04	111.17	101.99	330.63
Return on Equity	1336.76	1426.87	72.34	79.77	72.11	228.98
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	125.84	132.48	12.58	14.03	9.51	29.95
O & M Expenses	123.17	128.29	173.97	197.40	84.61	264.02
Total	4321.97	4537.82	426.90	470.70	326.52	1038.00

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		Ass	et-II	Asset-III	
	2007-08	2007-08   2008-09   2		2008-09	<b>2007-08</b> (Pro rata)	2008-09
Maintenance Spares	296.69	314.49	18.58	19.60	48.50	49.47
O & M expenses	10.26	10.69	15.82	16.45	21.15	22.00
Receivables	720.33	756.30	77.62	78.45	163.26	173.00
Total	1027.28	1081.48	112.02	114.50	232.91	244.47
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	125.84	132.48	12.58	14.03	9.51	29.95

8. The reply to the petition has been filed by Madhya Pradesh Power Trading Company Ltd (MPPTCL). 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 the transmission assets 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 each transmission asset are given hereunder:

	Asset-I				Asset-II		Asset-III			
SI. No.	Year	Amount	Nature and details of expenditure	Year	Amount	Nature and details of expenditure	Year	Amount	Nature and details of expenditure	
	2007-08	Rs. 4291.03 lakh	Land, building, transmission line, sub- station and PLCC	2007-08	Rs. 40.37 lakh	Sub-station	2007- 08	Rs. 602.52 lakh	Building, transmission line, sub- station and PLCC	
	Total	Rs. 4291.03 lakh		Total	Rs. 40.37 lakh		Total	Rs. 602.52 lakh		

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, Asset-II and Asset-III.

# Time over-run

14. There was delay of three months in commissioning of Asset-III. In this regard, the petitioner has submitted that as per the investment approval the transmission system was scheduled to be commissioned in August 2007. Unit-IV of Sipat-II was synchronized in May 2007. However, its infirm power generation could not be stated till April 2008, due to certain local problems including release of water by the State authorities. The unit was declared under commercial operation in June 2008. As per the 5<sup>th</sup> meeting of WRPC held on 1.10.2007 unit-V of the generating station was scheduled for commissioning by March 2008. Considering the generation delay, commissioning of the transmission assets, including the Asset-III of the transmission system were slowed down.

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

#### **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 woks 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	29668.65	4291.03	33959.68
Asset-II	1857.65	40.37	1898.02
Asset-III	4849.81	602.52	5452.33
Total	36376.11	4933.92	41310.03

#### .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 69.99:30.01, 69.98:30.02 and 70:30 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 each transmission asset. 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	8900.60	1287.31	9544.25	10187.90
Asset-II	557.30	12.11	563.35	569.41
Asset-III	1454.81	180.76	1545.19	1635.57

# **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 in para 19 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 2008-09				
Asset-I	1336.19	1426.31			
Asset-II	72.30 (Pro rata)	79.72			
Asset-III	72.11 (Pro rata)	228.98			

#### **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 refinancing 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. In our calculations, the interest on loan has been worked out as detailed below:
  - (a) Gross amount of loan, repayment of instalments and rate of interest submitted by the petitioner have been used to work out weighted average rate of interest on actual loan.
  - (b) Notional loan arising out of additional 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 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 :

Actual repayment of actual loan during the year

------ X Opening balance of normative
Opening balance of actual loan during the year 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.

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

(Rs. in lakh)

Details	Ass	Asset-I		Asset-II		t-III
	2007-08	2008-09	<b>2007-08</b> (Pro rata)	2008-09	<b>2007-08</b> (Pro rata)	2008-09
Opening Gross Loan	20768.06	23771.78	1300.36	1328.61	3395.00	3816.76
Cumulative Repayment up to Previous Year/date of commercial operation	0.00	838.29	0.00	61.97	0.00	58.30
Net Loan-Opening	20768.06	22933.49	1300.36	1266.65	3395.00	3758.47
Addition due to Additional Capitalisation	3003.72		28.26		421.76	
Repayment during the year	838.29	896.90	61.97	68.33	58.30	184.42
Net Loan-Closing	22933.49	22036.59	1266.65	1198.32	3758.47	3574.05
Average Loan	21850.77	22485.04	1283.50	1232.48	3576.73	3666.26
Weighted Average Rate of Interest on	8.69%	8.69%	9.0155%	9.0223%	8.55%	9.02%
Loan						
Interest	1898.26	1953.63	106.07	111.20	101.99	330.63

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

### **DEPRECIATION**

- 26. 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.
- 27. Depreciation allowed has been worked out as below:

(Rs. in lakh)

	Asset-I		Asse	et-II	Asset-III	
	2007-08	2008-09	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Gross block as on the date of commercial operation	29668.65	33959.68	1857.65	1898.02	4849.81	5452.33
Additional Capitalisation during 2007-08	4291.03	-	40.37	-	602.52	-
Gross Block at the end of the year	33959.68	33959.68	1898.02	1898.02	5452.33	5452.33
Rate of Depreciation	2.6350%	2.6411%	3.60%	3.60%	3.3952%	3.3824%
Depreciable Value	28433.84	30340.04	1690.05	1708.22	4621.01	4892.14
Balance Useful life of the asset	-	_	_	_	-	_
Remaining Depreciable Value	28433.84	29501.74	1690.05	1646.25	4621.01	4833.84
Depreciation	838.29	896.90	61.97	68.33	58.30	184.42
Cumulative Depreciation/ Advance against Depreciation	838.29	1735.19	61.97	130.30	58.30	242.72

## **ADVANCE AGAINST DEPRECIATION**

28. 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

- 29. 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.
- 30. The petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

# **OPERATION & MAINTENANCE EXPENSES**

31. 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				

32. The petitioner has claimed O & M expenses 234.931 ckt.km. and two bays for Asset-I and 6 bays for Asset-II, and line length of 3.089 ckt km and 8 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	2008-09		<b>2007-08</b> (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09
O&M expenses for 234.931 ckt km	59.91	62.49		-	-	O&M expenses for 3.089 ckt km	0.26	0.82
O&M expenses for 2 bays	63.26	65.80	O&M expenses for 6 bays	173.97	197.40	O&M expenses for 8 bays	84.347	263.200
Total	123.17	128.29	Total	173.97	197.40		84.61	264.02

33. 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**

34. 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. 296.69 lakh and Rs. 18.58 lakh and Rs. 48.50 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	Capital Expenditure	Cost of maintenance spares as
	Operation	(Rs. in lakh) on the date of	on 1.4.2004 the date of
		commercial operation	commercial operation
			(Rs. in lakh)
Asset- I	1.4.2007	29668.65	296.69
Asset-II	1.5.2007	1857.65	18.58
Asset-III	1.12.2007	4849.81	48.50

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

35. 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	2008-09	<b>2007-08</b> (Pro rata)	2008-09	<b>2007-08</b> (Pro rata)	2008-09
Maintenance Spares	296.69	314.49	18.58	19.60	48.50	49.47
O & M expenses	10.26	10.69	15.82	16.45	21.15	22.00
Receivables	720.29	756.27	77.61	78.44	163.26	173.00
Total	1027.24	1081.45	112.01	114.49	232.91	244.47
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	125.84	132.48	12.58	14.03	9.51	29.95

#### TRANSMISSION CHARGES

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

(Rs. in lakh)

	Asset-I		Asset-II		Asset-III	
	2007-08	2008-09	<b>2007-08</b> (Pro rata)	2008-09	<b>2007-08</b> (Pro rata)	2008-09
Depreciation	838.29	896.90	61.97	68.33	58.30	184.42
Interest on Loan	1898.26	1953.63	106.07	111.20	101.99	330.63
Return on Equity	1336.19	1426.31	72.30	79.72	72.11	228.98
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	125.84	132.48	12.58	14.03	9.51	29.95
O & M Expenses	123.17	128.29	173.97	197.40	84.61	264.02
Total	4321.75	4537.61	426.88	470.67	326.52	1038.00

- 37. 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.
- 38. The petitioner has sought approval for the reimbursement of expenditure of Rs. 1,98,590/- 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 filling fee.
- 39. This order disposes of Petition No. 3/2009.

sd/- sd/- sd/- sd/(V.S.VERMA) (S.JAYARAMAN) (R.KRISHNAMOORTHY) (DR.PRAMOD DEO)
MEMBER MEMBER MEMBER CHAIRPERSON
New Polls dated the 45th Lynn 2000

New Delhi dated the 15<sup>th</sup> June 2009

# **Annexure-I**

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

765 S/C Bina-Gwalior transmission line along with Gwalior sub-station and associated 400 kV bays at Bina (Power Grid) sub-station,

(Rs. in lakh)

_	D 4 11 - 61		in lakh)	
	Details of Loan	2007-08	2008-09	
1	Bond-XV			
	Gross Loan opening	150.00	150.00	
	Cumulative Repayment upto DOCO/previous year	0.00	12.50	
	Net Loan-Opening	150.00	137.50	
	Additions during the year	0.00	0.00	
	Repayment during the year	12.50	12.50	
	Net Loan-Closing	137.50	125.00	
	Average Loan	143.75	131.25	
	Rate of Interest	6.68%	6.68%	
	Interest	9.60	8.77	
	Repayment Schedule	12 Annual instalme	ents from 23. 2.2008	
2	Bond-XVII			
	Gross Loan opening	2877.00	2877.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	2877.00	2877.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	2877.00	2877.00	
	Average Loan	2877.00	2877.00	
	Rate of Interest	7.39%	7.39%	
	Interest	212.61	212.61	
	Repayment Schedule		ents from 22. 9.2009	
3	Bond-XVIII	10 7 tillidal illotalillo	1611 22. 0.2000	
	Gross Loan opening	2268.00	2268.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	2268.00	2268.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	2268.00	2268.00	
	Average Loan	2268.00	2268.00	
	Rate of Interest	8.15%	8.15%	
	Interest	184.84	184.84	
	Repayment Schedule		ents from 9. 3.2010	
4	Bond-XX			
	Gross Loan opening	9501.00	9501.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	9501.00	9501.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	9501.00	9501.00	
	Average Loan	9501.00	9501.00	
	Rate of Interest	8.93%	8.93%	
	Interest	848.44	848.44	
-	Repayment Schedule  Bond-XXI	12 Annual instalments from 7-9-2010		
5		407.00	407.00	
	Gross Loan opening	107.00	107.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	
	Net Loan-Opening	107.00	107.00	

	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	107.00	107.00
	Average Loan	107.00	107.00
	Rate of Interest	8.73%	8.73%
	Interest	9.34	9.34
	Repayment Schedule	12 Annual instalme	ents from 11-10-2010
6	Bond-XXII		
	Gross Loan opening	644.00	644.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	644.00	644.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	644.00	644.00
	Average Loan	644.00	644.00
	Rate of Interest	8.68%	8.68%
	Interest	55.90	55.90
	Repayment Schedule	12 Annual instalme	ents from 7-12-2010
7	Bond-XXIII		
	Gross Loan opening	5217.00	5217.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	5217.00	5217.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	5217.00	5217.00
	Average Loan	5217.00	5217.00
	Rate of Interest	9.25%	9.25%
	Interest	482.57	482.57
	Repayment Schedule	12 Annual instalme	ents from 9-2-2011
	Total Loan		
	Gross Loan opening	20764.00	20764.00
	Cumulative Repayment upto DOCO	0.00	12.50
	Net Loan-Opening	20764.00	20751.50
	Additions during the year	0.00	0.00
	Repayment during the year	12.50	12.50
	Net Loan-Closing	20751.50	20739.00
	Average Loan	20757.75	20745.25
	Rate of Interest	8.6874%	8.6886%
	Interest	1803.31	1802.47
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315 MVA, 400/220/33 kV Auto Transformer along with associated bays at Gwalior substation  $\,$ 

(Rs. in lakh)

	Details of Loan	2007-08	2008-09	
1	Bond-XVII	2001 00	2000 00	
-	Gross Loan opening	89.00	89.00	
	Cumulative Repayment upto DOCO/previous	0.00	0.00	
	year	0.00	0.00	
	Net Loan-Opening	89.00	89.00	
	Additions during the year Repayment during the year	0.00	0.00	
	Net Loan-Closing	89.00	89.00	
	•			
	Average Loan	89.00	89.00	
	Rate of Interest	7.39%	7.39%	
	Interest	6.58	6.58	
	Repayment Schedule		stalments from 22.	
<u> </u>	B I VOIII	9.2009	T	
2	Bond-XVIII	47.00	47.00	
	Gross Loan opening	47.00	47.00	
	Cumulative Repayment upto DOCO/previous	0.00	0.00	
-	year Net Loan-Opening	47.00	47.00	
	Additions during the year Repayment during the year	0.00	0.00	
	Net Loan-Closing	47.00	47.00	
	Average Loan	47.00	47.00	
	Rate of Interest	8.15%	8.15%	
	Interest	3.83	3.83	
	Repayment Schedule		stalments from 9.	
	Repayment deficuale	3.2010		
3	Bond-XX			
	Gross Loan opening	216.00	216.00	
	Cumulative Repayment upto DOCO/previous	0.00	0.00	
	year			
	Net Loan-Opening	216.00	216.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	216.00	216.00	
	Average Loan	216.00	216.00	
	Rate of Interest	8.93%	8.93%	
	Interest	19.29	19.29	
	Repayment Schedule		stalments from 7-9-	
	Ropaymont Concodic	2010	Stanfields HOIII 1-3-	
4	Bond-XXI			
	Gross Loan opening	7.00	7.00	
	Cumulative Repayment upto DOCO/previous	0.00	0.00	
	year			
	Net Loan-Opening	7.00	7.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	0.00	
	Net Loan-Closing	7.00	7.00	
-	Average Loan	7.00	7.00	
	Rate of Interest	8.73%	8.73%	
-	Interest	0.61	0.61	
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	Repayment Schedule	12 Annual instalments from 11-10-2010		
	2010			

5	Bond-XXII		
	Gross Loan opening	42.00	42.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00
	year		
	Net Loan-Opening	42.00	42.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	42.00	42.00
	Average Loan	42.00	42.00
	Rate of Interest	8.68%	8.68%
	Interest	3.65	3.65
	Repayment Schedule		stalments from 7-12-
		2010	T
6	Bond-XXIII		
	Gross Loan opening	899.00	899.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00
	year Not Lean Opening	000.00	000.00
	Net Loan-Opening	899.00	899.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	899.00	899.00
	Average Loan	899.00	899.00
	Rate of Interest	9.25%	9.25%
	Interest	83.16	83.16
	Repayment Schedule	12 Annual in 2011	stalments from 9-2-
7	Bond-XXVII		
	Gross Loan opening	0.00	40.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00
	year Nathana Opanian	0.00	40.00
	Net Loan-Opening	0.00	40.00
	Additions during the year	40.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	40.00	40.00
	Average Loan	20.00	40.00
	Rate of Interest	9.47%	9.47%
	Interest	1.89	3.79
	Repayment Schedule	12 Annual in 2012	stalments from 31-3-
	Total Loan		
	Gross Loan opening	1300.00	1340.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	1300.00	1340.00
	Additions during the year	40.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1340.00	1340.00
	Average Loan	1320.00	1340.00
	Rate of Interest	9.0155%	9.0223%

LILO of 400 kV S/C Korba-Raipur transmission line at Bhatapara sub-station along with associated bay equipment including ICT- I of Bhatapara sub-station

(Rs. in lakh)

,	(Rs. in la		
	Details of Loan	2007-08	2008-09
1	Bond-XVII		
	Gross Loan opening	110.00	110.00
	Cumulative Repayment up to	0.00	0.00
	DOCO/previous year	440.00	110.00
	Net Loan-Opening	110.00	110.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	110.00	110.00
	Average Loan	110.00	110.00
	Rate of Interest	7.39%	7.39%
	Interest	8.13	8.13
	Repayment Schedule	10 Annual instalm 22.9.2009	nents from
2	Bond-XVIII		
	Gross Loan opening	228.00	228.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year	655.55	
	Net Loan-Opening	228.00	228.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	228.00	228.00
	Average Loan	228.00	228.00
	Rate of Interest	8.15%	8.15%
	Interest	18.58	18.58
	Repayment Schedule	12 Annual instalments from 9.3.2010	
3	Bond-XX		
	Gross Loan opening	1111.00	1111.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year	1111 00	4444.00
	Net Loan-Opening	1111.00	1111.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1111.00	1111.00
	Average Loan	1111.00	1111.00
	Rate of Interest	8.93%	8.93%
	Interest	99.21	99.21
	Repayment Schedule	12 Annual instalments from 7-9-2010	
4	Bond-XXI		
	Gross Loan opening	12.00	12.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year	10.00	40.00
	Net Loan-Opening	12.00	12.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	12.00	12.00
	Average Loan	12.00	12.00
	•		
	Rate of Interest	8.73%	8.73%
	•	8.73% 1.05 12 Annual instalm	1.05

		2010	
5	Bond-XXII		
	Gross Loan opening	75.00	75.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year		
	Net Loan-Opening	75.00	75.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	75.00	75.00
	Average Loan	75.00	75.00
	Rate of Interest	8.68%	8.68%
	Interest	6.51	6.51
	Repayment Schedule	12 Annual i 2010	nstalments from 7-12-
6	Bond-XXIII		
	Gross Loan opening	392.00	392.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year		
	Net Loan-Opening	392.00	392.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	392.00	392.00
	Average Loan	392.00	392.00
	Rate of Interest	9.25%	9.25%
	Interest	36.26	36.26
	Repayment Schedule	12 Annual i 2011	nstalments from 9-2-
7	Bond-XXVI (Short term SBI Bridge Loan @ 7.95% from 01.12.2007 to 06.03.2008 replaced by Bond XXVI on 07-03-2008)		
	Gross Loan opening	1467.00	1467.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1467.00	1467.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1467.00	1467.00
	Average Loan	1467.00	1467.00
	Rate of Interest	8.23%	9.30%
	Interest	120.68	136.43
	Repayment Schedule	12 Annual i 2012	nstalments from 7-3-
	Total Loan		
	Gross Loan opening	3395.00	3395.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	3395.00	3395.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3395.00	3395.00
	Average Loan	3395.00	3395.00
	Rate of Interest	8.5545%	9.0183%
	Interest	290.43	306.17