

**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.1/2009**

**In the matter of**

Determination of final transmission tariff of 400 kV D/C Kahalgaon-Patna line (including 1x50 MVAR line reactor, 1x80 MVAR Bus Reactor with associated bay at Patna sub-station, 2 nos. 220 kV line bays at Patna sub-station for BSEB sub-station and 400 and 220 kV bays for ICT-I at Patna sub-station, (ii) 400 kV D/C Maithon-Ranchi line along with associated bays, 400/220 kV, 315 MVA, ICT-II along with associated bays at Ranchi sub-station and 220 Patratlu & Chandil bays at Ranchi sub-station, (iii) 80 MVAR Bus Ractor at Ranchi and 2 nos of 220 kV line bays at Ranchi DOCO 1.9.2007. (iv) ICT-I at Patna sub-station, (v) 400/220 kV ICT-I at Ranchi sub-station along with associated bays and 2nos line bays at Patna sub-station, and (iv) ICT-II at Patna sub-station along with associated bays under Kahalgaon stage-II Phase-I (2x500 MW) Transmission system in Eastern Region for the period up to 2009.

**And in the matter of**

Power Grid Corporation of India Ltd., Gurgaon

.... **Petitioner**

Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Calcutta
3. Grid Corporation of Orissa Limited, Bhubaneswar
4. Damodar Valley Corporation, Calcutta
5. Power Department, Govt. of Sikkim, Gangtok
6. Jharkand State Electricity Board, Ranchi

**.Respondents**

**The following were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri V.V.Sharma, PGCIL
3. ShriS.K.Niranjan, PGCIL
4. Shri Mahesh Kumar, PGCIL

**ORDER  
(DATE OF HEARING: 16.4.2009)**

This petition has been filed for approval of transmission charges for (i) 400 kV D/C Kahalgaon-Patna transmission line (including 1x 50 MVAR line reactor, 1x 80 MVAR Bus Reactor with associated bay at Patna sub-station, 2 nos. 220 kV line bays at Patna sub-station for BSEB sub-station and 400 and 220 kV bays for ICT-I at Patna sub-station, (ii) 400 kV D/C Maithon-Ranchi transmissioin line along with associated bays,

400/220 kV, 315 MVA, ICT-II along with associated bays at Ranchi sub-station and 220 Patratlu & Chandil bays at Ranchi sub-station, (iii) 80 MVAR Bus Reactor at Ranchi and 2 nos of 220 kV line bays at Ranchi, (iv) ICT-I at Patna sub-station, (v) 400/220 kV ICT-I at Ranchi sub-station along with associated bays and 2 nos line bays at Patna sub-station, and (vi) ICT-II at Patna sub-station along with associated bays (collectively referred to as the transmission assets) under Kahalgaon Stage-II, Phase-I (2x500 MW) Transmission system (the transmission system) in Eastern 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 from the beneficiaries incurred 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.	400 kV D/C Kahalgaon- Patna transmission line (including 1x 50 MVAR line Reactor), 1x 80 MVAR Bus Reactor with associated bays at Patna sub-station, 2 nos 220 kV line bays at Patna sub-station for BSEB sub-station and 400 & 220 kV bays for ICT-I at Patna sub-station <b>(Asset-I)</b>	1.5.2007
2.	400 kV D/C Maithon –Ranchi transmission line along with associated bays, 400/220 kV, 315 MVA, ICT-II along with associated bays at Ranchi sub-station and 220 kV Patratu & Chandil bays at Ranchi sub-station <b>(Asset-II)</b>	1.6.2007
3.	80 MVAR Bus Reactor at Ranchi and 2 nos. of 220 kV line bays at Ranchi <b>(Asset-III)</b>	1.9.2007
4.	ICT-I at Patna sub-station <b>(Asset-IV)</b>	1.11.2007
5.	400/220 kV ICT-I at Ranchi sub-station along with associated bays and 2 nos line bays at Patna sub-station <b>(Asset-V)</b>	1.12.2007
6.	ICT-II at Patna sub-station along with associated bays <b>(Asset-VI)</b>	1.1.2008

3. The investment approval for the transmission system was accorded by Ministry of Power vide its letter dated 12.10.2004 at an estimated cost of Rs.177193.00 lakh, which includes IDC of Rs. 8618.00 lakh. Subsequently, approval for the revised cost estimate was accorded by Board of Directors of the petitioner company under its letter dated

26.12.2008 at an estimated cost of Rs. 275223 lakh, which includes IDC of Rs. 109.47lakh.

4. The provisional transmission charges were approved by the Commission in its order dated 25.2.2008 in Petition No. 163/2007 (for Asset-I and Asset-II), order dated 17.6.2008 in Petition No. 52/2008 (for Asset-III, Asset-IV and Asset-V) and order dated 18.9.2008 in Petition No. 74/2008 (for Asset-VI).

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	51130.00	47086.66	1521.00	48607.66	2446.00	51053.66
Asset-II	28903.00	26260.47	722.00	26982.47	1138.00	28120.47
Asset-III	2275.00	1378.47	183.00	1561.47	551.00	2112.47
Asset-IV	1056.00	988.54	0.00	988.54	7.00	995.54
Asset-V	3129.00	2032.01	217.00	2249.01	570.00	2819.01
Asst-VI	2409.00	1562.08	89.00	1651.08	335.00	1986.08
<b>Total</b>	<b>88902.00</b>	<b>79308.23</b>	<b>2732.00</b>	<b>82040.23</b>	<b>5047.00</b>	<b>87087.23</b>

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

(Rs. in lakh)

	Asset- I		Asset-II		Asset-III		Asset-IV		Asset-V		Asset-VI	
	2007-08	2008-09	2007-08 (Pro rata)	2008-09	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	1159.29	1286.13	603.98	735.34	30.45	55.19	14.83	35.59	25.23	79.39	14.39	58.86
Interest on Loan	2613.30	2792.90	1322.36	1553.49	50.78	95.04	25.09	57.99	42.33	138.03	23.71	100.75
Return on Equity	1842.20	2041.61	932.02	1133.59	36.01	65.57	17.30	41.52	29.99	94.52	16.85	69.27
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	181.11	201.17	96.19	117.36	5.18	9.37	1.71	4.08	4.20	13.21	2.13	8.81
O & M Expenses	323.19	367.12	295.79	369.50	55.35	98.70	0.00	0.00	42.17	131.60	15.82	65.80
<b>Total</b>	<b>6119.09</b>	<b>6688.93</b>	<b>3250.34</b>	<b>3909.28</b>	<b>177.77</b>	<b>323.87</b>	<b>58.93</b>	<b>139.18</b>	<b>143.92</b>	<b>456.75</b>	<b>72.90</b>	<b>303.49</b>

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

(Rs. in lakh)

	Asset- I		Asset-II		Asset-III		Asset-IV		Asset-V		Asset-VI	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	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	470.87	496.76	262.60	275.73	13.78	14.27	9.89	10.13	20.32	20.73	15.62	15.86
O & M expenses	29.38	30.59	29.58	30.79	7.91	8.23	0.00	0.00	10.54	10.97	5.27	5.48
Receivables	1112.56	1114.82	650.07	651.55	50.79	53.98	23.57	23.20	71.96	76.13	48.60	50.58
Total	1612.81	1642.17	942.25	958.07	72.48	76.48	33.46	33.33	102.82	107.83	69.49	71.92
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	181.11	201.17	96.19	117.36	5.18	9.37	1.71	4.08	4.20	13.21	2.13	8.81

8. The reply to the petition has been filed by Bihar State Electricity Board (BSEB). 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.

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

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

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

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

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

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

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

Asset-I	Asset-II	Asset-III	Asset-V	Asset-VI
Nature of expenditure	Nature of expenditure	Nature of expenditure	Nature of expenditure	Nature of expenditure
Building= Rs. 44.00 lakh Transmission line= Rs. 1075.00 lakh Sub-station=Rs.402.00 lakh	Building= Rs. 35.00 lakh Transmission line= Rs. 411.00 lakh Sub-station=Rs. 276.00 lakh	Building = Rs.34.00 lakh Sub-station= Rs.149.00 lakh	Building = Rs. 22.00 lakh Sub-station=Rs. 195.00 lakh	Land = Rs.7.00 lakh Building=Rs.18.00 lakh Sub-station=64.00 lakh
Total = 1521.00 lakh	Total = Rs. 722.00 lakh	Total = Rs. 183.00 lakh	Total= 217.00 lakh	Total= Rs. 89.00 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 assets.

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

14. There was delay of one to five months in commissioning of Asset-III, Asset-IV, Asset-V and Asset-VI. The petitioner has submitted that delay was mainly handling over of land for the sub-station by the District authorities.

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

#### **Initial spares**

16. The value of initial spares corresponding to the expenditure up to 31.3.2008 for the transmission assets is well within the 1.50% of the expenditure.

#### **TOTAL CAPITAL COST**

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

(Rs. in lakh)			
	Expenditure as on the date of commercial operation	Additional capital expenditure up to 31.3.2009	Total capital expenditure
Asset-I	47086.66	1521.00	48607.66
Asset-II	26260.47	722.00	26982.47
Asset-III	1378.47	183.00	1561.47
Asset-IV	988.54	0.00	988.54
Asset-V	2032.01	217.00	2249.01
Asset-VI	1562.08	89.00	1651.08
<b>Total</b>	<b>79308.23</b>	<b>2732.00</b>	<b>82040.23</b>

### **DEBT- EQUITY RATIO**

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

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

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

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

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

whichever is the least:

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

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

20. The petitioner has considered debt and equity as actually deployed on the date of commercial operation as given in the table below:

	Debt-equity ratio as actually deployed on the date of commercial operation
Asset- I	70: 30
Asset-II	69.99:30.01
Asset-III	70.01:29.99
Asset-IV	70:30
Asset-V	69.98:30.02
Asset-VI	70.03:29.97

21. The petitioner has further considered the amount of additional capitalization during 2007-08 in the debt-equity ratio of 70:30.

22. We have considered debt-equity ratio of 70:30 on the date of the commercial operation as also for the additional capital expenditure approved. 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	Notional additional equity during 2007-08	Average equity for 2007-08	Equity as on 1.4.2008
Asset- I	47086.66	14126.66	456.30	14354.81	14582.96
Asset-II	26260.47	7878.14	216.60	7986.44	8094.74
Asset-III	1378.47	413.47	54.90	440.92	468.37
Asset-IV	988.54	296.54	0.00	296.54	296.54
Asset-V	2032.01	609.60	65.10	642.15	674.70
Asset-VI	1562.08	468.08	26.70	481.43	494.78

### **RETURN ON EQUITY**

23. 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.

24. Equity as given the table under para 22 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	1842.20 (pro rata)	2041.61
Asset-II	931.75 (pro rata)	1133.26
Asset-III	36.01 (pro rata)	65.57
Asset-IV	17.30 (pro rata)	41.52
Asset-V	29.97 (pro rata)	94.46
Asset-VI	16.85 (pro rata)	69.27

### **INTEREST ON LOAN**

25. 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.”

26. The petitioner has claimed interest on loan in the following manner:
- (i) Gross loan opening has been considered from 2007-08.
  - (ii) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years;
  - (iii) Gross loan at (i) above have been considered along with the loan utilised after date of commercial operation and weighted average rate of interest on loan for respective year as per above has been multiplied to arrive at interest on loan considering Deprecation as repayment.
  - (iv) Bridge loan from ICICI has been replaced by Bond XXVI.
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) On the basis of actual rate of interest on actual average loan, the weighted rate of interest on loan has been worked out for various years.
  - (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
- X Opening balance of normative  
Opening balance of actual loan during the year loan during the year

- (iv) 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) Short term loan from ICICI has been replaced by Bond XXVI in case of Asset-III, Asset-IV and Asset-VI. Therefore, and their weighted average rate of interest for that year has been considered.

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		Asset-V		Asset-VI	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	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	32960.00	34024.70	18382.33	18887.73	965.00	1093.10	692.00	692.00	1422.41	1574.31	1094.00	1156.30
Cumulative Repayment up to the date of the commercial operation /previous year	0.00	1159.29	0.00	603.98	0.00	30.45	0.00	14.83	0.00	25.23	0.00	14.39
Net Loan-Opening	32960.00	32865.41	18382.33	18283.75	965.00	1062.65	692.00	677.17	1422.41	1549.08	1094.00	1141.91
Additions due to Additional Capitalisation	1064.70		505.40		128.10		0.00		151.90		62.30	
Repayment during the year	1159.29	1286.13	603.98	735.34	30.45	55.19	14.83	35.59	25.23	79.39	14.39	58.86
Net Loan-Closing	32865.41	31579.28	18283.75	17548.40	1062.65	1007.46	677.17	641.58	1549.08	1469.69	1141.91	1083.05
Average Loan	32912.70	32222.34	18333.04	17916.07	1013.82	1035.05	684.59	659.38	1485.74	1509.39	1117.96	1112.48
Weighted Average Rate of Interest on Loan	8.66%	8.67%	8.66%	8.67%	8.59%	9.18%	8.79%	8.79%	8.55%	9.15%	8.49%	9.06%
<b>Interest</b>	2613.30	2792.90	1322.53	1553.69	50.78	95.04	25.09	57.99	42.34	138.07	23.71	100.75

29. The detailed calculations in support of the weighted average rate of interest are contained in Annexure-I, Annexure-II, Annexure-III, Annexure-IV and Annexure-V 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		Asset-V		Asset-VI	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	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	47086.66	48607.66	26260.47	26982.47	1378.47	1561.47	988.54	988.54	2032.01	2249.01	1562.08	1651.08
Additional Capitalisation during 2006-07	1521.00		722.00		183.00		0.00		217.00		89.00	
Gross Block at the end of the year	48607.66	48607.66	26982.47	26982.47	1561.47	1561.47	988.54	988.54	2249.01	2249.01	1651.08	1651.08
Rate of Depreciation	2.6432%	2.6459%	2.7225%	2.7253%	3.5512%	3.5345%	3.6000%	3.6000%	3.5355%	3.5298%	3.5821%	3.5651%
Depreciable Value (90%)	42680.84	43365.29	23638.48	23963.38	1322.97	1405.32	889.69	889.69	1919.26	2016.91	1442.77	1479.67
Remaining Depreciable Value	42680.84	42206.00	23638.48	23359.40	1322.97	1374.87	889.69	874.86	1919.26	1991.68	1442.77	1465.28
<b>Depreciation</b>	1159.29	1286.13	603.98	735.34	30.45	55.19	14.83	35.59	25.23	79.39	14.39	58.86

### **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 514.36 ckt.km. and 7 bays for Asset-I, 399.62 ckt.km and 8 bays for Asset-II, 3 bays for Asset-III, 4 bays for Asset-V and 2 bays for Asset-VI 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		2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09
O&M expenses for 514.36 ckt km	120.22	136.82	O&M expenses for 399.62 ckt km	84.92	106.30	O&M expenses for ckt km	-	-
O&M expenses for 7 bays	202.94	230.30	O&M expenses for 8 bays	210.88	263.20	O&M expenses for 3 bays	55.35	98.70
<b>Total</b>	<b>126.90</b>	<b>131.99</b>	<b>Total</b>	<b>295.79</b>	<b>369.50</b>	<b>Total</b>	<b>55.35</b>	<b>98.70</b>

Asset-V			Asset-VI		
	2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09
O&M expenses for ckt km	-	-	O&M expenses for ckt km	-	-
O&M expenses for 4 bays	42.17	131.60	O&M expenses for 2 bays	15.82	65.80
<b>Total</b>	<b>42.17</b>	<b>131.60</b>	<b>Total</b>	<b>15.82</b>	<b>65.80</b>

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. 470.87 lakh, Rs. 262.60 lakh Rs. 13.78 lakh, Rs. 9.89 lakh Rs. 20.32 lakh and Rs, 15.62 lakh for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asst-VI, respectively as on date of commercial operation. The necessary details of escalated spares cost as on

1.4.2008 for the period from the date of commercial operation to 31.3.2008 are given hereunder:

Transmission assets	Date of Commercial Operation	Capital Expenditure on the date of commercial operation (Rs. in lakh)	Escalated spares Cost as on 1.4.2008 (Rs. in lakh)
Asset- I	1.5.2007	47086.66	496.76
Asset-II	1.6.2007	26260.47	275.73
Asset-III	1.9.2007	1378.47	14.27
Asset-IV	1.11.2007	988.54	10.13
Asset-V	1.12.2007	2032.01	20.73
Asset-VI	1.1.2008	1562.08	15.86

**(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 first April of the year of commissioning, 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		Asset-V		Asset-VI	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	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	470.87	496.76	262.60	275.73	13.78	14.27	9.89	10.13	20.32	20.73	15.62	15.86
O & M expenses	29.38	30.59	29.58	30.79	7.91	8.23	0.00	0.00	10.54	10.97	5.27	5.48
Receivables	1112.56	1114.82	650.05	651.53	50.79	53.98	23.57	23.20	71.95	76.12	48.60	50.58
Total	1612.81	1642.18	942.23	958.05	72.48	76.47	33.45	33.33	102.81	107.81	69.49	71.92
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	181.11	201.17	96.19	117.36	5.18	9.37	1.71	4.08	4.20	13.21	2.13	8.81

### 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		Asset-V		Asset-VI	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09	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	1159.29	1286.13	603.98	735.34	30.45	55.19	14.83	35.59	25.23	79.39	14.39	58.86
Interest on Loan	2613.30	2792.90	1322.53	1553.69	50.78	95.04	25.09	57.99	42.34	138.07	23.71	100.75
Return on Equity	1842.20	2041.61	931.75	1133.26	36.01	65.57	17.30	41.52	29.97	94.46	16.85	69.27
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	181.11	201.17	96.19	117.36	5.18	9.37	1.71	4.08	4.20	13.21	2.13	8.81
O & M Expenses	323.19	367.12	295.79	369.50	55.35	98.70	0.00	0.00	42.17	131.60	15.82	65.80
Total	6119.09	6688.93	3250.24	3909.16	177.77	323.87	58.92	139.18	143.90	456.72	72.90	303.49

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. 2,17,356/- 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.1/2009.

sd/-	sd/-	sd/-	sd/-
<b>(V.S.VERMA)</b>	<b>(S.JAYARAMAN)</b>	<b>(KRISHNAMOORTHY)</b>	<b>(DR.PRAMOD DEO)</b>
<b>MEMBER</b>	<b>MEMBER</b>	<b>MEMBER</b>	<b>CHAIRPERSON</b>
New Delhi dated the 6th May 2009			

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

400 kV D/C Kahalgaon-Patna line (including 1x 50 MVAR line reactor, 1x 80 MVAR Bus Reactor with associated bay at Patna sub-station, 2 nos. 220 kV line bays at Patna sub-station for BSEB sub-station and 400 and 220 kV bays for ICT-I at Patna sub-station

(Rs. in lakh)

	<b>Details of Loan</b>	<b>2007-08</b>	<b>2008-09</b>
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	11500.00	11500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	11500.00	11500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	11500.00	11500.00
	Average Loan	11500.00	11500.00
	Rate of Interest	8.15%	8.15%
	Interest	937.25	937.25
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	14400.00	14400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	14400.00	14400.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	14400.00	14400.00
	Average Loan	14400.00	14400.00
	Rate of Interest	8.93%	8.93%
	Interest	1285.92	1285.92
	Repayment Schedule	12 Annual instalments from 07-09-2010	
<b>3</b>	<b>Bond-XXI</b>		
	Gross Loan opening	3350.00	3350.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3350.00	3350.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3350.00	3350.00
	Average Loan	3350.00	3350.00
	Rate of Interest	8.73%	8.73%
	Interest	292.46	292.46
	Repayment Schedule	12 Annual instalments from 11-10-2010	
<b>4</b>	<b>Bond-XXII</b>		
	Gross Loan opening	2500.00	2500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2500.00	2500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2500.00	2500.00
	Average Loan	2500.00	2500.00
	Rate of Interest	8.68%	8.68%
	Interest	217.00	217.00
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>5</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	1210.00	1210.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1210.00	1210.00
	Additions during the year	0.00	0.00

	Repayment during the year	0.00	0.00
	Net Loan-Closing	1210.00	1210.00
	Average Loan	1210.00	1210.00
	Rate of Interest	9.95%	9.95%
	Interest	120.40	120.40
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>6</b>	<b>Bond- XVIII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	441.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	441.00
	Additions during the year	441.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	441.00	441.00
	Average Loan	220.50	441.00
	Rate of Interest	8.15%	8.15%
	Interest	17.97	35.94
	Repayment Schedule	12 Annual instalments from 9-3-2010	
<b>7</b>	<b>Bond- XX(For ACE 2007-08)</b>		
	Gross Loan opening	0.00	350.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	350.00
	Additions during the year	350.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	350.00	350.00
	Average Loan	175.00	350.00
	Rate of Interest	8.93%	8.93%
	Interest	15.63	31.26
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>8</b>	<b>Bond- XXII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	92.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	92.00
	Additions during the year	92.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	92.00	92.00
	Average Loan	46.00	92.00
	Rate of Interest	8.68%	8.68%
	Interest	3.99	7.99
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>9</b>	<b>Bond- XXIV (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	10.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	10.00
	Additions during the year	10.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10.00	10.00
	Average Loan	5.00	10.00
	Rate of Interest	9.95%	9.95%
	Interest	0.50	1.00
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>10</b>	<b>Bond- XXVII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	628.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	628.00

	<b>Additions during the year</b>	628.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	628.00	628.00
	Average Loan	314.00	628.00
	Rate of Interest	9.47%	9.47%
	Interest	29.74	59.47
	Repayment Schedule	12 Annual instalments from 31-03-2012	
	<b>Total Loan</b>		
	<b>Gross Loan opening</b>	32960.00	34481.00
	<b>Cumulative Repayment upto DOCO</b>	0.00	0.00
	Net Loan-Opening	32960.00	34481.00
	<b>Additions during the year</b>	1521.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	34481.00	34481.00
	Average Loan	33720.50	34481.00
	Rate of Interest	8.66%	8.67%
	<b>Interest</b>	2920.84	2988.67

## Annexure-II

400 kV D/C Maithon-Ranchi line along with associated bays, 400/220 kV, 315 MVA, ICT-II along with associated bays at Ranchi sub-station and 220 Patratlu & Chandil bays at Ranchi sub-station

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	7100.00	7100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	7100.00	7100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	7100.00	7100.00
	Average Loan	7100.00	7100.00
	Rate of Interest	8.15%	8.15%
	Interest	578.65	578.65
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	8200.00	8200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	8200.00	8200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	8200.00	8200.00
	Average Loan	8200.00	8200.00
	Rate of Interest	8.93%	8.93%
	Interest	732.26	732.26
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>3</b>	<b>Bond-XXII</b>		
	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	8.68%	8.68%
	Interest	199.64	199.64
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>4</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	780.00	780.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	780.00	780.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	780.00	780.00
	Average Loan	780.00	780.00
	Rate of Interest	9.95%	9.95%
	Interest	77.61	77.61
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>5</b>	<b>Bond- XXVII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	722.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	722.00
	Additions during the year	722.00	0.00

	Repayment during the year	0.00	0.00
	Net Loan-Closing	722.00	722.00
	Average Loan	361.00	722.00
	Rate of Interest	9.47%	9.47%
	Interest	34.19	68.37
	Repayment Schedule	12 Annual instalments from 31-3-2012	
	<b>Total Loan</b>		
	Gross Loan opening	18380.00	19102.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	18380.00	19102.00
	Additions during the year	722.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	19102.00	19102.00
	Average Loan	18741.00	19102.00
	Rate of Interest	8.66%	8.67%
	<b>Interest</b>	1622.35	1656.53

80 MVAR Bus Ractor at Ranchi and 2 nos of 220 kV line bays at Ranchi

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	158.00	158.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	158.00	158.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	158.00	158.00
	Average Loan	158.00	158.00
	Rate of Interest	8.15%	8.15%
	Interest	12.88	12.88
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	133.00	133.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	133.00	133.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	133.00	133.00
	Average Loan	133.00	133.00
	Rate of Interest	8.93%	8.93%
	Interest	11.88	11.88
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>3</b>	<b>Bond-XXII</b>		
	Gross Loan opening	25.00	25.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	25.00	25.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	25.00	25.00
	Average Loan	25.00	25.00
	Rate of Interest	8.68%	8.68%
	Interest	2.17	2.17
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>4</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	123.00	123.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	123.00	123.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	123.00	123.00
	Average Loan	123.00	123.00
	Rate of Interest	9.95%	9.95%
	Interest	12.24	12.24
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>5</b>	<b>Bond- XXVI (ICICI Bridge loanreplaced on 07-03-2008)</b>		
	Gross Loan opening	526.00	526.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	526.00	526.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	526.00	526.00
	Average Loan	526.00	526.00

	Rate of Interest	8.15%	9.30%
	Interest	42.88	48.92
	Repayment Schedule	12 Annual instalments from 7-3-2012	
<b>6</b>	<b>Bond- XXVII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	183.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	183.00
	Additions during the year	183.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	183.00	183.00
	Average Loan	91.50	183.00
	Rate of Interest	9.47%	9.47%
	Interest	8.67	17.33
	Repayment Schedule	12 Annual instalments from 31-3-2012	
	<b>Total Loan</b>		
	Gross Loan opening	965.00	1148.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	965.00	1148.00
	Additions during the year	183.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1148.00	1148.00
	Average Loan	1056.50	1148.00
	Rate of Interest	8.59%	9.18%
	<b>Interest</b>	90.71	105.41

## ICT-I at Patna sub-station

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	278.00	278.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	278.00	278.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	278.00	278.00
	Average Loan	278.00	278.00
	Rate of Interest	8.15%	8.15%
	Interest	22.66	22.66
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	237.00	237.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	237.00	237.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	237.00	237.00
	Average Loan	237.00	237.00
	Rate of Interest	8.93%	8.93%
	Interest	21.16	21.16
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>3</b>	<b>Bond-XXII</b>		
	Gross Loan opening	45.00	45.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	45.00	45.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	45.00	45.00
	Average Loan	45.00	45.00
	Rate of Interest	8.68%	8.68%
	Interest	3.91	3.91
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>4</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	132.00	132.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	132.00	132.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	132.00	132.00
	Average Loan	132.00	132.00
	Rate of Interest	9.95%	9.95%
	Interest	13.13	13.13
	Repayment Schedule	12 Annual instalments from 26-3-2011	
	<b>Total Loan</b>		
	Gross Loan opening	692.00	692.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	692.00	692.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	692.00	692.00
	Average Loan	692.00	692.00
	Rate of Interest	8.79%	8.79%
	<b>Interest</b>	60.86	60.86

**Annexure-V**

400/220 kV ICT-I at Ranchi sub-station along with associated bays and 2 nos line bays at Patna sub-station

(Rs. in lakh)

	<b>Details of Loan</b>	<b>2007-08</b>	<b>2008-09</b>
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	229.00	229.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	229.00	229.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	229.00	229.00
	Average Loan	229.00	229.00
	Rate of Interest	8.15%	8.15%
	Interest	18.66	18.66
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	195.00	195.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	195.00	195.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	195.00	195.00
	Average Loan	195.00	195.00
	Rate of Interest	8.93%	8.93%
	Interest	17.41	17.41
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>3</b>	<b>Bond-XXII</b>		
	Gross Loan opening	37.00	37.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	37.00	37.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	37.00	37.00
	Average Loan	37.00	37.00
	Rate of Interest	8.68%	8.68%
	Interest	3.21	3.21
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>4</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	110.00	110.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	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	9.95%	9.95%
	Interest	10.95	10.95
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>5</b>	<b>Bond- XXVI (ICICI Bridge loan replaced on 07-03-2008)</b>		
	Gross Loan opening	851.00	851.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	851.00	851.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	851.00	851.00
	Average Loan	851.00	851.00

	Rate of Interest	8.27%	9.30%
	Interest	70.35	79.14
	Repayment Schedule	12 Annual instalments from 7-3-2012	
<b>6</b>	<b>Bond- XXVII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	217.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	217.00
	Additions during the year	217.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	217.00	217.00
	Average Loan	108.50	217.00
	Rate of Interest	9.47%	9.47%
	Interest	10.27	20.55
	Repayment Schedule	12 Annual instalments from 31-3-2012	
	<b>Total Loan</b>		
	Gross Loan opening	1422.00	1639.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	1422.00	1639.00
	Additions during the year	217.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1639.00	1639.00
	Average Loan	1530.50	1639.00
	Rate of Interest	8.55%	9.15%
	<b>Interest</b>	130.86	149.93

## ICT-II at Patna sub-station along with associated bays

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>Bond-XVIII</b>		
	Gross Loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	8.15%	8.15%
	Interest	16.30	16.30
	Repayment Schedule	12 Annual instalments from 9. 3.2010	
<b>2</b>	<b>Bond-XX</b>		
	Gross Loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	8.93%	8.93%
	Interest	17.86	17.86
	Repayment Schedule	12 Annual instalments from 7-9-2010	
<b>3</b>	<b>Bond-XXII</b>		
	Gross Loan opening	12.00	12.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	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	8.68%	8.68%
	Interest	1.04	1.04
	Repayment Schedule	12 Annual instalments from 7-12-2010	
<b>4</b>	<b>Bond- XXIV</b>		
	Gross Loan opening	12.00	12.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	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	9.95%	9.95%
	Interest	1.19	1.19
	Repayment Schedule	12 Annual instalments from 26-3-2011	
<b>5</b>	<b>Bond- XXVI (ICICI Bridge loan replaced on 07-03-2008)</b>		
	Gross Loan opening	670.00	670.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	670.00	670.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	670.00	670.00
	Average Loan	670.00	670.00

	Rate of Interest	8.36%	9.30%
	Interest	55.99	62.31
	Repayment Schedule	12 Annual instalments from 7-3-2012	
<b>6</b>	<b>Bond- XXVII (For ACE 2007-08)</b>		
	Gross Loan opening	0.00	89.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	89.00
	Additions during the year	89.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	89.00	89.00
	Average Loan	44.50	89.00
	Rate of Interest	9.47%	9.47%
	Interest	4.21	8.43
	Repayment Schedule	12 Annual instalments from 31-3-2012	
	<b>Total Loan</b>		
	Gross Loan opening	1094.00	1183.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	1094.00	1183.00
	Additions during the year	89.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1183.00	1183.00
	Average Loan	1138.50	1183.00
	Rate of Interest	8.49%	9.06%
	<b>Interest</b>	96.60	107.13