

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram**

1. **Shri Ashok Basu, Chairman,**
2. **Shri K.N.Sinha, Member**
3. **Shri. Bhanu Bhushan, Member**

**Petition No.138/2002**

**In the matter of**

Petition for approval of tariff for LILO of 400 kV D/C Bogaigaon-Malda transmission line at Siliguri and sub-station at Siliguri (New) in Eastern Region for the period 1.8.2003 to 31.3.2004.

**And in the matter of**

Power Grid Corporation of India Ltd.

**.... Petitioner**

Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Board, Kolkata
3. Grid Corporation of Orissa Ltd., Bhubaneswar
4. Damodar Valley Corporation, Kolkata
5. Power Dept., Govt. of Sikkim, Gangtok
6. Jharkhand State Electricity Board, Ranchi

**.....Respondents**

**The following were present:**

1. Shri P.C. Pankaj, AGM (Comml.), PGCIL
2. Shri D.D. Dhayaseelan, DGM (Fin.), PGCIL
3. Shri U.K. Tyagi, PGCIL
4. Shri Umesh Chandra, ED (Comml.), PGCIL
5. Shri S. Mehrotra, Dy. Manager (F), PGCIL
6. Shri Prashant Sharma, PGCIL
7. Shri V.K. Singh, BSEB

**ORDER  
(DATE OF HEARING: 16.3.2004)**

In this petition, the petitioner, Power Grid Corporation of India Ltd has sought approval for tariff in respect of LILO of 400 kV D/C Bogaigaon-Malda transmission line at Siliguri and sub-station at Siliguri (New) (hereinafter referred to as “the transmission scheme”) in Eastern Region for the period 1.8.2003 to 31.3.2004. The tariff is to be

regulated based on the terms and conditions of tariff contained in the Commission's notification dated 26.3.2001, (hereinafter referred to as "the notification dated 26.3.2001").

2. The petitioner was entrusted with the implementation of the transmission scheme. The administrative approval and expenditure sanction was accorded by the Central Government in Ministry of Power vide its letter dated 2.6.2000 at an estimated cost of Rs.63.19 Crore, including IDC of Rs.9.68 Crore, based on 2nd quarter 1999 price level. As per the investment approval, the project was to be commissioned within 30 months from that date, that is, by December 2002. The actual date of commercial operation of the transmission line is 1.8.2003. The scope of work included:

#### **Transmission lines**

- (i) LILO (10 km) of one circuit (the circuit not utilised in Purnea project) of Bongaigaon-Malda 400 kV D/C line at Siliguri sub-station, and
- (ii) LILO (5 km) of Birpara-Siliguri 220 kV D/C at new sub-station at Siliguri.

#### **Sub-station**

- (i) Establishment of Siliguri (new) sub-station with 1x315 MVA, 400/220 kV ICT and associated bays, and
- (ii) Shifting of 1 no. of 63 MVAR reactor from Malda sub-station to Siliguri 400/220 kV sub-station and installation of the same at Bongaigaon-Siliguri line.

3. The estimated completion cost of these assets is stated to be Rs.4544.11 lakh. The petitioner has sought approval of transmission charges based on cost of Rs.4224.73 lakh as on 31.3.2004 as under:

(Rs. in lakh)	
<b>Transmission Tariff</b>	<b>2003-2004</b>
Interest on Loan	202.49
Interest on Working Capital	10.85
Depreciation	96.30
Advance against Depreciation	0.29
Return on Equity	53.76
O & M Expenses	127.22
<b>Total</b>	<b>490.91</b>

4. In addition, the petitioner has prayed for approval of other charges like Foreign Exchange Rate Variation, Income Tax, incentive, Development Surcharge, late payment surcharge, other statutory taxes, levies, cess, filing fee, etc in terms of the notification dated 26.3.2001.

5. The petitioner has claimed interest on working capital as per the details given below:

(Rs in lakh)	
	2003-04
Maintenance Spares	16.37
O & M expenses	15.90
Receivables	122.73
Total	155.00
Rate of Interest	10.50%
<b>Interest</b>	16.28
<b>Interest (pro rata)</b>	10.85

### **CAPITAL COST**

6. As laid down in the notification dated 26.3.2001, the project cost, which includes capitalised initial spares for the first 5 years of operation, as approved by CEA or an appropriate independent agency, other than Board of Directors of the generating company, as the case may be, shall be the basis for computation of tariff.

The notification dated 26.3.2001 further provides that the actual capital expenditure incurred on completion of the project shall be criterion for the fixation of tariff. Where the actual expenditure exceeds the approved project cost the expenditure as approved by the CEA or an appropriate independent agency, as the case may be, shall be deemed to be the actual capital expenditure for the purpose of determining the tariff, provided that excess expenditure is not attributable to the `Transmission Utility` or its suppliers or contractors and provided further that where a transmission services agreement entered into between the Transmission Utility and the beneficiary provides a ceiling on capital expenditure, the capital expenditure shall not exceed such ceiling.

7. As per the auditor's certificate furnished by the petitioner on 8.2.2005, the estimated completion cost of the transmission line is Rs 4544.11 lakh. Based on the audited expenditure details submitted by the petitioner, the gross block, including IDC of Rs 640.39 lakh (indicated in the Auditor's certificate), is worked out as under:

Expenditure up to the date of commercial operation (1.8.2003)	:	Rs 4179.42 lakh
Gross block on the date of commercial operation	:	Rs 4179.42 lakh
Expenditure from the date of commercial operation to 31.3.2004	:	Rs 45.31 lakh
Gross block as on 31.3.2004	:	Rs 4224.73 lakh
<b>Total Estimated completion cost</b>	:	<b>Rs 4544.11 lakh</b>

(The above includes initial spares for Rs 128.26 lakh)

8. The tariff is being computed based on the gross block of Rs. 4179.42 lakh as on the date of commercial operation.

## **COST OVERRUN**

9. There is no cost overrun. It is, however, seen that the estimated completion cost of the transmission scheme (Rs. 4544.11 lakh) is much less than the approved cost (Rs.6319 lakh). There is reduction in cost by 28.09% (Rs. 1775 lakh). The petitioner has furnished following reasons for reduction in cost:

- i) IDC has been reduced from Rs. 9.68 Crore to Rs. 5.89 Crore on account of raising of debt at cheaper rates.
- ii) Cost of civil works only to the extent of Rs. 1.87 Crore has been executed as against the provision for Rs. 8.70 Crore in the approved cost.

10. The petitioner has further explained the following reasons for reduction in cost vide affidavit 8.02.2005. It has been stated that the actual expenditure on various components of the line vis-à-vis the component as per approved cost are detailed as under: -

(Rs. in Crore)

<b>Cost Component</b>	<b>Approved Cost</b>	<b>Actual Cost</b>	<b>Difference</b>
LAND	0.98	0.66	0.32
BUILDING	7.61	1.87	5.74
LINE	8.89	5.39	3.50
SUB-STATION	44.49	35.67	8.82
PLCC	1.22	1.85	(-)0.63
<b>TOTAL</b>	<b>63.19</b>	<b>45.44</b>	<b>17.75</b>

11. It has been explained that variation in the project cost is on account of actual line length (16 ckt.Km.) being lower as compared to the line length provided in the approved scheme (30 ckt.Km.), which is due to shifting of the location of the new sub-station from the earlier anticipated location. Further, the award has been placed at lower prices as compared to the prices considered in the estimated approved project

cost, which was based on the awards placed prior to the formation of the estimates. The cost of actual executed civil works is less than to the provision in the approved cost estimate.

12. The phenomenon of approved cost far exceeding the ultimate completion cost has been observed in a number of cases. Previously the Commission had advised the Board of the petitioner's company to be more careful while approving the cost and estimation in future projects. We reaffirm the advice given earlier.

### **TIME OVERRUN**

13. As per original investment approval accorded by the Central Government the assets were scheduled for commissioning by December 2002. However, the transmission assets have been declared under commercial operation w.e.f. 1.8.2003. Thus, there has been a time overrun of about 7 months. The delay was attributed to the following:

- (i) 220 kV bays were ready in October 2002, but due to non-availability of shut down of 220 kV Siliguri-Birpara D/C line the commissioning of bays was delayed as there was considerable load flow through 220 kV D/C Siliguri-Birpara transmission line during and after monsoon period. Therefore, the shut down was proposed to be given in December 2002 when the generation at Chukha HEP was lean.

- (ii) Though there has been delay in commissioning of 220 kV bays, WBSEB system was also not ready for evacuation of power. WBSEB started drawing power w.e.f. 15.9.2003.
- (iii) Law and order situation was not conducive for uninterrupted completion of work. There were hindrances from local villagers during execution of work.
- (iv) LILO of one circuit of 400 kV Bongaigaon-Malda line at Siliguri, 315 MVA ICT, 400kV bays, LILO of 220 kV Birpara-Siliguri along with the associated bays were completed by December 2002. Inspection call was given to CEA for inspection and clearance of the project. CEA had inspected the project in March 2003 and CEA clearance was given in July 2003. The project was declared under commercial operation on 1.8.2003.

14. The first respondent, BSEB vide affidavit dated 2.1.2004 has contended that increase in the capital cost of the assets due to increase in IEDC and IDC for delayed period should not be allowed to be capitalised. Without going into the merits of the rival contention of the petitioner and respondent regarding whether or not the reasons for delay were beyond the control of the petitioner, it has been noted that the estimated competition cost is within the approved cost of the transmission line. Therefore, the time overrun factor is not taken into account.

## **ADDITIONAL CAPITALISATION**

15. The notification dated 26.3.2001 provides that tariff revisions during the tariff period on account of capital expenditure within the approved project cost incurred during the tariff period may be entertained by the Commission if such expenditure exceeds 20% of the approved cost. In all cases, where such expenditure is less than 20%, tariff revision shall be considered in the next tariff period.

16. The petitioner has claimed additional capital expenditure for the period on or after the date of commercial operation in the present petition as per para 7 above. This additional expenditure is less than 20% of the apportioned approved cost. Accordingly, the additional capitalisation has not been considered in the present petition.

## **SOURCES OF FINANCING. DEBT – EQUITY RATIO**

17. As per Para 4.3 of the notification dated 26.3.2001, capital expenditure of the transmission system shall be financed as per approved financial package set out in the techno-economic clearance of CEA or as approved by an appropriate independent agency, as the case may be. Debt-equity ratio or financial package for the asset covered in the present petition is not given separately in the investment approval. The petitioner has claimed tariff by taking debt and equity in the ratio of 88.48:11.52. Since the debt-equity ratio claimed by the petitioner is favourable to the respondents, the same has been considered for determination of tariff in the present petition. Based on this ratio, a total loan of Rs.3698.04 lakh and equity of Rs.481.38 lakh, as on the date of commercial operation, are being considered.



## **INTEREST ON LOAN**

18. As provided in the notification dated 26.3.2001, interest on loan capital is to be computed on the outstanding loans, duly taking into account the schedule of repayment, as per financial package approved by CEA or any independent agency. In keeping with this provision, while calculating Interest on loan, closing balance of the notional loan as on 31.3.2001 has been taken as opening balance of the loan as on 1.4.2001.

19. The interest on loan has been worked out by considering the gross amount of loan, repayments for the year 2003-04 and rates of interest as per the loan details submitted by the petitioner under affidavit dated 18.5.2005.

20. The details of calculation of interest on loan are as given below:

### **Calculation of Interest on Loan**

(Rs. in lakh)

<b>Details of Loan</b>	<b>2003-04</b>
No. of days in the Year	366
<b>Bonds IX</b>	
Gross Loan -Opening	376.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	376.00
Repayment during the year	37.60
Net Loan-Closing	338.40
Rate of Interest	12.25%
Interest	27.91
Repayment Schedule	10 Annual Installments from 22.8.2003
<b>Bonds X</b>	
Gross Loan -Opening	343.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	343.00

Repayment during the year	0.00
Net Loan-Closing	343.00
Rate of Interest	10.90%
Interest	24.92
Repayment Schedule	12 Annual Installments from 21.06.2004
<b>Bond XI Option I</b>	
Gross Loan -Opening	83.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	83.00
Repayment during the year	0.00
Net Loan-Closing	83.00
Rate of Interest	9.80%
Interest	5.42
Repayment Schedule	12 Annual Installments from 07.12.2005
<b>Bonds XII</b>	
Gross Loan -Opening	6.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	6.00
Repayment during the year	0.00
Net Loan-Closing	6.00
Rate of Interest	9.70%
Interest	0.39
Repayment Schedule	12 Annual Installments from 28.03.2006
<b>PNB-II</b>	
Gross Loan -Opening	46.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	46.00
Repayment during the year	0.00
Net Loan-Closing	46.00
Rate of Interest	8.60%
Interest	2.64
Repayment Schedule	12 Annual Installments from 08.03.2005
<b>OBC</b>	
Gross Loan -Opening	38.00
Cumulative Repayment up to date of commercial operation	0.00
Net Loan-Opening	38.00
Repayment during the year	0.00

Net Loan-Closing	38.00
Rate of Interest	8.60%
Interest	2.18
Repayment Schedule	12 Annual Installments from 22.03.2005
<b>ADB-I</b>	
Gross Loan -Opening	2806.04
Cumulative Repayment up to date of commercial operation	133.37
Net Loan-Opening	2672.68
Repayment during the year- 1 <sup>st</sup> December	3.52
Net Loan-Closing	2669.16
Rate of Interest	7.51%
Interest	133.81
Repayment Schedule	Half Yearly Installments- 01.06.2001, 01.12.2001, 01.06.2002, 01.12.2002, 01.06.2003 & 01.12.2003.
<b>Total Loan</b>	
Gross Loan -Opening	3698.04
Cumulative Repayment up to Previous Year	133.37
Net Loan-Opening	3564.68
Repayment during the year	41.12
Net Loan-Closing	3523.56
Interest	197.28

21. In the calculation, the interest on loan has been worked out by considering the gross amount of loan, repayment of installments as per the loan allocation statement up to 2003-04 prepared on the basis of loan allocation details submitted by the petitioner and rate of interest as on date of commercial operation as given in the petition. As the repayment of allocated installments of ADB-I loan commenced from 1.6.2000 and date of commercial operation of the asset covered in petition is 1.8.2003, installments of ADB-I loan before date of commercial operation have been considered in working out the outstanding loan and interest on loan in calculations.

The installment as claimed by the petitioner and as worked out as per the loan allocation statement are as below:

(USD in l.lakh)

	2001-02		2002-03		2003-04	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
1st June	0.000	0.562	0.000	0.620	0.000	0.447
1st December	0.000	0.590	0.000	0.651	1.270	0.076
<b>Total</b>	<b>0.000</b>	<b>1.153</b>	<b>0.000</b>	<b>1.271</b>	<b>1.270</b>	<b>0.523</b>

22. PNB-II, Oriental Bank of Commerce and ADB-I loans carry floating rates of interest. For the purpose of computation of interest on loan, the interest rates as submitted by the petitioner have been taken into consideration. In view of this, any changes/resetting of the interest rate of the above loans during the tariff period covered in this petition would be settled mutually between the parties and in case of their inability to do so, any one of them may approach the Commission for the appropriate decision.

### **DEPRECIATION**

23. Based on the notification dated 26.3.2001, the petitioner is entitled to claim depreciation. The salient provisions for calculation of depreciation as per the notification dated 26.3.2001 are reproduced below:

- (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
- (ii) Depreciation shall be calculated annually as per straight-line method at the rate of depreciation as prescribed in the Schedule attached to the notification dated 26.3.2001 dated 26.3.2001:

Provided that the total depreciation during the life of the project shall not exceed 90% of the approved original cost. The approved original cost shall include additional capitalisation on account of foreign exchange rate variation also.

- (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.
- (v) Depreciation against assets relating to environmental protection shall be allowed on case-to-case basis at the time of fixation of tariff subject to the condition that the environmental standards as prescribed have been complied with during the previous tariff period.

24. The petitioner has claimed depreciation on the capital expenditure of Rs. 4224.73 lakh in accordance with the above principles.

25. Depreciation for individual items of capital expenditure has been calculated on the capital cost of Rs. 4179.42 lakh as considered by us for the purpose of tariff at the rates as prescribed in the notification dated 26.3.2001. While approving depreciation component of tariff, the weighted average depreciation rate of 3.44% has been worked out. The calculations in support of weighted average rate of depreciation of 3.44% are appended hereinbelow:

(Rs. in lakh)

	Capital Cost	Approved cost	Rate of Depreciation	Depreciation
<b>Capital Expenditures as on 1.8.2003</b>				
Land	65.68		0%	0.00
Building & Other Civil Works	187.24		1.80%	3.37
Sub-Station Equipment	3201.94		3.60%	115.27
Transmission Line	538.89		2.57%	13.85
PLCC	185.67		6.00%	11.14
<b>Total</b>	<b>4179.42</b>	<b>6319.00</b>		<b>143.63</b>
<b>Weighted Average Rate of Depreciation</b>			<b>3.44%</b>	

26. Accordingly, depreciation has been allowed as calculated below:

(Rs. in lakh)

		2003-04
Rate of Depreciation	3.44%	
Depreciable Value (90% of the Gross Block)	3761.48	
Balance Useful life of the asset		
Remaining Depreciable Value		3761.48
<b>Depreciation</b>		<b>95.75</b>

### **ADVANCE AGAINST DEPRECIATION**

27. In addition to allowable depreciation, the petitioner becomes entitled to Advance Against Depreciation when originally scheduled loan repayment exceeds the depreciation allowable as per schedule to the notification. Advance Against Depreciation is computed in accordance with the following formula:

AAD = Originally scheduled loan repayment amount subject to a ceiling of 1/12<sup>th</sup> of original loan amount minus depreciation as per schedule.

28. The petitioner has claimed Advance Against Depreciation on the basis of

- (i) 1/12th of gross loan worked out as per the gross block admitted by the Commission in the petition for previous tariff setting,

- (ii) Repayment of loans during the year and in case of foreign currency loan multiplying the repayment with exchange rate as on 31.3.2001 and depreciation on FERV as repayment during the year in the case of notional loan, and
- (iii) Depreciation as claimed in the petition.

29. The entitlement of the petitioner has been considered in accordance with the notification dated 26.3.2001. In the calculation, Advance Against Depreciation has been worked out on the basis of gross loan and repayment and depreciation as worked out above. The petitioner is not entitled to Advance Against Depreciation as calculated below:

(Rs. in lakh)	
<b>Advance Against Depreciation</b>	<b>2003-04</b>
1/12th of Gross Loan(s)	308.17
Scheduled Repayment of the Loan(s)	41.12
Minimum of the above	41.12
Depreciation during the year	95.75
<b>Advance Against Depreciation</b>	<b>0.00</b>

### **OPERATION & MAINTENANCE EXPENSES**

30. In accordance with the notification, Operation and Maintenance expenses, including expenses on insurance, if any, are to be calculated as under:

- i) Where O&M expenses, excluding abnormal O&M expenses, if any, on sub-station (OMS) and line (OML) are separately available for each region, these shall be normalised by dividing them by number of bays and line length respectively. Where data as aforesaid is not available, O&M expenses in the region are to be apportioned to the sub-station

and lines on the basis of 30:70 ratio and these are to be normalised as below:

$$\text{O\&M expenses per Unit of the line length in Kms (OMLL)} = \frac{\text{Expenses for lines (OML)}}{\text{Average line length in Kms (LL)}}$$

$$\text{O\&M expenses for sub-stations (OMBN)} = \frac{\text{O\&M expenses for substations (OMB)}}{\text{Average number of bays (BN)}}$$

- ii) The five years average of the normalised O&M expenses for lines and for bays for the period 1995-96 to 1999-2000 is to be escalated at 10% per annum for two years (1998-99 and 1999-2000) to arrive at normative O&M expenses per unit of line length and per bay for 1999-2000.
- iii) The normative O&M per unit length and normative O&M per bay for the year 1999-2000 for the region derived in the preceding paragraph is to be escalated @ 6% per annum to obtain normative values of O&M expenses per unit per line length and per bay in the relevant year. These normative values are to be multiplied by line length and number of bays (as the case may be) in a given system in that year to compute permissible O&M expenses for the system.
- iv) The escalation factor of 6% per annum is to be used to revise normative base figure of O&M expenses. Any deviation of the escalation factor computed from the actual inflation data that lies within 20% of the notified escalation factor of 6% shall be absorbed by utilities/beneficiaries.

31. The normalised O & M expenses for Eastern Region have been calculated separately in a number of cases. The following table gives comparison of the



normative O&M expenses as calculated by the petitioner and as per our calculations allowed for the base year i.e. 1999-2000 and afterwards:

**NORMALIZED O&M EXPENSES FOR EASTERN REGION**  
( Rs. in lakh)

S. NO.	Items	1995-96	1996-97	1997-98	1998-99	1999-00	Total for five years 95-96 to 99-00	1999-00	2000-01	2001-02	2002-03	2003-04
1	Total O&M expenses(Rs. Lakhs)	2529.29	2601.18	3586.76	4261.31	4490.56						
2	Abnormal O&M expenses	0.00	23.33	0.68	24.78	143.56	192.35					
3	Normal O&M expenses (S.No. 1 -S.NO. 2)	2529.29	2577.85	3586.08	4236.53	4347.00						
4	<b>OML</b> (O&M for lines)= 0.7 X S. NO.3	1770.50	1804.49	2510.25	2965.57	3042.90	<b>12093.71</b>					
5	<b>OMS</b> (O&M for substation) = 0.3XS.NO.3	758.79	773.35	1075.82	1270.96	1304.10	<b>5183.02</b>					
6	Line length at beginning of the year in Kms.	4418.70	4418.70	4418.70	4482.70	4665.70						
7	Line length added in the year in Kms.	0.00	0.00	64.00	183.00	86.00						
8	Line length at end of the year in Kms.	4418.70	4418.70	4482.70	4665.70	4751.70						
9	LL (Average line length in the Region)	4418.70	4418.70	4450.70	4574.20	4708.70	<b>22571.00</b>					
10	NO. of bays at beginning of the year	76	88	88	90	92						
11	NO. of bays added in the year	12	0	2	2	1						
12	NO. of bays at the end of the year	88	88	90	92	93						
13	BN (Average number of bays in the Region)	82.0	88.0	89.0	91.0	92.5	<b>442.50</b>					
14	AVOMLL(OML/LL)	0.40	0.41	0.56	0.65	0.65	2.668					
15	AVOMBN(OMS/BN)	9.25	8.79	12.09	13.97	14.10	58.194					
16	<b>NOMLL(allowable O&amp;M per unit of line length)</b>			<b>0.5335</b>	<b>0.5869</b>	<b>0.6456</b>		<b>0.6456</b>	<b>0.6843</b>	<b>0.7254</b>	<b>0.7689</b>	<b>0.8150</b>
17	<b>NOMBN(Allowable O&amp;M per bay)</b>			<b>11.6389</b>	<b>12.8028</b>	<b>14.0831</b>		<b>14.0831</b>	<b>14.9280</b>	<b>15.8237</b>	<b>16.7731</b>	<b>17.7795</b>
18	<b>NOMLL(as calculated by petitioner)</b>			<b>0.6000</b>				<b>0.7300</b>	<b>0.7700</b>	<b>0.8200</b>	<b>0.8700</b>	<b>0.9200</b>
19	<b>NOMBN(as calculated by petitioner)</b>			<b>13.0500</b>				<b>15.7900</b>	<b>16.7400</b>	<b>17.7400</b>	<b>18.8000</b>	<b>19.9300</b>

32. The differences in NOMLL and NOMBAN as calculated by the petitioner and as allowed are mainly on account of certain expenses disallowed by us. Using these normative values, O&M charges have been calculated.

33. In our calculations the escalation factor of 6% per annum has been used. In accordance with the notification, if the escalation factor computed from the observed data lies in the range of 4.8% to 7.2%, this variation shall be absorbed by the petitioner. In case of deviation beyond this limit, adjustment shall be made on by applying actual escalation factor arrived at on the basis of weighted price index of CPI for industrial workers (CPI\_IW) and index of selected component of WPI (WPI\_TR).

34. The petitioner has claimed O&M expenses for 16 ckt Kms of line length and 10 bays, which have been considered for calculation of O&M expenses.

35. O&M expenses allowed are given hereunder:

<b>2003-04</b>		
<b>Line length in ckt.km</b>	<b>No. of bays</b>	<b>O&amp;M expenses (Rs. in lakh)</b>
<b>16</b>	<b>10</b>	<b>127.22</b>

### **RETURN ON EQUITY**

36. In accordance with the notification, the petitioner is entitled to return on equity at the rate of 16% per annum. For the purpose of tariff equity of Rs. 481.38 lakh has been considered. On the above basis, the petitioner shall be entitled to return on equity of Rs. 51.53 lakh during 2003-04.

## **INTEREST ON WORKING CAPITAL**

37. As provided in the notification, the interest on working capital shall cover:

- (a) Operation and maintenance expenses (cash) for one month;
- (b) Maintenance spares at a normative rate of 1% of the capital cost less 1/5<sup>th</sup> of the initial capitalised spares. Cost of maintenance spares for each subsequent year shall be revised at the rate applicable for revision of expenditure on O & M of the transmission system; and
- (c) Receivables equivalent to two months' average billing calculated on normative availability level, which is 98%.

38. In keeping with the above methodology, working capital has been worked out, on the basis of capital expenditure as on the date of commercial operation. Deduction of 1/5<sup>th</sup> of the initial capitalised spares has been considered in the calculations. The petitioner has claimed interest on working capital at the rate of 10.50%, based on annual SBI PLR for the year 2003-200, which has been allowed. The detailed calculations in support of interest on Working Capital are as under:

### **Interest on Working Capital**

(Rs. in lakh)

		<b>2003-04</b>
<b>Rate of Escalation for maintenance spares</b>		
Maintenance Spares	1%	41.79
Less Capitalised Initial Spares		25.65
		16.14
O & M expenses		15.90
Receivables		120.57
Total		152.61
Rate of Interest		10.50%
<b>Interest</b>		<b>10.68</b>

## **TRANSMISSION CHARGES**

39. In the light of above discussion, we approve the transmission charges as given in the Table below:

**TABLE**

(Rs. in lakh)

<b>Transmission Tariff</b>	<b>2003-04</b>
Interest on Loan	197.28
Interest on Working Capital	10.68
Depreciation	95.75
Advance against Depreciation	0.00
Return on Equity	51.35
O & M Expenses	127.22
<b>Total</b>	<b>482.28</b>

40. 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 notification dated 26.3.2001 subject to directions, if any, of the superior courts. The petitioner shall also be entitled to recovery of filing fee of Rs 2 lakh, which shall be recovered from the respondents in five monthly installments of Rupees forty thousand each and shall be shared by the respondents in the same ratio as other transmission charges.

41. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's interim order. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.

42. The transmission charges approved by us shall be included in the regional transmission tariff for Eastern Region and shall be shared by the regional beneficiaries in accordance with the notification dated 26.3.2001.

43. This order disposes of Petition No.138/2002.

**Sd/-**  
**(BHANU BHUSHAN)**  
**MEMBER**

**sd/-**  
**(K.N. SINHA)**  
**MEMBER**

**Sd/-**  
**(ASHOK BASU)**  
**CHAIRMAN**

New Delhi dated the 13th July 2005