

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 180/2009**

**Coram:**

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri S.Jayaraman, Member**
- 3. Shri V.S.Verma, Member**

**DATE OF HEARING: 14.1.2010**

**DATE OF ORDER: 11.3.2010**

**In the matter of**

Determination of final transmission tariff for (a) LILO of Kolar-Sriperumbudur 400 kV S/C transmission line along with one 50 MVAR reactor at Kalvindapattu (Melakottaiyur); (b) 1st 315 MVA Auto transformer at Kavindapattu sub-station and (c) 2nd 315 MVA Auto transformer at Kalvindapattu sub-station along with associated bays and equipments under "Transmission system associated with Kaiga-3 and 4 (2 x 235 MW) Project" from the date of commercial operation to 31.3.2009 in Southern Region.

**And in the matter of**

Power Grid Corporation of India Limited, Gurgaon

**..Petitioner**

Vs

- 1.Karnataka Power Transmission Corporation Limited, Bangalore
- 2.Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
- 3.Kerala State Electricity Board, Thiruvananthapuram
- 4.Tamil Nadu Electricity Board, Chennai
- 5.Electricity Department, Govt. of Pondicherry, Pondicherry
- 6.Eastern Power Distribution Company of Andhra Pradesh Limited, Vishakhapatnam
7. Southern Power Distribution Company of Andhra Pradesh Limited, Tirupati
8. Central Power Distribution Company of Andhra Pradesh Limited, Hyderabad
9. Northern Power Distribution Company of Andhra Pradesh Limited, Warangal
10. Bangalore Electricity Supply Company Ltd., Bangalore
11. Gulbarga Electricity Supply Company Ltd. Gulbarga
12. Hubli Electricity Supply Company Ltd., Hubli
13. MESCOM Corporate office, Mangalore
- 14.Chamundeswari Electricity Supply Corporation Ltd., Mysore. **..Respondents**

**The following were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M.Mondal, PGCIL
3. Shri Rakesh Prasad, PGCIL
4. Shri S.K.Niranjan, PGCIL
5. Shri Mohd. Mohsin, PGCIL

## ORDER

This petition has been filed seeking approval of transmission charges for (a) LILO of Kolar-Sriperumbudur 400 kV S/C transmission line along with one 50 MVAR reactor at Kalvindapattu (Melakottaiyur) (Asset-I); (b) 1st 315 MVA Auto transformer at Kavindapattu sub-station (Asset-II); and (c) 2nd 315 MVA Auto transformer at Kalvindapattu sub-station (Asset-III) along with associated bays and equipments (collectively referred to as the transmission assets) under "Transmission System associated with Kaiga-3 and 4 (2 x 235 MW) Project"(the transmission system) from the date of commercial operation to 31.3.2009 in Southern Region, 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 capital expenditure from the date of commercial operation to 31.3.2009. The petitioner has also prayed for reimbursement, from the beneficiaries of the expenditure incurred towards publishing of notices in newspapers, petition filing fee and licence fee.

2. The investment approval for the transmission system was accorded by Ministry of Power vide its letter dated 29.3.2005 at an estimated cost of Rs.58825 lakh, including IDC of Rs. 3072 lakh at the 2nd quarter price level. Subsequently, approval for the revised cost estimate was accorded by Board of Directors of the petitioner company vide memorandum dated 29.12.2008 at an estimated cost of Rs. 100716 lakh, which included IDC of Rs. 9503 lakh based on 1st quarter, 2008 price level.

3. The provisional transmission charges for the transmission assets were approved by the Commission vide order dated 24.11.2008 in Petition No.

103/2008. Further, the Commission vide its order dated 15.5.2009 in Petition No. 79/2007 allowed the petitioner to file a combined petition for final transmission tariff in respect of the elements of the transmission system as and when completed.

4. The date of commercial operation of the transmission assets, their apportioned approved cost and estimated completion cost, etc. are as under:

(Rs in lakh)

S. No.	Name of Asset	Date of commercial operation	Apportioned approved cost	Expenditure up to the date of commercial operation	Expenditure from 1.4.2008 to 31.3.2009	Balance Estimated Expenditure
1.	Asset-I	1.6.2008	9596.00	7298.46	718.09	307.60
2.	Asset-II	1.6.2008	3258.00	2379.92	284.61	125.01
3.	Asset-III	1.7.2008	1627.00	1113.04	297.44	50.27

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

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Depreciation	180.17	75.89	34.01
Interest on Loan	415.29	136.47	63.06
Return on Equity	268.00	88.27	39.76
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	28.60	13.89	5.44
O & M Expenses	95.85	164.50	49.35
<b>Total</b>	<b>987.91</b>	<b>479.02</b>	<b>191.62</b>

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

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Maintenance Spares	<b>72.98</b>	<b>23.80</b>	<b>11.13</b>
O & M expenses	<b>9.59</b>	<b>16.45</b>	<b>5.48</b>
Receivables	<b>197.58</b>	<b>95.80</b>	<b>42.58</b>
Total	<b>280.15</b>	<b>136.05</b>	<b>59.19</b>
Rate of Interest	<b>12.25%</b>	<b>12.25%</b>	<b>12.25%</b>
Interest	<b>28.60</b>	<b>13.89</b>	<b>5.44</b>

7. Reply to the petition has been filed by Tamil Nadu Electricity Board (TENB). The petitioner has filed rejoinder on the reply of the TNEB vide its affidavit dated 8.12.2009. 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. TENB, in its reply has raised the following points:

(a) TNEB has filed an appeal before the Hon`ble Appellate Tribunal for Electricity seeking restriction of equity to actual in case the same is less than 30%. The out come of the said Appeal No. 143/2009 shall be applicable in *rem* in respect of the subject asset as the appeal is being on the principle;

(b) Mandatory spares exceed the ceiling norm of 1.5% as prescribed in Regulation 52 of the 2004 regulations, when project cost in the petition is considered on a stand along basis in respect of ICT-I at Kalivandhapattu and LILO of Kolar-Sriperumpudur at Kalivandhattu; and

(c) The petitioner based on the powers vested with them has extended the schedule commissioning date from December 2007 to December 2009 as per revised cost estimate. Therefore, prudence test be applied before accepting the same.

8. As regards the issued raised at (a) above, it is clarified that it is premature to discuss the applicability or otherwise of the judgment in the Appeal which is presently pending before the Appellate Tribunal. A view in this regard will be taken based on the terms of the judgment. As regards the other two points, the same are discussed later in this order under the relevant heads.

#### **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 of 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 in respect of the three assets from the date of commercial operation up to 31.3.2009 based on the capital cost as on the date of commercial operation after accounting for additional capital expenditure and as given in the table below para 4 above.

#### **ADDITIONAL CAPITAL EXPENDITURE 2008-09**

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 the year 2007-08 for Asset-I, for the year 2008-09 Asset-II and Asset-III are given hereunder:

Asset-I			Asset-II			Asset-III		
Year	Amount (Rs. in lakh)	Nature and details of expenditure	Year	Amount (Rs. in lakh)	Nature and details of expenditure	Year	Amount (Rs. in lakh)	Nature and details of expenditure
2007-08	Building, Sub-Station, Transmission line and PLCC: Rs. 718.09 lakh	Balance and retention payments	2008-09	Building, Sub-Station and PLCC: Rs. 284.61 lakh	Balance and retention payments	2008-09	Building and, Sub-Station: Rs. 297.44 lakh	Balance and retention payments
Total	<b>Rs. 718.09 lakh</b>		Total	<b>Rs. 284.61 lakh</b>		Total	<b>Rs. 297.44 lakh</b>	

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 three transmission assets.

## **Time over-run**

14. As per the investment approval, the transmission assets were scheduled to be commissioned by January 2008. However, transmission Asset-I and Asset-II have been declared under commercial operation on 1.6.2008 and Asset-III has been declared under commercial operation on 1.7.2008. Therefore, there is a time delay of about 5 and 6 months in the commissioning of the transmission assets. The petitioner has submitted that the delay was due to delay in forest clearance, cutting of trees, serious ROW problem by the local villagers and various cases filed in Supreme Court and High Court.

15. During the hearing, the petitioner was directed to submit the details regarding the implementation schedule of transmission assets mentioned, time envisaged and actual time taken against various activities.

16. The petitioner vide its affidavit dated 28.1.2010 has submitted the details regarding the implementation schedule of transmission assets mentioned time envisaged and actual time taken against various activities.

17. The petitioner has submitted that 4 months time was envisaged for forest clearance in the implementation schedule. However, during actual execution of the project, 693 meters of forest length covering an area of 3.19 Ha involving 3 tower locations, in Gudalur forest, Kancipuram district in Tamil Nadu required forest clearance which was granted on 18.2.2008, resulting in the overall time period of 17 months. Thus, this activity has taken 13 months extra vis-a-vis envisaged.

18. The petitioner further mentioned that various activities of transmission line construction such as finalisation of tower design and drawings, inspection/type test of towers, supply of towers, insulators and conductors etc. have been carried out parallelly and wherever there was ROW clearance, the foundation, tower erection and stringing activities were completed progressively. The above parallel activities resulted in reduction of the project delay from 13 months to 5 months.

19. According to the petitioner, for erection of the transmission line, the time schedule for various activities have been provided based on the past experience of the terrain, line length and other influencing conditions. No court cases were envisaged before hand. However, 16 locations took around 19 months for resolving. The last case was disposed of on 11.4.2008 involving one number foundation and three number tower erection and after getting clearance, the work on these locations completed and line was declared under commercial operation on 1.6.2008.

20. The Justification submitted by the petitioner has been found in order. Hence delay is condoned.

**Cost over-run**

21. The petitioner has submitted details of capital expenditure up to 31.3.2009 as given in the table below para 4. There has been increase in the estimated cost as per revised cost estimate from the investment approval. In this regard, the petitioner has submitted that the contracts for various packages under this project were awarded to the lowest evaluated and responsive bidder, on the basis of the competitive bidding after publication of the NITs in leading news



papers. Thus, the awarded prices represent the lowest prices available at the time of bidding of various packages.

22. The petitioner further submitted that price variation observed during execution of the project is attributable to the inflationary trend prevailing during execution of the transmission assets and also market forces prevailing at the time of bidding process of various packages for execution of project. Due to these reasons, the estimated cost as per revised cost estimate has been increased. The reasons given by the petitioner are found to be justified.

### Initial spares

23. Clause (1) of the Regulation 52 of the 2004 regulations *inter alia* provides that,-

“(1) Subject to prudence check by the Commission, 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 capitalized initial spares subject to a ceiling norm as 1.5% of original project cost”.

24. The details of actual expenditure incurred and spares included therein by the petitioner as per original scope of project up to 31.3.2009 are as under:-

	Particulars	Capital Expenditures (Rs in lakh)					Remarks
		Up to the date of commercial operation	From the date of commercial operation to 31.3.2008	From 1.4.2008 to 31.3.2009	Total	Initial Spares included therein	
1	LILO of Kolar – Sriperumbudur 400 KV S/C line along with one 50 MVAR reactor at Kalvindapattu	7298.46		718.09	8016.55	155.75	Included in this tariff Petition

	(Melakottaiyur)		--				
2	1st 315 MVA Auto Transformer at Kalvindapattu Substation	2379.92	--	284.61	2664.93	47.02	
3.	2nd 315 MVA Auto Transformer at Kalvindapattu Substation along with associated bays and equipments	1113.04	--	297.44	1410.48	16.59	
4.	50 MVAR Reactor at Narendra	1790.95	151.40	--	1942.35	37.55	
5.	Narendra (POWERGRID) – Devangiri (KPTCL) 400 kV D/C Line and 50 MVAR Bus Reactor at Mysore	16060.82	83.05	--	16143.87	149.09	Final transmission tariff allowed vide petition No. 05/2009
6.	2nd 315 MVA Auto Transformer at Hiriyur Sub Station	2241.67	0.00	--	2241.67	41.33	
	TOTAL	30884.86	234.45	1300.14	32419.85	447.33	

25. Total actual expenditure incurred by the petitioner, for S.No. 1, 2, 3, 4, 5 and 6 above up to 31.3.2008 to 31.3.2009 is Rs. 32419.85 lakh and cost of spares included therein is Rs. 447.33 lakh. The final transmission tariff for the assets at S.No. 3, 4 and 5 has been awarded from the date of commercial operation to 31.3.2008 in Petition No. 5/2009. In respect of total actual expenditure incurred by the petitioner, for the assets at S.No. 1 to 6 above, up to 31.3.2009 is Rs. 32419.85 lakh and cost of spares included therein is Rs. 447.33 lakh. The total cost without initial spares is Rs. 31972.52 lakh and cost of spares, up to 31.3.2009 included therein is Rs. 447.33 lakh which is found within the ceiling of 1.5% as per the 2004 regulations. The cut of date is 31.3.2010. We do not find any justification in the submission by TNEB that the cost of spares to be considered element-wise.

#### **TOTAL CAPITAL COST**

26. 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)			
Name of the asset	Admitted capital cost as on the date of commercial operation	Additional capital expenditure up to 31.3.2009	Total Capital expenditure as on 1.4.2009
Asset-I	7298.46	718.09	8016.55
Asset-II	2379.92	284.61	2664.53
Asset-III	1113.04	297.44	1410.48

### **DEBT- EQUITY RATIO**

27. 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.”

28. Note 1 below Regulation 53 of the 2004 regulations lays down that any expenditure on account of committed liabilities within the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.

29. The petitioner has considered debt-equity ratio of 70:30 for the transmission assets as actually deployed on the date of commercial operation. The petitioner has further considered the amount of additional capitalization in the debt-equity ratio of 70:30 for the three assets. The additional capital expenditure in the ratio of 70:30 has been considered in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:

(Rs. in lakh)				
Assets	Equity on the date of commercial operation	Notional equity due to additional capital expenditure for the period 2008-09	Average equity for 2008-09	Equity for the period 2008-09
Asset-I	2189.46	215.43	2297.17	2404.89
Asset-II	713.92	85.38	756.61	799.30
Asset-III	333.91	89.23	378.53	423.14

#### **RETURN ON EQUITY**

30. 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.

31. Equity has been considered as on the date of commercial operation as given in the table in para 29 above. However, tariff for the period from date of commercial operation to 31.3.2009 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
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	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Return on equity	268.00	88.27	39.75

### **INTEREST ON LOAN**

32. 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.”

33. In our calculation, 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 as per the petition.

(b) Notional loan arising out of additional capital expenditure from date of commercial operation to 31.3.2009 has been added to the loan amount as on date of commercial operation to arrive at total Notional loan. This adjusted Gross loan has been considered as normative loan for tariff calculations.

(c) Tariff has been worked out considering normative loan and normative repayment. Normative repayments have been worked out by the following formula:

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

(d) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation 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 (a) above has been applied on the notional average loan during the year to arrive at the interest on loan.

(f) Short-term loan from Bank of Baroda was replaced by Bond XXVIII w.e.f. 15.12.2008. Weighted average rate of interest for 2008-09 has been considered based on number of days while working out the weighted average rate of interest on actual loan.

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

	(Rs. in lakh)		
	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Gross Normative Loan	5109.00	1666.00	779.13
Cumulative Repayment up to Previous Year/date of commercial operation	0.00	0.00	0.00
Net Loan-Opening	5109.00	1666.00	779.13
Addition due to Additional capital expenditure	502.66	199.23	208.21
Repayment during the year	180.17	75.89	34.01
Net Loan-Closing	5431.49	1789.34	953.33
Average Loan	5270.25	1727.67	866.23
Weighted Average Rate of Interest on Loan	9.46%	9.48%	9.71%
Interest	<b>415.29</b>	<b>136.47</b>	<b>63.06</b>

35. The detailed calculations in support of the weighted average rate of interest in respect of the three assets are contained in Annexure-I, Annexure-II and Annexure-III, respectively attached to this order.

### **DEPRECIATION**

36. 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."

37. Based on the above, depreciation allowed has been worked out as below:

(Rs. in lakh)

	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Gross block as on the date of commercial operation	7298.46	2379.92	1113.04
Addition due to Additional Capitalisation during 2008-09	718.09	284.61	297.44
Gross Block at the end of the year	8016.55	2664.53	1410.48
Rate of Depreciation	2.8235%	3.6106%	3.5937%
Depreciable Value	6566.91	2270.00	1135.58
Balance Useful life of the asset	-	-	-
Remaining Depreciable Value	6566.91	2270.00	1135.58
Depreciation	<b>180.17</b>	<b>75.89</b>	<b>34.01</b>

### **ADVANCE AGAINST DEPRECIATION**

38. 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

39. 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.

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

#### **OPERATION & MAINTENANCE EXPENSES**

41. 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

42. The petitioner has claimed O & M expenses for 61.346 ckt.km and three bays for Asset-I, six bays for Asset- II and two bays for Asset-III which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

Asset- I		Asset-II		Asset-III	
	2008-09 (Pro rata)		2008-09 (Pro rata)		2008-09 (Pro rata)
O&M expenses for 61.346 ckt km	13.60		-		-
O&M expenses for 3 bays	82.25	O&M expenses for 6 bays	164.50	O&M expenses for 2 bays	49.35

(Rs. in lakh)

Total	95.85		164.50		49.35
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43. 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 actual based on the auditor's certificate for such extra employee cost. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for relief in this regard at an appropriate stage in accordance with law.

#### **INTEREST ON WORKING CAPITAL**

44. 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 where applicable.

##### **(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 of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 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 1.4.2008 for the transmission assets, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)			
	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09	2008-09 (Pro rata)	2008-09 (Pro rata)

	(Pro rata)		
Maintenance Spares	72.98	23.80	11.13
O & M expenses	9.58	16.45	5.48
Receivables	197.58	95.80	42.58
Total	280.15	136.05	59.19
Rate of Interest	12.25%	12.25%	12.25%
Interest	<b>28.60</b>	<b>13.89</b>	<b>5.44</b>

### **TRANSMISSION CHARGES**

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

	(Rs. in lakh)		
	<b>Asset- I</b>	<b>Asset-II</b>	<b>Asset-III</b>
	2008-09 (Pro rata)	2008-09 (Pro rata)	2008-09 (Pro rata)
Depreciation	180.17	75.89	34.01
Interest on Loan	415.29	136.47	63.06
Return on Equity	268.00	88.27	39.75
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	28.60	13.89	5.44
O & M Expenses	95.85	164.50	49.35
Total	<b>987.91</b>	<b>479.02</b>	<b>191.61</b>

47. 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.

48. The petitioner has sought approval for the reimbursement of expenditure of Rs. 1,79,125/- 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.

49. The reimbursement of filing fee is not being allowed in terms of the Commission's order dated 11.9.2008 in Petition No. 129/2005. Decision in regard in licence fee will be communicated separately.

50. Transmission charges for Asset-I shall be shared by all Southern Region beneficiaries as the 2004 regulations and for Asset-II and Asset-III shall be borne by TNEB only in accordance with order dated 28.3.2008 in Petition No. 85/2007 to segregate the cost of ICTs and downstream system from the rest of the scheme and make charges liability of the local beneficiary.

51. This order disposes of Petition No. 180/2009.

Sd/-  
**(V.S.VERMA)**  
**MEMBER**

sd/-  
**(S.JAYARAMAN)**  
**MEMBER**

sd/-  
**(DR.PRAMOD DEO)**  
**CHAIRPERSON**

Asset-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
(Rs. in lakh)		
	Details of Loan	2008-09
<b>1</b>	<b>Bond-XIX</b>	
	Gross Loan opening	10.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	10.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	10.00
	Average Loan	10.00
	Rate of Interest	9.25%
	Interest	0.93
	Repayment Schedule	12 Annual instalments from 24.7.2010
<b>2</b>	<b>Bond-XX</b>	
	Gross Loan opening	30.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	30.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	30.00
	Average Loan	30.00
	Rate of Interest	8.93%
	Interest	2.68
	Repayment Schedule	12 Annual instalments from 7.9.2010
<b>3</b>	<b>Bond-XXI</b>	
	Gross Loan opening	200.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.73%
	Interest	17.46
	Repayment Schedule	12 Annual instalments from 11.10.2010
<b>4</b>	<b>Bond-XXII</b>	
	Gross Loan opening	1700.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	1700.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1700.00
	Average Loan	1700.00
	Rate of Interest	8.68%

	Interest	147.56
	Repayment Schedule	12 Annual instalments from 7.12.2010
<b>5</b>	<b>Bond-XXIV</b>	
	Gross Loan opening	900.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	900.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	900.00
	Average Loan	900.00
	Rate of Interest	9.95%
	Interest	89.55
	Repayment Schedule	12 Annual instalments from 26.3.2011
<b>6</b>	<b>Bond-XXV</b>	
	Gross Loan opening	1200.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	1200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1200.00
	Average Loan	1200.00
	Rate of Interest	10.10%
	Interest	121.20
	Repayment Schedule	12 Annual instalments from 12.6.2011
<b>7</b>	<b>Bond-XXVI</b>	
	Gross Loan opening	1069.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	1069.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1069.00
	Average Loan	1069.00
	Rate of Interest	9.30%
	Interest	99.42
	Repayment Schedule	12 Annual instalments from 7.3.2012
<b>8</b>	STBL From BOB 29-SEP-1008 TO 14-DECEMBER-2008 @ 12.5% replaced by BOND XXVIII @ 9.33% from 15 December 2008 (AAD CAP FOR 2008-2009 DRAWL ON 15-DEC-2008)	
	Gross Loan opening	0.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	718.09
	Repayment during the year	0.00
	Net Loan-Closing	718.09
	Average Loan	359.05
	Rate of Interest	10.66%
	Interest	38.26
	Repayment Schedule	12 Annual instalments from 15.12.2012

	<b>Total Loan</b>	
	Gross Loan opening	5109.00
	Cumulative Repayment up to the date of commercial operation	0.00
	Net Loan-Opening	5109.00
	Additions during the year	718.09
	Repayment during the year	0.00
	Net Loan-Closing	5827.09
	Average Loan	5468.05
	Rate of Interest	9.46%
	<b>Interest</b>	517.05



Asset-II

		(Rs. in lakh)
	Details of Loan	2008-09
<b>1</b>	<b>Bond-XX</b>	
	Gross Loan opening	20.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	20.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	20.00
	Average Loan	20.00
	Rate of Interest	8.93%
	Interest	1.79
	Repayment Schedule	12 Annual instalments from 7.9.2010
<b>2</b>	<b>Bond-XXI</b>	
	Gross Loan opening	50.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	50.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	50.00
	Average Loan	50.00
	Rate of Interest	8.73%
	Interest	4.37
	Repayment Schedule	12 Annual instalments from 11.10.2010
<b>3</b>	<b>Bond-XXII</b>	
	Gross Loan opening	200.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.68%
	Interest	17.36
	Repayment Schedule	12 Annual instalments from 7.12.2010
<b>4</b>	<b>Bond-XXIV</b>	
	Gross Loan opening	200.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	9.95%
	Interest	19.90

	Repayment Schedule	12 Annual instalments from 26.3.2011
<b>5</b>	<b>Bond-XXV</b>	
	Gross Loan opening	200.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	10.10%
	Interest	20.20
	Repayment Schedule	12 Annual instalments from 12.6.2011
<b>6</b>	<b>Bond-XXVI</b>	
	Gross Loan opening	996.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	996.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	996.00
	Average Loan	996.00
	Rate of Interest	9.30%
	Interest	92.63
	Repayment Schedule	12 Annual instalments from 7.3.2012
<b>7</b>	<b>BOND XXVIII (AAD CAP FOR 2008-2009 DRAWL ON 15-DEC-2008)</b>	
	Gross Loan opening	0.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	284.61
	Repayment during the year	0.00
	Net Loan-Closing	284.61
	Average Loan	142.31
	Rate of Interest	10.66%
	Interest	15.16
	Repayment Schedule	12 Annual instalments from 15.12.2012
	<b>Total Loan</b>	
	Gross Loan opening	1666.00
	Cumulative Repayment up to the date of commercial operation	0.00
	Net Loan-Opening	1666.00
	Additions during the year	284.61
	Repayment during the year	0.00
	Net Loan-Closing	1950.61
	Average Loan	1808.31
	Rate of Interest	9.48%
	<b>Interest</b>	171.40

## Asset-III

		(Rs. in lakh)	
	Details of Loan	2008-09	
<b>1</b>	<b>Bond-XXV</b>		
	Gross Loan opening	220.00	
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	
	Net Loan-Opening	220.00	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	220.00	
	Average Loan	220.00	
	Rate of Interest	10.10%	
	Interest	22.22	
	Repayment Schedule	12 Annual instalments from 12.6.2011	
<b>2</b>	<b>Bond-XXVI</b>		
	Gross Loan opening	559.00	
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	
	Net Loan-Opening	559.00	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	559.00	
	Average Loan	559.00	
	Rate of Interest	9.30%	
	Interest	51.99	
	Repayment Schedule	12 Annual instalments from 7.3.2012	
<b>3</b>	<b>STBL From BOB 29-SEP-2008 to 14-DEC-2008 @ 12.5% Replaced by BOND XXVIII @ 9.33% from 15-DEC-2008 (AAD CAP FOR 2008-2009 DRAWL ON 15-DEC-2008)</b>		
	Gross Loan opening	0.00	
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	
	Net Loan-Opening	0.00	
	Additions during the year	297.44	
	Repayment during the year	0.00	
	Net Loan-Closing	297.44	
	Average Loan	148.72	
	Rate of Interest	10.66%	
	Interest	15.85	
	Repayment Schedule	12 Annual instalments from 15.12.2012	
	<b>Total Loan</b>		
	Gross Loan opening	779.00	
	Cumulative Repayment up to the date of commercial operation	0.00	
	Net Loan-Opening	779.00	
	Additions during the year	297.44	
	Repayment during the year	0.00	
	Net Loan-Closing	1076.44	
	Average Loan	927.72	
	Rate of Interest	9.71%	
	Interest	90.06	