

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.193/2010

Coram:

1. **Shri S.Jayaraman, Member**
2. **Shri V.S.Verma, Member**
3. **Shri M.Deena Dayalan, Member**

DATE OF HEARING: 23.12.2010

DATE OF ORDER: 5.5.2011

In the matter of

Approval of transmission tariff for combined assets for (a) 400 kV Ramagundam-Hyderabad D/C transmission line; (b) 400 kV S/C Gooty-Neelmangala transmission line; (c) 400 kV Hyderabad-Kurnool-Gooty transmission line and (d) 400 kV S/C Khammam-Nagarjunasagar transmission line along with associated bays and equipment under Ramagundam Stage-III Transmission System in Southern Region for the period from 1.4.2009 to 31.3.2014.

**And
In the matter of**

Power Grid Corporation of India Limited, Gurgaon

..Petitioner

Vs

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

.Respondents



The following were present:

1. Shri M.M. Mondal, PGCIL
2. Shri Rakesh Prasad, PGCIL
3. Shri Rajiv Gupta, PGCIL

ORDER

The petition has been filed seeking approval of combined assets for (a) 400 kV Ramagundam-Hyderabad D/C transmission line; (b) 400 kV S/C Gooty-Neelmangala transmission line; (c) 400 kV Hyderabad-Kurnool-Gooty transmission line; and (d) 400 kV S/C Khammam-Nagarjunasagar transmission line (hereinafter referred to as 'the transmission assets') along with associated bays and equipment under Ramagundam Stage-III Transmission System (hereinafter referred to as 'the transmission system') in Southern Region for the period 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations") after accounting for addition capital expenditure incurred during 2012-13. The petitioner has made the following additional prayers:-

(a) To invoke the provision of Regulation 44 of the 2009 regulations for relaxation of regulations 15 (3) of the 2009 regulations so that grossing up the base rate shall be allowed considering the tax rates viz, MAT, surcharge, any other cess, charges, levies etc. As per the relevant Finance Act and allow consequential impact of tariff on account of trueing up for 2009-14 period accordingly;

(b) In case of the assets being combined to calculate the transmission charges, allow to recover full depreciation (90% of the gross block) of

the asset during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of the commercial operation and also permit to treat the recovery in accordance with para 11.2 of the petition;

(c) Allow to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2009-14, if any from the respondents;

(d) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations;

(e) Allow to bill and recover the service tax on transmission charges separately from the respondents, if the petitioner is subjected to such service tax; and

(f) Allow reimbursement of licence fee separately from the respondents.

2. The petitioner has submitted that in accordance with the procedure for combining of assets as decided by the Commission in the letter reference No. C-7/189(204)/2009-CERC, dated 23.10.2009, the following elements under Ramagundum Stage-III Transmission system in Southern Region have been clubbed for the purpose of determination of transmission charges:

| Assets | Name of the asset | Date of commercial operation |
|-----------|--|------------------------------|
| Asset-I | 400 kV Ramagundam-Hyderabad D/C transmission line. | 1.11.2004 |
| Asset-II | 400 kV S/C Gooty-Neelmangala transmission line. | 1.5.2005 |
| Asset-III | 400 kV S/C Hyderabad-Kurnool-Gooty transmission line . | 1.3.2005 |
| Asset-IV | 400 kV S/C Khammam-Nagarjunasagar transmission line . | 1.3.2004 |

3. The petitioner has submitted that the notional date of commercial operation of the combined assets has been considered as 1.5.2005.

4. The revised transmission charges up to 31.3.2009 were decided by the Commission in its order dated 3.2.2009 in Petition No. 113/2008, after accounting for the additional capital expenditure up to 31.3.2009.

5. The petitioner has claimed the transmission charges in respect of the transmission scheme as under:

(₹ in lakh)

| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| Depreciation | 1578.63 | 1578.63 | 1578.63 | 1596.62 | 1614.62 |
| Interest on Loan | 741.52 | 674.57 | 608.16 | 562.57 | 515.92 |
| Return on Equity | 1137.61 | 1137.61 | 1137.61 | 1155.48 | 1173.36 |
| Interest on Working Capital | 117.33 | 118.51 | 119.88 | 122.57 | 125.40 |
| O & M Expenses | 904.86 | 956.34 | 1011.34 | 1069.25 | 1130.17 |
| Total | 4479.95 | 4465.66 | 4455.62 | 4506.49 | 4559.47 |

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

(₹ in lakh)

| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|------------------------------------|---------------|---------------|---------------|----------------|----------------|
| Maintenance Spares | 135.73 | 143.45 | 151.70 | 160.39 | 169.53 |
| O & M expenses | 75.41 | 79.70 | 84.28 | 89.10 | 94.18 |
| Receivables | 746.66 | 744.28 | 742.60 | 751.08 | 759.91 |
| Total | 957.80 | 967.43 | 978.58 | 1000.57 | 1023.62 |
| Rate of Interest | 12.25% | 12.25% | 12.25% | 12.25% | 12.25% |
| Interest on Working Capital | 117.33 | 118.51 | 119.88 | 122.57 | 125.39 |

7. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Tamil Nadu Electricity Board (TNEB). The main issues raised by TNEB pertains to the

petitioner's claim of additional capital expenditure, MAT, reimbursement of filing fee, publication expenses, service tax and licence fee. etc. The issues have been addressed in relevant paras of this order.

CAPITAL COST

8. The last proviso to clause (2) of Regulation 7 of the 2009 regulations provides as under:

“Provided that in case of the existing projects, capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission, shall form the basis for determination of tariff.”

9. The petitioner has claimed the capital expenditure of ₹29838.35 lakh, which was admitted vide order dated 3.2.2009 in Petition No. 113/2008.

ADDITIONAL CAPITAL EXPEDNTURE

10. Regulation 9 of the 2009 regulations provides as under:

(1) The capital expenditure incurred or projected to be incurred, on the following counts with in original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulating 8 ;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in law;

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of the tariff.

(2) The capital expenditure incurred on the following counts after the cut-off-date, in its discretion, be admitted by the Commission, subject to prudence check:



- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) *****
- (iv) *****
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of the transmission system.

11. The details submitted by the petitioner in support of its claim for projected additional capital expenditure for the transmission line is given hereunder:

| | Years | Nature and details of expenditure | Amount (₹ in lakh) |
|-----------------|---------|--|-----------------------|
| Asset-I | 2012-13 | Transmission line-Tower Strengthening | 372.60 |
| Asset-II | 2012-13 | Transmission line- Tower Strengthening | 309.00 |
| | | Total | 681.60 |

12. The petitioner has claimed additional capital expenditure of ₹ 681.60 lakh during 2012-13 on account of strengthening of the transmission towers. It has been submitted that a committee consisting of the experts from CEA and Power Grid while investigating the cases of the tower collapse in May and June 2009 observed that these failures occurred due to failure of suspension towers only. A Standing Committee of Experts constituted by Central Electricity Authority in its meeting dated 29.5.2009 also discussed the issue of towers failures. The Committee acknowledged the fact the towers were designed as

per IS:802:1977 prevalent at that time and subsequently, wind patterns in the country have changed. The Committee observed that tower failures occurred because of high velocity wind acting on the towers. The Committee advised that action should be taken to provide hip bracing upto bottom cross arm in order to increase the strength of suspension towers. Accordingly, the petitioner has decided to strengthen the suspension towers up to bottom cross arm level and projected the additional capital expenditure for that purpose during the year 2012-13.

13. TNEB in its reply dated 5.10.2010 has submitted that while designing the towers, a factor of safety has been built in to take care of any possible change in the basic parameters considered. Therefore, a factor of safety must be available in the changed situation to ensure safety of the suspension towers in the Southern Region. TNEB has further submitted that if it is considered absolutely necessary to introduce hip bracings upto bottom cross arm of all the suspension towers, then the expenditure can be recovered in three annual instalments after completion of the work instead of treating it as additional capital expenditure and awarding tariff to be recovered till the useful life of the asset.

14. We have examined the issue of tower strengthening keeping in view the following two factors:

- (i) Design deficiency in transmission line due to prevalent tower design standard at the time of construction; and/or



(ii) Change in wind speed as compared to wind speed considered at the time of construction.

15. It is observed that the transmission lines were designed as per design of transmission line (S.N 3 IS-802-1995, with 0% wind in broken wire condition-applicable from 1995-2001), which has now been modified to 75% wind in BWC with narrow front wind. Due to this, strengthening of suspension type tower is required. The Standing Committee of Experts constituted by the Central Electricity Authority to investigate failure of transmission line towers during the months of January 2009 to June, 2009 has recommended that in order to minimize the failure in existing lines, hip bracing up to bottom cross level, in all the suspension towers of all the transmission lines designed after 1995 should be provided in different phases keeping in view of priority of the transmission lines and in future, PGCIL should make provision for hip bracing on all the suspension.

16. Keeping in view the design of towers for a lower standard, change of wind zone and the recommendations of the Standing Committee of Experts for strengthening of existing towers, we are of the view that projected additional capital expenditure towards strengthening of towers during the year 2012-13 are considered essential for efficient and successful operation of the transmission system. Since the expenditure are proposed to be incurred after the cut-off date, we relax the provisions of Regulation 9 (2) of the 2009



regulations in the light of our decision in order dated 8.2.2011 in Petition No. 176/2010 and allow capitalization of ₹ 681.60 lakh during 2012-13.

TOTAL CAPITAL COST

17. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission asset, after allowing projected additional capital expenditure as claimed by the petitioner:

| (₹ in lakh) | | |
|---|---|-----------------------------------|
| Admitted capital cost as on the 31.3.2009 | Projected additional capital expenditure proposed to be incurred during 2012-13 | Total capital cost as on 1.4.2014 |
| 29838.35 | 681.60 | 30519.95 |

DEBT- EQUITY RATIO

18. Clause (1) and Clause (2) of Regulation 12 of the 2009 regulations *inter- alia* provides that,-

"(1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered."

19. The petitioner has claimed tariff based on debt-equity ratio of 80.10:19.90. The petitioner has further claimed the amount of additional capital expenditure in the debt-equity ratio of 70:30 for the year 2012-13, same has



been considered for the calculation of tariff. For the purpose of tariff, equity considered for the transmission asset is as under:

(₹ in lakh)

| Equity as on 1.4.2009 | Notional equity due to projected additional capital expenditure for the period 2009-10 | Average equity for 2009-12 | Notional equity due to additional capital expenditure for the period 2012-13 | Average equity for 2012-13 | Notional Equity for the period 2013-14 | Average equity for 2013-14 |
|-----------------------|--|----------------------------|--|----------------------------|--|----------------------------|
| 6507.69 | 0.00 | 6507.69 | 204.48 | 6609.93 | 0.00 | 6712.17 |

RETURN ON EQUITY

20. Regulation 15 of the 2009 regulations provides that,-

“ 15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff petition filed for the next tariff period.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with clause (3) of this regulation.”

21. TENB has submitted that the reimbursement of impact of tariff on account of change in income tax rates during the tariff period should be allowed as per the 2009 regulations. The petitioner has submitted that it would approach the Commission if and when the applicable MAT rate undergoes change or is revised as per the Finance Act of respective year as provided under Regulation 15 (3) of the 2009 regulations. The Commission is in the process of amending the regulation to allow grossing up of the ROE as per the applicable MAT rate in accordance with the relevant Finance Act which would take care of the interest of the petitioner.

22. Accordingly, the return on equity has been computed as per the existing provision of Regulation 15 (3) of 2009 regulation as under:

| | (₹ in lakh) | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Opening Equity as on 1.4.2009 | 6507.69 | 6507.69 | 6507.69 | 6507.69 | 6712.17 |
| Addition due to Additional Capitalisation | 0.00 | 0.00 | 0.00 | 204.48 | 0.00 |
| Closing Equity | 6507.69 | 6507.69 | 6507.69 | 6712.17 | 6712.17 |
| Average Equity | 6507.69 | 6507.69 | 6507.69 | 6609.93 | 6712.17 |
| Return on Equity (Base Rate) | 15.50% | 15.50% | 15.50% | 15.50% | 15.50% |
| Tax rate for the year 2008-09 | 11.330% | 11.330% | 11.330% | 11.330% | 11.330% |
| Rate of Return on Equity (Pre Tax) | 17.481% | 17.481% | 17.481% | 17.481% | 17.481% |
| Return on Equity (Pre Tax) | 1137.61 | 1137.61 | 1137.61 | 1155.48 | 1173.35 |

INTEREST ON LOAN

23. Regulation 16 of the 2009 regulations provides as under:

"16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

24. TNEB has submitted that the Commission should allow adjustment of billing on impact on interest on loan component on account of change in floating rate of interest, if any at the end of tariff period. In response, the petitioner has submitted that Commission allowed direct settlement with the beneficiaries any change in interest on account

of floating rate of interest for the tariff period 2004-09. The change in interest rate may increase or decrease during the tariff period and hence it would be fair to allow annual adjustment of difference in interest rate. Therefore, the PGCIL has followed the same practice with regard to claiming change in interest due to floating rate of interest for the tariff period 2009-14.

25. As per Regulation 16(5) of the 2009 regulations, the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio. However, the petitioner has considered proposed domestic loan (with interest rate @8.84%) for the additional capital expenditure during 2012-13 in actual loan portfolio for the computation of weighted average rate of interest which is not in conformity with the 2009 regulations. Therefore, the same has not been considered for the purpose of calculation.

26. The interest on loan has been worked out as detailed below:

- (i) The gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;
- (ii) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period;
- (iii) Moratorium period availed by the transmission licensee, the repayment of the loan have been e considered from the first year

of commercial operation of the project and shall be equal to the annual depreciation allowed;

(iv) Weighted average rate of interest on actual loan has been worked out and applied on the average loan during the year to arrive at the interest on loan; and

(v) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. Any change in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

27. The detailed calculations in support of the weighted revised average rate of interest are contained in **Annexure** attached to this order. Based on the above, the year-wise details of interest worked out are given hereunder:

(₹ in lakh)

| Details of loan | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|---|----------|---------------|---------------|---------------|---------------|---------------|
| Gross Normative Loan | 23330.66 | 23330.66 | 23330.66 | 23330.66 | 23330.66 | 23807.78 |
| Cumulative repayment up to previous year | | 3899.83 | 5478.46 | 7057.09 | 8635.72 | 10232.34 |
| Net Loan-Opening | | 19430.82 | 17852.19 | 16273.57 | 14694.94 | 13575.44 |
| Addition due to additional capitalisation | | 0.00 | 0.00 | 0.00 | 477.12 | 0.00 |
| Repayment during the year | | 1578.63 | 1578.63 | 1578.63 | 1596.62 | 1614.62 |
| Net loan-closing | | 17852.19 | 16273.57 | 14694.94 | 13575.44 | 11960.82 |
| Average Loan | | 18641.51 | 17062.88 | 15484.25 | 14135.19 | 12768.13 |
| Weighted Average rate of interest on loan | | 3.9778% | 3.9534% | 3.9276% | 3.8997% | 3.8689% |
| Interest | | 741.52 | 674.57 | 608.15 | 551.23 | 493.99 |

DEPRECIATION

28. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner:

“17. (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

xxxx

xxxx

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

29. The transmission assets were declared under commercial operation w.e.f. 1.5.2005 and accordingly will complete 12 years beyond 2013-14 and thus, depreciation has been calculated annually based on Straight Line

Method and at rates specified in **Appendix-III** of the 2009 regulations.

Accordingly, depreciation works out is as under:

(₹ in lakh)

| Details of loan | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|--|----------|----------------|----------------|----------------|----------------|----------------|
| Gross block as on 31.3.2009 | 29838.35 | 29838.35 | 29838.35 | 29838.35 | 29838.35 | 30519.95 |
| Addition during 2009-14 due to projected Additional Capitalisation | | 0.00 | 0.00 | 0.00 | 681.60 | 0.00 |
| Average Gross Block | | 29838.35 | 29838.35 | 29838.35 | 30519.95 | 30519.95 |
| Gross block as on 31.3.2009 | | 29838.35 | 29838.35 | 29838.35 | 30179.15 | 30519.95 |
| Rate of depreciation | | 5.2906% | 5.2906% | 5.2906% | 5.2905% | 5.2904% |
| Depreciable Value | 90% | 26854.51 | 26854.51 | 26854.51 | 27161.23 | 27467.95 |
| Remaining depreciable Value | | 22962.43 | 21383.80 | 19805.18 | 18533.27 | 17243.37 |
| Depreciation | | 1578.63 | 1578.63 | 1578.63 | 1596.62 | 1614.62 |

OPERATION & MAINTENANCE EXPENSES

30. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C Twin conductor, 400 kV S/C twin conductor transmission lines and 400 kV bays have been specified for O & M expenses:

| | Year | | | | |
|---|---------|---------|---------|---------|---------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| 400 kV D/C transmission line (Twin conductor) (₹ in lakh /km) | 0.672 | 0.663 | 0.701 | 0.741 | 0.783 |
| 400 kV S/C transmission line (Twin conductor) (₹ in lakh /km) | 0.358 | 0.378 | 0.400 | 0.423 | 0.447 |
| 400 kV bay (₹ in lakh per bay) | 52.40 | 55.40 | 58.57 | 61.92 | 65.46 |

31. The petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(₹ in lakh)

| | Year | | | | |
|---|---------------|---------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| O & M for 400 kV D/C Twin conductor transmission line (201.25 ckt/km) | 126.18 | 133.43 | 141.08 | 149.13 | 157.57 |
| O & M for 400 kV S/C Twin conductor transmission line (711.4 ckt/km) | 254.68 | 268.91 | 284.56 | 300.92 | 318.00 |
| O & M for 400 kV bays (10 bays) | 524.00 | 554.00 | 585.70 | 619.20 | 654.60 |
| Total | 904.86 | 956.34 | 1011.34 | 1069.25 | 1130.17 |

32. The petitioner has submitted that O & M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O & M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O & M charges for 2009-14 periods. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%.

33. TNEB has requested to negate the request for revision of the normative O & M expenses considering the impact of wage revision w.e.f 1.1.2007 as the 2009 regulations do not provide for revisiting the normative O & M charges. In regard to O & M, the petitioner has submitted that per ckt. km. and per bay O & M rates considered are based on the 2009 regulations. The petitioner has submitted that the wage revision for the executive levels has already been done, however, for the non-executive levels, the wage revision shall be done shortly. The petitioner proposes to approach the Commission for additional manpower cost on account of wage revision during the period 2009-14 if it is in excess 50% as provided in the 2009 regulations. With reference to the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.



INTEREST ON WORKING CAPITAL

34. The components of the working capital and the interest thereon are discussed hereunder:

(i) **Receivables:** As per Regulation 18(1)(c)(i) of the 2009 regulations, receivables will be equivalent to two months of annual transmission charges. 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 2 months' transmission charges.

(ii) **Maintenance spares:** Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses specified in Regulation 19. The value of maintenance spares has been accordingly worked out.

(iii) **O & M expenses:** Regulation 18(1)(c)(iii) of the 2009 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 which has been considered for computing working capital.

(iv) **Rate of interest on working capital:** As per Regulation 18(3) of the 2009 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 1.4.2009 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 petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

35. The computations in support of interest on working capital are given as under:

| | (₹ in lakh) | | | | |
|------------------------------------|---------------|---------------|---------------|---------------|-----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance Spares | 135.73 | 143.45 | 151.70 | 160.39 | 169.53 |
| O & M expenses | 75.41 | 79.70 | 84.28 | 89.10 | 94.18 |
| Receivables | 746.66 | 744.28 | 742.60 | 749.15 | 756.18 |
| Total | 957.79 | 967.42 | 978.58 | 998.64 | 1,019.88 |
| Rate of Interest | 12.25% | 12.25% | 12.25% | 12.25% | 12.25% |
| Interest on working capital | 117.33 | 118.51 | 119.88 | 122.33 | 124.94 |

TRANSMISSION CHARGES

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

| | (₹ in lakh) | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Depreciation | 1578.63 | 1578.63 | 1578.63 | 1596.62 | 1614.62 |
| Interest on Loan | 741.52 | 674.57 | 608.15 | 551.23 | 493.99 |
| Return on Equity | 1137.61 | 1137.61 | 1137.61 | 1155.48 | 1173.35 |
| Interest on Working Capital | 117.33 | 118.51 | 119.88 | 122.33 | 124.94 |
| O & M Expenses | 904.86 | 956.34 | 1011.34 | 1069.25 | 1130.17 |
| | 4479.95 | 4465.65 | 4455.61 | 4494.92 | 4537.06 |

Application fee and the publication expenses

37. TNEB has submitted that the claim of filing fee should be dealt as per the decision taken by Commission vide order dated 11.9.2008 in Petition No. 129/2005 (*Suo motu*). It is clarified that the said decision was applicable to the tariff period 2004-09. However, Regulation 42 of the 2009 regulation provides for reimbursement of filing fees and expenses on publication of notices may be allowed in the discretion of the Commission. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries on pro rata basis. The petitioner shall also be entitled for reimbursement of publication expenses from the beneficiaries on pro-rata basis.

Service Tax

38. TENB has requested to defer the decision on service tax claim unit disposal of Petition No. 62/2009. The Government of India vide its notification dated 27.2.2010 has also exempted transmission services from the purview of levy of service tax. It is clarified that the prayer of the petitioner for reimbursement of service tax has become infructuous as transmission service has been exempted from the ambit of the service tax.

Licence fee

39. TNEB has requested to negate the claim for reimbursement of license fee as the 2009 regulations does not make any provisions for reimbursement

of licence fee. It is clarified that a view in the matter is yet to be taken by the Commission.

40. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.

41. This order disposes of Petition No. 193/2010.

Sd/-

(M.Deena Dayalan)
Member

Sd/-

(V.S.Verma)
Member

Sd/-

(S.Jayaraman)
Member



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

| | | (₹ in lakh) | | | | |
|----------|--|---------------------------------------|----------------|----------------|----------------|----------------|
| | | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| 1 | Bond X | | | | | |
| | Gross loan opening | 89.00 | 89.00 | 89.00 | 89.00 | 89.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 37.09 | 44.51 | 51.92 | 59.34 | 66.76 |
| | Net Loan-Opening | 51.91 | 44.49 | 37.08 | 29.66 | 22.24 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 7.42 | 7.42 | 7.42 | 7.42 | 7.42 |
| | Net Loan-Closing | 44.49 | 37.08 | 29.66 | 22.24 | 14.83 |
| | Average Loan | 48.20 | 40.79 | 33.37 | 25.95 | 18.54 |
| | Rate of Interest | 10.90% | 10.90% | 10.90% | 10.90% | 10.90% |
| | Interest | 5.25 | 4.45 | 3.64 | 2.83 | 2.02 |
| | Rep Schedule | 12 Annual instalments from 21.06.2004 | | | | |
| 2 | Bond XI Option-I | | | | | |
| | Gross loan opening | 95.00 | 95.00 | 95.00 | 95.00 | 95.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 31.67 | 39.58 | 47.50 | 55.42 | 63.33 |
| | Net Loan-Opening | 63.33 | 55.42 | 47.50 | 39.58 | 31.67 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 7.92 | 7.92 | 7.92 | 7.92 | 7.92 |
| | Net Loan-Closing | 55.42 | 47.50 | 39.58 | 31.67 | 23.75 |
| | Average Loan | 59.38 | 51.46 | 43.54 | 35.63 | 27.71 |
| | Rate of Interest | 9.80% | 9.80% | 9.80% | 9.80% | 9.80% |
| | Interest | 5.82 | 5.04 | 4.27 | 3.49 | 2.72 |
| | Rep Schedule | 12 Annual Installments from 07.12.05 | | | | |
| 3 | Bond-XII | | | | | |
| | Gross loan opening | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 2.33 | 2.92 | 3.50 | 4.08 | 4.67 |
| | Net Loan-Opening | 4.67 | 4.08 | 3.50 | 2.92 | 2.33 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 |
| | Net Loan-Closing | 4.08 | 3.50 | 2.92 | 2.33 | 1.75 |
| | Average Loan | 4.38 | 3.79 | 3.21 | 2.63 | 2.04 |
| | Rate of Interest | 9.70% | 9.70% | 9.70% | 9.70% | 9.70% |
| | Interest | 0.42 | 0.37 | 0.31 | 0.25 | 0.20 |
| | Rep Schedule | 12 Annual Instalments from 28.03.2006 | | | | |
| 4 | Bond XIII Option I | | | | | |
| | Gross loan opening | 1508.00 | 1508.00 | 1508.00 | 1508.00 | 1508.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 377.00 | 502.67 | 628.33 | 754.00 | 879.67 |
| | Net Loan-Opening | 1131.00 | 1005.33 | 879.67 | 754.00 | 628.33 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 125.67 | 125.67 | 125.67 | 125.67 | 125.67 |
| | Net Loan-Closing | 1005.33 | 879.67 | 754.00 | 628.33 | 502.67 |
| | Average Loan | 1068.17 | 942.50 | 816.83 | 691.17 | 565.50 |

| | | | | | | |
|----------|--|--|---------------|---------------|---------------|---------------|
| | Rate of Interest | 8.63% | 8.63% | 8.63% | 8.63% | 8.63% |
| | Interest | 92.18 | 81.34 | 70.49 | 59.65 | 48.80 |
| | Rep Schedule | 12 Annual Instalments from 31.07.2006 | | | | |
| 5 | PNB-II | | | | | |
| | Gross loan opening | 53.00 | 53.00 | 53.00 | 53.00 | 53.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 22.08 | 26.50 | 30.92 | 35.33 | 39.75 |
| | Net Loan-Opening | 30.92 | 26.50 | 22.08 | 17.67 | 13.25 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 4.42 | 4.42 | 4.42 | 4.42 | 4.42 |
| | Net Loan-Closing | 26.50 | 22.08 | 17.67 | 13.25 | 8.83 |
| | Average Loan | 28.71 | 24.29 | 19.88 | 15.46 | 11.04 |
| | Rate of Interest | 9.35% | 9.35% | 9.35% | 9.35% | 9.35% |
| | Interest | 2.68 | 2.27 | 1.86 | 1.45 | 1.03 |
| | Rep Schedule | 12 Annual Instalments from 08.03.2005 | | | | |
| 6 | OBC | | | | | |
| | Gross loan opening | 44.00 | 44.00 | 44.00 | 44.00 | 44.00 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 18.33 | 22.00 | 25.67 | 29.33 | 33.00 |
| | Net Loan-Opening | 25.67 | 22.00 | 18.33 | 14.67 | 11.00 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 3.67 | 3.67 | 3.67 | 3.67 | 3.67 |
| | Net Loan-Closing | 22.00 | 18.33 | 14.67 | 11.00 | 7.33 |
| | Average Loan | 23.83 | 20.17 | 16.50 | 12.83 | 9.17 |
| | Rate of Interest | 9.60% | 9.60% | 9.60% | 9.60% | 9.60% |
| | Interest | 2.29 | 1.94 | 1.58 | 1.23 | 0.88 |
| | Rep Schedule | 12 Annual Instalments from 22.03.2005 | | | | |
| 7 | Bond XVI | | | | | |
| | Gross loan opening | 139.00 | 139.00 | 139.00 | 139.00 | 139.00 |
| | Cumulative Repayment upto DOCO/previous year | 13.90 | 27.80 | 41.70 | 55.60 | 69.50 |
| | Net Loan-Opening | 125.10 | 111.20 | 97.30 | 83.40 | 69.50 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 13.90 | 13.90 | 13.90 | 13.90 | 13.90 |
| | Net Loan-Closing | 111.20 | 97.30 | 83.40 | 69.50 | 55.60 |
| | Average Loan | 118.15 | 104.25 | 90.35 | 76.45 | 62.55 |
| | Rate of Interest | 7.10% | 7.10% | 7.10% | 7.10% | 7.10% |
| | Interest | 8.39 | 7.40 | 6.41 | 5.43 | 4.44 |
| | Rep Schedule | 10 Annual instalments from 18-2-2009 | | | | |
| 8 | ADB-II uv (Exchange Rate: 44.31) | | | | | |
| | Gross loan opening | 46.53 | 46.53 | 46.53 | 46.53 | 46.53 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 4.26 | 6.20 | 8.35 | 10.72 | 13.33 |
| | Net Loan-Opening | 42.27 | 40.32 | 38.18 | 35.81 | 33.20 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 1.95 | 2.15 | 2.37 | 2.61 | 2.88 |
| | Net Loan-Closing | 40.32 | 38.18 | 35.81 | 33.20 | 30.32 |
| | Average Loan | 41.30 | 39.25 | 36.99 | 34.50 | 31.76 |
| | Rate of Interest | 6.84% | 6.84% | 6.84% | 6.84% | 6.84% |
| | Interest | 2.82 | 2.68 | 2.53 | 2.36 | 2.17 |
| | Rep Schedule | 15 Half yearly instalments from 15.06.2006 | | | | |

| | | | | | | |
|-----------|--|--|----------------|----------------|----------------|----------------|
| 9 | ADB-II LB (Exchange Rate : 44.31) | | | | | |
| | Gross loan opening | 3222.22 | 3222.22 | 3222.22 | 3222.22 | 3222.22 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 329.96 | 463.36 | 609.97 | 771.72 | 950.23 |
| | Net Loan-Opening | 2892.27 | 2758.87 | 2612.26 | 2450.50 | 2271.99 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 133.40 | 146.61 | 161.76 | 178.51 | 196.88 |
| | Net Loan-Closing | 2758.87 | 2612.26 | 2450.50 | 2271.99 | 2075.11 |
| | Average Loan | 2825.57 | 2685.56 | 2531.38 | 2361.25 | 2173.55 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 101.51 | 96.48 | 90.94 | 84.83 | 78.08 |
| | Rep Schedule | 15 Half yearly Instalments from 15.6.2006 | | | | |
| 10 | ADB-II LB (Exchange Rate : 44.01) | | | | | |
| | Gross loan opening | 5705.46 | 5705.46 | 5705.46 | 5705.46 | 5705.46 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 735.91 | 965.12 | 1217.03 | 1494.96 | 1801.68 |
| | Net Loan-Opening | 4969.55 | 4740.34 | 4488.43 | 4210.50 | 3903.77 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 229.21 | 251.91 | 277.93 | 306.72 | 338.28 |
| | Net Loan-Closing | 4740.34 | 4488.43 | 4210.50 | 3903.77 | 3565.50 |
| | Average Loan | 4854.94 | 4614.38 | 4349.46 | 4057.14 | 3734.64 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 174.41 | 165.77 | 156.25 | 145.75 | 134.17 |
| | Rep Schedule | 15 Half yearly Instalments from 15.06.2006 | | | | |
| 11 | ADB-II UV (Exchange Rate : 44.01) | | | | | |
| | Gross loan opening | 68.66 | 68.66 | 68.66 | 68.66 | 68.66 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 6.28 | 9.15 | 12.32 | 15.81 | 19.67 |
| | Net Loan-Opening | 62.37 | 59.50 | 56.33 | 52.84 | 48.99 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 2.87 | 3.17 | 3.49 | 3.85 | 4.25 |
| | Net Loan-Closing | 59.50 | 56.33 | 52.84 | 48.99 | 44.75 |
| | Average Loan | 60.94 | 57.92 | 54.59 | 50.92 | 46.87 |
| | Rate of Interest | 6.84% | 6.84% | 6.84% | 6.84% | 6.84% |
| | Interest | 4.17 | 3.96 | 3.73 | 3.48 | 3.21 |
| | Rep Schedule | 15 Half yearly instalments from 15.06.2006 | | | | |
| 12 | ADB-II LB (Exchange Rate : 43.88) | | | | | |
| | Gross loan opening | 4650.84 | 4650.84 | 4650.84 | 4650.84 | 4650.84 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 476.25 | 668.79 | 880.40 | 1113.88 | 1371.53 |
| | Net Loan-Opening | 4174.60 | 3982.05 | 3770.44 | 3536.96 | 3279.31 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 192.54 | 211.61 | 233.47 | 257.66 | 284.17 |
| | Net Loan-Closing | 3982.05 | 3770.44 | 3536.96 | 3279.31 | 2995.14 |
| | Average Loan | 4078.32 | 3876.24 | 3653.70 | 3408.14 | 3137.22 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |

| | | | | | | |
|-----------|--|---|----------------|----------------|----------------|----------------|
| | Interest | 146.51 | 139.25 | 131.26 | 122.44 | 112.70 |
| | Rep Schedule | 15 Half yearly Instalments from 15.6.2006 | | | | |
| | | | | | | |
| 13 | ADB-II UV (Exchange Rate : 43.88) | | | | | |
| | Gross loan opening | 56.17 | 56.17 | 56.17 | 56.17 | 56.17 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 5.14 | 7.49 | 10.08 | 12.94 | 16.09 |
| | Net Loan-Opening | 51.03 | 48.68 | 46.09 | 43.23 | 40.08 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 2.35 | 2.59 | 2.86 | 3.15 | 3.47 |
| | Net Loan-Closing | 48.68 | 46.09 | 43.23 | 40.08 | 36.61 |
| | Average Loan | 49.85 | 47.38 | 44.66 | 41.65 | 38.34 |
| | Rate of Interest | 6.84% | 6.84% | 6.84% | 6.84% | 6.84% |
| | Interest | 3.41 | 3.24 | 3.05 | 2.85 | 2.62 |
| | Rep Schedule | 15 Half yearly instalments from 15.6.2006 | | | | |
| 14 | ADB-II LB (Exchange Rate : 45.61) | | | | | |
| | Gross loan opening | 6567.84 | 6567.84 | 6567.84 | 6567.84 | 6567.84 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 847.14 | 1111.00 | 1400.98 | 1720.92 | 2074.01 |
| | Net Loan-Opening | 5720.70 | 5456.84 | 5166.86 | 4846.92 | 4493.83 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 263.86 | 289.99 | 319.94 | 353.08 | 389.41 |
| | Net Loan-Closing | 5456.84 | 5166.86 | 4846.92 | 4493.83 | 4104.42 |
| | Average Loan | 5588.77 | 5311.85 | 5006.89 | 4670.37 | 4299.13 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 200.78 | 190.83 | 179.87 | 167.78 | 154.45 |
| | Rep Schedule | 15 Half yearly Instalments from 15.6.2006 | | | | |
| 15 | ADB-II UV (Exchange Rate : 45.61) | | | | | |
| | Gross loan opening | 114.94 | 114.94 | 114.94 | 114.94 | 114.94 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 10.52 | 15.33 | 20.63 | 26.48 | 32.92 |
| | Net Loan-Opening | 104.42 | 99.61 | 94.31 | 88.46 | 82.02 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 4.81 | 5.30 | 5.85 | 6.45 | 7.11 |
| | Net Loan-Closing | 99.61 | 94.31 | 88.46 | 82.02 | 74.91 |
| | Average Loan | 102.02 | 96.96 | 91.38 | 85.24 | 78.46 |
| | Rate of Interest | 6.84% | 6.84% | 6.84% | 6.84% | 6.84% |
| | Interest | 6.98 | 6.63 | 6.25 | 5.83 | 5.37 |
| | Rep Schedule | 15 Half yearly instalments from 15.6.2006 | | | | |
| 16 | ADB-II LB (for ACE) (Exchange Rate: 45.4219) (Date of Drwal 01.11.2005) | | | | | |
| | Gross loan opening | 587.59 | 587.59 | 587.59 | 587.59 | 587.59 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 75.79 | 99.40 | 125.34 | 153.96 | 185.55 |
| | Net Loan-Opening | 511.80 | 488.19 | 462.25 | 433.63 | 402.04 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 23.61 | 25.94 | 28.62 | 31.59 | 34.84 |

| | | | | | | |
|-----------|--|--|----------------|----------------|----------------|----------------|
| | Net Loan-Closing | 488.19 | 462.25 | 433.63 | 402.04 | 367.20 |
| | Average Loan | 500.00 | 475.22 | 447.94 | 417.83 | 384.62 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 17.96 | 17.07 | 16.09 | 15.01 | 13.82 |
| | Rep Schedule | 15 Half yearly Instalments from 15.6.2006 | | | | |
| 17 | ADB-II LB (for ACE) (Exchange Rate: 43.5834) (Date of Drwal 02.07.2005) | | | | | |
| | Gross loan opening | 138.07 | 138.07 | 138.07 | 138.07 | 138.07 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 17.80 | 23.35 | 29.44 | 36.17 | 43.59 |
| | Net Loan-Opening | 120.27 | 114.72 | 108.63 | 101.90 | 94.48 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 5.55 | 6.10 | 6.73 | 7.42 | 8.19 |
| | Net Loan-Closing | 114.72 | 108.63 | 101.90 | 94.48 | 86.29 |
| | Average Loan | 117.50 | 111.68 | 105.26 | 98.19 | 90.38 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 4.22 | 4.01 | 3.78 | 3.53 | 3.25 |
| | Rep Schedule | 15 Half yearly Instalments from 15.6.2006 | | | | |
| 18 | ADB-II LB (for ACE) (Exchange Rate: 43.47) (Date of Drwl 24.06.2005) | | | | | |
| | Gross loan opening | 403.18 | 403.18 | 403.18 | 403.18 | 403.18 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 41.29 | 57.98 | 76.32 | 96.56 | 118.90 |
| | Net Loan-Opening | 361.89 | 345.20 | 326.86 | 306.62 | 284.28 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 16.69 | 18.34 | 20.24 | 22.34 | 24.63 |
| | Net Loan-Closing | 345.20 | 326.86 | 306.62 | 284.28 | 259.65 |
| | Average Loan | 353.55 | 336.03 | 316.74 | 295.45 | 271.97 |
| | Rate of Interest | 3.5925% | 3.5925% | 3.5925% | 3.5925% | 3.5925% |
| | Interest | 12.70 | 12.07 | 11.38 | 10.61 | 9.77 |
| | Rep Schedule | 15 Half yearly Instalments from 15.06.2006 | | | | |
| | Total Loan | | | | | |
| | Gross loan opening | 23496.49 | 23496.49 | 23496.49 | 23496.49 | 23496.49 |
| | Cumulative Repayment up to the date of commercial operation /previous year | 3052.73 | 4093.13 | 5220.41 | 6447.23 | 7784.17 |
| | Net Loan-Opening | 20443.76 | 19403.36 | 18276.08 | 17049.26 | 15712.31 |
| | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Repayment during the year | 1040.40 | 1127.28 | 1226.82 | 1336.94 | 1457.66 |
| | Net Loan-Closing | 19403.36 | 18276.08 | 17049.26 | 15712.31 | 14254.65 |
| | Average Loan | 19923.56 | 18839.72 | 17662.67 | 16380.79 | 14983.48 |
| | Weighted Average Rate of Interest | 3.9778% | 3.9534% | 3.9276% | 3.8997% | 3.8689% |
| | Interest | 792.52 | 744.81 | 693.71 | 638.80 | 579.69 |