# CENIRALELEC TRICITY REG ULATORY COMMISSION NEW DELHI 

## Petition No. 9/2010

## Coram:

1. Dr. Pramod Deo, Chairperson
2. Shri S.J ayaraman, Member

DATE OF HEARING: 23.3.2010
DATE OF ORDER 1.6.2010

## In the matter of

Revision of transmission tariff due to additional capital expenditure incurred during 2008-09 for Tarapur Transmission System associated with Tarapur Atomic Station Stages 3 \& 4 in Westem Region.

## And in the matter of

Power Grid Corporation of India Limited, Gurga on
..Petitioner Vs

1. Madhya Pradesh Power Trading Company Ltd., J a balpur
2. Maharashtra State Electric ity Distribution Co. Ltd., Mumbai
3. Gujarat Ujia Vikas Nigam Ltd.,Vadodara
4. Elec tricity Deptt., Govt., of Goa, Panaji
5. Elec tric ity Department, Administration of Daman and Diu, Daman
6. Elec tricity Department, Administration of Dadra Na gar Haveli, Silva ssa
7. Chhattisgarh State Elec tricity Board, Ra ipur
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd, Indore

## The following were present

1. Shri U.K.Tya gi, PGCIL
2. Shri Rakesh Prasad, PGCIL
3. Shri M.M.Mondal, PGCIL

## ORDER

This petition has been filed for revision of transmission tariff due to additional capital expenditure incurred for Tarapur Transmission System (the transmission system) associated with Tarapur Atomic Power Station Stages $3 \& 4$ in Westem Region during the period from 1.4.2008 to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of

Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations"). The petitioner has also prayed for reimbursement of the petition filing fee, licence fee and other expenditure in connection with the filing of the petition.
2. The investment approval and expenditure sanction for the transmission system was accorded by the Board of Directors of the petitioner company vide letter dated 22.10.2002 at an estimated cost of Rs. 23702 lakh, which included IDC of Rs. 2176 lakh. Further, approval for the revised cost estimate was accorded by the Board of Directors of the petitioner company under letter dated 17.1.2006 at an estimated cost of Rs. 28587 lakh, including an IDC of Rs. 962 lakh.
3. The transmission charges for the transmission assets were approved by the Commission vide its order dated 19.6.2009 in Petition No. 46/2009 in respect of the following elements.
4. The summary of the transmission charges approved by the said order dated 19.6.2009 is extracted hereunder:

5. The relevant details of the capital expenditure of the transmission assets claimed by the petitioner are as under:
(Rs. in lakh)

|  | Date of the <br> commercial <br> operation | Apportione <br> d approved <br> cost | Capital cost as <br> on 1.4.2008 <br> (Asperorder <br> dated 19.6.2009) | Additional <br> Capital <br> Expenditure <br> during 2008-09 | Capital <br> cost as on <br> 1.4 .2009 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Asset-I | 1.3 .2005 | 6715.01 | 6639.04 | 7.22 | 6646.26 |
| Asset-II | 1.8 .2005 | 11107.99 | 10088.38 | 64.47 | 10152.85 |
| Asset-III | 1.9 .2005 | 10764.33 | 10040.67 | 14.28 | 10054.95 |

6. In the petition, the petitioner has claimed the following transmission charges:
(Rs. in lakh)

|  | Asset-I | Asset-II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 8}-\mathbf{0 9}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| Depreciation | 176.27 | 279.56 | 154.41 | 287.38 | 303.41 | 305.17 |
| Interest on Loan | 310.09 | 497.46 | 276.55 | 502.63 | 512.23 | 486.17 |
| Retum on Equity | 216.38 | 321.43 | 161.01 | 308.41 | 331.34 | 334.00 |
| Advance a gainst <br> Depreciation | 265.05 | 258.24 | 0.00 | 0.00 | 0.00 | 207.46 |
| Interest on Working <br> Capital | 25.87 | 40.41 | 23.49 | 42.58 | 44.54 | 48.95 |
| O \& M Expenses | 57.14 | 215.81 | 310.48 | 553.56 | 575.56 | 598.69 |
| Total | $\mathbf{1 0 5 0 . 8 0}$ | $\mathbf{1 6 1 2 . 9 1}$ | $\mathbf{9 2 5 . 9 4}$ | $\mathbf{1 6 9 4 . 5 6}$ | $\mathbf{1 7 6 7 . 0 8}$ | $\mathbf{1 9 8 0 . 4 4}$ |

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

|  | Asset- I | Asset-II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2008-09 | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| Ma intena nce Spares | $\mathbf{7 2 . 5 3}$ | 107.40 | 83.93 | 86.87 | 92.08 | 97.61 |
| O \& M expenses | 4.76 | 17.98 | 44.35 | 46.13 | 47.96 | 49.89 |
| Receivables | 175.13 | 268.82 | 264.55 | 282.43 | 294.51 | 330.07 |
| Total | 252.42 | 394.20 | 392.83 | 415.43 | 434.55 | 477.57 |
| Rate of Interest | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ |
| Interest | $\mathbf{2 5 . 8 7}$ | $\mathbf{4 0 . 4 1}$ | $\mathbf{2 3 . 4 9}$ | $\mathbf{4 2 . 5 8}$ | $\mathbf{4 4 . 5 4}$ | $\mathbf{4 8 . 9 5}$ |

8. Maharashtra State Electricity Distribution Company Limited (MSEDCL) in its reply has submitted that the petitioner may be asked to submit the details regarding policy towards liquidated damages, security deposit performance deposit and any other expenses etc. towards asset-wise final/retention amount claimed for the period 1.4.2008 to 31.3.2009. The petitioner in its rejoinder has confirmed that the expenditure shown in the petition for the year 2008-09 has been claimed as per Regulation 53 (1) (i)of the 2004 regulation on account of final/retention payments. In view of the clarification of the petitioner, the objections of MSEDCL no more survive. The concem expressed by MSEDCL regarding wages revision and reimbursement of filing fee have been taken care under the relevant heads of this order. We also observe that MSEDCL reference to para 20 of the Commission`s order dated 22.7.2009 in Petition No. 2/2009 is not relevant to the present case because it related to non-consideration of balance estimated expenditure whereas in the present case we are concemed with additional expenditure actually incurred by the petitioner.
9. MPPTCL vide its reply has requested to disallow of transmission ta riff for period 2005-06 for Asset-III. This issue has been dealt in petition. The concem expressed by MPPTCL regarding reimbursement of filing fee has been taken care under the relevant head of this order.

## CAPITALCOST

10. The details submitted by the petitioner in support of its claim for additional capital expenditure are given hereunder:
(Rs. in lakh)

| 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 |
| 2008-09 | Transmission line=Rs. 7.22 lakh | Final/retention payments | $\begin{aligned} & \text { 2008- } \\ & 09 \end{aligned}$ | Sub-station= Rs. 31.12 lakh Transmission line=Rs. $\quad 12.47$ lakh $\quad$ and Building $=\quad$ Rs. 20.88 lakh | Final/retentio n payments | 2008-09 | Sub-station= Rs. 14.28 lakh | Final/retention payments |
| Total | Rs. 7.22 lakh |  |  | Rs. lakh $\quad 67.47$ |  |  | Rs. <br> lakh 14.28 |  |

11. The petitioner has submitted audited capital cost up to 31.3.2009 duly certified by Chartered Accountant. The additional capital expenditure claimed is within the original scope of work and on account of retention/balance payments. The additional expenditure sought to be capitalised is allowed under Regulation 53 of the 2004 regulations.

## Initial spares

12. Clause (1) of the Regulation 52 of the 2004 regulations inter alia providesthat,-
"(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".
13. It is noted that the initial spares have exceeded the cap of $1.50 \%$ for Asset-III. For restricting the initial spares, the expenditure of the transmission assets as on cut off date, taken together, has been considered. The adjustment of initial spares is as under:
(Rs. in lakh)

| S.No | Particulars | Date of <br> commercial <br> operation | Cut- off <br> date | Expenditure <br> as on cut off <br> date | Percentage of <br> Initial spares as <br> on cut-off <br> date |
| ---: | :--- | :--- | :--- | ---: | ---: |
| 1 | Asset-I | 1.3 .2005 | $31-3-2006$ | 6563.91 | $0.54 \%$ |
| 2 | Asset-II | 1.8 .2005 | $31-3-2007$ | 10088.38 | $1.44 \%$ |
| 3 | Asset-III | 1.9 .2005 | $31-3-2007$ | 9935.76 | $2.27 \%$ |
|  | TOTAL (A) |  |  | $\mathbf{2 6 5 8 8 . 0 5}$ |  |

(Rs. in lakh)

| (i) | Actual Initial spares of the three a ssets taken <br> together | 405.9700 |
| :--- | :--- | ---: |
| (ii) | Capital cost without initial spares(A)-(i) | 26182.0800 |
| (iii) | Initial spares @ $1.5 \%$ of all the three assets as <br> on cut off date (ii) $\mathbf{x 1 . 5 \% /} / \mathbf{9 8 . 5 \%}$ | 398.7119 |
| (iv) | Difference to be adjusted (i)-(iii) | 7.2581 |

14. In the present case, as the petitioner has not indicated the apportionment of initial spares to various assets, it has been assumed that the majority of the initial spares were meant for sub-station (being the major head), and thus, the above difference in value of initial spares, being a minor amount, has been adjusted under the head sub- station equipments.
15. Therefore, capital expenditure of Rs. 8385.86 lakh as on the date of commercial operation for Asset-III has been considered for working out the tariff. The additional capital expenditure incurred after the date of commercial operation has been taken as per para 8 above. For Assets (1)
and (2), Expenditure for Asset-I and Asset-II has been considered as per Table- I and Table-II above. The transmission charges for the Asset-III is being revised from the period 2005-06.

## IOTALCAPITALCOST

16. Based on the above, capital cost for the pupose of tariff in respect of transmission assets a s on 31.3.2009 works out as under:
(Rs. in lakh)

|  | Capital cost as on <br> 1.4.2008 <br> (Asper order dated <br> $19.6 .2009)$ | Additional <br> Capital <br> Expend iture <br> during 2008-09 | Capital cost as <br> on 1.4 .2009 |
| :---: | :---: | :---: | :---: |
| Asset-I | 6639.04 | 7.22 | 6646.26 |
| Asset-II | 10088.38 | 64.47 | 10152.85 |
| Asset-III | 10040.67 | 14.28 | 10054.95 |

## DEBT- EQUITY RATIO

17. The petitioner has considered the amount of additional capital expenditure in the debt-equity ratio of $70: 30$. This has been found to be in order. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:
(Rs. in lakh)

|  | Equity as on <br> 1.4 .2008 | Notional Equity due <br> to add itional <br> capital expenditure <br> during 2008-09 | Average <br> equity for <br> $2008-09$ | Equity as on <br> 31.3 .2009 |
| :---: | :---: | :---: | :---: | :---: |
| Asset-I | 1544.52 | 2.17 | 1545.60 | 1546.68 |
| Asset-II | 2286.24 | 19.34 | 2295.91 | 2305.58 |
| Asset-III | 2381.93 | 4.28 | 2384.07 | 2386.22 |

## REIURN ON EQUITY

18. As per clause (iii) of Regulation 56 of the 2004 regulations, retum on equity shall be computed on the equity base detemined in accordance
with regulation 54 @ $14 \%$ per annum. Equity invested in foreign curency is to be allowed a retum in the same curency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.
19. Equity as given in the table under para 17 above has been considered. However, ta riff for 2008-09 has been allowed on a verage equity. Accordingly, retum on equity allowed for the year 2008-09 is given as under:
(Rs. in lakh)

| Name of the asset |  |
| :--- | ---: |
|  | $2008-09$ |
| Asset-I | 216.38 |
| Asset-II | 321.43 |
| Asset-III | 333.77 |

## INIERESTON LOAN

20. 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 a rived 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 bome by the beneficiaries.
(d) The changes to the loan tems 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 refinancing 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."
21. 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 and weighted average rate of interest on actual loan have been considered as per the order dated 19.6.2009 in Petition No. $46 / 2009$. There is no addition of actual loan during 2008-09.
(b) Notional loan arising out of additional capital expenditure for the year 2008-09 has been added to the loan amount as on 31.3.2008 to amive at total notional loans. This adjusted gross loan has been considered as normative loans for tariff calculations.
(c) Tariff has been worked out considering nomative loan and nomative repayments. Once the nomative loan has been arived at, it is considered for all purposes in the tariff. Nomative repayment has been worked out by the following formula:

Actual repayment of actual loan during the year
--------------------------------------------------------------- X Opening balance of nomative
Opening balance of actual loan during the year loan during the year
(d) Moratorium in repayment of loan has been considered with reference to nomative loan and if the nomative repayment of loan during the year is less than the depreciation including Advance Against Depreciation during the year, it is considered as moratorium and depreciation including Advance Against Depreciation during the year is deemed as nomative 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 a mive at the interest on loan.
22. Based on the above, the details of interest worked out are given hereunder:
(Rs. in lakh)

| Details | Asset- I | Asset-II | Asset- III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| Gross Nomative Loan | 5094.52 | 7802.15 | 6500.37 | 6894.20 | 7580.22 | 7658.74 |
| Cumulative Repa yment up to <br> Previous Year/date of commercial <br> operation | 532.14 | 717.83 | 0.00 | 154.26 | 441.37 | 744.53 |
| Net Loan-Opening | 4562.38 | 7084.31 | 6500.37 | 6739.94 | 7138.85 | 6914.21 |
| Addition due to Add itional <br> Capita lisation | 5.05 | 45.13 | 393.83 | 686.02 | 78.52 | 10.00 |
| Repayment during the year | 441.32 | 537.80 | 154.26 | 287.12 | 303.15 | 512.27 |
| Net Loan-Closing | 4126.12 | 6591.64 | 6739.94 | 7138.85 | 6914.21 | 6411.95 |
| Average Loan | 4344.25 | 6837.97 | 6620.16 | 6939.40 | 7026.53 | 6663.08 |
| Weighted Average Rate of Interest <br> on Loan | $\mathbf{7 . 1 4 \%}$ | $7.27 \%$ | $7.15 \%$ | $7.24 \%$ | $7.28 \%$ | $7.29 \%$ |
| Interest | $\mathbf{3 1 0 . 0 9}$ | $\mathbf{4 9 7 . 4 6}$ | $\mathbf{2 7 6 . 3 0}$ | $\mathbf{5 0 2 . 2 5}$ | $\mathbf{5 1 1 . 8 6}$ | $\mathbf{4 8 5 . 8 2}$ |

23. The detailed calculations in support of the weighted average rate of interest for two assets are contained in Annexure-I, Annexure-II and Annexure-III and respectively attached.

## DEPRECIATION

24. 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 historic al 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 Govemment/Commission.
(iii) On repayment of entire loan, the remaining depreciable value shall be spread overthe 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."
25. Depreciation allowed has been worked out asbelow:
(Rs. in lakh)

| Details | Asset- I | Asset- II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 2008-09 | 2008-09 | $\mathbf{2 0 0 5 - 0 6}$ | 2006-07 | 2007-08 | 2008-09 |
| Gross block as on 1.4.2008 | 6639.04 | 10088.38 | 8385.86 | 8948.47 | 9928.50 | 10040.67 |
| Additional Ca pita lisation <br> during 2008-09 | 7.22 | 64.47 | 562.61 | 980.03 | 112.17 | 14.28 |
| Gross Block at the end of <br> the year | 6646.26 | 10152.85 | 8948.47 | 9928.50 | 10040.67 | 10054.95 |
| Rate of Deprec iation | $2.6536 \%$ | $2.7623 \%$ | $3.0510 \%$ | $3.0420 \%$ | $3.0362 \%$ | $3.0346 \%$ |
| Deprecia ble Value | 5978.39 | 8883.21 | 7288.08 | 7981.57 | 8473.06 | 8529.96 |
| Balance Useful life of the <br> asset | - | - | - | - | - | - |
| Rema ining Deprec iable <br> Value | 5446.24 | 8165.38 | 7288.08 | 7827.31 | 8031.68 | 7785.43 |
| Depreciation | $\mathbf{1 7 6 . 2 7}$ | $\mathbf{2 7 9 . 5 6}$ | $\mathbf{1 5 4 . 2 6}$ | $\mathbf{2 8 7 . 1 2}$ | $\mathbf{3 0 3 . 1 5}$ | $\mathbf{3 0 4 . 9 1}$ |

## ADVANCE AGAINSTDEPRECIATION

26. 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:
$A A D=$ Loan repayment amount as per regulation 56 (i) subject to a ceiling of $1 / 10$ th of loan amount as per regulation 54 minus depreciation as per sc hedule
27. 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.
28. Accordingly, in our calculation the Advance Against Depreciation has been worked asdetailed below:
(a) 1/10th of gross loan is worked out from the Gross Notional Loan asperpara 22 above.
(b) Repayment of notional loan during the year is considered as per para 22 above.
(c) Depreciation is worked out asperpara 25 above.
(d) In the calculation of Advance Against Depreciation, cumulative depreciation/Advance Against Depreciation up to the preceding year along with the depreciation of the current year have been considered for working out the Advance Against Depreciation
(Rs. in lakh)

|  | Asset-I | Asset-II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| 1/ 10th of G ross Loan (s) | 509.45 | 780.21 | 650.04 | 689.42 | 758.02 | 765.87 |
| Repayment of the Loan | 441.32 | 537.80 | 154.26 | 287.12 | 303.15 | 512.27 |
| Minimum of the above | 441.32 | 537.80 | 154.26 | 287.12 | 303.15 | 512.27 |
| Depreciation during the <br> year | 176.27 | 279.56 | 154.26 | 287.12 | 303.15 | 304.91 |
| (A) Difference | 265.05 | 258.24 | 0.00 | 0.00 | 0.00 | 207.35 |
| Cumulative Repayment of <br> the Loan | 973.46 | 1255.64 | 154.26 | 441.37 | 744.53 | 1256.79 |
| Cumulative Depreciation/ <br> Advance a gainst <br> Depreciation | 708.41 | 997.39 | 154.26 | 441.37 | 744.53 | 1049.44 |
| (B) Difference |  |  |  |  |  |  |
| Advance a gainst <br> Depreciation Minimum of <br> (A) and (B) | $\mathbf{2 6 5 . 0 5}$ | $\mathbf{2 5 8 . 2 4}$ | $\mathbf{0 . 0 0}$ | $\mathbf{0 . 0 0}$ | $\mathbf{0 . 0 0}$ | $\mathbf{2 0 7 . 3 5}$ |

## OPERATION \& MAINIENANCE EXPENSES

29. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for $O \& M$ expenses:

|  | Year |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| O\&M expenses (Rs in lakh per ckt- <br> $\mathrm{km})$ | 0.227 | 0.236 | 0.246 | 0.255 | 0.266 |
| O\&M expenses (Rs in lakh perbay) | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |

30. $O \& M$ expenses as taken for the tariff calculations as per order dated 19.6.2009 in Petition No. 46/2009 has been considered, since line length and number of bays rema in unchanged.

## INIERESTON WORKING CAPITAL

31. 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. The petitioner has claimed maintenance spares after accounting for additional capital expenditure. For the purpose of computation of maintenance spares, the historical cost is being taken as the cost on the date of commercial operation. Maintenance spares on additional capital expenditure are not being considered for the present. Accordingly, maintenance spares have been worked out on the historical cost and by providing escalation from the date of commercial operation.

## (ii) $0 \& M$ 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. O\&M expenses as considered in the order dated 19.6.2009 in Petition No. 46/2009 have been considered.

## (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. Accordingly, 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 whether or not the transmission licensee has taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ $10.25 \%$ based on SBI PLR as on 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.
32. The necessary computations in support of interest on working
capital are appended herein below:
(Rs. in lakh)

|  | Asset- I | Asset-II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| Ma intenance Spares | 72.53 | 107.40 | 83.86 | 86.79 | 92.00 | 97.52 |
| O \& M expenses | 4.76 | 17.98 | 44.35 | 46.13 | 47.96 | 49.89 |
| Receiva bles | 175.13 | 268.82 | 264.39 | 282.28 | 294.37 | 329.91 |
| Total | 252.43 | 394.20 | 392.61 | 415.20 | 434.33 | 477.32 |
| Rate of Interest | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ |
| Interest | $\mathbf{2 5 . 8 7}$ | $\mathbf{4 0 . 4 1}$ | $\mathbf{2 3 . 4 7}$ | $\mathbf{4 2 . 5 6}$ | $\mathbf{4 4 . 5 2}$ | $\mathbf{4 8 . 9 3}$ |

## IRANSMISSION CHARGES

33. The transmission charges being allowed for the three transmission assets are summarised below:
(Rs. in lakh)

|  | Asset- I | Asset-II | Asset-III |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 8 - 0 9}$ | $\mathbf{2 0 0 8 - 0 9}$ |  | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ |
| $\mathbf{2 0 0 8 - 0 9}$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Depreciation | 176.27 | 279.56 | 154.26 | 287.12 | 303.15 | 304.91 |
| Interest on Loan | 310.09 | 497.46 | 276.30 | 502.25 | 511.86 | 485.82 |
| Retum on Equity | 216.38 | 321.43 | 160.87 | 308.18 | 331.11 | 333.77 |
| Advance <br> Depreciation | 265.05 | 258.24 | 0.00 | 0.00 | 0.00 | 207.35 |
| Interest on Working Capital | 25.87 | 40.41 | 23.47 | 42.56 | 44.52 | 48.93 |
| O \& M Expenses | 57.14 | 215.81 | 310.48 | 553.56 | 575.56 | 598.69 |
| Total | $\mathbf{1 0 5 0 . 8 0}$ | $\mathbf{1 6 1 2 . 9 0}$ | $\mathbf{9 2 5 . 3 8}$ | $\mathbf{1 6 9 3 . 6 6}$ | $\mathbf{1 7 6 6 . 2 0}$ | $\mathbf{1 9 7 9 . 4 8}$ |

34. The petitioner shall recover from the beneficiaries the additional transmission charges in one instalment and these charges shall be shared in accordance with the 2004 regulations.
35. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 (suo-motu) has decided that reimbursement of the petition filing C:IDocuments and Settings\DEV\DesktoplToday worklSigned order in Petition No.9-2010 WR.doc
fee shall not be allowed during the tariff period 2004-09 as the same has been factored in the O\&M norms. The decision on reimbursement of the lic ence fee shall be communicated separately.
36. 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.
37. This order disposes of Petition No. 9/2010.

Sd/-
(S.J AYARAMAN) MEMBER
sd/-
(Dr. PRAMOD DEO) CHAIRPERSON

| Asset-I |  |  |
| :---: | :---: | :---: |
|  | Details of Loan | 2008-09 |
| 1 | Bond XV |  |
|  | Gross Loan opening | 778.00 |
|  | Cumulative Repayment upto previousyear | 64.83 |
|  | Net Loan-Opening | 713.17 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 64.83 |
|  | Net Loan-Closing | 648.34 |
|  | Average Loan | 680.76 |
|  | Rate of Interest | 6.68\% |
|  | Interest | 45.47 |
|  | Repayment Schedule | 10 annual installments from 23.2.2008 |
| 2 | Bond XVI |  |
|  | Gross Loan opening | 3621.00 |
|  | Cumulative Repayment upto previous year | 0.00 |
|  | Net Loan-Opening | 3621.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 362.10 |
|  | Net Loan-Closing | 3258.90 |
|  | Average Loan | 3439.95 |
|  | Rate of Interest | 7.10\% |
|  | Interest | 244.24 |
|  | Repayment Schedule | 10 annual installments from 18.2.2009 |
| 3 | Bond XVIII ( Add Cap for 2005-06) |  |
|  | Gross Loan opening | 86.00 |
|  | Cumulative Repayment up to previous year | 0.00 |
|  | Net Loan-Opening | 86.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 86.00 |
|  | Average Loan | 86.00 |
|  | Rate of Interest | 8.15\% |
|  | Interest | 7.01 |
|  | Repayment Schedule | 12 annual installments from 9.3.2010 |
| 4 | Bond XII |  |
|  | Gross Loan opening | 11.00 |
|  | Cumulative Repayment up to previous year | 2.75 |
|  | Net Loan-Opening | 8.25 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.92 |

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(Rs. in lakh)

|  | Details of Loan | 2008-09 |
| :---: | :---: | :---: |
| 1 | Bond XII |  |
|  | Gross Loan opening | 15.00 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 3.75 |
|  | Net Loan-Opening | 11.25 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 1.25 |
|  | Net Loan-Closing | 10.00 |
|  | Average Loan | 10.63 |
|  | Rate of Interest | 9.70\% |
|  | Interest | 1.03 |
|  | Repayment Schedule | $12 \quad$ Annual instalments from 28.3 .2006 |
| 2 | Bond XIII Option-I |  |
|  | Gross Loan opening | 352.00 |
|  | Cumulative Repayment up to the date of commercial operation / previous year | 58.67 |
|  | Net Loan-Opening | 293.33 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 29.33 |
|  | Net Loan-Closing | 264.00 |
|  | Average Loan | 278.67 |
|  | Rate of Interest | 8.63\% |
|  | Interest | 24.05 |
|  | Repayment Schedule | $\begin{aligned} & \hline 12 \quad \text { Annual } \\ & \text { instalments from } \\ & \text { 31.7.2006 } \\ & \hline \end{aligned}$ |
| 3 | Bond XV |  |
|  | Gross Loan opening | 983.00 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 81.92 |
|  | Net Loan-Opening | 901.08 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 81.92 |
|  | Net Loan-Closing | 819.17 |
|  | Average Loan | 860.13 |
|  | Rate of Interest | 6.68\% |
|  | Interest | 57.46 |
|  | Repayment Schedule | 12 Annual instalments from 28.2.2008 |

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| 4 | Bond XVI |  |
| :---: | :---: | :---: |
|  | Gross Loan opening | 4574.00 |
|  | Cumulative Repayment up to the date of commercial operation / previous year | 0.00 |
|  | Net Loan-Opening | 4574.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 457.40 |
|  | Net Loan-Closing | 4116.60 |
|  | Average Loan | 4345.30 |
|  | Rate of Interest | 7.10\% |
|  | Interest | 308.52 |
|  | Repayment Schedule | $10 \quad$ Annual instalments from 18.2.2009 |
| 5 | Bridge Financing from IOB w.e.f. 01.08.2005 upto 21.09.2005 / Bond-XVII w.e.f 22.9.2005 |  |
|  | Gross Loan opening | 1250.00 |
|  | Cumulative Repayment up to the date of commercial operation / previous year | 0.00 |
|  | Net Loan-Opening | 1250.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 1250.00 |
|  | Average Loan | 1250.00 |
|  | Rate of Interest | 7.39\% |
|  | Interest | 92.38 |
|  | Repayment Schedule | 10 a nnual inatalments from 22-9-09 |
| 6 | Bond XVIII ( Add Cap for 2005-06) |  |
|  | Gross Loan opening | 68.00 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 0.00 |
|  | Net Loan-Opening | 68.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 68.00 |
|  | Average Loan | 68.00 |
|  | Rate of Interest | 8.15\% |
|  | Interest | 5.54 |
|  | Repayment Schedule | $12 \quad$ Annual instalments from 9.3.2010 |
| 7 | Bond XIX ( Add Cap for 2006-07) |  |
|  | Gross Loan opening | 157.45 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 0.00 |
|  | Net Loan-Opening | 157.45 |
|  | Additions during the year | 0.00 |

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|  | Repayment during the year | 0.00 |
| :---: | :---: | :---: |
|  | Net Loan-Closing | 157.45 |
|  | Average Loan | 157.45 |
|  | Rate of Interest | 9.25\% |
|  | Interest | 14.56 |
|  | Repayment Schedule | $12 \quad$ Annual instalments from 24.7.2010 |
| 8 | Bond XXII ( Add Cap for 2006-07) |  |
|  | Gross Loan opening | 252.00 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 0.00 |
|  | Net Loan-Opening | 252.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 252.00 |
|  | Average Loan | 252.00 |
|  | Rate of Interest | 8.68\% |
|  | Interest | 21.87 |
|  | Repayment Schedule | $12 \quad$ Annual instalments from $7-12-2010$ |
|  | Gross Loan opening | 7651.45 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 144.33 |
|  | Net Loan-Opening | 7507.12 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 569.90 |
|  | Net Loan-Closing | 6937.22 |
|  | Average Loan | 7222.17 |
|  | Rate of Interest | 7.275\% |
|  | Interest | 525.41 |


| Details of Loan | $\begin{aligned} & \text { 2005- } \\ & 06 \end{aligned}$ | 2006-07 | $\begin{aligned} & \text { 2007- } \\ & 08 \end{aligned}$ | 2008-09 |
| :---: | :---: | :---: | :---: | :---: |
| Bond XII |  |  |  |  |
| Gross Loan opening | 13.00 | 13.00 | 13.00 | 13.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 1.08 | 2.17 | 3.25 |
| Net Loan-Opening | 13.00 | 11.92 | 10.83 | 9.75 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 1.08 | 1.08 | 1.08 | 1.08 |
| Net Loan-Closing | 11.92 | 10.83 | 9.75 | 8.67 |
| Average Loan | 12.46 | 11.38 | 10.29 | 9.21 |
| Rate of Interest | 9.70\% | 9.70\% | 9.70\% | 9.70\% |
| Interest | 1.21 | 1.10 | 1.00 | 0.89 |
| Repayment Schedule | 12 A nnual instalments from 28.3.2006 |  |  |  |
| Bond XIII Option-I |  |  |  |  |
| Gross Loan opening | 319.00 | 319.00 | 319.00 | 319.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 26.58 | 53.17 |
| Net Loan-Opening | 319.00 | 319.00 | 292.42 | 265.83 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 26.58 | 26.58 | 26.58 |
| Net Loan-Closing | 319.00 | 292.42 | 265.83 | 239.25 |
| Average Loan | 319.00 | 305.71 | 279.13 | 252.54 |
| Rate of Interest | 8.63\% | 8.63\% | 8.63\% | 8.63\% |
| Interest | 27.53 | 26.38 | 24.09 | 21.79 |
| Repayment Schedule | 12 Annual instalments from 31.7.2006 |  |  |  |
| Bond XV |  |  |  |  |
| Gross Loan opening | 889.00 | 889.00 | 889.00 | 889.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 0.00 | 74.08 |
| Net Loan-Opening | 889.00 | 889.00 | 889.00 | 814.92 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 0.00 | 74.08 | 74.08 |
| Net Loan-Closing | 889.00 | 889.00 | 814.92 | 740.83 |
| Average Loan | 889.00 | 889.00 | 851.96 | 777.88 |
| Rate of Interest | 6.68\% | 6.68\% | 6.68\% | 6.68\% |
| Interest | 59.39 | 59.39 | 56.91 | 51.96 |
| Repayment Schedule | 12 Annual instalments from 28.02.2008 |  |  |  |
|  |  |  |  |  |
| Bond XVI |  |  |  |  |
| Gross Loan opening | 4135.00 | 4135.00 | 4135.00 | 4135.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 4135.00 | 4135.00 | 4135.00 | 4135.00 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |

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| Repayment during the year | 0.00 | 0.00 | 0.00 | 413.50 |
| :---: | :---: | :---: | :---: | :---: |
| Net Loan-Closing | 4135.00 | 4135.00 | 4135.00 | 3721.50 |
| Average Loan | 4135.00 | 4135.00 | 4135.00 | 3928.25 |
| Rate of Interest | 7.10\% | 7.10\% | 7.10\% | 7.10\% |
| Interest | 293.59 | 293.59 | 293.59 | 278.91 |
| Repayment Schedule | 10 Annual instalments from 18.02.2009 |  |  |  |
|  |  |  |  |  |
| Bridge Financing from IOB w.e.f. 1.8.2005 upto 21.9.2005 / Bond-XVII w.e.f 22.9.2005 |  |  |  |  |
| Gross Loan opening | 1150.00 | 1150.00 | 1150.00 | 1150.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 1150.00 | 1150.00 | 1150.00 | 1150.00 |
| Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 1150.00 | 1150.00 | 1150.00 | 1150.00 |
| Average Loan | 1150.00 | 1150.00 | 1150.00 | 1150.00 |
| Rate of Interest | 7.24\% | 7.39\% | 7.39\% | 7.39\% |
| Interest | 83.26 | 84.99 | 84.99 | 84.99 |
| Repayment Schedule | 10 a nnual ina talments from 22-09-09 |  |  |  |
| Bond XVIII ( Add Cap for 2005-06) |  |  |  |  |
| Gross Loan opening | 0.00 | 96.00 | 96.00 | 96.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 0.00 | 96.00 | 96.00 | 96.00 |
| Additions during the year | 96.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 96.00 | 96.00 | 96.00 | 96.00 |
| Average Loan | 48.00 | 96.00 | 96.00 | 96.00 |
| Rate of Interest | 8.15\% | 8.15\% | 8.15\% | 8.15\% |
| Interest | 3.91 | 7.82 | 7.82 | 7.82 |
| Repayment Schedule | 12 Annual insta Iments from 9.3.2010 |  |  |  |
| Bond XXII ( Add Cap for 2006-07) |  |  |  |  |
| Gross Loan opening | 0.00 | 0.00 | 483.00 | 483.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 0.00 | 0.00 | 483.00 | 483.00 |
| Additions during the year | 0.00 | 483.00 | 0.00 | 0.00 |
| Repayment during the year | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 0.00 | 483.00 | 483.00 | 483.00 |
| Average Loan | 0.00 | 241.50 | 483.00 | 483.00 |
| Rate of Interest | 0.00\% | 8.68\% | 8.68\% | 8.68\% |
| Interest | 0.00 | 20.96 | 41.92 | 41.92 |
| Repayment Schedule | 12 A nnual instalments from 7.12.2010 |  |  |  |
| Gross Loan opening | 6506.00 | 6602.00 | 7085.00 | 7085.00 |
| Cumulative Repayment up to the date of commercial operation / previous year | 0.00 | 1.08 | 28.75 | 130.50 |

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| Net Loan-Opening | 6506.00 | 6600.92 | 7056.25 | 6954.50 |
| :--- | ---: | ---: | ---: | ---: |
| Additions during the year | 96.00 | 483.00 | 0.00 | 0.00 |
| Repayment during the year | 1.08 | 27.67 | 101.75 | 515.25 |
| Net Loan-Closing | 6600.92 | 7056.25 | 6954.50 | 6439.25 |
| Average Loan | 6553.46 | 6828.58 | 7005.38 | 6696.88 |
| Rate of Interest | $\mathbf{7 . 1 5 5 \%}$ | $\mathbf{7 . 2 3 8 \%}$ | $\mathbf{7 . 2 8 5 \%}$ | $\mathbf{7 . 2 9 1 \%}$ |
| Interest | 468.88 | 494.23 | 510.32 | 488.29 |

