# CENIRALELEC TRICITY REG ULATORY COMMISSION 

NEW DEHI
Petition No. 3/2010

## Coram:

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

DATE OF HEARING: 23.3.2010
DATE OF ORDER 10.5.2010

## In the matter of

Revision of transmission tariff due to additional capital expenditure incured during 2008-09 for (i) LLLO of Korba-Raipur 400 kV S/C line at Sipat, (ii) 765 kV Sipat-Seoni transmission line, Ckt-I along with associated bays; (iii) 400/220 kV ICT-I along with two 220 kV line bays at Seoni sub-station; (iv) Ckt II of 400 kV D/C Nagda- Dehgam line; and (v) Ckt I of 400 kV D/C Nagda-Dehgam line under Sipat-I Transmission System in Westem Region for the block 2004-09.

## And in the matter of

Power Grid Comoration of India Limited, Gurgaon ..Petitioner
Vs

1. Madhya Pradesh Power Trading Company Ltd., J abalpur
2. Maharashtra State Electric ity Distribution Co. Ltd., Mumbai
3. Gujarat Urja Vikas Nigam Ltd.,Vadodara
4. Electric ity Deptt., Govt., of Goa, Panaji
5. Electricity Department, Administration of Daman and Diu, Daman
6. Electric ity Department, Administration of Dadra Nagar Haveli, Silvassa
7. Chhattisgarm State Electricity Board, Raipur
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd, Indore
9. NTPC Ltd., New Delhi
.....Respondents

## The following were present

1. Shri U.K.Tyagi, 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 in respect of transmission elements given in the table below, together with their dates of
commercial operation under Sipat-I Transmission System (the transmission system) in Westem Region for the period from 1.4.2008 to 31.3.2009, based on the Central Electric ity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations:

| S.No. | Name of Asset | Date of <br> commercial <br> operation |
| :--- | :--- | :--- |
| 1. | LLO of Korba-Raipur 400 kV S/C line at Sipat, (Asset-I) | 1.5 .2006 |
| 2. | 765 kV Sipat-Seoni transmission line, Ckt-I along with <br> associated bays (Asset-II) | 1.11 .2007 |
| 3. | $400 / 220$ kV ICT-I along with two 220 kV line bays at <br> Seoni sub-station (Asset-III) | 1.12 .2007 |
| 4. | Ckt II of 400 kV D/C Nagda-Dehgam line (Asset-IV) | 1.1 .2008 |
| 5. | Ckt of 400 kV D/C Nagda-Dehgam line (Asset-V) | 1.2 .2008 |

2. 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
3. The investment approval and expenditure sanction for the transmission system was accorded by the Central Govemment in Ministry of Power vide letter dated 10.12.2003 at an estimated cost of Rs. 167298 lakh, including IDC of Rs. 12323 lakh at $4^{\text {th }}$ quarter of 2002 price level, consisting of (i) Rs. 145479 lakh, including IDC of Rs. 10828 lakh for the petitioner portion and (ii) Rs. 21819 lakh, including IDC of Rs. 1495 lakh for IPTC`S portion, which was revised to Rs. 233144 lakh under Ministry of Power Letter dated 5.3.2008.
4. The transmission charges for Asset-I were approved by the Commission vide its order dated 17.6.2009 in Petition No 42/2009. Transmission charges for Asset-II, Asset-III, Asset-IV and Asset-V were
approved vide order dated 22.7.2009 in Petition Nos. 2/2009. The summary of the revised transmission charges approved by the said orders
dated 17.6.2009 and 22.7.2009 is extracted hereunder:
(Rs. in lakh)

|  | Asset- I |  | Asset II |  | Asset- III |  | Asset- IV |  | Asset-V |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 2007- \\ 08 \\ \text { ( Pro } \\ \text { rata) } \end{gathered}$ | $\begin{gathered} 2008 \\ 09 \end{gathered}$ | $\begin{gathered} 2007- \\ 08 \\ \text { ( Pro } \\ \text { rata) } \end{gathered}$ | $\begin{gathered} 2008- \\ 09 \end{gathered}$ | $\begin{gathered} \text { 2007-08 } \\ \text { ( Pro } \\ \text { rata) } \end{gathered}$ | $\begin{gathered} 2008 \\ 09 \end{gathered}$ | $\begin{gathered} \text { 2007-08 } \\ \text { ( Pro rata) } \end{gathered}$ | $\begin{gathered} 2008 \\ 09 \end{gathered}$ | $\begin{aligned} & \text { 2007-08 } \\ & \text { ( Pro rata) } \end{aligned}$ | 2008-09 |
| Depreciation | 15.17 | 15.35 | 597.35 | 1437.43 | 24.35 | 77.02 | 180.82 | 731.34 | 41.15 | 247.88 |
| Interest on Loan | 30.52 | 29.62 | 1016.06 | 2376.05 | 46.38 | 142.72 | 398.60 | 1574.30 | 97.00 | 570.87 |
| Retum on Equity | 22.53 | 22.82 | 887.11 | 2134.52 | 28.41 | 90.40 | 287.18 | 1161.67 | 62.88 | 378.77 |
| Advance against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on Working Capital | 1.82 | 1.85 | 81.70 | 196.86 | 4.18 | 13.01 | 27.67 | 111.40 | 6.82 | 41.07 |
| O \& M Expenses | 2.50 | 2.61 | 103.47 | 258.57 | 42.17 | 131.60 | 36.94 | 153.96 | 24.63 | 153.96 |
| Total | 72.54 | 72.25 | 2685.68 | 6403.43 | 145.49 | 454.75 | 931.20 | 3732.67 | 232.48 | 1392.55 |

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

|  | Capital cost as on <br> 1.4 .2008 | Additional Capital <br> Expenditure during <br> $2008-09$ | Capital cost <br> as on 1.4 .2009 |
| :---: | :---: | :---: | :---: |
| Asset-I | 563.55 | 72.93 | 636.48 |
| Asset-II | 50819.47 | 1736.07 | 52555.54 |
| Asset-III | 2152.19 | 188.61 | 2340.80 |
| Asset-IV | 27659.55 | 1145.76 | 28805.31 |
| Asset-V | 9018.22 | 517.45 | 9535.67 |

6. The petitioner has claimed the transmission charges a s under:
(Rs.in lakh)

|  | Asset I | Asset-II | Asset- III | Asset-IV | Asset V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ |
| Deprec iation | 16.28 | 1462.25 | 80.40 | 746.75 | 255.42 |
| Interest on Loan | 31.67 | 2418.76 | 149.12 | 1607.20 | 587.33 |
| Retum on Equity | 24.35 | 2170.98 | 94.36 | 1185.73 | 389.63 |
| Advance against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on Working Capital | 1.93 | 199.03 | 13.30 | 112.91 | 41.80 |
| O \& M Expenses | 2.61 | 258.57 | 131.60 | 153.96 | 153.96 |
| Total | $\mathbf{7 6 . 8 4}$ | $\mathbf{6 5 0 9 . 5 9}$ | $\mathbf{4 6 8 . 7 8}$ | $\mathbf{3 8 0 6 . 5 5}$ | $\mathbf{1 4 2 8 . 1 4}$ |

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

|  | Asset- I | Asset-II | Asset III | Asset-IV | Asset- V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ |  | $2008-09$ | $2008-09$ | $2008-09$ |
|  |  |  |  |  |  |
| Ma intenance Spa res | 5.83 | 518.23 | 19.44 | 274.48 | 90.37 |
| O \& M expenses | 0.22 | 21.55 | 10.97 | 12.83 | 12.83 |
| Receivables | 12.81 | 1084.93 | 78.13 | 634.43 | 238.02 |
| Total | 18.86 | 1624.71 | 108.54 | 921.74 | 341.22 |
| Rate of Interest | $10.25 \%$ | $12.25 \%$ | $12.25 \%$ | $12.25 \%$ | $12.25 \%$ |
| Interest | 1.93 | 199.03 | 13.30 | 112.91 | 41.80 |

8. No reply has been filed by the respondents.

## CAPITALCOST

9. The details submitted by the petitioner in support of its claim for additional capital expenditure 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 |
| $\begin{gathered} 2008- \\ 09 \end{gathered}$ | Transmission line =Rs. 72.93 lakh | Retention and final payments | 2008-09 | Building, transmission line, sub-station, PLCC = Rs. 1736.07 lakh | Retention and final payments | 2008-09 | Building, substation, PLCC $=$ Rs. 188.61 lakh | Retention and final payments |
| Total | Rs. 72.93 lakh |  |  | Rs. 1736.07 lakh |  |  | $\begin{aligned} & \text { Rs. } 188.61 \\ & \text { lakh } \\ & \hline \end{aligned}$ |  |


| Asset-IV |  |  | Asset-V |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- |
| Year | Amount <br> (Rs. in lakh) | Nature and <br> details of <br> expenditure | Year | Amount <br> (Rs. in lakh) | Nature and <br> details of <br> expenditure |
| 2008-09 | Building, transmission <br> line, sub-station, <br> PLCC= Rs. 1145.76 <br> lakh | Retention <br> and final <br> payments | 2008-09 | Transmission line, <br> sub-station and <br> PLCC=Rs. <br> 517.45 lakh | Retention and <br> final payments |
| Total | Rs. 1145.76 lakh |  | Rs. 517.45 lakh |  |  |

10. 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

11. Clause (1) of the Regulation 52 of the 2004 regulations inter a lia 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".
12. The details of actual expenditure incured 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 | $\begin{aligned} & \hline \text { From } \\ & 1-4-2008 \text { to } \\ & 31-3-2009 \end{aligned}$ | Total | Initial Spares included therein |  |
| 1 | Asset-I | 521.35 | 42.20 | 72.93 | 636.48 | 0.00 | Final transmission tariff up to the date of commercial operation and add cap up to 31.3.2008 allowed vide petition No. 42/2009 |
| 2 | Asset-II | 50559.03 | 260.45 | 1736.07 | 52555.55 | 730.00 | Final transmission |
| 3 | Asset-III | 1905.80 | 246.39 | 188.61 | 2340.80 | 62.14 | tariff up to the date of |
| 4 | Asset-IV | 27042.53 | 617.02 | 1145.76 | 28805.31 | 328.55 | commercial operation and |
| 5 | Asset-V | 8947.76 | 70.46 | 517.45 | 9535.67 | Not Shown in CA Certific ate | add cap up to 31.3.2008 allowed vide petition No. 2/2009 |

13. Total actual expenditure incurred by the petitioner for the transmission assets up to 31.3 .2009 is Rs. 93873.81 lakh and cost of spares included therein is Rs. 1120.69 lakh. The total cost without initial spares is

Rs. 92753.12 lakh and cost of spares included therein is Rs. 1120.69 lakh, which is within the limit of $1.50 \%$ up to 31.3 .2009 . The cut-off date for the project is 31.3.2009.

## IOTALCAPITALCOST

14. Based on the above, capital cost for the pupose of tariff in respect of each of the transmission a ssets except asset-II as on 31.3.2009 works out as under:
(Rs. in lakh)

|  | Capital cost ason <br> 1.4 .2008 | Additional Capital <br> Expenditure during <br> $2008-09$ | Capital cost as on <br> 1.4 .2009 |
| :---: | :---: | :---: | :---: |
| Asset-I | 563.55 | 72.93 | 636.48 |
| Asset-II | 50819.47 | 1736.07 | 52555.54 |
| Asset-III | 2152.19 | 188.61 | 2340.80 |
| Asset-IV | 27659.55 | 1145.76 | 28805.31 |
| Asset-V | 9018.22 | 517.45 | 9535.67 |

## DEBT- EQUITY RATIO

15. The petitioner has considered the amount of additional capital expenditure in the debt-equity ratio of 69.98:30.02 for Asset-I and 70:30 for Asset-II, Asset-III, Asset-IV and Asset-V. The additional capital expenditure has been restricted in the ratio of 70:30 in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, equity considered for the transmission a ssets is a s under.

|  | Equity as on <br> 1.4 .2008 | Notional equity due <br> to additional capital <br> expenditure during <br> 2008-09 | Total equity <br> considered as <br> on 31.3 .2009 | Average <br> equity for <br> $2008-09$ |
| :---: | ---: | ---: | ---: | ---: |
| Asset-I | 163.01 | 21.88 | 184.89 | 173.95 |
| Asset-II | 15246.60 | 520.82 | 15767.42 | 15507.01 |
| Asset-III | 645.72 | 56.58 | 702.30 | 674.01 |
| Asset-IV | 8297.64 | 343.73 | 8469.50 | 8641.36 |
| Asset-V | 2705.47 | 155.24 | 2860.71 | 2783.09 |

## REIURN ON EQUITY

16. As per clause (iii) of Regulation 56 of the 2004 regulations, retum on equity shall be computed on the equity base determined in accordance with regulation 54 @ $14 \%$ per a nnum. Equity invested in foreign currency is to be allowed a retum 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.
17. Equity as given in the table under para 15 above has been considered. However, tariff for the 2008-09 has been allowed on average 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 | 24.35 |
| Asset-II | 2170.98 |
| Asset-III | 94.36 |
| Asset-IV | 1185.73 |
| Asset-V | 389.63 |

## INIERESTON LOAN

18. 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 mived at in the manner indic ated 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 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 a ny dispute relating to refina nc ing 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."
19. In our calculation, the interest on loan has been worked out as detailed below:
(i) Gross a mount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual loan have been considered as per the petition.
(ii) Notional loan arising out of additional capital expenditure for the years 2008-09 has been added to the loan amount as on date of the commercial operation to amive at total notional loans. This adjusted Gross loan is considered as normative loans for tariff calculations.
(iii) Tariff has been worked out considering nomative loan and nomative repayments. Once the nomative loan is amived at, it is considered for all purposes in the tariff. Nomative repayment is 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
(iv) Moratorium in repayment of loan is considered with reference to nomative loan and if the nomative repayment of loan during the year is less than the depreciation during the year, it is considered as moratorium and depreciation during the year is deemed as nomative repayment of loan during the year.
(v) Weighted average rate of interest on actual loan worked out as per (i) above is applied on the notional average loan during the year to a mive at the interest on loan.
20. Based on the above, the details of interest worked out are given hereunder:

| Details | Asset- I | Asset-II | Asset- III | Asset-IV | Asset-V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ |
| Gross Nomative Loan | 400.54 | 35572.87 | 1506.47 | 19361.91 | 6312.75 |
| Cumulative Repayment up <br> to Previous Year/date of <br> commercial operation | 31.15 | 1738.65 | 33.52 | 180.82 | 41.15 |
| Net Loan-Opening | 369.39 | 33834.22 | 1472.96 | 19181.10 | 6271.61 |
| Addition due to Additional <br> Capita lisation | 51.05 | 1215.25 | 132.03 | 802.03 | 362.22 |
| Repayment during the year | 16.28 | 1462.25 | 80.40 | 746.75 | 255.42 |
| Net Loan-Closing | 404.15 | 33587.22 | 1524.59 | 19236.38 | 6378.40 |
| Average Loan | 386.77 | 33710.72 | 1498.77 | 19208.74 | 6325.00 |
| Weighted Average Rate of <br> Interest on Loan | $8.19 \%$ | $7.18 \%$ | $9.95 \%$ | $8.37 \%$ | $9.29 \%$ |
| Interest | 31.67 | 2418.76 | 149.12 | 1607.20 | 587.33 |

21. The detailed calculations in support of the weighted average rate of interest for Asset-I, Asset-II, Asset-III, Asset-IV and Asset-V are contained in Annexure-I, Annexure-II, Annexure-III, Annexure-IV and Annexure-V respectively atta ched.

## DEPRECIATION

22. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, na mely:
"(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 Exc hange 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 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."
23. Depreciation allowed has been worked out as below:

| Details | Asset- I | Asset-II | Asset- III | Asset-IV | Asset-V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ |
| Gross block as on the date of <br> commercial operation | 563.55 | 50819.47 | 2152.19 | 27659.55 | 9018.22 |
| AdditionaI Capitalisa tion <br> during 2008-09 | 72.93 | 1736.07 | 188.61 | 1145.76 | 517.45 |
| Gross Block at the end of the <br> year | 636.48 | 52555.54 | 2340.80 | 28805.31 | 9535.67 |
| Rate of Depreciation | $2.7140 \%$ | $2.8290 \%$ | $3.5788 \%$ | $2.6450 \%$ | $2.7533 \%$ |
| Depreciable Value | 540.01 | 46368.54 | 2021.85 | 25409.19 | 8349.25 |
| Balance Useful life of the asset | - | - | - | - | - |
| Rema ining Deprec iable Value | 511.44 | 45771.19 | 1997.50 | 25228.37 | 8308.11 |
| Depreciation | 16.28 | 1462.25 | 80.40 | 746.75 | 255.42 |

## ADVANCE AGAINSTDEPRECIATION

24. 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
25. 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.
26. Petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

## OPERATION \& MAINIENANCE EXPENSES

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

|  | Year |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7} \mathbf{- 0 8}$ | 2008-09 |
| 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 la kh per bay) | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |

28. O\&M expenses as taken for the tariff calculations as per orders dated 17.6.2009 and 22.7.2009 in Petition Nos. 42/2009 and 2/2009, respectively have been considered, since line length and number of bays remain unchanged.

## INIERESTON WORKING CAPITAL

29. 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 asconsidered in the orders dated 17.6.2009 and 22.7.2009 in Petition Nos. 42/2009 and 2/2009, respectively 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 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 nomative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ based on SBI PLR as on 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.
30. The necessary computations in support of interest on working capital are appended herein below:

|  | Asset- I | Asset-II | Asset- III | Asset-IV | Asset-V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ | 2008-09 |
| Ma intenance Spares | 5.83 | 518.23 | 19.44 | 274.48 | 90.37 |
| O \& M expenses | 0.22 | 21.55 | 10.97 | 12.83 | 12.83 |
| Receivables | 12.81 | 1084.93 | 78.13 | 634.43 | 238.02 |
| Total | 18.86 | $1,624.71$ | 108.53 | 921.74 | 341.23 |
| Rate of Interest | $10.25 \%$ | $12.25 \%$ | $12.25 \%$ | $12.25 \%$ | $12.25 \%$ |
| Interest | $\mathbf{1 . 9 3}$ | $\mathbf{1 9 9 . 0 3}$ | $\mathbf{1 3 . 3 0}$ | $\mathbf{1 1 2 . 9 1}$ | $\mathbf{4 1 . 8 0}$ |

## IRANSMISSION CHARGES

31. The transmission charges being allowed for the six transmission a ssets are summa rised below:
(Rs.in lakh)

|  | Asset- I | Asset-II | Asset III | Asset-IV | Asset-V |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ | $2008-09$ |
| Depreciation | 16.28 | 1462.25 | 80.40 | 746.75 | 255.42 |
| Interest on Loan | 31.67 | 2418.76 | 149.12 | 1607.20 | 587.33 |
| Retum on Equity against | 24.35 | 2170.98 | 94.36 | 1185.73 | 389.63 |
| Advance <br> Deprecia tion | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on Working Capital | 1.93 | 199.03 | 13.30 | 112.91 | 41.80 |
| O \& M Expenses | 2.61 | 258.57 | 131.60 | 153.96 | 153.96 |
| Total | $\mathbf{7 6 . 8 5}$ | $\mathbf{6 5 0 9 . 5 9}$ | $\mathbf{4 6 8 . 7 7}$ | $\mathbf{3 8 0 6 . 5 6}$ | $\mathbf{1 4 2 8 . 1 5}$ |

32. The petitioner shall recover from the beneficiaries the additional transmission charges in three instalments and these charges shall be shared in accordance with the 2004 regulations.
33. 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 fee shall not be allowed during the tariff period 2004-09 as the same has been factored in the O\&M noms. The decision on reimbursement of the licence fee shall be communic ated separately.
34. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess a nd taxes in accordance with the 2004 regulations.
35. This order disposes of Petition No. 3/2010.

SD/-<br>(S.J AYARAMAN) MEMBER

SD/(Dr.PRAMOD DEO) CHAIRPERSON

## Asset-I


$\left.\begin{array}{|l|l|r|}\hline & & 22.9 .2009 \\ \hline \mathbf{4} & \text { BOND XVIII } & \\ \hline & \text { Gross Loan opening } & 210.00 \\ \hline & \begin{array}{l}\text { Cumulative Repayment up to the date of } \\ \text { commercial operation//previous year }\end{array} & 0.00 \\ \hline & \text { Net Loan-Opening } & 210.00 \\ \hline & \text { Additions during the year } & 0.00 \\ & \text { Repayment during the year } & 0.00 \\ \hline & \text { Net Loan-C losing } & 210.00 \\ \hline & \text { Average Loan } & 210.00 \\ \hline & \text { Rate of Interest } & 8.15 \% \\ \hline & \text { Interest } & 17.12 \\ \hline & \text { Repayment Schedule } & \text { Instalments } \\ & & 9.3 .2010 \\ \hline \mathbf{5} & \text { BOND XIX } & \text { from } \\ \hline & \text { Gross Loan opening } & \\ \hline & \text { Cumulative Repayment up to the date of } \\ \text { commercial operation//previous year }\end{array}\right)$

|  | Details of Loan | 2008-09 |  |
| :---: | :---: | :---: | :---: |
| 1 | Bond XIII Option-I |  |  |
|  | Gross Loan opening |  | 95.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year |  | 15.83 |
|  | Net Loan-Opening |  | 79.17 |
|  | Additions during the year |  | 0.00 |
|  | Repayment during the year |  | 7.92 |
|  | Net Loan-Closing |  | 71.25 |
|  | Average Loan |  | 75.21 |
|  | Rate of Interest |  | 8.63\% |
|  | Interest |  | 6.49 |
|  | Repayment Schedule | 12 <br> instalments <br> 31.07.2006 | Annual from |
| 2 | Bond XXII |  |  |
|  | Gross Loan opening |  | 300.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year |  | 0.00 |
|  | Net Loan-Opening |  | 300.00 |
|  | Additions during the year |  | 0.00 |
|  | Repayment during the year |  | 0.00 |
|  | Net Loan-Closing |  | 300.00 |
|  | Average Loan |  | 300.00 |
|  | Rate of Interest |  | 8.68\% |
|  | Interest |  | 26.04 |
|  | Repayment Schedule | $\begin{aligned} & 12 \\ & \text { instalments } \\ & 12-2010 \\ & \hline \end{aligned}$ | Annual from 7- |
| 3 | Bond XXIII |  |  |
|  | Gross Loan opening |  | 600.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year |  | 0.00 |
|  | Net Loan-Opening |  | 600.00 |
|  | Additions during the year |  | 0.00 |
|  | Repayment during the year |  | 0.00 |
|  | Net Loan-Closing |  | 600.00 |
|  | Average Loan |  | 600.00 |
|  | Rate of Interest |  | 9.25\% |
|  | Interest |  | 55.50 |
|  | Repayment Schedule | 12 instalments 9.2.2011 | Annual from |


| 4 | Bond XXIV | 1500.00 |  |
| :---: | :---: | :---: | :---: |
|  | Gross Loan opening |  |  |
|  | Cumulative Repayment up to the date of commercial operation//previous year |  | 0.00 |
|  | Net Loan-Opening |  | 1500.00 |
|  | Additions during the year |  | 0.00 |
|  | Repayment during the year |  | 0.00 |
|  | Net Loan-Closing |  | 1500.00 |
|  | Average Loan |  | 1500.00 |
|  | Rate of Interest |  | 9.95\% |
|  | Interest |  | 149.25 |
|  | Repayment Schedule | $\begin{aligned} & \hline 12 \\ & \text { instalments } \\ & \text { 26.3.2011 } \\ & \hline \end{aligned}$ | Annual from |
| 5 | Bond XXV |  |  |
|  | Gross Loan opening |  | 2536.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year |  | 0.00 |
|  | Net Loan-Opening |  | 2536.00 |
|  | Additions during the year |  | 0.00 |
|  | Repayment during the year |  | 0.00 |
|  | Net Loan-Closing |  | 2536.00 |
|  | Average Loan |  | 2536.00 |
|  | Rate of Interest |  | 10.10\% |
|  | Interest |  | 256.14 |
|  | Repayment Schedule | $\begin{aligned} & 12 \\ & \text { instalments } \\ & \text { 12.6.2011 } \\ & \hline \end{aligned}$ | Annual from |
| 6 | $\underset{\substack{\text { ADB-II LB (USD } \\ \text { USD }}}{ } \mathbf{7 6 5 . 1 1}$ Lakh @Rs. 39.68/ | 30359.56 |  |
|  | Gross Loan opening |  |  |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 1659.51 |  |
|  | Net Loan-Opening | 28700.05 |  |
|  | Additions during the year | 0.00 |  |
|  | Repayment during the year | 1150.95 |  |
|  | Net Loan-Closing | 27549.10 |  |
|  | Average Loan | 28124.58 |  |
|  | Rate of Interest | 6.70\% |  |
|  | Interest | 1884.09 |  |
|  | Repayment Schedule | Repaid Semi Annually from 15.6.2006 |  |
|  | Gross Loan opening | 35390.56 |  |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 1675.34 |  |
|  | Net Loan-Opening | 33715.22 |  |
|  | Additions during the year | 0.00 |  |


|  | Repayment during the year | 1158.87 |
| ---: | :--- | ---: |
|  | Net Loan-Closing | 32556.35 |
|  | Average Loan | 33135.79 |
|  | Rate of Interest | $7.18 \%$ |
|  | Interest | 2377.51 |

## Annexure-III

Asset-III
$\left.\begin{array}{|l|l|r|}\hline & \text { Details of Loan } & \text { 2008-09 } \\ \hline \mathbf{1} & \text { Bond XIII Option-I } & \\ \hline & \text { Gross Loan opening } & 55.00 \\ \hline & \text { Cumulative Repayment up to the date of } \\ \text { commercial operation//previous year }\end{array}\right)$

|  |  | 12.6 .2011 |
| :--- | :--- | ---: |
|  | Gross Loan opening | 1334.00 |
|  | Cumulative Repayment up to the date of <br> commercial operation//previous year | 9.17 |
|  | Net Loan-Opening | 1324.83 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 4.58 |
|  | Net Loan-Closing | 1320.25 |
|  | Average Loan | 1322.54 |
|  | Rate of Interest | $9.95 \%$ |
|  | Interest | 131.59 |

## Asset-IV

|  | Details of Loan | 2008-09 |
| :---: | :---: | :---: |
| 1 | Bond XVII |  |
|  | Gross Loan opening | 8300.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 8300.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 8300.00 |
|  | Average Loan | 8300.00 |
|  | Rate of Interest | 7.39\% |
|  | Interest | 613.37 |
|  | Repayment Schedule | 10 Annual instalments from 22.9.2009 |
| 2 | Bond XVIII |  |
|  | Gross Loan opening | 3800.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 3800.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 3800.00 |
|  | Average Loan | 3800.00 |
|  | Rate of Interest | 8.15\% |
|  | Interest | 309.70 |
|  | Repayment Schedule | 12 Annual instalments from 9.3.2010 |
| 3 | Bond XIX |  |
|  | Gross Loan opening | 1000.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 1000.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 1000.00 |
|  | Average Loan | 1000.00 |
|  | Rate of Interest | 9.25\% |
|  | Interest | 92.50 |
|  | Repayment Schedule | 12 Annual instalments from 24.7.2010 |
| 4 | Bond XX |  |
|  | Gross Loan opening | 1000.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 1000.00 |
|  | Additions during the year | 0.00 |

$\left.\begin{array}{|l|l|r|}\hline & \text { Repayment during the year } & 0.00 \\ \hline & \text { Net Loan-C losing } & 1000.00 \\ \hline & \text { Average Loan } & 1000.00 \\ \hline & \text { Rate of Interest } & 8.93 \% \\ \hline & \text { Interest } & 89.30 \\ \hline & \text { Repayment Schedule } & \begin{array}{l}12 \text { Annual insta Iments } \\ \text { from 7.9.2010 }\end{array} \\ \hline \mathbf{5} & \text { Bond XXI } & 100.00 \\ \hline & \text { Gross Loan opening } & 0.00 \\ \hline & \text { Cumulative Repayment up to the date of } \\ \text { commercial operation//previousyear }\end{array}\right)$

|  | Gross Loan opening | 52.00 |
| :--- | :--- | ---: |
|  | Cumulative Repayment up to the date of <br> commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 52.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 52.00 |
|  | Average Loan | 52.00 |
|  | Rate of Interest | $9.95 \%$ |
|  | Interest | 5.17 |
|  | Repayment Schedule | 12 Annual instalments |
| from 26.3.2011 |  |  |$|$


|  | Details of Loan | 2008-09 |
| :---: | :---: | :---: |
| 1 | Bond XIX |  |
|  | Gross Loan opening | 150.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 150.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 150.00 |
|  | Average Loan | 150.00 |
|  | Rate of Interest | 9.25\% |
|  | Interest | 13.88 |
|  | Repayment Schedule | 12 Annual <br> instalments  <br> 24.7 .2010  |
| 2 | Bond XX |  |
|  | Gross Loan opening | 330.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 330.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 330.00 |
|  | Average Loan | 330.00 |
|  | Rate of Interest | 8.93\% |
|  | Interest | 29.47 |
|  | Repayment Schedule | 12 Annual <br> instalments  <br> 7. from  <br> 7.9.2010  |
| 3 | Bond XXI |  |
|  | Gross Loan opening | 2000.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 2000.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 2000.00 |
|  | Average Loan | 2000.00 |
|  | Rate of Interest | 8.73\% |
|  | Interest | 174.60 |
|  | Repayment Schedule | 12 Annual <br> instalments from |


|  |  | 11.10.2010 |
| :---: | :---: | :---: |
| 4 | Bond XXII |  |
|  | Gross Loan opening | 1000.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 1000.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 1000.00 |
|  | Average Loan | 1000.00 |
|  | Rate of Interest | 8.68\% |
|  | Interest | 86.80 |
|  | Repayment Schedule | $12 \quad$ Annual instalments from 7.12.2010 |
| 5 | Bond XXIII |  |
|  | Gross Loan opening | 500.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 500.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 500.00 |
|  | Average Loan | 500.00 |
|  | Rate of Interest | 9.25\% |
|  | Interest | 46.25 |
|  | Repayment Schedule | 12 Annua <br> instalments from  <br> 9.2.2011  |
| 6 | Bond XXV |  |
|  | Gross Loan opening | 2283.00 |
|  | Cumulative Repayment up to the date of commercial operation//previous year | 0.00 |
|  | Net Loan-Opening | 2283.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |
|  | Net Loan-Closing | 2283.00 |
|  | Average Loan | 2283.00 |
|  | Rate of Interest | 10.10\% |
|  | Interest | 230.58 |
|  | Repayment Schedule | 12 Annua <br> instalments  <br> 12.6.2011  |
|  | Gross Loan opening | 6263.00 |
|  | Cumulative Repayment up to the date of commercial operation/previous year | 0.00 |
|  | Net Loan-Opening | 6263.00 |
|  | Additions during the year | 0.00 |
|  | Repayment during the year | 0.00 |


|  | Net Loa n-Closing | 6263.00 |
| :--- | :--- | ---: |
|  | Average Loan | 6263.00 |
|  | Rate of Interest | $9.29 \%$ |
|  | Interest | 581.58 |

