# CENIRALELEC TRICITY REG ULATORY COMMISSION <br> NEW DELHI 

## Petition No. 49/2010

## Coram:

1. Dr. Pramod Deo, Chairperson
2. Shri S.J ayaraman, Member
3. Shri V.S.Verma, Member
4. Shri M.Deena Dayalan, Member

## DATE OF HEARING: 15.4.2010

DATE OF ORDER 1.6.2010

## In the matter of

Revision of transmission tariff due to additional capital expenditure incurred during 2006-07 and 2007-08 for (i) HVDC terminal station at Talcher and Kolar with Pole- II; (ii) 400 KV Kolar-Hossur D/C line along with the associated bay at kolar and Hossur, and (iii) 400 KV Salem-Udumalpet S/C Transmission Line along with associated bays extensions at Salem and Udumalpet under the Talcher Transmission System in Southem Region.

## And in the matter of

> Power Grid Comoration of India Limited, Gurgaon ..Petitioner Vs
1.Kamataka Power Transmission Corporation Limited, Ba ngalore 2.Transmission Comoration of Andhra Pradesh Ltd., Hyderabad
3.Kerala State Electricity Board, Thiruva nathapuram
4.Ta mil Na du Elec tricity Board, Chennai
5.Electricity Department, Govt. of Pondichemy, Pondichemy
6.Eastem Power Distribution Company of Andhra Pradesh Limited, Vishakhapatnam
7. Southem Power Distribution Company of Andhra Pradesh Limited, Tirupati
8. Central Power Distribution Company of Andhra Pradesh Limited, Hyderabad
9. Northem Power Distribution Company of Andhra Pradesh Limited, Warangal
10. Ba nga lore Electricity Supply Company Ltd., Ba ngalore
11. Gulbarga Electric ity Supply Company Ltd. Gulburga
12. Hubli Electric ity Supply Company Ltd., Hubli
13. MESC OM Corporate office, Mangalore
14.C ha mundeswari Elec tricity Supply Corporation Ltd., Mysore.
.Respondents

## The following were present

1. Shri U.K.Tyagi, PGCIL
2. Shri Rakesh Prasad, PGCIL
3. Shri M.M.Mondal, PGCIL
4. Shri R.Knishna sa wa mi, TENB

## ORDER

This petition has been filed for revision of transmission tariff due to additional capital expenditure incurred during 2006-07 and 2007-08 in respect of HVDC teminal station at Talcher and Kolar with Pole- II ( the transmission asset) under under the Talcher Transmission System (the transmission system) in Southem Region during the period from 1.4.2006 to 31.3.2009, based on the Central Elec tricity Regulatory Commission (Terms and Conditions of Tanff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations'). As there is no additional capital expenditure in respect of 400 KV Kolar-Hossur D/C line along with the associated bay at kolar and Hossur; and 400 KV Salem-Udumalpet S/C Transmission Line along with associated bays extensions at Salem and Udumalpet, the petitioner has not claimed the additional capital expenditure for the same. 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 for the transmission system was accorded by Ministry of Power vide its letter dated 9.2.2000 at an estimated cost of Rs. 386561 lakh, which included IDC of Rs. 386561 lakh (2nd quarter price level). The transmission assets was declared under commercial operation on 1.3.2003.
3. The transmission charges for the asset approved vide order dated 26.4.2007 in Petition No. 127/2005 were revised by the Commission vide its order dated 29.4.2008 in Petition No. 127/2005. The summary of the revised transmission charges approved by the said order dated 29.4.2008 is extracted hereunder.
(Rs. in lakh)

| Transmission Tariff | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8} \mathbf{- 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Depreciation | 2388.26 | 2389.19 | 2389.19 | 2389.19 | 2389.19 |
| Interest on Loan | 3387.67 | 3184.03 | 2914.92 | 2597.42 | 2279.91 |
| Retum on Equity | 1881.21 | 1881.79 | 1881.79 | 1881.79 | 1881.79 |
| Advance aga inst <br> Depreciation | 127.12 | 1348.03 | 2469.76 | 2469.76 | 2469.76 |
| Interest on Working Capital | 219.82 | 242.35 | 262.27 | 262.15 | 262.35 |
| O \& M Expenses | 478.04 | 497.25 | 517.14 | 537.71 | 559.30 |
| Total | $\mathbf{8 4 8 2 . 1 2}$ | $\mathbf{9 5 4 2 . 6 4}$ | $\mathbf{1 0 4 3 5 . 0 8}$ | $\mathbf{1 0 1 3 8 . 0 2}$ | $\mathbf{9 8 4 2 . 2 9}$ |

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

| Capital <br> cost ason <br> 1.4 .2006 | Additional <br> Capital <br> Expend iture <br> during 2006- <br> 07 | Capital <br> cost as <br> on | Additional <br> Capital <br> Expenditure <br> during 2007- <br> 08 | Capital <br> costas <br> on <br> 1.4 .2008 | Additional <br> Capital <br> Expenditure <br> during 2008- <br> 09 | Capital <br> cost as <br> on |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66313.42009 | 305.19 | 66618.81 | 347.01 | 66965.82 | - | 66965.82 |

5. The petitioner has cla imed the tra nsmission charges a s under:
(Rs. in lakh)

| Transmission Tariff | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Depreciation | 2388.26 | 2389.19 | 2398.34 | 2417.91 | 2428.32 |
| Interest on Loan | 3387.67 | 3184.03 | 2924.34 | 2625.25 | 2316.22 |
| Retum on Equity | 1881.21 | 1881.79 | 1888.20 | 1901.89 | 1909.18 |
| Advance a gainst <br> Depreciation | 127.12 | 1348.03 | 2460.61 | 2428.51 | 2451.07 |
| Interest on Working Capital | 219.82 | 242.35 | 262.55 | 262.77 | 263.81 |
| O \& M Expenses | 478.04 | 497.25 | 517.14 | 537.71 | 559.30 |
| Total | $\mathbf{8 4 8 2 . 1 2}$ | $\mathbf{9 5 4 2 . 6 4}$ | $\mathbf{1 0 4 5 1 . 1 8}$ | $\mathbf{1 0 1 7 4 . 0 4}$ | $\mathbf{9 9 2 7 . 9 0}$ |

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

| Working Capital | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5}-\mathbf{0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Maintenance Spares | 691.08 | 732.54 | 776.50 | 823.09 | 872.47 |
| O \& M expenses | 39.84 | 41.44 | 43.10 | 44.81 | 46.61 |
| Rec eivables | 1413.69 | 1590.44 | 1741.86 | 1695.67 | 1654.65 |
| Total | 2144.61 | 2364.42 | 2561.46 | 2563.57 | 2573.73 |
| Rate of Interest | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ |
| Interest | 219.82 | 242.35 | 262.55 | 262.77 | 263.81 |

7. Tamil Nadu Electricity Board (TNEB) vide its reply has raised following issues:-
(i) To order $20 \%$ of additional capital expenditure admitted for the period 2006-08 as equity for tariff purposes in line with decision taken vide order dated 26.4.2007 in I.A. No. 72/2009 in Petition No.127/2005;
(ii) To apply the outcome of Appeal No. 143/2009 filed with ATE in rem in respect of subject asset as the same is on principle though the appeal is filed against the assets NeelgmanagalaSomanahally and Gooty Ra ic hur;
(iii) To negate revision of $\mathrm{O} \& \mathrm{M}$ expenses considering the impact of wage revision effective from 1.1.2007 a long with D.A.;
(iv) To negate the claim of reimbursement of filing fee in line with the decision taken vide order dated 11.9.2009 in Petition No. 129/2005;
(v) Direct the petitioner to claim fees or imposition or charges specifically ordered by CERC from the beneficiaries.
8. As regard the issue raised at (i) above, equity has been allowed in this order as per the 2004 regulations. As regards the issue raised at (ii) above, it is clarified that it is premature to discuss the applicability or otherwise of the judgment in the Appeal which is presently pending before the Appellate Tribunal. A view in this regard will be taken based on the terms of the judgment. As regards the other two points, the same are discussed later in this order under the relevant heads.

## CAPITALCOST

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

| Year | Amount <br> (Rs. in lakh) | Nature a nd deta ils of expenditure |
| :---: | :---: | :--- |
| $2006-07$ | PLC = Rs. 305.19 | Final and retention payments |
| $2007-08$ | PLC = Rs. 347.01 | Final and retention payments |

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.

## TOTALCAPIALCOST

11. Based on the above, capital cost for the purpose of tariff in respect of the transmission assets as on 31.3.2009 works out as under:

| Capital cost <br> as on <br> 1.4 .2006 | Additional <br> Capital <br> Expenditure <br> during 2006-07 | Capital <br> costas <br> on <br> 1.4 .2007 | Additional <br> Capital <br> Expenditure <br> during 2007-08 | Capital <br> costas <br> on <br> 1.4 .2008 | Additional <br> Capital <br> Expenditure <br> during 2008- <br> 09 | Capital <br> costas <br> on <br> 1.4 .2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66313.62 | 305.19 | 66618.81 | 347.01 | 66965.82 | - | 66965.82 |

## DEBT- EQUITY RATIO

12. The petitioner has considered the amount of additional capital expenditure in the debt-equity ratio of 100:00 and 80:20 for the year 2006-07 and 2007-08. 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 <br> 1.4.2006 | Notional equity due to additional capital expenditure during 200607 | Average equity 2006-07 | $\begin{gathered} \hline \text { Equity } \\ \text { ason } \\ 1.4 .2007 \end{gathered}$ | Notional equity due to additional capital expenditur e during 2007-08 | Average equity for 2007-08 | Equity as <br> 1.4.2008 | Notional additional equity during 2008-09 | Total equity consider ed ason 31.3.2009 | Averag e equity for 2008-09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13441.35 | 0.00 | 13441.35 | 13441.35 | 69.40 | 13476.05 | 13510.75 | 0.00 | 13510.75 | 13510.75 |

## REIURN ON EQUITY

13. 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 currency 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.
14. Equity as given in the table under para 14 above has been considered. However, tariff for 2006-07 to 2008-09 has been allowed on
average equity. Accordingly, retum on equity allowed for the year 2006-07 to 2008-09 is given as under:
(Rs. in lakh)

| $2006-07$ | $2007-08$ | $2008-09$ |
| ---: | ---: | ---: |
| 1881.79 | 1886.65 | 1891.51 |

## INIERESTON LOAN

15. 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 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 nomative 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 ac cordingly.
(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."
16. 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 petition.
(b) Notional loan arising out of additional capital expenditure for the year 2006-07 and 2007-08 has been added to the loan amount as on the date of commercial operation to a rive at total notional loans. This adjusted gross loan has been considered as nomative loans for tariff calculations.
(c) Tariff is worked out considering nomative loan and nomative repayments. Once the nomative loan has been amived at, it is considered for all puposes 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, then 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.
(f) In earlier calculations, the petitioner had not provided the details in respect of gross loans. Gross interest on loan in respect of KFW ECAHemes (Fixed) has been calculated from the loan details provided by the petitioner for all the combined assets for the year 2004-05. Hence there is a minor difference of Rs. 12000/- as provided by the petitioner in Form-13 in the gross loan but net loan and interest on loan reconciles as per Form-13.
17. Based on the above, the details of interest worked out are given hereunder:

|  |  |  |  | (Rs. in lakh) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Gross Nommative Loan | 52839.16 | 52872.27 | 52872.27 | 53177.46 | 53455.07 |
| Cumulative Repayment up to Previous Year/date of commercial operation | 1619.29 | 5031.02 | 8768.80 | 13628.48 | 18486.87 |
| Net Loan-Opening | 51219.87 | 47841.25 | 44103.47 | 39548.98 | 34968.20 |
| Addition due to Additional C a pitalisation | 33.11 | 0.00 | 305.19 | 277.61 | 0.00 |
| Repayment during the year | 3411.73 | 3737.78 | 4859.68 | 4858.39 | 4896.22 |
| Net Loan-Closing | 47841.25 | 44103.47 | 39548.98 | 34968.20 | 30071.98 |
| Average Loan | 49530.56 | 45972.36 | 41826.23 | 37258.59 | 32520.09 |
| Weighted Average Rate of Interest on Loan | 6.84\% | 6.93\% | 7.00\% | 7.07\% | 7.15\% |


| Interest | 3388.18 | 3184.51 | 2927.98 | 2632.94 | 2324.21 |
| :--- | ---: | ---: | ---: | ---: | ---: |

18. The detailed calculations in support of the weighted average rate of interest for two assets are contained in Annexure attached.

## DEPRECIATION

19. 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 a sset.
(ii) Depreciation shall be calculated a nnually 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 historic al cost of the asset. The historic al 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."
20. Depreciation allowed has been worked out as below:
(Rs. in lakh)

|  | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Gross block as on the date of <br> commerc ial operation | 66272.23 | 66313.62 | 66313.62 | 66618.81 | 66965.82 |
| Additional C a pitalisation during <br> 2008-09 | 41.39 | 0.00 | 305.19 | 347.01 | 0.00 |
| Gross Block at the end of the year | 66313.62 | 66313.62 | 66618.81 | 66965.82 | 66965.82 |
| Rate of Deprec iation | $3.6026 \%$ | $3.6029 \%$ | $3.6084 \%$ | $3.6200 \%$ | $3.6262 \%$ |
| Deprec ia ble Value | 59663.63 | 59682.26 | 59819.59 | 60113.08 | 60269.24 |
| Ba la nce Useful life of the asset | - | - | - |  | - |
| Rema ining Deprec iable Value | 57140.81 | 54651.24 | 51050.79 | 46484.60 | 41782.37 |
| Depreciation | $\mathbf{2 3 8 8 . 2 6}$ | $\mathbf{2 3 8 9 . 1 9}$ | $\mathbf{2 3 9 8 . 3 4}$ | $\mathbf{2 4 1 7 . 9 1}$ | $\mathbf{2 4 2 8 . 3 2}$ |

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## ADVANCE AGAINSTDEPRECIATION

21. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD $=$ Loan repayment amount as per regulation 56 (i) subject to a ceiling of $1 / 10$ th of loan amount as per regulation 54 minus depreciation as per sc hedule
22. 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.
23. Accordingly, in our calculation the Advance Against Depreciation has been worked as detailed below:
(a) 1/10th of gross loan is worked out from the Gross Notional Loan asperpara 17 above.
(b) Repayment of notional loan during the year is considered as per para 17 above.
(c) Depreciation is worked out as per para 20 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
24. The Advance Against Depreciation has been worked as under:
(Rs. in lakh)

| Advance against Depreciation | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8}-\mathbf{0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| //10th of Gross Loan(s) | 5283.92 | 5287.23 | 5287.23 | 5317.75 | 5345.51 |
| Repayment of the Loan | 3411.73 | 3737.78 | 4859.68 | 4858.39 | 4896.22 |
| Minimum of the above | 3411.73 | 3737.78 | 4859.68 | 4858.39 | 4896.22 |
| Depreciation during the year | 2388.26 | 2389.19 | 2398.34 | 2417.91 | 2428.32 |
| (A) Difference | 1023.47 | 1348.59 | 2461.34 | 2440.48 | 2467.90 |
| Cumulative Repayment of the Loan | 5031.02 | 8768.80 | 13628.48 | 18486.87 | 23383.09 |
| Cumulative Depreciation/ Advance <br> against Depreciation | 4911.08 | 7420.21 | 11167.14 | 16046.39 | 20915.19 |
| (B) Difference | 119.94 | 1348.59 | 2461.34 | 2440.48 | 2467.90 |
| Advance against Depreciation <br> Minimum of (A) and (B) | $\mathbf{1 1 9 . 9 4}$ | $\mathbf{1 3 4 8 . 5 9}$ | $\mathbf{2 4 6 1 . 3 4}$ | $\mathbf{2 4 4 0 . 4 8}$ | $\mathbf{2 4 6 7 . 9 0}$ |

## OPERATION \& MAINIENANCE EXPENSES

25. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for $\mathrm{O} \& \mathrm{M}$ 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 perckt-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 |

26. $O \& M$ expenses as taken for the tariff calculations in the orders dated 26.4.2007 and 29.4.2008 in Petition No. 127/2005 has been considered, since line length and number of bays remain unc hanged.

## INIERESTON WORKING CAPITAL

27. 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. For the purpose of computation of maintenance spares, the historical cost is being taken as the cost on the date of commercial operation. Accordingly, maintenance spares have been worked out on the historical cost and by providing escalation from the date of commercial operation.

## (ii) $\mathbf{O} \& \mathbf{M}$ expenses

Regulation $56(\mathrm{v})(1)(\mathrm{a})$ 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 orders dated 26.4.2007 and 29.4.2008 in Petition No. 127/2005 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.
28. The necessary computations in support of interest on working capital are appended herein below:
(Rs. in lakh)

| Working Capital | $\mathbf{2 0 0 4 - 0 5}$ | $\mathbf{2 0 0 5}-\mathbf{0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Maintenance Spares | 691.08 | 732.55 | 776.50 | 823.09 | 872.48 |
| O \& M expenses | 39.84 | 41.44 | 43.10 | 44.81 | 46.61 |
| Receivables | 1412.56 | 1590.62 | 1741.52 | 1696.42 | 1655.86 |
| Total | $2,143.47$ | $2,364.60$ | $2,561.11$ | $2,564.32$ | $2,574.94$ |
| Rate of Interest | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ | $10.25 \%$ |
| Interest | $\mathbf{2 1 9 . 7 1}$ | $\mathbf{2 4 2 . 3 7}$ | $\mathbf{2 6 2 . 5 1}$ | $\mathbf{2 6 2 . 8 4}$ | $\mathbf{2 6 3 . 9 3}$ |

## IRANSMISSION CHARGES

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

| Transmission Tariff | $\mathbf{2 0 0 4} \mathbf{- 0 5}$ | $\mathbf{2 0 0 5 - 0 6}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 7 - 0 8}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Depreciation | 2388.26 | 2389.19 | 2398.34 | 2417.91 | 2428.32 |
| Interest on Loan | 3388.18 | 3184.51 | 2927.98 | 2632.94 | 2324.21 |
| Retum on Equity | 1881.21 | 1881.79 | 1881.79 | 1886.65 | 1891.51 |
| Advance a gainst | 119.94 | 1348.59 | 2461.34 | 2440.48 | 2467.90 |


| Depreciation |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Interest on Working Capital | 219.71 | 242.37 | 262.51 | 262.84 | 263.93 |
| O \& M Expenses | 478.04 | 497.25 | 517.14 | 537.71 | 559.30 |
| Total | $\mathbf{8 4 7 5 . 3 3}$ | $\mathbf{9 5 4 3 . 7 0}$ | $\mathbf{1 0 4 4 9 . 1 0}$ | $\mathbf{1 0 1 7 8 . 5 3}$ | $\mathbf{9 9 3 5 . 1 7}$ |

30. 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.
31. 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 the petitioner shall not be allowed reimbursement of the petition filing fee. The decision on reimbursement of the licence fee shall be communicated separately.
32. 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.
33. This order disp oses of Petition No. 49/2010.

| $\mathrm{Sd} /-$ | $\mathrm{sd} /-$ | $\mathrm{sd} /-$ | $\mathrm{sd} /-$ |
| :---: | :---: | :---: | :---: |
| (M.DEENA DAYALAN) | (V.S.VERMA) | (S.J AYARAMAN) | (Dr. PRAMOD DEO) |
| MEMBER | MEMBER | MEMBER | CHAIRPERSON |

Annexure-I

| s. in lakh) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Details of Loan | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| 1 | Bond-IX |  |  |  |  |  |
|  | Gross Loan opening | 2526.00 | 2526.00 | 2526.00 | 2526.00 | 2526.00 |
|  | Cumulative Repayment up to previous year | 252.60 | 505.20 | 757.80 | 1010.40 | 1263.00 |
|  | Net Loan-Opening | 2273.40 | 2020.80 | 1768.20 | 1515.60 | 1263.00 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 252.60 | 252.60 | 252.60 | 252.60 | 252.60 |
|  | Net Loan-Closing | 2020.80 | 1768.20 | 1515.60 | 1263.00 | 1010.40 |
|  | Average Loan | 2147.10 | 1894.50 | 1641.90 | 1389.30 | 1136.70 |
|  | Rate of Interest | 12.25\% | 12.25\% | 12.25\% | 12.25\% | 12.25\% |
|  | Interest | 263.02 | 232.08 | 201.13 | 170.19 | 139.25 |
|  | Repayment Schedule | 10 Annual instalments from 22.8.2003 |  |  |  |  |
|  |  |  |  |  |  |  |
| 2 | Bond-X |  |  |  |  |  |
|  | Gross Loan opening | 4804.00 | 4804.00 | 4804.00 | 4804.00 | 4804.00 |
|  | Cumulative Repayment up to previous year | 0.00 | 400.33 | 800.67 | 1201.00 | 1601.33 |
|  | Net Loan-Opening | 4804.00 | 4403.67 | 4003.33 | 3603.00 | 3202.67 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 400.33 | 400.33 | 400.33 | 400.33 | 400.33 |
|  | Net Loan-Closing | 4403.67 | 4003.33 | 3603.00 | 3202.67 | 2802.33 |
|  | Average Loan | 4603.83 | 4203.50 | 3803.17 | 3402.83 | 3002.50 |
|  | Rate of Interest | 10.90\% | 10.90\% | 10.90\% | 10.90\% | 10.90\% |
|  | Interest | 501.82 | 458.18 | 414.55 | 370.91 | 327.27 |
|  | Repayment Schedule | 12 Annual instalments from 21-6-2004 |  |  |  |  |
|  |  |  |  |  |  |  |
| 3 | Bond- XI Option 1 |  |  |  |  |  |
|  | Gross Loan opening | 3508.00 | 3508.00 | 3508.00 | 3508.00 | 3508.00 |
|  | Cumulative Repayment up to previous year | 0.00 | 0.00 | 292.33 | 584.67 | 877.00 |
|  | Net Loan-Opening | 3508.00 | 3508.00 | 3215.67 | 2923.33 | 2631.00 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 0.00 | 292.33 | 292.33 | 292.33 | 292.33 |
|  | Net Loan-Closing | 3508.00 | 3215.67 | 2923.33 | 2631.00 | 2338.67 |
|  | Average Loan | 3508.00 | 3361.83 | 3069.50 | 2777.17 | 2484.83 |
|  | Rate of Interest | 9.80\% | 9.80\% | 9.80\% | 9.80\% | 9.80\% |
|  | Interest | 343.78 | 329.46 | 300.81 | 272.16 | 243.51 |
|  | Repayment Schedule | 12 Annual instalments from 0-12-2005 |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Bond- XII |  |  |  |  |  |
|  | Gross Loan opening | 247.00 | 247.00 | 247.00 | 247.00 | 247.00 |
|  | Cumulative Repayment up to previous year | 0.00 | 0.00 | 20.58 | 41.17 | 61.75 |
|  | Net Loan-Opening | 247.00 | 247.00 | 226.42 | 205.83 | 185.25 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 0.00 | 20.58 | 20.58 | 20.58 | 20.58 |
|  | Net Loan-Closing | 247.00 | 226.42 | 205.83 | 185.25 | 164.67 |
|  | Average Loan | 247.00 | 236.71 | 216.13 | 195.54 | 174.96 |
|  | Rate of Interest | 9.70\% | 9.70\% | 9.70\% | 9.70\% | 9.70\% |
|  | Interest | 23.96 | 22.96 | 20.96 | 18.97 | 16.97 |
|  | Repayment Schedule | 12 Annual Insta Iments from 28.0.2006 |  |  |  |  |
|  |  |  |  |  |  |  |
| 5 | Bond- XIII Option 1 |  |  |  |  |  |

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|  | Gross Loan opening | 13015.00 | 13015.00 | 13015.00 | 13015.00 | 13015.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cumulative Repayment up to previous year | 0.00 | 0.00 | 0.00 | 1084.58 | 2169.17 |
|  | Net Loan-Opening | 13015.00 | 13015.00 | 13015.00 | 11930.42 | 10845.83 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 0.00 | 0.00 | 1084.58 | 1084.58 | 1084.58 |
|  | Net Loan-Closing | 13015.00 | 13015.00 | 11930.42 | 10845.83 | 9761.25 |
|  | Average Loan | 13015.00 | 13015.00 | 12472.71 | 11388.13 | 10303.54 |
|  | Rate of Interest | 8.63\% | 8.63\% | 8.63\% | 8.63\% | 8.63\% |
|  | Interest | 1123.19 | 1123.19 | 1076.39 | 982.80 | 889.20 |
|  | Repayment Schedule | 12 Annual inata Iments from 31-7-2006 |  |  |  |  |
| 6 | PNB-II |  |  |  |  |  |
|  | Gross Loan opening | 1028.00 | 1028.00 | 1028.00 | 1028.00 | 1028.00 |
|  | Cumulative Repayment up to previousyear | 0.00 | 85.67 | 171.33 | 257.00 | 342.67 |
|  | Net Loan-Opening | 1028.00 | 942.33 | 856.67 | 771.00 | 685.33 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 85.67 | 85.67 | 85.67 | 85.67 | 85.67 |
|  | Net Loan-Closing | 942.33 | 856.67 | 771.00 | 685.33 | 599.67 |
|  | Average Loan | 985.17 | 899.50 | 813.83 | 728.17 | 642.50 |
|  | Rate of Interest | 8.60\% | 8.60\% | 8.60\% | 8.60\% | 8.60\% |
|  | Interest | 84.72 | 77.36 | 69.99 | 62.62 | 55.26 |
|  | Repayment Schedule | 12 Annual Instalments from 8.3.2005 |  |  |  |  |
| 7 | OBC |  |  |  |  |  |
|  | Gross Loan opening | 1616.00 | 1616.00 | 1616.00 | 1616.00 | 1616.00 |
|  | Cumulative Repayment up to previous year | 0.00 | 134.67 | 269.33 | 404.00 | 538.67 |
|  | Net Loan-Opening | 1616.00 | 1481.33 | 1346.67 | 1212.00 | 1077.33 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 134.67 | 134.67 | 134.67 | 134.67 | 134.67 |
|  | Net Loan-Closing | 1481.33 | 1346.67 | 1212.00 | 1077.33 | 942.67 |
|  | Average Loan | 1548.67 | 1414.00 | 1279.33 | 1144.67 | 1010.00 |
|  | Rate of Interest | 8.60\% | 8.60\% | 8.60\% | 8.60\% | 8.60\% |
|  | Interest | 133.19 | 121.60 | 110.02 | 98.44 | 86.86 |
|  | Repayment Schedule | 12 Annual Insta Iments from 22.3.2005 |  |  |  |  |
| 8 | KFW ECA- Hemmes (Fixed) |  |  |  |  |  |
|  | Gross Loan opening | 17291.29 | 17291.29 | 17291.29 | 17291.29 | 17291.29 |
|  | Cumulative Repayment up to previous year | 864.57 | 2593.70 | 4322.83 | 6051.96 | 7781.09 |
|  | Net Loan-Opening | 16426.72 | 14697.59 | 12968.46 | 11239.33 | 9510.20 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 1729.13 | 1729.13 | 1729.13 | 1729.13 | 1729.13 |
|  | Net Loan-Closing | 14697.59 | 12968.46 | 11239.33 | 9510.20 | 7781.07 |
|  | Average Loan | 15562.16 | 13833.02 | 12103.89 | 10374.76 | 8645.63 |
|  | Rate of Interest | 3.91450\% | 3.91450\% | 3.91450\% | 3.91450\% | 3.91450\% |
|  | Interest | 609.18 | 541.49 | 473.81 | 406.12 | 338.43 |
|  | Repayment Schedule | Half yearly Instalments for 10 years from 31.3.2004 |  |  |  |  |
| 9 | KFW Hemmes (Foating) |  |  |  |  |  |
|  | Gross Loan opening | 2883.31 | 2883.31 | 2883.31 | 2883.31 | 2883.31 |
|  | Cumulative Repayment up to previous year | 224.52 | 504.39 | 784.26 | 1064.13 | 1344.00 |
|  | Net Loan-Opening | 2658.79 | 2378.92 | 2099.05 | 1819.18 | 1539.32 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Repayment during the year | 279.87 | 279.87 | 279.87 | 279.87 | 279.87 |
|  | Net Loan-Closing | 2378.92 | 2099.05 | 1819.18 | 1539.32 | 1259.45 |



| $\mathbf{1 4}$ | Bond XXII (ADDCAP FOR 2007-08 <br> DRAWLON O1.04.2007) |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  | Gross Loan opening | 0.00 | 0.00 | 0.00 | 0.00 | 7.17 |
|  | Cumulative Repa yment upto <br> previous year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Net Loan-Opening | 0.00 | 0.00 | 0.00 | 0.00 | 7.17 |
|  | Additions during the year | 0.00 | 0.00 | 0.00 | 7.17 | 0.00 |
|  | Repayment during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | Net Loan-Closing | 0.00 | 0.00 | 0.00 | 7.17 | 7.17 |
|  | Average Loan | 0.00 | 0.00 | 0.00 | 3.59 | 7.17 |
|  | Rate of Interest | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $8.68 \%$ | $8.68 \%$ |
|  | Interest | 0.00 | 0.00 | 0.00 | 0.31 | 0.62 |
|  | Repayment Schedule | 10 annual insta llments from 7.12 .2010 |  |  |  |  |
|  | Total Loan |  |  |  |  |  |
|  | Gross Loan opening | 51117.01 | 51117.01 | 51117.01 | 51422.20 | 51429.37 |
|  | Cumulative Repayment up to | 1566.51 | 4867.05 | 8480.50 | 13178.54 | 17876.58 |
|  | previous year |  |  |  |  |  |
|  | Net Loan-Opening | 49550.50 | 46249.96 | 42636.51 | 38243.66 | 33552.79 |
|  | Additions during the year | 0.00 | 0.00 | 305.19 | 7.17 | 0.00 |
|  | Repayment during the year | 3300.54 | 3613.45 | 4698.04 | 4698.04 | 4698.04 |
|  | Net Loan-Closing | 46249.96 | 42636.51 | 38243.66 | 33552.79 | 28854.75 |
|  | Average Loan | 47900.23 | 44443.23 | 40440.08 | 35898.22 | 31203.77 |
|  | Rate of Interest | $6.8406 \%$ | $6.9270 \%$ | $7.0003 \%$ | $7.0667 \%$ | $7.1470 \%$ |
|  | Interest | 3276.65 | 3078.58 | 2830.94 | 2536.81 | 2230.13 |

