CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Coram:

- 1. Shri Ashok Basu, Chairperson
- 2. Shri K.N.Sinha. Member
- 3. Shri Bhanu Bhushan, Member

Petition No.129/2004

In the matter of

Approval of transmission charges for 315 MVA 400/230 kV Auto Transformer at Hyderabad and one 50 MVAR Reactor at Cuddapah under Central Transmission Project Augmentation in Southern Region for the period from 1.4.2004 to 31.3.2009.

And in the matter of

Power Grid Corporation of India Limited

..Petitioner

Vs

- 1. Karnataka Power Transmission Corporation Ltd., Bangalore
- 2. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
- 3. Kerala State Electricity Board, Thiruvananthapuram
- 4. Tamil Nadu Electricity Board, Chennai
- 5. Electricity Department, Govt. of Pondicherry, Pondicherry
- 6. Electricity Department, Govt. of Goa, Panaji Respondents

The following were present:

- 1. Shri P.C. Pankaj, PGCIL
- 2. Shri U.K. Tyaqi, PGCIL
- 3. Shri C. Kannan, PGCIL
- 4. Shri M.M. Mondal, CM (Fin), PGCIL
- 5. Shri Rakesh Prasad, PGCIL
- 6. Shri S. Sowmyanarayanan, TNEB
- 7. Shri R.Balachandran, KSEB
- 8. Shri N.Vijaya Bhaskar, KPTCL

ORDER (DATE OF HEARING: 14.9.2005)

The petition has been filed for approval for transmission charges for 315 MVA 400/230 kV Auto Transformer-3 at Hyderabad and one 50 MVAR Reactor at Cuddapah (the transmission assets) under Central Transmission Project Augmentation in Southern Region for the period from 1.4.2004 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 that it be permitted to continue the billing of transmission charges on

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the same basis as charged on 31.3.2004, pending determination of tariff in the present petition. No other specific relief is prayed for.

- 2. The Board of Directors of the petitioner company in its meeting held on 18.3.1994 accorded the approval for Central Transmission Project augmentation, under its delegated powers for capital outlay of Rs. 3857.00 lakh, including IDC of Rs. 350.00 lakh for the transmission assets
- 3. The annual transmission charges from 1.4.2001 to 31.3.2004 were decided by the Commission in its order dated 20.2.2004 in Petition No.53/2002 at a cost of Rs. 834.38 lakh and Rs. 713.20 lakh for 315 MVA 400/230 kV Auto Transformer along with associated equipment at Hyderabad sub-station and 50 MVAR Reactor along with associated equipments at Cuddapah sub-station, respectively. The capital cost considered included FERV for the period up to 31.3.2001. The date of commercial operation of the respective transmission assets are as stated below:

| S. | Name of the transmission line | Date of commercial | | | | |
|------|---|--------------------|--|--|--|--|
| No. | | operation | | | | |
| (i) | 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 1.4.1995 | | | | |
| (ii) | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 1.4.1997 | | | | |

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

(Rs.in lakh)

| | 315 MVA 400/230 associated equipm | | | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | | |
|---------------------------------|--------------------------------------|-------------|-------------|--|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2004-05 | 2005- 06 | 2006- 07 | 2007- 08 | 2008- 09 | 2004- 05 | 2005- 06 | 2006- 07 | 2007- 08 | 2008- 09 |
| Depreciation | 31.25 | 31.25 | 31.25 | 31.25 | 31.25 | 25.79 | 25.79 | 25.79 | 25.79 | 25.79 |
| Interest on Loan | 7.23 | 6.13 | 4.96 | 3.70 | 2.35 | 14.42 | 13.24 | 11.97 | 10.61 | 9.13 |
| Return on Equity | 56.73 | 56.73 | 56.73 | 56.73 | 56.73 | 55.34 | 55.34 | 55.34 | 55.34 | 55.34 |
| 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 | 3.64 | 3.72 | 3.81 | 3.91 | 4.01 | 3.39 | 3.46 | 3.53 | 3.60 | 3.68 |
| O & M Expenses | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |
| Total | 126.96 | 127.08 | 127.17 | 127.21 | 127.24 | 127.06 | 127.07 | 127.04 | 126.97 | 126.84 |

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

| | | | | | | | | (Rs.ii | n lakh) | | |
|-----------------------|---------|---------------------------|---------|---------|---------|--|---------|---------|---------|---------|--|
| | | A 400/230 I d equipmen | | | | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | |
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | |
| Maintenance Spares | 12.00 | 12.72 | 13.48 | 14.29 | 15.15 | 9.54 | 10.11 | 10.72 | 11.36 | 12.04 | |
| O & M expenses | 2.34 | 2.44 | 2.54 | 2.64 | 2.74 | 2.34 | 2.44 | 2.54 | 2.64 | 2.74 | |
| Receivables | 21.16 | 21.18 | 21.19 | 21.20 | 21.21 | 21.18 | 21.18 | 21.17 | 21.16 | 21.14 | |
| Total | 35.50 | 36.34 | 37.21 | 38.13 | 39.09 | 33.06 | 33.73 | 34.43 | 35.16 | 35.92 | |
| Rate of Interest | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% | |
| Interest | 3.64 | 3.72 | 3.81 | 3.91 | 4.01 | 3.39 | 3.46 | 3.53 | 3.60 | 3.68 | |

6. The reply to the petition has been filed by Karnataka Power Transmission Corporation Limited, Tamil Nadu Electricity Board and Kerala State Electricity Board. In response to the public notices published by the petitioner in accordance with the procedure specified by the Commission, no comments have been received from the general public.

CAPITAL COST

- 7. As per clause (2) of Regulation 52 of the 2004 regulations in case of the projects existing as on 31.3.2004, the project cost admitted by the Commission for determination of tariff prior to 1.4.2004 shall form the basis for determination of tariff.
- 8. The petitioner has claimed the capital expenditure admitted by the Commission in the order dated 20.2.2004 ibid. The petitioner has not claimed additional capitalisation on works. The petitioner has claimed additional capitalization on account of FERV for the period 1.4.2001 to 31.3.2004. Accordingly, the capital expenditure and FERV considered by the petitioner for tariff purpose are given hereunder:

(Rs.in lakh)

| Name of the Element | Admitted capital cost | FERV for the period 1.4.2001 to 31.3.2004 | Total capital cost (1.4.2004) |
|---|-----------------------|---|----------------------------------|
| 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 834.38 | 30.86 | 865.24 |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 713.20 | 27.44 | 740.64 |
| Total | 1547.58 | 58.30 | 1605.88 |

Extra Rupee Liability during the years 2001-04:

- 9. Regulation 1.13 (a) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 provides as under:
 - (a) Extra rupee liability towards interest payment and loan repayment actually incurred, in the relevant year shall be admissible; provided it directly arises out of foreign exchange rate variation and is not attributable to Utility or its suppliers or contractors. Every utility shall follow the method as per the Accounting Standard-11 (Eleven) as issued by the Institute of Chartered Accountants of India to calculate the impact of exchange rate variation on loan repayment.
 - (b) Any foreign exchange rate variation to the extent of the dividend paid out on the permissible equity contributed in foreign currency, subject to the ceiling of permissible return shall be admissible. This as and when paid, may be spread over the twelve-month period in arrears.
- 10. Regulation 1.7 of the 2001 further provides that recovery of foreign exchange rate variation would be done directly by the utilities from the beneficiaries without filing a petition before the Commission. In case of any objections by the beneficiaries to the amounts claimed on these counts, they may file an appropriate petition before the Commission.
- 11. TNEB, KPTCL and KSEB in their reply have objected to capitalisation of FERV.

 We do not find the objection to be valid. FERV worked out by the petitioner is in

accordance with the provisions of AS-11, applicable for the period up to 31.3.2004. Additional capitalization of Rs. 30.86 lakh, as claimed, has been considered as regards 315 MVA 400/230 kV Auto transformer. In case of 50 MVAR Reactor, FERV works out to Rs. 27.47 lakh and has been allowed.

12. Based on the above, gross block for 2004-2009 for each of the elements in the petition is as under:

(Rs. in lakh)

| Name of the Element | Admitted capital cost as per order dated 20.2.2004 | FERV for the period 1.4.2001 to 31.3.2004 | Total capital cost (1.4.2004) | |
|---|--|---|-------------------------------|--|
| 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 834.38 | 30.86 | 865.24 | |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 713.20 | 27.44 | 740.64 | |
| Total | 1547.58 | 58.30 | 1605.88 | |

DEBT- EQUITY RATIO

- 13. Regulation 54 of the 2004 regulations inter alia provides that,-
- (1) In case of the existing project, debt-equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff.
- (2) In case of the transmission system for which investment approval was accorded prior to 1.4.2004 and which is likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff:

Provided further that the Commission may in appropriate case consider equity higher than 30% for the purpose of determination of tariff, where the

- transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;
- (3) In case of the transmission system for which investment approval is accorded on or after 1.4.2004, debt-equity in the ratio of 70:30 shall be considered for the purpose of determination of tariff:
 - Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.
- (4) The debt and equity amount arrived at in accordance with above sub-clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation."
- 14. The petitioner has claimed tariff based on debt-equity ratio as considered by the Commission in its order dated 20.2.2004 ibid. Based on this, the debt-equity ratio and equity claimed by the petitioner for the two assets for the purpose of determination of tariff in the present petition is indicated below:

| Name of the Element | Debt-equity ratio |
|---|--|
| 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 50:50 of net fixed asset as on 1.4. 1997 |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 46.63:53.37 |

15. In case of 315 MVA 400/230 kV Auto Transformer at Hyderabad substation, the petitioner has claimed tariff based on debt-equity of 50:50 on the net fixed asset as on 1.4.1997, which was considered by the Commission in its order dated 20.2.2004 ibid. Accordingly, Net Fixed Asset as on 1.4.1997 after adjusting cumulative deprecation of up to 31.3.1997 has been considered. Additional capitalization on account of FERV has been divided into debt and equity in the ratio of 50: 50. As there

is no additional capital expenditure on works during 2001-04, the actual loan and equity have been considered for tariff calculations. In case of 50 MVAR Reactor additional capitalization of Rs. 27.47 lakh on account of FERV has been treated as loan so as to bring debt-equity ratio close to the approved debt-equity ratio of 50:50. Therefore, debt-equity ratio and the equity considered for the purpose of tariff in each case are as under:

| Name of the Element | Debt-equity ratio considered | Equity (Rs. in lakh) | | |
|---|---|-------------------------|--|--|
| 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 50:50 of net fixed asset as on 1.4.1997 | 405.18 | | |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 48.61:51.39 | 380.66 | | |

RETURN ON EQUITY

- 16. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.
- 17. The petitioner has claimed return on the basis of order dated 20.2. 2004 ibid, However, in our calculations, return on equity has been allowed on the equity given under para 15 above, and the petitioner's entitlement in each year during the tariff period is given hereunder:

(Rs. in lakh)

| Name of the Element | Equity | Return in Equity |
|---|--------|------------------|
| 315 MVA 400 kV/230 Auto Transformer along with associated equipments at Hyderabad sub-station | 405.18 | 56.73 |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 380.66 | 53.29 |

INTEREST ON 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 arrived at in the manner indicated in regulation 54.
 - (b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan as per regulation 54 minus cumulative repayment as admitted by the Commission for the period up to 31.3.2004. The repayment for the period 2004-09 shall be worked out accordingly on normative basis.
 - (c) The transmission licensee shall make every effort to swap the loan as long as it results in net benefit to the long-term transmission customers. The costs associated with such swapping shall be borne by the long-term transmission customers.
 - (d) The changes to the loan terms and conditions shall be reflected from the date of such swapping and benefits passed on to the beneficiaries.
 - (e) 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.
- 19. The petitioner has claimed interest on loan in the following manner:
 - (i) Gross loans, cumulative loan repayment and outstanding balance up to previous year as admitted by the Commission order dated 20.2.2004 in petition No. 53/2002 have been taken as the Opening Balance as on 1.4.2004.
 - (ii) On the basis of actual rate of interest on actual average loan, the weighted average rate of interest on loan is worked out for various years.
 - (iii) Loans as admitted by the Commission in the order dated 20.2.2004 in petition No. 53/2002 have been considered as notional loan and the weighted

average rate of interest on loan for the year 2004-05 as per above has been multiplied with average notional loan to work out interest on loan.

- (iv) Notional loan component of FERV up to 31.3.2001 as well as per para 2 as above have been considered separately and actual applicable rate of interest on Foreign Loan have been considered to workout the interest on this component.
- 20. In our calculation, the interest on loan has been worked out as detailed below:
 - (i) Details of net outstanding loan as on 31.3.2004, repayment schedule for the period 2004-09, rate of interest as on 1.4.2004, exchange rate as on 31.3.2004 etc. have been taken from the loan allocation statement submitted by the petitioner for working out weighted average rate of interest. The rate of interest of IBRD-I loan is considered as 5.80% as per the loan allocation statement against 5.85% considered in the petition.
 - (ii) Gross notional loan and cumulative repayment up to 31.3.2004 have been taken from the order dated 20.2. 2004.
 - (iii) Notional loan arising out of FERV during the years 2001-04 has been considered.
 - (iv) The repayment of notional loan arising due to additional capitalization in case of 50 MVAR Reactor along with associated equipments at Cuddapah sub –station during the years 2001-04 has been worked out by the following formula:

(v) Tariff is worked out considering normative loan and normative repayments. Once the normative loan is arrived at, it is considered for all

purposes in the tariff. Normative repayment is worked out by the following formula:

Actual repayment of actual loan during the year

Opening balance of actual loan during the year

X Opening balance of normative loan during the year

- (vi) Moratorium in repayment of loan is considered with reference to normative loan and if the normative 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 normative repayment of loan during the year.
- (vii) Weighted average rate of interest on actual loan worked out as above is applied on the notional average loan during the year to arrive at the interest on loan.
- (viii) IBRD-I loan carries the floating rate of interest and rate of interest applicable as on 1.4.2004 has been considered in the calculation, subject to mutual settlement between the parties in case of any change/resetting of the interest rate during the tariff period.
- 21. Based on the above, the year wise details of interest worked out are given hereunder:

(Rs. in lakh)

| | | | kV Auto Tra erabad sub | ansformer a s-station | along with a | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | | |
|---|------------------------|---------|---------------------------|--------------------------|--------------|--|------------------------|-------------|---------|---------|-------------|-------------|
| Details of loan | Up to 31.3.20 04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | Up to 31.3.20 04 | 2004- 05 | 2005-06 | 2006-07 | 2007- 08 | 2008- 09 |
| Interest on loan | | | | | | | | | | | | |
| Gross Loan as on 1.4.2001 | 389.75 | | | | | | 332.54 | | | | | |
| Addition due to Additional Capitalisation | 0.00 | | | | | | 0.00 | | | | | |
| Addition due to FERV | 15.43 | | | | | | 27.47 | | | | | |
| Gross Loan | 405.18 | 405.18 | 405.18 | 405.18 | 405.18 | 405.18 | 360.01 | 360.01 | 360.01 | 360.01 | 360.01 | 360.01 |
| Cumulative Repayment up | | 272.63 | 303.88 | 335.13 | 366.37 | 397.62 | | 90.95 | 116.74 | 142.54 | 168.33 | 194.12 |

| to Previous Year | | | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Net Loan- | 132.55 | 101.30 | 70.05 | 38.81 | 7.56 | 269.06 | 243.26 | 217.47 | 191.68 | 165.88 |
| Opening | | | | | | | | | | |
| Repayment during the year | 31.25 | 31.25 | 31.25 | 31.25 | 7.56 | 25.79 | 25.79 | 25.79 | 25.79 | 25.79 |
| Net Loan- Closing | 101.30 | 70.05 | 38.81 | 7.56 | 0.00 | 243.26 | 217.47 | 191.68 | 165.88 | 140.09 |
| Average Loan | 116.93 | 85.68 | 54.43 | 23.18 | 3.78 | 256.16 | 230.37 | 204.57 | 178.78 | 152.99 |
| Weighted Average Rate of Interest on Loan | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% | 5.8000% |
| Interest | 6.78 | 4.97 | 3.16 | 1.34 | 0.22 | 14.86 | 13.36 | 11.87 | 10.37 | 8.87 |

DEPRECIATION

- 22. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:
 - (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
 - (ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.
 - (iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
 - (iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

23. The calculations in support of depreciation allowed are appended below:

(Rs.in lakh)

| | | | | o Transform sub-station | | y with ass | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | | | |
|--|---------|------------------------|---------|----------------------------|---------|------------|---|---------|------------------------|---------|---------|---------|---------|---------|
| Details of Depreciation | | Up to 31.3.20 04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | | Up to 31.3.20 04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| As per order dated 20.2.2004 | | 834.38 | | | | | | | 713.20 | | | | | |
| Additions during 2001-04 due to Additional Capitalisation | | 0.00 | | | | | | | 0.00 | | | | | |
| Addition during 2001-04 due to FERV | | 30.86 | | | | | | | 27.47 | | | | | |
| Gross Block as on 31.3.2004 | | 865.24 | 865.24 | 865.24 | 865.24 | 865.24 | 865.24 | | 740.67 | 740.67 | 740.67 | 740.67 | 740.67 | 740.67 |
| Rate of Depreciation | 3.6115% | | | | | | | 3.4825% | | | | | | |
| Depreciable Value | 90% | | 778.71 | 778.71 | 778.71 | 778.71 | 778.71 | 90% | | 666.60 | 666.60 | 666.60 | 666.60 | 666.60 |
| Balance Useful life of the asset | | | - | - | - | - | - | | | - | - | - | - | - |
| Remaining Depreciable Value | | | 408.58 | 377.33 | 346.08 | 314.83 | 283.58 | | | 400.50 | 374.71 | 348.92 | 323.12 | 297.33 |
| Depreciation | | | 31.25 | 31.25 | 31.25 | 31.25 | 31.25 | | | 25.79 | 25.79 | 25.79 | 25.79 | 25.79 |

ADVANCE AGAINST DEPRECIATION

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:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

- 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. The petitioner has not claimed Advance Against Depreciation. Accordingly, the petitioner's entitlement to Advance Against Deprecation is `nil`.

OPERATION & MAINTENANCE EXPENSES

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

| | Year | | | | | | | | |
|--------------------------------------|---------|---------|---------|---------|---------|--|--|--|--|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | | | | |
| O&M expenses (Rs in lakh per ckt-km) | 0.227 | 0.236 | 0.246 | 0.255 | 0.266 | | | | |
| O&M expenses (Rs in lakh per bay) | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 | | | | |

28. The petitioner has claimed O & M expenses for 2 bays (1 each at Hyderabad and Cuddapah sub stations), which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs in lakh)

| | | | | | | | (179. 11 | i iakii) | | |
|--------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-------------|------------|
| | 315 M\ | /A 400 k | (V/230 A | uto Tran | sformer | 50 M' | VAR R | eactor al | ong with | associated |
| | along with associated equipments at equipments at Cuddapah sub-station Hyderabad sub-station | | | | | | | | | |
| | 2004- 05 | 2005- 06 | 2004- 05 | 2005- 06 | 2006- 07 | 2004- 05 | 2005- 06 | 2006-07 | 2007- 08 | 2008-09 |
| O&M | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |
| expenses for | | | | | | | | | 1 | |
| bays | | | | | | | | | | |
| TOTAL | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |

29. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, according to the petitioner, O & M expenses should be subject to revision on account of revision of employee cost from that date. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

INTEREST ON WORKING CAPITAL

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

(i) Maintenance spares

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. The necessary details are given hereunder:

| Name of the Element | Date of Commercial Operation | Historical Cost (Rs. in lakh) | Maintenance spares (Rs in lakh) (As on 1.4.2004) |
|---|------------------------------------|-------------------------------------|---|
| 315 MVA 400/230 kV Auto Transformer along with associated equipments at Hyderabad sub-station | 1.4.1995 | 583.14 | 9.85 |
| 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | 1.4.1997 | 612.64 | 9.21 |

(ii) O & M expenses

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

(iii) Receivables

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level.

The petitioner has claimed the receivables on the basis 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(iv) Rate of interest on working capital

As per Regulation 56(v) (2) of the 2004 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 10.25% based on SBI PLR as on 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)

| | 315 MVA with assoc station | | Fransforme Hyderaba | | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | |
|--------------------|----------------------------------|---------|------------------------|---------|--|---------|---------|---------|---------|---------|
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008- 09 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Maintenance Spares | 9.85 | 10.44 | 11.07 | 11.73 | 12.44 | 9.21 | 9.76 | 10.35 | 10.97 | 11.63 |
| O & M expenses | 2.34 | 2.44 | 2.54 | 2.64 | 2.74 | 2.34 | 2.44 | 2.54 | 2.64 | 2.74 |
| Receivables | 21.05 | 20.94 | 20.85 | 20.76 | 20.80 | 20.90 | 20.85 | 20.80 | 20.77 | 20.74 |
| Total | 33.24 | 33.82 | 34.45 | 35.13 | 35.98 | 32.45 | 33.05 | 33.69 | 34.38 | 35.11 |
| Rate of Interest | 10.25% | 10.25% | 10.25% | 10.25% | 10.25 % | 10.25% | 10.25% | 10.25% | 10.25% | 10.25% |
| Interest | 3.41 | 3.47 | 3.53 | 3.60 | 3.69 | 3.33 | 3.39 | 3.45 | 3.52 | 3.60 |

TRANSMISSION CHARGES

32. A summary sheet showing basic details of capital cost and other related aspects is annexed to this order. The transmission charges being allowed are summarized below.

(Rs.in lakh)

| | | | | | | | | (: 10: | | |
|------------------------------------|---------|--------------------------|---------|---------|--|---------|---------|---------|---------|---------|
| | | A 400/230 ociated equ | | | 50 MVAR Reactor along with associated equipments at Cuddapah sub-station | | | | | |
| | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Depreciation | 31.25 | 31.25 | 31.25 | 31.25 | 31.25 | 25.79 | 25.79 | 25.79 | 25.79 | 25.79 |
| Interest on Loan | 6.78 | 4.97 | 3.16 | 1.34 | 0.22 | 14.86 | 13.36 | 11.87 | 10.37 | 8.87 |
| Return on Equity | 56.73 | 56.73 | 56.73 | 56.73 | 56.73 | 53.29 | 53.29 | 53.29 | 53.29 | 53.29 |
| 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 | 3.41 | 3.47 | 3.53 | 3.60 | 3.69 | 3.33 | 3.39 | 3.45 | 3.52 | 3.60 |
| O & M Expenses | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 | 28.12 | 29.25 | 30.42 | 31.63 | 32.90 |
| Total | 126.28 | 125.66 | 125.08 | 124.55 | 124.78 | 125.39 | 125.09 | 124.82 | 124.61 | 124.46 |

- 33. 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. These transmission charges shall be included in the regional transmission tariff for Southern Region and shall be shared by the regional beneficiaries in accordance with the 2004 regulations.
- 34. The petitioner by an affidavit dated 14.10.2005 has sought approval for the reimbursement of expenditure of Rs. 1,12,983/- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of transmission charges. The petitioner has also sought reimbursement of filing fee of Rs.5.00 lakh paid. A final view on reimbursement of filing fee is yet to be taken by the Commission for which views of the stakeholder have been called for. The view taken

on consideration of the comments received shall apply in the present case as regards reimbursement of filing fee.

- 35. The petitioner is already billing the respondents on provisional basis in accordance with the Commission's interim directions. The provisional billing of tariff shall be adjusted in the light of final tariff now approved by us.
- 36. This order disposes of Petition No.129/2004.

Sd-/ sd-/ (BHANU BHUSHAN) (K.N.SINHA) (ASHOK BASU)
MEMBER MEMBER CHAIRPERSON

New Delhi dated the 3rd May 2006

SUMMARY SHEET

| | e of the Element: | along with Hyderabad | associat | ed equipr | ansformer nents at | | Reactor alo | | | |
|------|---|-------------------------|-----------------|------------|-----------------------|----------|-------------|---------|--|--|
| Actu | al DOCO: | 1.4.1995 | | | | 1.4.1997 | | | | |
| | f setting Period: | 2004-09 | | | | | 2004 | -09 | | |
| | | | | | (Rs. in lakh) | | | | (Rs. in lakh) | |
| 1 | Capital Cost of the Project | | | | 3857.00@ | | | | 3857.00@ | |
| _ | Cumulative depreciation | _ | | | | | | | 0.0 | |
| 2 | receovered as on 31.3.199 Net Fixed Assets as on | / | | | 54.88 | | | | 713.2 | |
| 3 | 1.4.2004 | | | L | 779.50 | | | | | |
| 2 | Admitted Capital Cost as or | n 1.4.2004 for Calcu | liation of Debt | and Equity | 779.50 | | | | 713.2 | |
| 3 | Additional Capitalisation(wo | orks) | | | 0.00 | | | | 0.0 | |
| | For the year 2001-02 | | | 0.00 | | | | 0.00 | | |
| | For the year 2002-03 | | | 0.00 | | | | 0.00 | | |
| | For the year 2003-04 | | | 0.00 | | | | 0.00 | | |
| | Total | | | 0.00 | | | | 0.00 | 27.47 | |
| 4 | Additional Capitalisation(FE | ERV) | | | 30.86 | | | 1.35 | 21.41 | |
| | For the year 2001-02 | | | 1.51 | | | | 22.79 | | |
| | For the year 2002-03 | | | 25.60 | | | | 3.33 | | |
| | For the year 2003-04 | | | 3.74 | | | | 27.47 | | |
| 5 | Total | 04.2004(2+2+4) | | 30.86 | 040.00 | | | | 740.6 | |
| 6 | Total Capital Cost as on 01 Means of Finance: | 1.04.2004(2+3+4) | | | 810.36 | | | | | |
| 0 | Debt | | 50.00% | 405.18 | | | 48.61% | 360.01 | | |
| | Equity | | 50.00% | 405.18 | | | 51.39% | 380.66 | | |
| | Total | | 100.00% | 810.36 | | | 100.00% | 740.67 | | |
| | Gross Loan as on | | | | | | | | 360.01 | |
| 7 | 01.04.2004 | | | | 405.18 | | | | 219.92 | |
| | Cumulative Repayment up | | 070.74 | 405.18 | | | 87.52 | 213.32 | | |
| | Repaid up to 31.03.200 |)4 | | 270.71 | | | | 3.43 | | |
| | From 01.04.01 to 31.03 | 3.2004 (ACE & FERV |) | 1.92 | | | | | | |
| | From 01.04.2004 to 31. | | | 132.55 | | | | 128.97 | | |
| | Total | 3732.7226 | | 405.18 | | | | 219.92 | 140.09 | |
| 8 | Balance Loan to be repaid | | l | | 0.00 | | | | 395.06 | |
| 9 | Depreciation recovered up | | 440 | T-4-1 | 526.38 | Dep | AAD | Total | | |
| | Recovered up to | Dep | AAD | Total | | 264.73 | 0.00 | 264.73 | | |
| | 31.03.2004 | 368.55 | 0.00 | 368.55 | | | | | | |
| | From 01.04.01 to 31.03.2004 (ACE & | | | | | 1.73 | 0.00 | 1.37 | | |
| | FERV) | 1.59 | 0.00 | 1.59 | | | | | | |
| | From 01.04.2004 to 31.03.2009 | 156.24 | 0.00 | 156.24 | | 128.97 | 0.00 | 128.97 | | |
| | | 100.24 | 0.00 | 100.24 | | | | 395.06 | | |
| | Total | | | 526.38 | | | | | 271.5 | |
| 10 | Balance Depreciation to be | | 1.03.2009 : | | 252.34 | | | | 2/1.5 | |
| | Capital cost for the purp | pose of Depreciation | | 004.00 | | | | 713.20 | | |
| | | | | 834.38 | | | | 27.47 | | |
| | ACE + FERV | | | 30.86 | | | | | | |
| | Capital cost as 01.04.2 | 004 | | 865.24 | | | | 740.67 | | |
| | | | | | | | | 0.00 | | |
| | Less: Land Cost | | | 0.00 | | | | 740.67 | | |
| | | | | 865.24 | | | | | | |
| | 90% of Capital Cost as | ahove | | 770 74 | | | | 666.60 | | |
| | 90% of Capital Cost as Cum. Depreciation to be | e recovered up to 31 | .03.09 | 778.71 | | | | 395.06 | | |
| | | 1 | 1 | 526.38 | | | | 271.53 | | |
| | i i | I | Ī | 252.34 | | | | _1 1.00 | 1 | |

@ For both the assets.