

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram**

- 1. Shri Bhanu Bhushan, Member**
- 2. Shri R. Krishnamoorthy, Member**

**Petition No. 27/2002**

**In the matter of**

Approval of tariff for 400 kV Korba Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 47/2002**

Approval of tariff in respect of 400 kV Vindhyachal Stage-I Transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 48/2002**

Approval of tariff in respect of 50 MVAR Reactor along with associated equipment at Chandrapur sub-station in Western Region for the period 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 49/2002**

Approval of tariff in respect of Korba-Budhipadar Transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 66/2002**

Approval of tariff in respect of 400 kV Vindhyachal Stage-I additional transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 69/2002**

Approval of transmission tariff in respect of Ramagundam-Hyderabad transmission line in Southern Region and Chandrapur HVDC back-to-back station (2x400 MW) in Western Region and Southern Region for the period from 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 72/2002**

Approval of tariff in respect of 400 kV Vindhyaachal Stage-II Transmission System in Western Region for the period from 1.4.2001 to 31.3.2004.

**And in the matter of**

**Petition No. 74/2002**

Approval of tariff in respect of transmission system associated with Gandhar Gas Power Station (stage I) in Western Region for the period from 1.4.2001 to 31.3.2004.

Power Grid Corporation of India Ltd.

**.... Petitioner**

Vs

1. Madhya Pradesh State Electricity Board, Jabalpur
2. Maharashtra State Electricity Board, Mumbai
3. Gujarat Electricity Board, Vadodara
4. Electricity Department, Govt of Goa, Panaji, Goa
5. Electricity Department, Admn. of Dadra and Nagar Haveli, Silvassa
6. Chhattisgarh State Electricity Board, Raipur
7. Electricity Department, Admn. Of Daman & Diu, Daman **.....Respondents**

**ORDER**

In these petitions, the petitioner, Power Grid Corporation of India Limited, had sought approval of tariff in respect of its various transmission assets in Western Region for the period from 1.4.2001 to 31.3.2004, based on the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations 2001 (hereinafter referred to as "the 2001 regulations"). On completion of pleadings and after hearing the parties, final tariff in respect of these assets was awarded by different orders. The details of capital cost, equity considered at the time of award of tariff and the summary of the tariff awarded in each case are given in the annexures I to VIII attached.

2. Tamil Nadu Electricity Board (TNEB) filed Appeal No. 135/2005 in the Appellate Tribunal for Electricity against order dated 30.6.2006 of the

Commission in Petition No 40/2002, vide which while fixing transmission tariff in respect of 400 kV D/C Kaiga-Sirsi transmission line along with associated bays for the period 1.4.2001 to 31.3.2004, the methodology similar to that adopted in respect of the Transmission System was followed. TNEB had, *inter alia*, questioned the methodology of bifurcation of FERV into debt and equity for the purpose of tariff determination. This appeal, as also some other linked appeals were disposed of by the Appellate Tribunal through a common judgment dated 4.10.2006. The Appellate Tribunal its judgment dated 4.10.2006 held as under:

“16. According to Explanation 1 to clause 4.4 (c), the premium raised by the Transmission Utility while issuing share capital and investment of internal resources created out of free reserve of the existing utility, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing the return on equity subject to fulfillment of certain conditions. Explanation also makes no provision for increasing the equity beyond 50% of the book value of the transmission system. Once the fixed cost has been agreed to be financed in a certain ratio of debt and equity, the equity can be affected by FERV only if the equity is in foreign exchange. The provision of FERV as a pass through has been kept to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates (whether debt or equity) is passed on to the beneficiary. In case there is no FERV liability or gain, as the case may be, there will not be any FERV adjustment. In the instant case the additional liability arising on account of FERV shall have an impact only on the debt liability and not equity capital. In this view of the matter, we hold that FERV adjustment is to be made in respect of debt liability and not in respect of the equity. Accordingly, we hold that the CERC is only to make adjustment in respect of debt liability and not in respect of the equity.

17. In view of the aforesaid discussion, the appeal is partly allowed to the extent indicated above. The Central Electricity Regulatory Commission shall re-calculate the effect of FERV on the debt liability.”

3. The above decision was reiterated by the Appellate Tribunal in its Judgment dated 22.12.2006 in Appeal No 161 Of 2006 (M.P. State Electricity Board Vs. Power grid Corporation of India and Others) which related to transmission tariff for Vindhyachal Stage - I Additional Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.

4. The Judgment of the Appellate Tribunal, involving interpretation of the notification dated 16.12.1997 of Ministry of Power, is considered to be judgment *in rem* and thereby has universal application in all the cases of similar nature. Accordingly, it has been decided to apply the ratio of the judgment in all similar cases and re-calculate the tariff in accordance with the judgment of the Appellate Tribunal.

5. In terms of judgment dated 4.10.2006 of the Appellate Tribunal in Appeal No 135 of 2005 and other related appeals, addition of notional equity on account of FERV is not to be considered for computation of return on equity. As a consequence, the entire amount of FERV shall form part of loan.

6. The NTPC filed Appeal No. 159 of 2005 before the Appellate Tribunal for Electricity which was disposed of vide judgment dated 31.10.2007. The Appellate Tribunal vide the above judgment held, *inter alia*, that interest on loan capital should be determined based on normative debt repayment formula.

7. .Based on the above decisions, the tariff for the period 1.4.2001 to 31.3.2004 has been recalculated. The revised calculations are also incorporated in the annexures attached separately for each petition. It is to be noted that there is no change in the O & M component of the tariff because this was allowed on normative basis for per km line length and per bay. O & M charges already approved therefore, hold good. All other components of tariff have been recalculated.

8. In the light of the forgoing, the revised transmission charges have also been summarized in the annexures.

9. It is brought out that there has been revision of debt and equity, for re-computation of transmission charges consequent to implementation of the Appellate Tribunal's judgments dated 4.10.2006 and 31.10.2007. In all other respects, the methodology considered is the same as originally considered.

10. The petitioner shall adjust the entire excess amount collected by it against the future bills within six months, from the date of this order.

10. We also make it clear that as the revision of tariff has arisen consequent to the directions of the Appellate Tribunal, and not any commission or omission on the part of the petitioner, it will not incur any liability towards payment of interest on the grounds of excess recovery.

11. The revision of tariff allowed is subject to decision of the Hon`ble Supreme Court in the appeals filed by the petitioner against the Appellate Tribunal's judgment dated 4.10.2006

**Sd/-**  
**(R KRISHNAMOORTHY)**  
**MEMBRER**  
**New Delhi dated 17<sup>th</sup> January 2008**

**sd/-**  
**(BHANU BHUSHAN)**  
**MEMBRER**

## Annexure-I

1. Petition No. 27/2002
2. Subject: Approval of tariff for 400 kV Korba Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 18.7.2003
4. **Original tariff**

- (a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 37.89          | 7.50           | 0.00           |
| Interest on Working Capital  | 99.31          | 102.45         | 100.90         |
| Depreciation                 | 630.27         | 630.27         | 363.41         |
| Advance against Depreciation | 7.11           | 7.11           | 0.00           |
| Return on Equity             | 1223.76        | 1223.76        | 1223.76        |
| O & M Expenses               | 980.20         | 1039.02        | 1101.36        |
| <b>Total</b>                 | <b>2978.54</b> | <b>3010.10</b> | <b>2789.43</b> |

- (b) Computation of capital cost

(Rs. in lakh)

|  |                 |
|--|-----------------|
| Capital Expenditure up to 31.3.2001                        | 23077.01        |
| FERV on account of closing balance of foreign loan         | 316.77          |
| Capital Expenditure up to 31.3.2001                        | 23393.78        |
| Additional Capital Expenditure after 31.3.2001             | 0.00            |
| Capital Expenditure considered for determination of Tariff | <b>23393.78</b> |

- (c) Computation of equity

(Rs. in lakh)

|                                     |         |
|-------------------------------------|---------|
| Equity up to 31.3.2001              | 7490.13 |
| Notional equity arising out of FERV | 158.38  |
| Total Equity                        | 7648.51 |

## 5. **Revised tariff computations**

- (a) Equity and return on equity

(Rs. in lakh)

|                                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------------|----------------|----------------|
| Equity                           | 7490.13        | 7490.13        | 7490.13        |
| Return on equity up to 31.3.2001 | <b>1198.42</b> | <b>1198.42</b> | <b>1198.42</b> |

## (b) Interest on notional loan

(Rs. in lakh)

| <b>Interest on Loan</b>                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|--|----------------|----------------|----------------|
| Gross Loan –Opening                      | 7806.90        | 7806.90        | 7806.90        |
| Cumulative Repayment up to Previous Year | 5141.56        | 6110.47        | 78.06.90       |
| Net Loan-Opening                         | 2665.34        | 1696.43        | 0.00           |
| Repayment during the year                | 968.91         | 1696.43        | 0.00           |
| Net Loan-Closing                         | 1696.43        | 0.00           | 0.00           |
| Average Loan                             | 2180.89        | 848.22         | 0.00           |
| Rate of interest                         | 1.8472%        | 0.9403%        | 0.0000%        |
| <b>Interest</b>                          | <b>40.29</b>   | <b>7.98</b>    | <b>0.00</b>    |

## (c) Depreciation

(Rs. in lakh)

|                                  |          | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------|----------------|----------------|----------------|
| Depreciable Value                | 21054.40 |                |                |                |
| Balance Useful life of the asset | 20.00    | 20.00          | 19.00          | 18.00          |
| Remaining Depreciable Value      |          | 7816.09        | 7165.52        | 6514.94        |
| <b>Depreciation</b>              |          | <b>630.27</b>  | <b>630.27</b>  | <b>361.94</b>  |

## (d) Advance Against Depreciation

(Rs. in lakh)

| <b>Advance Against Depreciation</b> | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|-------------------------------------|----------------|----------------|----------------|
| 1/12th of Gross Loan(s)             | 650.57         | 650.57         | 650.57         |
| Scheduled Repayment of the Loan(s)  | 968.91         | 1696.43        | 0.00           |
| Minimum of the above                | 650.57         | 650.57         | 0.00           |
| Depreciation during the year        | 630.27         | 630.27         | 361.94         |
| <b>Advance Against Depreciation</b> | <b>20.30</b>   | <b>20.30</b>   | <b>0.00</b>    |

## (e) Interest on Working Capital

(Rs. in lakh)

| <b>Working Capital</b> |        | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------|--------|----------------|----------------|----------------|
| Maintenance Spares     | 269.29 | 285.45         | 302.58         | 320.73         |
| O & M expenses         |        | 81.68          | 86.58          | 91.78          |
| Receivables            |        | 494.77         | 499.70         | 460.35         |
| Total                  |        | 861.90         | 888.86         | 872.86         |
| Rate of Interest       |        | 11.50%         | 11.50%         | 11.50%         |
| Interest               |        | <b>99.12</b>   | <b>102.22</b>  | <b>100.38</b>  |

## (f) Revised Annual Transmission charges

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 40.29          | 7.98           | 0.00           |
| Interest on Working Capital  | 99.12          | 102.22         | 100.38         |
| Depreciation                 | 630.27         | 630.27         | 361.94         |
| Advance against Depreciation | 20.30          | 20.30          | 0.00           |
| Return on Equity             | 1198.42        | 1198.42        | 1198.42        |
| O & M Expenses               | 980.20         | 1039.02        | 1101.36        |
| <b>Total</b>                 | <b>2968.60</b> | <b>2998.21</b> | <b>2762.10</b> |

## Annexure-II

1. Petition No. 47/2002
2. Subject: Approval of tariff in respect of 400 kV Vindhyachal Stage-I Transmission System in Western Region for the period 1.4.2001 to 31.3.2004
3. Date of order of approval of tariff: 18.7.2003
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 120.44         | 3.32           | 0.00           |
| Interest on Working Capital  | 108.62         | 108.88         | 106.44         |
| Depreciation                 | 733.92         | 733.92         | 413.18         |
| Advance against Depreciation | 57.02          | 0.00           | 0.00           |
| Return on Equity             | 1518.59        | 1518.59        | 1518.59        |
| O & M Expenses               | 735.77         | 779.91         | 826.71         |
| <b>Total</b>                 | <b>3274.35</b> | <b>3144.62</b> | <b>2864.92</b> |

- (b) Computation of capital cost

(Rs. in lakh)

|  |                 |
|--|-----------------|
| Capital Expenditure up to 31.03.2001               | 26988.25        |
| FERV on account of closing balance of foreign loan | 40.77           |
| Capital Expenditure up to 31.03.2001               | 27029.02        |
| Additional Capital Expenditure after 31.03.2001    | 0.00            |
| <b>Total Capital Expenditure</b>                   | <b>27029.02</b> |

- (c) Computation of equity

(Rs. in lakh)

|                                     |                |
|-------------------------------------|----------------|
| Equity up to 31.3.2001              | 9470.81        |
| Notional equity arising out of FERV | 20.39          |
| <b>Total Equity</b>                 | <b>9491.20</b> |

### 5. Revised tariff computations

- (a) Equity and return on equity

(Rs. in lakh)

|                                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------------|----------------|----------------|
| Equity                           | 9470.81        | 9470.81        | 9470.81        |
| Return on equity up to 31.3.2001 | <b>1515.33</b> | <b>1515.33</b> | <b>1515.33</b> |

- (b) Interest on notional loan



(Rs. in lakh)

| <b>Interest on Loan</b>                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|--|----------------|----------------|----------------|
| Gross Loan –Opening                      | 9511.58        | 9511.58        | 9511.58        |
| Cumulative Repayment up to Previous Year | 6077.75        | 8801.02        | 9511.58        |
| Net Loan-Opening                         | 3433.83        | 710.56         | 0.00           |
| Repayment during the year                | 2723.27        | 710.56         | 0.00           |
| Net Loan-Closing                         | 710.56         | 0.00           | 0.00           |
| Average Loan                             | 2072.19        | 355.28         | 0.00           |
| Rate of Interest                         | 5.8470%        | 0.9403%        | 0.0000%        |
| <b>Interest</b>                          | <b>121.16</b>  | <b>3.34</b>    | <b>0.00</b>    |

## (c) Depreciation

(Rs. in lakh)

|                                  |          | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------|----------------|----------------|----------------|
| Depreciable Value                | 24326.12 |                |                |                |
| Balance Useful life of the asset | 23.00    | 23.00          | 22.00          | 21.00          |
| Remaining Depreciable Value      |          | 10201.73       | 9419.10        | 8675.18        |
| <b>Depreciation</b>              |          | <b>733.92</b>  | <b>733.92</b>  | <b>413.10</b>  |

## (d) Advance Against Depreciation

(Rs. in lakh)

| <b>Advance Against Depreciation</b> | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|-------------------------------------|----------------|----------------|----------------|
| 1/12th of Gross Loan(s)             | 792.63         | 792.63         | 792.63         |
| Scheduled Repayment of the Loan(s)  | 2723.27        | 710.56         | 0.00           |
| Minimum of the above                | 792.63         | 710.56         | 0.00           |
| Depreciation during the year        | 733.92         | 733.92         | 413.18         |
| <b>Advance Against Depreciation</b> | <b>58.72</b>   | <b>0.00</b>    | <b>0.00</b>    |

## (e) Interest on Working Capital

(Rs. in lakh)

| <b>Working Capital</b> |        | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------|--------|----------------|----------------|----------------|
| Maintenance Spares     | 318.36 | 337.46         | 357.71         | 379.17         |
| O & M expenses         |        | 61.31          | 64.99          | 68.89          |
| Receivables            |        | 545.58         | 523.55         | 476.92         |
| Total                  |        | 944.36         | 946.26         | 924.98         |
| Rate of Interest       |        | 11.50%         | 11.50%         | 11.50%         |
| Interest               |        | <b>108.60</b>  | <b>108.82</b>  | <b>106.37</b>  |

## (f) Revised Annual Transmission charges

(Rs. In lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 121.16         | 3.34           | 0.00           |
| Interest on Working Capital  | 108.60         | 108.82         | 106.37         |
| Depreciation                 | 733.92         | 733.92         | 413.10         |
| Advance against Depreciation | 58.72          | 0.00           | 0.00           |
| Return on Equity             | 1515.33        | 1515.33        | 1515.33        |
| O & M Expenses               | 735.77         | 779.91         | 826.71         |
| <b>Total</b>                 | <b>3273.49</b> | <b>3141.32</b> | <b>2861.51</b> |

## Annexure-III

1. Petition No. 48/2002
2. Subject: Approval of tariff in respect of 50 MVAR Reactor along with associated equipment at Chandrapur sub-station in Western Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 31.7.2003
4. **Original tariff**

- (a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 10.93          | 10.27          | 9.58           |
| Interest on Working Capital  | 2.16           | 2.20           | 2.25           |
| Depreciation                 | 15.83          | 15.83          | 15.83          |
| Advance against Depreciation | 0.00           | 0.00           | 0.00           |
| Return on Equity             | 37.37          | 37.37          | 37.37          |
| O & M Expenses               | 11.19          | 11.86          | 12.57          |
| <b>Total</b>                 | <b>77.48</b>   | <b>77.53</b>   | <b>77.59</b>   |

- (b) Computation of capital cost

(Rs. in lakh)

|  |        |
|--|--------|
| Capital Expenditure up to 31.3.2001                        | 391.41 |
| FERV on account of closing balance of foreign loan         | 48.26  |
| Capital Expenditure up to 31.3.2001                        | 439.67 |
| Additional Capital Expenditure after 31.3.2001             | 0.00   |
| Capital Expenditure considered for determination of Tariff | 439.67 |

- (c) Computation of equity

(Rs. in lakh)

|                                      |        |
|--------------------------------------|--------|
| Equity allowed by 31.3.2001          | 207.92 |
| Notional equity arising out of FERV. | 25.64  |
| Total Equity                         | 233.56 |

5. **Revised tariff computations**

- (a) Equity and return on equity

(Rs. in lakh)

|                                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------------|----------------|----------------|
| Equity                           | 207.92         | 207.92         | 207.92         |
| Return on equity up to 31.3.2001 | <b>33.27</b>   | <b>33.27</b>   | <b>33.27</b>   |

## (b) Interest on notional loan

(Rs. in lakh)

| <b>Interest on Loan</b>                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|--|----------------|----------------|----------------|
| Gross Loan –Opening                      | 231.75         | 231.75         | 231.75         |
| Cumulative Repayment up to Previous Year | 20.25          | 33.23          | 45.66          |
| Net Loan-Opening                         | 211.50         | 198.51         | 186.09         |
| Repayment during the year                | 12.98          | 12.42          | 13.17          |
| Net Loan-Closing                         | 198.51         | 186.09         | 172.92         |
| <b>Interest</b>                          | <b>12.44</b>   | <b>11.69</b>   | <b>10.90</b>   |

## (c) Revised calculations of interest on Working Capital

(Rs. in lakh)

| <b>Working Capital</b> |      | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------|------|----------------|----------------|----------------|
| Maintenance Spares     | 4.67 | 4.95           | 5.25           | 5.56           |
| O & M expenses         |      | 0.93           | 0.99           | 1.05           |
| Receivables            |      | 12.47          | 12.47          | 12.46          |
| Total                  |      | 18.35          | 18.70          | 19.07          |
| Rate of Interest       |      | 11.50%         | 11.50%         | 11.50%         |
| Interest               |      | <b>2.11</b>    | <b>2.15</b>    | <b>2.19</b>    |

:

## (d) Revised Annual Transmission charges

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 12.44          | 11.69          | 10.90          |
| Interest on Working Capital  | 2.11           | 2.15           | 2.19           |
| Depreciation                 | 15.83          | 15.83          | 15.83          |
| Advance against Depreciation | 0.00           | 0.00           | 0.00           |
| Return on Equity             | 33.27          | 33.27          | 33.27          |
| O & M Expenses               | 11.19          | 11.86          | 12.57          |
| <b>Total</b>                 | <b>74.84</b>   | <b>74.79</b>   | <b>74.76</b>   |

## Annexure-IV

1. Petition No. 49/2002
2. Subject: Approval of tariff in respect of Korba-Budhipadar Transmission System in Western Region for the period 1.4.2001 to 31.3.2004
3. Date of order of approval of tariff: 18.7.2003

### 4. Original tariff

#### (a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 285.02         | 285.02         | 265.07         |
| Interest on Working Capital  | 15.13          | 15.48          | 17.69          |
| Depreciation                 | 81.63          | 81.63          | 81.63          |
| Advance against Depreciation | 0.00           | 0.00           | 114.06         |
| Return on Equity             | 106.29         | 106.29         | 106.29         |
| O & M Expenses               | 69.00          | 73.14          | 77.52          |
| <b>Total</b>                 | <b>557.06</b>  | <b>561.55</b>  | <b>662.26</b>  |

#### (b) Computation of capital cost

(Rs. in lakh)

|  |                |
|--|----------------|
| Capital Expenditure up to 31.3.2001                | 3001.94        |
| FERV on account of closing balance of foreign loan | 10.63          |
| Capital Expenditure up to 31.03.2001               | 3012.57        |
| Additional Capital Expenditure after 31.03.2001    | 0.00           |
| <b>Total Capital Expenditure</b>                   | <b>3012.57</b> |

#### (c) Computation of equity

(Rs. in lakh)

|                                     |               |
|-------------------------------------|---------------|
| Equity up to 31.3.2001              | 661.94        |
| Notional equity arising out of FERV | 2.34          |
| <b>Total Equity</b>                 | <b>664.28</b> |

### 5. Revised tariff computations

#### (a) Equity and return on equity

(Rs. in lakh)

|                                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------------|----------------|----------------|
| Equity                           | 661.94         | 661.94         | 661.94         |
| Return on equity up to 31.3.2001 | <b>105.91</b>  | <b>105.91</b>  | <b>105.91</b>  |

## (b) Interest on notional loan

(Rs. in lakh)

| <b>Interest on Loan</b>                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|--|----------------|----------------|----------------|
| Gross Loan –Opening                      | 2350.63        | 2350.63        | 2350.63        |
| Cumulative Repayment up to Previous Year | 0.00           | 0.00           | 0.00           |
| Net Loan-Opening                         | 2350.63        | 2350.63        | 2350.63        |
| Repayment during the year                | 0.00           | 0.00           | 303.73         |
| Net Loan-Closing                         | 2350.63        | 2350.63        | 2046.90        |
| <b>Interest</b>                          | <b>285.17</b>  | <b>285.17</b>  | <b>265.22</b>  |

## (c) Advance Against Depreciation

(Rs. in lakh)

| <b>Advance Against Depreciation</b> | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|-------------------------------------|----------------|----------------|----------------|
| 1/12th of Gross Loan(s)             | 195.89         | 195.89         | 195.89         |
| Scheduled Repayment of the Loan(s)  | 0.00           | 0.00           | 303.73         |
| Minimum of the above                | 0.00           | 0.00           | 195.89         |
| Depreciation during the year        | 81.63          | 81.63          | 81.63          |
| <b>Advance Against Depreciation</b> | <b>0.00</b>    | <b>0.00</b>    | <b>114.26</b>  |

## (d) Interest on Working Capital

(Rs. in lakh)

| <b>Working Capital</b> |       | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------|-------|----------------|----------------|----------------|
| Maintenance Spares     | 31.07 | 32.93          | 34.91          | 37.00          |
| O & M expenses         |       | 5.75           | 6.09           | 6.46           |
| Receivables            |       | 92.80          | 93.55          | 110.37         |
| Total                  |       | 131.49         | 134.56         | 153.84         |
| Rate of Interest       |       | 11.50%         | 11.50%         | 11.50%         |
| Interest               |       | <b>15.12</b>   | <b>15.47</b>   | <b>17.69</b>   |

## (e) Revised Annual Transmission charges

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 285.17         | 285.17         | 265.22         |
| Interest on Working Capital  | 15.12          | 15.47          | 17.69          |
| Depreciation                 | 81.63          | 81.63          | 81.63          |
| Advance against Depreciation | 0.00           | 0.00           | 114.26         |
| Return on Equity             | 105.91         | 105.91         | 105.91         |
| O & M Expenses               | 69.00          | 73.14          | 77.52          |
| <b>Total</b>                 | <b>556.83</b>  | <b>561.32</b>  | <b>662.23</b>  |

## Annexure V

1. Petition No. 66/2002
2. Subject: Approval of tariff in respect of Vindhyaachal Stage I Additional Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 17.7.2003
4. **Original tariff**

- (a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b>  | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|-----------------|----------------|----------------|
| Interest on Loan             | 3479.18         | 3167.15        | 2951.48        |
| Interest on Working Capital  | 296.35          | 269.18         | 281.07         |
| Depreciation                 | 2073.55         | 2073.55        | 2073.55        |
| Advance against Depreciation | 2565.51         | 1122.07        | 1559.09        |
| Return on Equity             | 963.47          | 963.47         | 963.47         |
| O & M Expenses               | 800.05          | 848.05         | 898.93         |
| <b>Total</b>                 | <b>10178.11</b> | <b>8443.48</b> | <b>8727.60</b> |

- (b) Computation of capital cost

(Rs. in lakh)

|  |                 |
|--|-----------------|
| Capital Expenditure up to 31.3.2001 as per previous tariff setting | 67685.50        |
| FERV on account of closing balance of foreign loan                 | 8819.70         |
| Capital Expenditure up to 31.3.2001                                | 76505.20        |
| Additional Capital Expenditure after 31.3.2001                     | 0.00            |
| Capital Expenditure considered for determination of Tariff         | <b>76505.20</b> |

- (c) Computation of equity

(Rs. in lakh)

|                                     |         |
|-------------------------------------|---------|
| Equity up to 31.3.2001              | 5327.50 |
| Notional equity arising out of FERV | 694.11  |
| Total Equity                        | 6021.61 |

5. **Revised tariff computations**

- (a) Equity and return on equity

(Rs. in lakh)

|                                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|----------------------------------|----------------|----------------|----------------|
| Equity                           | 5327.50        | 5327.50        | 5327.50        |
| Return on equity up to 31.3.2001 | <b>852.40</b>  | <b>852.40</b>  | <b>852.40</b>  |

## (b) Interest on notional loan

(Rs. in lakh)

| <b>Interest on Loan</b>                  | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|--|----------------|----------------|----------------|
| Gross Loan –Opening                      | 71177.70       | 71177.70       | 71177.70       |
| Cumulative Repayment up to Previous Year | 13833.56       | 18515.29       | 21751.81       |
| Net Loan-Opening                         | 57344.14       | 52662.41       | 49425.89       |
| Repayment during the year                | 4681.73        | 3236.51        | 3675.86        |
| Net Loan-Closing                         | 52662.41       | 49425.89       | 45750.03       |
| <b>Interest</b>                          | <b>3520.02</b> | <b>3205.52</b> | <b>2987.25</b> |

## (c) Advance Against Depreciation

(Rs. in lakh)

| <b>Advance Against Depreciation</b> | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|-------------------------------------|----------------|----------------|----------------|
| 1/12th of Gross Loan(s)             | 5931.48        | 5931.48        | 5931.48        |
| Scheduled Repayment of the Loan(s)  | 4681.73        | 3236.51        | 3675.86        |
| Minimum of the above                | 4681.73        | 3236.51        | 3675.86        |
| Depreciation during the year        | 2073.55        | 2073.55        | 2073.55        |
| <b>Advance Against Depreciation</b> | <b>2608.18</b> | <b>1162.96</b> | <b>1602.31</b> |

## (d) Interest on Working Capital

(Rs. In lakh)

| <b>Working Capital</b> |        | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------|--------|----------------|----------------|----------------|
| Maintenance Spares     | 767.90 | 813.97         | 862.81         | 914.58         |
| O & M expenses         |        | 66.67          | 70.67          | 74.91          |
| Receivables            |        | 1691.67        | 1401.84        | 1449.15        |
| Total                  |        | 2572.31        | 2335.32        | 2438.64        |
| Rate of Interest       |        | 11.50%         | 11.50%         | 11.50%         |
| Interest               |        | <b>295.82</b>  | <b>268.56</b>  | <b>280.44</b>  |

## (e) Revised Annual Transmission Charges

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b>  | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|-----------------|----------------|----------------|
| Interest on Loan             | 3520.02         | 3205.52        | 2987.25        |
| Interest on Working Capital  | 295.82          | 268.56         | 280.44         |
| Depreciation                 | 2073.55         | 2073.55        | 2073.55        |
| Advance against Depreciation | 2608.18         | 1162.96        | 1602.31        |
| Return on Equity             | 852.40          | 852.40         | 852.40         |
| O & M Expenses               | 800.05          | 848.05         | 898.93         |
| <b>Total</b>                 | <b>10150.02</b> | <b>8411.04</b> | <b>8694.89</b> |

## Annexure- VI

1. Petition No. 69/2002
2. Subject: Approval of tariff in respect of Ramagundam-Hyderabad transmission line in Southern Region and Chandrapur HVDC back-to-back station (2X500 MW) in Western Region and Southern Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 19.7.2004
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

|                              | 400 kV S/C Ramagundam-Hyderabad transmission line |               |               | Chandrapur HVDC back to back station (2X500 MW) |                |                |
|------------------------------|---|---------------|---------------|---|----------------|----------------|
|                              | 2001-02   | 2002-03       | 2003-04       | 2001-02   | 2002-03        | 2003-04        |
| Interest on Loan             | 406.98  | 194.60        | 181.44        | 2515.42   | 1801.99        | 1497.93        |
| Interest on Working Capital  | 37.65   | 26.61         | 27.22         | 254.91  | 230.23         | 233.84         |
| Depreciation                 | 238.69  | 238.69        | 238.69        | 2194.04   | 2194.04        | 2194.04        |
| Advance against Depreciation | 394.75  | 0.00          | 0.00          | 2307.95   | 1473.84        | 1661.67        |
| Return on Equity             | 185.24  | 185.24        | 185.24        | 1289.30   | 1289.30        | 1289.30        |
| O & M Expenses               | 131.51  | 139.40        | 147.77        | 346.74  | 367.54         | 389.59         |
| <b>Total</b>                 | <b>1394.81</b>                                    | <b>784.54</b> | <b>780.35</b> | <b>8908.36</b>                                  | <b>7356.94</b> | <b>7266.38</b> |

(b) Computation of capital cost

(Rs. in lakh)

|  | 400 kV S/C Ramagundam-Hyderabad transmission line | Chandrapur HVDC back to back station (2X500 MW) |
|--|---|---|
| Capital expenditure up to 31.3.2001                | 7909.51   | 60995.68  |
| FERV on account of closing balance of foreign loan | 849.51  | 1086.33   |
| Capital Expenditure up to 31.3.2001                | 8759.02   | 62082.01  |
| Additional Capital Expenditure after 31.3.2001     | 0.00  | 0.00  |
| <b>Total Capital Expenditure</b>                   | <b>8759.02</b>                                    | <b>62082.01</b>                                 |



## (c) Computation of equity

(Rs. in lakh)

|                                     | 400 kV S/C Ramagundam-Hyderabad transmission line | HVDC back to back station (2X 500 MW) |
|-------------------------------------|---|---------------------------------------|
| Equity allowed up to 31.3.2001      | 1045.45   | 7917.13                               |
| Notional equity arising out of FERV | 112.31  | 141.00                                |
| <b>Total Equity</b>                 | <b>1157.74</b>                                    | <b>8058.13</b>                        |

## 5. Revised tariff computations

## (a) Equity and return on equity

(Rs. in lakh)

|                  | 400 kV S/C Ramagundam-Hyderabad transmission line |         |         | Chandrapur HVDC back to back station (2X500 MW) |         |         |
|------------------|---|---------|---------|---|---------|---------|
|                  | 2001-02   | 2002-03 | 2003-04 | 2001-02   | 2002-03 | 2003-04 |
| Equity           | 1045.45   | 1045.45 | 1045.45 | 7917.13   | 7917.13 | 7917.13 |
| Return on equity | 167.27  | 167.27  | 167.27  | 1266.74   | 1266.74 | 1266.74 |

## (b) Interest on notional loan

(Rs. in lakh)

|  | 400 kV S/C Ramagundam-Hyderabad transmission line |               |               | Chandrapur HVDC back to back station (2X500 MW) |                |                |
|--|---|---------------|---------------|---|----------------|----------------|
|  | 2001-02   | 2002-03       | 2003-04       | 2001-02   | 2002-03        | 2003-04        |
| <b>Interest on Loan</b>                  |   |               |               |   |                |                |
| Gross Loan –Opening                      | 7713.57   | 7713.57       | 7713.57       | 54164.89  | 54164.89       | 54164.89       |
| Cumulative Repayment up to Previous Year | 1972.00   | 4303.39       | 4517.44       | 15999.18  | 23774.79       | 27467.80       |
| Net Loan-Opening                         | 5741.57   | 3410.18       | 3196.13       | 38165.70  | 30390.09       | 26697.08       |
| Repayment during the year                | 2331.39   | 214.06        | 226.24        | 7775.61   | 3693.01        | 3880.84        |
| Net Loan-Closing                         | 3410.18   | 3196.13       | 2969.88       | 30390.09  | 26697.08       | 22816.24       |
| <b>Interest</b>                          | <b>413.58</b>                                     | <b>200.81</b> | <b>187.22</b> | <b>2525.98</b>                                  | <b>1810.53</b> | <b>1504.44</b> |

## (c) Advance Against Depreciation

(Rs. in lakh)

|                                     | 400 kV S/C Ramagundam-Hyderabad transmission line |             |             | Chandrapur HVDC back to back station (2X500 MW) |                |                |
|-------------------------------------|---|-------------|-------------|---|----------------|----------------|
|                                     | 2001-02   | 2002-03     | 2003-04     | 2001-02   | 2002-03        | 2003-04        |
| 1/12th of Gross Loan(s)             | 642.80  | 642.80      | 642.80      | 4513.74   | 4513.74        | 4513.74        |
| Scheduled Repayment of the Loan(s)  | 2331.39   | 214.06      | 226.24      | 7775.61   | 3693.01        | 3880.84        |
| Minimum of the above                | 642.80  | 214.06      | 226.24      | 4513.74   | 3693.01        | 3880.84        |
| Depreciation during the year        | 238.69  | 238.69      | 238.69      | 2194.04   | 2194.04        | 2194.04        |
| <b>Advance against Depreciation</b> | <b>404.11</b>                                     | <b>0.00</b> | <b>0.00</b> | <b>2319.70</b>                                  | <b>1498.97</b> | <b>1686.80</b> |

## (d) Interest on Working Capital

(Rs. in lakh)

|                    |       | 400 kV S/C Ramagundam-Hyderabad transmission line |         |         | Chandrapur HVDC back to back station (2X500 MW) |          |          |          |
|--------------------|-------|---|---------|---------|---|----------|----------|----------|
|                    |       | 2001-02   | 2002-03 | 2003-04 | 2001-02   | 2002-03  | 2003-04  |          |
| Maintenance Spares | 79.19 | 83.94   | 88.98   | 94.32   | 663.21  | 703.00   | 745.19   | 789.90   |
| O & M expenses     |       | 10.96   | 11.62   | 12.31   |   | 28.89    | 30.63    | 32.47    |
| Receivables        |       | 232.13  | 128.76  | 127.99  |   | 1484.68  | 1228.04  | 1212.61  |
| Total              |       | 327.03  | 229.36  | 234.62  |   | 2,216.58 | 2,003.86 | 2,034.97 |
| Rate of Interest   |       | 11.50%  | 11.50%  | 11.50%  |   | 11.50%   | 11.50%   | 11.50%   |
| Interest           |       | 37.61   | 26.38   | 26.98   |   | 254.91   | 230.44   | 234.02   |

## (e) Revised Annual Transmission Charges

(Rs. in lakh)

|                              | 400 kV S/C Ramagundam-Hyderabad transmission line |         |         | Chandrapur HVDC back to back station (2X500 MW) |         |         |
|------------------------------|---|---------|---------|---|---------|---------|
|                              | 2001-02   | 2002-03 | 2003-04 | 2001-02   | 2002-03 | 2003-04 |
| Interest on Loan             | 413.58  | 200.81  | 187.22  | 2525.98   | 1810.53 | 1504.44 |
| Interest on Working Capital  | 37.61   | 26.38   | 26.98   | 254.91  | 230.44  | 234.02  |
| Depreciation                 | 238.69  | 238.69  | 238.69  | 2194.04   | 2194.04 | 2194.04 |
| Advance against Depreciation | 404.11  | 0.00    | 0.00    | 2319.70   | 1498.97 | 1686.80 |
| Return on Equity             | 167.27  | 167.27  | 167.27  | 1266.74   | 1266.74 | 1266.74 |
| O & M Expenses               | 131.51  | 139.40  | 147.77  | 346.74  | 367.54  | 389.59  |
| Total                        | 1392.77   | 772.55  | 767.93  | 8908.10   | 7368.26 | 7275.64 |

## Annexure-VII

1. Petition No. 72/2002
2. Subject: Approval of tariff in respect of Vindhyachal Stage II Transmission System in Western Region for 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 6.8.2003
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

|                              | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |                |                | 400 KV Korba-Raipur Transmission line, LILo of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |                |                | 315 MVA interconnecting Transformer II |               | LILo of 400 KV D/C Bhilai-Chandrapur line, Circuit II |
|------------------------------|--|----------------|----------------|--|----------------|----------------|--|---------------|---|
|                              | 2001-02  | 2002-03        | 2003-04        | 2001-02  | 2002-03        | 2003-04        | 2001-02                                | 2002-03       | 2003-04   |
| Interest on Loan             | 3315.76  | 3171.42        | 2986.81        | 1389.72  | 1334.93        | 1250.75        | 230.10                                 | 221.23        | 207.05  |
| Interest on Working Capital  | 170.05   | 174.99         | 193.19         | 61.34  | 62.25          | 76.52          | 10.20                                  | 10.25         | 12.59   |
| Depreciation                 | 1240.66  | 1240.66        | 1240.66        | 476.77   | 476.77         | 476.77         | 82.78                                  | 82.78         | 82.78   |
| Advance against Depreciation | 256.80   | 461.40         | 1373.42        | 0.00   | 34.58          | 778.03         | 0.00                                   | 0.00          | 122.78  |
| Return on Equity             | 678.99   | 678.99         | 678.99         | 160.08   | 160.08         | 160.08         | 21.83                                  | 21.83         | 21.83   |
| O & M Expenses               | 430.69   | 456.53         | 483.92         | 135.29   | 143.41         | 152.01         | 18.73                                  | 19.85         | 21.04   |
| <b>Total</b>                 | <b>6092.94</b>   | <b>6183.98</b> | <b>6956.98</b> | <b>2223.20</b>   | <b>2212.02</b> | <b>2894.16</b> | <b>363.64</b>                          | <b>355.94</b> | <b>467.67</b>   |

(b) Computation of capital cost

(Rs. in lakh)

| Name of the Element  | Capital Expenditure up to 31.3.2001 as per previous tariff setting | FERV on account of closing balance of foreign loan | Capital Expenditure up to 31.3.2001 | Additional Capital Expenditure after 31.3.2001 | Capital Expenditure considered for determination of Tariff |
|--|--|--|-------------------------------------|--|--|
| (i)400 kV D/C Vindhyachal - Satna & Satna -Bina T/L & 400/220 kV S/S at Satna and 400 kV bays in MPEB S/S at Bina  | 43058.69   | 2467.14  | 45525.83                            | 0.00   | 45525.83   |
| (ii)400 kV S/C Korba-Raipur Tr.Line & associated bays at Korba & Raipur,315 MVA Inter connecting Transformer-I with associated bays & Bus Reactor at Raipur & LILo of Korba-Bhilai Circuit-III and associated bays at Raipur | 15662.06   | 642.80   | 16304.86                            | 0.00   | 16304.86   |

|  |         |       |         |      |         |
|--|---------|-------|---------|------|---------|
| (iii) 315 MVA Inter Connecting Transformer-II with associated bays & Bus Reactor at Raipur | 2506.54 | 91.78 | 2598.32 | 0.00 | 2598.32 |
| (iv) LILO of Bhilai-Chandrapur Circuit-II and associated bays at Raipur                    |         |       |         |      |         |

(c) Computation of equity

(Rs in lakh)

| Name of the element  | Equity as allowed by the Commission in previous tariff setting | Notional Equity arising out of FERV worked out as above | Total Equity |
|--|--|---|--------------|
| 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays   | 4013.69  | 229.97  | 4243.66      |
| 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays | 961.06   | 39.44   | 1000.50      |
| 315 MVA interconnecting Transformer II   | 95.00  | 4.82  | 136.44       |
| LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II  | 36.62  |   |              |

5. Revised tariff computations

(a) Equity and return on equity

(Rs. in lakh)

|                                  | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |         |         | 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |         |         | 315 MVA interconnecting Transformer II |         | LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II |
|----------------------------------|--|---------|---------|--|---------|---------|--|---------|---|
|                                  | 2001-02  | 2002-03 | 2003-04 | 2001-02  | 2002-03 | 2003-04 | 2001-02                                | 2002-03 | 2003-04   |
| Equity                           | 4031.69  | 4031.69 | 4031.69 | 961.06   | 961.06  | 961.06  | 131.62                                 | 131.62  | 131.62  |
| Return on equity up to 31.3.2001 | 642.19   | 642.19  | 642.19  | 153.77   | 153.77  | 153.77  | 21.06                                  | 21.06   | 21.06   |

## (b) Interest on notional loan

(Rs. in lakh)

|   | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |                |                | 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |                |                | 315 MVA interconnecting Transformer II |               | LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II |
|---|--|----------------|----------------|--|----------------|----------------|--|---------------|---|
|   | 2001-02  | 2002-03        | 2003-04        | 2001-02  | 2002-03        | 2003-04        | 2001-02                                | 2002-03       | 2003-04   |
| <b>Interest on Loan</b>                 |  |                |                |  |                |                |  |               |   |
| Gross Loan - Opening                    | 41512.14   | 41512.14       | 41512.14       | 15343.80   | 15343.80       | 15343.80       | 2466.70                                | 2466.70       | 2466.70   |
| Cumulative Repayment upto Previous Year | 908.00   | 2415.38        | 4128.37        | 254.00   | 676.05         | 1189.28        | 38.00                                  | 100.30        | 177.88  |
| Net Loan-Opening                        | 40604.14   | 39096.76       | 37383.77       | 15089.80   | 14667.74       | 14154.52       | 2428.70                                | 2366.40       | 2288.82   |
| Repayment during the year               | 1507.38  | 1712.99        | 2626.14        | 422.05   | 513.22         | 1256.87        | 62.30                                  | 77.58         | 213.81  |
| Net Loan-Closing                        | 39096.76   | 37383.77       | 34757.63       | 14667.74   | 14154.52       | 12897.65       | 2366.40                                | 2288.82       | 2075.01   |
| Interest                                | <b>3333.10</b>   | <b>3187.95</b> | <b>3002.43</b> | <b>1392.69</b>   | <b>1337.77</b> | <b>1253.43</b> | <b>230.47</b>                          | <b>221.58</b> | <b>207.38</b>   |

## (c) Advance Against Depreciation

(Rs. in lakh)

|                                    | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |               |                | 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |              |               | 315 MVA interconnecting Transformer II |             | LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II |
|------------------------------------|--|---------------|----------------|--|--------------|---------------|--|-------------|---|
|                                    | 2001-02  | 2002-03       | 2003-04        | 2001-02  | 2002-03      | 2003-04       | 2001-02                                | 2002-03     | 2003-04   |
| 1/12th of Gross Loan(s)            | 3459.35  | 3459.35       | 3459.35        | 1278.65  | 1278.65      | 1278.65       | 205.56                                 | 205.56      | 205.56  |
| Scheduled Repayment of the Loan(s) | 1507.38  | 1712.99       | 2626.14        | 422.05   | 513.22       | 1256.87       | 62.30                                  | 77.58       | 213.81  |
| Minimum of the above               | 1507.38  | 1712.99       | 2626.14        | 422.05   | 513.22       | 1256.87       | 62.30                                  | 77.58       | 205.56  |
| Depreciation during the year       | 1240.66  | 1240.66       | 1240.66        | 476.77   | 476.77       | 476.77        | 82.78                                  | 82.78       | 82.78   |
| Advance against Depreciation       | <b>266.72</b>  | <b>472.33</b> | <b>1385.48</b> | <b>0.00</b>  | <b>36.45</b> | <b>780.10</b> | <b>0.00</b>                            | <b>0.00</b> | <b>122.78</b>   |

## (d) Interest on Working Capital

(Rs. In lakh)

|                    | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |               |               | 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |        |              | 315 MVA interconnecting Transformer II |              | LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II |              |              |              |
|--------------------|--|---------------|---------------|--|--------|--------------|--|--------------|---|--------------|--------------|--------------|
|                    |  | 2001-02       | 2002-03       | 2003-04  |        | 2001-02      | 2002-03                                | 2003-04      |   | 2001-02      | 2002-03      | 2003-04      |
| Maintenance spares | 403.09   | 427.28        | 452.92        | 480.09   | 143.00 | 151.58       | 160.68                                 | 170.32       | 25.05   | 26.04        | 28.13        | 29.82        |
| O&M expenses       |  | 35.89         | 38.04         | 40.33  |        | 11.27        | 11.95                                  | 12.67        |   | 1.56         | 1.65         | 1.75         |
| Receivables        |  | 1013.87       | 1029.08       | 1157.95  |        | 369.97       | 368.40                                 | 482.09       |   | 60.54        | 59.25        | 77.94        |
| Total              |  | 1477.04       | 1520.04       | 1678.37  |        | 532.82       | 541.03                                 | 665.08       |   | 88.64        | 89.04        | 109.51       |
| Rate of Interest   |  | 11.50%        | 11.50%        | 11.50%   |        | 11.50%       | 11.50%                                 | 11.50%       |   | 11.50%       | 11.50%       | 11.50%       |
| Interest           |  | <b>169.86</b> | <b>174.80</b> | <b>193.01</b>  |        | <b>61.27</b> | <b>62.22</b>                           | <b>76.48</b> |   | <b>10.19</b> | <b>10.24</b> | <b>12.59</b> |

## (e) Revised Annual Transmission Charges

(Rs. in lakh)

|                              | 400 KV D/C Vindhyachal-Satna-Bina transmission line with associated bays |                |                | 400 KV Korba-Raipur Transmission line, LILO of Korba-Bhilai Circuit III, 315 MVA Interconnecting Transformer-I and bus reactor, new sub-station at Raipur with associated bays |                |                | 315 MVA interconnecting Transformer II |               | LILO of 400 KV D/C Bhilai-Chandrapur line, Circuit II |  |
|------------------------------|--|----------------|----------------|--|----------------|----------------|--|---------------|---|--|
|                              | 2001-02  | 2002-03        | 2003-04        | 2001-02  | 2002-03        | 2003-04        | 2001-02                                | 2002-03       | 2003-04   |  |
| Interest on Loan             | 3333.10  | 3187.95        | 3002.43        | 1392.69  | 1337.77        | 1253.43        | 230.47                                 | 221.58        | 207.38  |  |
| Interest on Working Capital  | 169.86   | 174.80         | 193.01         | 61.27  | 62.22          | 76.48          | 10.19                                  | 10.24         | 12.59   |  |
| Depreciation                 | 1240.66  | 1240.66        | 1240.66        | 476.77   | 476.77         | 476.77         | 82.78                                  | 82.78         | 82.78   |  |
| Advance against Depreciation | 266.72   | 472.33         | 1385.48        | 0.00   | 36.45          | 780.10         | 0.00                                   | 0.00          | 122.78  |  |
| Return on Equity             | 642.19   | 642.19         | 642.19         | 153.77   | 153.77         | 153.77         | 21.06                                  | 21.06         | 21.06   |  |
| O & M Expenses               | 430.69   | 456.53         | 483.92         | 135.29   | 143.41         | 152.01         | 18.73                                  | 19.85         | 21.04   |  |
| <b>Total</b>                 | <b>6083.21</b>   | <b>6174.46</b> | <b>6947.69</b> | <b>2219.79</b>   | <b>2210.39</b> | <b>2892.57</b> | <b>363.23</b>                          | <b>355.51</b> | <b>467.63</b>   |  |

## Annexure VIII

1. Petition No. 74/2002
2. Subject: Approval of tariff in respect of transmission system associated with Gandhar Gas Power Station (Stage I) in Western Region for the period from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 30.4.2004.
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

| <b>Transmission Tariff</b>   | <b>2001-02</b> | <b>2002-03</b> | <b>2003-04</b> |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 321.83         | 231.80         | 139.63         |
| Interest on Working Capital  | 58.74          | 56.26          | 56.13          |
| Depreciation                 | 341.01         | 341.01         | 341.01         |
| Advance against Depreciation | 117.60         | 0.00           | 0.00           |
| Return on Equity             | 880.53         | 880.53         | 880.53         |
| O & M Expenses               | 185.12         | 196.23         | 208.00         |
| <b>Total</b>                 | <b>1904.84</b> | <b>1705.83</b> | <b>1625.30</b> |

(b) Capital cost

The capital expenditure of Rs. 11744.66 lakh up to 31.3.2001 already considered by the Commission in petition No.108/2000 has been adopted as it does not get changed. However, cumulative depreciation of Rs. 738.03 lakh up to 31.3.1997 has been deducted to arrive at Net Fixed asset of Rs. 11006.63 lakh as on 31.3.1997. The same is carried forward to 31.3.2001 as no additional capitalization has been made during the period 1.4.1997 to 31.3.2001.

(c) Computation of equity

(Rs. in lakh)

|                                      |                |
|--------------------------------------|----------------|
| Equity allowed by 31.3.2001          | 5503.32        |
| Notional equity arising out of FERV. | 0.00           |
| <b>Total Equity</b>                  | <b>5503.32</b> |

## 5. Revised tariff computations

### (a) Equity and return on equity

(Rs. in lakh)

|                                  | 2001-02       | 2002-03       | 2003-04       |
|----------------------------------|---------------|---------------|---------------|
| Equity                           | 5503.32       | 5503.32       | 5503.32       |
| Return on equity up to 31.3.2001 | <b>880.53</b> | <b>880.53</b> | <b>880.53</b> |

### (b) Interest on notional loan

(Rs. in lakh)

| <b>Interest on Loan</b>                  | 2001-02       | 2002-03       | 2003-04       |
|--|---------------|---------------|---------------|
| Gross Loan –Opening                      | 5503.32       | 5503.32       | 5503.32       |
| Cumulative Repayment up to Previous Year | 2857.66       | 3676.11       | 3890.53       |
| Net Loan-Opening                         | 2645.66       | 1827.21       | 1612.79       |
| Repayment during the year                | 818.45        | 214.42        | 161.23        |
| Net Loan-Closing                         | 1827.21       | 1612.79       | 1451.56       |
| Average Loan                             | 2236.43       | 1720.00       | 1532.17       |
| Rate of interest                         | 15.2024%      | 15.9883%      | 11.5666%      |
| <b>Interest</b>                          | <b>339.99</b> | <b>275.00</b> | <b>177.22</b> |

### (c) Interest on Working Capital

(Rs. in lakh)

| <b>Working Capital</b> |        | 2001-02      | 2002-03      | 2003-04      |
|------------------------|--------|--------------|--------------|--------------|
| Maintenance Spares     | 167.85 | 177.92       | 188.59       | 199.91       |
| O & M expenses         |        | 15.43        | 16.35        | 17.33        |
| Receivables            |        | 320.56       | 291.64       | 277.27       |
| Total                  |        | 513.90       | 496.59       | 494.51       |
| Rate of Interest       |        | 11.50%       | 11.50%       | 11.50%       |
| Interest               |        | <b>59.10</b> | <b>57.41</b> | <b>56.87</b> |

### (d) Revised Annual Transmission Charges

(Rs. in lakh)

| <b>Transmission Tariff</b>   | 2001-02        | 2002-03        | 2003-04        |
|------------------------------|----------------|----------------|----------------|
| Interest on Loan             | 339.99         | 275.00         | 177.22         |
| Interest on Working Capital  | 59.10          | 57.11          | 56.87          |
| Depreciation                 | 341.01         | 341.01         | 341.01         |
| Advance against Depreciation | 117.60         | 0.00           | 0.00           |
| Return on Equity             | 880.53         | 880.53         | 880.53         |
| O & M Expenses               | 185.12         | 196.23         | 208.00         |
| <b>Total</b>                 | <b>1923.35</b> | <b>1749.87</b> | <b>1663.63</b> |