

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

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

**I.A.No.29/2007 in  
Petition No.105/2005**

**In the matter of**

Approval of transmission charges for Hiriyr sub-station (including 315 MVA Auto Transformer), LILO of Davangere-Hoody 400 kV D/C line at Hiriyr and additional bays at Kolar and Hosur sub-station for 2<sup>nd</sup> circuit of Kolar-Hosur 400 kV D/C transmission line under System Strengthening Scheme-II 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  
Vs

**..Petitioner**

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**

**ORDER**

The Commission by its order dated 5.5.2006 had allowed tariff for Hiriyr sub-station (including 315 MVA Auto Transformer), LILO of Davangere-Hoody 400 kV D/C transmission line at Hiriyr and additional bays at Kolar and Hosur sub-stations for 2<sup>nd</sup> circuit of Kolar-Hosur 400 kV D/C line under the System Strengthening Scheme-II in Southern Region for the period from 1.4.2004 to 31.3.2009,

2. The tariff for the block years 2004-09 was worked out on the basis of gross block of Rs. 4264.04 lakh as on 1.4.2004. The Commission in its said order dated 5.5.2006, had not considered additional capital expenditure incurred by the petitioner during 2004-05. The petitioner was granted liberty to approach the Commission for

revision of tariff for period 2004-09 in accordance with law based on additional capital expenditure incurred during 2004-05.

3. Meanwhile, the petitioner filed Interlocutory application No. 71/2006 in said petition for revision of tariff based on additional capitalisation incurred during 2004-05 for the transmission system. Accordingly, tariff was revised by order dated 26.4.2007. While revising tariff, Commission has considered Rs. 879.71 lakh as total normative loan repayment for the period 2005-09 in respect of 400 kV Hiriyur sub-station including 315 MVA Auto Transformer and LILO of Davangere-Hoody 400 kV D/C line at Hiriyur (the transmission asset).

4. Through this interlocutory application, the respondent, Tamil Nadu Electricity Board (TNEB) has pointed out that the Commission has considered Rs. 879.71 lakh as total normative loan repayment as against an amount of Rs. 873.97 lakh, resulting in excess tariff award to the tune of Rs. 4.15 lakh for the period 2005-09 and has accordingly, sought correction in the order dated 26.4.2007 *ibid*.

5. We have perused the records and are satisfied that there are inadvertent mathematical errors in the computation of total normative loan repayment and these errors need to be rectified.

6. Accordingly the interest on loan component of tariff in respect of the transmission asset is revised as under, which will supersede the interest allowed in the table given under para 11 of the order dated 26.4.2007:

#### **INTEREST ON LOAN**

(Rs. in lakh)

| Interest on Loan                          | Up to<br>31.3.2004 | 2004-05       | 2005-06       | 2006-07       | 2007-08       | 2008-09       |
|---|--------------------|---------------|---------------|---------------|---------------|---------------|
| Gross Loan as per last Order              | 2480.00            |               |               |               |               |               |
| Addition due to Additional Capitalization | 97.12              |               |               |               |               |               |
| Additions due to FERV                     | 0.00               |               |               |               |               |               |
| Gross Normative Loan                      | 2577.12            | 2577.12       | 2795.88       | 2795.88       | 2795.88       | 2795.88       |
| Cumulative Repayment up to Previous Year  |                    | 47.00         | 170.69        | 299.31        | 463.07        | 692.02        |
| Net Loan-Opening                          |                    | 2530.12       | 2625.20       | 2496.57       | 2332.81       | 2103.86       |
| Addition due to Additional Capitalization |                    | 218.76        |               |               |               |               |
| Repayment during the year                 |                    | 123.69        | 128.63        | 163.76        | 228.95        | 228.95        |
| Net Loan-Closing                          |                    | 2625.20       | 2496.57       | 2332.81       | 2103.86       | 1874.91       |
| Average Loan                              |                    | 2577.66       | 2560.88       | 2414.69       | 2218.34       | 1989.38       |
| Weighted Average Rate of Interest on Loan |                    | 8.64%         | 8.57%         | 8.49%         | 8.42%         | 8.37%         |
| <b>Interest</b>                           |                    | <b>222.63</b> | <b>219.34</b> | <b>204.94</b> | <b>186.81</b> | <b>166.51</b> |

### **ADVANCE AGAINST DEPECIATION**

7. The petitioner's entitlement to Advance Against Deprecation has also been recalculated based on the revised calculation of interest on loan and the relevant details are reproduced hereunder, which will supersede the Advance Against Deprecation allowed in the table given under para 14 of the order dated 26.4.2007:

(Rs. in lakh)

|  | 2004-05     | 2005-06     | 2006-07      | 2007-08       | 2008-09       |
|--|-------------|-------------|--------------|---------------|---------------|
| Advance against Depreciation                               |             |             |              |               |               |
| 1/10 <sup>th</sup> of Gross Loan(s)                        | 257.71      | 279.59      | 279.59       | 279.59        | 279.59        |
| Repayment of the Loan                                      | 123.69      | 128.63      | 163.76       | 228.95        | 228.95        |
| Minimum of the above                                       | 123.69      | 128.63      | 163.76       | 228.95        | 228.95        |
| Depreciation during the year                               | 123.69      | 128.63      | 128.63       | 128.63        | 128.63        |
| (A) Difference   | 0.00        | 0.00        | 35.13        | 100.33        | 100.33        |
| Cumulative Repayment of the Loan                           | 170.69      | 299.31      | 463.07       | 692.02        | 920.98        |
| Cumulative Depreciation/ Advance against Depreciation      | 142.74      | 271.36      | 399.99       | 563.75        | 792.70        |
| (B) Difference   | 27.95       | 27.95       | 63.08        | 128.28        | 128.28        |
| <b>Advance against Depreciation Minimum of (A) and (B)</b> | <b>0.00</b> | <b>0.00</b> | <b>35.13</b> | <b>100.33</b> | <b>100.33</b> |

### **INTEREST ON WORKING CAPITAL**

8. The revision of interest on the above noted two components of tariff has resulted in marginal adjustments in interest on working capital. The petitioners entitlement to interest on working capital as revised which will supersede the interest

on working capital allowed in the table given under para 16 of the order dated 26.4.2007 is given hereunder.

|                    |        | (Rs. in lakh) |              |              |              |              |
|--------------------|--------|---------------|--------------|--------------|--------------|--------------|
|                    |        | 2004-05       | 2005-06      | 2006-07      | 2007-08      | 2008-09      |
| Maintenance Spares |        | 35.28         | 37.40        | 39.64        | 42.02        | 44.54        |
| O & M expenses     |        | 18.78         | 19.54        | 20.32        | 21.13        | 21.98        |
| Receivables        |        | 125.21        | 128.19       | 133.35       | 143.03       | 141.37       |
| Total              |        | 179.28        | 185.13       | 193.31       | 206.17       | 207.89       |
| <b>Interest</b>    | 10.25% | <b>18.38</b>  | <b>18.98</b> | <b>19.81</b> | <b>21.13</b> | <b>21.31</b> |

9. The summary sheet showing the revised basic details of the transmission asset is annexed to this order as Annexure I. The revised transmission charges being allowed in respect of transmission asset in suppression of the transmission charges approved under order dated 26.4.2007 are summarised below:

|                              |  | (Rs. in lakh) |               |               |               |               |
|------------------------------|--|---------------|---------------|---------------|---------------|---------------|
|                              |  | 2004-05       | 2005-06       | 2006-07       | 2007-08       | 2008-09       |
| Depreciation                 |  | 123.69        | 128.63        | 128.63        | 128.63        | 128.63        |
| Interest on Loan             |  | 222.63        | 219.34        | 204.94        | 186.81        | 166.51        |
| Return on Equity             |  | 161.19        | 167.75        | 167.75        | 167.75        | 167.75        |
| Advance against Depreciation |  | 0.00          | 0.00          | 35.13         | 100.33        | 100.33        |
| Interest on Working Capital  |  | 18.38         | 18.98         | 19.81         | 21.13         | 21.31         |
| O & M Expenses               |  | 225.39        | 234.45        | 243.83        | 253.52        | 263.70        |
| <b>Total</b>                 |  | <b>751.27</b> | <b>769.15</b> | <b>800.09</b> | <b>858.17</b> | <b>848.22</b> |

10. In all other respects order dated 26.4.2007 shall continue to apply.

11. This order disposes of I.A.No.29/2007.

Sd-/  
**(R.KRISHNAMOORTHY)**  
**MEMBER**  
New Delhi dated the 8<sup>th</sup> August 2007

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

#### Annexure-I

| Summary Sheet               |              |
|-----------------------------|--------------|
| <b>Name of the Company:</b> | <b>PGCIL</b> |

|                               |  |   |                |                       |                |
|-------------------------------|--|---|----------------|-----------------------|----------------|
| <b>Name of the Element:</b>   |  | <b>400 KV Hiriya Sub- Station (including 315 MVA auto transformer &amp; LILO of Davangere- Hoody 400 KV D/C line)</b> |                |                       |                |
| <b>Actual DOCO:</b>           |  | <b>1st February 2004</b>  |                |                       |                |
| <b>Petition No.:</b>          |  | <b>105/2005</b>   |                |                       |                |
| <b>Tariff setting Period:</b> |  | <b>2004-09</b>  |                |                       |                |
| (Rs.in lakh)                  |  |   |                |                       |                |
| <b>1</b>                      | <b>Capital Cost of the Project</b>   |   |                |                       | <b>3493.15</b> |
| <b>2</b>                      | <b>Admitted Capital Cost as on 1.4.2004 for Calculation of Debt and Equity</b> |   |                |                       | <b>3493.15</b> |
| <b>3</b>                      | <b>Additional Capitalisation(works)</b>  |   |                |                       | <b>188.45</b>  |
|                               | For the year 2001-02   |   |                | 0.00                  |                |
|                               | For the year 2002-03   |   |                | 0.00                  |                |
|                               | For the year 2003-04   |   |                | 188.45                |                |
|                               | Total  |   |                | 188.45                |                |
| <b>4</b>                      | <b>Additional Capitalisation during 2004-05 to 2008-09</b>                     |   |                |                       | <b>312.52</b>  |
|                               | For the year 2004-05   |   |                | 312.52                |                |
|                               | Total  |   |                | 312.52                |                |
| <b>5</b>                      | <b>Total Capital Cost as on 1.4.2005(2+3+4)</b>                                |   |                |                       | <b>3994.12</b> |
| <b>6</b>                      | <b>Means of Finance :</b>  |   |                |                       |                |
|                               |  | <b>As on 1-4-2004</b>   |                | <b>As on 1-4-2005</b> |                |
|                               | Debt   | 70.00%  | 2577.12        | 70.00%                | 2795.88        |
|                               | Equity   | 30.00%  | 1104.48        | 30.00%                | 1198.24        |
|                               | Total  | 100.00%   | 3681.60        | 100.00%               | 3994.12        |
| <b>7</b>                      | <b>Gross Loan:</b>   |   |                |                       | <b>2795.88</b> |
|                               | <b>As on 1-4-2004</b>  |   | <b>2577.12</b> | <b>As on 1-4-2005</b> | <b>2795.88</b> |
| <b>8</b>                      | <b>Cumulative Repayment up to 31.3.2009 :</b>                                  |   |                |                       | <b>920.98</b>  |
|                               | Repaid up to 31.3.2004   |   |                |                       | <b>47.00</b>   |
|                               | 1.4.2001 to 31.3.2004 (ACE & FERV)   |   |                |                       | 0.00           |
|                               | 1.4.2004 to 31.3.2009  |   |                |                       | 873.98         |
|                               | Total  |   |                |                       | 920.98         |
| <b>9</b>                      | <b>Balance Loan to be repaid beyond 31.03.2009 :</b>                           |   |                |                       | <b>1874.91</b> |
| <b>10</b>                     | <b>Depreciation recovered up to 31.3.2009 :</b>                                |   |                |                       | <b>893.03</b>  |
|                               |  | <b>Dep</b>  |                | <b>AAD</b>            | <b>Total</b>   |
|                               | Recovered up to 31.3.2004  |   | 19.05          | 0.00                  | 19.05          |
|                               | 1.4.2001 to 31.3.2004 (ACE & FERV)   |   | 0.00           | 0.00                  | 0.00           |
|                               | 1.4.2004 to 31.3.2009  |   | 638.20         | 235.78                | 873.98         |
|                               | Total  |   |                |                       | 893.03         |
| <b>11</b>                     | <b>Balance Depreciation to be recovered beyond 31.3.2009 :</b>                 |   |                |                       | <b>2670.09</b> |
|                               | <b>Capital cost for the purpose of Depreciation</b>                            |   |                |                       | <b>3493.15</b> |
|                               | <b>ACE + FERV during 2001-02 to 2003-04</b>                                    |   |                |                       | <b>188.45</b>  |
|                               | <b>Capital cost as 01.04.2004</b>  |   |                |                       | <b>3681.60</b> |
|                               | <b>ACE during 2004-05</b>  |   |                |                       | <b>312.52</b>  |
|                               | <b>Capital cost as 1.4.2005</b>  |   |                |                       | <b>3994.12</b> |
|                               | <b>Less: Land Cost</b>   |   |                |                       | <b>35.10</b>   |
|                               |  |   |                |                       | <b>3959.02</b> |
|                               | <b>90% of Capital Cost as above</b>  |   |                |                       | <b>3563.12</b> |
|                               | <b>Cum. Depreciation to be recovered up to 31.3.2009</b>                       |   |                |                       | <b>893.03</b>  |
|                               | <b>Balance Depreciation to be recovered beyond 31.3.2009</b>                   |   |                |                       | <b>2670.09</b> |