

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 109/TT/2012**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson  
Shri A. K. Singhal, Member  
Shri A. S. Bakshi, Member**

**Date of Order : 17.08.2015**

**In the matter of:**

Revision of the Commission's order dated 1.8.2013 in Petition No. 109/TT/2012 in the light of the judgment of the Appellate Tribunal for Electricity dated 12.9.2014 in Appeal No. 257 of 2013

**And in the matter of:**

Power Grid Corporation of India Limited, Gurgaon

**...Petitioner**

**Vs**

Maharashtra State Electricity Distribution Company Limited, Mumbai

**.....Respondent**

**ORDER**

This order is being issued for implementing the judgment of the Appellate Tribunal for Electricity dated 12.9.2014 in Appeal No. 257 of 2013.

2. The background of this case is that the Board of Directors of PGCIL vide letter dated 25.2.2008 accorded the investment approval for establishment of the scheme "Western Region System Strengthening Scheme-VI", to be executed within a period of 33 months from the date of investment approval,



i.e. by December 2010. PGCIL filed Petition No. 109/TT/2012 covering two assets (out of eight assets covered under the said scheme), namely “ICT III at 400/220 kV Pune Sub-station along with associated bays” (hereinafter referred as to “Asset-1”) and Combined Assets of ICT III at 400/220 kV Pune Sub-station along with associated bays and ICT III at Wardha Sub-station along with associated bays (hereinafter referred as to “Asset-2”). Asset-1 and Asset-2 were commissioned on 1.11.2011 and 1.1.2012 respectively, after a delay of 11 months and 13 months.

3. The transmission tariff in Petition No. 109/TT/2012 was approved by the Commission by its order dated 1.8.2013. While approving the transmission tariff, the Commission disallowed 50% of Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC) for the period from April 2010 to November 2010 (i.e. 8 months) for both the assets and further disallowed 100% of IDC and IEDC for 3 months and 5 months from December 2010 onwards in case of Asset-1 and Asset-2 respectively. The relevant portion of the order is extracted as under:-

“18. In the light of the above principles, the issue of time over-run due to delay in obtaining the test bed and failure of the transformer in the SCT has been considered. As regards the delay in conducting the SCT, it has been observed that AREVA while requesting KEMA, Netherlands for early testing of the transformer, vide its e-mail dated 2.11.2009 has informed that the transformer was expected to reach KEMA by 15.3.2010. The SCT was conducted only on 27.11.2010 and thus there was a delay of 8 months in conducting the SCT. AREVA, who has been awarded the contract for supply of ICTs by the petitioner, is one of the major manufacturers of the energy equipments in the world. The case of the petitioner does not fall under the first category as the petitioner cannot be said to be imprudent in selecting AREVA to execute the project. The delay cannot be entirely attributed to the petitioner as the delay in getting the SCT done due to non-



availability of test bed was beyond the control of the petitioner or its supplier as they had to depend on the third party to perform the test. The petitioner case also does not fall under the second category as the delay cannot be attributed to any force major event. In our view, the instant situation falls under the third category of cases laid down by APTEL in the above said judgement. We are of the considered view that the burden of cost over-run due to delay in conducting the SCT should be shared by the petitioner and the beneficiaries in equal proportion. We direct that the petitioner and the beneficiaries shall share the IDC and IEDC for the period of 8 months delay in case of both Pune ICT-III and Wardha ICT-III. The transformer failed the Short Circuit Test conducted on 27.11.2010 due to design deficiency. The type test was covered in the delivery schedule and the supplier is responsible for delay in delivery. We are of the view that the cost of time over-run due to failure of the transformer in SCT cannot be passed on to the beneficiaries except for the period during which the type test bed was not available. Accordingly, we direct that 8 months period for which test bed was not available shall be shared by the petitioner and beneficiaries and the impact of balance period of time over-run i.e. 3 months in case of Pune ICT-III and 5 months in case of Wardha ICT-III shall be borne by the petitioner."

4. Aggrieved by the said order, the petitioner filed an appeal, i.e. Appeal No. 257 of 2013 before the Appellate Tribunal for Electricity ("the Tribunal"). The Tribunal in its judgment dated 12.9.2014 partly allowed the appeal. The relevant extract of the Tribunal's Judgment is as follows:-

"15. Summary of our findings

- (i) The delay of 8 months in conducting Short Circuit Test due to non-availability of test bed was beyond the control of Power Grid or its supplier. The Central Commission has also given clear finding that this delay was beyond the control of Power Grid and its supplier as they had to depend on other Organization outside India as the Short Circuit Testing facilities were not available in the country. Accordingly, IDC and IEDC for delay of 8 months in getting the Short Circuit Test due to non-availability of test bed should be allowed to Power Grid.
- (ii) The balance delay in commissioning of the ICTs due to failure of the transformer during testing cannot be allowed to be passed on to the beneficiary and has to be borne by Power Grid. We have relied on the finding of this Tribunal in Appeal no. 165 of 2012 in this regard. "



16. In view of above, the Appeal is allowed in part as indicated above. The Central Commission is directed to pass the consequential order as per the above findings at the earliest...”

5. The Tribunal in the above judgment has allowed IDC and IDC for delay of 8 months in getting the short circuit test on account of non-availability of test bed. Implementation of the direction of the Tribunal necessitates revision of the capital cost and consequent revision of the transmission charges for the instant assets.

### **CAPITAL COST**

6. PGCIL has claimed capital cost of 1453.18 lakh and 1561.82 lakh respectively for Asset-1 and Asset-2 as on COD, vide management certificate dated 3.2.2012. After taking into account the judgment of the Tribunal, there is time over-run of 3 months in case of Asset-1 and 5 months in case of Asset-2 which has been disallowed. Details of the IDC and IEDC claimed and disallowed for the assets for the balance period is as follows:-

| (₹ in lakh)   |  |              |
|---|--|--------------|
| <b>Asset-1</b>  |  |              |
| <b>Details of IDC and IEDC as per Management Certificate dated 3.2.2012</b> |  |              |
|   | <b>IEDC</b>  | <b>IDC</b>   |
| Up to 31.3.2011   | 13.63  | 22.12        |
| From 1.4.2011 to 31.10.2011   | 2.85   | 28.53        |
| <b>Total IDC and IEDC Claimed</b>   | <b>16.48</b>   | <b>50.65</b> |
| <b>Details of IDC and IEDC Disallowed for 3 months</b>                      |  |              |
| <b>Particulars</b>  | <b>Delay for which 100% IDC and IEDC has been deducted</b> |              |
|   | <b>IEDC</b>  | <b>IDC</b>   |
| <b>Disallowed IDC and IEDC (for 3 months)</b>                               | <b>1.11</b>  | <b>1.79</b>  |



(₹ in lakh)

| <b>Asset-2</b>  |  |              |
|---|--|--------------|
| <b>Details of IDC and IEDC as per Management Certificate dated 3.2.2012</b> |  |              |
|   | <b>IEDC</b>  | <b>IDC</b>   |
| Up to 31.3.2011   | 27.13  | 44.05        |
| From 1.4.2011 to 31.12.2011   | 1.42   | 18.82        |
| <b>Total IDC and IEDC Claimed</b>   | <b>28.55</b>   | <b>62.87</b> |
| <b>Details of IDC and IEDC Disallowed for 5 months</b>                      |  |              |
| Particulars   | <b>Delay for which 100% IDC and IEDC has been deducted</b> |              |
|   | <b>IEDC</b>  | <b>IDC</b>   |
| From December 2010 to March 2011 (4 months)                                 | 2.93   | 4.76         |
| For April 2011 (1 month)  | 0.16   | 2.09         |
| <b>Disallowed IDC and IEDC (for 5 months)</b>                               | <b>3.09</b>  | <b>6.85</b>  |

Disallowed IDC and IEDC have been deducted proportionately from the capital cost of individual components (except freehold land cost) of the assets.

### **Treatment for initial spares**

7. The petitioner has not claimed any amount of initial spares for Asset-1. The revised initial spares, for Asset-2, are worked out as below:-

(₹ in lakh)

| <b>Cost as on Cut-off date</b> | <b>Initial Spares Claimed</b> | <b>Capital cost as on DOCO after deducting Excess disallowed IDC and IEDC</b> | <b>Proportionate Initial spares</b> | <b>Ceiling Limits as per Regulation 8 of 2009 Tariff Regulations</b> | <b>Initial Spares worked out</b> | <b>Excess Initial Spares Claimed</b> |
|--------------------------------|-------------------------------|---|-------------------------------------|--|----------------------------------|--------------------------------------|
| 2188.94                        | 86.78                         | 2179.00   | 86.39                               | 2.50%  | 53.66                            | -32.73                               |

Excess initial spares have been deducted from the capital cost of sub-station as on COD. Initial spares will be reviewed on submission of actual capital cost incurred up to cut off date at the time of truing up or first revision, whichever is earlier.

### **Capital cost as on COD**

8. Capital cost of the assets considered for the purpose of tariff calculations as on the date of commercial operations are given overleaf:-



(₹ in lakh)

| Particular                   | Asset-1                                      |  | Asset-2                                      |  |  |
|------------------------------|--|--|--|--|--|
|                              | As per management certificate dated 3.2.2012 | Capital cost admitted after reducing IEDC & IDCs | As per management certificate dated 3.2.2012 | Capital cost admitted after reducing IEDC & IDCs | Capital cost after deducting proportionate excess initial spares |
| Freehold Land                | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Leasehold Land               | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Building & Other Civil Works | 89.29  | 89.11  | 87.59  | 87.03  | 87.03  |
| Transmission Line            | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Sub-Station Equipments       | 1334.11                                      | 1331.45  | 1456.75                                      | 1447.47  | 1414.75  |
| PLCC                         | 29.78  | 29.72  | 17.48  | 17.37  | 17.37  |
| Total                        | 1453.18                                      | 1450.28  | 1561.82                                      | 1551.88  | 1519.15  |

### Projected additional capital expenditure

9. Details of additional capital expenditure claimed by the petitioner for assets are given hereunder:-

| Year                  | Work proposed to be added after COD upto cut off date | Amount to be capitalized /proposed to be capitalized | Justification               |
|-----------------------|---|--|-----------------------------|
| <b>Asset-1</b>        |   |  |                             |
| COD to 31.3.2012      | Building & civil works                                | 84.25  | Balance /Retention Payments |
|                       | Sub Station   | 100.51   |                             |
|                       | PLCC  | 1.20   |                             |
|                       | <b>Sub Total</b>                                      | <b>185.96</b>  |                             |
| 1.4.2012 to 31.3.2013 | Building & civil works                                | 28.14  |                             |
|                       | Sub station   | 282.37   |                             |
|                       | <b>Sub Total</b>                                      | <b>310.51</b>  |                             |
| <b>Asset-2</b>        |   |  |                             |
| COD to 31.3.2012      | Building & civil works                                | 7.52   | Balance /Retention Payments |
|                       | Sub Station   | 42.48  |                             |
|                       | <b>Sub Total</b>                                      | <b>50.06</b>   |                             |
| 1.4.2012 to 31.3.2013 | Building & civil works                                | 81.92  |                             |
|                       | Sub station   | 493.49   |                             |
|                       | PLCC  | 1.65   |                             |
|                       | <b>Sub Total</b>                                      | <b>577.06</b>  |                             |



10. Additional capital expenditure claimed by the petitioner falls within the cut-off date. Hence, the same has been considered for the purpose of tariff calculation. Capital expenditure will be reviewed at the time of truing up on the submission on actual expenditure.

**Capital Cost as on 31.3.2014**

11. Capital cost as on 31.3.2014, after adjusting disallowed IDC/IEDC, excess initial spares and allowing projected additional capital expenditure, works out to as follows:-

| <b>Capital Expenditure</b>   | <b>(₹ in lakh)</b>     |                |
|------------------------------|------------------------|----------------|
|                              | <b>As on 31.3.2014</b> |                |
|                              | <b>Asset-1</b>         | <b>Asset-2</b> |
| Freehold Land                | 0.00                   | 0.00           |
| Leasehold Land               | 0.00                   | 0.00           |
| Building & Other Civil Works | 201.50                 | 176.53         |
| Transmission Line            | 0.00                   | 0.00           |
| Sub-Station Equipments       | 1714.33                | 1950.72        |
| PLCC                         | 30.92                  | 19.02          |
| <b>Total</b>                 | <b>1946.75</b>         | <b>2146.27</b> |

**Debt- equity ratio**

12. Details of revised opening debt equity of assets considered for the purpose of tariff calculation as on the date of commercial operation are given hereunder:-

| <b>(₹ in lakh)</b> |                |               |
|--------------------|----------------|---------------|
| <b>Asset-1</b>     | <b>Amount</b>  | <b>%</b>      |
| Debt               | 1015.20        | 70.00         |
| Equity             | 435.08         | 30.00         |
| <b>Total</b>       | <b>1450.28</b> | <b>100.00</b> |
| <b>Asset-2</b>     | <b>Amount</b>  | <b>%</b>      |
| Debt               | 1063.40        | 70.00         |
| Equity             | 455.74         | 30.00         |
| <b>Total</b>       | <b>1519.15</b> | <b>100.00</b> |



13. Details of debt-equity ratio of projected additional capital expenditure considered for the purpose of tariff calculations are as follows:-

**(₹ in lakh)**

| Particulars  | Asset-1       |               | Asset-2       |               |
|--------------|---------------|---------------|---------------|---------------|
|              | 2011-12       |               | 2011-12       |               |
|              | Amount        | %             | Amount        | %             |
|              | Normative     |               | Normative     |               |
| Debt         | 130.17        | 70.00         | 35.04         | 70.00         |
| Equity       | 55.79         | 30.00         | 15.02         | 30.00         |
| <b>Total</b> | <b>185.96</b> | <b>100.00</b> | <b>50.06</b>  | <b>100.00</b> |
| Particulars  | 2012-13       |               | 2012-13       |               |
|              | Amount        | %             | Amount        | %             |
|              | Normative     |               | Normative     |               |
|              | Debt          | 217.36        | 70.00         | 403.94        |
| Equity       | 93.15         | 30.00         | 173.12        | 30.00         |
| <b>Total</b> | <b>310.51</b> | <b>100.00</b> | <b>577.06</b> | <b>100.00</b> |

14. Details of revised debt-equity of the assets as on 31.3.2014 are given hereunder:-

**(₹ in lakh)**

| <b>Asset-1</b> | Amount         | %             |
|----------------|----------------|---------------|
| Debt           | 1362.73        | 70.00         |
| Equity         | 584.03         | 30.00         |
| <b>Total</b>   | <b>1946.75</b> | <b>100.00</b> |
| <b>Asset-2</b> | Amount         | %             |
| Debt           | 1502.39        | 70.00         |
| Equity         | 643.88         | 30.00         |
| <b>Total</b>   | <b>2146.27</b> | <b>100.00</b> |

### **Return on Equity (RoE)**

15. The revised return on equity in respect of transmission assets is given overleaf:-





(₹ in lakh)

| Particular                                | 2011-12               | 2012-13      | 2013-14       | 2011-12               | 2012-13      | 2013-14       |
|---|-----------------------|--------------|---------------|-----------------------|--------------|---------------|
|   | From COD to 31.3.2012 |              |               | From COD to 31.3.2012 |              |               |
|   | <b>Asset-1</b>        |              |               | <b>Asset-2</b>        |              |               |
| Opening Equity                            | 435.08                | 490.87       | 584.03        | 455.74                | 470.76       | 643.88        |
| Addition due to Additional Capitalisation | 55.79                 | 93.15        | 0.00          | 15.02                 | 173.12       | 0.00          |
| Closing Equity                            | 490.87                | 584.03       | 584.03        | 470.76                | 643.88       | 643.88        |
| Average Equity                            | 462.98                | 537.45       | 584.03        | 463.25                | 557.32       | 643.88        |
| Return on Equity (Base Rate )             | 15.50%                | 15.50%       | 15.50%        | 15.50%                | 15.50%       | 15.50%        |
| Tax rate for the year 2008-09 (MAT)       | 11.33%                | 11.33%       | 11.33%        | 11.33%                | 11.33%       | 11.33%        |
| Rate of Return on Equity (Pre Tax )       | 17.481%               | 17.481%      | 17.481%       | 17.481%               | 17.481%      | 17.481%       |
| Return on Equity (Pre Tax)                | <b>33.72</b>          | <b>93.95</b> | <b>102.09</b> | <b>20.25</b>          | <b>97.43</b> | <b>112.56</b> |

### Interest on loan

16. The revised interest on loan in respect of the transmission assets is as per details given below:-

(₹ in lakh)

| Particular                                | Asset-1                       |         |         | Asset-2                       |         |         |
|---|-------------------------------|---------|---------|-------------------------------|---------|---------|
|   | 2011-12 From COD to 31.3.2012 | 2012-13 | 2013-14 | 2011-12 From COD to 31.3.2012 | 2012-13 | 2013-14 |
| Gross Normative Loan                      | 1015.20                       | 1145.37 | 1362.73 | 1063.40                       | 1098.44 | 1502.39 |
| Cumulative Repayment upto Previous Year   | 0.00                          | 33.02   | 124.30  | 0.00                          | 19.99   | 115.64  |
| Net Loan-Opening                          | 1015.20                       | 1112.35 | 1238.42 | 1063.40                       | 1078.46 | 1386.75 |
| Addition due to Additional Capitalisation | 130.17                        | 217.36  | 0.00    | 35.04                         | 403.94  | 0.00    |
| Repayment during the year                 | 33.02                         | 91.28   | 99.20   | 19.99                         | 95.65   | 110.10  |
| Net Loan-Closing                          | 1112.35                       | 1238.42 | 1139.22 | 1078.46                       | 1386.75 | 1276.65 |
| Average Loan                              | 1063.77                       | 1175.38 | 1188.82 | 1070.93                       | 1232.60 | 1331.70 |
| Weighted Average Rate of Interest on Loan | 9.3405%                       | 9.3405% | 9.3466% | 8.9563%                       | 8.9563% | 8.9563% |
| Interest                                  | 41.40                         | 109.79  | 111.11  | 23.98                         | 110.40  | 119.27  |



## Depreciation

17. Details of revised depreciation in respect of the transmission assets are as follows:-

(₹ in lakh)

| Particular   | Asset-1                             |              |              | Asset-2                                |              |               |
|--|-------------------------------------|--------------|--------------|--|--------------|---------------|
|  | 2011-12<br>From COD to<br>31.3.2012 | 2012-13      | 2013-14      | 2011-12<br>From<br>COD to<br>31.3.2012 | 2012-13      | 2013-14       |
| Opening Gross Block  | 1450.28                             | 1636.24      | 1946.75      | 1519.15                                | 1569.21      | 2146.27       |
| Addition during 2009-14 due to Projected Additional Capitalization | 185.96                              | 310.51       | 0.00         | 50.06                                  | 577.06       | 0.00          |
| Closing Gross Block  | 1636.24                             | 1946.75      | 1946.75      | 1569.21                                | 2146.27      | 2146.27       |
| Average Gross Block  | 1543.26                             | 1791.50      | 1946.75      | 1544.18                                | 1857.74      | 2146.27       |
| <b>Depreciation</b>  |                                     |              |              |  |              |               |
| Rate of Depreciation   | 5.1357%                             | 5.0952%      | 5.0959%      | 5.1777%                                | 5.1487%      | 5.1297%       |
| Depreciable Value  | 1388.94                             | 1612.35      | 1752.08      | 1389.76                                | 1671.96      | 1931.64       |
| Remaining Depreciable Value  | 1388.94                             | 1579.32      | 1627.77      | 1389.76                                | 1651.97      | 1816.00       |
| Depreciation   | <b>33.02</b>                        | <b>91.28</b> | <b>99.20</b> | <b>19.99</b>                           | <b>95.65</b> | <b>110.10</b> |

## Interest on working capital

18. The revised interest on working capital in respect of transmission assets is given hereunder:-

(₹ in lakh)

| Particulars        | Asset-1                       |               |               | Asset-2       |               |               |
|--------------------|-------------------------------|---------------|---------------|---------------|---------------|---------------|
|                    | 2011-12 Pro-rata for 2 months | 2012-13       | 2013-14       | 2010-11       | 2011-12       | 2012-13       |
| Maintenance Spares | 27.23                         | 28.79         | 30.44         | 27.23         | 28.79         | 30.44         |
| O & M expenses     | 15.13                         | 16.00         | 16.91         | 15.13         | 16.00         | 16.91         |
| Receivables        | 75.83                         | 83.68         | 88.55         | 75.37         | 85.11         | 93.57         |
| <b>Total</b>       | <b>118.20</b>                 | <b>128.46</b> | <b>135.90</b> | <b>117.74</b> | <b>129.90</b> | <b>140.92</b> |
| Interest           | <b>5.79</b>                   | <b>15.09</b>  | <b>15.97</b>  | <b>3.46</b>   | <b>15.26</b>  | <b>16.56</b>  |



## Transmission charges

19. The revised transmission charges in respect of transmission assets is as under:-

(₹ in lakh)

| Particulars                    | 2011-12<br>From COD to<br>31.3.2012 | 2012-13       | 2013-14       | 2011-12<br>From COD<br>to<br>31.3.2012 | 2012-13       | 2013-14       |
|--------------------------------|-------------------------------------|---------------|---------------|--|---------------|---------------|
|                                | <b>Asset-1</b>                      |               |               | <b>Asset-2</b>                         |               |               |
| Depreciation                   | 33.02                               | 91.28         | 99.20         | 19.99                                  | 95.65         | 110.10        |
| Interest on Loan               | 41.40                               | 109.79        | 111.11        | 23.98                                  | 110.40        | 119.27        |
| Return on Equity               | 33.72                               | 93.95         | 102.09        | 20.25                                  | 97.43         | 112.56        |
| Interest on Working<br>Capital | 5.79                                | 15.09         | 15.97         | 3.46                                   | 15.26         | 16.56         |
| O & M Expenses                 | 75.65                               | 191.94        | 202.92        | 45.39                                  | 191.94        | 202.92        |
| <b>Total</b>                   | <b>189.58</b>                       | <b>502.05</b> | <b>531.30</b> | <b>113.06</b>                          | <b>510.67</b> | <b>561.40</b> |

20. All other terms contained in order dated 1.8.2013 in Petition No. 109/TT/2012 remains unaltered.

sd/-

**(A.S. Bakshi)**  
Member

sd/-

**(A. K. Singhal)**  
Member

sd/-

**(Gireesh B. Pradhan)**  
Chairperson

