

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 74/TT/2015**

**Coram:**

**Shri A.S Bakshi, Member  
Dr. M.K. Iyer, Member**

**Date of Hearing : 02.12.2015**

**Date of Order : 30.12.2015**

**In the matter of:**

Truing up of transmission tariff for 2009-14 tariff period and determination of transmission tariff for 2014-19 tariff period for up-gradation of transfer capacity of Talcher-Kolar HVDC Bi-pole in Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

**And in the matter of:**

Power Grid Corporation of India Ltd.  
'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

**Versus**

1. Karnataka Power Transmission Corporation Ltd.  
Kaveri Bhawan, Bangalore-560009
2. Transmission Corporation of Andhra Pradesh Ltd.  
(APTRANSCO), Vidyut Soudha  
Hyderabad-500082
3. Kerala State Electricity Board (KSEB)  
Vaidyuthi Bhavanam, Pattom  
Thiruvananthapuram-695004
4. Tamil Nadu Generation and Distribution Corporation Ltd  
(Formerly Tamil Nadu Electricity Board-TNEB)  
NPKRR Maaligai, 800, Anna Salai  
Chennai- 600002



5. Electricity Department  
Government of Pondicherry  
Pondicherry- 605001
6. Eastern Power Distribution Company of Andhra Pradesh Ltd.  
P&T Colony, Seethmmadhara, Vishakhapatnam  
Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh  
Tiruchanoor Road, Kesavayana Gunta  
Tirupati- 517 501
8. Central Power Distribution Company of Andhra Pradesh  
Mint Compound,  
Hyderabad- 500 063
9. Northern Power Distribution Company of Andhra Pradesh  
Chaitanyapuri, Kazipet  
Warangal- 506 004
10. Bangalore Electricity Supply Company Ltd.  
K.R. Circle  
Bangalore- 560 001
11. Gulbarga Electricity Supply Company Ltd.  
Station Main Road, Gulbarga
12. Hubli Electricity Supply Company Ltd.  
Navanagar, P B Road  
Hubli
13. MESCOM Corporate Office  
Paradigm Plaza, AB Shetty Circle  
Mangalore- 575 001
14. Chamundeswari Electricity Supply Corporation Ltd.  
New Kantharaj Urs Road, Saraswatipuram,  
Mysore-570 009
15. Electricity Department  
Government of Goa  
VidyutiBhawan, Panaji  
Goa- 403001

.....Respondents



The following were present:

For Petitioner: Shri Anshul Garg, PGCIL  
Shri Angaru Naresh Kumar, PGCIL  
Shri Jasbir Singh, PGCIL  
Shri S.K. Venkatesan, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri Sashi Bhushan, PGCIL  
Shri J. Mazumder, PGCIL  
Shri R. Prasad, PGCIL  
Shri Sunil Kumar, PGCIL  
Shri S.S. Raju, PGCIL

For Respondent: Shri Vallinayagam, Advocate, TANGEDCO,

### **ORDER**

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner'), a transmission licensee, for truing up of capital expenditure and tariff for "Up-gradation of transfer capacity of Talcher-Kolar HVDC Bi-pole in Southern Region" (hereinafter referred as "transmission asset") under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") based on actual expenditure for the period 1.4.2009 to 31.3.2014, and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from 1.4.2014 to 31.3.2019.

2. The respondents are distribution licensees or transmission licensees who are procuring transmission service from the petitioner, mainly beneficiaries of Southern Region.



3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 2.12.2015. During the hearing, the learned counsel for the TANGEDCO requested for one week time to file their reply and the Commission granted the same. The Commission during the hearing observed that in case no information is filed within the due date, the matter shall be considered based on the available records. Reply has been filed by Respondent No. 3, i.e. Kerala State Electricity Board Ltd. vide affidavit dated 20.4.2015 and Respondent No. 4 i.e. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) vide affidavit dated 16.12.2015. The concerns expressed by respondents are being addressed in the respective paras of this order. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

4. The brief facts of the case are as follows:-

- a. The investment approval for the up-gradation scheme was accorded by Board of Directors of the petitioner company vide Memorandum dated 20.7.2005 at an estimated cost of ₹11833.00 lakh, including IDC of ₹704.00 lakh. The petitioner has implemented the up-gradation scheme in the Southern Region w.e.f. 1.8.2007.
- b. The tariff from 1.8.2007 to 31.3.2009 was initially allowed vide order dated 30.4.2009 in Petition No. 131/2008, wherein IEDC was restricted from



petitioner's claim of ₹2144.96 lakh to ₹369.09 lakh. Aggrieved by the said order, Appeal No. 127 of 2009 was filed by the petitioner before the Hon'ble Appellate Tribunal for Electricity (hereinafter referred to as the "Tribunal") and it was dismissed by the Tribunal vide its Judgment dated 20.1.2011. Thereafter, the petitioner filed a Civil Appeal No. 3166/2011 before Hon'ble Supreme Court. In this regard, the Commission vide its letter dated 27.11.2015 directed the petitioner to provide status of Civil Appeal No. 3166/2011 before the Hon'ble Supreme Court. The petitioner in response vide its affidavit dated 3.12.2015 has submitted that the hearing for Appeal No. 3166/2011 before the Hon'ble Supreme Court against the Commission's order dated 31.4.2009 in Petition No. 131/2008 was held on 12.10.2015. The next hearing in the matter is awaited.

c. The tariff from 1.8.2007 to 31.3.2009 was revised vide order dated 4.4.2013 in Petition No. 8/2010 by considering additional capital expenditure incurred during 2008-09.

d. The tariff for tariff period 2009-14 was allowed vide order dated 2.12.2014 in Petition No. 107/TT/2013 in accordance with the 2009 Tariff Regulations. The tariff allowed vide order dated 2.12.2014 for the tariff period 2009-14 is as under:-

(₹ in lakh)

| Particulars                 | 2009-10        | 2010-11        | 2011-12        | 2012-13        | 2013-14        |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| Depreciation                | 539.83         | 540.23         | 540.23         | 540.81         | 542.52         |
| Interest on Loan            | 617.79         | 565.48         | 512.58         | 460.48         | 409.79         |
| Return on Equity            | 536.18         | 536.57         | 536.57         | 537.15         | 538.85         |
| Interest on Working Capital | 35.30          | 34.23          | 33.13          | 32.06          | 31.08          |
| O & M Expenses              | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| <b>Total</b>                | <b>1729.11</b> | <b>1676.51</b> | <b>1622.50</b> | <b>1570.51</b> | <b>1522.23</b> |



- e. The Commission, in its order dated 2.12.2014 in Petition No. 107/TT/2013, has considered admitted capital cost as ₹10216.60 lakh as on 31.3.2009 and additional capital expenditure of ₹14.94 lakh, ₹22.18 lakh, and ₹42.40 lakh proposed during 2009-10, 2012-13, and 2013-14, respectively, for the tariff period 2009-14.
- f. The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.
- g. The instant petition was filed on 10.2.2015 for the purpose of true up of annual fixed charges allowed in order dated 2.12.2014 in accordance with the 2009 tariff Regulations and determination of annual fixed charges in accordance with the 2014 Tariff Regulations..

#### **TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14**

- 5. The truing up of tariff for 2009-14 tariff period has been determined as discussed below.

#### **Capital Cost**

- 6. The petitioner has claimed admitted capital cost of ₹10216.60 lakh as on 31.3.2009 for the purpose of tariff.
- 7. Last proviso to Clause (2) of Regulation 7 of the 2009 Tariff Regulations provides that:



“Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly trued up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff”.

8. The capital cost admitted as on 31.3.2009 has been considered as the opening capital cost as on 1.4.2009 for determination of tariff in accordance with Regulation 7 of the 2009 Tariff Regulations. The admitted capital cost of ₹10216.60 lakh as on 1.4.2009 has been considered to work out the trued up tariff for the tariff period 2009-14.

#### **Additional Capital Expenditure**

9. The petitioner has claimed additional capitalisation of ₹14.94 lakh, ₹22.18 lakh, and ₹42.40 lakh for 2009-10, 2012-13, and 2013-14, respectively, for expenditure incurred after cut-off date against transmission line under Clause (2)(v) of Regulation 9 of the 2009 Tariff Regulations.

10. Respondent No. 3, i.e. Kerala State Electricity Board Ltd. vide affidavit dated 20.4.2015 has submitted that the as per Form-9 at page 92 of the petition additional expenditure in 2009-10, 2012-13, and 2013-14 is claimed to be on account of balance and retention payment. However, in accordance with Clause (2)(v) of Regulation 9 of the 2009 Tariff Regulations, the additional expenditure cannot be construed as balance and retention payment. In this regard, the Commission has been requested to direct the petitioner to clarify such contradictory claims. The petitioner in response vide its affidavit dated 22.12.2015 has submitted that the Regulation under which additional capitalization is claimed was inadvertently mentioned as Regulation 9(2)(v). This



additional capitalization is on account of balance and retention payment after cut-off date under the 2009 Tariff Regulations. In this regard, the petitioner also submitted the revised form-9 which clarifies that the additional capitalization during tariff 2009-14 is to be dealt in accordance with the provisions of Regulation 9(2)(viii) of the 2009 Tariff Regulations.

11. Clause 2(viii) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

“(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

.....

(viii) Any undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.”

12. The actual additional capitalisation of ₹14.94 lakh, ₹22.18 lakh, and ₹42.40 lakh for 2009-10, 2012-13 and 2013-14, respectively, claimed during the tariff period 2009-14 is same as the additional capitalisation approved by the Commission vide order dated 2.12.2014 in Petition No. 107/TT/2013.

13. The total capital cost of the transmission asset including additional capitalisation incurred during the tariff period 2009-14 works out to ₹10296.12 lakh, which is within the overall approved cost of ₹11833.00 lakh given in the investment approval. Further, the petitioner has submitted the Auditor's Certificate to verify the actual additional capital expenditure incurred in the tariff period 2009-14. As the total capital cost is within the overall approved cost and actual additional capitalisation is on account of balance and retention payment as approved in order dated 2.12.2014 in Petition No. 107/TT/2013, the additional





capitalisation of ₹14.94 lakh, ₹22.18 lakh, and ₹42.40 lakh for 2009-10, 2012-13 and 2013-14, respectively, is allowed in accordance with Clause 2(viii) of Regulation 9 of the 2009 Tariff Regulations. The summary of capital cost including additional capitalization is shown in table below:-

(₹ in lakh)

| Cost as per Investment Approval dated 20.7.2005 is ₹11833.00 lakh |                                       |                           |         |         |         |         |       |  |
|---|---------------------------------------|---------------------------|---------|---------|---------|---------|-------|--|
| Particulars   | Admitted capital cost as on 31.3.2009 | Additional capitalisation |         |         |         |         |       | Total capital cost including additional capitalisation |
|   |                                       | 2009-10                   | 2010-11 | 2011-12 | 2012-13 | 2013-14 | Total |  |
| Approved vide order dated 2.12.2014 in Petition No. 107/TT/2013   | 10216.60                              | 14.94                     | 0.00    | 0.00    | 22.18   | 42.40   | 79.52 | 10296.12   |
| Actual  | 10216.60                              | 14.94                     | 0.00    | 0.00    | 22.18   | 42.40   | 79.52 | 10296.12   |

### **Debt:Equity**

14. Clause 2 of Regulation 12 of the 2009 Tariff Regulations provides that:

“In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt:equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.”

15. The petitioner has claimed true up Annual Fixed Charge based on debt:equity ratio of 70:30 as considered by the Commission in its order dated 2.12.2014 in Petition No. 107/TT/2013. The transmission assets covered in the instant petition were commissioned prior to 1.4.2009. In Petition No.107/TT/2013, the Commission has considered admitted debt:equity ratio as on 31.3.2009 vide order dated 2.12.2014 in Petition No. 107/TT/2013. The admitted debt:equity



ratio of 70:30 as on 31.3.2009 has been considered as opening debt:equity ratio as on 1.4.2009 for the purpose of truing up of the approved tariff for tariff period 2009-14 as given under:-

| Funding      | Amount (₹ in lakh) | (%)           |
|--------------|--------------------|---------------|
| Debt         | 7151.62            | 70.00         |
| Equity       | 3064.98            | 30.00         |
| <b>Total</b> | <b>10216.60</b>    | <b>100.00</b> |

16. With respect to additional capitalization, the petitioner has submitted the debt:equity ratio of 70:30 for 2009-10 and 2012-13. Further, the petitioner has submitted the debt:equity ratio of 70.75:29.25 for additional capitalization during 2013-14. Debt: equity ratio is allowed in accordance with Clause 2 of Regulation 12 of the 2009 Tariff Regulations. The overall debt equity as on 31.3.2014 including additional capitalization is as under:-

| Funding      | Amount (in ₹ lakh) | (%)           |
|--------------|--------------------|---------------|
| Debt         | 7207.60            | 70.00         |
| Equity       | 3088.52            | 30.00         |
| <b>Total</b> | <b>10296.12</b>    | <b>100.00</b> |

### **Interest on Loan (“IOL”)**

17. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has held that:-

“...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up”.

The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest.



18. It is observed that the debt funding in the instant case is through bonds, which bear a fixed interest rate. We have considered the submissions of the petitioner and accordingly calculated the IOL by considering actual interest rate submitted by the petitioner, repayment of loan, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

| (₹ in lakh)                         |         |         |         |         |         |
|-------------------------------------|---------|---------|---------|---------|---------|
| Particulars                         | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 2.12.2014 | 617.79  | 565.48  | 512.58  | 460.48  | 409.79  |
| As claimed by the petitioner        | 617.80  | 565.48  | 512.58  | 460.48  | 409.79  |
| Allowed after trued up              | 617.79  | 565.48  | 512.58  | 460.48  | 409.79  |

### **Return on Equity (“ROE”)**

19. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provides that

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:



Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

20. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 2.12.2014. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

| Particulars | MAT Rate | Grossed up RoE (Base rate/(1-t)) |
|-------------|----------|----------------------------------|
| 2009-10     | 16.995 % | 18.674%                          |
| 2010-11     | 19.931 % | 19.358%                          |
| 2011-12     | 20.008 % | 19.377%                          |
| 2012-13     | 20.008 % | 19.377%                          |
| 2013-14     | 20.961 % | 19.610%                          |

21. Accordingly, the RoE as trued up is worked out by considering actual MAT rate for grossing up of ROE as shown in the table below:-

| Particulars                         | (₹ in lakh) |         |         |         |         |
|-------------------------------------|-------------|---------|---------|---------|---------|
|                                     | 2009-10     | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 2.12.2014 | 536.18      | 536.57  | 536.57  | 537.15  | 538.85  |
| As claimed by the petitioner        | 572.77      | 594.19  | 594.77  | 595.41  | 604.44  |
| Allowed after trued up              | 572.77      | 594.19  | 594.77  | 595.41  | 604.44  |

The variation in return on equity worked out with reference to the return on equity allowed vide order 2.12.2014 is due to change in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.



## **Depreciation**

22. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-

“‘**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

|                              |           |
|------------------------------|-----------|
| .....                        |           |
| (c) AC and DC sub-station    | 25 years  |
| (d) Hydro generating station | 35 years  |
| (e) Transmission line        | 35 years” |

23. Further, Clause (4) of Regulation 17 of the 2009 Tariff Regulations provide as follows:-

### **"17. Depreciation:**

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.”

24. The Commission, in its order dated 2.12.2014, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations.

25. As per Regulations 3(42) and 17 (4) of the 2009 Tariff Regulations, useful life for sub-station is 25 years. For the purpose of calculation, the life of the asset has been considered as 25 years.

26. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure and additional capitalisation as under:-



(₹ in lakh)

| Particulars                         | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|-------------------------------------|---------|---------|---------|---------|---------|
| Approved vide order dated 2.12.2014 | 539.83  | 540.23  | 540.23  | 540.81  | 542.52  |
| As claimed by the petitioner        | 539.83  | 540.23  | 540.23  | 540.81  | 542.52  |
| Allowed after trued up              | 539.83  | 540.23  | 540.23  | 540.81  | 542.52  |

The depreciation allowed in the instant order is same as the depreciation allowed vide order dated 2.12.2014 for the tariff period 2009-14.

### **Operation & Maintenance Expenses (“O&M Expenses”)**

27. The petitioner has not claimed O&M Expenses for the tariff period 2009-14, as no separate O&M expenses are allowable for the instant asset. Accordingly, O&M Expenses have been considered as NIL for the purpose of truing up of tariff for tariff period 2009-14.

### **Interest on working capital (“IWC”)**

28. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest on working capital.

29. The petitioner has submitted that the rate of interest on working capital has been considered as 12.25% as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

30. The Commission in its order dated 2.12.2014 in Petition No. 107/TT/2013 approved rate of interest on working capital of 12.25% applicable for 2008-09. In



accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation prior to 1.4.2009, shall be equal to short-term Prime Lending Rate as applicable as on 1.4.2009. State Bank of India short-term Prime Lending Rate on 1.4.2009 was 12.25%. Therefore, interest rate of 12.25% has been considered to workout the interest on working capital in the instant case.

31. The IWC trued up is as under:-

| (₹ in lakh)                 |         |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|---------|
| Interest on Working Capital | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Maintenance Spares          | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| O & M Expenses              | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Receivables                 | 294.41  | 289.22  | 280.32  | 271.66  | 264.87  |
| Total                       | 294.41  | 289.22  | 280.32  | 271.66  | 264.87  |
| Rate of Interest            | 12.25%  | 12.25%  | 12.25%  | 12.25%  | 12.25%  |
| Interest                    | 36.07   | 35.43   | 34.34   | 33.28   | 32.45   |

| (₹ in lakh)                         |         |         |         |         |         |
|-------------------------------------|---------|---------|---------|---------|---------|
| Particulars                         | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| Approved vide order dated 2.12.2014 | 35.30   | 34.23   | 33.13   | 32.06   | 31.08   |
| As claimed by the petitioner        | 36.07   | 35.43   | 34.34   | 33.28   | 32.45   |
| Allowed after trued up              | 36.07   | 35.43   | 34.34   | 33.28   | 32.45   |

The variation in IWC is on account of increase in receivables due to variation in ROE on account of applicable MAT rate during the 2009-14 tariff period.

### **ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD**

32. The detailed computation of the various components of the trued up annual fixed charges for the transmission asset for the tariff period 2009-14 is summarised below:-



(₹ in lakh)

| Particulars   | 2009-10  | 2010-11  | 2011-12  | 2012-13  | 2013-14  |
|---|----------|----------|----------|----------|----------|
| <b>Gross Block</b>                                  |          |          |          |          |          |
| Opening Gross Block                                 | 10216.60 | 10231.54 | 10231.54 | 10231.54 | 10253.72 |
| Additional Capitalization                           | 14.94    | 0.00     | 0.00     | 22.18    | 42.40    |
| Closing Gross block                                 | 10231.54 | 10231.54 | 10231.54 | 10253.72 | 10296.12 |
| Average Gross block                                 | 10224.07 | 10231.54 | 10231.54 | 10242.63 | 10274.92 |
|   |          |          |          |          |          |
| <b>Depreciation</b>                                 |          |          |          |          |          |
| Rate of Depreciation (%)                            | 5.280    | 5.280    | 5.280    | 5.280    | 5.280    |
| Depreciable Value                                   | 9201.66  | 9208.39  | 9208.39  | 9218.37  | 9247.43  |
| Elapsed Life of the assets at beginning of the year | 1        | 2        | 3        | 4        | 5        |
| Weighted Balance Useful life of the assets          | 24       | 23       | 22       | 21       | 20       |
| Remaining Depreciable Value                         | 8639.41  | 8106.31  | 7566.08  | 7035.84  | 6524.09  |
| Depreciation  | 539.83   | 540.23   | 540.23   | 540.81   | 542.52   |
|   |          |          |          |          |          |
| <b>Interest on Loan</b>                             |          |          |          |          |          |
| Gross Normative Loan                                | 7151.62  | 7162.08  | 7162.08  | 7162.08  | 7177.60  |
| Cumulative Repayment upto Previous Year             | 562.25   | 1102.08  | 1642.31  | 2182.53  | 2723.34  |
| Net Loan-Opening                                    | 6589.37  | 6060.00  | 5519.77  | 4979.55  | 4454.26  |
| Additions   | 10.46    | 0.00     | 0.00     | 15.53    | 30.00    |
| Repayment during the year                           | 539.83   | 540.23   | 540.23   | 540.81   | 542.52   |
| Net Loan-Closing                                    | 6060.00  | 5519.77  | 4979.55  | 4454.26  | 3941.75  |
| Average Loan  | 6324.68  | 5789.88  | 5249.66  | 4716.90  | 4198.00  |
| Weighted Average Rate of Interest on Loan (%)       | 9.7680   | 9.7667   | 9.7641   | 9.7624   | 9.7615   |
| Interest  | 617.79   | 565.48   | 512.58   | 460.48   | 409.79   |
|   |          |          |          |          |          |
| <b>Return on Equity</b>                             |          |          |          |          |          |
| Opening Equity                                      | 3064.98  | 3069.46  | 3069.46  | 3069.46  | 3076.12  |
| Additions   | 4.48     | 0.00     | 0.00     | 6.65     | 12.40    |
| Closing Equity                                      | 3069.46  | 3069.46  | 3069.46  | 3076.12  | 3088.52  |
| Average Equity                                      | 3067.22  | 3069.46  | 3069.46  | 3072.79  | 3082.32  |
| Return on Equity (Base Rate) (%)                    | 15.50    | 15.50    | 15.50    | 15.50    | 15.50    |
| MAT rate for the respective year (%)                | 16.995   | 19.931   | 20.008   | 20.008   | 20.961   |





|  |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|
| Particulars                            | 2009-10        | 2010-11        | 2011-12        | 2012-13        | 2013-14        |
| Rate of Return on Equity (Pre Tax) (%) | 18.674         | 19.358         | 19.377         | 19.377         | 19.610         |
| Return on Equity (Pre Tax)             | 572.77         | 594.19         | 594.77         | 595.41         | 604.44         |
| <b>Interest on Working Capital</b>     |                |                |                |                |                |
| Maintenance Spares                     | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| O & M Expenses                         | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| Receivables                            | 294.41         | 289.22         | 280.32         | 271.66         | 264.87         |
| Total                                  | 294.41         | 289.22         | 280.32         | 271.66         | 264.87         |
| Interest                               | 36.07          | 35.43          | 34.34          | 33.28          | 32.45          |
| <b>Annual Transmission Charges</b>     |                |                |                |                |                |
| Depreciation                           | 539.83         | 540.23         | 540.23         | 540.81         | 542.52         |
| Interest on Loan                       | 617.79         | 565.48         | 512.58         | 460.48         | 409.79         |
| Return on Equity                       | 572.77         | 594.19         | 594.77         | 595.41         | 604.44         |
| Interest on Working Capital            | 36.07          | 35.43          | 34.34          | 33.28          | 32.45          |
| O & M Expenses                         | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| <b>Total</b>                           | <b>1766.46</b> | <b>1735.32</b> | <b>1681.91</b> | <b>1629.99</b> | <b>1589.19</b> |

### **DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19**

33. The petitioner has claimed the transmission charges as under:-

(₹ in lakh)

|                             |                |                |                |                |                |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|
| Particulars                 | 2014-15        | 2015-16        | 2016-17        | 2017-18        | 2018-19        |
| Depreciation                | 549.15         | 554.67         | 554.67         | 554.67         | 554.67         |
| Interest on Loan            | 365.07         | 318.31         | 264.14         | 209.97         | 155.82         |
| Return on Equity            | 611.80         | 617.95         | 617.95         | 617.95         | 617.95         |
| Interest on Working Capital | 35.13          | 34.32          | 33.07          | 31.82          | 30.58          |
| O&M Expenses                | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| <b>Total</b>                | <b>1561.15</b> | <b>1525.25</b> | <b>1469.83</b> | <b>1414.41</b> | <b>1359.02</b> |

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

(₹ in lakh)

|                    |         |         |         |         |         |
|--------------------|---------|---------|---------|---------|---------|
| Particulars        | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Maintenance Spares | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| O & M Expenses     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |



| Particulars      | 2014-15      | 2015-16      | 2016-17      | 2017-18      | 2018-19      |
|------------------|--------------|--------------|--------------|--------------|--------------|
| Receivables      | 260.19       | 254.21       | 244.97       | 235.74       | 226.50       |
| Total            | 260.19       | 254.21       | 244.97       | 235.74       | 226.50       |
| Rate of Interest | 13.50%       | 13.50%       | 13.50%       | 13.50%       | 13.50%       |
| <b>Interest</b>  | <b>35.13</b> | <b>34.32</b> | <b>33.07</b> | <b>31.82</b> | <b>30.58</b> |

### **Capital Cost**

35. Clause (1) and (3) of Regulation 9 of the 2014 Tariff Regulations provide as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

“(3) The Capital cost of an existing project shall include the following:  
(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;  
(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and  
(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

36. The petitioner has claimed capital expenditure of ₹10296.12 lakh as on 31.3.2014, and additional capitalization of ₹208.95 lakh in 2014-15 during the 2009-14 tariff period.

37. The trued up capital cost of ₹10296.12 lakh as on 31.3.2014 has been considered as opening capital cost as on 1.4.2014 to work out the tariff for tariff period 2014-19.

### **Additional Capital Expenditure**

38. The petitioner has claimed the additional capitalization of ₹208.95 lakh for 2014-15.

39. Respondent No. 3 vide affidavit dated 20.4.2015 has submitted that the additional capitalization for the tariff period 2014-19 should comply with the



Regulation 14 of the 2014 Tariff Regulations. The petitioner in instant petition has not provided the details including the purpose for claiming such additional capitalization; therefore, the additional capitalization claimed by the petitioner should not be permitted. The petitioner in response vide its affidavit dated 22.12.2015 has submitted that projected additional capitalization for 2014-15, as mentioned at para 12 of the petition, is on account of balance and retention payment and, therefore, the same has been claimed under Clause (3)(v) of Regulation 14 of the 2014 Tariff Regulations.

40. Further, Respondent No. 4 vide affidavit dated 16.12.2015 has submitted that the petitioner has claimed an additional capitalization of ₹208.95 lakh for 2014-15 without furnishing the regulation under which the present claim is made. Also, the petitioner has not furnished the details of expenditure to be incurred for the expenditure claimed. The petitioner has not furnished the Form-9 (statement of additional capitalization after COD) and Form-9A (statement of capital cost) as required to be filed along with the tariff petition. Further, the additional capital expenditure claimed by the petitioner for tariff period 2014-19 does not fall under Regulation 14 of the 2014 Tariff Regulations. Therefore, the commission has been requested to disallow such claim of the petitioner as the same is not supported by necessary documents and proper justification. The petitioner in response vide its affidavit dated 29.12.2015 has submitted that the additional capitalization of ₹208.95 lakh for 2014-15 has been projected on account of balance and retention payments within the scope of the project and the same has been claimed as expenditure incurred after cut-off date under Clause 3(v) of Regulation 14 of the 2014 Tariff Regulations. Further, form-9 and form-9A are



form-7 and form-4A as per the 2014 Tariff Regulations and the same have been submitted in affidavit dated 16.12.2015.

41. In this regard, vide letter dated 27.11.2015, the petitioner was directed to provide the details of additional capitalization projected for 2014-15 along with approval of competent authority, justification for proposed expenditure and Regulation(s) invoked for claiming expenditure for the purpose in tariff determination. The petitioner vide its affidavit dated 3.12.2015, has submitted that the additional capital expenditure of ₹208.95 lakh has been projected during 2014-15 on account of balance and retention payments, which is within the scope of the project. Further, the petitioner submitted that the admissibility of such additional capital expenditure incurred after cut-off date is to be dealt in accordance with Regulation 14(3)(v) of the 2014 Tariff Regulations.

42. Clause (3)(v) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

...”

43. The total capital cost of the transmission asset including additional capitalisation incurred during 2014-15 works out to ₹10505.07 lakh, which is within the overall approved cost of ₹11833.00 lakh given in the investment approval. The estimated additional capitalisation ₹208.95 lakh for 2014-15 has been allowed in accordance with Clause 3(v) of Regulation 14 of the 2014 Tariff



Regulations which will be reviewed at the time of true up based on actual expenditure incurred by the petitioner.

44. The total capital cost including additional capitalisation during 2014-19 period considered for determination of tariff is given in table below:-

**(₹ in lakh)**

| Particulars | Capital cost as on 31.3.2014 | Additional capitalisation |         |         |         |         | Total additional capitalisation | Total capital cost including additional capitalisation |
|-------------|------------------------------|---------------------------|---------|---------|---------|---------|---------------------------------|--|
|             |                              | 2014-15                   | 2015-16 | 2016-17 | 2017-18 | 2018-19 |                                 |  |
| Asset       | 10296.12                     | 208.95                    | 0.00    | 0.00    | 0.00    | 0.00    | 208.95                          | 10505.07   |

### **Debt: Equity Ratio**

45. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt:equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

46. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

| Particulars  | Amount (in ₹ lakh) | (%)           |
|--------------|--------------------|---------------|
| Debt         | 7207.60            | 70.00         |
| Equity       | 3088.52            | 30.00         |
| <b>Total</b> | <b>10296.12</b>    | <b>100.00</b> |

47. The normative debt:equity ratio of 70:30 has been considered for additional capitalisation proposed during the tariff period 2014-19.



### **Interest on Loan (“IOL”)**

48. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

49. The weighted average rate of IOL has been considered based on the actual loan portfolio, interest of actual loan prevailing as on 1.4.2014 and average loan amount by considering repayment and additions. The details of interest rate of individual loan and weighted average rate of interest are placed at Annexure-II. The weighted average rate of interest is given in following table:

(₹ in lakh)

|                      | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|----------------------|---------|---------|---------|---------|---------|
| Average Loan         | 4782.13 | 4210.12 | 3638.11 | 3064.85 | 2490.34 |
| Interest on Loan     | 466.76  | 410.88  | 355.01  | 299.01  | 242.90  |
| Rate of Interest (%) | 9.7604  | 9.7594  | 9.7580  | 9.7562  | 9.7536  |

44. The IOL has been worked out by considering normative loan and weighted average rate of interest in accordance with Regulation 26 of the 2014 Tariff Regulations as follows:-



(₹ in lakh)

| Particulars                                 | 2014-15       | 2015-16       | 2016-17       | 2017-18       | 2018-19       |
|---|---------------|---------------|---------------|---------------|---------------|
| Gross loan opening                          | 7207.60       | 7353.87       | 7353.87       | 7353.87       | 7353.87       |
| Cumulative Repayment upto COD/previous year | 3265.86       | 3815.01       | 4369.68       | 4924.34       | 5479.01       |
| Net Loan-Opening                            | 3941.75       | 3538.86       | 2984.20       | 2429.53       | 1874.86       |
| Additions during the year                   | 146.27        | 0.00          | 0.00          | 0.00          | 0.00          |
| Repayment during the year                   | 549.15        | 554.67        | 554.67        | 554.67        | 554.67        |
| Net Loan-Closing                            | 3538.86       | 2984.20       | 2429.53       | 1874.86       | 1320.19       |
| Average Loan                                | 3740.31       | 3261.53       | 2706.86       | 2152.20       | 1597.53       |
| Rate of Interest (%)                        | 9.7604        | 9.7594        | 9.7580        | 9.7562        | 9.7536        |
| <b>Interest</b>                             | <b>365.07</b> | <b>318.31</b> | <b>264.14</b> | <b>209.97</b> | <b>155.82</b> |

### **Return on Equity (“ROE”)**

50. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

**“24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.  
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system....  
.....”

### **“25. Tax on Return on Equity:**

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:  
Rate of pre-tax return on equity = Base rate / (1-t)  
Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

51. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax



including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

52. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year. In this regard, Respondent No. 4 vide affidavit dated 16.12.2015 has submitted that the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant acts by the concerned generating company or the transmission licensee, as the case may be, as provided under Regulation 25(1) of the 2014 Tariff Regulations. Further, the petitioner cannot claim the difference in tax from the beneficiaries and is entitled for grossing up of ROE only on the actual tax paid during the respective financial year. Hence, the difference in tax liabilities should not be passed on to the beneficiaries unless there is any amendment in the provisions in Income Tax Act providing retrospective effect. The petitioner in response vide its affidavit dated 29.12.2015 has submitted that ROE has been calculated @19.610% after grossing up the ROE with MAT rate of 20.961% based on the rate prescribed by the Commission under Regulation 25(2)(i) of the 2014 Tariff Regulations. Further, in accordance with Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest





received from the IT authorities pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries on year to year basis. Further, adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/adjustable during/after completion of income tax assessment of the financial year.

53. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of allowing return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE is worked out as given below:-

| <b>(₹ in lakh)</b>                        |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|
| Particulars                               | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Opening Equity                            | 3088.52 | 3151.20 | 3151.20 | 3151.20 | 3151.20 |
| Addition due to Additional Capitalization | 62.68   | 0.00    | 0.00    | 0.00    | 0.00    |
| Closing Equity                            | 3151.20 | 3151.20 | 3151.20 | 3151.20 | 3151.20 |
| Average Equity                            | 3119.86 | 3151.20 | 3151.20 | 3151.20 | 3151.20 |
| Return on Equity (Base Rate) (%)          | 15.50   | 15.50   | 15.50   | 15.50   | 15.50   |
| MAT rate for the year (%)                 | 20.961  | 20.961  | 20.961  | 20.961  | 20.961  |
| Rate of Return on Equity (Pre             | 19.610  | 19.610  | 19.610  | 19.610  | 19.610  |



| Particulars                       | 2014-15       | 2015-16       | 2016-17       | 2017-18       | 2018-19       |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Tax) (%)                          |               |               |               |               |               |
| <b>Return on Equity (Pre Tax)</b> | <b>611.80</b> | <b>617.95</b> | <b>617.95</b> | <b>617.95</b> | <b>617.95</b> |

### **Depreciation**

54. Respondent No. 3, vide affidavit dated 20.4.2015 has submitted that the petitioner at form 10A of petition has mentioned the cumulative depreciation upto 2013-14 as ₹3265.87 lakh, whereas when this is carried over to 2014-15 under depreciation upto previous year, the same is mentioned as ₹2502.05 lakh. However, the cumulative depreciation during 2013-14 should be equal to the depreciation upto previous year in 2014-15. Accordingly, the Commission has been requested to direct the petitioner to clarify such anomaly. The petitioner in response vide its affidavit dated 22.12.2015 has submitted that the depreciation upto previous year during 2014-15 as mentioned in the petition is an inadvertent error and the same has been rectified. In this regard, the petitioner has submitted the revised form-10A which shows that cumulative depreciation during 2013-14 is equal to the depreciation upto previous year in 2014-15. However, with such modification in form-10A the depreciation in tariff period 2014-19 remains unchanged with no change in tariff.

55. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

**"27. Depreciation:**

...(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis

...



(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

56. We have considered the submission made by the petitioner with reference to depreciation. Depreciation is allowed in accordance with the Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

**(₹ in lakh)**

| Details of Depreciation  | 2014-15       | 2015-16       | 2016-17       | 2017-18       | 2018-19       |
|--|---------------|---------------|---------------|---------------|---------------|
| Opening Gross block  | 10296.12      | 10505.07      | 10505.07      | 10505.07      | 10505.07      |
| Additions during the year due to projected additional capitalization | 208.95        | 0.00          | 0.00          | 0.00          | 0.00          |
| Closing Gross block  | 10505.07      | 10505.07      | 10505.07      | 10505.07      | 10505.07      |
| Rate of Depreciation (%)   | 5.280         | 5.280         | 5.280         | 5.280         | 5.280         |
| Depreciable Value  | 9360.54       | 9454.56       | 9454.56       | 9454.56       | 9454.56       |
| Elapsed Life of the assets at beginning of the year                  | 6             | 7             | 8             | 9             | 10            |
| Weighted Balance Useful life of the assets                           | 19            | 18            | 17            | 16            | 15            |
| Remaining Depreciable Value  | 6094.68       | 5639.55       | 5084.89       | 4530.22       | 3975.55       |
| <b>Depreciation</b>  | <b>549.15</b> | <b>554.67</b> | <b>554.67</b> | <b>554.67</b> | <b>554.67</b> |

### **Operation & Maintenance Expenses (“O&M Expenses”)**

57. Respondent No. 3, vide affidavit dated 20.4.2015 has submitted that the petitioner vide para 12.7 of the petition has requested for review of O&M rates. O&M Expenses has not been claimed as the same has been included in the combined assets of Talcher and Kolar System, which does not include



upgradation. The petitioner in response vide its affidavit dated 22.12.2015 has submitted that para 12.7 of the petition is an inadvertent error and the same may be ignored as the O&M expenditure as per form-1 is nil.

58. Respondent No. 4 vide its affidavit dated 16.12.2015 has submitted that the petitioner in para 12.7 of the petition has stated that the wage revision of employees of the petitioner is due during tariff period 2014-19 and actual impact of wage hike will be effective from future date and therefore will approach the Commission for revision of O&M rates through review petition. In this regard, the Commission while determining the norms for the 2014 Tariff Regulations has considered the submissions made by all the stakeholders and accordingly notified the norms in respect of O&M expenses. The norms determined by the Commission are in accordance with the guidance issued by the Central Electricity Authority and other authorities. Further, the Commission in its statement of reasons for the 2014 Tariff Regulations has briefly discussed the issues raised by utilities. Hence, there should not be any further increase in O&M expenses as the expenses already allowed is on higher side. Also, there cannot be any petition for power to relax for relaxation of the norms determined by the Commission. Accordingly, the Commission has been requested to disallow the petitioner's claim for including the impact of wage revision in O&M expenses and approaching the Commission through review petition. The petitioner in response vide its affidavit dated 29.12.2015 has submitted that norms for O&M expenditure for transmission system as specified under Regulation 29(3)(a) of the 2014 Tariff Regulations has been arrived by the Commission after considering normalized actual O&M expenses of the petitioner on its various projects in various regions



during 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13. Further, the scheme of wage revision is binding on the petitioner being as CPSU. However, the actual impact of wage hike due (w.e.f 1.1.2017) has not been factored in fixation of the normative O&M rates prescribed for the tariff period 2014-19. In accordance with the Regulation 19(f)(ii) of the 2009 Tariff Regulations, norms of O&M expenses for 2009-10 were derived considering the impact of wage hike of the employees under PSUs. Accordingly, the petitioner has requested the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during tariff period 2014-19.

59. The petitioner has not claimed O & M Expenses for the tariff period 2014-19, as no separate O&M expenses are allowable for the instant asset. Accordingly, O&M Expenses have been considered as NIL for the purpose of determination of transmission tariff for tariff period 2014-19.

### **Interest on Working Capital (“IWC”)**

60. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

#### **“28. Interest on Working Capital**

- (c)(i) Receivables equivalent to two months of fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
- (iii) Operation and maintenance expenses for one month”

“(5) ‘Bank Rate’ means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”



61. The petitioner has submitted that it has computed IWC for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered for the purpose of computation of tariff is 13.50%.

62. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital as determined is shown in the table below:-

| (₹ in lakh)        |              |              |              |              |              |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Particulars        | 2014-15      | 2015-16      | 2016-17      | 2017-18      | 2018-19      |
| Maintenance Spares | 0.00         | 0.00         | 0.00         | 0.00         | 0.00         |
| O & M expenses     | 0.00         | 0.00         | 0.00         | 0.00         | 0.00         |
| Receivables        | 260.19       | 254.21       | 244.97       | 235.74       | 226.50       |
| Total              | 260.19       | 254.21       | 244.97       | 235.74       | 226.50       |
| Rate of Interest   | 13.50%       | 13.50%       | 13.50%       | 13.50%       | 13.50%       |
| <b>Interest</b>    | <b>35.13</b> | <b>34.32</b> | <b>33.07</b> | <b>31.82</b> | <b>30.58</b> |

### Annual Transmission Charges

63. The Annual Transmission Charges allowed for the transmission asset is given hereunder:-

| (₹ in lakh)      |                |                |                |                |                |
|------------------|----------------|----------------|----------------|----------------|----------------|
| Particulars      | 2014-15        | 2015-16        | 2016-17        | 2017-18        | 2018-19        |
| Depreciation     | 549.15         | 554.67         | 554.67         | 554.67         | 554.67         |
| Interest on Loan | 365.07         | 318.31         | 264.14         | 209.97         | 155.82         |
| Return on Equity | 611.80         | 617.95         | 617.95         | 617.95         | 617.95         |
| Interest on WC   | 35.13          | 34.32          | 33.07          | 31.82          | 30.58          |
| O&M Expenses     | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| <b>Total</b>     | <b>1561.15</b> | <b>1525.24</b> | <b>1469.82</b> | <b>1414.41</b> | <b>1359.01</b> |



64. The detailed computation of various components of annual fixed charges for the tariff period 2014-19 is summarized below:-

| (₹ in lakh)   |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|
| Particulars   | 2014-15  | 2015-16  | 2016-17  | 2017-18  | 2018-19  |
| <b>Gross Block</b>                                  |          |          |          |          |          |
| Opening Gross Block                                 | 10296.12 | 10505.07 | 10505.07 | 10505.07 | 10505.07 |
| Additional Capitalisation                           | 208.95   | 0.00     | 0.00     | 0.00     | 0.00     |
| Closing Gross Block                                 | 10505.07 | 10505.07 | 10505.07 | 10505.07 | 10505.07 |
| Average Gross Block                                 | 10400.60 | 10505.07 | 10505.07 | 10505.07 | 10505.07 |
|   |          |          |          |          |          |
| <b>Depreciation</b>                                 |          |          |          |          |          |
| Rate of Depreciation(%)                             | 5.280    | 5.280    | 5.280    | 5.280    | 5.280    |
| Depreciable Value                                   | 9360.54  | 9454.56  | 9454.56  | 9454.56  | 9454.56  |
| Elapsed Life of the assets at beginning of the year | 6        | 7        | 8        | 9        | 10       |
| Weighted Balance Useful life of the assets          | 19       | 18       | 17       | 16       | 15       |
| Remaining Depreciable Value                         | 6094.68  | 5639.55  | 5084.89  | 4530.22  | 3975.55  |
| Depreciation  | 549.15   | 554.67   | 554.67   | 554.67   | 554.67   |
|   |          |          |          |          |          |
| <b>Interest on Loan</b>                             |          |          |          |          |          |
| Gross Normative Loan                                | 7207.60  | 7353.87  | 7353.87  | 7353.87  | 7353.87  |
| Cumulative Repayment upto Previous Year             | 3265.86  | 3815.01  | 4369.68  | 4924.34  | 5479.01  |
| Net Loan-Opening                                    | 3941.75  | 3538.86  | 2984.20  | 2429.53  | 1874.86  |
| Additions   | 146.27   | 0.00     | 0.00     | 0.00     | 0.00     |
| Repayment during the year                           | 549.15   | 554.67   | 554.67   | 554.67   | 554.67   |
| Net Loan-Closing                                    | 3538.86  | 2984.20  | 2429.53  | 1874.86  | 1320.19  |
| Average Loan  | 3740.31  | 3261.53  | 2706.86  | 2152.20  | 1597.53  |
| Weighted Average Rate of Interest on Loan (%)       | 9.7604   | 9.7594   | 9.7580   | 9.7562   | 9.7536   |
| Interest  | 365.07   | 318.31   | 264.14   | 209.97   | 155.82   |
|   |          |          |          |          |          |
| <b>Return on Equity</b>                             |          |          |          |          |          |
| Opening Equity                                      | 3088.52  | 3151.20  | 3151.20  | 3151.20  | 3151.20  |
| Additions   | 62.68    | 0.00     | 0.00     | 0.00     | 0.00     |
| Closing Equity                                      | 3151.20  | 3151.20  | 3151.20  | 3151.20  | 3151.20  |
| Average Equity                                      | 3119.86  | 3151.20  | 3151.20  | 3151.20  | 3151.20  |



| Particulars                            | 2014-15        | 2015-16        | 2016-17        | 2017-18        | 2018-19        |
|--|----------------|----------------|----------------|----------------|----------------|
| Return on Equity (Base Rate) (%)       | 15.50          | 15.50          | 15.50          | 15.50          | 15.50          |
| MAT Rate for the year 2013-14 (%)      | 20.961         | 20.961         | 20.961         | 20.961         | 20.961         |
| Rate of Return on Equity (Pre Tax) (%) | 19.610         | 19.610         | 19.610         | 19.610         | 19.610         |
| Return on Equity (Pre Tax)             | 611.80         | 617.95         | 617.95         | 617.95         | 617.95         |
|  |                |                |                |                |                |
| <b>Interest on Working Capital</b>     |                |                |                |                |                |
| Maintenance Spares                     | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| O & M expenses                         | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| Receivables                            | 260.19         | 254.21         | 244.97         | 235.74         | 226.50         |
| Total                                  | 260.19         | 254.21         | 244.97         | 235.74         | 226.50         |
| Interest                               | 35.13          | 34.32          | 33.07          | 31.82          | 30.58          |
|  |                |                |                |                |                |
| <b>Annual Transmission Charges</b>     |                |                |                |                |                |
| Depreciation                           | 549.15         | 554.67         | 554.67         | 554.67         | 554.67         |
| Interest on Loan                       | 365.07         | 318.31         | 264.14         | 209.97         | 155.82         |
| Return on Equity                       | 611.80         | 617.95         | 617.95         | 617.95         | 617.95         |
| Interest on Working Capital            | 35.13          | 34.32          | 33.07          | 31.82          | 30.58          |
| O & M Expenses                         | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
| <b>Total</b>                           | <b>1561.15</b> | <b>1525.24</b> | <b>1469.82</b> | <b>1414.41</b> | <b>1359.01</b> |

### **Filing Fee and Publication Expenses**

65. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.





### **Licence Fee and RLDC Fees and Charges**

66. The petitioner has requested to allow the petitioner to bill and recover licence fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

### **Service Tax**

67. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. In this regard, Respondent No. 4 vide its affidavit dated 16.12.2015 has submitted that the service tax for transmission of electricity is presently under negative list and hence the petitioner's claim is premature. Further, the petitioner's claim to collect the taxes, if any, paid directly from the beneficiaries is not reasonable. The Commission is the competent authority for passing of any taxes upon the beneficiaries after considering the reasonableness of the claim. Hence, the petitioner may be directed accordingly.

68. We have considered the submissions of petitioners and respondents and are of the view that the petitioner's prayer is premature.

### **Deferred Tax Liability**

69. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized under Regulation 49 of the 2014 Tariff Regulations. In this regard, Respondent No. 4 vide its affidavit dated 16.12.2015 has submitted that the petitioner has not furnished the details with the works executed prior to the cut-off date, total



estimated cost of package, reasons for such withholding of payment, etc. as required under Regulation 14(2) of the 2014 Tariff Regulations. Accordingly, the petitioner's claim is unreasonable and the Commission should disallow the petitioner's claim for recovering the deferred tax liability prior to 1.4.2009 from the beneficiaries. The petitioner in response vide its affidavit dated 29.12.2015 has submitted that the actual additional capitalization incurred during tariff period 2009-14 has already been approved by the Commission vide order dated 2.12.2014 in Petition No. 107/TT/2013. Further, an additional capitalization of ₹208.95 lakh for 2014-15 has been projected on account of balance and retention payments within the scope of the project and the same has been claimed as expenditure incurred after cut-off date under Clause 3(v) of Regulation 14 of the 2014 Tariff Regulations. The petitioner in response vide its affidavit dated 16.12.2015 has submitted that as mentioned in para 12.6 of the petition the service tax is to be paid by the respondents only in case is paid by the petitioner. The deferred tax liability shall be dealt as per Regulation 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same materializes, directly from the beneficiaries or long term transmission customers /DICs.

### **Sharing of Transmission Charges**

70. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.



71. This order disposes of Petition No. 74/TT/2015.

Sd/-  
**(Dr. M. K. Iyer)**  
**Member**

Sd/-  
**(A.S. Bakshi)**  
**Member**



**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO**

(₹ in lakh)

| <b>Particulars</b>  | <b>Interest Rate (%)</b> | <b>Loan deployed as on 1.4.2009</b> | <b>Additions during the tariff period</b> | <b>Total</b>   |
|---|--------------------------|-------------------------------------|---|----------------|
| Bond XXI - DOCO   | 8.73                     | 38.00                               | 0.00                                      | 38.00          |
| Bond XXII - DOCO  | 8.68                     | 41.00                               | 0.00                                      | 41.00          |
| Bond XXIV - DOCO  | 9.95                     | 1643.00                             | 0.00                                      | 1643.00        |
| Bond XXV - DOCO   | 10.10                    | 2724.00                             | 0.00                                      | 2724.00        |
| Bond XXVI - Addcap for 2007-2008 drawl on 31 March 2008   | 9.30                     | 2014.00                             | 0.00                                      | 2014.00        |
| Bond XXVIII - Addcap for 2008-2009 drawl on 31 March 2009 | 9.33                     | 404.00                              | 0.00                                      | 404.00         |
| Bond XLV - Addcap for 2013-2014 drawl on 31 March 2014    | 9.65                     | 0.00                                | 30.00                                     | 30.00          |
| <b>Total</b>  |                          | <b>6864.00</b>                      | <b>30.00</b>                              | <b>6894.00</b> |



**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

|   | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
|---|---------|---------|---------|---------|---------|
| Gross Opening Loan                                | 6864.00 | 6864.00 | 6864.00 | 6864.00 | 6864.00 |
| Cumulative Repayments of Loans upto Previous Year | 0.00    | 0.00    | 143.51  | 681.85  | 1253.86 |
| Net Loans Opening                                 | 6864.00 | 6864.00 | 6720.49 | 6182.15 | 5610.14 |
| Add: Drawl(s) during the year                     | 0.00    | 0.00    | 0.00    | 0.00    | 30.00   |
| Less: Repayment(s) of Loan during the year        | 0.00    | 143.51  | 538.34  | 572.01  | 572.01  |
| Net Closing Loan                                  | 6864.00 | 6720.49 | 6182.15 | 5610.14 | 5068.13 |
| Average Net Loan                                  | 6864.00 | 6792.25 | 6451.32 | 5896.15 | 5339.14 |
| Interest on Loan                                  | 670.47  | 663.38  | 629.91  | 575.61  | 521.18  |
| Rate of Interest on Loan (%)                      | 9.7680  | 9.7667  | 9.7641  | 9.7624  | 9.7615  |



**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO**

(₹ in lakh)

| <b>Particulars</b>  | <b>Interest Rate (%)</b> | <b>Loan deployed as on 1.4.2014</b> | <b>Additions during the tariff period</b> | <b>Total</b>   |
|---|--------------------------|-------------------------------------|---|----------------|
| Bond XXI - DOCO   | 8.73                     | 38.00                               | 0.00                                      | 38.00          |
| Bond XXII - DOCO  | 8.68                     | 41.00                               | 0.00                                      | 41.00          |
| Bond XXIV - DOCO  | 9.95                     | 1643.00                             | 0.00                                      | 1643.00        |
| Bond XXV - DOCO   | 10.10                    | 2724.00                             | 0.00                                      | 2724.00        |
| Bond XXVI - Addcap for 2007-2008 drawl on 31 March 2008   | 9.30                     | 2014.00                             | 0.00                                      | 2014.00        |
| Bond XXVIII - Addcap for 2008-2009 drawl on 31 March 2009 | 9.33                     | 404.00                              | 0.00                                      | 404.00         |
| Bond XLV - Addcap for 2013-2014 drawl on 31 March 2014    | 9.65                     | 30.00                               | 0.00                                      | 30.00          |
| <b>Total</b>  |                          | <b>6894.00</b>                      | <b>0.00</b>                               | <b>6894.00</b> |



**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2014-19 TARIFF PERIOD**

(₹ in lakh)

|   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Gross Opening Loan                                | 6894.00 | 6894.00 | 6894.00 | 6894.00 | 6894.00 |
| Cumulative Repayments of Loans upto Previous Year | 1825.87 | 2397.88 | 2969.89 | 3541.90 | 4116.41 |
| Net Loans Opening                                 | 5068.13 | 4496.12 | 3924.11 | 3352.10 | 2777.59 |
| Add: Drawl(s) during the year                     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| Less: Repayment(s) of Loan during the year        | 572.01  | 572.01  | 572.01  | 574.51  | 574.51  |
| Net Closing Loan                                  | 4496.12 | 3924.11 | 3352.10 | 2777.59 | 2203.08 |
| Average Net Loan                                  | 4782.13 | 4210.12 | 3638.11 | 3064.85 | 2490.34 |
| Interest on Loan                                  | 466.76  | 410.88  | 355.01  | 299.01  | 242.90  |
| Rate of Interest on Loan (%)                      | 9.7604  | 9.7594  | 9.7580  | 9.7562  | 9.7536  |

