

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 204/TT/2014**

**Coram:**

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

**Date of Hearing : 02.12.2015  
Date of Order : 29.01.2016**

**In the matter of:**

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 of transmission system associated with NLC Stage-I in Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

**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.  
(KPTCL), Kaveri Bhavan, Bangalore- 560 009
2. Transmission Corporation of Andhra Pradesh Ltd.  
(APTRANSCO), Vidyut Soudha, Hyderabad- 500082
3. Kerala State Electricity Board(KSEB)  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram- 695 004
4. Tamil Nadu Generation and Distribution Corporation Ltd.  
(Formerly Tamil Nadu State Electricity Board-TNEB)  
NPKRR Maaligai, 800, Anna Salai,  
Chennai- 600 002



5. Electricity Department  
Govt. Of Pondicherry,  
Pondicherry- 605 001
6. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)  
P&T Colony, Seethmmadhara, Vishakhapatnam,  
Andhra Pradesh
7. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta  
Tirupati-517 501
8. Central Power Distribution Company of Andhra Pradesh Limited (APCPDCL)  
Corporate Office, Mint Compound,  
Hyderabad- 500 063
9. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL), Opp. NIT Petrol Pump,  
Chaitanyapuri, Kazipet  
Warangal- 506 004
10. Bangalore Electricity Supply Company Ltd. (BESCOM),  
Corporate Office, K.R. Circle  
Bangalore- 560 001
11. Gulbarga Electricity Supply Company Ltd. (GESCOM)  
Station Main Road, Gulbarga, Karnataka
12. Hubli Electricity Supply Company Ltd. (HESCOM)  
Navanagar, P B Road  
Hubli, Karnataka
13. MESCOM Corporate Office  
Paradigm Plaza, AB Shetty Circle  
Mangalore- 575 001
14. Chamundeswari Electricity Supply Corporation Ltd. (CESC)  
# 927, L J Avenue, Ground Floor  
New KantharajUrs Road, Saraswatipuram,  
Mysore-570 009
15. Electricity Department  
Government of Goa, Vidyuti Bhawan,  
Panaji, Goa- 403001

....Respondents



The following were present:

For Petitioner: Shri Anshul Garg, PGCIL  
Shri A.N.Kumar, PGCIL  
Shri Jasbir Singh, PGCIL  
Shri S.K.Venkatesan, PGCIL  
Shri M.M.Mondal, PGCIL  
Shri Shashi Bhushan,PGCIL  
Shri J.Majumder,PGCIL  
Shri Rakesh Prasad,PGCIL  
Shri Sunil Kumar, PGCIL  
Shri S.S.Raju, PGCIL

For Respondent: Shri Jaya Prakash.R, TANGEDCO  
Shri S.Vallinayagam, Advocate, TANGEDCO

### **ORDER**

The present petition has been preferred by Power Grid Corporation of India Ltd. ('the petitioner') for truing up of capital expenditure 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 determination of tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for transmission system associated with NLC Stage-I in Southern Region (hereinafter referred as "transmission asset").

2. The respondents are mostly distribution licensees or centralised power procurement companies of States, 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.

4. Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Respondent No. 4, has filed reply to the petition vide affidavit dated 16.12.2015 to which the petitioner has filed its rejoinder vide affidavit dated 11.1.2016. The concerns expressed by respondents are being addressed in the respective paras of this order. Having heard the representatives of the petitioner and respondents and perused the material on record, we proceed to dispose of the petition.

5. The brief facts of the case are as follows:

- a. The techno-economic clearance for the transmission system for evacuation of power from NLC Thermal Power Station, Stage-I in Southern Region was accorded by Central Electricity Authority at an estimated cost of ₹7784 lakh. The scope of work included in the transmission system and the dates of commercial operation of the respective transmission line are as stated below:-

Sl. No.	Name of the transmission line/asset	Date of commercial operation	Actual Line length in Ckt. km
(i)	400 kV S/C Neyveli-Salem transmission line-I	7.5.1988	174.95
(ii)	400 kV S/C Neyveli-Madras transmission line	17.7.1987	181.85
(iii)	220 kV S/C Neyveli- Pondicherry transmission line	12.4.1987	63.23



Sl. No.	Name of the transmission line/asset	Date of commercial operation	Actual Line length in Ckt. km
	Total		420.03

- b. Transmission charges for the transmission system for the period 1.4.2004 to 31.3.2009 was initially approved by the Commission vide its order dated 3.11.2005 in Petition No. 134/2004. The above tariff was revised vide order dated 24.1.2008 by way of implementation of the Judgment of the Hon'ble Appellate Tribunal for Electricity dated 16.5.2007 in Appeal No. 121 of 2005. This was further revised vide order dated 18.10.2010 in Petition No. 55/2010 consequent to incurring of additional capital expenditure during 2008-09.
- c. The tariff for tariff period 2009-14 was allowed vide order dated 13.5.2011 in Petition No. 92/2009 in accordance with the 2009 Tariff Regulations. The tariff allowed vide order dated 13.5.2011 for the tariff period 2009-14 is as under:-

**(₹ in lakh)**

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	127.04	127.04	127.04	142.25	170.95
Interest on Loan	0.44	0.00	0.00	0.00	0.00
Return on Equity	708.34	708.34	708.34	711.82	718.44
Interest on Working Capital	29.62	30.30	31.04	32.22	33.77
O & M Expenses	243.85	257.62	272.51	288.17	304.56
<b>Total</b>	<b>1109.29</b>	<b>1123.30</b>	<b>1138.93</b>	<b>1174.46</b>	<b>1227.72</b>

- d. The Commission, in its order dated 13.5.2011 in Petition No. 92/2009, has admitted capital cost as ₹8177.50 lakh with additional capital expenditure of ₹184.71 lakh and ₹184.71 lakh proposed during 2012-13 and 2013-14,



respectively, and de-capitalisation of ₹52.00 lakh and ₹65.25 lakh proposed during 2012-13 and 2013-14, respectively, for the tariff period 2009-14.

- e. 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.

6. TANGEDCO submitted that as per Regulation 6(6) of the 2009 Tariff Regulations, the transmission licensees shall recover from the beneficiaries along with simple interest for the under recovered amount. Likewise beneficiaries are also eligible to get refund of over recovered amount from the transmission licensees along with simple interest and requested the Commission to direct the petitioner to refund the amount of ₹72.93 lakh due to excess additional capitalization claimed during 2012-13 to 2014-15. The petitioner in response submitted that variation in transmission charges claimed by the petitioner shall be dealt with as per Regulation 6(6) of the 2009 Tariff Regulations.

7. TANGEDCO requested the Commission to direct the petitioner to submit the details of actual tax paid as per the Finance Act, on year to year basis for due verification of the grossed up tax claimed in the tariff petition for 2009-14 period. In response the petitioner submitted that as the petitioner is liable to pay income tax at MAT rate, the 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 as per illustration under Regulation 25 (2) (i) of the 2014 Tariff Regulations. The



petitioner further submitted that as per 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 thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2014-15 to 2018-19 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. It is further submitted that 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.

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

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

#### **Capital Cost**

9. The petitioner has claimed admitted capital cost of ₹8177.50 lakh as on 31.3.2009 for the purpose of tariff.

10. 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”.

11. The capital cost admitted as on 31.3.2009 vide order dated 13.5.2011 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 ₹8177.50 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**

12. The petitioner has claimed additional capitalisation of ₹43.82 lakh during 2009-10 towards balance and retention payment for additional capitalisation incurred and approved for 2004-09 tariff period for sub-station. The petitioner has also claimed additional capitalisation of ₹196.01 lakh and de-capitalisation of ₹56.79 lakh during 2013-14 towards replacement of DG set, fire fighting system and auxiliary system at Sriperumbudur Sub-station with a net additional capitalisation of ₹139.22 lakh for 2013-14. The net additional capitalisation as claimed by the petitioner is ₹183.04 lakh for the 2009-14 tariff period in accordance with Clause 2(v) of Regulation 9 of the 2009 Tariff Regulations.

13. TANGEDCO in its reply submitted that the petitioner has claimed excess additional capitalization of ₹11.30 lakh vis-à-vis that approved by the Commission and requested the Commission to exercise prudence check for the excess claim. The petitioner in its rejoinder submitted that the variation is due to the difference in the projected cost and the actual cost and due to price variation.





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

“(1) 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:

.....

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.”

15. The Commission vide its order dated 13.5.2011 in Petition No. 92/2009 had approved additional capitalisation of ₹184.71 lakh for the year 2012-13 and ₹184.71 lakh for the year 2013-14 with de-capitalisation of ₹52 lakh for the year 2012-13 and ₹65.25 lakh for the year 2013-14. The total additional capitalisation approved for 2009-14 tariff period was ₹369.42 lakh whereas the total de-capitalisation approved for 2009-14 tariff period was ₹117.25 lakh. Accordingly, the net additional capitalisation approved was ₹252.17 lakh. The Commission allowed the said additional capitalisation based on the submission of the petitioner as mentioned in para 14 of the order dated 13.5.2011 in Petition No. 92/2009 is extracted below:-

“The Auxiliary Power Supply System and Fire Fighting System at Sriperumbudur and Salem Sub-Stations were commissioned in 1987 and 1988. These equipments are going to complete 25 years of service in 2012 and 2013. During various routine/special tests, conditions were observed to be critical and the equipment is giving operational problems and is posing a threat to the reliability and security to the grid. The designs have undergone substantial changes over the period and manufacturers have discontinued the product model. The suppliers are unable to provide replenishment parts required for quick restoration and repairs are unviable. In view of absence of proper support from suppliers due



to obsolescence of design, the maintenance of these equipment is no more possible and poses serious threat to the reliability and security of grid operation”

16. The petitioner has claimed additional capitalization of ₹139.22 lakh towards the same work in 2013-14. The petitioner has also submitted the Auditor’s Certificate to substantiate the actual additional capital expenditure incurred in 2009-14. The Commission has considered the submissions of the petitioner and respondents and approves the actual additional capitalization under Clause 2(v) of Regulation 9 of the 2009 Tariff Regulations.

17. The total capital cost of the transmission asset including additional capitalisation incurred during 2009-14 is shown below:-

**(₹ in lakh)**

Particulars	Admitted capital cost as on 31.3.2009	Additional Net capitalisation (after deducting de-capitalisation)					Total additional capitalisation	Total capital cost including additional capitalisation
		2009-10	2010-11	2011-12	2012-13	2013-14		
Approved in order dated 13.5.2011	8177.50	0.00	0.00	0.00	132.71	119.46	252.17	8429.67
Actual	8177.50	43.82	0.00	0.00	0.00	139.22	183.04	8360.54

### **Debt: Equity**

18. 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.”



19. The petitioner has claimed true up Annual Fixed Charge based on debt:equity ratio of 50.45:49.55 as on 31.3.2009, considered by the Commission in its order dated 13.5.2011 in Petition No. 92/2009. The admitted debt:equity ratio of 50.45:49.55 as on 31.3.2009 has been considered as opening debt:equity ratio as on 1.4.2009 for the purpose of trueing up of the approved tariff for tariff period 2009-14 as given under:-

Funding	Amount (₹ in lakh)	(%)
Debt	4125.42	50.45
Equity	4052.08	49.55
<b>Total</b>	<b>8177.50</b>	<b>100.00</b>

20. With respect to additional capitalization, the petitioner has submitted that the additional capitalization has been funded through debt:equity ratio of 70:30 for 2009-10 and 2013-14. The actual loan deployed for all the years are at 70% and balance 30% amount has been deployed as equity. Accordingly, the actual debt and equity infused during tariff period 2009-14 is as given below:-

(₹ in lakh)

S. No.	Financial Year	Net additional capitalisation	Actual debt	Actual equity	Debt:Equity
1	2009-10	43.82	30.67	13.15	70:30
2	2013-14	139.22	97.45	41.77	70:30

21. 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	4253.54	50.88
Equity	4107.00	49.12
<b>Total</b>	<b>8360.54</b>	<b>100.00</b>



### **Interest on Loan ("IOL")**

22. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. In the order dated 13.5.2011 in Petition No. 92/2009 it is mentioned that the actual loan has already been repaid prior to 1.4.2004 and the notional loan of ₹9.55 lakh gets repaid during the year 2009-10.

23. The weighted average rate of interest of 9.20% has been considered as per the interest rate approved in order dated 13.5.2011 in Petition No. 92/2009 which was considered on the basis of latest loan drawn by the petitioner during the year 2008-09 as there was no actual loan.

24. The petitioner has not claimed any interest on loan for the rest of the period, i.e., 2010-14, as the complete loan has already been repaid. Consequent to the additional capital expenditure during 2013-14, there is an addition to the normative loan amounting to ₹97.45 lakh during 2013-14. The Commission observes that the petitioner has not claimed any interest on loan as the normative loan amount added during 2013-14 is less than the depreciation allowed for that year and therefore, the same is getting repaid in the same year. The petitioner has therefore, not claimed any IOL during 2013-14. Accordingly, IOL has been considered as NIL for the purpose of truing up of tariff for 2010-14 period. The IOL for 2009-14 tariff period 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 13.5.2011	0.44	0.00	0.00	0.00	0.00
As claimed by the petitioner	0.44	0.00	0.00	0.00	0.00
Allowed after trued up	0.44	0.00	0.00	0.00	0.00

### **Return on Equity ("ROE")**

25. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides as follows:-

“(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:

Rate of pre-tax return on equity = 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.”

26. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 13.5.2011. 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%

27. Accordingly, the RoE as trued up is as shown in the table below:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 13.5.2011	708.34	708.34	708.34	711.82	718.44
As claimed by the petitioner	757.95	786.95	787.72	787.72	801.29
Allowed after trued up	757.75	786.95	787.72	787.72	801.29

The return on equity allowed in the instant order is higher than the return on equity allowed vide order 13.5.2011 due to increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity.

### **Depreciation**

28. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides 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 bespread over the balance useful life of the assets."

29. The Commission, in its order dated 13.5.2011, has worked out the depreciation in accordance with Regulation 17 of the 2009 Tariff Regulations



considering balance useful life of the asset as 10 years for 2009-10 and depreciation was spread over the balance useful life. Accordingly, the same approach has been continued in the instant order.

30. In the instant petition, the petitioner has submitted that accumulated depreciation of ₹51.11 lakh for the de-capitalized equipment has been reduced from the closing figures of cumulative depreciation for 2012-13 for working out the depreciation for 2013-14, which is in line with the methodology adopted by the Commission for computation of depreciation in the order dated 13.5.2011 in Petition No. 92/2009.

31. 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:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 13.5.2011	127.04	127.04	127.04	142.25	170.95
As claimed by the petitioner	129.01	131.19	131.21	131.21	152.08
Allowed after trued up	129.01	131.20	131.20	131.20	141.64

32. The depreciation allowed in the instant order for 2009-10 is more than the depreciation allowed vide order dated 13.5.2011 due to increased additional capitalization for 2009-12 and lower for 2012-13 and 2013-14 due to lesser claim by the petitioner against the additional capitalisation allowed by the Commission in the said order. Further, the depreciation approved for the year 2013-14 is less than the petitioner's claim as the petitioner while computing depreciation for



2013-14 has considered depreciation on the entire additional capitalization instead of considering it on average basis.

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

33. The petitioner has computed O&M Expenses for the assets mentioned in the petition in accordance with the O&M norms for 400 kV S/C twin conductor transmission line, 220 kV S/C single conductor transmission line and 400 kV bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The petitioner has claimed O&M Expenses for 400 kV S/C twin conductor of Neyveli-Salem I and Neyveli-Madras of 356.794 km line length, 220 kV S/C single conductor Neyveli-Puducherry transmission line of 63.232 km line length, and 2 bays of 400 kV level. Accordingly, the O&M Expenses have been worked out as given below:-

		(₹ in lakh)				
Particulars		2009-10	2010-11	2011-12	2012-13	2013-14
Actual line length (Km.)	400 kV, Double conductors, S/C	356.794	356.794	356.794	356.794	356.794
	220 kV, Single Conductor, S/C	63.232	63.232	63.232	63.232	63.232
Actual (No. of Sub-station bays)	400 kV Sub-station Bays	2	2	2	2	2
Norms as per the 2009 Tariff Regulation	400 kV, Double conductor, S/C (₹ lakh/km)	0.358	0.378	0.4	0.423	0.447
	220 kV, Single Conductor, S/C (₹ lakh/km)	0.179	0.189	0.2	0.212	0.224
	400 kV Sub-stations (₹ lakh/bay)	52.4	55.4	58.57	61.92	65.46





Particulars		2009-10	2010-11	2011-12	2012-13	2013-14
O&M Expenses	400 kV, Double conductors, S/C	127.73	134.87	142.72	150.92	159.49
	220 kV, Single Conductor, S/C	11.32	11.95	12.65	13.41	14.16
	400 kV Sub-stations	104.8	110.8	117.14	123.84	130.92
<b>Total (₹ in lakh)</b>		<b>243.85</b>	<b>257.62</b>	<b>272.50</b>	<b>288.17</b>	<b>304.57</b>

34. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 13.5.2011 in Petition No. 92/2009. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

Particulars	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 13.5.2011	243.85	257.62	272.51	288.17	304.56
As claimed by the petitioner	243.85	257.62	272.50	288.17	304.57
Allowed after trued up	243.85	257.62	272.50	288.17	304.57

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

35. 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.

36. 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.

37. The Commission in its order dated 13.5.2011 in Petition No. 92/2009 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 work out the interest on working capital in the instant case.

38. 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	36.58	38.64	40.88	43.23	45.69
O & M Expenses	20.32	21.47	22.71	24.01	25.38
Receivables	193.62	201.30	204.03	206.78	213.73
Total	250.52	261.41	267.62	274.02	284.80
Rate of Interest (%)	12.25	12.25	12.25	12.25	12.25
Interest	30.69	32.02	32.78	33.57	34.89

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Approved vide order dated 13.5.2011	29.62	30.30	31.04	32.22	33.77
As claimed by the petitioner	30.69	32.02	32.78	33.57	35.11
Allowed after trued up	30.69	32.02	32.78	33.57	34.89



39. The IWC has increased vis-à-vis order dated 13.5.2011 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**

40. 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	8177.50	8221.32	8221.32	8221.32	8221.32
Addition during 2009-14 due to additional capitalization	43.82	0.00	0.00	0.00	139.22
Closing Gross block	8221.32	8221.32	8221.32	8221.32	8360.54
Average Gross block	8199.41	8221.32	8221.32	8221.32	8290.93
<b>Depreciation</b>					
Rate of Depreciation (%)	1.573	1.596	1.596	1.596	1.708
Depreciable Value	7224.67	7244.39	7244.39	7244.39	7307.04
Elapsed Life (Beginning of the year)	22	23	24	25	26
Weighted Balance Useful life of the assets	10	9	8	7	6
Remaining Depreciable Value	1290.07	1180.78	1049.58	918.39	849.84
Depreciation	129.01	131.20	131.20	131.20	141.64
<b>Interest on Loan</b>					
Gross Normative Loan	4125.42	4156.09	4156.09	4156.09	4156.09
Cumulative Repayment upto Previous Year	4115.86	4156.09	4156.09	4156.09	4156.09
Net Loan-Opening	9.56	0.00	0.00	0.00	0.00
Addition due to Additional Capitalisation	30.67	0.00	0.00	0.00	97.45
Repayment during the year	40.23	0.00	0.00	0.00	97.45
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	4.78	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan(%)	9.20	9.20	9.20	9.20	9.20
Interest	0.44	0.00	0.00	0.00	0.00



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Return on Equity</b>					
Opening Equity	4052.08	4065.23	4065.23	4065.23	4065.23
Additions	13.15	0.00	0.00	0.00	41.77
Closing Equity	4065.23	4065.23	4065.23	4065.23	4107.00
Average Equity	4058.66	4065.23	4065.23	4065.23	4086.12
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	16.995	19.931	20.008	20.008	20.961
Return on Equity (Pre Tax) (%)	18.670	19.358	19.377	19.377	19.610
Return on Equity (Pre Tax)	757.75	786.95	787.72	787.72	801.29
<b>Interest on Working Capital</b>					
Maintenance Spares	36.58	38.64	40.88	43.23	45.69
O & M expenses	20.32	21.47	22.71	24.01	25.38
Receivables	193.62	201.30	204.03	206.78	213.73
Total	250.52	261.41	267.62	274.02	284.80
Interest	30.69	32.02	32.78	33.57	34.89
<b>Annual Transmission Charges</b>					
Depreciation	129.01	131.20	131.20	131.20	141.64
Interest on Loan	0.44	0.00	0.00	0.00	0.00
Return on Equity	757.75	786.95	787.72	787.72	801.29
Interest on Working Capital	30.69	32.02	32.78	33.57	34.89
O & M Expenses	243.85	257.62	272.50	288.17	304.57
<b>Total</b>	<b>1161.74</b>	<b>1207.79</b>	<b>1224.20</b>	<b>1240.65</b>	<b>1282.39</b>

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

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	189.54	217.20	217.21	217.21	217.21
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	812.62	819.86	819.86	819.86	819.86
Interest on Working Capital	38.40	39.72	40.25	40.79	41.35
O&M Expenses	277.52	286.96	296.53	306.25	316.45
<b>Total</b>	<b>1318.08</b>	<b>1363.74</b>	<b>1373.85</b>	<b>1384.11</b>	<b>1394.87</b>

42. 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	41.63	43.04	44.48	45.94	47.47
O & M Expenses	23.13	23.91	24.71	25.52	26.37
Receivables	219.68	227.29	228.98	230.69	232.48
Total	284.44	294.24	298.17	302.15	306.32
Rate of Interest	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>38.40</b>	<b>39.72</b>	<b>40.25</b>	<b>40.79</b>	<b>41.35</b>

### Capital Cost

43. 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.”

44. The petitioner has claimed capital expenditure of ₹8360.54 lakh as on 31.3.2014 including additional capitalization of ₹239.83 lakh and de-capitalization of ₹56.79 lakh during the 2009-14 tariff period.

45. The trued up capital cost of ₹8360.54 lakh as on 31.3.2014 is considered for the purpose of tariff for tariff period 2014-19.



### **Additional Capital Expenditure**

46. The petitioner has claimed additional capitalization of ₹316.80 lakh and de-capitalisation of ₹70.77 lakh for 2014-15. This additional capitalisation is projected on account of spill over of balance works, which was earlier approved under additional capitalisation for 2009-14 tariff period but could not be completed. The petitioner has claimed the additional capitalisation for 2014-19 tariff period under Clause (3)(ix) of Regulation 14 of the 2014 Tariff Regulations.

47. TANGEDCO in its reply to the petition submitted that the petitioner has carried forward the approved additional capitalization work for ₹184.71 lakh in respect of Salem Sub-station for the year 2013-14 to the next tariff period and has exorbitantly hiked the additional capitalization to ₹316.80 lakh. TANGEDCO further submitted that the additional capitalization towards replacement of DG set, fire fighting system and Auxiliary system at Sriperumbudur Sub-station approved for the year 2012-13 for an amount of ₹184.71 lakh has been carried forward to 2013-14 and has been claimed as ₹196.01 lakh. Further, the additional capitalization approved for the year 2013-14 towards the same work at Salem Sub-station has been carried forward to 2014-15 for ₹316.80 lakh. TANGEDCO submitted that it appears that inadvertently/advertently, the expenditure has been mentioned for two Sub-stations instead of only one for which the works have been completed and Auditor's Certificate has been furnished. Based on this the petitioner has claimed amount certified by the auditor mentioning only Salem Sub-station, which could be due to oversight and needs to be taken care while prudence check. TANGEDCO further submitted



that the petitioner has not submitted any justification for the excess claim made since the works carried out for both the Sub-stations are identical.

48. The petitioner in response submitted that the projected additional capitalization for 2014-19 is spillover of the additional capitalization approved for 2009-14 period, which is being claimed as balance and retention payment towards additional capitalization already approved by the Commission in 2009-14. The petitioner further requested the Commission to approve the additional capitalization as per Para 12 of the petition, The petitioner further submitted that as per the Auditor's Certificate additional capitalization has been incurred in both Sriperumbudur and Salem Sub-stations.

49. Clause (3)(ix) 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:

.....

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and.....

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:.....”



50. The Commission in order dated 13.5.2011 in Petition No. 92/2009 had allowed ₹369.42 lakh for additional capitalisation and ₹117.25 lakh for de-capitalisation towards replacement of equipments against which the petitioner has claimed additional capitalisation of ₹43.82 lakh during 2009-10 towards balance and retention for 2004-09 tariff period, ₹196.01 lakh during 2013-14 towards replacement of equipments and de-capitalisation of ₹56.79 lakh during 2013-14 towards replacement of equipments. In this regard, the Commission vide its letter dated 27.11.2015 directed the petitioner to submit reasons for increase in additional capital expenditure as compared to that approved by the Commission in order dated 13.5.2011 in Petition No. 92/2009 and submit the Board approval for the same along with reasons for cost escalation.

51. The petitioner in response, vide its affidavit dated 9.12.2015 submitted that the Commission in its order dated 13.5.2011 in Petition No. 92/2009 had approved ₹369.42 lakh for replacement of problematic Sub-station equipments during 2009-14 tariff period against which additional capitalisation of ₹196.01 lakh has been incurred during 2013-14 on account of replacement of DG set, fire fighting system and auxiliary system at Sriperumbudur Sub-station. Balance expenditure has been spilled over to 2014-19 tariff period and ₹316.80 lakh has been proposed as additional capitalisation on account of balance additional capitalisation approved for 2009-14 tariff period towards replacement of DG set, fire fighting system and auxiliary system at Salem and Sriperumbudur Sub-station.





52. The petitioner has further submitted that against the estimated approved additional capitalisation of ₹369.42 lakh, the projected additional capitalisation works out to be ₹512.81 lakh (₹196.01 lakh + ₹316.80 lakh). The reason for escalation is that this estimate was based on the price of similar equipments in LOA placed in March 2009 whereas procurement of equipments of these two Sub-stations were carried out through open tendering basis after finalization of technical specifications, drawings and LOA was placed in the year 2013/14. This type of expenditure or its variation is put up to the Board of Directors under the head of “Non-plan capital expenditure” in the annual revenue budget of the company based on the activities scheduled during that year and the next year.

53. During the hearing dated 2.12.2015, in response to a query of the Commission regarding any balance and retention payment still to be made, the representative of the petitioner submitted that there is no balance and retention payment to be made for the asset.

54. The net capital cost of the transmission asset including additional capitalisation and de-capitalisation during 2014-19 works out to ₹246.03 lakh. The Commission has considered the petitioner’s submission and as the additional capitalisation proposed is mainly towards the replacement of old equipments due to obsolescence of technology, the Commission allows the additional capitalisation of ₹316.80 lakh and de-capitalisation of ₹70.77 lakh for 2014-15 as claimed by the petitioner in accordance with Clause 3(ix) of Regulation 14 of the 2014 Tariff Regulations. The additional capitalisation for



tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation in true up petition.

### **Debt: EquityRatio**

55. Clause 3 and 4 of Regulation 19 of the 2014 Tariff Regulations provide as under:-

“(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.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt:equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.”

56. The petitioner has considered debt:equity ratio as 50.88:49.12 as on 1.04.2014. We have considered the approved debt-equity ratio of 50.88:49.12 as on 31.3.2014, as the debt-equity ratio as on 01.04.2014. The details of the debt:equity ratio as on 31.3.2014 considered for the purpose of tariff for 2014-19 tariff period is as follows:-

(₹in lakh)

Funding	Amount	(%)
Debt	4253.54	50.88
Equity	4107.00	49.12
<b>Total</b>	<b>8360.54</b>	<b>100.00</b>

57. As regards the additional capital expenditure projected during 2014-19 period, the petitioner has claimed normative debt:equity ratio of 70:30 and the same has been considered.



### **Interest on Loan (“IOL”)**

58. The petitioner has not claimed any interest on loan for the tariff period 2014-19 as the complete loan has already been repaid before the tariff period 2014-19. As regards additional capital expenditure projected during the tariff period 2014-19, the petitioner has submitted that the funding has been done through debt:equity ratio of 70:30 and it has claimed debt corresponding to 70% of the additional capitalisation. The Commission observes that the petitioner has not claimed any interest on loan as the loan amount added corresponding to year-wise additional capitalisation is less than the depreciation allowed for the respective years and therefore, the same is getting repaid in the same year. The petitioner has therefore, not claimed any IOL during 2014-19. Accordingly, Interest on Loan has been considered as NIL for the purpose of tariff.

### **Return on Equity (“ROE”)**

59. Clause (1) and (2) of Regulations 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.”

60. 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.

61. 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.

62. 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 determined by the Commission is given below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4107.00	4180.81	4180.81	4180.81	4180.81
Addition due to Additional Capitalisation	73.81	0.00	0.00	0.00	0.00
Closing Equity	4180.81	4180.81	4180.81	4180.81	4180.81
Average Equity	4143.91	4180.81	4180.81	4180.81	4180.81
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the year (%)	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
<b>Return on Equity (Pre Tax)</b>	<b>812.62</b>	<b>819.86</b>	<b>819.86</b>	<b>819.86</b>	<b>819.86</b>

### Depreciation

63. 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."



64. The petitioner has computed depreciation considering capital expenditure of ₹8360.54 lakh as on 31.3.2014 along with additional capitalisation of ₹246.03 lakh for 2014-19 tariff period.

65. In the instant petition, the petitioner has submitted that accumulated depreciation of ₹63.69 lakh for the de-capitalized equipment has been reduced from the closing figures of cumulative depreciation for 2013-14 for working out the depreciation for 2014-15, which is in line with the methodology adopted by the Commission for computation of depreciation in order dated 13.5.2011 in Petition No. 92/2009.

66. We have considered the submission made by the petitioner with respect to depreciation. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	8360.54	8606.57	8606.57	8606.57	8606.57
Additions during the year due to projected additional capitalization	246.03	0.00	0.00	0.00	0.00
Closing Gross block	8606.57	8606.57	8606.57	8606.57	8606.57
Average Gross block	8483.56	8606.57	8606.57	8606.57	8606.57
Rate of Depreciation (%)	2.078	2.370	2.370	2.370	2.370
Depreciable Value	7480.40	7591.11	7591.11	7591.11	7591.11
Elapsed Life (Beginning of the year)	27	28	29	30	31
Weighted Balance Useful life of the assets at the beginning of the year	5	4	3	2	1
Remaining Depreciable Value	881.56	815.96	611.97	407.98	203.99
<b>Depreciation</b>	<b>176.31</b>	<b>203.99</b>	<b>203.99</b>	<b>203.99</b>	<b>203.99</b>



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

67. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. TANGEDCO in its reply submitted that the petitioner has reserved its rights for revision of O&M Expenses considering the impact of wage revision hike for the tariff block 2014-19, which is not provided under the 2009 Tariff Regulations. The petitioner in response submitted that the norms for O&M expenditure for the transmission system as specified under Clause 29 3(a) of Tariff Regulations, 2014 has been determined by the Commission after considering (i) normalized actual O&M expenses of the petitioner on its various projects in various regions during the year 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13. It has further submitted that being a CPSU, the scheme of wage revision is binding on the petitioner. 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 block 2014-19. In line with the Regulation 19(f) (ii) of Tariff Regulations for block 2009-14, norms for O&M expenses for the year 2009-10 were derived considering the impact of wage hike of the employees under PSUs. Regulation 19(f)(ii) of CERC (Terms and Conditions of Tariff) Regulations, 2009, for the tariff period 2009-14 states as follows:

“ The normalised operation and maintenance expenses after prudence check, for the years 2003-04 to 2007-08, shall be escalated at the rate of 5.17% to arrive at the normalized operation and maintenance expenses at the 2007-08 price level respectively and then averaged to arrive at normalized average operation and maintenance expenses for the 2003-04 to 2007-08 at 2007-08 price level. The average normalized operation and maintenance expenses at 2007-08 price level shall be escalated at the rate of 5.72% to arrive at the operation and maintenance expenses for year 2009-10.



Provided that operation and maintenance expenses for the year 2009-10 shall be further rationalized considering 50% increase in employee cost on account of pay revision of the employees of the Public Sector Undertakings to arrive at the permissible operation and maintenance expenses for the year 2009-10. “

68. Accordingly, prayer has been made by the petitioner for approaching the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.

69. The petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-

Particulars		(₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19
Actual line length (Km.)	400 kV, Double conductor, S/C	356.794	356.794	356.794	356.794	356.794
	220 kV, Single Conductor, S/C	63.232	63.232	63.232	63.232	63.232
Actual (No. of Sub-station bays)	400 kV Sub-station Bays	2	2	2	2	2
Norms as per the 2014 Tariff Regulation	400 kV, Double conductors, S/C (₹ lakh/km)	0.404	0.418	0.432	0.446	0.461
	220 kV, Single Conductor, S/C (₹ lakh/km)	0.202	0.209	0.216	0.223	0.23
	400 kV Sub-stations (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
O&M Expenses	400 kV, Double conductor, S/C	144.14	149.14	154.14	159.13	164.48
	220 kV, Single conductor, S/C	12.77	13.22	13.66	14.10	14.54
	400 kV Sub-stations	120.6	124.6	128.74	133.02	137.42
<b>Total (₹ in lakh)</b>		<b>277.52</b>	<b>286.96</b>	<b>296.53</b>	<b>306.25</b>	<b>316.45</b>





70. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner's company is due during 2014-19 and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

71. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

72. The details of O&M Expenses allowed are given hereunder:-

Particulars	Year				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expenses allowed</b>	<b>277.52</b>	<b>286.96</b>	<b>296.53</b>	<b>306.25</b>	<b>316.45</b>

(₹ in lakh)

### **Interest on Working Capital ("IWC")**

73. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies 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;”

74. 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%.

75. 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	41.63	43.04	44.48	45.94	47.47
O & M expenses	23.13	23.91	24.71	25.52	26.37
Receivables	217.42	225.04	226.72	228.43	230.22
Total	282.18	291.99	295.91	299.89	304.06
Rate of Interest	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>38.09</b>	<b>39.42</b>	<b>39.95</b>	<b>40.49</b>	<b>41.05</b>

### **Annual Transmission Charges**

76. 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	176.31	203.99	203.99	203.99	203.99
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	812.62	819.86	819.86	819.86	819.86
Interest on WC	38.09	39.42	39.95	40.49	41.05
O&M Expenses	277.52	286.96	296.53	306.25	316.45
<b>Total</b>	<b>1304.54</b>	<b>1350.22</b>	<b>1360.33</b>	<b>1370.58</b>	<b>1381.34</b>

77. 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	8360.54	8606.57	8606.57	8606.57	8606.57
Addition during 2014-19 due to Projected Additional Capitalisation	246.03	0.00	0.00	0.00	0.00
Closing Gross block	8606.57	8606.57	8606.57	8606.57	8606.57
Average Gross block	8483.56	8606.57	8606.57	8606.57	8606.57
<b>Depreciation</b>					
Rate of Depreciation (%)	2.078	2.370	2.370	2.370	2.370
Depreciable Value	7480.40	7591.11	7591.11	7591.11	7591.11
Elapsed Life (Beginning of the year)	27	28	29	30	31
Weighted Balance Useful life of the assets at the beginning of the year	5	4	3	2	1
Remaining Depreciable Value	881.56	815.96	611.97	407.98	203.99
<b>Depreciation</b>	<b>176.31</b>	<b>203.99</b>	<b>203.99</b>	<b>203.99</b>	<b>203.99</b>
<b>Interest on Loan</b>					
Gross Normative Loan	4253.54	4425.76	4425.76	4425.76	4425.76
Cumulative Repayment upto Previous Year	4253.54	4425.76	4425.76	4425.76	4425.76
Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
Addition due to Additional Capitalisation	172.22	0.00	0.00	0.00	0.00
Repayment during the year	172.22	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Loan	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan(%)	0.00	0.00	0.00	0.00	0.00
<b>Interest</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Return on Equity</b>					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4107.00	4180.81	4180.81	4180.81	4180.81
Additions	73.81	0.00	0.00	0.00	0.00
Closing Equity	4180.81	4180.81	4180.81	4180.81	4180.81
Average Equity	4143.91	4180.81	4180.81	4180.81	4180.81
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
<b>Return on Equity (Pre Tax)</b>	<b>812.62</b>	<b>819.86</b>	<b>819.86</b>	<b>819.86</b>	<b>819.86</b>
<b>Interest on Working Capital</b>					
Maintenance Spares	41.63	43.04	44.48	45.94	47.47
O & M expenses	23.13	23.91	24.71	25.52	26.37
Receivables	217.42	225.04	226.72	228.43	230.22
Total	282.18	291.99	295.91	299.89	304.06
<b>Interest</b>	<b>38.09</b>	<b>39.42</b>	<b>39.95</b>	<b>40.49</b>	<b>41.05</b>
<b>Annual Transmission Charges</b>					
Depreciation	176.31	203.99	203.99	203.99	203.99
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	812.62	819.86	819.86	819.86	819.86
Interest on Working Capital	38.09	39.42	39.95	40.49	41.05
O & M Expenses	277.52	286.96	296.53	306.25	316.45
<b>Total</b>	<b>1304.54</b>	<b>1350.22</b>	<b>1360.33</b>	<b>1370.58</b>	<b>1381.34</b>

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

78. 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**

79. 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) of Regulation 52 of the 2014 Tariff Regulations, respectively.

### **Service Tax**

80. 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. We are of the view that the petitioner's prayer is premature.

### **Deferred Tax Liability**

81. 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. The deferred tax liability shall be dealt as per Regulations 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**

82. 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.

83. This order disposes of Petition No. 204/TT/2014.

sd/-

**(Dr. M. K. Iyer)**  
**Member**

sd/-

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

