

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 113/TT/2017**

**Coram:**

**Shri P. K. Pujari, Chairperson  
Shri A. K. Singhal, Member  
Dr. M. K. Iyer, Member**

**Date of Order: 9.10.2018**

**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 for Asset I: 160 MVA Transformer (1st) and associated bays at Malda Sub-station, Asset II: 160MVA Transformer (2nd) and associated bays at Malda Sub-station, Asset III: 01 no. 400 kV bay at Malda Sub-station, Asset IV: 160 MVA Transformer and associated bays at 220/132 kV Birpara Sub-station, Asset V: 160 MVA Transformer and associated bays at 220/132 kV Siliguri Sub-station under ERSS-IV project in Eastern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No. 2,  
Sector 29, Gurgaon-122001  
Haryana

**....Petitioner**

**Vs**

1. Bihar State Power (Holding) Company Ltd.  
Vidyut Bhawan, Bailey Road  
Patna - 800 001
2. West Bengal State Electricity Distribution Company  
Bidyut Bhawan, Bidhan Nagar  
Block DJ, Sector-II, Salt Lake City  
Calcutta - 700 091
3. Grid Corporation of Orissa Ltd.



Shahid Nagar, Bhubaneswar - 751 007

4. Damodar Valley Corporation  
DVC Tower, Maniktala  
Civic Centre, Vip Road, Calcutta - 700 054
5. Power Department  
Govt. Of Sikkim, Gangtok - 737 101
6. Jharkhand UrjaVikash Nigam Limited (JUVNL)  
HEC Buliding, Dhurwa, Ranchi: 834 002

**...Respondents**

**For Petitioner** : Shri Vivek Kumar Singh, PGCIL  
Shri S. K. Venkatesan, PGCIL  
Shri S. S. Raju, PGCIL  
Shri V. P. Rastogi, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri B. Dash, PGCIL  
Shri Pankaj Sharma, PGCIL

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for truing up of capital expenditure and tariff for 05 Nos. asset for the period from 1.1.2013 to 31.3.2014 under Eastern Region Strengthening Scheme-IV " (hereinafter referred to 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 capital expenditure for the period from COD of respective assets 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 for Combined Assets.



## 2. Prayer made by the petitioner:-

- a) Approve the Trued up Transmission Tariff for the tariff block 2009-14 block for the assets covered under this petition, as per para-10 above. The adjustment billing shall be raised.
- b) Admit the capital cost as on 31.03.2014 as claimed in the Petition and approve the Additional Capitalization incurred during 2009-14 period and projected to be incurred during the tariff block 2014-19 as claimed in the petition.
- c) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition, as per para- 12 above.
- d) Approve the initial spares for the project as a whole as per para 9 above.
- e) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, 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 as provided under clause 25 of the Tariff regulations 2014.
- f) Allow the Petitioner if GST is imposed on transmission charges under the proposed GST the same may be allowed to be recovered from the beneficiaries.
- g) Allow the Petitioner to approach Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.
- h) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents
- i) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure ( if any) in relation to the filing of petition.
- j) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
- k) Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. Further, any taxes and duties including cess etc. imposed by any statutory/Govt/municipal authorities shall be allowed to be recovered from the beneficiaries.



3. The respondents are distribution licensees and power departments, who are procuring transmission service from the petitioner, mainly beneficiaries of Eastern Region.

4. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers 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 11.7.2017 and 15.3.2018. None of the respondents have filed any reply to the petition. The petitioner was directed to file certain information vide ROP dated 11.7.2017 and 15.3.2018. In response, the petitioner has submitted the information vide affidavit dated 12.8.2017 and 26.3.2018. Having heard the representatives of the petitioner on 28.8.2018 and perused the submissions of the respondents and other material on record, we proceed to dispose of the petition. The investment approval for the project comprising of a total of 7 assets as given below, was accorded by Board of Directors of the petitioner company vide letter no. C/CP/IA/SS dated 13.7.2011 for ₹6036 lakh including an IDC of ₹245 lakh. The petitioner has developed the transmission asset in the Eastern Region. The details of the assets covered under instant project along with COD are as under:-

<b>Assets name</b>	<b>Date of commercial</b>	<b>Remarks</b>
<b>Asset I:</b> 160 MVA Transformer (1st) and associated bays at Malda Sub-station,	1.3.2013	Covered under instant petition
<b>Asset II:</b> 160MVA Transformer (2nd) and associated bays at Malda Sub-station,	1.2.2013	
<b>Asset III:</b> 01 no. 400 kV bay at Malda Sub-station	1.11.2013	



<b>Asset IV:</b> 160 MVA Transformer and associated bays at 220/132 kV Birpara Sub-station,	1.2.2013	
<b>Asset V:</b> 160 MVA Transformer and associated bays at 220/132 kV Siliguri Sub-station	1.1.2013	
<b>Asset I</b> – 400 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station	1.4.2013	Tariff approved vide order No 102/TT/2015
<b>Asset II:</b> 400 kV, 125 MVAR Bus Reactor along with associated bays at Ranchi S/s	1.3.2013	

5. The tariff from respective CODs to 31.3.2014 was determined vide order dated 6.1.2015 in Petition No. 206/TT/2012 for subject assets in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period was as under:

(₹ in lakh)

Name of Asset	Allowed tariff	
	2012-13 (pro-rata)	2013-14
Asset-I	7.52	114.58
Asset-II	14.87	124.99
Asset-III	0.00	21.42
Asset-IV	10.88	88.29
Asset-V	30.97	177.01

- (a) The capital cost of ₹1083.79 lakh for subject assets was considered as on COD for determination of tariff in order dated 6.1.2015 in Petition No. 206/TT/2012.
- (b) 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.

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

6. The truing up of tariff for 2009-14 tariff period for the instant assets are discussed below.



## **Capital Cost**

7. The petitioner has claimed the capital cost as on CODs is ₹ 1297.45 Lakhs, as on their respective CODs for subject Asset-I to V.

8. The Capital cost has been dealt in line with Regulation 7 of the 2009 Tariff Regulations.

9. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act.

## **De-capitalization**

10. The petitioner was directed to submit the original gross block and accumulated depreciation of the replaced assets while filing the petition for true-up vide Order dated 6.1.2015 in PN.206-TT-2012. In this regard the petitioner submitted the form 10B and the capital cost as on DOCO considered for tariff calculation under instant petition, is as below:

₹ in Lakhs

Asset	Capital Cost as on DOCO (As per certificate)	IDC & IEDC dis allowed	Da-Cap amount	Capital Cost as on DOCO (For tariff calculation)
Asset-I	367.53	0.00	18.52	349.01
Asset-II	216.65	0.00	18.52	198.13
Asset-III	294.77	11.04	0.00	283.73
Asset-IV	363.62	0.00	18.52	345.10
Asset-V	54.88	0.00	0.00	54.88

11. The petitioner was directed vide ROP dated 11.7.2017 and to submit the following details:- (a) clarification regarding add-cap detail after cut-off date, (b) Form 5B as per RCE (c) Details of undischarged liability (d) Initial spares mismatch



between detailed calculation and auditor's certificate (e) Details of initial spare discharged and (f) working of E-COD and de-cap details. Reply of these queries submitted by petitioner vide affidavit dated 17.8.2017 and 26.3.2018. In these replies, petitioner submitted the Add-cap details, Form-5B, details regarding cash IDC, de-capitalization and initial spares working of E-COD. Regarding initial spares petitioner submitted that auditor's certificate is prepared on cash basis. It is further submitted that initial spares of ₹0.23 Lakh for asset-III has been discharged during FY 2014-15 only and initial spares for all other assets discharged within 31.3.2014.

12. We have considered the submission of petitioner and accordingly considered the de-cap amount ₹18.52 lakh each for Asset-I, II and IV.

**Treatment of Incidental Expenditure During Construction (IEDC)**

13. In case of Assets I to V, the IEDC has been allowed based on the Management Certificate submitted by the petitioner. The time over-run of six months in case of Asset III has not been condoned, accordingly, the IEDC amounting to ₹0.95 lakh for six months' time is disallowed.

**Initial spares**

14. The petitioner has claimed initial spares of ₹10.14 lakh (SS), ₹10.14 lakh (SS), ₹5.64 lakh (SS), ₹20.27 lakh (SS), ₹20.27 lakh (SS) pertaining to Asset-I, II, III, IV and V respectively. In this regard, the petitioner has submitted that since the project is completed, the initial spares may be considered for the project as a whole.

15. The Regulation 13 of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system and has been dealt with accordingly.



16. The petitioner has claimed initial spares pertaining to sub-station. The petitioner has submitted that entire amount claimed against initial spare are discharged as on COD. Accordingly, the excess initials spares claimed have been adjusted from the capital cost as on COD. The details of the initial spares claimed and allowed for the instant assets are summarized in the table below:-

(₹ in lakh)

Assets	Element	Capital Cost Claimed as on Cut-off date / 31.03.2014	Initial Spares Claimed against Capital Cost Claimed as on Cut-off date / 31.03.2014	Ceiling Limit as per Regulation, 2009	Initial Spares worked out	Excess Initial Spares claimed
Asset-1	S/S	464.99	10.14	2.50%	11.66	-
Asset-2	S/S	478.12	10.14	2.50%	12.00	-
Asset-3	S/S	457.02	5.64	2.50%	7.43	-
Asset-4	S/S	549.20	20.27	2.50%	13.56	6.71
Asset-5	S/S	531.95	20.27	2.50%	13.12	7.15

### Treatment of IDC

17. The petitioner has claimed IDC of ₹20.14 lakh for Asset-I, ₹11.48 lakh for Asset-II, ₹27.29 lakh for Asset-III, ₹11.48 lakh for Asset-IV and ₹7.98 lakh for Asset-V and has submitted the auditor's certificates dated 7.2.2017 in support of the same. Based on the information submitted by the petitioner (i.e. loan amount, rate of interest, date of drawl in IDC statement) the allowable IDC has been worked out as summarized below:-

(₹ in lakh)

	IDC Claimed as per the Auditor's Certificate (Accrual basis)	IDC disallowed as on COD due to computation difference	IDC disallowed due to time overrun	Accrued IDC as on COD as worked out	Undischarged portion of Entitled IDC as on COD*	IDC Allowed on cash basis as on COD
	A	B	C	D=A-B-C	E	F=D-E
Asset-1	20.14	16.32	0.00	3.82	3.04	0.78
Asset-2	11.48	10.62	0.00	0.86	0.08	0.78
Asset-3	27.29	9.65	9.30	8.34	0.71	7.63
Asset-4	11.48	10.36	0.00	1.12	0.10	1.02
Asset-5	7.98	6.75	0.00	1.23	0.11	1.11





\*The Un-discharge portion of IDC has been considered as ACE during the year of discharge.

### **Additional Capital Expenditure**

18. The petitioner has claimed additional capitalization on account of balance and retention payment within cut-off date under Regulation 9(1) of the 2009 Tariff Regulations, as below:

	(₹ in lakh)	
	<b>2012-13</b>	<b>2013-14</b>
Asset-I	132.77	45.47
Asset-II	292.18	42.97
Asset-III	-	37.76
Asset-IV	180.19	87.45
Asset-V	432.85	58.12

19. The claim of additional capitalization is within the meaning of Regulation 9(1) of the 2009 Tariff Regulations and hence, we have allowed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations.

20. The capital cost considered for the purpose of tariff computation from the date of commercial operation to 31.3.2014 is as follows:-

	(₹ in lakh)				
	<b>Asset-I</b>	<b>Asset-II</b>	<b>Asset-III</b>	<b>Asset-IV</b>	<b>Asset-V</b>
Capital Cost claimed (a)	367.53	216.65	294.77	363.62	54.88
De-cap (b)	18.52	18.52	0.00	18.52	0.00
IDC disallowed (c)	16.32	10.62	18.95	10.36	6.75
IDC discharged during 2013-14 (Undischarged as on COD)-(d)	3.04	0.08	0.71	0.10	0.11
Initial Spares disallowed (e)	0.00	0.00	0.00	5.48	7.15
IEDC disallowed (f)	0.00	0.00	0.95	0.00	0.00
Capital cost as on COD (g)=(a-b-c-d-e-f)	<b>329.65</b>	<b>187.43</b>	<b>274.16</b>	<b>329.16</b>	<b>40.86</b>
Add Cap during 2012-13	132.77	292.18	-	180.19	432.85
Capital cost as on 1.4.2013	462.42	479.61	-	509.35	473.71
Add Cap during 2013-14	45.47	42.97	37.76	87.45	58.12
Discharge of IDC during 2013-14	3.04	0.08	0.71	0.10	0.11
Capital cost as on 31.3.2014	<b>510.93</b>	<b>522.66</b>	<b>312.63</b>	<b>596.90</b>	<b>531.95</b>



### **Debt: Equity Ratio**

21. Debt-equity ratio is allowed for the instant assets in terms of Regulation 12 of the 2009 Tariff Regulations.

22. The debt: equity ratio of 70:30 as on COD for the assets is in accordance with the 2009 Tariff Regulations and is considered for the purpose of truing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)

Particulars	(%)	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V
Debt	70.00	230.75	131.20	191.91	230.41	28.61
Equity	30.00	98.89	56.22	82.25	98.75	12.26
Total	100.00	329.65	187.43	274.16	329.16	40.86

23. The overall debt-equity ratio as on 31.3.2014 for the assets including additional capitalization is as under:-

(₹ in lakh)

Particulars	(%)	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V
Debt	70.00	357.65	365.86	218.84	417.83	372.36
Equity	30.00	153.28	156.79	93.79	179.07	159.58
Total	100.00	510.93	522.66	312.63	596.90	531.95

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

24. Interest on Loan is allowed for the instant assets in terms of Regulation 16 of the 2009 Tariff Regulations.

25. The petitioner has claimed the IOL based on actual interest rates for each year during the 2009-14 tariff period. We have considered the submissions of the petitioner and accordingly calculated the IOL based on gross amount of normative loan and normative repayment of installments and rate of interest submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The IOL



has been worked out and allowed as provided under Regulation 16 of the 2009  
Tariff Regulations as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Gross Normative Loan	230.75	323.69	131.20	335.73	191.91
Cumulative Repayment up to Previous Year	0.00	1.78	0.00	2.85	0.00
Net Loan-Opening	230.75	321.92	131.20	332.88	191.91
Addition due to Additional Capitalization	92.94	33.96	204.53	30.13	26.93
Repayment during the year	1.78	25.70	2.85	26.46	6.45
Net Loan-Closing	321.92	330.18	332.88	336.56	212.39
Average Loan	276.34	326.05	232.04	334.72	202.15
Weighted Average Rate of Interest on Loan	8.8299%	8.7839	8.8162%	8.7738	9.400%
Interest	<b>2.07</b>	<b>28.64</b>	<b>3.31</b>	<b>29.37</b>	<b>7.92</b>

(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	230.41	356.54	28.61	331.60
Cumulative Repayment up to Previous Year	0.00	3.58	0.00	3.35
Net Loan-Opening	230.41	352.96	28.61	328.25
Addition due to Additional Capitalization	126.13	61.29	303.00	40.76
Repayment during the year	3.58	29.20	3.35	26.55
Net Loan-Closing	352.96	385.05	328.25	342.47
Average Loan	291.69	369.00	178.43	335.36
Weighted Average Rate of Interest on Loan	8.8170%	8.9290	8.8292%	8.8994
Interest	<b>4.16</b>	<b>32.95</b>	<b>3.88</b>	<b>29.84</b>

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

26. Return on equity is allowed for the instant assets in terms of Regulation 15 of the 2009 Tariff Regulations

27. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 6.1.2015 in Petition No. 206/TT/2012. 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 (t) %	Grossed up ROE (Base rate/(1-t))
2012-13	20.008	19.377
2013-14	20.961	19.610

28. We have considered the submissions of the petitioner and have approved ROE in accordance with the provisions of the 2009-14 Tariff Regulations. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Opening Equity	98.89	138.73	56.22	143.88	82.25
Addition due to Add Cap	39.83	14.55	87.65	12.91	11.54
Closing Equity	138.73	153.28	143.88	156.79	93.79
Average Equity	118.81	146.00	100.05	150.34	88.02
Return on Equity (Base Rate )	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate	20.008%	20.961%	20.008%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.377%	19.610%	19.377%	19.610%	19.610%
<b>Return on Equity (Pre Tax)</b>	<b>1.96</b>	<b>28.63</b>	<b>3.13</b>	<b>29.48</b>	<b>7.19</b>

(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2012-13	2013-14	2012-13	2013-14
Opening Equity	98.75	152.80	12.26	142.11
Addition due to Add Cap	54.06	26.27	129.86	17.47
Closing Equity	152.80	179.07	142.11	159.58
Average Equity	125.78	165.94	77.18	150.85
Return on Equity (Base Rate )	15.500%	15.500%	15.500%	15.500%
Tax rate	20.008%	20.961%	20.008%	20.961%
Rate of Return on Equity (Pre Tax )	19.377%	19.610%	19.377%	19.610%
<b>Return on Equity (Pre Tax)</b>	<b>3.94</b>	<b>32.54</b>	<b>3.69</b>	<b>29.58</b>

### Depreciation

29. Depreciation is allowed for the instant assets in terms of Regulation 27 of the 2014 Tariff Regulations.



30. Depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2014 Tariff Regulations.

31. Based on the above, the depreciation has been considered as follows:-  
(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Opening Gross Block	329.65	462.42	187.43	479.61	274.16
Addition during 2013-14	132.77	48.51	292.18	43.05	38.47
Closing Gross Block	462.42	510.93	479.61	522.66	312.63
Average Gross Block	396.03	486.67	333.52	501.13	293.39
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	356.43	438.01	300.17	451.02	264.05
Remaining Depreciable Value	356.43	436.23	300.17	448.17	264.05
<b>Depreciation</b>	<b>1.78</b>	<b>25.70</b>	<b>2.85</b>	<b>26.46</b>	<b>6.45</b>

(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	329.16	509.35	40.86	473.71
Addition during 2013-14	180.19	87.55	432.85	58.23
Closing Gross Block	509.35	596.90	473.71	531.95
Average Gross Block	419.25	553.12	257.29	502.83
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%
Depreciable Value	377.33	497.81	231.56	452.55
Remaining Depreciable Value	377.33	494.23	231.56	449.20
<b>Depreciation</b>	<b>3.58</b>	<b>29.20</b>	<b>3.35</b>	<b>26.55</b>

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

32. O & M Expenses allowed vide order dated 6.1.2015 in Petition No. 206/TT/2012 has again been considered for the purpose of tariff calculation, as claimed by the petitioner in the instant petition which are as follows:

(₹ in lakh)

O & M Expenses	2012-13	2013-14
Asset-I	2.58	32.73
Asset-II	5.16	32.73
Asset-III	-	0.00
Asset-IV	0.00	0.00
Asset-V	18.58	78.55



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

33. 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 of working capital.

(i) **Maintenance Expenses**

Maintenance spares have been worked out based on 15% of Operation and Maintenance expenses specified in Regulation 19.

(ii) **O & M expenses**

O&M expenses have been considered for one month of the allowed O&M expenses as per order dated 6.1.2015 in Petition No. 206/TT/2012.

(iii) **Receivables**

The receivables have been worked out on the basis of 2 months' of annual transmission charges as worked out above.

(iv) **Rate of interest on working capital**

The rate of interest on working capital has been considered as per clause (3) of Regulation 18 of the 2009 Tariff Regulations.

34. The IWC trued up is as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Maintenance Spares	4.56	4.91	4.79	4.91	0.00
O & M expenses	2.53	2.73	2.66	2.73	0.00
Receivables	16.99	19.90	15.41	20.30	8.82
Total	24.08	27.54	22.86	27.94	8.82
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.20%
<b>Interest</b>	0.28	3.72	0.50	3.77	0.49



(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	0.00	0.00	11.30	11.78
O & M expenses	0.00	0.00	6.28	6.55
Receivables	12.31	16.15	20.80	28.47
Total	12.31	16.15	38.39	46.80
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%
Interest	0.27	2.18	1.28	6.32

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

35. The detailed computation of the various components of the trued up annual transmission charges for the Assets for the tariff period 2009-14 is summarized below:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Depreciation	1.78	25.70	2.85	26.46	6.45
Interest on Loan	2.07	28.64	3.31	29.37	7.92
Return on Equity	1.96	28.63	3.13	29.48	7.19
Interest on Working Capital	0.28	3.72	0.50	3.77	0.49
O & M Expenses	2.58	32.73	5.16	32.73	0.00
<b>Total</b>	<b>8.66</b>	<b>119.42</b>	<b>14.95</b>	<b>121.81</b>	<b>22.05</b>

(₹ in lakh)

Particulars	Asset-IV		Asset-V	
	2012-13	2013-14	2012-13	2013-14
Depreciation	3.58	29.20	3.35	26.55
Interest on Loan	4.16	32.95	3.88	29.84
Return on Equity	3.94	32.54	3.69	29.58
Interest on Working Capital	0.27	2.18	1.28	6.32
O & M Expenses	0.00	0.00	18.58	78.55
<b>Total</b>	<b>11.94</b>	<b>96.87</b>	<b>30.78</b>	<b>170.84</b>

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

36. The petitioner has claimed the transmission charges for combined asset for the 2014-19 tariff period as under:-



(₹ in lakh)

Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	139.07	144.48	152.82	160.69	160.69
Interest on Loan	147.75	141.99	138.58	133.82	119.32
Return on equity	154.95	160.97	170.27	179.04	179.04
Interest on Working Capital	17.50	17.87	18.45	18.98	18.92
O & M Expenses	132.66	137.06	141.60	146.30	151.18
<b>Total</b>	<b>591.93</b>	<b>602.37</b>	<b>621.72</b>	<b>638.83</b>	<b>629.15</b>

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	19.90	20.56	21.24	21.95	22.68
O & M expenses	11.06	11.42	11.80	12.19	12.60
Receivables	98.66	100.40	103.62	106.47	104.86
<b>Total</b>	<b>129.61</b>	<b>132.38</b>	<b>136.66</b>	<b>140.61</b>	<b>140.14</b>
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>17.50</b>	<b>17.87</b>	<b>18.45</b>	<b>18.98</b>	<b>18.92</b>

**Effective Date of Commercial Operation (E-COD)**

38. The petitioner has stated that E-COD of the combined assets works out to be 1.5.2013. However, based on the trued up capital cost and actual COD of the 5 individual assets, the E-COD has been worked out as 6.3.2013 and is shown below:-

(₹ in Lakh)

	Actual COD	Trued up capital cost as on 31.3.2014 (in the instant petition)	Weight of the cost	No. of days from assets COD to project COD	Weighted days	Effective COD of Project (Project COD - Weighted days)
Asset-I	1-Mar-13	510.93	20.64%	245	50.58	6-Mar-2013
Asset-II	1-Feb-13	522.66	21.12%	273	57.65	
Asset-III	1-Nov-13	312.63	12.63%	0	0.00	
Asset-IV	1-Feb-13	596.90	24.12%	273	65.84	
Asset-V	1-Jan-13	531.95	21.49%	304	65.34	
<b>TOTAL</b>	1-Nov-13	2475.06	100.00%		239.40	

39. The E-COD has been used to determine the lapsed life (i.e. the number of completed years) of all the 5 assets as on 6.3.2013.





### **Weighted Average Life (WAL)**

40. The life as defined in Regulation 27 of the 2014 Tariff Regulations has been considered for determination of Weighted Average Life.

41. The project as a whole, has multiple elements (i.e. Land, Building, Transmission line, Sub-station and PLCC) and each element may have different span of life. Therefore, in 2014 Tariff Regulations, the concept of Weighted Average Life (WAL) has been introduced which has been used as the useful life of the project as whole.

42. The Weighted Average Life (WAL) has been determined based on the admitted capital cost of individual elements as on 31.3.2014 and their respective life as stipulated in 2014-19 Tariff Regulations. The element wise life as it was defined in Tariff Regulations prevailed at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2014 Tariff Regulations has been considered for determination of WAL. Accordingly, the Weighted Average Life (WAL) of the all the assets commissioned during 2009-14 tariff period have been worked out as 25 years as shown below:-

(₹ in lakhs)

Particulars	Asset -I	Asset -II	Asset -III	Asset -IV	Asset -V	Combined Cost (a)	Life (b)	Weight (a) x (b)	
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	25	0.00	
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	25	0.00	
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	35	0.00	
Sub-Station Equipment	510.93	522.66	312.63	596.90	531.95	2475.06	25	61876.51	
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	15	0.00	
<b>Total</b>	<b>510.93</b>	<b>522.66</b>	<b>312.63</b>	<b>596.90</b>	<b>531.95</b>	<b>2475.06</b>	<b>25</b>	<b>61876.51</b>	
<b>Weighted Average life</b>							<b>25 Years</b>		



43. It is assumed that, the Weighted Average Life as on 1.4.2014 as determined above is applicable prospectively (i.e. for 2014-19 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. Accordingly, the WAL has been used to determine the remaining useful life as on 31.3.2014 to be 25 years.

### **Capital Cost**

44. The Capital cost has been dealt in line with clause (2) of Regulation 9 of the 2014 Tariff Regulations.

45. The trued up capital cost of ₹510.93 lakh, ₹522.66 lakh, ₹312.63 lakh, ₹596.90 lakh and ₹531.95 lakh as on 31.3.2014 for Assets-I, II, III, IV and V respectively, as on 31.3.2014 is considered to work out tariff for 2014-19 tariff period.

### **Additional Capital Expenditure**

46. The petitioner has proposed combined additional capitalization of ₹186.71 lakh, ₹17.96 lakh, ₹298.14 lakh for 2014-15, 2015-16 and 2016-17 respectively, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations for 2014-15 and 2015-16 and under clause 3 (v) for 2016-17 of the 2014 Tariff Regulations.

47. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-



(₹ in lakh)

Particulars	Approved Cost as per FR	Admitted capital cost as on 31.3.2014	Additional capitalization					Total capital cost including additional capitalization
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	976.46	510.93	32.79	0.00	70.67	0.00	0.00	614.39
Asset-II	976.46	522.66	12.79	0.00	70.67	0.00	0.00	606.12
Asset-III	313.15	312.63	76.97	10.86	0.00	0.00	0.00	400.46
Asset-IV	1008.81	596.90	13.65	1.66	86.63	0.00	0.00	698.84
Asset-V	919.71	531.95	50.51	5.44	70.17	0.00	0.00	658.07
Combined	<b>4194.59</b>	<b>2475.06</b>	<b>186.71</b>	<b>17.96</b>	<b>298.14</b>	<b>0.00</b>	<b>0.00</b>	<b>2977.87</b>

**Debt: Equity Ratio**

48. Debt-equity ratio is allowed for the instant assets in terms of Regulation 19 of the 2014 Tariff Regulations.

49. The petitioner has considered debt: equity ratio as 70:30 as on 31.3.2014. 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:-

(₹ in lakh)

Particulars	Amount	(%)
Debt	1732.54	70.00
Equity	742.52	30.00
<b>Total</b>	<b>2475.06</b>	<b>100.00</b>

50. For additional capitalization, the petitioner has proposed normative debt: equity ratio of 70:30 and the same has been considered. The details of the debt: equity including additional capitalization as on 31.3.2019 is as follows:-

(₹ in lakh)

Particulars	Amount	(%)
Debt	2084.51	70.00
Equity	893.36	30.00
<b>Total</b>	<b>2977.87</b>	<b>100.00</b>



### **Interest on Loan (“IOL”)**

51. Interest on Loan is allowed for the instant assets in terms of Regulation 26 of the 2014 Tariff Regulations.

52. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The Interest on loan has been worked out and allowed as follows:-

<b>Particulars</b>	<b>(₹ in lakh)</b>				
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross loan opening	1732.54	1863.24	1875.81	2084.51	2084.51
Cumulative Repayment up to previous year	125.92	261.53	402.54	551.90	709.14
Net Loan-Opening	1606.63	1601.71	1473.27	1532.61	1375.37
Additions during the year	130.70	12.57	208.70	0.00	0.00
Repayment during the year	135.61	141.02	149.36	157.23	157.23
Net Loan-Closing	1601.71	1473.27	1532.61	1375.37	1218.14
Average Loan	1604.17	1537.49	1502.94	1453.99	1296.76
Rate of Interest (%)	8.985%	9.020%	9.021%	9.019%	9.019%
<b>Interest</b>	<b>144.14</b>	<b>138.68</b>	<b>135.59</b>	<b>131.13</b>	<b>116.95</b>

### **Return on Equity(“ROE”)**

53. Return on equity is allowed for the instant assets in terms of Regulation 24 and 25 of the 2014 Tariff Regulations.

54. 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.

55. We have computed ROE at the rate of 19.610% for tariff period 2014-19 after



grossing up the ROE with MAT rate as per the above Regulation. 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 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 allowed is given below:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	742.52	798.53	803.92	893.36	893.36
Additional Capitalization	56.01	5.39	89.44	0.00	0.00
Closing Equity	798.53	803.92	893.36	893.36	893.36
Average Equity	770.52	801.23	848.64	893.36	893.36
Return on Equity (Base Rate) (%)	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>
MAT rate for the year (%)	20.96%	20.96%	20.96%	20.96%	20.96%
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>151.10</b>	<b>157.12</b>	<b>166.42</b>	<b>175.19</b>	<b>175.19</b>

### Depreciation

56. Depreciation is allowed for the instant assets in terms of Regulation 27 of the 2014 Tariff Regulations.

57. Depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2014 Tariff Regulations.



58. Based on the above, the depreciation has been considered as follows:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	2475.06	2661.77	2679.73	2977.87	2977.87
Additional Capitalization	186.71	17.96	298.14	0.00	0.00
Closing Gross block	2661.77	2679.73	2977.87	2977.87	2977.87
Average gross block	2568.42	2670.75	2828.80	2977.87	2977.87
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	2311.57	2403.68	2545.92	2680.08	2680.08
Remaining Depreciable Value	2185.66	2142.15	2143.38	2128.18	1970.95
<b>Depreciation</b>	135.61	141.02	149.36	157.23	157.23

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

59. The O & M Expenses for combined 5 assets claimed by the petitioner for 2014-19 are as follows:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>O&amp;M Expenses</b>	132.66	137.06	141.60	146.30	151.18

60. The O & M Expenses worked out for the instant assets as per Regulation 29 (4) of the 2014 Tariff Regulations are as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
220 kV	42.21	43.61	45.06	46.55	48.10
132 kV and below	30.15	31.15	32.18	33.25	34.36

61. The petitioner has submitted that norms for 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 is due during the 2014-19 tariff period 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.

62. We have considered the submissions made by the petitioner. 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.

63. The details of O&M Expenses allowed for the instant assets are given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	132.66	137.06	141.60	146.30	151.18

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

64. Interest on working capital is allowed for the instant assets in terms of Regulation 28 of the 2014 Tariff Regulations.

65. The petitioner has submitted that it has computed Interest on working capital 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 is 13.50%.

66. 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 worked is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	19.90	20.56	21.24	21.95	22.68
O & M Expenses	11.06	11.42	11.80	12.19	12.60
Receivables	96.79	98.58	101.86	104.77	103.21
Total	127.75	130.56	134.90	138.90	138.48
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	17.25	17.63	18.21	18.75	18.70

### **Annual Transmission Charges**

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	135.61	141.02	149.36	157.23	157.23
Interest on Loan	144.14	138.68	135.59	131.13	116.95
Return on Equity	151.10	157.12	166.42	175.19	175.19
Interest on Working Capital	17.25	17.63	18.21	18.75	18.70
O & M Expenses	132.66	137.06	141.60	146.30	151.18
<b>Total</b>	<b>580.76</b>	<b>591.50</b>	<b>611.18</b>	<b>628.61</b>	<b>619.24</b>

### **Filing fee and the publication expenses**

68. 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.





### **License fee and RLDC Fees and Charges**

69. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We are of the view that 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**

70. 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 have considered the submission of the petitioner. Service tax is not levied on transmission. Further, service tax is subsumed by GST and hence petitioner's prayer is infructuous.

### **Goods and Services Tax**

71. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. GST is not levied on transmission service at present and we are of the view that petitioner's prayer is premature.

### **Deferred tax liability**

72. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when the same gets materialized. However, since, the COD of the asset is in 2014, the claim of the petitioner is not admissible.

### **Sharing of Transmission Charges**

73. 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.

74. This order disposes of Petition No. 113/TT/2017.

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

**Sd/-**  
**(A.K. Singhal)**  
**Member**

**Sd/-**  
**(P.K.Pujari)**  
**Chairperson**

