

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 165/TT/2016**

**Coram:**

**Shri A.K. Singhal, Member**

**Shri A.S. Bakshi, Member**

**Dr. M.K. Iyer, Member**

**Date of Order : 10.07.2017**

**In the matter of:**

Truing up of transmission tariff for 2009-14 tariff period and determination of transmission tariff for 2014-19 tariff period for 400/220 kV 125 MVAR, Bus Reactor alongwith associated bays at Patna Sub-station under Transmission System for "Transfer of Power from Generation Projects in Sikkim to NR/WR Part-B" in Eastern Region, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

**And in the matter of:**

Power Grid Corporation of India Limited  
"Saudamini", Plot No.2,  
Sector-29, Gurgaon -122 001

**.....Petitioner**

**Vs**

1. Gati Infrastructure Chuzachen Limited,  
1-7-293, MG Road, 268, Udyog Vihar, Phase-IV,  
Secunderabad, Andhra Pradesh-500 003
2. Gati Infrastructure Bhasmay Power Limited,  
1-7-293, MG Road, 268, Udyog Vihar, Phase-IV,  
Secunderabad, Andhra Pradesh-500 003
3. PTC India Limited,  
2<sup>nd</sup> Floor, NBCC Tower,  
15, Bhikaji Cama Place,  
New Delhi
4. Lanco Energy Private Limited,  
Plot No. 397, Phase-III, 2<sup>nd</sup> Floor,  
Udyog Vihar, Gurgaon,  
Haryana-120 016



5. Dans Energy Private Limited,  
5<sup>th</sup> Floor, DLF Building No. 8, Tower C,  
DLF Cyber City Phase-II,  
Gurgaon, Haryana-122 002
6. Jal Power Corporation Limited,  
405-406, Raja House, 30-31,  
Nehru Place, New Delhi-110 019
7. Madhya Bharat Power Corporation Limited,  
E-585, Greater Kailash, Part-II,  
New Delhi-110 048
8. Bihar State Power (Holding) Company Limited,  
Vidyut Bhawan, Bailey Road,  
Patna-800 001
9. West Bengal State Electricity Distribution Company Limited,  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City,  
Kolkata-700 091
10. Grid Corporation of Orissa Limited,  
Shahid Nagar,  
Bhubaneswar-751 007
11. Damodar Valley Corporation,  
DVC Tower, Maniktala  
Civil Centre, VIP Road,  
Kolkata-700 054
12. Power Department,  
Govt. of Sikkim, Gangtok-737 101
13. Jharkhand Urja Vikash Nigam Limited (JUVNL),  
HEC Building, Dhurwa,  
Ranchi-834 002
14. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur- 302 005
15. Ajmer Vidyut Vitran Nigam Limited,  
400 kV GSS Building (Ground Floor),  
Ajmer Road, Heerapura, Jaipur
16. Jaipur Vidyut Vitran Nigam Limited,  
400 kV GSS Building (Ground Floor),  
Ajmer Road, Heerapura, Jaipur



17. Jodhpur Vidyut Vitran Nigam Limited,  
400 kV GSS Building (Ground Floor),  
Ajmer Road, Heerapura, Jaipur
18. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171 004
19. Punjab State Electricity Board,  
The Mall, Patiala-147 001
20. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula (Haryana)-134 109
21. Power Development Department,  
Govt. of Jammu and Kashmir,  
Mini Secretariat, Jammu
22. Uttar Pradesh Power Corporation Limited,  
(Formerly Uttar Pradesh State Electricity Board)  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226 001
23. Delhi Transco Limited,  
Shakti Sadan, Kotla Road,  
New Delhi-110 002
24. BSES Yamuna Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi
25. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place  
New Delhi
26. North Delhi Power Limited,  
Power Trading & Load Dispatch Group, Cennet Building,  
Adjacent to 66/11kV Pitampura-3 Grid Building,  
Near PP Jewellers, Pitampura, New Delhi-110 034
27. Chandigarh Administration,  
Sector-9, Chandigarh
28. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road,  
Dehradun



29. North Central Railway,  
Allahabad
30. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110 002
31. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur, Jabalpur-482 008
32. Maharashtra State Electricity Distribution Company Limited,  
Prakashgarh, 4th floor,  
Andheri (East), Mumbai-400 052
33. Gujarat Urja Vikas Nigam Limited,  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390 007
34. Electricity Department,  
Government of Goa,  
Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa-403 001
35. Electricity Department,  
Administration of Daman and Diu,  
Daman-396 210
36. Chhattisgarh State Electricity Board,  
P.O. Sunder Nagar, Dangania, Raipur  
Chhattisgarh-492 013
37. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,  
3/14, Press Complex, Agra-Bombay Road  
Indore-452 008

.....**Respondents**

**For Petitioner:** Shri S.K. Venkateshan, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri Jasbir Singh, PGCIL

**For Respondents:** Ms. Molshree Bhatnagar, LANCO  
Shri Sakya Singha Chaudhuri, LANCO  
Shri R.B. Sharma, Advocate for BRPL



## **ORDER**

The present petition has been filed by Power Grid Corporation of India Limited ('the petitioner'), for truing up of capital expenditure and tariff of 400/220 kV 125 MVAR, Bus Reactor alongwith associated bays at Patna Sub-station (hereinafter referred as "transmission asset") under Transmission System for "Transfer of Power from Generation Projects in Sikkim to NR/WR Part-B" in Eastern Region, under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") based on actual expenditure for the period 1.4.2009 to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from 1.4.2014 to 31.3.2019.

2. This order has been issued after considering the petitioner's affidavits dated 8.11.2016, 16.3.2017 and 30.3.2017.

3. 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, 2003 ("the Act"). The petitioner has served the petition on the respondents. BSES Rajdhani Power Limited (BRPL), Respondent No. 25 has filed reply dated 21.10.2016. BRPL has submitted that the additional capital expenditure of ₹0.33 lakh on account of IDC being increase in interest rate on FC bonds during 2009-14 tariff period should not be allowed as it is not reflected in the Auditors' Certificate. BRPL has raised other issues of



interest on loan, application filing fee and expenses incurred on publication of notices, O&M expenses, levies, duties, cess etc. for tariff period 2014-19. The petitioner has not filed rejoinder to the reply of BRPL. However, the petitioner has filed rejoinder to the reply of Bihar State Power (Holding) Company Limited (BSPCL), vide affidavit dated 19.1.2017, but the reply of BSPCL is not filed with the Commission. The objections raised by the respondents and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

4. The hearing in the matter was held on 25.10.2016. Having heard the representatives of the petitioner, 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 project was scheduled to be commissioned within 32 months from the date of Investment Approval dated 17.3.2011. Accordingly, the schedule date of commissioning (COD) of the instant asset was 16.11.2013 (i.e. 1.12.2013 as the 2009 Tariff Regulations provides for COD to be declared from 00.00 hours of first day of succeeding month).

The details of the instant asset and COD thereof is as under:-

Name of the asset	COD		Delay
	Scheduled	Actual	
400/220 kV, 125 MVAR, Bus Reactor alongwith associated bays at Patna S/s	1.12.2013	1.8.2013	No delay

The petitioner vide affidavit dated 8.11.2016 has submitted the actual COD of the instant asset as 1.6.2013. However, the petitioner vide affidavit



dated 29.5.2017 has submitted to condone the error and has confirmed the COD to be 1.8.2013.

b. The Commission vide order dated 8.2.2016 in Petition No. 292/TT/2013, had approved the final transmission tariff for the period 2009-14 and the capital cost as on COD and additional capitalisation for the period from COD to 31.3.2014 as under:-

(₹ in lakh)			
Approved apportioned cost	Capital Cost as on COD after adjusting IDC and IEDC and excess spares	Projected additional capitalization	Cost as on 31.3.2014
		2013-14	
925.09	547.55	92.01	639.56

c. The entire scope of the project is covered in seven petitions i.e. Petition No. 292/TT/2013, 118/TT/2014, 530/TT/2014, 230/TT/2015, 268/TT/2015, 68/TT/2016 and 183/TT/2016. The instant asset is the only element of the project, which was commissioned during the tariff period 2009-14. The final tariff of the instant transmission asset, for the tariff period 2009-14 was approved in Petition No. 292/TT/2013 and is being trued-up in this order;

d. The final tariff allowed for instant asset, vide order dated 8.2.2016 in Petition No. 292/TT/2013 for 2013-14 is as under:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Depreciation	20.89
Interest on Loan	11.23
Return on Equity	23.28
Interest on Working Capital	3.60
O & M Expenses	43.64
<b>Total</b>	<b>102.65</b>



e. The MAT rate applicable for the year 2013-14 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted for any variation in the amount of equity now allowed at the time of truing up of tariff for 2009-14 tariff period.

### **Truing-up of Annual Fixed Charges for Period 2013-14**

6. The truing up of tariff for 2013-14 has been determined as discussed below.

### **Capital Cost and Additional Capital Expenditure**

7. Clause (1) and Clause (3) of Regulation 6 of the 2009 Tariff Regulations specifies as follows:-

“(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.-----”

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors;”

8. The details of the approved apportioned cost, cost as on COD and estimated/projected additional capitalization to be incurred for the instant assets, as per Auditors' Certificates dated 27.6.2016 has been submitted by the petitioner. The details are as under:-

(₹ in lakh)			
Approved apportioned cost	Expenditure up to COD	Expenditure incurred/ projected to be incurred	Estimated cost as on 31.3.2014
		2013-14	
925.09	602.34	91.22	693.56

### **Cost Over-run**

9. The total completion cost of the instant transmission asset incurred up to



31.3.2014, are within the approved apportioned cost. Hence, there is no cost over-run in the commissioning of instant asset.

10. There is no time over-run in commissioning of instant asset as discussed at para-5.

### **Treatment of IDC and IEDC**

11. The petitioner has submitted Auditors' Certificate dated 27.6.2016 with the petition, for claim of ₹8.80 lakh on account of IDC. However, we have worked out IDC on cash basis up to COD, based on the available information, i.e. loan details mentioned in Form-13, submitted by the petitioner in the instant petition. The details submitted by the petitioner and allowable/worked out IDC as on COD, for instant transmission asset is as under:-

(₹ in lakh)				
Amount claimed (as per Auditors' Certificate dated 27.6.2016)	Discharged up to COD (as per claim)	Allowed/ worked out on cash basis as on COD	Un-discharged IDC as on COD, discharged during 2013-14 (as per petitioner)	Discharge of IDC allowed as ACE for 2013-14
8.80	8.47	8.47	0.33	0.33

12. Thus, the IDC of ₹8.47 lakh worked out as on COD has been allowed to be capitalised and the balance of ₹0.33 lakh has been considered as additional capital expenditure for 2013-14, against the IDC claim of the petitioner.

13. Similarly, the petitioner has claimed IEDC of ₹9.36 lakh for instant transmission asset and has submitted that total IEDC has been discharged as on COD. We have considered the IEDC limit, as indicated in the 'Abstract Cost Estimate', which is 5.00% of the Hard Cost. The IEDC claimed as on COD is



lower than 5.00% of the hard cost in the instant petition. The details of IEDC claimed and allowed are as under:-

(₹ in lakh)

IEDC as on COD	
Claimed	Allowed
9.36	9.36

### **Capital Cost as on COD**

14. The details of capital cost, considered as on COD after allowing the IDC and IEDC on cash basis, are as under:-

(₹ in lakh)

Claimed capital cost as on COD (a)	Less: Total claimed IDC and IEDC (b)	Add: Allowable as on COD		Capital cost as on COD considering allowable IDC on (cash basis) and IEDC (e)=(a)-(b)+{(c)+(d)}
		IDC on (cash basis) (c)	IEDC (d)	
602.34	18.16	8.47	9.36	602.01

### **Initial Spares**

15. Regulation 8 of 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

Transmission line	0.75%
Transmission Sub-station	2.5%

16. The petitioner has claimed an amount of ₹21.83 lakh for initial spares in the original petition for the instant asset. The petitioner has also submitted the details of year wise payment made against the procurement of the initial spares upto 31.3.2014. The details are as follows:-



(₹ in lakh)

<b>Claimed bifurcation of discharged initial spares</b>			
<b>Total</b>	<b>As on COD</b>	<b>2016-17</b>	<b>% age</b>
21.83	5.11	16.72	2.5

17. The cut-off date for instant asset falls beyond 2009-14 tariff period. However, initial spares have been worked out considering the ceiling limits as specified in the 2009 Tariff Regulations. Therefore, the allowable initial spares during 2009-14 have been worked out after considering the capital cost as on COD and additional capitalisation during 2013-14 i.e. capital cost up to 31.03.2014 and the amount of ₹5.11 lakh for initial spares claimed to be included in the capital cost as on COD has been allowed.

#### **Capital Cost and Additional Capital Expenditure**

18. Clause (1) and Clause (3) of Regulation 6 of the 2009 Tariff Regulations provide as under:-

“(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.-----”

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors;”

19. The total capital cost of the transmission asset including additional capital expenditure incurred during 2009-14 works out to ₹693.56 lakh, which is within the approved cost of ₹925.09 lakh given in the investment approval. As such, the additional capitalisation during 2009-14 is allowed in accordance with Clause 2(viii) of Regulation 9 of the 2009 Tariff Regulations. Therefore,



additional capitalization worked out, after allowing IDC on cash basis and allowable Initial Spares, for 2013-14 is as per details hereunder:-

Capital cost as on COD including IDC, IEDC and initial spares allowed	2013-14		(₹ in lakh)
	Add-cap claimed	IDC allowed (discharged)	Capital cost as on 31.3.2014
602.01	91.22	0.33	693.56

20. Thus, the summary of capital cost as on 31.3.2014 allowed earlier vide order dated 8.2.2016 in Petition No. 292/TT/2013 and considered now for truing-up is as under:-

Approved	Capital cost as on COD	Net additional capital expenditure during	Capital cost as on 31.3.2014
		2013-14	
In order dated 8.2.2016	547.55	92.01	639.56
Allowed in the instant petition	602.01	91.56	693.56

21. There is difference in the capital cost considered in Petition No.292/TT/2013 and in the instant petition due to the treatment of initial spares considered in the said petitions as discussed hereunder:-

a) The petitioner in Petition No.292/TT/2013 claimed initial spares of ₹59.11 lakh as per the Management Certificate and the entitlement of initial spares was worked out as ₹21.68 lakh. However, the initial spare was allowed by assuming that ₹59.11 lakh are included in the capital cost as on COD, out of this only ₹5.11 lakh was discharged as on COD and the balance of ₹54 lakh was presumed to be discharged during 2015-16 (which falls in next tariff period). Accordingly, ₹5.11 lakh was allowed during 2009-14 period, since this amount was actually discharged and it was also within the entitled limit of ₹21.68 lakh, subject to true up.



b) However, the petitioner has now claimed ₹21.83 lakh at the true-up stage on account of initial spares as per the Auditors' Certificate. The petitioner has bifurcated this into ₹5.11 lakh as discharged as on COD and the balance of ₹16.72 lakh is estimated to be discharged during 2016-17, being the liability as on cut-off date. The petitioner has further clarified that the capital cost as on COD includes only ₹5.11 lakh and the balance of ₹16.72 lakh is included in the estimated capital cost for 2016-17 as certified in the Auditors' Certificate. The cut-off year for the instant assets was 2015-16. Accordingly, the entitled initial spare has been worked out as ₹18.86 lakh in the instant petition, hence the excess initial spare is worked out as ₹2.97 lakh (i.e. ₹21.83 lakh-₹18.86 lakh). Accordingly, an amount of ₹5.11 lakh has been allowed, as on COD, since this was actually discharged and it is within the entitled limit of ₹18.86 lakh. The balance claim of ₹16.72 lakh has been dealt with in tariff period 2014-19.

c) The excess claim of ₹2.97 lakh (₹21.83 lakh-₹18.86 lakh) towards initial spares has been adjusted during the cut-off year 2015-16, while determining the tariff for 2014-19, which is subject to true up.

### **Debt: Equity Ratio**

22. Clause (1) of Regulation 12 of the 2009 Tariff Regulations provides that:-

“12. Debt-Equity Ratio. (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:”



23. The petitioner has claimed true up Annual Fixed Charge based on debt: equity ratio of 70:30 as admitted vide order dated 8.2.2016 in Petition No. 292/TT/2013. The admitted debt: equity ratio of 70:30 as admitted vide order dated 8.2.2016 in Petition No. 292/TT/2013 has been considered for the purpose of trueing up of the approved tariff for 2013-14.

24. The details of the debt: equity considered for the purpose of tariff in the tariff period 2009-14 is as below:-

(₹ in lakh)

Particulars	Cost as on COD		Cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	421.41	70.00	485.49	70.00
Equity	180.60	30.00	208.07	30.00
<b>Total</b>	<b>602.01</b>	<b>100.00</b>	<b>693.56</b>	<b>100.00</b>

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

25. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide that:-

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

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

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

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

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



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

26. The petitioner has submitted that MAT rate of 20.961% and grossed up RoE of 19.610% applicable for 2013-14 was considered in the order dated 8.2.2016. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has to be done on the basis of trued-up tariff and actual MAT rate applicable for 2013-14.

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

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Approved vide order dated 8.2.2016	23.28
Allowed after trued up	25.41

### **Interest on Loan (“IOL”)**

28. Regulation 16 of the 2009 Tariff Regulations provides that:-

“16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:



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

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

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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

29. In these calculations, interest on loan has been worked out as hereinafter:-

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;

(b) The repayment during tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period; and

(c) Weighted average rate of interest on actual average loan worked out as per (a) above is applied on the notional average loan during the year to arrive at the interest on loan.



30. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are given in Annexure-1 to this order and the IOL has been worked out and allowed as under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Approved vide order dated 8.2.2016	11.23
Allowed after truing-up	12.87

### **Depreciation**

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

“17. **Depreciation** (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

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

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



(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

32. In order dated 8.2.2016, depreciation was worked out in accordance with Regulation 17 of the 2009 Tariff Regulations. The depreciation for 2013-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as on COD of instant asset and details are as follows:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Approved vide order dated 8.2.2016	20.89
Allowed after trued up	22.80

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

33. The petitioner has claimed same O&M Expenses during 2013-14, for the instant transmission asset, which was approved vide order dated 8.2.2016 in Petition No. 292/TT/2013. Accordingly, the O&M Expenses allowed and trued up are same as under:-

(₹ in lakh)	
Particulars	2013-14 (pro-rata)
Approved vide order dated 8.2.2016	43.64
Allowed after trued up	43.64

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

34. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides for 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.

35. The rate of interest on working capital of 13.50% and 13.20% applicable as on 1.4.2013 for instant transmission asset commissioned during 2013-14 was approved in order dated 8.2.2016 in Petition No. 292/TT/2013. Therefore, same applicable interest rate of has been considered to work out the interest on working capital for in the instant petition. The summary of IWC allowed and trued up is as under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
Approved vide order dated 8.2.2016	3.60
Allowed truing-up	3.73

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

36. The detailed computation of the various components of the trued up annual fixed charges for 2009-14 tariff period for the instant assets are as under:-

Particulars	(₹ in lakh)
	2013-14 (pro-rata)
<b>Gross Block</b>	
Opening Gross Block	602.01
Additional Capitalisation	91.55
Closing Gross Block	693.56
Average Gross Block	647.79
<b>Depreciation</b>	
Rate of Depreciation	5.2800%
Depreciable Value	583.01
Remaining Depreciable Value	583.01
<b>Depreciation</b>	<b>22.80</b>
<b>Interest on Loan</b>	
Gross Normative Loan	421.41
Cumulative Repayment upto Previous Year	-
Net Loan-Opening	421.41



Addition due to Additional Capitalisation	64.09
Repayment during the year	22.80
Net Loan-Closing	462.69
Average Loan	442.05
Weighted Average Rate of Interest on Loan	4.3663%
<b>Interest</b>	<b>12.87</b>
<b>Return on Equity</b>	
Opening Equity	180.60
Addition due to Additional Capitalisation	27.47
Closing Equity	208.07
Average Equity	194.34
Return on Equity (Base Rate)	<b>15.50%</b>
Tax rate for the year (MAT)	20.961%
Rate of Return on Equity (Pre Tax)	19.610%
<b>Return on Equity (Pre Tax)</b>	<b>25.41</b>
<b>Interest on Working Capital</b>	
Maintenance Spares	9.82
O & M expenses	5.46
Receivables	27.11
<b>Total</b>	<b>42.39</b>
Rate of Interest	13.50%
<b>Interest</b>	<b>3.73</b>
<b>Annual Transmission Charges</b>	
Depreciation	22.80
Interest on Loan	12.87
Return on Equity	25.41
Interest on Working Capital	3.73
O & M Expenses	43.64
<b>Total</b>	<b>108.45</b>

### **Sharing of Transmission Charges**

37. With effect from 1.7.2011, the billing, collection and disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

### **DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD**

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



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	36.82	38.50	43.04	46.10	46.10
Interest on Loan	20.69	20.71	22.24	21.98	19.59
Return on Equity	40.98	42.85	47.91	51.32	51.32
Interest on Working Capital	5.60	5.79	6.16	6.42	6.49
O&M Expenses	60.30	62.30	64.37	66.51	68.71
<b>Total</b>	<b>164.39</b>	<b>170.15</b>	<b>183.72</b>	<b>192.33</b>	<b>192.21</b>

39. 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	9.05	9.35	9.66	9.98	10.31
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Receivables	27.40	28.36	30.62	32.06	32.04
<b>Total</b>	<b>41.48</b>	<b>42.90</b>	<b>45.64</b>	<b>47.58</b>	<b>48.08</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>5.60</b>	<b>5.79</b>	<b>6.16</b>	<b>6.42</b>	<b>6.49</b>

### Capital Cost

40. Clause (1) and (3) of Regulation 9 of the 2014 Tariff Regulations provides 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.”

(2) -----

(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.”

41. The element wise capital cost, admitted as on 31.3.2014 for instant transmission asset has been considered as capital cost as on 1.4.2014. Thus,



₹693.56 lakh has been considered as the opening gross block of capital cost of the instant transmission asset as on 1.4.2014, as per details as under:-

(₹ in lakh)	
Particulars	Capital cost as on 31.3.2014 as determined in true up and revised AFC for tariff period 2009-14
Freehold Land	-
Leasehold Land	-
Building & Other Civil Works	-
Transmission Line	-
Sub-Station Equipments	693.56
PLCC	-
<b>Total</b>	<b>693.56</b>

### **Additional Capital Expenditure**

42. Clause (1) and (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities recognised to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law or compliance of any existing law.”

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

“(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:”

“(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;”



43. The petitioner has claimed projected additional capital expenditure during the tariff period 2014-19 towards undischarged liabilities, vide Auditors' Certificate dated 27.6.2016. The details of add-cap claimed are as under:-

(₹ in lakh)

Approved apportioned cost	Admitted cost as on 31.3.2014	Projected additional capital expenditure			Estimated completion cost as on 31.3.2019
		2014-15	2015-16	2016-17	
925.09	693.56	7.70	55.92	116.00	873.18

44. The total completion cost of the instant transmission asset is within its approved apportioned cost. Hence, there is no cost over-run in the instant case. Therefore, the add-cap of ₹7.70 lakh and ₹55.92 lakh for 2014-15 and 2015-16 respectively on actual basis towards undischarged liabilities is allowed. Further, the petitioner has claimed add-cap for the instant transmission asset till 2016-17, which is beyond the cut-off date of the instant transmission asset. However, the petitioner has submitted that the claim for add-cap is for balance and retention payments towards liability for works executed before the cut-off date. Accordingly, additional capital expenditure of ₹116.00 lakh during 2016-17 is also allowed under Regulation 14(3)(vi) of the 2014 Tariff Regulations.

45. The additional capitalization allowed for tariff period 2014-19 is subject to review on the submission of the Audited additional capitalization, at the time of truing-up. Further, the petitioner is also directed to submit Auditors' Certificate for details of creation of liabilities and actual payment in discharge of such liabilities at the time of truing-up.



## Initial Spares

46. The petitioner has claimed ₹21.83 lakh against the initial spares for the instant transmission asset, being ₹5.11 lakh upto COD during tariff period 2009-14 and ₹16.72 lakh during 2016-17 lakh for tariff period 2014-19 as discussed at para-16.

47. The petitioner has claimed initial spares for the instant transmission asset till 2016-17, which is beyond the cut-off date of 31.3.2016 for the instant transmission asset. Therefore, the cost up to 31.3.2016 has been considered while working out the allowable initial spares for period 2014-19 and the ceiling limits have been considered as per the 2009 Tariff Regulations. Thus, the total allowable initial spares, worked out are ₹18.86 lakh for the instant transmission asset. The details are as under:-

(₹ in lakh)						
Capital cost claimed upto cut-off date of the asset (31.3.2016)	Initial spares claimed upto cut-off date of the asset	Capital cost considering allowable IDC and IEDC upto cut-off date	Proportionate claim of initial spares against the adjusted capital cost as on actual cut-off date	Ceiling limits as per the 2009 Tariff Regulations	Initial spares worked out /allowed	Excess initial spares
757.18	21.83	757.18	21.83	2.50%	18.86	2.97

48. As discussed at para-17, an amount of ₹5.11 lakh, on account of initial spares for instant transmission asset, has already been allowed up to 31.3.2014, during tariff period 2009-14. The petitioner has claimed the discharge of liability for initial spares during 2016-17 as add-cap. However, we have reviewed entitlement of initial spares during the cut-off year i.e. 2015-16 and the remaining entitlement of initial spares for the instant transmission asset is ₹13.75 lakh during 2015-16. Therefore, the excess claim of ₹2.97 lakh  $\{(\text{₹}21.83 - (\text{₹}5.11 + \text{₹}13.75))\}$  has been adjusted from the add-cap of ₹55.92



claimed by the petitioner during 2015-16. Thus, the add-cap allowed is ₹52.95 lakh (₹55.92-₹2.97).

49. The disallowed excess initial spares as above are subject to review at the time of true-up, on submission of audited year-wise discharging details of initial spares for tariff period 2014-19, by the petitioner.

### **Capital Cost During 2014-19**

50. The details of capital cost considered for tariff determination for 2014-19 are as under:-

Admitted capital cost as on 1.4.2014	Add-cap allowed during			Total estimated completion cost up to 31.3.2019
	2014-15	2015-16	2016-17	
693.56	7.70	52.95	116.00	870.21

### **Debt: Equity Ratio**

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

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

52. The debt: equity ratio of 70:30 was admitted after true-up for the tariff period ending 31.3.2014 for instant transmission asset. The debt: equity ratio of 70:30 has been considered for additional capitalisation during 2014-15, 2015-16 and 2016-17. The details of the debt: equity as on 1.4.2014 and as on 31.3.2019 considered for the purpose of tariff for the 2014-19 tariff period are as follows:-



(₹ in lakh)

Particulars	As on 1.4.2014		As on 31.3.2019	
	Amount	%	Amount	%
Debt	485.50	70.00	609.15	70.00
Equity	208.07	30.00	261.06	30.00
<b>Total</b>	<b>693.56</b>	<b>100.00</b>	<b>870.21</b>	<b>100.00</b>

## Depreciation

53. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as under:-

### "27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(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.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may



be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(2) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(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.”

54. Accordingly, the instant transmission asset will complete its 12 years beyond tariff period 2014-19. Therefore, remaining depreciable value of the instant combined asset has been calculated as per SLM method and at rates specified in Appendix-II, 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	693.56	701.26	754.21	870.21	870.21
Additions during the year due to projected additional capitalization	7.70	52.95	116.00	-	-
Closing Gross block	701.26	754.21	870.21	870.21	870.21
Average gross block	697.41	727.74	812.21	870.21	870.21
Rate of Depreciation (%)	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	627.67	654.96	730.99	783.19	783.19
Remaining Depreciable Value	627.67	618.14	655.74	665.06	619.11
<b>Depreciation</b>	<b>36.82</b>	<b>38.42</b>	<b>42.88</b>	<b>45.95</b>	<b>45.95</b>

### **Return on Equity (“ROE”)**

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

**“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 and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return of **0.50 %** shall be allowed, if such projects are completed within the timeline specified in **Appendix-I**:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”

**“25. Tax on Return on Equity:**

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

“(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."

56. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate of 20.961% as per the above Regulations. The petitioner has 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.

57. 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.

58. 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. 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 determined and allowed is as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	208.07	210.38	226.26	261.06	261.06
Addition due to Additional Capitalisation	2.31	15.89	34.80	-	-
Closing Equity	210.38	226.26	261.06	261.06	261.06
Average Equity	209.22	218.32	243.66	261.06	261.06
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for 2013-14(%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-Tax) (%)	19.61%	19.61%	19.61%	19.61%	19.61%
<b>Return on Equity (Pre Tax)</b>	<b>41.03</b>	<b>42.81</b>	<b>47.78</b>	<b>51.19</b>	<b>51.19</b>

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

59. Regulation 26 of the 2014 Tariff Regulations with regard to Interest on Loan specifies as under:-

“(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(3) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(4) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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

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

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of



interest of the generating company or the transmission licensee as a whole shall be considered.

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

60. The actual loan as on 31.3.2014 has been considered and the petitioner’s entitlement to interest on loan has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-

- (a) Gross amount of loan, repayment of instalments and rate of interest on actual loans have been considered as per the petition;
- (b) The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year; and
- (c) Weighted average rate of interest on actual average loan worked out as per (a) above is applied on the normative average loan during the year to arrive at the interest on loan.

61. The details of weighted average rate of interest are at Annexure-2 and the IOL has been worked out and allowed as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative loan	485.50	490.89	527.95	609.15	609.15
Cumulative Repayment upto previous year	22.80	59.62	98.05	140.93	186.88
Net Loan-Opening	462.70	431.26	429.90	468.22	422.27
Additions during the year	5.39	37.07	81.20	-	-
Repayment during the year	36.82	38.42	42.88	45.95	45.95
Net Loan-Closing	431.26	429.90	468.22	422.27	376.32
Average Loan	446.98	430.58	449.06	445.24	399.30
Weighted Rate of Interest	4.63%	4.80%	4.93%	<b>4.91%</b>	4.88%
<b>Interest</b>	<b>20.68</b>	<b>20.65</b>	<b>22.13</b>	<b>21.88</b>	<b>19.50</b>



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

62. Regulation 29 (4) (a) of the 2014 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
400 kV bays (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71

63. The allowable O&M Expenses for the instant transmission asset are as under:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
1 no. 400 kV bay	60.30	62.30	64.37	66.51	68.71

(₹ in lakh)

64. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

65. 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, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.



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

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

“**28. Interest on Working Capital:** (1) The working capital shall cover:

(a)-----

(c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:

(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”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later”

“(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;”

67. 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% as on 1.4.2014 plus 350 basis points). The interest on working capital as determined is as below:-

	(₹ in lakh)				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	27.41	28.33	30.55	31.99	31.97
<b>Total</b>	<b>41.48</b>	<b>42.87</b>	<b>45.57</b>	<b>47.51</b>	<b>48.00</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>5.60</b>	<b>5.79</b>	<b>6.15</b>	<b>6.41</b>	<b>6.48</b>



### **Annual Transmission Charges**

68. The Annual Transmission Charges allowed for the instant transmission asset are as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	36.82	38.42	42.88	45.95	45.95
Interest on Loan	20.68	20.65	22.13	21.88	19.50
Return on Equity	41.03	42.81	47.78	51.19	51.19
Interest on Working Capital	5.60	5.79	6.15	6.41	6.48
O&M Expenses	60.30	62.30	64.37	66.51	68.71
<b>Total</b>	<b>164.43</b>	<b>169.97</b>	<b>183.32</b>	191.94	191.83

69. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. We have considered the submissions of the petitioner. The petitioner is entitled for late payment surcharge and FERV as per Regulations 45 and 50 respectively of the 2014 Tariff Regulations.

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

70. 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**

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

### **Deferred Tax Liability**

72. The petitioner has sought recovery of deferred tax liability accrued before 1.4.2009 from the beneficiaries or long term consumers/DICs as and when materialized under clause 39 of the 2009 Tariff Regulations and clause 49 of the 2014 Tariff Regulations. The instant asset was commissioned on 1.8.2013. Therefore, clause 39 of 2009 Tariff Regulations is irrelevant and inapplicable and as per Regulation 49 of the 2014 Tariff Regulations, no claim on account of deferred tax liability arising during 1.4.2009 and 31.3.2014 shall be made from the beneficiaries or long term transmission customers/DICs. Accordingly, the petitioners' prayer for recovery of deferred tax liability in case of instant transmission asset is infructuous and is not allowed.

### **Service Tax**

73. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if notification regarding granting of exemption to transmission service is withdrawn at a later date and it is subjected to such service tax in future the beneficiaries shall have to share the service tax paid by the petitioner. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.



### **Goods and Services Tax (GST)**

74. The petitioner has submitted that under the proposed GST which is likely to be introduced, transmission charges are not exempted and has prayed for reimbursement of any tax payable in future on implementation of GST. We are of the view that the petitioners' prayer is premature and hence it is not allowed.

### **Sharing of Transmission Charges**

75. The billing, collection and disbursement of the transmission charges approved for 2014-19 tariff period 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.

76. This order disposes of Petition No. 165/TT/2016.

**sd/-**  
**(M.K. Iyer)**  
**Member**

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

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



**Annexure-1**

(₹ in lakh)

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>		
	<b>Details of Loan</b>	<b>2013-14</b>
<b>1</b>	<b>FC BOND (17.1.2013) - COD</b>	
	Gross loan opening	421.65
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	421.65
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	421.65
	Average Loan	421.65
	Rate of Interest	4.10%
	Interest	17.27
	Rep Schedule	Final payment on 17.1.2023
<b>2</b>	<b>Bond XLIII Add Cap</b>	
	Gross loan opening	0.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	63.85
	Repayment during the year	0.00
	Net Loan-Closing	63.85
	Average Loan	31.93
	Rate of Interest	7.93%
	Interest	2.53
	Rep Schedule	12 annual instalments from 31.05.2015.
	<b>Total Loan</b>	
	Gross loan opening	421.65
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	421.65
	Additions during the year	63.85
	Repayment during the year	0.00
	Net Loan-Closing	485.50
	Average Loan	453.58
	Rate of Interest	<b>4.3663%</b>
	<b>Interest</b>	<b>19.80</b>



**Annexure-2**

(₹ in lakh)

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>						
	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>FC BOND (17.1.2013) - COD</b>					
	Gross loan opening	421.41	421.41	421.41	421.41	421.41
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	0.00	0.00
	Net Loan-Opening	421.41	421.41	421.41	421.41	421.41
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	421.41	421.41	421.41	421.41	421.41
	Average Loan	421.41	421.41	421.41	421.41	421.41
	Rate of Interest	4.10%	4.10%	4.10%	4.10%	4.10%
	Interest	17.26	17.26	17.26	17.26	17.26
	Rep Schedule	Final payment on 17.1.2023				
<b>2</b>	<b>FC BOND (17.1.2013) - COD</b>					
	Gross loan opening	0.24	0.24	0.24	0.24	0.24
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.24	0.24	0.24	0.24	0.24
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.24	0.24	0.24	0.24	0.24
	Average Loan	0.24	0.24	0.24	0.24	0.24
	Rate of Interest	4.10%	4.10%	4.10%	4.10%	4.10%
	Interest	0.01	0.01	0.01	0.01	0.01
	Rep Schedule	Final payment on 17.1.2023				
<b>3</b>	<b>Bond XLIII Add Cap</b>					
	Gross loan opening	63.85	<b>63.85</b>	<b>63.85</b>	63.85	63.85
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	0.00	5.32
	Net Loan-Opening	63.85	63.85	63.85	63.85	58.53
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	5.32	5.32
	Net Loan-Closing	63.85	63.85	63.85	58.53	53.21
	Average Loan	63.85	63.85	63.85	61.19	55.87
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	5.06	5.06	5.06	4.85	4.43
	Rep Schedule	12 annual instalments from 20.5.2017				
<b>4</b>	<b>Bond XLVI Add Cap</b>					
	Gross loan opening	0.00	5.39	5.39	5.39	5.39
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	5.39	5.39	5.39	5.39
	Additions during the year	5.39	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	5.39	5.39	5.39	5.39	5.39
	Average Loan	2.70	5.39	5.39	5.39	5.39
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%



	Interest	0.25	0.50	0.50	0.50	0.50
	Rep Schedule	3 equal instalments on 4.9.2019, 4.9.204, 4.9.2029				
5	<b>Bond L Add Cap</b>					
	Gross loan opening	0.00	0.00	39.14	39.14	39.14
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	39.14	39.14	39.14
	Additions during the year	0.00	39.14	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	39.14	39.14	39.14	39.14
	Average Loan	0.00	19.57	39.14	39.14	39.14
	Rate of Interest	8.40%	8.40%	8.40%	8.40%	8.40%
	Interest	0.00	1.64	3.29	3.29	3.29
	<b>Total Loan</b>					
	Gross loan opening	485.50	490.89	530.03	530.03	530.03
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	5.32
	Net Loan-Opening	485.50	490.89	530.03	530.03	524.71
	Additions during the year	5.39	39.14	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	5.32	5.32
	Net Loan-Closing	490.89	530.03	530.03	524.71	519.39
	Average Loan	488.20	510.46	530.03	527.37	522.05
	Rate of Interest	<b>4.6266%</b>	<b>4.7959%</b>	<b>4.9290%</b>	<b>4.9139%</b>	<b>4.8831%</b>
	<b>Interest</b>	<b>22.59</b>	<b>24.48</b>	<b>26.13</b>	<b>25.91</b>	<b>25.49</b>

