

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 25/TT/2016**

**Coram:**

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

**Date of Order : 29.9.2016**

**In the matter of:**

Truing up of transmission tariff of 2009-14 tariff period of 400 kV D/C (Quad) Maithon-Koderma (Part of Koderma-Gaya) Line under Supplementary Transmission System under DVC and Maithon Right Bank project in Eastern Region 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 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

**And in the matter of:**

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

.....**Petitioner**

**Versus**

1. Bihar State Power (Holding) Company Limited  
(Formerly Bihar State Electricity Board),  
Bidyut Bhawan, Bailey road,  
Patna-800 001, Bihar
2. West Bengal State Electricity Distribution Company Ltd.  
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, Government of Sikkim,  
Gangtok- 737 101
6. Jharkhand State Electricity Board  
In Front of Main Secretariat Doranda,  
Ranchi-834 002

.....**Respondents**

**For Petitioner** : Shri M.M. Mondal, PGCIL  
Shri S.K. Venkatesan, PGCIL  
Shri Subhash C. Taneja, PGCIL  
Shri S. S. Raju, PGCIL  
Shri Rakesh Prasad, PGCIL

**For Respondents** : None

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Limited (“the petitioner”) for truing up of capital expenditure of 2009-14 tariff block of 400 kV D/C (Quad) Maithon-Koderma (Part of Koderma- Gaya) Line under Supplementary Transmission System associated with DVC and Maithon (RB) projects in Eastern Region (hereinafter referred to as “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, i.e. 1.4.2013 to 31.3.2014 and (ii) for determination of tariff of 2014-19 tariff block for under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).



2. The petitioner has published the notice of this application in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments or suggestions have been received from the general public in response to the notices published by the petitioner. The petitioner has served the petition on the respondents. None of the respondents have filed any reply to the petition. The hearing in this matter was held on 5.4.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

- a) The Investment approval for the transmission project was accorded by Board of Director of the petitioner in its 212<sup>th</sup> Board meeting held on 6.8.2008, at an estimated cost of ₹236095 lakh including IDC of ₹23593 lakh, based on 1<sup>st</sup> Quarter of 2008 price level. Subsequently, Revised Cost Estimates (RCE) were approved by the Board of Directors of the petitioner in its 286<sup>th</sup> meeting held on 1.5.2013, at an estimated cost of ₹258090 lakh including IDC of ₹24441 lakh at December, 2012 price level.
- b) The tariff from COD to 31.3.2014 was determined vide order dated 15.1.2015 in Petition No. 67/TT/2012 for the instant asset in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-



(₹ in lakh)		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation	80.53	493.02
Interest on Loan	95.01	555.96
Return on Equity	79.98	489.68
Interest on Working Capital	6.40	38.72
O & M Expenses	9.44	59.87
Total	271.37	1637.26

- c) The petitioner has submitted the actual capital expenditure incurred for the asset during period 2009-14, vide Auditor's Certificate dated 29.6.2015, for the purpose of truing-up. The petitioner has also submitted the estimated capital costs for period 2014-19 in the same Auditor's Certificate.

#### **Truing Up of Annual Fixed Charges For 2009-14 Tariff Period**

4. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides as under:-

“(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”.

5. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The tariff for 2009-14 tariff period has been trued up in the subsequent paragraphs.

6. The petitioner claimed tariff for Koderma-Gaya (PG) 400 kV D/C line alongwith associated bays at Gaya Sub-station (commissioned on 1.2.2013) and



400 kV D/C Quad Maithon-Gaya TL and associated bays at both ends (also commissioned on 1.2.013) for the 2009-14 tariff period in Petition Nos.67/TT/2012 and 87/TT/2012 respectively. These lines are passing through a forest stretch of 37 km and to utilise the RoW judiciously, it was decided by the petitioner to construct the forest stretch on Multi-Circuit Tower configuration. There was delay in getting the forest clearance approval. As a remedial measure to facilitate interconnection with ER pending forest clearance, an interim arrangement was approved by Central Electricity Authority on 9.4.2012. As per the interim arrangement, the revised scope of the transmission asset is as follows:-

As per original scope	Revised scope
400 kV D/C (Quad) Koderma- Gaya Transmission Line and associated bays at Gaya Sub-station	400 kV D/C (Quad) Maithon-Koderma (Part of Koderma-Gaya) under contingency arrangement of supplementary transmission system associated with DVC and Maithon RB

7. The Commission, after taking into consideration the submissions of the petitioner, in order dated 15.1.2015 in Petition No 67/TT/2012 held that the cost of the interim arrangement would not be capitalised and it would be recovered as onetime reimbursement. Accordingly, the cost of interim arrangement, i.e ₹7.63 lakh was deducted from the capital cost of the asset and tariff was allowed excluding the cost of the contingency arrangement. The relevant portion of the order dated 15.1.2015 is extracted hereunder:-

"15. Further, it is observed from the petitioner's affidavit dated 25.11.2014 that the expenditure incurred up to the date of commercial operation viz ₹9122.93 lakh includes ₹7.36 lakh which has been incurred for the interim arrangement on account of extra conductor and other tower accessories used. The petitioner has further clarified that this cost has been included in the capital cost of interim arrangement.



16. While we are convinced and hold that the above expenditure needs to be reimbursed to the petitioner, we do not approve of its capitalization. Accordingly, we direct that the above expenditure of ₹7.36 lakh may be recovered by the petitioner as onetime reimbursement."

8. The petitioner vide affidavit dated 16.5.2016 has submitted that the interim arrangement has been withdrawn from the system with the commissioning of balance portion of 400 kV D/C Koderma-Gaya line as under:-

- (i) Balance portion of 400 kV D/C Koderma-Gaya TL Ckt II including multi-circuit under DVC supplementary, COD 8.9.14; and
- (ii) Balance portion of 400 kV D/C Koderma-Gaya TL Ckt I including multi-circuit under DVC supplementary, COD 30.12.14.

9. It is observed that the petitioner has submitted the name of the asset covered in the instant petition as "400 kV D/C (Quad) Maithon-Koderma (Part of Koderma-Gaya) line under contingency arrangement under Supplementary Transmission System associated with DVC and Maithon (RB) Projects in Eastern Region". However, with the commissioning of the assets as per the original scope, the contingency arrangement is withdrawn and as such the petitioner should have given the actual nomenclature of the asset as it exists now. The petitioner is directed to be careful while giving the details of the assets in future.

10. As regards the commissioning of the assets, ERLDC, Kolkata vide letter dated 27.10.2014 has certified trial operation of transmission element i.e. 400 kV Gaya-Maithon-II along with 50 MVAR line reactor, 400 kV Gaya-Koderma-II along with 50 MVAR line reactor w.e.f. 7.9.2014. ERLDC, Kolkata vide letter



dated 5.3.2015 has also certified trial operation of transmission element i.e. 400 kV Gaya-Maithon-I and 400 kV Gaya-Koderma-I w.e.f 29.12.2014. Accordingly, the dates of commercial operation of the assets are considered as 8.9.2014 and 30.12.2014 respectively.

### **Capital Cost**

11. Regulation 7(1) of the 2009 Tariff Regulations provides as follows:-

“(1) Capital cost for a project shall include:

- (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;
- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
- (c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”

12. The capital cost as on COD and the additional capital expenditure claimed by the petitioner, as given in Auditor's Certificate dated 29.6.2015, are as follows:-

(₹ in lakh)

Apportioned approved cost	Revised Cost Estimate (RCE)	Expenditure Incurred up to COD	Actual Additional Capital Expenditure		Total completion cost
			2012-13	2013-14	
9894.00	10521.36	8765.37*	203.30	62.25	9030.92

\*As stated in para-7 above, ₹7.36 lakh is deducted from the capital cost as on COD. Hence, ₹8765.37 lakh (₹8772.73 lakh - ₹7.36 lakh) is considered as the claimed expenditure as on COD.



13. Total estimated completion cost of the instant asset is ₹9030.92 lakh against the apportioned revised cost estimate of ₹9894.00 lakh. Hence, there is no cost over-run.

### **Time over-run**

14. The Commission in order dated 15.1.2015 in Petition No 67/TT/2012 gave the following directions:-

"20. We are prima facie satisfied with the reasons for delay adduced by the petitioner and are inclined to condone the delay. The petitioner is directed to support its averments with the help of supporting documentary evidence i.e. copies of communication with Forest Department at the time of filing trueing up petition whereupon a final view will be taken on the condonation of delay, as required.

21. For the present we hold that there is no need to make any deduction from the capital cost on account of time over-run."

15. As per IA, dated 29.8.2008, the scheduled date of commercial operation works out to 29.8.2012, i.e. by 1.9.2012. Against this, the asset was commissioned on 1.2.2013. Hence, there is a time over-run of 5 months in commissioning the asset which was condoned by the Commission subject to true up and prudence.

16. The petitioner in the instant petition has made the following submissions regarding time over run:-

(a) The total forest involvement for this portion of line is to the tune of 194 Ha. Out of which 131 Ha, involving Jharkhand and Bihar, is under Multi Ckt portion and 22.7 Ha, is in the state of Bihar, in double circuit portion. For this line route alignment, preliminary and detail survey was included in the





scope of main transmission line contract which is pre-requisite for preparation of forest proposal. Carrying out survey in the forest areas was quite challenging due to Maoist threat prevailing in the area.

- b) However, with utmost caution and care the work of survey of line could be completed. MoEF directed all state governments, vide order dated 3.8.2009, to ensure compliance of Forest Rights Act, 2006 which required NOC and written consent from each gram sabha and certification of the same by representative state government was made prerequisite for submission of forest proposal. Instant case involved 3 DFOs in the state of Jharkhand and 1 DFO in the state of Bihar. Holding gram sabha in each village was quite a cumbersome and time consuming exercise. Compliance of this condition, which came into force from 3.8.2009 considerably, delayed the forest proposal submission. However, with extensive mobilization of manpower this exercise could be completed in May-August, 2010 and forest proposal was submitted by the petitioner to various DFOs between May 2010 to September, 2010.
- c) Final clearance in respect of Bihar was received on 16.1.2012 and that of Jharkhand on 8.11.2012 i.e. 16 months after submission of proposal in the state of Bihar and 26 months in the state of Jharkhand. Since most of the works associated with balance portion of Kodarma-Gaya line falls in the forest area, that too mostly in Jharkhand, the work could be extensively



taken up only after final approval of forest clearance i.e. after November 2012 only.

- d) The details of submission of forest proposals and receipt of the forest clearance is as follows:-

Activity	Multi Circuit Portion		D/C portion
	Bihar	Jharkhand	Bihar
Submission of forest proposal	September, 2010	May/September, 2010	November, 2009
Forwarded to MoEF	5.4.2011	1.6.2011	-
Stage I clearance by MoEF	30.8.2011	22.3.2012	30.08.2011
Stage II clearance by MoEF	16.1.2012	8.8.2012	15.12.2012
Final clearance issued	16.1.2012	8.11.2012	27.1.2013

- e) The forest proposal was submitted by the petitioner to various DFOs between May to September, 2010.

17. We have considered the submissions of the petitioner. We are of the view that the delay on account of aforesaid reasons was beyond the control of the petitioner and could not have been envisaged by the petitioner at the time of the investment approval. As per the Forest (Conservation) Amendment Rules, 2004 notified by MoEF dated 3.2.2004, the timeline for forest approval after submission of proposal is 210 days by State Government and 90 days by Forest Advisory Committee of Central Government i.e. total 300 days. Therefore, the delay on account of survey work and requirement of written consent of Gram Sabha is not attributable to the petitioner. Hence, the delay of five months due to forest clearance is condoned.



### **Interest During Construction (IDC)**

18. The IDC has been worked out based on submissions made in the petition for the 2009-14 tariff period. IDC for the instant asset has been worked out after condoning time over-run. Following is the details submitted by the petitioner and allowable/worked out IDC as on COD, on cash basis:-

(₹ in lakh)

Interest During Construction (IDC)							
Claimed as on COD as per the Auditor's Certificate	Total IDC worked out on Accrual basis as on COD	Discharged up to COD (as per claim)	Allowed/ Worked out on Cash Basis as on COD	Accrued IDC discharged during 2012-13 (as per claim)	Accrued IDC allowed during 2012-13	Accrued IDC discharged during 2013-14 (as per claim)	Accrued IDC allowed during 2013-14
1565.73	1563.09	1335.65	1334.50	99.52	99.52	130.55	129.07

19. The petitioner has also submitted that the accrued IDC as on COD has been discharged in 2012-13 and 2013-14. Accordingly, the accrued IDC as on COD, and discharged in 2012-13 and 2013-14 is being allowed, over and above the additional capitalization claimed in the Auditor's Certificate dated 29.6.2015.

### **Incidental Expenditure During Construction (IEDC)**

20. The petitioner, vide affidavit dated 16.5.2016, has submitted the information related to IEDC where it has submitted the details of IEDC incurred up to scheduled COD and from scheduled COD to actual COD. It has also mentioned that the entire IEDC has been paid as on COD of the asset. Considering, 5.00% of the Hard Cost as being IEDC limit as per the abstract cost estimate, the IEDC claimed as on COD being lower than 5.00% of the hard cost, the same is allowed for the tariff calculation purpose.



21. Since time over-run has been allowed, no IEDC is being deducted in the instant case. As such, the claimed IEDC of ₹58.15 lakh is allowed.

### **Initial Spares**

22. Regulation 8 of the 2009 Tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:

- (iv) Transmission system
  - (a) Transmission line - 0.75%
  - (b) Transmission Sub-station - 2.5%
  - (c) Series Compensation devices and HVDC Station - 3.5%.....”

23. The petitioner has submitted the year-wise discharge of the Initial Spares vide affidavit dated 16.5.2016. Following is the year-wise capitalisation of the same:-

**(₹ in lakh)**

Initial Spares		
Total Spares	Discharged upto COD	Discharged in 2016-17
91.50	20.50	71.00

24. The cost of initial spares (Transmission Line) claimed is higher than the ceiling limit allowed as per Regulation 8 of 2009 Tariff Regulation. Accordingly, allowable initial spares is worked out as follows:-

**(₹ in lakh)**

Calculation of Initial Spares						
Particulars	Capital cost claimed up to cut-off date (March 2016)	Initial spares claimed up to cut off date (March 2016)	Capital cost up to cut-off date (March 2016)	Initial spares claimed	Ceiling limits as per clause 8 Regulation 2009	Initial spares worked out
Transmission Line	9914.98	91.50	9904.98	91.41	0.75%	74.16



25. The initial spares discharged upto COD is ₹20.50 lakh and these are allowed to be capitalized as on COD. However, the remaining initial spares amounting to ₹71.00 lakh are being discharged by the petitioner in 2016-17, which is beyond the cut-off date of commissioning of the asset. Hence, the actual remaining initial spares of ₹53.66 lakh (i.e. ₹74.16 lakh- ₹20.50 lakh) may be taken up by the petitioner the time of truing-up of 2014-19 tariff period.

26. The capital cost as on COD after considering IDC and IEDC on cash basis and un-discharged initial spares claimed after deducting the cost of the contingency arrangement is worked out as under:-

(₹ in lakh)

Capital cost as on COD	Less: IDC and IEDC claimed	Add: IDC on cash basis allowed	Add: IEDC allowed	Less: Cost of interim-arrangement	Less: Un-discharged Initial spares as on COD	Capital cost as on COD considered for tariff
8772.73	1623.88	1334.50	58.15	7.36	71.00	8463.14

### **Additional Capital Expenditure**

27. The petitioner has claimed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations which provide as under:-

“Additional Capitalisation:

(1) The capital expenditure 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;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;



- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law.”

28. The 2009 Tariff Regulations further define “cut-off” date as-

“cut-off date means 31<sup>st</sup> March of the year closing after 2 years of the year of commercial operation of the project, and incase the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation”.

29. The petitioner initially claimed the additional capital expenditure of ₹203.30 lakh and ₹62.25 lakh during 2012-13 and 2013-14. However, the petitioner vide affidavit dated 16.5.2016 has claimed additional capitalization after COD of ₹302.82 lakh and ₹192.8 lakh for 2012-13 and 2013-14 respectively towards balance and retention payment.

30. We have considered the submissions of the petitioner. The additional capitalisation claimed by the petitioner for the 2012-13 and 2013-14 is allowed.

### **Debt: Equity**

31. Clause 1 and 3 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:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

**Explanation.-** The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of



the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

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

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

32. The debt-equity ratio of 70:30 is being claimed by the petitioner as on COD and for additional capitalization and the same has been considered.

Following is the allowable debt-equity:-

(₹ in lakh)			
Particulars	%	As on COD	As on 31.3.2014
Debt	70.00	5924.20	6270.10
Equity	30.00	2538.94	2687.18
Total	100.00	8463.14	8957.28

### **Return on Equity (“ROE”)**

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

“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:



Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(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 maybe, 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.”

34. Return on equity has been worked out by considering year wise MAT rate for the period 2009-14 in accordance with Regulation 15 of the 2009 Regulations. The tax rate during the 2009-14 period applicable to the petitioner, as per the Finance Acts of the relevant years, for the purpose of grossing up of ROE has been furnished as under:-

<b>Year</b>	<b>MAT Rate (in %)</b>	<b>Grossed up ROE (Base rate/(1-t) (in %)</b>
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.9605	19.610





35. The details of return on equity calculated are as follows:-

Particulars	(₹ in lakh)	
	2012-13 (pro-rata)	2013-14
Opening Equity	2538.94	2629.79
Addition due to additional capitalization	90.85	57.40
Closing Equity	2629.79	2687.18
Average Equity	2584.36	2658.49
Return on Equity (Base Rate )	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.008%	20.9605%
Rate of Return on Equity (Pre-tax )	19.377%	19.610%
Return on Equity (Pre-tax)	83.46	521.33

### **Interest on Loan (“IOL”)**

36. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan:-

“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.”

37. The petitioner has claimed the interest on loan based on actual interest rates for each year during the 2009-14 tariff period. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I to this order. Based on the above, interest on loan has been calculated as under:-

**(₹ in lakh)**

Particulars	2012-13 (pro-rata)	2013-14
Gross Normative Loan	5924.20	6136.17
Cumulative Repayment upto Previous Year	0.00	75.81
Net Loan-Opening	5924.20	6060.36
Addition due to Additional Capitalization	211.97	133.93
Repayment during the year	75.81	467.89
Net Loan-Closing	6060.36	5726.39
Average Loan	5992.28	5893.38
Weighted Average Rate of Interest on Loan	8.9448%	8.9364%
Interest	89.33	526.66



## **Depreciation**

38. Regulation 17 of the 2009 Tariff Regulations provides as under:-

### **“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.”

39. The instant asset has been put under commercial operation as on 1.2.2013 and depreciation has been worked out based on Straight Line Method as per 2009 Tariff Regulation. Based on the above, the depreciation has been considered are as follows:-



Particulars	(₹ in lakh)	
	2012-13 (pro-rata)	2013-14
Opening Gross Block	8463.14	8765.96
Additional Capital Expenditure	302.82	191.32
Closing Gross Block	8765.96	8957.28
Average Gross Block	8614.55	8861.62
Rate of Depreciation	5.2800%	5.2800%
Depreciable Value	7753.09	7975.46
Remaining Depreciable Value	7753.09	7899.65
Depreciation	75.81	467.89

### **Interest on working capital**

40. Interest on working capital is worked as provided under Regulation 18 of the 2009 Tariff Regulations as detailed below:-

- a. Maintenance spares have been worked out based on 15% of Operation and Maintenance expenses specified in Regulation 18.
- b. O&M Expenses have been considered for one month.
- c. The receivables have been worked out on the basis of 2 months' of annual transmission charges as worked out above.
- d. Rate of interest in working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations. It is calculated equal to State Bank of India Base Rate as applicable as on 1.4.2012 plus 350 basis points. State Bank of India Base Rate on 1.4.2012 was 10.00%. Therefore, interest rate of 13.50% (10.00% plus 350 basis points) for the asset has been considered to work out the interest on working capital in the instant case.



41. The components of the working capital and interest thereon have been worked out as follows:-

Particulars	(₹ in lakh)	
	2012-13 (pro-rata)	2013-14
Maintenance Spares	8.50	8.98
O & M expenses	4.72	4.99
Receivables	264.29	268.99
Total	277.50	282.96
Interest	<b>6.24</b>	<b>38.20</b>

### **Operation and Maintenance Expenses (O&M Expenses)**

42. The Commission in order dated 15.1.2015 in petition no. 67/TT/2012 has allowed ₹9.44 lakh and ₹59.87 lakh for 2012-13 (pro-rata) and 2013-14 respectively and the same is considered for the purpose of truing up of tariff of 2009-14 period.

### **Sharing of Transmission Charges**

43. The billing, collection and disbursement of the transmission charges for 2009-14 period up to 30.6.2011 shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with regulation 33 of 2009 Regulations.

### **Transmission charges**

44. The transmission charges being allowed for the assets are as follows:-

Particulars	(₹ in lakh)	
	2012-13 (pro-rata)	2013-14
Depreciation	80.53	493.02
Interest on Loan	95.01	555.96
Return on equity	79.98	489.68



Interest on Working Capital	6.40	38.72
O & M Expenses	9.44	59.87
<b>Total</b>	<b>271.37</b>	<b>1637.26</b>

### **Annual Fixed Charges For 2014-19 Tariff Period**

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	481.53	504.67	523.12	523.12	523.12
Interest on Loan	500.44	484.58	460.47	413.69	366.93
Return on Equity	536.52	565.03	585.69	585.69	585.69
Interest on Working Capital	37.94	38.87	39.31	38.34	37.38
O&M Expenses	54.16	55.95	57.78	59.72	61.71
<b>Total</b>	<b>1610.59</b>	<b>1649.10</b>	<b>1666.37</b>	<b>1620.56</b>	<b>1574.83</b>

46. 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	8.12	8.39	8.67	8.96	9.26
O & M Expenses	4.51	4.66	4.82	4.98	5.14
Receivables	268.43	274.85	277.73	270.09	262.47
<b>Total</b>	<b>281.07</b>	<b>287.91</b>	<b>291.21</b>	<b>284.02</b>	<b>276.87</b>
Rate of Interest (%)	37.94	38.87	39.31	38.34	37.38
Interest	13.50 %	13.50%	13.50%	13.50%	13.50%

### **Capital Cost**

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

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



“(3) The Capital cost of an existing project shall include the following:

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

48. Capital cost ₹8957.28 lakh as on 31.3.2014 and the same is considered as the Opening Gross Block for working out the final tariff of 2014-19 period.

### **Additional Capital Expenditure**

49. Sub-clause (i) of Clause 1 and sub-clause (ix) of Clause 3 of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

“(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 recognized to be payable at a future date;

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

.....

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

50. The petitioner has claimed following additional capital expenditure for tariff period 2014-19 is as follows:-



(₹ in lakh)

Capital cost as on 31.3.2014*	Estimated Additional Capital Expenditure					Total estimated completion cost
	2014-15	2015-16	2016-17	2017-18	2018-19	
9030.92	177.87	698.83	0.00	0.00	0.00	9907.12

\*After deducting ₹7.36 lakh as cost of interim arrangement from the capital cost.

51. The additional capitalization claimed by the petitioner is allowed and the total completion cost as on 31.03.2019 is worked out as ₹9833.98 lakh.

### **Debt- equity ratio**

52. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. 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:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation”





53. Details of debt-equity in respect of the asset as on the date of commercial operation and as on 31.3.2019 are as follows:-

**(₹ in lakh)**

Particulars	%	As on 1.4.2014	As on 31.3.2019
Debt	70.00	6270.10	6883.79
Equity	30.00	2687.18	2950.19
Total	100.00	8957.28	9833.98

Additional capital expenditure has been considered in the debt-equity ratio of 70:30.

### **Return on Equity (“ROE”)**

54. 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.”

55. The Return on Equity has been worked out in accordance with Regulation 24 and Regulation 25 of the 2014 Regulations. The rate of pre-tax return on equity for all the financial year during 2014-19 period has been determined by grossing up the base rate of 15.50% with effective tax rate of 20.9605% (i.e. MAT rate applicable for the financial year 2013-14). This rate of pre-tax return on equity is subject to true up based on the effective tax rate of respective financial year applicable to the petitioner company.



56. The detailed working for Return on Equity for the project is summarized below:-

	(₹ in lakh)				
<b>Return on Equity (ROE)</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	2687.18	2740.54	2950.19	2950.19	2950.19
Addition due to Additional Capitalisation	53.36	209.65	0.00	0.00	0.00
Closing Equity	2740.54	2950.19	2950.19	2950.19	2950.19
Average Equity	2713.86	2845.37	2950.19	2950.19	2950.19
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate applicable for the year 2013-14	20.9605%	20.9605%	20.9605%	20.9605%	20.9605%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	<b>532.19</b>	<b>557.98</b>	<b>578.53</b>	<b>578.53</b>	<b>578.53</b>

57. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate 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.

### **Interest on Loan (“IOL”)**

58. 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.

(2) 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.



(3) 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.”

59. The interest on loan has been worked out in accordance with Regulation 26 of the 2014 Regulations and IOL has been worked out as under:-

( ₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	6270.10	6394.60	6883.79	6883.79	6883.79
Cumulative Repayment upto Previous Year	543.70	1021.34	1522.13	2041.36	2560.59
Net Loan-Opening	5726.39	5373.26	5361.66	4842.43	4323.19
Addition due to Additional Capitalization	124.51	489.18	0.00	0.00	0.00
Repayment during the year	477.64	500.79	519.23	519.23	519.23
Net Loan-Closing	5373.26	5361.66	4842.43	4323.19	3803.96
Average Loan	5549.83	5367.46	5102.04	4582.81	4063.57
Weighted Average Rate of Interest on Loan	8.94%	8.96%	8.96%	8.96%	8.96%
Interest	496.41	480.88	457.13	410.69	364.28



## Depreciation

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

### **"27. Depreciation:**

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

“(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I 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.”

61. Depreciation has been worked out based on Straight Line Method as per Regulation 27 of 2014 Regulations.

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	8957.28	9135.15	9833.98	9833.98	9833.98
Additional Capitalization	177.87	698.83	0.00	0.00	0.00
Closing Gross block	9135.15	9833.98	9833.98	9833.98	9833.98
Average Gross block	9046.21	9484.56	9833.98	9833.98	9833.98
Rate of Depreciation(%)	5.280%	5.280%	5.280%	5.280%	5.280%
Depreciable Value	8141.59	8536.11	8850.58	8850.58	8850.58
Remaining Depreciable Value	7597.89	7514.77	7328.46	6809.22	6289.99
Depreciation	477.64	500.79	519.23	519.23	519.23



### **Operation and Maintenance Expenses**

63. The petitioner has claimed the following O&M Expenses for the 2014-19 tariff period:-

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
54.16	55.95	57.78	59.72	61.71

64. Regulation 29 of 2014 Tariff Regulations specifies norms for O&M Expenses for the transmission system. The normative O&M Expenses for assets covered in the petition are given below:-

(₹ in lakh)					
Element	2014-15	2015-16	2016-17	2017-18	2018-19
Double Circuit (Bundled Conductor)	1.062	1.097	1.133	1.171	1.210

65. The O&M Expenses claimed by the petitioner are in accordance with the norms specified in the 2014 Tariff Regulations and accordingly the same are allowed. The details of O&M Expenses allowed for the assets covered in the instant petition are as under:-

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
54.16	55.95	57.78	59.72	61.71

66. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The



petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

67. We have considered the submissions of the petitioner. Any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission assets as per the prevailing norms.

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

68. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies as follows:

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

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

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

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

70. 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 components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	8.12	8.39	8.67	8.96	9.26
O & M Expenses	4.51	4.66	4.82	4.98	5.14
Receivables	266.34	272.35	275.28	267.70	260.14
Total	278.98	285.41	288.76	281.63	274.53
Interest	37.66	38.53	38.98	38.02	37.06
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%

### **Annual Transmission Charges for 2014-19**

71. The annual transmission charges for the tariff period 2014-19 worked out as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	477.64	500.79	519.23	519.23	519.23
Interest on Loan	496.41	480.88	457.13	410.69	364.28
Return on Equity	532.19	557.98	578.53	578.53	578.53
Interest on Working Capital	37.66	38.53	38.98	38.02	37.06
O & M Expenses	54.16	55.95	57.78	59.72	61.71
Total	<b>1598.06</b>	<b>1634.13</b>	<b>1651.66</b>	<b>1606.20</b>	<b>1560.81</b>

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

72. 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**

73. 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.

### **Service Tax**

74. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

### **Sharing of Transmission Charges**

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

76. This order disposes of Petition No. 25/TT/2016.

sd/-

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

sd/-

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

sd/-

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

sd/-

**(Gireesh B. Pradhan)**  
Chairperson



**ANNEXURE-I****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
FOR TARIFF PERIOD 2009-14**

		(₹ in lakh)	
	Details of Loan	2012-13	2013-14
<b>1</b>	<b>Bond XXXIII</b>		
	Gross loan opening	750.00	750.00
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	750.00	750.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	750.00	750.00
	Average Loan	750.00	750.00
	Rate of Interest	8.64%	8.64%
	Interest	64.80	64.80
	Rep Schedule	12 Annual installments from 8.7.2014	
<b>2</b>	<b>Bond XXIX</b>		
	Gross loan opening	478.00	478.00
	Cumulative Repayment upto COD/previous year	0.00	39.83
	Net Loan-Opening	478.00	438.17
	Additions during the year	0.00	0.00
	Repayment during the year	39.83	39.83
	Net Loan-Closing	438.17	398.33
	Average Loan	458.08	418.25
	Rate of Interest	9.20%	9.20%
	Interest	42.14	38.48
	Rep Schedule	12 Annual installments from 12.3.2013	
<b>3</b>	<b>BOND XXVIII</b>		
	Gross loan opening	1015.00	<b>1015.00</b>
	Cumulative Repayment upto COD/previous year	84.58	<b>84.58</b>
	Net Loan-Opening	930.42	930.42
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	84.58
	Net Loan-Closing	930.42	845.83
	Average Loan	930.42	888.13
	Rate of Interest	9.33%	9.33%
	Interest	86.81	82.86
	Rep Schedule	12 Annual installments from 15.12.2012	
<b>4</b>	<b>Bond XXXII</b>		
	Gross loan opening	25.00	<b>25.00</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>



	Net Loan-Opening	25.00	25.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	2.08
	Net Loan-Closing	25.00	22.92
	Average Loan	25.00	23.96
	Rate of Interest	8.84%	8.84%
	Interest	2.21	2.12
	Rep Schedule	12 Annual installments from 29.3.2014	
<b>5</b>	<b>Bond XXXI</b>		
	Gross loan opening	700.00	700.00
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	700.00	700.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	58.33
	Net Loan-Closing	700.00	641.67
	Average Loan	700.00	670.83
	Rate of Interest	8.90%	8.90%
	Interest	62.30	59.70
	Rep Schedule	12 Annual installments from 25.2.2014	
<b>6</b>	<b>Bond XXXVII</b>		
	Gross loan opening	453.00	<b>453.00</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	453.00	453.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	453.00	453.00
	Average Loan	453.00	453.00
	Rate of Interest	9.25%	9.25%
	Interest	41.90	41.90
	Rep Schedule	15 Annual installments from 26.12.2015	
<b>7</b>	<b>Bond XXX</b>		
	Gross loan opening	1982.00	<b>1982.00</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	1982.00	1982.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	165.17
	Net Loan-Closing	1982.00	1816.83
	Average Loan	1982.00	1899.42
	Rate of Interest	8.80%	8.80%
	Interest	174.42	167.15
	Rep Schedule	15 Annual installments from 29.9.2013	
<b>8</b>	<b>Bond XLI</b>		
	Gross loan opening	571.70	<b>571.70</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>



	Net Loan-Opening	571.70	571.70
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	571.70	571.70
	Average Loan	571.70	571.70
	Rate of Interest	8.85%	8.85%
	Interest	50.60	50.60
	Rep Schedule	12 annual installments from 19.10.2016	
<b>9</b>	<b>Bond XLI AddCap 2012-13</b>		
	Gross loan opening	0.00	<b>211.98</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	0.00	211.98
	Additions during the year	211.98	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	211.98	211.98
	Average Loan	105.99	211.98
	Rate of Interest	8.85%	8.85%
	Interest	9.38	18.76
	Rep Schedule	12 annual installments from 19.10.2016	
<b>10</b>	<b>Bond XLI AddCap 2013-14</b>		
	Gross loan opening	0.00	<b>0.00</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	0.00	0.00
	Additions during the year	0.00	91.39
	Repayment during the year	0.00	0.00
	Net Loan-Closing	0.00	91.39
	Average Loan	0.00	45.70
	Rate of Interest	8.85%	8.85%
	Interest	0.00	4.04
	Rep Schedule	12 annual installments from 19.10.2016	
<b>11</b>	<b>Bond XLIII Addcap 2013-14</b>		
	Gross loan opening	0.00	<b>0.00</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	0.00	0.00
	Additions during the year	0.00	43.58
	Repayment during the year	0.00	0.00
	Net Loan-Closing	0.00	43.58
	Average Loan	0.00	21.79
	Rate of Interest	7.93%	7.93%
	Interest	0.00	1.73
	Rep Schedule	12 annual installments from 20.5.2017	
	<b>Total Loan</b>		
	Gross loan opening	5974.70	6186.68
	Cumulative Repayment upto COD/previous year	84.58	124.42



Net Loan-Opening	5890.12	6062.26
Additions during the year	211.98	134.97
Repayment during the year	39.83	350.00
Net Loan-Closing	6062.26	5847.23
Average Loan	5976.19	5954.75
<b>Weighted Average Rate of Interest</b>	<b>8.9448%</b>	<b>8.9364%</b>
<b>Interest</b>	534.56	532.14



**ANNEXURE-II****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
FOR TARIFF PERIOD 2014-19**

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>						
(Rs. in Lacs)						
	<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>Bond XXXVII</b>					
	Gross loan opening	453.00	453.00	453.00	453.00	453.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	37.75	75.50	113.25
	Net Loan-Opening	453.00	453.00	415.25	377.50	339.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	37.75	37.75	37.75	37.75
	Net Loan-Closing	453.00	415.25	377.50	339.75	302.00
	Average Loan	453.00	434.13	396.38	358.63	320.88
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	41.90	40.16	36.66	33.17	29.68
	Rep Schedule	12 annual installments from 26.12.2015				
<b>2</b>	<b>Bond XXVIII</b>					
	Gross loan opening	1015.00	1015.00	1015.00	1015.00	1015.00
	Cumulative Repayment upto COD/previous year	169.17	253.75	338.33	422.92	507.50
	Net Loan-Opening	845.83	761.25	676.67	592.08	507.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	84.58	84.58	84.58	84.58	84.58
	Net Loan-Closing	761.25	676.67	592.08	507.50	422.92
	Average Loan	803.54	718.96	634.38	549.79	465.21
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	74.97	67.08	59.19	51.30	43.40
	Rep Schedule	12 annual installments from 15.12.2012				
<b>3</b>	<b>Bond XXIX</b>					
	Gross loan opening	478.00	478.00	478.00	478.00	478.00
	Cumulative Repayment upto COD/previous year	79.67	119.50	159.33	199.17	239.00
	Net Loan-Opening	398.33	358.50	318.67	278.83	239.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	39.83	39.83	39.83	39.83	39.83



	Net Loan-Closing	358.50	318.67	278.83	239.00	199.17
	Average Loan	378.42	338.58	298.75	258.92	219.08
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
	Interest	34.81	31.15	27.49	23.82	20.16
	Rep Schedule	12 annual installments from 12.03.2013				
<b>4</b>	<b>Bond XXX</b>					
	Gross loan opening	1982.00	1982.00	1982.00	1982.00	1982.00
	Cumulative Repayment upto COD/previous year	165.17	330.33	495.50	660.67	825.83
	Net Loan-Opening	1816.83	1651.67	1486.50	1321.33	1156.17
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	165.17	165.17	165.17	165.17	165.17
	Net Loan-Closing	1651.67	1486.50	1321.33	1156.17	991.00
	Average Loan	1734.25	1569.08	1403.92	1238.75	1073.58
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	152.61	138.08	123.54	109.01	94.48
	Rep Schedule	12 annual installments from 29.9.2013				
<b>5</b>	<b>Bond XXXI</b>					
	Gross loan opening	700.00	700.00	700.00	700.00	700.00
	Cumulative Repayment upto COD/previous year	58.33	116.67	175.00	233.33	291.67
	Net Loan-Opening	641.67	583.33	525.00	466.67	408.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	58.33	58.33	58.33	58.33	58.33
	Net Loan-Closing	583.33	525.00	466.67	408.33	350.00
	Average Loan	612.50	554.17	495.83	437.50	379.17
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	54.51	49.32	44.13	38.94	33.75
	Rep Schedule	12 Annual instalments from 25.2.2014				
<b>6</b>	<b>Bond XXXIII</b>					
	Gross loan opening	750.00	750.00	750.00	750.00	750.00
	Cumulative Repayment upto COD/previous year	0.00	62.50	125.00	187.50	250.00
	Net Loan-Opening	750.00	687.50	625.00	562.50	500.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	62.50	62.50	62.50	62.50	62.50
	Net Loan-Closing	687.50	625.00	562.50	500.00	437.50
	Average Loan	718.75	656.25	593.75	531.25	468.75
	Rate of Interest	8.64%	8.64%	8.64%	8.64%	8.64%
	Interest	62.10	56.70	51.30	45.90	40.50



	Rep Schedule	12 annual installments from 8.07.2014				
<b>7</b>	<b>Bond XXXII</b>					
	Gross loan opening	25.00	25.00	25.00	25.00	25.00
	Cumulative Repayment upto COD/previous year	2.08	4.17	6.25	8.33	10.42
	Net Loan-Opening	22.92	20.83	18.75	16.67	14.58
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.08	2.08	2.08	2.08	2.08
	Net Loan-Closing	20.83	18.75	16.67	14.58	12.50
	Average Loan	21.88	19.79	17.71	15.63	13.54
	Rate of Interest	8.84%	8.84%	8.84%	8.84%	8.84%
	Interest	1.93	1.75	1.57	1.38	1.20
	Rep Schedule	12 annual installments from 29.3.2014				
<b>8</b>	<b>Bond XLI - Addcap 2012-13</b>					
	Gross loan opening	211.98	<b>211.98</b>	<b>211.98</b>	<b>211.98</b>	<b>211.98</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>17.67</b>	<b>35.33</b>
	Net Loan-Opening	211.98	211.98	211.98	194.32	176.65
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	17.67	17.67	17.67
	Net Loan-Closing	211.98	211.98	194.32	176.65	158.99
	Average Loan	211.98	211.98	203.15	185.48	167.82
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	18.76	18.76	17.98	16.42	14.85
	Rep Schedule	12 annual installments from 19.10.2016				
<b>9</b>	<b>Bond XLI - Addcap 2013-14</b>					
	Gross loan opening	91.39	<b>91.39</b>	<b>91.39</b>	<b>91.39</b>	<b>91.39</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>7.62</b>	<b>15.23</b>
	Net Loan-Opening	91.39	91.39	91.39	83.77	76.16
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	7.62	7.62	7.62
	Net Loan-Closing	91.39	91.39	83.77	76.16	68.54
	Average Loan	91.39	91.39	87.58	79.97	72.35
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	8.09	8.09	7.75	7.08	6.40
	Rep Schedule	12 annual installments from 19.10.2016				
<b>10</b>	<b>Bond XLI</b>					
	Gross loan opening	571.70	<b>571.70</b>	<b>571.70</b>	<b>571.70</b>	<b>571.70</b>





	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>47.64</b>	<b>95.28</b>
	Net Loan-Opening	571.70	571.70	571.70	524.06	476.42
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	47.64	47.64	47.64
	Net Loan-Closing	571.70	571.70	524.06	476.42	428.78
	Average Loan	571.70	571.70	547.88	500.24	452.60
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	50.60	50.60	48.49	44.27	40.05
	Rep Schedule	12 annual installments from 19.10.2016				
<b>1</b>	<b>SBI (2014-15) - Addcap-2014-15</b>					
<b>1</b>						
	Gross loan opening	0.00	<b>124.51</b>	<b>124.51</b>	<b>124.51</b>	<b>124.51</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	124.51	124.51	124.51	124.51
	Additions during the year	124.51	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	124.51	124.51	124.51	124.51	124.51
	Average Loan	62.26	124.51	124.51	124.51	124.51
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	6.38	12.76	12.76	12.76	12.76
	Rep Schedule	20 half yearly equal installments from 15.06.2019				
<b>1</b>	<b>Bond XLIII - Addcap 2013-14</b>					
<b>2</b>						
	Gross loan opening	43.58	<b>43.58</b>	<b>43.58</b>	<b>43.58</b>	<b>43.58</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.63</b>
	Net Loan-Opening	43.58	43.58	43.58	43.58	39.95
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	3.63	3.63
	Net Loan-Closing	43.58	43.58	43.58	39.95	36.32
	Average Loan	43.58	43.58	43.58	41.76	38.13
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	3.46	3.46	3.46	3.31	3.02
	Rep Schedule	12 annual installments from 20.5.2017				
	<b>Total Loan</b>					
	Gross loan opening	6321.65	6446.16	6446.16	6446.16	6446.16
	Cumulative Repayment upto COD/previous year	474.42	886.92	1337.17	1860.34	2387.14
	Net Loan-Opening	5847.23	5559.24	5108.99	4585.82	4059.02
	Additions during the year	124.51	0.00	0.00	0.00	0.00



Repayment during the year	412.50	450.25	523.17	526.80	526.80
Net Loan-Closing	5559.24	5108.99	4585.82	4059.02	3532.21
Average Loan	5703.24	5334.12	4847.41	4322.42	3795.61
Rate of Interest	8.9445%	8.9592%	8.9597%	8.9615%	8.9644%
<b>Interest</b>	510.13	477.90	434.31	387.35	340.25

(₹ in lakh)

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
<b>1</b>	<b>Bond XXXVII</b>					
	Gross loan opening	453.00	453.00	453.00	453.00	453.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	37.75	75.50	113.25
	Net Loan-Opening	453.00	453.00	415.25	377.50	339.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	37.75	37.75	37.75	37.75
	Net Loan-Closing	453.00	415.25	377.50	339.75	302.00
	Average Loan	453.00	434.13	396.38	358.63	320.88
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	41.90	40.16	36.66	33.17	29.68
	Rep Schedule	12 annual installments from 26.12.2015				
<b>2</b>	<b>Bond XXVIII</b>					
	Gross loan opening	1015.00	1015.00	1015.00	1015.00	1015.00
	Cumulative Repayment upto COD/previous year	169.17	253.75	338.33	422.92	507.50
	Net Loan-Opening	845.83	761.25	676.67	592.08	507.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	84.58	84.58	84.58	84.58	84.58
	Net Loan-Closing	761.25	676.67	592.08	507.50	422.92
	Average Loan	803.54	718.96	634.38	549.79	465.21
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	74.97	67.08	59.19	51.30	43.40
	Rep Schedule	12 annual installments from 15.12.2012				
<b>3</b>	<b>Bond XXIX</b>					
	Gross loan opening	478.00	478.00	478.00	478.00	478.00
	Cumulative Repayment upto COD/previous year	79.67	119.50	159.33	199.17	239.00
	Net Loan-Opening	398.33	358.50	318.67	278.83	239.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	39.83	39.83	39.83	39.83	39.83
	Net Loan-Closing	358.50	318.67	278.83	239.00	199.17



	Average Loan	378.42	338.58	298.75	258.92	219.08
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
	Interest	34.81	31.15	27.49	23.82	20.16
	Rep Schedule	12 annual installments from 12.03.2013				
<b>4</b>	<b>Bond XXX</b>					
	Gross loan opening	1982.00	1982.00	1982.00	1982.00	1982.00
	Cumulative Repayment upto COD/previous year	165.17	330.33	495.50	660.67	825.83
	Net Loan-Opening	1816.83	1651.67	1486.50	1321.33	1156.17
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	165.17	165.17	165.17	165.17	165.17
	Net Loan-Closing	1651.67	1486.50	1321.33	1156.17	991.00
	Average Loan	1734.25	1569.08	1403.92	1238.75	1073.58
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	152.61	138.08	123.54	109.01	94.48
	Rep Schedule	12 annual installments from 29.9.2013				
<b>5</b>	<b>Bond XXXI</b>					
	Gross loan opening	700.00	700.00	700.00	700.00	700.00
	Cumulative Repayment upto COD/previous year	58.33	116.67	175.00	233.33	291.67
	Net Loan-Opening	641.67	583.33	525.00	466.67	408.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	58.33	58.33	58.33	58.33	58.33
	Net Loan-Closing	583.33	525.00	466.67	408.33	350.00
	Average Loan	612.50	554.17	495.83	437.50	379.17
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	54.51	49.32	44.13	38.94	33.75
	Rep Schedule	12 Annual instalments from 25.2.2014				
<b>6</b>	<b>Bond XXXIII</b>					
	Gross loan opening	750.00	750.00	750.00	750.00	750.00
	Cumulative Repayment upto COD/previous year	0.00	62.50	125.00	187.50	250.00
	Net Loan-Opening	750.00	687.50	625.00	562.50	500.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	62.50	62.50	62.50	62.50	62.50
	Net Loan-Closing	687.50	625.00	562.50	500.00	437.50
	Average Loan	718.75	656.25	593.75	531.25	468.75
	Rate of Interest	8.64%	8.64%	8.64%	8.64%	8.64%



	Interest	62.10	56.70	51.30	45.90	40.50
	Rep Schedule	12 annual installments from 8.07.2014				
<b>7</b>	<b>Bond XXXII</b>					
	Gross loan opening	25.00	25.00	25.00	25.00	25.00
	Cumulative Repayment upto COD/previous year	2.08	4.17	6.25	8.33	10.42
	Net Loan-Opening	22.92	20.83	18.75	16.67	14.58
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.08	2.08	2.08	2.08	2.08
	Net Loan-Closing	20.83	18.75	16.67	14.58	12.50
	Average Loan	21.88	19.79	17.71	15.63	13.54
	Rate of Interest	8.84%	8.84%	8.84%	8.84%	8.84%
	Interest	1.93	1.75	1.57	1.38	1.20
	Rep Schedule	12 annual installments from 29.3.2014				
<b>8</b>	<b>Bond XLI - Addcap 2012-13</b>					
	Gross loan opening	211.98	<b>211.98</b>	<b>211.98</b>	<b>211.98</b>	<b>211.98</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>17.67</b>	<b>35.33</b>
	Net Loan-Opening	211.98	211.98	211.98	194.32	176.65
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	17.67	17.67	17.67
	Net Loan-Closing	211.98	211.98	194.32	176.65	158.99
	Average Loan	211.98	211.98	203.15	185.48	167.82
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	18.76	18.76	17.98	16.42	14.85
	Rep Schedule	12 annual installments from 19.10.2016				
<b>9</b>	<b>Bond XLI - Addcap 2013-14</b>					
	Gross loan opening	91.39	<b>91.39</b>	<b>91.39</b>	<b>91.39</b>	<b>91.39</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>7.62</b>	<b>15.23</b>
	Net Loan-Opening	91.39	91.39	91.39	83.77	76.16
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	7.62	7.62	7.62
	Net Loan-Closing	91.39	91.39	83.77	76.16	68.54
	Average Loan	91.39	91.39	87.58	79.97	72.35
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	8.09	8.09	7.75	7.08	6.40
	Rep Schedule	12 annual installments from 19.10.2016				
<b>10</b>	<b>Bond XLI</b>					
	Gross loan opening	571.70	<b>571.70</b>	<b>571.70</b>	<b>571.70</b>	<b>571.70</b>



	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>47.64</b>	<b>95.28</b>
	Net Loan-Opening	571.70	571.70	571.70	524.06	476.42
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	47.64	47.64	47.64
	Net Loan-Closing	571.70	571.70	524.06	476.42	428.78
	Average Loan	571.70	571.70	547.88	500.24	452.60
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	50.60	50.60	48.49	44.27	40.05
	Rep Schedule	12 annual installments from 19.10.2016				
<b>11</b>	<b>SBI (2014-15) - Addcap-2014-15</b>					
	Gross loan opening	0.00	<b>124.51</b>	<b>124.51</b>	<b>124.51</b>	<b>124.51</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	124.51	124.51	124.51	124.51
	Additions during the year	124.51	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	124.51	124.51	124.51	124.51	124.51
	Average Loan	62.26	124.51	124.51	124.51	124.51
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	6.38	12.76	12.76	12.76	12.76
	Rep Schedule	20 half yearly equal installments from 15.06.2019				
<b>12</b>	<b>Bond XLIII - Addcap 2013-14</b>					
	Gross loan opening	43.58	<b>43.58</b>	<b>43.58</b>	<b>43.58</b>	<b>43.58</b>
	Cumulative Repayment upto COD/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.63</b>
	Net Loan-Opening	43.58	43.58	43.58	43.58	39.95
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	3.63	3.63
	Net Loan-Closing	43.58	43.58	43.58	39.95	36.32
	Average Loan	43.58	43.58	43.58	41.76	38.13
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	3.46	3.46	3.46	3.31	3.02
	Rep Schedule	12 annual installments from 20.5.2017				
	<b>Total Loan</b>					
	Gross loan opening	6321.65	6446.16	6446.16	6446.16	6446.16
	Cumulative Repayment upto COD/previous year	474.42	886.92	1337.17	1860.34	2387.14
	Net Loan-Opening	5847.23	5559.24	5108.99	4585.82	4059.02
	Additions during the year	124.51	0.00	0.00	0.00	0.00
	Repayment during the year	412.50	450.25	523.17	526.80	526.80
	Net Loan-Closing	5559.24	5108.99	4585.82	4059.02	3532.21
	Average Loan	5703.24	5334.1	4847.4	4322.4	3795.61



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	Rate of Interest	8.9445%	8.9592 %	8.9597 %	8.9615 %	8.9644%
	<b>Interest</b>	510.13	477.90	434.31	387.35	340.25

