

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 60/TT/2018

Coram:

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

Date of Order: 06.07.2018

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 of 400 kV D/C Kishenpur-Samba transmission line along with bays at both ends, 01 no. 315 MVA, 400/220 kV ICT-I along with associated bays at Samba and 03 nos. 220 kV line bays under Northern Region Strengthening Scheme-XXII in Northern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

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

....Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Janpath, Jaipur - 302 005
Rajasthan, India.
2. Ajmer Vidyut Vitran Nigam Limited,
Vidyut Bhawan, Panchsheel Nagar,
Makarwali Road, Ajmer- 305004 Jaipur
3. Jaipur Vidyut Vitran Nigam Limited,
Vidyut Bhawan, Janpath, Jaipur - 302 005



4. Jodhpur Vidyut Vitran Nigam Limited,
New Power House, Industrial Area
Jodhpur-342003
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan Shimla
Himachal Pradesh -171004
6. Punjab State Electricity Board,
1st Floor, Patiala - 147001,
Opposite Kali Mata Mandir
Shakti Sadan
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector -6
Panchkula-134109
8. Power Development Department,
Exhibition Ground, PDD Building,
Jahangir Chowk - 190001, Srinagar;
9. Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226001, UP.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Marg,
New Delhi-110002
11. BSES Yamuna Power Limited, New Delhi
C-7, Yamuna Vihar, New Delhi - 110053
12. BSES Rajdhani Power limited,
33 KV Grid, BSES Bhawan,
Adchini, New Delhi -110017
13. North Delhi Power Limited,
Shakti Deep Building,
District Office Building,
Rohini Sector 3 New Delhi– 110085
14. Chandigarh Administration,
Union Territory
5th Floor, Secretariat Deluxe Building,
Sector - 9 - D Chandigarh– 160017



15. Uttarakhand Power Corporation Ltd.,
Victoria Cross Vijeyta Gabar Singh Bhawan,
Kanwali Road, Balliwala Chowk,
Dehradun-248001, Uttarakhand
16. North Central Railway,
Subedarganj, Doomanganj, Allahabad
Uttar Pradesh - 211011
17. New Delhi Municipal Council,
Palika Kendra, Parliament Street,
New Delhi-110001

.....Respondents

For Petitioner : Shri Vivek Kumar Singh, PGCIL
Shri S.S. Raju, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri V.P. Rastogi, PGCIL
Sri Rakesh Prasad, PGCIL

For Respondents : Shri R.B. Sharma, Advocate, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure of 2009-14 tariff period of 400 kV D/C Kishenpur-Samba transmission line along with bays at both ends, one 315 MVA, 400/220 kV ICT-I along with associated bays at Samba and three 220 kV line bays (hereinafter referred to as “transmission assets”) under Northern Region Strengthening Scheme-XXII in Northern Region (hereinafter referred to as “transmission scheme”) in Northern 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 capital expenditure for the period from COD i.e. 1.4.2013 to 31.3.2014 and for determination of tariff for the period from 1.4.2014 to 31.3.2019 under the Central



Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

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

(a) The Commission vide order dated 9.10.2015 in Petition No 35/TT/2013 had approved tariff of the instant assets for the period from 1.4.2013 to 31.3.2014.

(b) The investment approval for the scheme was accorded by Board of Directors of the petitioner company vide Memorandum No. C/CP/NRSS-XXII dated 15.12.2010 at an estimated cost of ₹20978 lakh, including IDC of ₹1212 lakh (based on 2nd Quarter, 2010 price level). Subsequently, Revised Cost Estimate (RCE) of the project was approved by Board of Directors on 18.1.2016 at an estimated cost of ₹18988 lakh including IDC of ₹808 lakh (based on August, 2015 price level).

(c) Details of the assets covered in the project and the petitions under which the assets are covered are summarized below:-

Name of the Asset	Actual COD	Tariff allowed
400 kV D/C Kishenpur-Samba T/L alongwith bays at both ends, one 315 MVA, 400/220 kV ICT-I alongwith associated bays at Samba and 03 nos. 220 kV line bays	1.4.2013	Petition No. 35/TT/2013 in Order dated 9.10.2015
400/220 kV 315 MVA ICT-II at Samba Sub-station alongwith associated bays and 3 nos. of 220 kV Line bays	1.4.2013	Petition No. 73/TT/2015 in Order dated 23.2.2016 in true up petition issued
One 400 kV, 80 MVAR Bus Reactor at Samba Sub-station alongwith associated bays	1.4.2013	



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"). BSES Rajdhani Power Limited (BRPL), Respondent No. 12 has filed reply vide affidavit dated 23.3.2018. The petitioner has filed rejoinder to the reply of BRPL, vide affidavit dated 3.5.2018. The issues raised by BRPL and the clarifications given by the petitioner are dealt in the respective para of this order.

4. The hearing in the matter was held on 8.5.2018. Having heard the representatives of the petitioner, respondents and perused the material on record, we proceed to dispose of the petition.

5. The capital cost allowed for the instant assets vide order dated 9.10.2015 in Petition No.35/TT/2013 is as follows:-

(₹ in lakh)	
Particulars	2013-14
Capital cost as on 1.4.2013 *	11673.85
Add: Additional capitalisation	1986.07
Add: Discharges of un-discharged liabilities	0.00
Sub-total	1986.07
Closing capital cost allowed	13659.92

* after reduction of un-discharged liabilities corresponding to IDC amounting to ₹282.76 lakh from the auditor certified capital cost of ₹11956.61 lakh.

6. The annual transmission charges approved vide order dated 9.10.2015 in Petition No. 35/TT/2013 is as follows:-

(₹ in lakh)	
Particulars	2013-14
Depreciation	635.63
Interest on Loan	778.74
Return on Equity	769.24
Interest on Working Capital	78.17
O&M Expenses	538.04
Total	2799.81



7. The petitioner has claimed the following trued up capital cost in the instant petition:-

(₹ in lakh)	
Particulars	2013-14
Capital cost as on 1.4.2013	11636.65
Add: Additional capitalisation	1986.07
Add: Discharges of un-discharged liabilities	319.97
Sub-total	2306.04
Closing capital cost allowed	13942.68

8. The petitioner has claimed following trued up annual transmission charges in the instant petition:-

(₹ in lakh)	
Particulars	2013-14
Depreciation	642.44
Interest on Loan	786.66
Return on Equity	776.70
Interest on Working Capital	78.67
O&M Expenses	538.04
Total	2822.51

Truing up of Annual Fixed Charges for Tariff Period 2009-14

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

Capital Cost

10. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(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.”

Capital cost allowed as on COD

11. The petitioner has claimed capital cost of ₹11636.65 lakh as on 1.4.2013 as against the admitted capital cost of ₹11673.85 lakh vide order dated 9.10.2015 in Petition No. 35/TT/2013. The reconciliation of the petitioner's claimed capital cost with the Auditor certified capital cost as on 1.4.2013 is as shown below:-

(₹ in lakh)	
Particulars	Amount
Capital cost as per auditor certificate *	11956.61
Less: Un-discharged liabilities corresponding to IDC included above	319.97
Capital cost claimed (on cash basis)	11636.65

* includes IDC amounting to ₹698.08 lakh.

12. In order dated 9.10.2015 in Petition No.35/TT/2013, IDC of ₹282.76 lakh as on COD was disallowed and the petitioner was directed to submit the IDC discharged and the IDC yet to be discharged at the time of truing up. Accordingly, the petitioner has submitted that out of total IDC of ₹698.08 lakh, ₹378.11 lakh was discharged as on COD and the IDC of ₹319.97 lakh accrued upto COD was discharged during 2013-14. Therefore, the IDC discharged upto COD has been included in the capital cost and the IDC discharged after COD, during 2013-14, is treated as additional capital expenditure.



Initial spares

13. The petitioner has submitted that Auditor certificate is prepared on cash basis and actual expenditure on spares incurred upto COD is included in COD cost. The petitioner has submitted that the initial spares claimed are marginally high and requested to allow initial spares considering the project as a whole under Regulation 44 of 2009 Tariff Regulations. The initial spares claimed by the petitioner for the sub-station is summarized in the table below:-

(₹ in lakh)		
Srl. No	Particulars	Initial spares
1	Expenditure in 2014-15	10.89
2	Expenditure in 2015-16	43.78
3	Expenditure in 2016-17	107.41
4	Expenditure in 2017-18	12.3
	Total	174.38

14. We have considered the submissions of the petitioner. The petitioner has claimed initial spares pertaining to sub-station and transmission line. The petitioner has claimed ₹37.29 lakh as on COD and ₹17.41 lakh for the period 2013-14 as initial spare for transmission line totalling to ₹54.70 lakh and for sub-station ₹2.79 lakh as on COD, ₹10.89 lakh for the period 2014-15, ₹43.78 lakh for period 2015-16, 107.41 lakh for period 2016-17 and ₹12.30 lakh for period 2017-18 adding upto ₹177.17 lakh for sub-station. We are not inclined to allow initial spares more than the limits specified in the tariff regulations. The details of the initial spares claimed and allowed upto cut-off date as per the 2009 Tariff Regulations for the instant asset is summarized below:-



(₹ in lakh)

Element	Total capital cost as on cut-off date (31.3.2016) (A)	Initial spares claimed (B)	Ceiling limits as per 2009 Tariff Regulations (C)	Initial Spares worked out (D)=((A-B)XC)/(100-C)%	Total excess initial spares	Initial spares allowed
Transmission line	7812.14	54.70	0.75%	58.62	0.00	54.70
Sub-station	7128.77	177.17	2.50%	178.25	0.00	177.17

15. Based on the above, the summary of capital cost allowed as on COD is ₹11636.65 lakh.

Additional Capital Expenditure

16. The Additional Capital Expenditure claimed by the petitioner on the basis of the Auditor certificate are as under:-

(₹ in lakh)

Particulars	Asset
ACE as per Auditor certificate	1986.07
Add: Discharge of undischarged liabilities corresponding to IDC	319.97
ACE claimed	2306.04

17. The additional capital expenditure claimed by the petitioner is within the “cut-off date” and accordingly it is allowed under Regulation 9(1)(i) of the 2014 Tariff Regulations.

18. In view of the above, the following capital cost has been considered for the purpose of computation of tariff for the period from COD to 31.3.2014.

(₹ in lakh)

Particulars	2013-14
Opening capital cost	11636.65
Add: ACE	2306.04
Closing capital cost	13942.68
Average capital cost	12789.66



Debt: Equity Ratio

19. The debt:equity ratio of 70:30, as admitted vide order dated 9.10.2015 in Petition No.35/TT/2013, has been considered as on COD. The same ratio of 70:30 ratio has been considered for the additional capital expenditure. The details of debt:equity ratio as on the COD and on 31.3.2014 considered for the purpose of truing up of the approved tariff for tariff period 2009-14 is as under:-

(₹ in lakh)

Particulars	Capital cost as on COD		ACE for 2013-14		Capital cost as on 31.03.2014	
	Amount	%	Amount	%	Amount	%
Debt	8145.66	70.00	1614.22	70.00	9759.88	70.00
Equity	3490.99	30.00	691.81	30.00	4182.80	30.00
Total	11636.65	100.00	2306.04	100.00	13942.68	100.00

Return on Equity ("ROE")

20. The petitioner has submitted that petitioner is liable to pay income tax at MAT rate. The petitioner has claimed RoE by grossing-up base rate of 16.00% with MAT rate for 2013-14, which is in order. RoE has been worked out by considering year wise MAT rate submitted by the petitioner in accordance with Regulation 15 of the 2009 Tariff Regulations. The variation in the tax rate during the 2009-14 tariff period applicable to the petitioner as per the Finance Act, 1961 of the relevant year for the purpose of grossing up of ROE is as under:-

(₹ in lakh)

Year	MAT rate	Grossed up ROE (base rate/1-t)
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610



21. The trued up ROE allowed for the instant transmission assets is as follows:-

(₹ in lakh)	
Particulars	2013-14
Opening Equity	3490.99
Addition due to Add Cap	691.81
Closing Equity	4182.80
Average Equity	3836.89
Return on Equity (Base Rate)	16.00%
Tax rate	20.96%
Rate of Return on Equity (Pre Tax)	20.243%
Return on Equity (Pre- Tax)	776.70

Interest on Loan (IOL)

22. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The petitioner has claimed the IOL based on actual interest rates for each year during the 2009-14 period. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate, in accordance with Regulation 16 of the 2009 Tariff Regulations.

23. In the calculations, the IoL has been worked out as detailed below:-

- i) The gross normative loan corresponding to approved debt-equity ratio as on 1.4.2013 works out to ₹8145.66 lakh.
- ii) Cumulative repayment as on 1.4.2013 has been considered as 'nil'.
- iii) Depreciation allowed for the period under consideration has been considered as repayment.
- iv) Average net loan is calculated as average of opening and closing.



v) WAROI has been computed based on details of loan and interest provided in the petition.

24. The details of weighted average rate of interest are given in **Annexure-I**. The IOL allowed under Regulation 16 of the 2009 Tariff Regulations is as follows:-

Particulars	(₹ in lakh)
	2013-14
Gross Normative Loan	8145.66
Cumulative repayment	0.00
Net Loan Opening	8145.66
Addition due to ACE	1614.22
Repayment of loan during the year/period	642.44
Net Loan Closing	9117.44
Average Loan	8631.55
WAROI	9.114%
Interest on Loan	786.66

Depreciation

25. The instant assets have been put under commercial operation during 1.4.2013 and they will complete 12 years of life after 31.3.2014. Accordingly, depreciation has been calculated annually based on Straight Line Method and at rates specified in the 2009 Tariff Regulations. The depreciation for the tariff period 2009-14 has been trued up in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under:-

Particulars	(₹ in lakh)
	2013-14
Opening Gross Block	11636.65
Addition during 2013-14	2306.04
Closing Gross Block	13942.68
Average Gross Block	12789.66
Rate of Depreciation	5.0231%
Depreciable Value	11510.70
Remaining Depreciable Value	11510.70
Depreciation	642.44



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

26. The petitioner has claimed the same O&M Expenses that were approved in orders dated 9.10.2015 in Petition No. 35/TT/2013 for the year 2013-14. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

	(₹ in lakh)
Approved in order dated 9.10.2015 in Petition No. 35/TT/2013	538.04
Claimed by the petitioner	538.04
Allowed in this order	538.04

Interest on Working Capital (IWC)

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

(i) Maintenance Expenses

Regulation 18(1)(c)(ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses. The value of maintenance spares has accordingly been worked out.

(ii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.



(iii) Receivables

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

(iv) Rate of interest on working capital

As provided under Regulation 18(3) of the 2009 Tariff Regulations, SBI Base rate plus 350 BPS have been considered as the rate of interest on working capital.

28. The trued up IWC in case of instant assets is as under:-

(₹ in lakh)	
Particulars	2013-14
Maintenance Spares	80.71
O & M expenses	44.84
Receivables	470.42
Total	595.96
Rate of Interest (%)	13.20%
Interest	78.67

ANNUAL TRANSMISSION CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)	
Particulars	2013-14
Depreciation	642.44
Interest on Loan	786.66
Return on Equity	776.70
Interest on Working Capital	78.67
O & M Expenses	538.04
Total	2822.51



DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

30. The true-up tariff for the instant transmission system up to 2009-14 tariff period has been granted based on the actual COD/tariff COD of individual assets irrespective of the fact whether project as a whole is completed or not. This leads to granting of multiple tariffs for the assets covered under the single project/transmission system. The Commission, vide Regulation 6 of the 2014 Tariff Regulations has brought in the concept of a single consolidated petition to be submitted by the petitioner where it is provided that if all the elements of a transmission system have been declared under commercial operation prior to 1.4.2014, then a single tariff can be granted for all the assets covered under such a single project/transmission system. However, to determine a single transmission tariff for different assets after combining them, as per the 2014 Tariff Regulations, the concept of effective date of commercial operation and weighted average life has also been introduced in Regulation 27 pertaining to Depreciation of the 2014 Tariff Regulations. The relevant portions of Regulation 6 and Regulation 27 of the 2014 Tariff Regulations are as follows:-

“6. Tariff determination

- (1) Tariff in respect of a generating station may be determined for the whole of the generating station or stage or generating unit or block thereof, and tariff in respect of a transmission system may be determined for the whole of the transmission system or transmission line or sub-station or communication system forming part of transmission system:

Provided that:

- (i) where all the generating units of a stage of a generating station or all elements of a transmission system have been declared under commercial operation prior to 1.4.2014, the generating company or the transmission licensee, as the case may be, shall file consolidated petition in respect of the entire generating station or transmission system for the purpose of



determination of tariff for the period 2014- 15 to 2018-19:

Xxx
Xxx”

“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.

Xxx
Xxx”

(3) 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. Xxx Xxx”

31. The petitioner has claimed the following transmission charges for instant asset for the 2014-19 tariff period:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	711.78	735.76	761.76	775.40	777.79
Interest on Loan	811.89	777.39	741.05	688.46	621.55
Return on Equity	858.80	889.11	920.63	938.03	942.13
Interest on Working Capital	82.19	83.56	84.98	85.46	85.06
O&M Expenses	495.13	511.58	528.57	546.10	564.22
Total	2959.79	2997.40	3036.99	3033.45	2990.75



32. The petitioner has claimed the capital cost for instant asset for the 2014-19 tariff period as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	13942.68	14340.21	14940.91	15378.44	15513.74
Add: Actual / Projected Additional capitalisation	397.53	600.70	437.53	135.30	0.00
Closing capital cost	14340.21	14940.91	15378.44	15513.74	15513.74

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

(₹ in lakh)						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	80.71	74.27	76.74	79.29	81.92	84.63
O & M expenses	44.84	41.26	42.63	44.05	45.51	47.02
Receivables	470.42	493.30	499.57	506.17	505.58	498.46
Total	595.97	608.83	618.94	629.51	633.01	630.11
Rate of Interest (%)	13.20	13.50	13.50	13.50	13.50	13.50
Interest	78.67	82.19	83.56	84.98	85.46	85.06

Capital Cost

34. 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:

- 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;
- additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

35. The petitioner has claimed capital cost of ₹13942.68 lakh as on 1.4.2014. The



capital cost claimed by the petitioner is same that has been admitted above as on 31.3.2014. Accordingly, ₹13942.68 lakh has been considered as opening capital cost as on 1.4.2014. The details of element wise capital cost (land, building, transmission line, sub-station and PLCC) as on 1.4.2014 are as under:-

(₹ in lakh)	
Particulars	
Freehold Land	-
Leasehold Land	1,491.80
Building & Other Civil Works	286.78
Transmission Line	7,802.64
Sub-Station Equipments	4,278.17
PLCC	83.29
total	13,942.68

Additional Capital Expenditure

36. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:-

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

.....

(i) Undischarged liabilities recognized to be payable at a future date;

Clause 3, sub-clause (v) Regulation 14 of the 2014 Tariff Regulations provides as follows:

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

37. The petitioner has claimed the following projected additional capital expenditure during the 2014-19 tariff period and has submitted the Auditor Certificate dated 1.9.2017 in support.



(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	Total
397.53	600.70	437.53	135.30	1571.06

The additional capital expenditure claimed by the petitioner includes the initial spares amounting to ₹174.38 lakh.

38. The petitioner has submitted that the work of the project was hampered severely due to militant activities in Samba, Kathua and Pathankot area and terror attacks in close vicinity of Samba Sub-station. As a result, labour working at the site left the site collectively because of life threat and it took lot of time to bring them back at site, thus hampering the progress/ work at site which resulted in spill-over of balance work/payment beyond the cut-off date. In view of above, the petitioner has prayed to admit the additional capital expenditure after cut-off date and allow tariff accordingly, under Regulation 14(3)(v) and 14(3)(vi) of the 2014 Tariff Regulations.

39. BRPL, in its reply, has submitted that the claim of additional capitalization amounting to ₹397.53 lakh for 2014-15 and ₹ 600.70 lakh during 2015-16 towards retention payment under Regulation 14(1)(i) of the 2014 Tariff Regulations is usual payment as allowed under the Regulation. The petitioner has also claimed an additional capitalization amounting to ₹155.79 lakh for 2016-17 and ₹ 52.67 lakh during 2017-18 towards Balance works under Regulation 14(3)(vi) of the 2014 Tariff Regulations. BRPL has submitted that the claim under Regulation 14(3)(vi) of the 2014 Tariff Regulations can be made only if the liability for works has been admitted by the Commission after the cut-off date. To meet the requirement of this Regulation, the Petitioner was expected to furnish the details of the works asset



wise/ work wise included in the original scope of work along with estimates of expenditure and such other information for the works deferred for execution is required to be submitted with the application for determination of tariff under Regulation 14(1) of the Tariff Regulations, 2014. As the liability for works after the cut-off date has not been admitted, the claim of the petitioner is liable to be rejected by the Commission. BRPL has submitted that the petitioner has also claimed an additional capitalization amounting to ₹301.79 lakh for 2016-17 and ₹82.63 lakh during 2017-18 towards retention payment under Regulation 14(3)(v) of the 2014 Tariff Regulations. The claim under Regulation 14(3)(v) of the 2014 Tariff Regulations can be made only if the works are executed prior to the cut-off date. The petitioner has not submitted any proof indicating that the works for which additional capitalization have been claimed, were completed before the cut-off date. Accordingly, the claim of the petitioner on this issue is liable to be rejected.

40. We have considered the submissions submitted by the petitioner and respondents. The date of commercial operation of instant assets is 1.4.2013. Accordingly, the cut-off date is 31.3.2016. The petitioner has submitted the details of additional capitalisation after COD in Form-7 and same is as under:-

(₹ in lakh)						
Srl. No.	Year	Work/Equipment proposed to be added after COD upto cut off date/beyond cut-off date	Amount capitalised and proposed to be capitalised	Contractor details	Justification	Regulation under which covered
1	2014-15	Building	39.71		Retention payment	14(1)(i)
2	2014-15	Transmission line	9.50		Retention payment	14(1)(i)
3	2014-15	Sub-station	258.88		Retention payment	14(1)(i)
4	2014-15	Leasehold land	89.44		Retention payment	14(1)(i)
	Total		397.53			



5	2015-16	Building	114.97		Retention payment	14(1)(i)
6	2015-16	Sub-station	485.73		Retention payment	14(1)(i)
	Total		600.7			
7	2016-17	Building	21.05	Misc. Petty Contractors	Balance works towards construction of boundary wall, land scraping work etc.	14(3)(vi)
	2016-17	Building	3.86	Misc. Petty Contractors	Retention payment towards slop protection work	14(3)(v)
8	2016-17	Sub-station	104.87	Seimens, GE T & D India limited and other contractor	Balance works towards supply of spare, inspection fee etc.	14(3)(vi)
	2016-17	-	286.71	GE T&D India limited and other contractors	Retention payment towards supply of line trap, etc.	14(3)(v)
9	2016-17	PLCC	9.82	GE T&D India limited	Balance works towards supply of line trap	14(3)(vi)
10	2016-17	Leasehold land	11.22	Land compensation	Retention payment towards land payment	14(3)(v)
	Total		437.53			
11	2017-18	Building	46.72	Misc. Petty Contractors	Balance works towards construction of boundary wall, land scraping work etc.	14(3)(vi)
	2017-18	Building	25.40	Misc. Petty Contractors	Retention payment towards construction of boundary wall, land scaping work etc.	14(3)(v)
12	2017-18	Sub-station	5.95	Seimens	Balance works towards supply of accessories etc.	14(3)(vi)
	2017-18	Sub-station	7.23	Misc. Petty Contractors	Retention payment towards electrification etc.	14(3)(v)
13	2017-18	Leasehold land	50.00	land payment	Retention payment towards land payment	14(3)(v)
	Total		135.30			



41. The petitioner has claimed additional capitalisation upto cut-off date in accordance with 14(1)(i) of 2014 Tariff Regulations and the add-cap after cut-off date in accordance with 14(3)(v) and 14(3)(vi) of the 2014 Tariff Regulations. The petitioner vide affidavit dated 19.12.2017 and Auditor certificate dated 1.9.2017 has submitted add-cap of ₹397.53 lakh during 2014-15, ₹600.70 lakh during 2015-16, ₹437.53 lakh during 2016-17 and ₹135.30 lakh during 2017-18 totalling to ₹1571.06 lakh. The add-cap of ₹397.53 lakh during 2014-15, ₹600.70 lakh during 2015-16 claimed by the petitioner is upto cut-off date i.e. 31.3.2016 and it is in accordance with Regulation 14(1)(i) of 2014 Tariff Regulations and hence same is allowed. Further, the petitioner has claimed add-cap during 2016-17 and 2017-18 which is after cut-off date. The petitioner has claimed that add-cap after the cut-off date is in accordance with Regulation 14(3)(v) and 14(3)(vi) of the 2014 Tariff Regulations. The petitioner was not able to complete the work within the cut-off date due to militant activities and it is beyond the control of the petitioner. Further, the cost is within the total revised approved cost of ₹16398.60 lakh and hence the add-cap after the cut-off date is allowed. The add-cap allowed for the instant assets for 2014-19 period is as under:-

				(₹ in lakh)
Additional capital expenditure allowed				Total Additional capital expenditure allowed
2014-15	2015-16	2016-17	2017-18	
397.53	600.70	437.53	135.30	1571.06

42. The following capital cost has been considered for the purpose of 2014-19 tariff period:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	13942.68	14340.21	14940.91	15378.44	15513.74
Add: ACE	397.53	600.70	437.53	135.30	0.00
Closing capital cost	14340.21	14940.91	15378.44	15513.74	15513.74
Average capital cost	14141.45	14640.56	15159.68	15446.09	15513.74

Debt:Equity Ratio

43. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

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

44. The debt: equity ratio of 70: 30 was admitted after true-up for the tariff period ending 31.3.2014 for instant assets. The same debt: equity ratio i.e. 70: 30 of combined asset has been considered for add-cap during 2014-19 as well. The gross normative loan and equity of ₹9759.88 lakh and ₹4182.80 lakh considered as on 31.03.2014 has been retained on 1.4.2014 for the purpose of tariff. The details of the debt: equity considered for the purpose of ACE for the 2014-19 tariff period are as under:-

(₹ in lakh)					
Particulars	%	2014-15	2015-16	2016-17	2017-18
Debt	70.00	278.27	420.49	306.27	94.71
Equity	30.00	119.26	180.21	131.26	40.59
Total	100.00	397.53	600.70	437.53	135.30

Interest on Loan (“IOL”)

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

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



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

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

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

46. The normative IoL has been computed as under:-

- i) The gross normative loan amounting to ₹9759.88 lakh as stated above has been considered as on 1.4.2014.
- ii) Cumulative repayment of ₹642.44 lakh considered as on 31.3.2014 has been retained as on 1.4.2014.
- iii) Depreciation allowed for the period under consideration has been considered as repayment.
- iv) Average net loan is calculated as average of opening and closing.
- v) The petitioner has claimed interest on normative loan considering WAROI of 9.12% for the period 2014-16, 9.10% for the year 2016-17, 9.09% for the year 2017-18 and 9.08% for the year 2018-19. However, considering the details of actual loan and rate of interest, as provided by the Petitioner, the WAROI has been worked out and has been considered for the purpose of tariff, subject to true-up.

47. The interest on normative loan computation is as shown below:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross notional opening	9759.88	10038.15	10458.64	10764.91	10859.62
Cumulative Repayment up to previous year	642.44	1354.23	2090.00	2851.76	3627.17
Net Loan-Opening	9117.44	8683.93	8368.64	7913.15	7232.45
Additions during the year	278.27	420.49	306.27	94.71	0.00
Repayment during the year	711.79	735.77	761.77	775.41	777.79
Net Loan-Closing	8683.93	8368.64	7913.15	7232.45	6454.66
Average Loan	8900.68	8526.29	8140.90	7572.80	6843.56
Rate of Interest (%)	9.122%	9.118%	9.103%	9.091%	9.082%
Interest	811.90	777.39	741.05	688.46	621.55

Return on Equity (“ROE”)

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

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

“25. Tax on Return on Equity:

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

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

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.”

49. The petitioner has submitted ROE by grossing up base rate of 16% with the MAT rate for 2014-15 with MAT rate as per the above regulation. The petitioner has



further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under recovery or over recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis. 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.

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4182.80	4302.06	4482.27	4613.53	4654.12
Additional Capitalization	119.26	180.21	131.26	40.59	0.00
Closing Equity	4302.06	4482.27	4613.53	4654.12	4654.12



Average Equity	4242.43	4392.16	4547.90	4633.82	4654.12
Rate of Return on Equity (Pre-tax) (%)	20.243%	20.243%	20.243%	20.243%	20.243%
Return on Equity (Pre-tax)	858.79	889.11	920.63	938.02	942.13

Depreciation

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

"27. Depreciation:

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

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

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

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

52. The petitioner has claimed depreciation considering weighted average rate of depreciation (WAROD) of 5.03% for the period 2014-16, 5.02% for the period 2016-18 and 5.01% for the year 2018-19. However, considering the rates of depreciation as annexed at Appendix-II to the Tariff Regulations, 2014 the WAROD works out to 5.033% for the year 2014-15, 5.026% for the year 2015-16, 5.025% for the year 2016-17, 5.020% for the year 2017-18 and 5.014% for the year 2018-19, the same has been considered subject to true-up.



53. The depreciation calculation is as shown below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average capital cost	14141.45	14640.56	15159.68	15446.09	15513.74
Depreciable value	12727.30	13176.50	13643.71	13901.48	13962.37
Remaining depreciable value	12084.86	11822.28	11553.71	11049.72	10335.20
Rate of depreciation	5.033%	5.026%	5.025%	5.020%	5.014%
Depreciation	711.79	735.77	761.77	775.41	777.79

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

54. The O & M Expenses for instant asset claimed by the petitioner for 2014-19 are as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	495.13	511.58	528.57	546.10	564.22

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

(₹ in lakh)					
Element	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV (₹ in lakh/bay)	60.30	62.30	64.37	66.51	68.71
220 kV (₹ in lakh/bay)	42.21	43.61	45.06	46.55	48.10
Double Circuit (Twin & triple Conductor) (₹ in lakh/km)	0.707	0.731	0.755	0.780	0.806

56. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored



in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

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

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses claimed	495.13	511.58	528.57	546.10	564.22
O&M Expenses allowed	495.13	511.58	528.57	546.10	564.22

Interest on Working Capital (“IWC”)

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

“28. Interest on Working Capital

(c)(i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29;and

(iii) Operation and maintenance expenses for one month”



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

60. The components of the working capital and interest thereon admissible to the petitioner have been computed as under:-

i) **Receivables:** It has been worked out on the basis of 2 months transmission charges.

ii) **Maintenance Spares:** It has been worked out @ 15% of the O&M expenses approved above.

iii) **O&M Expenses:** It has been worked out on the basis of 1 months of O&M expenses approved above.

iv) **Rate of Interest on Working Capital:** In line with the Regulation rate of interest on working capital has been considered as 13.50% (i.e. SBI base rate of 10% as on 1.4.2014 plus 350 basis points).

61. Necessary computation in respect of interest on working capital is as shown below:-

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	74.27	76.74	79.29	81.92	84.63
O & M Expenses	41.26	42.63	44.05	45.51	47.02
Receivables	493.30	499.57	506.17	505.57	498.46
Total	608.83	618.94	629.50	633.00	630.11
Rate of Interest (%)	13.500%	13.500%	13.500%	13.500%	13.500%
Interest	82.19	83.56	84.98	85.45	85.06



Annual Transmission Charges

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	711.79	735.77	761.77	775.41	777.79
Interest on Loan	811.90	777.39	741.05	688.46	621.55
Return on Equity	858.79	889.11	920.63	938.02	942.13
Interest on Working Capital	82.19	83.56	84.98	85.45	85.06
O & M Expenses	495.13	511.58	528.57	546.10	564.22
Total	2959.80	2997.40	3037.00	3033.45	2990.76

63. 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, filing fees, license fee, RLDC fees and charges or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. BPRL submitted that there is no provision in 2014 Tariff Regulations for claim to levies, duties, cess or any other statutory taxes etc. and these charges are generally included in the O&M Expenses. The petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the petitioner can make other claims as per the 2014 Tariff Regulations.

64. BRPL further submitted that one of the agencies may be asked to represent the interest of consumer in the instant petition, as the representation and participation in the proceedings is integral part of hearing in terms of Section 94(3) of the Electricity Act, 2003. In response, the petitioner submitted that there is no need to appoint any



agency as the petitioner has provided a copy of the petition to the beneficiaries and published notices in newspapers inviting comments of general public.

Filing Fee and Publication Expenses

65. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. BRPL submitted that the increase in the employee cost, if any, due to wage revision must be taken care by improvement in their productivity levels by the petitioner company so that the beneficiaries are not unduly burdened over and above the provisions made in the 2014 Tariff Regulations. The petitioner is entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

66. The petitioner has requested to allow the petitioner to bill and recover 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

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



is premature.

Goods and Services Tax

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

Sharing of Transmission Charges

69. Tariff for Transmission of Electricity (Annual Fixed Cost) shall be recovered on monthly basis in accordance with Regulation 43 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 dated 15.06.2010 and amendment to these Regulations issued vide order dated 30.11.2012 or as amended from to time.

70. This order disposes of Petition No. 60/TT/2018.

sd/-

(Dr. M. K. Iyer)
Member

sd/-

(A. S. Bakshi)
Member

sd/-

(A. K. Singhal)
Member

sd/-

(P. K. Pujari)
Chairperson



Annexure-I

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR
TARIFF PERIOD 2013-14 FOR ASSET-I**

	Details of Loan	2013-14
1	Bond XXXIV	
	Gross loan opening	826.97
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	826.97
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	826.97
	Average Loan	826.97
	Rate of Interest	8.84%
	Interest	73.10
	Rep Schedule	12 annual installments from 21.10.2014
2	Bond XXXVI	
	Gross loan opening	200.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	9.35%
	Interest	18.70
	Rep Schedule	15 annual installments from 29.8.2016.
3	Bond XXXVII	
	Gross loan opening	2300.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	2300.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2300.00
	Average Loan	2300.00
	Rate of Interest	9.25%
	Interest	212.75
	Rep Schedule	12 annual installments from 26.12.2015.
4	Bond XL	
	Gross loan opening	2520.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	2520.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2520.00
	Average Loan	2520.00
	Rate of Interest	9.30%
	Interest	234.36



	Rep Schedule	12 annual installments from 28.6.2016
5	Bond XLII (Add. Cap. 2013-2014)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	302.13
	Repayment during the year	0.00
	Net Loan-Closing	302.13
	Average Loan	151.07
	Rate of Interest	8.80%
	Interest	13.29
	Rep Schedule	Bullet Payment as on 13.3.2023
6	Bond XLII	
	Gross loan opening	1422.08
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	1422.08
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1422.08
	Average Loan	1422.08
	Rate of Interest	8.80%
	Interest	125.14
	Rep Schedule	Bullet Payment as on 13.3.2023
7	Bond XLIII (Add. Cap. 2013-2014)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	538.93
	Repayment during the year	0.00
	Net Loan-Closing	538.93
	Average Loan	269.47
	Rate of Interest	7.93%
	Interest	21.37
	Rep Schedule	12 annual installments from 20.5.2017
8	SBI (21.3.2012) - Add. Cap. 2013-2014	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	748.00
	Repayment during the year	0.00
	Net Loan-Closing	748.00
	Average Loan	374.00
	Rate of Interest	10.29%
	Interest	38.49
	Rep Schedule	22 Half Yearly Installment from 31.8.2016
9	Bond XLI	
	Gross loan opening	876.60



	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	876.60
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	876.60
	Average Loan	876.60
	Rate of Interest	8.85%
	Interest	77.58
	Rep Schedule	12 annual installments from 19.10.2016
	Total Loan	
	Gross loan opening	8145.65
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	8145.65
	Additions during the year	1589.06
	Repayment during the year	0.00
	Net Loan-Closing	9734.71
	Average Loan	8940.18
	Rate of Interest	9.114%
	Interest	814.79



Annexure-II

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

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening	826.97	826.97	826.97	826.97	826.97
Less: Cumulative Repayment		68.91	137.83	206.74	275.66
Net Opening Loan	826.97	758.06	689.14	620.23	551.31
Add: Drawl during the year / period					
Less: Repayment during the year / period	68.91	68.91	68.91	68.91	68.91
Net Closing Loan	758.06	689.14	620.23	551.31	482.40
Average Loan	792.51	723.60	654.68	585.77	516.86
ROI	8.840%	8.840%	8.840%	8.840%	8.840%
Interest	70.06	63.97	57.87	51.78	45.69
Gross Opening	200.00	200.00	200.00	200.00	200.00
Less: Cumulative Repayment		-	-	13.33	26.67
Net Opening Loan	200.00	200.00	200.00	186.67	173.33
Add: Drawl during the year / period					
Less: Repayment during the year / period			13.33	13.33	13.33
Net Closing Loan	200.00	200.00	186.67	173.33	160.00
Average Loan	200.00	200.00	193.33	180.00	166.67
ROI	9.350%	9.350%	9.350%	9.350%	9.350%
Interest	18.70	18.70	18.08	16.83	15.58
Gross Opening	2300.00	2300.00	2300.00	2300.00	2300.00
Less: Cumulative Repayment		-	191.67	383.33	575.00
Net Opening Loan	2300.00	2300.00	2108.33	1916.67	1725.00
Add: Drawl during the year / period					
Less: Repayment during the year / period		191.67	191.67	191.67	191.67
Net Closing Loan	2300.00	2108.33	1916.67	1725.00	1533.33
Average Loan	2300.00	2204.17	2012.50	1820.83	1629.17
ROI	9.250%	9.250%	9.250%	9.250%	9.250%
Interest	212.75	203.89	186.16	168.43	150.70
Gross Opening	2520.00	2520.00	2520.00	2520.00	2520.00
Less: Cumulative Repayment		-	-	210.00	420.00
Net Opening Loan	2520.00	2520.00	2520.00	2310.00	2100.00
Add: Drawl during the year / period					
Less: Repayment during the year / period			210.00	210.00	210.00
Net Closing Loan	2520.00	2520.00	2310.00	2100.00	1890.00



Average Loan	2520.00	2520.00	2415.00	2205.00	1995.00
ROI	9.300%	9.300%	9.300%	9.300%	9.300%
Interest	234.36	234.36	224.60	205.07	185.54
Gross Opening	1724.21	1724.21	1724.21	1724.21	1724.21
Less: Cumulative Repayment			-	-	-
Net Opening Loan	1724.21	1724.21	1724.21	1724.21	1724.21
Add: Drawl during the year / period					
Less: Repayment during the year / period					
Net Closing Loan	1724.21	1724.21	1724.21	1724.21	1724.21
Average Loan	1724.21	1724.21	1724.21	1724.21	1724.21
ROI	8.800%	8.800%	8.800%	8.800%	8.800%
Interest	151.73	151.73	151.73	151.73	151.73
Gross Opening	538.93	538.93	538.93	538.93	538.93
Less: Cumulative Repayment		-	-	-	44.91
Net Opening Loan	538.93	538.93	538.93	538.93	494.02
Add: Drawl during the year / period					
Less: Repayment during the year / period				44.91	44.91
Net Closing Loan	538.93	538.93	538.93	494.02	449.11
Average Loan	538.93	538.93	538.93	516.47	471.56
ROI	7.930%	7.930%	7.930%	7.930%	7.930%
Interest	42.74	42.74	42.74	40.96	37.40
Gross Opening	748.00	748.00	748.00	853.52	853.52
Less: Cumulative Repayment		-	-	77.59	155.19
Net Opening Loan	748.00	748.00	748.00	775.93	698.33
Add: Drawl during the year / period			105.52		
Less: Repayment during the year / period			77.59	77.59	77.59
Net Closing Loan	748.00	748.00	775.93	698.33	620.74
Average Loan	748.00	748.00	761.96	737.13	659.54
ROI	10.250%	10.250%	10.250%	10.250%	10.250%
Interest	76.67	76.67	78.10	75.56	67.60
Gross Opening	876.60	876.60	876.60	876.60	876.60
Less: Cumulative Repayment		-	-	73.05	146.10
Net Opening Loan	876.60	876.60	876.60	803.55	730.50
Add: Drawl during the year / period					
Less: Repayment during the year / period			73.05	73.05	73.05
Net Closing Loan	876.60	876.60	803.55	730.50	657.45
Average Loan	876.60	876.60	840.08	767.03	693.98
ROI	8.850%	8.850%	8.850%	8.850%	8.850%
Interest	77.58	77.58	74.35	67.88	61.42
Gross Opening		278.27	335.22	335.22	335.22
Less: Cumulative Repayment					



		-	-	-	-
Net Opening Loan	-	278.27	335.22	335.22	335.22
Add: Drawl during the year / period	278.27	56.95			
Less: Repayment during the year / period					
Net Closing Loan	278.27	335.22	335.22	335.22	335.22
Average Loan	139.14	306.75	335.22	335.22	335.22
ROI	9.300%	9.300%	9.300%	9.300%	9.300%
Interest	12.94	28.53	31.18	31.18	31.18
Gross Opening			245.00	245.00	245.00
Less: Cumulative Repayment					
Net Opening Loan			245.00	245.00	245.00
Add: Drawl during the year / period		245.00			
Less: Repayment during the year / period					20.42
Net Closing Loan	-	245.00	245.00	245.00	224.58
Average Loan	-	122.50	245.00	245.00	234.79
ROI	-	8.930%	8.930%	8.930%	8.930%
Interest	-	10.94	21.88	21.88	20.97
Gross Opening			94.00	94.00	94.00
Less: Cumulative Repayment		-			
Net Opening Loan	-	-	94.00	94.00	94.00
Add: Drawl during the year / period		94.00			
Less: Repayment during the year / period					
Net Closing Loan	-	94.00	94.00	94.00	94.00
Average Loan	-	47.00	94.00	94.00	94.00
ROI	-	8.200%	8.200%	8.200%	8.200%
Interest	-	3.85	7.71	7.71	7.71
Gross Opening			24.54	28.00	28.00
Less: Cumulative Repayment		-			
Net Opening Loan	-	-	24.54	28.00	28.00
Add: Drawl during the year / period		24.54	3.46		
Less: Repayment during the year / period					
Net Closing Loan	-	24.54	28.00	28.00	28.00
Average Loan	-	12.27	26.27	28.00	28.00
ROI	-	8.150%	8.150%	8.150%	8.150%



Interest	-	1.00	2.14	2.28	2.28
Gross Opening		-	-	100.34	100.34
Less: Cumulative Repayment					
Net Opening Loan	-	-	-	100.34	100.34
Add: Drawl during the year / period			100.34		
Less: Repayment during the year / period					
Net Closing Loan	-	-	100.34	100.34	100.34
Average Loan	-	-	50.17	100.34	100.34
ROI			8.400%	8.400%	8.400%
Interest	-	-	4.21	8.43	8.43
Gross Opening		-	-	96.95	96.95
Less: Cumulative Repayment					
Net Opening Loan				96.95	96.95
Add: Drawl during the year / period			96.95		
Less: Repayment during the year / period					
Net Closing Loan	-	-	96.95	96.95	96.95
Average Loan	-	-	48.48	96.95	96.95
ROI			8.400%	8.400%	8.400%
Interest	-	-	4.07	8.14	8.14
Gross Opening	9734.71	10012.98	10433.47	10739.74	10739.74
Less: Cumulative Repayment	-	68.91	329.50	964.05	1643.52
Net Opening Loan	9734.71	9944.07	10103.98	9775.69	9096.22
Add: Drawl during the year / period	278.27	420.49	306.27		
Less: Repayment during the year / period	68.91	260.58	634.56	679.47	699.88
Net Closing Loan	9944.07	10103.98	9775.69	9096.22	8396.34
Average Loan	9839.39	10024.02	9939.83	9435.95	8746.28
ROI	9.122%	9.118%	9.103%	9.091%	9.082%
Interest	897.52	913.95	904.81	857.85	794.36

