

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 42/TT/2017

Coram:

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

Date of Order : 29.08.2017

In the matter of:

Truing up of transmission tariff of 2009-14 tariff period under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Asset-I (a): 400 kV Line Bays at Biharshariff Sub-station along-with 1x80 MVAR Switchable Line Reactor (for the 400 kV D/C Purnea-Biharshariff Transmission line) Asset-I (b): 1x80 MVAR Switchable Line Reactor (at Biharshariff Sub-station) Asset-II: 400 kV Line Bays at Purnea Sub-station (for the 400 kV D/C Purnea-Biharshariff Transmission line) under Transmission Schemes (in Eastern Region) for enabling import of NER/ER surplus power by NR 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**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Vidyut Marg,
Jaipur - 302005
2. Ajmer Vidyut Vitran Nigam Limited
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited



- 400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Limited
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
 5. Himachal Pradesh State Electricity Board
Vidyut Bhawan
Kumar House Complex Building II
Shimla-171004
 6. Punjab State Electricity Board
The Mall, Patiala-147001
 7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109
 8. Power Development Deptt.
Government of Jammu & Kashmir
Mini Secretariat, Jammu
 9. Uttar Pradesh Power Corporation Limited
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg
Lucknow - 226 001
 10. Delhi Transco Ltd.
Shakti Sadan, Kotla Road,
New Delhi-110002
 11. BSES Yamuna Power Ltd.
BSES Bhawan, Nehru Place,
New Delhi.
 12. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Place,
New Delhi
 13. North Delhi Power Ltd.
Power Trading and Load Dispatch Group
Cennet Building, Adjacent to 66/11 kV Pitampura-3
Grid Building, Near PP Jewellers
Pitampura, New Delhi-110 034.



14. Chandigarh Administration
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Ltd.
Urja Bhawan, Kanwali Road,
Dehradun.
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. Sterlite Industries (I) Limited,
Sipcot Industrial Complex,
Madurai Bypass Road, TV Puram P.O.,
Tuticorin-628 002, Tamil Nadu.

.....**Respondents**

For Petitioner : Shri Jasbir Singh, PGCIL
Shri R. Prasad, PGCIL
Shri S. S. Raju, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Rakesh P.D., PGCIL

For Respondents : Sh. 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 for Asset-I (a): 400 kV Line Bays at Biharshariff Sub-station alongwith 1x80 MVAR Switchable Line Reactor (for the 400 kV D/C Purnea-Biharshariff Transmission line); Asset-I (b): 1x80 MVAR Switchable Line Reactor (at Biharshariff Sub-station); Asset-II: 400 kV Line Bays at Purnea Sub-station (for the 400 kV D/C Purnea-Biharshariff Transmission line) under Transmission Schemes (in Eastern Region) for enabling import of NER/ER surplus power by NR (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 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 details of the assets covered in the instant project are as follows:-

At Bongaigaon (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, without reactors

At Siliguri (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, each with 80 MVAR switchable line reactors

At Purnea (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, without reactors

At Biharsharif (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, each with 80 MVAR switchable line reactors

3. The instant petition covers 2 nos. 400 kV Line Bays alongwith 80 MVAR switchable line reactors at Biharsharif Sub-station alongwith and 400 kV Line Bays at Purnea Sub-station. The transmission tariff for the 2009-14 tariff was allowed for these elements vide order dated 30.6.2015 in Petition No. 99/TT/2013. The remaining assets covered in the project, i.e. 2 nos. of 400 kV line bays at Bongaigaon 400 kV Sub-station and the 2 nos. 400 kV line bays with 80 MVAR switchable line reactors at Siliguri were commissioned during the



2014-19 tariff period and the petitioner has claimed tariff for the said assets for the 2014-19 tariff period in Petition No.100/TT/2017.

4. The final tariff allowed for the instant assets in order dated 30.6.2015 was based on the following capital cost from 1.10.2013 (tariff date):-

(₹ in lakh)			
Particulars	Capital Cost as on tariff date	Additional Capitalization 2013-14	Total estimated cost
Asset-1 (a)	1810.25	380.51	2190.76
Asset-1(b)	365.86	101.86	467.72
Asset-2	1291.56	294.73	1586.29

5. The transmission tariff approved by the Commission for the instant assets, vide order dated 30.6.2015 in Petition No.99/TT/2013, are as follows:-

(₹ in lakh)			
Particulars	Asset-1(a)	Asset-1(b)	Asset-2
	2013-14 (pro-rata)	2013-14 (pro-rata)	2013-14 (pro-rata)
Depreciation	53.19	11.00	38.21
Interest on Loan	63.68	14.05	45.41
Return on Equity	52.46	10.93	37.73
Interest on Working Capital	9.11	2.58	6.26
O & M Expenses	98.19	32.73	65.46
Total	276.63	71.28	193.08

6. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003 ("the Act"). The petitioner has served the petition on the respondents. BSES Rajdhani Power Limited (BRPL), Respondent No. 12 has filed reply vide affidavit dated 28.4.2017. The petitioner has filed rejoinder to the reply of BRPL, vide affidavit dated 8.5.2017. The issues raised by BRPL and the clarifications given by the petitioner are dealt with in the respective para of this order.



7. The hearing in the matter was held on 11.5.2017. Having heard the representatives of the petitioner, respondents and perused the material on record, we proceed to dispose of the petition.

Truing-up of Annual Fixed Charges of 2009-14 tariff period

8. The tariff of 2009-14 has been trued up as discussed below.

Capital Cost

9. Regulation 6 of the 2009 Tariff Regulations provides as under:-

“6. Truing up of Capital Expenditure and Tariff.

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

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013- 14 for revision of tariff.

(2) The generating company or the transmission licensee, as the case may be, shall make an application, as per Appendix I to these regulations, for carrying out truing up exercise in respect of the generating station a unit or block thereof or the transmission system or the transmission lines or sub-stations thereof by 31.10.2014;

(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;

(4) Where after the truing up, the tariff recovered exceeds the tariff approved by the Commission under these regulations, the generating company or the transmission licensee, as the case may be, shall refund to the beneficiaries or the transmission customers, as the case may be, the excess amount so recovered along with simple interest at the rates specified in the proviso to this regulation.

(5) Where after the truing up, the tariff recovered is less than the tariff approved by the Commission under these regulations, the generating company or the transmission licensee, as the case may be, shall recover from the beneficiaries or the transmission customers, as the case may be, the under-recovered amount along with simple interest at the rates specified in the proviso to this regulation.



(6) The amount under-recovered or over-recovered, along with simple interest at the rates specified in the proviso to this regulation, shall be recovered or refunded by the generating company or the transmission licensee, as the case may be, in six equal monthly installments starting within three months from Page 3 of 6 the date of the tariff order issued by the Commission after the truing up exercise.

Provided that the rate of interest, for clauses (4), (5) and (6) of this regulation, for calculation of simple interest shall be considered as under:

(i) SBI short-term Prime Lending Rate as on 01.04.2009 for the year 2009-10.

(ii) SBI Base Rate as on 01.07.2010 plus 350 basis points for the year 2010-11.

(iii) Monthly average SBI Base Rate from 01.07.2010 to 31.3.2011 plus 350 basis points for the year 2011-12.

(iv) Monthly average SBI Base Rate during previous year plus 350 basis points for the year 2012-13 & 2013-14.”

10. The petitioner has submitted the revised Auditor’s certificates dated 10.8.2016 in support of the actual expenditure incurred for the instant asset up to the Tariff COD (1.10.2013) and additional capital expenditure incurred during the period 1.10.2013 to 31.3.2014 and expenditure incurred during 2014-15 and 2015-16 for the three assets and also the estimated expenditure projected to be incurred during 2016-17 for Asset-1(a) and Asset-1(b). The details of the expenditure are summarized below:-

Assets	Apportioned approved cost (FR)	Apportioned approved cost (RCE)#	Expenditure incurred upto COD	(₹ in lakh)	
				Actual Additional Capital Expenditure 2013-14	Total Completion Cost (31.3.2014)*
Asset-1(a)	2190.76	2294.99	1836.21	34.81	1871.02
Asset-1(b)	551.20	572.83	366.83	43.67	410.50
Asset-2	1586.29	1832.97	1171.74	181.92	1353.66
Total	4328.25	4700.79	3374.78	260.40	3635.18

*The capital cost has been verified from the audited accounts of the PGCIL certified by the Auditor up to 31.3.2016.

RCE Memorandum dated 1.12.2016.



Treatment of IDC

11. The petitioner, vide auditor's certificates dated 10.8.2016, has claimed the IDC on accrual basis. The petitioner has further submitted the details of IDC discharged as on the tariff date and discharged during 2013-14. The details are as follows:-

Particulars	(₹ in lakh)		
	IDC (on accrual basis) Claimed in Auditor's Certificate	IDC discharged as on Tariff date	IDC discharged during 2013-14
Asset-1 (a)	63.00	25.45	37.55
Asset-1(b)	13.21	7.19	6.02
Asset-2	45.04	11.36	33.68

12. BRPL has submitted that as per the 2009 Tariff Regulations, IDC upto the date of commercial operation is only permitted and IDC during the 2013-14 period, in the present case, cannot be claimed as part of the additional capital expenditure during 2013-14 tariff period. In response, the petitioner has submitted that as per the Commission's directions the tariff has been calculated according to cash out flow and IDC may be allowed on cash basis.

13. We have considered the submissions of the petitioner and BRPL. We would like to clarify that IDC is allowed on cash basis. Accordingly, the IDC discharged during 2013-14 is disallowed as on the Tariff COD and the same is being considered alongwith the allowable additional capital expenditure during 2013-14.



Treatment of Incidental Expenditure during Construction (IEDC)

14. The petitioner has claimed negative IEDC as on the Tariff COD for Asset-1(a) and Asset-2. The IEDC claimed by the petitioner in case of Asset-1(b) is higher than the allowable limit of IEDC indicated as per RCE. Keeping in view the overall submission of IEDC, the same is being considered while calculating capital cost as on the Tariff COD.

Treatment of initial spares

15. Regulation 13 of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

“13. Initial Spares

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(d) Transmission system

(i) Transmission line - 1.00%

(ii) Transmission Sub-station (Green Field) - 4.00%

(iii) Transmission Sub-station (Brown Field) - 6.00%

(iv) Series Compensation devices and HVDC Station - 4.00%

(i) Gas Insulated Sub-station (GIS)-5.00%

(vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:



(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:

(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application.”

16. The details of the Initial Spares claimed by the petitioner and allowable as per the above said regulation are as follows:-

(₹ in lakh)

Particulars	Capital cost claimed as on Cut-off date i.e. 31.3.2014	Initial Spares claimed as on Cut-off date i.e. 31.3.2014	Ceiling limit as per 2009 Tariff Regulations	Allowable Initial Spares	Excess Initial Spares claimed
Asset-1 (a)	1908.57	56.00	2.50%	47.50	8.50
Asset-1(b)	416.52	14.00	2.50%	10.32	3.68
Asset-2	1395.80	45.00	2.50%	34.64	10.36

17. The petitioner, vide affidavit dated 30.5.2017, has submitted the details of discharged Initial Spares liabilities, which are as follows:-

(₹ in lakh)

Particulars	Total Initial Spares claimed	Initial Spares discharged as on COD	Initial Spares discharged during 2013-14
Asset-1 (a)	56.00	56.00	0.00
Asset-1(b)	14.00	14.00	0.00
Asset-2	45.00	26.18	18.82

18. The details of Initial Spares allowed as on COD and considered as additional capital expenditure are as follows:-



(₹ in lakh)

Sl. No.	Particulars	Asset-1 (a)	Asset-1(b)	Asset-2
1	Initial Spares claimed	56.00	14.00	45.00
2	Excess Initial Spares Disallowed (As per Table-V above)	8.50	3.68	10.36
3	Initial Spares allowable up to Cut off date	47.50	10.32	34.64
4	Initial Spares discharged up to COD	47.50	10.32	26.18
5	Allowable Limit of Initial Spares to be discharged beyond COD (2013-14)	0.00	0.00	18.82
6	Total allowable Initial Spares Discharged up to 31.03.2014	47.50	10.32	34.64

19. The capital cost considered for the purpose of computation of tariff after adjustment of IDC on cash basis, undischarged liability and scrutiny of Initial Spares (excess claim and undischarged liability) are as follows:-

(₹ in lakh)

Particulars	Asset-1 (a)	Asset-1(b)	Asset-2
Capital Cost claimed as on COD	1836.21	366.83	1171.74
Less: Un-discharged IDC as on COD	37.55	6.02	33.68
Less: Initial Spares disallowed as on COD			
Excess Initial Spares	8.50	3.68	10.36
Un-discharged Initial Spares	0.00	0.00	8.46
Capital Cost allowable as on COD	1790.16	357.13	1119.24
Add : Allowable Add Cap during 2013-14	34.81	43.67	181.92
Add: IDC discharged during 2013-14	37.55	6.02	33.68
Add: Initial Spares discharged during 2013-14	0.00	0.00	8.46
Capital Cost allowable as on 31.03.2014	1862.52	406.82	1343.30

Debt: Equity Ratio

20. Regulation 12(1) of the 2009 Tariff Regulations provides as follows:-

“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.”

21. The debt:equity ratio of 70:30, as admitted vide order dated 30.6.2015 in Petition No. 99/TT/2013 has been considered as on Tariff COD, i.e. 1.10.2013 as provided in Regulation 12(1) of the 2009 Tariff Regulations. The opening debt:equity ratio considered for the purpose of truing up of the approved tariff of tariff period 2009-14 is as under:-

(₹ in lakh)

Funding	(%)	Asset-1(a)	Asset-1(b)	Asset-2
		Amount	Amount	Amount
Debt	70.00	1253.12	249.99	783.47
Equity	30.00	537.04	107.14	335.77
Total	100.00	1790.16	357.13	1119.24

22. Similarly, in case of additional capital expenditure during 2013-14, 70:30 ratio has been considered. The overall debt equity as on 31.3.2014 including additional capitalization is as under:-

(₹ in lakh)

Funding	(%)	Asset-1(a)	Asset-1(b)	Asset-2
		Amount	Amount	Amount
Debt	70.00	1303.77	284.78	940.31
Equity	30.00	558.75	122.04	402.99
Total	100.00	1862.52	406.82	1343.30



Return on Equity (ROE)

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

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

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

Rate of pre-tax return on equity = Base rate / (1-t)

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

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

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

24. The petitioner has submitted the MAT rate applicable during the various years. Return on equity 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 of the relevant year for the purpose of grossing up of ROE is as follows:-



Year	MAT Rate (in %)	Grossed up ROE (Base rate/(1-t) (in %)
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	20.960	19.610

25. The trued up ROE allowed for the instant transmission assets is given below:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Opening Equity	537.04	107.14	335.77
Addition due to Additional Capitalization	21.71	14.91	67.22
Closing Equity	558.75	122.04	402.99
Average Equity	547.89	114.59	369.38
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	53.72	11.24	36.22

Interest on Loan (“IOL”)

26. Regulation 16 of the 2009 Tariff regulations provides that,-

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

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

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

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

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



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

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

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

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

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

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

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

27. 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 submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are given in **Annexure-I** to **Annexure-III** and the IOL has been worked out and allowed as provided under Regulation 16 of the 2009 Tariff Regulations and it is as follows:-



(₹ in lakh)

Particulars	Asset-1(a)	Asset-1(b)	Asset-2
	2013-14 (pro-rata)	2013-14 (pro-rata)	2013-14 (pro-rata)
Gross Normative Loan	1253.12	249.99	783.47
Cumulative Repayment upto Previous Year	0.00	0.00	0.00
Net Loan-Opening	1253.12	249.99	783.47
Addition due to Additional capitalisation	50.65	34.78	156.84
Repayment during the year	48.40	10.08	32.71
Net Loan-Closing	1255.38	274.69	907.60
Average Loan	1254.25	262.34	845.53
Weighted Average Rate of Interest on Loan	8.7728%	9.0937%	9.1786%
Interest	55.02	11.93	38.80

Depreciation

28. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-

“**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

- | | |
|--|-----------|
| (a) Coal/Lignite based thermal generating station | 25 years |
| (b) Gas/Liquid fuel based thermal generating station | 25 years |
| (c) AC and DC sub-station | 25 years |
| (d) Hydro generating station | 35 years |
| (e) Transmission line | 35 years” |

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

"(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.”

30. The instant assets have been put under commercial operation on 1.10.2013 and would complete 12 years on 1.10.2025. Accordingly, remaining depreciable value of the asset shall be spread over in the balance useful life of the asset after 2009-14.



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)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Opening Gross Block	1790.16	357.13	1119.24
Addition during 2009-14 due to Projected Additional Capitalisation	72.36	49.69	224.06
Closing Gross Block	1862.52	406.82	1343.30
Average Gross Block	1826.34	381.98	1231.27
Rate of Depreciation	5.2999%	5.2800%	5.3129%
Depreciable Value	1643.71	343.78	1108.14
Remaining Depreciable Value	1643.71	343.78	1108.14
Depreciation	48.40	10.08	32.71

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

31. The petitioner has claimed the same O&M Expenses that was approved in order dated 30.6.2015 in Petition No.99/TT/2015 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:-

Particulars	(₹ in lakh)		
	Asset-1(a)	Asset-1(b)	Asset-2
Approved vide order dated 30.6.2015	98.19	32.73	65.46
As claimed by petitioner	98.19	32.73	65.46
Allowed after true up	98.19	32.73	65.46

Interest on working capital

32. 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.



33. The petitioner has submitted that the rate of interest on working capital has been considered as 13.20% as per clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

34. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation after 1.7.2010, it shall be equal to SBI Base Rate plus 350 basis points as on 1st April of the year in which the transmission asset was declared under commercial operation. State Bank of India base Bate as on 1.4.2012 was 9.70%. Therefore, interest rate of 13.20% has been considered to work out the interest on working capital in the instant case.

35. The IWC trued up is as under:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Maintenance Spares	29.46	9.82	19.64
O & M expenses	16.37	5.46	10.91
Receivables	88.05	22.83	59.72
Total	133.88	38.11	90.26
Rate of Interest	13.20%	13.20%	13.20%
Interest	8.80	2.51	5.96

Annual Transmission charges

36. In view of above, the annual transmission charges after truing up for the 2009-14 tariff period is as under:-



Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14	Asset-1(b) 2013-14	Asset-2 2013-14
Depreciation	48.40	10.08	32.71
Interest on Loan	55.02	11.93	38.80
Return on Equity	53.72	11.24	36.22
Interest on Working Capital	8.84	2.51	5.96
O & M Expenses	98.19	32.73	65.46
Total	264.16	68.49	179.15

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

37. The Commission has provided for combining of tariff of individual assets in a transmission project, commissioned prior to 1.4.2014, for the purpose of allowing single tariff for the 2014-19 tariff period in Regulation 6(1) of the 2014 Tariff Regulations. Regulation 6(1) of the 2014 Tariff Regulations provides as under:-

“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 transmissions system for the purpose of determination of tariff for the period 2014-15 to 2018-19:

xxx
xxx”

38. Accordingly, the Commission in order dated 29.2.2016 in Petition No.181/TT/2014 approved the methodology of combining individual assets at the truing up stage. The same methodology has been adopted in the instant case.



39. Further, to determine a single transmission tariff for various individual assets after combining them, the concept of effective date of commercial operation and weighted average life were introduced in Regulation 27 of 2014-19 tariff regulation. The relevant portion of Regulation 27 of 2014-19 Tariff Regulations is reproduced hereunder:-

“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

(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.

xxx
xxx”



40. The tariff for the 2009-14 period was allowed individually for the instant assets vide order dated 30.6.2015 in Petition No.99/TT/2013 and the tariff for 2009-14 tariff period has been trued up separately for the 2009-14 tariff period in the preceding paragraphs. The tariff of the three assets for the 2014-19 tariff period has been combined into a single tariff as provided for in Regulation 6(1) of the 2014 Tariff Regulations.

41. The petitioner has submitted, vide affidavit dated 30.5.2017, that there are certain other assets, besides the instant three assets, which form part of the instant project. The petitioner has submitted the Tariff Forms, combining the instant three assets into single asset as provided for in the 2014 Tariff Regulations. Accordingly, single tariff for the combined assets has been worked out for the tariff period 2014-19 and the Effective COD of all the assets covered in the instant transmission project shall be worked out for the complete project at the time of truing up of the tariff of 2014-19 period.

42. For the purpose of calculation of single tariff, the Effective COD and Weighted Average life of the combined three assets has been computed as discussed in the following paragraphs.

Effective Date of Commercial Operation (E-COD)

43. The Commission in order dated 30.6.2015 in Petition No.99/TT/2013, has admitted the Tariff COD of the above mentioned three assets separately as 1.10.2013. Hence, the E-COD of the combined three assets in the instant petition is being considered as 1.10.2013.



Weighted Average Life (WAL)

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

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

(₹ in lakh)					
Particulars (Combined Assets: Asset-1(a), Asset-1(b) and Asset-2)	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	199.58	214.47	233.52	244.54	244.54
Interest on Loan	220.24	221.23	224.79	216.27	194.00
Return on Equity	221.51	238.10	259.32	271.60	271.60
Interest on Working Capital	34.75	36.16	37.85	38.90	39.12
O&M Expenses	361.80	373.80	386.22	399.06	412.26
Total	1037.88	1083.76	1141.70	1170.37	1161.52

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

(₹ in lakh)					
Particulars (Combined Assets: Asset-1(a), Asset-1(b) and Asset-2)	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	54.27	56.07	57.93	59.86	61.84
O & M Expenses	30.15	31.15	32.19	33.26	34.36
Receivables	172.98	180.63	190.28	195.06	193.59
Total	257.40	267.85	280.40	288.18	289.79
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	34.75	36.16	37.85	38.90	39.12

Capital Cost

47. Clause (1) & (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. The element wise capital cost (i.e. Land, Building, Transmission line, Substation and PLCC) as admitted by the Commission as on 31.3.2014 for Asset-1(a), Asset-1(b) and Asset-2 are clubbed together and the combined capital cost has been considered as a whole as on 1.4.2014. The details are as follows:-

Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	Trued up capital cost as on 31.3.2014			(₹ in lakh)
	Asset-1(a)	Asset-1(b)	Asset-2	Combined Cost for the three assets as on 1.4.2014
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00
Sub-Station Equipments	1827.58	406.82	1304.18	3538.58
PLCC	34.94	0.00	39.12	74.06
Total	1862.52	406.82	1343.30	3612.64

49. The total trued up capital cost of ₹3612.64 lakh of the three assets as on 1.4.2014 has been considered for determination of tariff for 2014-19 tariff period.



Additional Capital Expenditure

50. 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;”

51. The petitioner has further claimed the following projected additional capital expenditure during 2014-19 tariff period:-

Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	Projected Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
	260.12	303.76	417.66	0.00	0.00

52. The petitioner has claimed the above said projected additional capital expenditure towards “Balance & Retention Payments” under Regulation 9(1) of the 2014 Tariff Regulations. The “cut-off” date in case of the instant asset is



31.3.2016. Accordingly, the projected additional capital expenditure claimed by the petitioner during 2014-19 tariff period is allowed.

Debt:Equity Ratio

53. 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.”

54. The petitioner has considered debt:equity ratio of 70:30 as on 31.3.2014 for Asset-1(a), Asset-1(b) and Asset-2 separately. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. For additional capitalization, the petitioner has proposed normative debt:equity ratio of 70:30 and the same has been considered. The details of the debt:equity as on 1.4.2014 considered for the purpose of determination of tariff for the 2014-19 tariff period and as on 31.3.2019 are as follows:-

(₹ in lakh)			
Particulars	Ratio	As on 1.4.2014	As on 31.3.2019
Debt	70.00	2528.86	3215.94
Equity	30.00	1083.78	1378.24
Total	100.00	3612.64	4594.18

Interest on Loan (“IOL”)

55. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides 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.

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

56. The petitioner has claimed the actual loan portfolio as on 31.3.2014 of Combined Asset-1(a), Asset-1(b) and Asset-2 and it has been considered as actual loan portfolio of Combined Asset as on 1.4.2014. Accordingly, the weighted average rate of interest has been calculated on the basis of the actual loan portfolio of the combined asset.

57. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations by actual weighted average rate of interest during the 2014-15 period.

58. The details of weighted average rate of interest are placed at **Annexure-IV** and the IOL has been worked out as follows:-

	(₹ in lakh)				
Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	2528.86	2710.94	2923.58	3215.94	3215.94
Cumulative Repayment upto previous year	91.19	289.58	502.86	735.18	978.54
Net Loan-Opening	2437.67	2421.36	2420.72	2480.75	2237.40
Additions during the year	182.08	212.63	292.36	0.00	0.00
Repayment during the year	198.39	213.28	232.32	243.35	243.35



Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Closing	2421.36	2420.72	2480.75	2237.40	1994.05
Average Loan	2429.52	2421.04	2450.73	2359.08	2115.73
Rate of Interest (%)	9.0114%	9.0879%	9.1274%	9.1256%	9.1274%
Interest	218.93	220.02	223.69	215.28	193.11

Return on Equity (“RoE”)

59. Clause (1) & (2) of Regulation 24 and Clause (2) and (3) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“24. Return on Equity:

(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system”

“25. Tax on Return on Equity:

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

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

xxxx

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after trueing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.”



60. 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. 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.

61. 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 RoE with the effective tax rate for the purpose of computation of RoE. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. Accordingly, the MAT rate of 20.961% applicable during the 2013-14 has been considered for the purpose of return on equity which shall be trued up with actual tax rate in accordance with clause 25 (3) of the 2014 Tariff Regulations.

62. Accordingly, the following ROE allowed:-



(₹ in lakh)

Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1083.78	1161.82	1252.94	1378.24	1378.24
Additional Capitalization	78.04	91.13	125.30	0.00	0.00
Closing Equity	1161.82	1252.94	1378.24	1378.24	1378.24
Average Equity	1122.80	1207.38	1315.59	1378.24	1378.24
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the financial year 2013-14 (%)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	220.18	236.77	257.99	270.27	270.27

Depreciation

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

"27. Depreciation:

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

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

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

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

64. The instant assets would complete its 12 years life beyond 2018-19. Hence, remaining depreciable value has been spread over in the balance useful life of



the asset after 2018-19. Depreciation is worked out based on the Straight Line Method and allowed as provided under Regulation 27 of the 2014 Tariff Regulations.

65. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	3612.64	3872.76	4176.52	4594.18	4594.18
Addition during 2009-14 due to Projected Additional Capitalisation	260.12	303.76	417.66	0.00	0.00
Closing Gross Block	3872.76	4176.52	4594.18	4594.18	4594.18
Average Gross Block	3742.70	4024.64	4385.35	4594.18	4594.18
Rate of Depreciation	5.3008%	5.2993%	5.2977%	5.2969%	5.2969%
Depreciable Value	3368.43	3622.18	3946.82	4134.76	4134.76
Remaining Depreciable Value	3277.24	3332.59	3443.95	3399.58	3156.23
Depreciation	198.39	213.28	232.32	243.35	243.35

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

66. 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 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company 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.



67. BRPL has submitted that the increase in the employee cost due to wage revision should be taken care by improving the productivity levels of the petitioner and the beneficiaries should not be unduly burdened. In response, the petitioner has submitted that wage revision of its employees is due from 1.7.2017. The actual impact of wage revision has not been factored while fixing the O&M Expenses for the 2014-19 and the petitioner would approach the Commission for revision of the norms for claiming the impact of wage hike.

68. We have considered the submissions of the petitioner and BRPL. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The petitioner has claimed O&M Expenses as specified in Regulation 29(4) of the 2014 Tariff Regulations and accordingly, the same is considered for the purpose of computation of tariff. The details of O&M Expenses allowed are as follows:-

(₹ in lakh)					
Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses claimed	361.80	373.80	386.22	399.06	412.26
O & M Expenses allowed	361.80	373.80	386.22	399.06	412.26

Interest on Working Capital (“IWC”)

69. 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;”

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

71. 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) for all the assets covered in this petition. The interest on working capital allowed is shown in the table below:-

	(₹ in lakh)				
Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	54.27	56.07	57.93	59.86	61.84
O & M expenses	30.15	31.15	32.19	33.26	34.36
Receivables	172.33	179.99	189.67	194.46	193.01
Total	256.75	267.21	279.78	287.58	289.20
Interest	34.66	36.07	37.77	38.82	39.04



Annual Transmission Charges

72. The details of Annual Transmission Charges allowed for the Combined Assets for the 2014-19 tariff period is summarised below:-

	(₹ in lakh)				
Combined Assets: Asset-1(a), Asset-1(b) and Asset-2	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	198.39	213.28	232.32	243.35	243.35
Interest on Loan	218.93	220.02	223.69	215.28	193.11
Return on Equity	220.18	236.77	257.99	270.27	270.27
Interest on Working Capital	34.66	36.07	37.77	38.82	39.04
O & M Expenses	361.80	373.80	386.22	399.06	412.26
Total	1033.97	1079.94	1137.99	1166.79	1158.04

Filing Fee and Publication Expenses

73. 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 has submitted that filing fee and other expenses may not be allowed. 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

74. 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.



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. 42/TT/2017.

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)**

1	Bond XXXVIII	
	Gross loan opening	241.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	241.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	241.00
	Average Loan	241.00
	Rate of Interest	9.25%
	Interest	22.29
	Rep Schedule	Bullet payment 09.03.2027
2	Bond XL	
	Gross loan opening	34.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	34.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	34.00
	Average Loan	34.00
	Rate of Interest	9.30%
	Interest	3.16
	Rep Schedule	12 annual installments from 28.06.2016
3	Bond XLI	
	Gross loan opening	225.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	225.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	225.00
	Average Loan	225.00
	Rate of Interest	8.85%



	Interest	19.91
	Rep Schedule	12 annual installments from 19.10.2016
4	Bond XLII	
	Gross loan opening	555.21
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	555.21
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	555.21
	Average Loan	555.21
	Rate of Interest	8.80%
	Interest	48.86
	Rep Schedule	Bullet payment 13.03.2023
5	Bond XLIII (Add Cap)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	26.28
	Repayment during the year	0.00
	Net Loan-Closing	26.28
	Average Loan	13.14
	Rate of Interest	7.93%
	Interest	1.04
	Rep Schedule	12 annual installments from 20.05.2017
6	Bond XLIII	
	Gross loan opening	203.86
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	203.86
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	203.86
	Average Loan	203.86
	Rate of Interest	7.93%
	Interest	16.17
	Rep Schedule	12 annual installments from 20.05.2017
7	SBI Loans	
	Gross loan opening	0.00
	Cumulative Repayment upto	0.00



	COD/previous year	
	Net Loan-Opening	0.00
	Additions during the year	24.37
	Repayment during the year	0.00
	Net Loan-Closing	24.37
	Average Loan	12.19
	Rate of Interest	10.21%
	Interest	1.24
	Rep Schedule	22 annual installments from 31.08.2016
	Total Loan	
	Gross loan opening	1259.07
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	1259.07
	Additions during the year	50.65
	Repayment during the year	0.00
	Net Loan-Closing	1309.72
	Average Loan	1284.40
	Rate of Interest	8.7728%
	Interest	112.68



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

		(₹ in lakh)
	Details of Loan	2013-2014
1	Bond XL	
	Gross loan opening	66.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	66.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	66.00
	Average Loan	66.00
	Rate of Interest	9.30%
	Interest	6.14
	Rep Schedule	12 annual installments from 28.06.2016
2	Bond XLI	
	Gross loan opening	15.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	15.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	15.00
	Average Loan	15.00
	Rate of Interest	8.85%
	Interest	1.33
	Rep Schedule	12 annual installments from 19.10.2016
3	Bond XLII	
	Gross loan opening	149.79
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	149.79
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	149.79
	Average Loan	149.79
	Rate of Interest	8.80%



	Interest	13.18
	Rep Schedule	Bullet payment 13.03.2023
4	Bond XLIII (Add Cap)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	0.99
	Repayment during the year	0.00
	Net Loan-Closing	0.99
	Average Loan	0.50
	Rate of Interest	7.93%
	Interest	0.04
	Rep Schedule	12 annual installments from 20.05.2017
5	Bond XLV (Add Cap 2013-14)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	30.57
	Repayment during the year	0.00
	Net Loan-Closing	30.57
	Average Loan	15.29
	Rate of Interest	9.65%
	Interest	1.48
	Rep Schedule	12 annual installments from 28.02.2018
6	SBI Loans (Add Cap 2013-14)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	3.22
	Repayment during the year	0.00
	Net Loan-Closing	3.22
	Average Loan	1.61
	Rate of Interest	10.21%
	Interest	0.16
	Rep Schedule	22 annual installments from 31.08.2016
7	SBI Loans	
	Gross loan opening	21.78
	Cumulative Repayment upto COD/previous year	0.00



Net Loan-Opening	21.78
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	21.78
Average Loan	21.78
Rate of Interest	10.21%
Interest	2.22
Rep Schedule	22 annual installments from 31.08.2016
Total Loan	
Gross loan opening	252.57
Cumulative Repayment upto COD/previous year	0.00
Net Loan-Opening	252.57
Additions during the year	34.78
Repayment during the year	0.00
Net Loan-Closing	287.35
Average Loan	269.96
Rate of Interest	9.0937%
Interest	24.55



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

		(₹ in lakh)
Details of Loan		2013-2014
1	Bond XXXVIII	
	Gross loan opening	9.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	9.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	9.00
	Average Loan	9.00
	Rate of Interest	9.25%
	Interest	0.83
	Rep Schedule	Bullet payment 09.03.2027
2	Bond XL	
	Gross loan opening	50.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	50.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	50.00
	Average Loan	50.00
	Rate of Interest	9.30%
	Interest	4.65
	Rep Schedule	12 annual installments from 28.06.2016
3	Bond XLI	
	Gross loan opening	260.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	260.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	260.00



	Average Loan	260.00
	Rate of Interest	8.85%
	Interest	23.01
	Rep Schedule	12 annual installments from 19.10.2016
4	Bond XLII	
	Gross loan opening	295.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	295.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	295.00
	Average Loan	295.00
	Rate of Interest	8.80%
	Interest	25.96
	Rep Schedule	Bullet payment 13.03.2023
5	Bond XLIII (Add Cap)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	23.58
	Repayment during the year	0.00
	Net Loan-Closing	23.58
	Average Loan	11.79
	Rate of Interest	7.93%
	Interest	0.93
	Rep Schedule	12 annual installments from 20.05.2017
6	Bond XLIII	
	Gross loan opening	7.64
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	7.64
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	7.64
	Average Loan	7.64
	Rate of Interest	7.93%
	Interest	0.61
	Rep Schedule	12 annual installments from 20.05.2017



7	Bond XLV (Add Cap 2013-14)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	112.43
	Repayment during the year	0.00
	Net Loan-Closing	112.43
	Average Loan	56.22
	Rate of Interest	9.65%
	Interest	5.42
	Rep Schedule	12 annual installments from 28.02.2018
8	SBI Loans (Add Cap 2013-14)	
	Gross loan opening	0.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	14.91
	Repayment during the year	0.00
	Net Loan-Closing	14.91
	Average Loan	7.46
	Rate of Interest	10.21%
	Interest	0.76
	Rep Schedule	22 annual installments from 31.08.2016
9	SBI Loans	
	Gross loan opening	175.00
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	175.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	175.00
	Average Loan	175.00
	Rate of Interest	10.21%
	Interest	17.87
	Rep Schedule	22 annual installments from 31.08.2016
	Total Loan	
	Gross loan opening	796.64
	Cumulative Repayment upto COD/previous year	0.00
	Net Loan-Opening	796.64



Additions during the year	150.92
Repayment during the year	0.00
Net Loan-Closing	947.56
Average Loan	872.10
Rate of Interest	9.1786%
Interest	80.05



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

(₹ in lakh)

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
1	Bond-XXXVIII					
	Gross loan opening	250.00	250.00	250.00	250.00	250.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	250.00	250.00	250.00	250.00	250.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	250.00	250.00	250.00	250.00	250.00
	Average Loan	250.00	250.00	250.00	250.00	250.00
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	23.13	23.13	23.13	23.13	23.13
	Rep Schedule	Bullet Payment as on 09.03.2027				
2	Bond-XL					
	Gross loan opening	150.00	150.00	150.00	150.00	150.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	12.50	25.00
	Net Loan-Opening	150.00	150.00	150.00	137.50	125.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	12.50	12.50	12.50
	Net Loan-Closing	150.00	150.00	137.50	125.00	112.50
	Average Loan	150.00	150.00	143.75	131.25	118.75
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	13.95	13.95	13.37	12.21	11.04
	Rep Schedule	12 annual installments from 28.06.2016				
3	Bond-XLI					
	Gross loan opening	500.00	500.00	500.00	500.00	500.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	41.67	83.33
	Net Loan-Opening	500.00	500.00	500.00	458.33	416.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	41.67	41.67	41.67
	Net Loan-Closing	500.00	500.00	458.33	416.67	375.00
	Average Loan	500.00	500.00	479.17	437.50	395.83
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%



	Interest	44.25	44.25	42.41	38.72	35.03
	Rep Schedule	12 annual installments from 19.10.2016				
4	Bond-XLII					
	Gross loan opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	1000.00	1000.00	1000.00	1000.00	1000.00
	Average Loan	1000.00	1000.00	1000.00	1000.00	1000.00
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	88.00	88.00	88.00	88.00	88.00
	Rep Schedule	Bullet Payment as on 13.03.2023				
5	Bond-XLIII					
	Gross loan opening	262.35	262.35	262.35	262.35	262.35
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	21.86
	Net Loan-Opening	262.35	262.35	262.35	262.35	240.49
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	21.86	21.86
	Net Loan-Closing	262.35	262.35	262.35	240.49	218.63
	Average Loan	262.35	262.35	262.35	251.42	229.56
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	20.80	20.80	20.80	19.94	18.20
	Rep Schedule	12 annual installments from 18.05.2017				
6	Bond-XLV					
	Gross loan opening	143.00	143.00	143.00	143.00	143.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	11.92
	Net Loan-Opening	143.00	143.00	143.00	143.00	131.08
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	11.92	11.92
	Net Loan-Closing	143.00	143.00	143.00	131.08	119.17
	Average Loan	143.00	143.00	143.00	137.04	125.13
	Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
	Interest	13.80	13.80	13.80	13.22	12.07
	Rep Schedule	12 annual installments from 28.02.2018				
7	Bond-XLVI (Add Cap for 2014-					



15)					
Gross loan opening	0.00	58.08	58.08	58.08	58.08
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	58.08	58.08	58.08	58.08
Additions during the year	58.08	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	58.08	58.08	58.08	58.08	58.08
Average Loan	29.04	58.08	58.08	58.08	58.08
Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
Interest	2.70	5.40	5.40	5.40	5.40
Rep Schedule	Matured on 04.09.2019, 04.09.2024 and 04.09.2029 equally				
8 SBI					
Gross loan opening	239.28	239.28	239.28	239.28	239.28
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	21.75	43.51
Net Loan-Opening	239.28	239.28	239.28	217.53	195.77
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	21.75	21.75	21.75
Net Loan-Closing	239.28	239.28	217.53	195.77	174.02
Average Loan	239.28	239.28	228.40	206.65	184.90
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	24.53	24.53	23.41	21.18	18.95
Rep Schedule	22 half yearly installment from 31.08.2016				
9 SBI (Add Cap 2014-15)					
Gross loan opening	0.00	124.00	124.00	124.00	124.00
Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	124.00	124.00	124.00	124.00
Additions during the year	124.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	124.00	124.00	124.00	124.00	124.00
Average Loan	62.00	124.00	124.00	124.00	124.00
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	6.36	12.71	12.71	12.71	12.71
Rep Schedule	22 half yearly installment from 31.08.2016				
10 SBI (Add Cap for 2015-16)					
Gross loan opening	0.00	0.00	212.63	212.63	212.63



	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	212.63	212.63	212.63
	Additions during the year	0.00	212.63	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	212.63	212.63	212.63	212.63
	Average Loan	0.00	106.32	212.63	212.63	212.63
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	0.00	10.90	21.79	21.79	21.79
	Rep Schedule	22 half yearly installment from 31.08.2016				
	Total Loan					
	Gross loan opening	2544.63	2726.71	2939.34	2939.34	2939.34
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	75.92	185.62
	Net Loan-Opening	2544.63	2726.71	2939.34	2863.42	2753.72
	Additions during the year	182.08	212.63	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	75.92	109.70	109.70
	Net Loan-Closing	2726.71	2939.34	2863.42	2753.72	2644.02
	Average Loan	2635.67	2833.03	2901.38	2808.57	2698.87
	Weighted Average Rate of Interest	9.0114%	9.0879%	9.1274%	9.1256%	9.1274%
	Interest	237.51	257.46	264.82	256.30	246.34

