

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 71/TT/2015

Coram:

**Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member**

**Date of Hearing: 06.04.2016
Date of Order : 31.05.2016**

In the matter of:

Determination of transmission tariff for one Ckt. of Rihand III- Vindhyachal PS 765 kV D/C Transmission Line, 3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS — Satna Ckt. 1 3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS - Satna Ckt# 2 765 kV S/C Gwalior-Jaipur (RVPN) Ckt I Line and Bay Extension of 765/400 kV Phagi (RVPN Jaipur) S/S, 765/400 kV Vindhyachal PS (New) including 1500 MVA ICT II along with associated bays at Vindhyachal PS & 765 S/C Vindhyachal PS - Satna Ckt 1 T/L with Bays at Vindhyachal PS along with 3*80 MVAR Switchable Line Reactor & associated line bays at Vindhyachal PS for one ckt of 400 kV D/C Sasan-Vindhyachal PS T/L & 765 kV S/C Sasan-Vindhyachal PS T/L along with associated bays at Reliance Sasan, 765 kV, 240 MVAR Bus Reactor #2 at with bay Satna S/S 1500 MVA ICT- 1 with one spare unit along with associated bays at Vindhyachal PS 765 kV S/C Vindhyachal - Satna ckt-2, with Line Reactor (3*80 MVAR) & 1 spare unit along with Bays at Vindhyachal PS, 765 kV 240 MVAR Bus Reactor (3*80) with Bays at Vindhyachal PS 400 kV Bays at Vindhyachal PS for 400 KV D/C Vindhyachal PS-Sasan Ckt #2 TL and 400 KV D/C Vindhyachal PS - Vindhyachal IV Transmission Line, 400kV bay at Vindhyachal PS for 400kV Vindhyachal IV-Vindhyachal PS ckt-I T/L, 400 KV bay (1 No.) at Vindhyachal PS for Ckt.1 of 765 KV D/C Rihand-III-Vindhyachal PS Transmission Line, 400 kV 63 MVAR Bus Reactor along with Bays at Vindhyachal PS and 2nd Ckt of Rihand III- Vindhyachal PS 765 kV D/C Line and associated bay at Vindhyachal PS under transmission system associated with Vindhyachal-IV & Rihand-III {1000 MW} Generation Project in Western & Northern Region for 2014-19 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for 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-122001 (Haryana)

.....Petitioner



Versus

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur
Jabalpur – 482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor
Andheri (East), Mumbai - 400 052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007
4. Electricity Department Govt. Of Goa
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa - 403 001
5. Electricity Department
Administration of Daman & Diu
Daman - 396 210
6. Electricity Department
Administration Of Dadra Nagar Haveli
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhatisgarh-492013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore- 452 008
9. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg, Jaipur - 302005
10. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
11. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
12. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur



13. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171 004
14. Punjab State Power Corporation Limited,
Thermal Shed TIA,
Near 22 Phatak, Patiala-147001
15. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula, Haryana - 134109
16. Power Development Department,
Govt. Of Jammu & Kashmir,
Mini Secretariat, Jammu
17. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226 001
18. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002
19. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place , New Delhi.
20. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place, New Delhi
21. North Delhi Power Limited,
Power Trading & Load Dispatch Group Cennet Building,
Adjacent To 66/11 kV Pitampura-3,
Grid Building, Near PP Jewellers Pitampura,
New Delhi - 110034
22. Chandigarh Administration,
Sector -9, Chandigarh
23. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road, Dehradun
24. North Central Railway,
Allahabad
25. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002

.....Respondents



The following were present:

For Petitioner: Shri S. S. Raju, PGCIL
Shri M. M. Mondal, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Subhash C Taneja, PGCIL
Shri S. K. Venkatasan, PGCIL
Shri Pankaj Sharma, PGCIL
Shri A. M. Pavgi, PGCIL
Shri Mohd. Mohsin, PGCIL

For Respondents: Shri Mayank Sharma, Advocate, PSPCL
Shri Gaurav Gupta, Advocate, PSPCL

ORDER

The petition has been preferred by Power Grid Corporation of India Limited (“the petitioner”) for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from COD to 31.3.2019 in respect of one Ckt. of Rihand III- Vindhyachal PS 765 kV D/C Transmission Line, 3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS — Satna Ckt. 1 3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS - Satna Ckt# 2 765 kV S/C Gwalior-Jaipur (RVPN) Ckt I Line and Bay Extension of 765/400 kV Phagi (RVPN Jaipur) S/S, 765/400 kV Vindhyachal PS (New) including 1500 MVA ICT II along with associated bays at Vindhyachal PS & 765 S/C Vindhyachal PS - Satna Ckt 1 T/L with Bays at Vindhyachal PS along with 3*80 MVAR Switchable Line Reactor & associated line bays at Vindhyachal PS for one ckt of 400 kV D/C Sasan-Vindhyachal PS T/L & 765 kV S/C Sasan-Vindhyachal PS T/L along with associated bays at Reliance Sasan, 765 kV, 240 MVAR Bus Reactor #2 at with bay Satna S/S 1500 MVA ICT- 1 with one spare unit along with associated bays at



Vindhyachal PS 765 kV S/C Vindhyachal - Satna ckt-2, with Line Reactor (3*80 MVAR) & 1 spare unit along with Bays at Vindhyachal PS, 765 kV 240 MVAR Bus Reactor (3*80) with Bays at Vindhyachal PS 400 kV Bays at Vindhyachal PS for 400 KV D/C Vindhyachal PS-Sasan Ckt #2 TL and 400 KV D/C Vindhyachal PS - Vindhyachal IV Transmission Line, 400kV bay at Vindhyachal PS for 400kV Vindhyachal IV-Vindhyachal PS ckt-I T/L, 400 KV bay (1 No.) at Vindhyachal PS for Ckt.1 of 765 KV D/C Rihand-III-Vindhyachal PS Transmission Line, 400 kV 63 MVAR Bus Reactor along with Bays at Vindhyachal PS and 2nd Ckt of Rihand III-Vindhyachal PS 765 kV D/C Line and associated bay at Vindhyachal PS under transmission system associated with Vindhyachal-IV & Rihand-III {1000 MW} Generation Project in Western & Northern Region (hereinafter referred to as "the transmission assets")

2. The scope of the scheme was agreed as a part of BPTA in the 11th WRPC meeting in Western Region held on 25.9.2009 and in 13th NRPC meeting held on 26.6.2009. The scope of work covered under the Rihand III and Vindhyachal IV Transmission System as follows:-

Part I : Generation specific transmission system

A: Rihand III For NR only

Transmission Line: Rihand-III — Vindhyachal Pooling station 765 kV 2 X S/C line (Initially to be operated at 400 kV)

Sub-station: 765/400 kV Vindhyachal Pooling station (Extension)

B: Vindhyachal IV: For WR only

Transmission Line: Vindhyachal-IV- Vindhyachal Pooling Station 400 kV D/C (Quad) line



Sub-station: 765/400 kV Vindhyachal Pooling station(Extension)

Part-II: Common System for both WR & NR

Transmission Line:

- Vindhyahchal Pooling Station –Satna 765 kV 2 X S/C
- Satna-Gwalior 765 kV 2 X S/C line:
- Sasan-Vindhyachal Pooling Station 765 kV S/C line
- Sasan-Vindhyachal Pooling Station 400 kV D/C line

Sub-station:

- Establishment of new 765/400 kV, 2X 1500 MVA S/Sat Vindhyachal Pooling Station
- Extension of 765/400 kV Satna Sub-Station
- Extension of 765/400 kV Gwalior Sub-Station
- Extension of 765/400 kV Sasan Sub-Station

Part-III: NR strengthening in regional pool

Transmission Lines:

- Gwalior—Jaipur(RVPN) 765 kV S/C line
- Bassi—Jaipur(RVPN) 400 kV D/C(Quad) line

Sub-stations:

- Extension of 765/400 kV Gwalior Substation
- Extension of 765/400 kV Jaipur(RVPN) Substation (iii)Extension of 765/400 kV Bassi Substation

3. The transmission assets covered under the current petition are as follows:-

Assets	Description	Referred to as
1	One Ckt of Rihand III- Vindhyachal PS 765 kV D/C Transmission Line	Asset 1
2	3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS — Satna Ckt # 1	Asset 2
3	3x80 MVAR Line Reactor with Line Bay commissioned as Bus Reactor at Satna S/S for 765 Kv S/C Vindhyachal PS -	Asset 3



Assets	Description	Referred to
	Satna Ckt# 2	
4	765 kV S/C Gwalior-Jaipur (RVPN) Ckt I Line and Bay Extension of 765/400 kV Phagi (RVPN Jaipur) S/S	Asset 4
5	765/400 kV Vindhyachal PS (New) including 1500 MVA ICT II along with associated bays at Vindhyachal PS & 765 S/C Vindhyachal PS - Satna Ckt 1 T/L with Bays at Vindhyachal PS along with 3*80 MVAR Switchable Line Reactor & associated line bays at Vindhyachal PS for one ckt of 400 kV D/C Sasan-Vindhyachal PS T/L & 765 kV S/C Sasan-Vindhyachal PS T/L along with associated bays at Reliance Sasan	Asset 5 (i)
6	765 kV, 240 MVAR Bus Reactor #2 at with bay Satna S/S	Asset 5 (ii)
7	1500 MVA ICT- 1 with one spare unit along with associated bays at Vindhyachal PS	Asset 5 (iii)
8	765 kV S/C Vindhyachal - Satna ckt-2, with Line Reactor (3*80 MVAR) & 1 spare unit along with Bays at Vindhyachal PS	Asset 5 (iv)
9	765 kV 240 MVAR Bus Reactor (3*80) with Bays at Vindhyachal PS	Asset 5 (v)
10	400 kV Bays at Vindhyachal PS for 400 KV D/C Vindhyachal PS-Sasan Ckt #2 TL and 400 KV D/C Vindhyachal PS - Vindhyachal IV Transmission Line	Asset 5 (vi)
11	400kV bay at Vindhyachal PS for 400kV Vindhyachal IV-Vindhyachal PS ckt-I T/L	Asset 5 (vii)
12	400 KV bay (1 No.) at Vindhyachal PS for Ckt-I of 765 KV D/C Rihand-III-Vindhyachal PS TL	Asset 5 (viii)
13	400 kV 63 MVAR Bus Reactor along with Bays at Vindhyachal PS	Asset 5 (ix)
14	2nd Ckt of Rihand III- Vindhyachal PS 765 kV D/C Line and associated bay at Vindhyachal PS	Asset 6

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

a) The Investment Approval (IA) and expenditure sanction to the transmission scheme was accorded by Board of Directors of the petitioner company, vide letter dated 17.10.2010 at an estimated cost of ₹467299.00 lakh including IDC of ₹29779.00 lakh based on 3rd Quarter of 2009 price level.



b) The petitioner vide affidavit dated 30.5.2016 submitted the Revised Cost Estimates (RCE) for the project .The RCE of the project is ₹453121.00 lakh including an IDC of ₹41998.00 lakh.

c) The petitioner has submitted that there is time overrun in from 19 to 40 months in different assets. Further, it has submitted that the main reasons for delay are delay in getting forest clearance in some stretches of Transmission Line and RoW issues encountered at Satna Sub-Station for termination of line.

5. The Annual Transmission Charges for the instant asset was allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges vide order dated 4.1.2016.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 (“the Act”). No comments/objections have been received from the public in response to the notice in newspaper. Respondent No. 19 i.e. BSES Rajdhani Power Limited (hereinafter referred to as BRPL) and Respondent No. 10, 11 and 12 i.e. Ajmer Vidyut Vitran Nigam Limited, Jaipur Vidyut Vitran Nigam Limited and Jodhpur Vidyut Vitran Nigam Limited (hereinafter referred to as Rajasthan Discoms) have submitted its reply vide affidavit dated 17.7.2015 and 22.7.2015 respectively.

7. The petitioner in response to the BRPL’s and Rajasthan Discom’s reply has submitted a rejoinder dated 24.5.2016 and 6.5.2016.

8. The petitioner vide affidavit dated 25.5.2016 has submitted the revised capital cost of the transmission assets after adjusting the accrual IDC and cash IDC. Further the petitioner has submitted revised tariff forms based on the actual COD of the transmission assets and revised capital cost based on the actual IDC discharged



upto COD and after COD of the transmission assets. The petitioner has submitted the detailed reasons of the time overrun and cost overrun.

9. Having heard the representatives of the petitioner and respondents, and perused the material on record, we proceed to determine the tariff in accordance with the Tariff Regulations, 2014.

10. The petitioner has also submitted the Revised Cost Estimates (RCE) vide affidavit dated 30.5.2016.

11. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as follows:-

(₹ in lakh)

Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	643.50	915.56	915.56	915.56	915.56
Interest on Loan	551.39	747.94	726.38	684.78	616.22
Return on Equity	716.99	1025.07	1025.07	1025.07	1025.07
Interest on Working Capital	45.61	64.14	63.71	62.83	61.33
O & M Expenses	29.01	40.76	42.06	43.49	44.92
Total	1986.50	2793.47	2772.78	2731.73	2663.10

(₹ in lakh)

Asset 2					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	35.59	110.47	132.29	137.16	137.16
Interest on Loan	36.26	110.06	131.05	129.41	117.32
Return on Equity	39.65	123.68	148.11	153.56	153.56
Interest on Working Capital	4.35	12.74	14.45	14.81	14.71
O & M Expenses	32.36	87.22	90.12	93.11	96.20
Total	148.21	444.17	516.02	528.05	518.95

(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	27.27	148.71	176.15	182.04	182.04
Interest on Loan	32.45	169.11	187.23	178.02	161.51
Return on Equity	30.39	166.50	197.21	203.82	203.82



Interest on Working Capital	3.08	15.97	17.88	18.12	17.91
O & M Expenses	18.15	87.22	90.12	93.11	96.20
Total	111.34	587.51	668.59	675.11	661.48

(₹ in lakh)

Asset 4				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	2112.28	3437.39	3449.47	3449.47
Interest on Loan	1973.37	3072.78	2864.33	2615.13
Return on Equity	2364.24	3847.42	3860.94	3860.94
Interest on Working Capital	158.08	254.12	250.44	245.24
O & M Expenses	174.05	284.43	294.03	303.73
Total	6782.02	10896.14	10719.21	10474.51

(₹ in lakh)

Asset 5(i)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	4309.36	4561.02	4632.66	4642.41
Interest on Loan	5105.76	5122.95	4853.18	4453.15
Return on Equity	5264.76	5564.65	5649.13	5660.04
Interest on Working Capital	380.36	394.97	393.83	386.60
O & M Expenses	789.15	817.56	844.72	872.77
Total	15849.39	16461.15	16373.52	16014.97

(₹ in lakh)

Asset 5 (ii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	95.43	146.53	153.52	154.46
Interest on Loan	112.25	161.99	156.57	143.45
Return on Equity	106.84	164.05	171.88	172.93
Interest on Working Capital	10.93	15.86	16.24	16.15
O & M Expenses	66.87	90.12	93.11	96.20
Total	392.32	578.55	591.32	583.19

(₹ in lakh)

Asset 5 (iii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	204.43	322.37	343.27	348.49
Interest on Loan	234.55	347.70	342.36	317.43
Return on Equity	228.88	360.93	384.33	390.17
Interest on Working Capital	21.50	32.26	33.45	33.42



O & M Expenses	110.93	154.49	159.62	164.91
Total	800.29	1217.75	1263.03	1254.42

(₹ in lakh)

Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	1728.77	2868.45	2907.39	2907.39
Interest on Loan	1976.50	3079.28	2867.92	2609.71
Return on Equity	1934.89	3210.47	3254.06	3254.06
Interest on Working Capital	140.98	228.81	226.44	221.12
O & M Expenses	201.89	326.00	336.81	348.01
Total	5983.03	9713.01	9592.62	9340.29

(₹ in lakh)

Asset 5 (v)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	81.74	167.14	185.41	189.21
Interest on Loan	96.20	186.02	191.71	179.35
Return on Equity	91.52	187.13	207.59	211.84
Interest on Working Capital	9.11	17.42	18.60	18.67
O & M Expenses	52.75	90.12	93.11	96.20
Total	331.32	647.83	696.42	695.27

(₹ in lakh)

Asset 5 (vi)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	35.31	69.00	71.61	71.61
Interest on Loan	43.21	79.81	76.34	69.43
Return on Equity	38.88	76.10	79.03	79.03
Interest on Working Capital	6.73	12.29	12.57	12.66
O & M Expenses	73.02	128.74	133.02	137.42
Total	197.15	365.94	372.57	370.15

(₹ in lakh)

Asset 5 (vii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	11.18	25.97	26.31	26.31
Interest on Loan	13.40	29.40	27.34	24.84
Return on Equity	12.24	28.45	28.83	28.83
Interest on Working Capital	2.38	5.49	5.57	5.64
O & M Expenses	27.80	64.37	66.51	68.71
Total	67.00	153.68	154.56	154.33



(₹ in lakh)

Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	10.89	28.36	28.55	28.55
Interest on Loan	12.79	31.54	29.10	26.43
Return on Equity	11.94	31.13	31.34	31.34
Interest on Working Capital	2.21	5.65	5.72	5.78
O & M Expenses	25.09	64.37	66.51	68.71
Total	62.92	161.05	161.22	160.81

(₹ in lakh)

Asset 5 (ix)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	0.96	38.23	43.20	43.72
Interest on Loan	1.17	44.55	46.74	43.32
Return on Equity	1.08	42.81	48.37	48.95
Interest on Working Capital	0.18	6.45	6.86	6.93
O & M Expenses	1.84	64.37	66.51	68.71
Total	5.23	196.41	211.68	211.63

(₹ in lakh)

Asset 6				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	92.06	202.71	204.54	204.54
Interest on Loan	109.70	227.89	210.95	191.76
Return on Equity	102.78	226.34	228.37	228.37
Interest on Working Capital	9.64	21.00	20.90	20.66
O & M Expenses	47.65	106.43	110.00	113.63
Total	361.83	784.37	774.76	758.96

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



(₹ in lakh)

Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	3.28	3.40	3.51	3.62	3.74
Maintenance Spares	5.91	6.11	6.31	6.52	6.74
Receivables	449.50	465.58	462.13	455.29	443.85
Total working capital	458.69	475.09	471.95	465.43	454.33
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	61.92	64.14	63.71	62.83	61.33
Pro-rata Interest of working capital	45.61	64.14	63.71	62.83	61.33

(₹ in lakh)

Asset 2					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	64.44	74.03	86.00	88.01	86.49
Total working capital	84.14	94.38	107.03	109.74	108.94
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest of working capital	11.36	12.74	14.45	14.81	14.71
Pro-rata Interest of working capital	4.35	12.74	14.45	14.81	14.71

(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	7.03	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	86.29	97.92	111.43	112.52	110.25
Total working capital	105.98	118.27	132.46	134.25	132.70
Rate of Interest	13.50	13.51	13.50	13.50	13.50
Interest of working capital	14.31	15.97	17.88	18.12	17.91
Pro-rata Interest of working capital	3.08	15.97	17.88	18.12	17.91



(₹ in lakh)

Asset 4				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	22.96	23.70	24.50	25.31
Maintenance Spares	41.33	42.66	44.10	45.56
Receivables	1789.31	1816.02	1786.54	1745.75
Total working capital	1853.60	1882.38	1855.14	1816.62
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	250.24	254.12	250.44	245.24
Pro-rata Interest of working capital	158.08	254.12	250.44	245.24

(₹ in lakh)

Asset 5(i)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	65.89	68.08	70.34	72.67
Maintenance Spares	118.61	122.54	126.61	130.81
Receivables	2649.00	2743.61	2729.01	2669.25
Total working capital	2833.50	2934.23	2925.96	2872.73
Rate of Interest	13.50	13.50	133.00	13.50
Interest of working capital	382.52	396.12	395.00	387.82
Pro-rata Interest of working capital	381.46	396.12	395.00	387.82

(₹ in lakh)

Asset 5 (ii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	85.29	96.43	98.55	97.20
Total working capital	105.64	117.46	120.28	119.65
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	14.26	15.86	16.24	16.15
Pro-rata Interest of working capital	10.93	15.86	16.24	16.15

(₹ in lakh)

Asset 5 (iii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	12.46	12.87	13.30	13.74
Maintenance Spares	22.43	23.17	23.94	24.74
Receivables	179.78	202.96	210.51	209.07
Total working capital	214.67	239.00	247.75	247.55
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	28.98	32.26	33.45	33.42
Pro-rata Interest of working capital	21.50	32.26	33.45	33.42



(₹ in lakh)

Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	26.30	27.17	28.07	29.00
Maintenance Spares	47.33	48.90	50.52	52.20
Receivables	1558.61	1618.84	1598.77	1556.72
Total working capital	1632.24	1694.91	1677.36	1637.92
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	220.35	228.81	226.44	221.12
Pro-rata Interest of working capital	140.98	228.81	226.44	221.12

(₹ in lakh)

Asset 5 (v)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	91.30	107.97	116.07	115.88
Total working capital	111.65	129.00	137.80	138.33
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	15.07	17.42	18.60	18.67
Pro-rata Interest of working capital	9.11	17.42	18.60	18.67

(₹ in lakh)

Asset 5 (vi)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	10.38	10.73	11.09	11.45
Maintenance Spares	18.69	19.31	19.95	20.61
Receivables	56.07	60.99	62.10	61.69
Total working capital	85.14	91.03	93.14	93.75
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	11.49	1229.00	12.57	12.66
Pro-rata Interest of working capital	6.73	12.29	12.57	12.66

(₹ in lakh)

Asset 5 (vii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	25.03	25.61	25.76	25.72
Total working capital	39.57	40.63	41.28	41.76
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	5.34	5.49	5.57	5.64
Pro-rata Interest of working capital	2.38	5.49	5.57	5.64



(₹ in lakh)

Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.34	9.66	9.98	10.31
Receivables	26.03	26.84	26.87	26.80
Total working capital	40.56	41.86	42.39	42.84
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	5.48	5.65	5.72	5.78
Pro-rata Interest of working capital	2.21	5.65	5.72	5.78

(₹ in lakh)

Asset 5 (ix)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.33	9.66	9.98	10.31
Receivables	29.46	32.74	35.28	35.27
Total working capital	43.98	47.76	50.80	51.31
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	5.94	6.45	6.86	6.93
Pro-rata Interest of working capital	0.18	6.45	6.86	6.93

(₹ in lakh)

Asset 6				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M Expenses	8.59	8.87	9.17	9.47
Maintenance Spares	15.46	15.96	16.50	17.04
Receivables	130.43	130.73	129.13	126.49
Total working capital	154.48	155.56	154.80	153.00
Rate of Interest	13.50	13.50	13.50	13.50
Interest of working capital	20.85	21.00	20.90	20.66
Pro-rata Interest of working capital	9.64	21.00	20.90	20.66

Date of Commercial Operation (COD)

13. The petitioner has submitted the actual COD of the transmission assets as follows:-



Assets	COD (Actual)
Asset 1	6.7.2014
Asset 2	13.11.2014
Asset 3	14.1.2015
Asset 4	14.8.2015
Asset 5 (i)	2.4.2015
Asset 5 (ii)	25.06.2015
Asset 5 (iii)	4.7.2015
Asset 5 (iv)	11.8.2015
Asset 5 (v)	24.8.2015
Asset 5 (vi)	31.8.2015
Asset 5 (vii)	21.10.2015
Asset 5 (viii)	6.11.2015
Asset 5 (ix)	21.3.2016
Asset 6	15.10.2015

14. The petitioner has claimed the transmission charges on the actual COD as mentioned above.

Capital Cost

15. Regulation 9 (1) and (2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-

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

(2) The Capital Cost of a new project shall include the following:

- a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- b) Interest during construction and financing charges, on the loans (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;
- c) Increase in cost in contract packages as approved by the Commission;
- d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;



- g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

“10. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time:

Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

16. The details of apportioned approved cost, actual expenditure incurred as on date of commercial operation and the projected additional capital expenditure for the period from COD to 31.3.2019 for the transmission assets is summarized below:-

(₹ in lakh)

Assets	Approved apportioned cost (as per RCE)	Capital cost as on COD	Additional capital expenditure during 2014-19					Capital cost as 31.3.2019
			2014-15	2015-16	2016-17	2017-18	Total	
Asset 1	21675.32	15753.03	1587.20	0.00	0.00	0.00	1587.20	17340.23
Asset 6		3726.25	0.00	68.04	68.86	0.00	136.90	3863.15
Asset 2	2857.13	1745.35	25.98	641.95	184.42	0.00	852.35	2597.70
Asset 3	3836.76	2395.34	13.44	815.55	223.49	0.00	1052.48	3447.82
Asset 4	70644.34	61764.64	0.00	3090.34	457.39	0.00	3547.73	65312.37
Asset 5 (i)	113541.47	85726.58	0.00	7161.86	2488.54	369.35	10019.75	95746.33
Asset 5 (ii)	3361.17	2054.42	0.00	605.88	229.60	35.41	870.89	2925.31
Asset 5 (iii)	7162.53	4628.57	0.00	1179.85	594.16	197.60	1971.61	6600.18
Asset 5 (iv)	57299.59	48747.19	0.00	4824.19	1474.89	0.00	6299.08	55046.27
Asset 5 (v)	3765.16	2227.98	0.00	663.37	548.24	144.00	1355.61	3583.59
Asset 5 (vi)	1469.74	1006.84	0.00	231.05	98.98	0.00	330.03	1336.87
Asset 5 (vii)	507.14	452.97	0.00	21.85	12.82	0.00	34.67	487.64
Asset 5 (viii)	549.41	479.98	0.00	43.10	7.13	0.00	50.23	530.21
Asset 5 (ix)	952.23	594.33	0.00	45.56	168.40	19.80	233.76	828.09

17. The capital cost as on COD and the estimated additional capital expenditure are as per the Auditor Certificates dated 29.1.2015, 21.7.2015, 10.12.2015, 30.10.2015, 5.11.2015, 6.11.2015, 16.12.2015, 20.5.2016 and 20.11.2015.

18. The petitioner has adjusted the capital cost as on COD and the additional capital expenditure during 2014-19 based on the cash IDC as and when discharged.

19. The admissible capital cost of the transmission assets as on COD is worked out in the subsequent paragraphs after dealing with time overrun, cost overrun and taking into consideration the initial spares and IEDC and IDC amount.

Cost over-run

20. There is no cost overrun in the instant assets as per the RCE of the project submitted by the petitioner.

Time Over-run

21. As per the IA, the transmission assets were scheduled to be commissioned within 32 months of the investment approval i.e. by 1.12.2012, against which the transmission assets were commissioned with a delay of 19 to 40 months as mentioned below:-

Assets	SCOD	COD	Time Overrun (months)
Asset 1	1.12.2012	6.7.2014	19
Asset 2	1.12.2012	13.11.2014	23
Asset 3	1.12.2012	14.1.2015	25
Asset 4	1.12.2012	14.8.2015	32
Asset 5 (i)	1.12.2012	2.4.2015	28
Asset 5 (ii)	1.12.2012	25.6.2015	31
Asset 5 (iii)	1.12.2012	4.7.2015	31
Asset 5 (iv)	1.12.2012	11.8.2015	32
Asset 5 (v)	1.12.2012	24.8.2015	33



Assets	SCOD	COD	Time Overrun
Asset 5 (vi)	1.12.2012	31.8.2015	33
Asset 5 (vii)	1.12.2012	21.10.2015	35
Asset 5 (viii)	1.12.2012	6.11.2015	35
Asset 5 (ix)	1.12.2012	21.3.2016	40
Asset 6	1.12.2012	15.10.2015	34

22. The petitioner has submitted the following reasons for delay in the transmission assets:

A. Delay in land acquisition at Vindhyachal PS:

a. Private Land (25.50 Hectare):

- i. Investment approval of Rihand-III & Vindhyachal-IV project was issued vide memorandum dated 17th March, 2010. In February 2010, Petitioner submitted application to local administration for acquiring private land (25.5Ha) at Vindhyachal PS. After publishing of Section 4, Petitioner intimated Collector regarding illegal constructions by villagers on the land- (Letter dated 23.5.2011). During the process of section 6 publication, on 7.4.2011, Collector instructed to constitute committee for agreement with State administration in consultation with villagers for settlement of R & R Package. Section 6 was published on 10th June, 2011. Villagers were carrying out illegal construction activities, of which Petitioner corresponded with Land Officer, Collector and Secretary (Revenue) and requested the demolition of such temporary structures from the land. (letters dated 2.9.2011, 27.9.2011, 28.11.2011, 27.4.2012, 8.5.2012 & 4.5.2012). According to the committee proceedings, enumeration of property on the subject land was done. Section 9 discussion was completed from 16.5.2012 to 19.5.2012.



Intimation was given to Land Officer by Committee for compensation towards temporary hutments on 26.6.2012.

- ii. Land Award letter was issued by Collector on 13.9.2012 and 1.10.2012. Due to continuous resistance from villagers and illegal constructions on site, Petitioner further requested Land Officer for the demolition of temporary constructions to continue work at site (letter dated 26.9.2012). Finalization of compensation for houses on land processed and deposited to LAO in December 2012. (letters dated 17.12.2012 and 22.12.2012 to Collector) Demolition of houses started but it was delayed due to lot of objections / clarifications / disputes between villagers and administration in January and February 2013. (letters to Land Officer regarding disruption in works dated 7.2.2013, 21.2.2013, 23.2.2013, 28.2.2013, 15.3.2013) In March 2013, Issues regarding Rehayashee and Gairehayashee houses settlement were resolved with administration and payments deposited (letters to Land Officer dated 15.3.2013, 18.3.2013, 26.3.2013).
- iii. Demolition of houses was done by administration progressively in the midst of resistance from villagers. Correspondences to Land Officer requesting demolition of illegal constructions by Petitioner letters dated 1.4.2013, 23.4.2013, 1.5.2013, 11.6.2013, 18.6.2013, 25.7.2013, 2.9.2013, 6.9.2013, 11.10.2013, 15.4.2014, 18.9.2014, 15.1.2015. Disruption of work by villagers during construction at site intimated to Land Officer vide letter dated 25.6.2013, 16.8.2013, 4.9.2013, 7.9.2013, 16.9.2013. Complaints to Police chief dated 12.9.2013, 14.9.2013, 25.1.2014, 4.9.2015, 28.3.2016. Letters to Collector dtd 30.1.2014,



21.2.2014, 8.3.2014, 25.8.2014, 2.9.2014 regarding resistance from villagers.

- iv. The petitioner has submitted that it had held meeting with Collector, Singrauli on 5.7.2014 regarding payment to families for land acquired. Land Officer confirmed payment of compensation package to families affected on acquired land through letter dated 4.12.2014. Vide letter dated 24.12.2014. Petitioner intimated readiness for payment of compensation as per meeting with collector on 5.7.2014. The petitioner has also submitted the relevant documents vide its submission dated 25.5.2016.

b. Forest Land (10.76 Hectare)

- i. The petitioner has submitted that on 5.12.2012, in- principle approval was issued by MoEF Bhopal. Payments against CA, NPV, etc. were deposited and compliances forwarded from DFOs to RMOEF through forest offices of state. Final approval by RMoEF Bhopal was issued on 15th April 2013. DFO issued NOC on 17.5. 2013, the petitioner has submitted the same.

c. Government Land (21.32 Hectare):

- i. The petitioner applied for Government Land on 1.4.2012. Approval from State Govt of M.P was issued on 14.6.2013. Govt. land allotted (18.05 ha) on 2.8.2013.
- ii. The petitioner has submitted that the delay in land acquisition for Vindhyachal Substation was beyond the control of Petitioner in spite of taking all possible advance/proactive actions.



B. Delay in forest clearance for 765KV D/C Gwalior-Jaipur Line

- a. The delay in Forest Clearance can be attributed mainly to involvement of two Wildlife Sanctuaries in the route of Inter-state Gwalior-Jaipur line. It may be appreciated that in order to reach Jaipur the crossing of Chambal River at an appropriate place is inevitable and 435 km long stretch of Chambal River starting from Kota (Rajasthan) to meet Yamuna at Etawah (U.P.) via Madhya Pradesh has been declared as a Chambal Crocodile Sanctuary for which prior permission of Hon'ble Supreme Court (SC) is a must and cannot be avoided for carrying out the transmission line construction activity. As regards other Sanctuary i.e. Ghatigaon Great Indian Bustard (GIB) Sanctuary located in the Western side of the Gwalior having a total area of 511 Sq. M is adjacent to habitation of Gwalior City which is developing and extending very fast. Moreover, presence of Tighara dam and area covered under Special Area Development Authority (SADA) on Western side of the Gwalior were big constrained in the route of subject line. Due to such constraint and the natural geographical location of GIB Sanctuary it was not possible to completely avoid the route of line away from Sanctuary area. However, in order to save precious resources POWERGRID has taken a decision to make two 765 KV Single Circuit line into one Double Circuit line in Sanctuary and Forest area to minimize the Right of Way requirement. This initiative has not only reduced the involvement of Forest and Sanctuary area but has facilitated smooth processing of case and also in obtaining SC permission which has also lauded the initiative taken by POWERGRID for conserving protected and forest area:
- b. As per the prevailing rules and guidelines at that time, forest proposal of projects involving both Forest and Wildlife sanctuary / National Parks were



not processed till the prior permission of SC is obtained. Accordingly, the forest proposals which were submitted in July 2012 by POWERGRID were not processed beyond the State Nodal Officer level till we got the SC permission allowing construction of transmission line through Sanctuaries vide its order dated 20.1.2014. It may also be noted that this is for the 1st time after the banning all activities in the Sanctuaries and national Parks area without its prior permission, SC in this case has granted permission for the GIB Sanctuary area without the recommendation of NBWL at that time. The delay in obtaining NBWL recommendation for the GIB sanctuary area is basically on account of expiry of term of Standing Committee of NBWL on 7.9.2013 and POWERGRID's GIB proposal was received in MoEF on 25.9.2013 from Govt. of Madhya Pradesh. The reconstitution of Standing Committee of NBWL has taken around eleven months and was notified only in July 2014. The GIB proposal of POWERGRID was discussed in the 1st Meeting of Standing Committee of NBWL held on 13.8.2014 wherein the Committee decided that decision will be taken after the inspection by the Wildlife Institute of India- (WII). The WII after inspection and many rounds of deliberation with POWERGRID submitted its report to MoEF on 26.12.2014. The proposal along with WII report was again discussed in the next meeting held on 21.1.2015 and got recommended. After the recommendation of NBWL the Forest proposal for balance 20.07 Ha. Forest coming under the GIB sanctuary was processed and in principle approval accorded on 25.5.2015 and after compliance of condition the working permission was granted on 3.1.2015. From the above it may be noted that the Forest and Wildlife Sanctuary area clearance in Madhya Pradesh has taken



approximately 35 months or 1050 days which is quite high in comparison to MoEF stipulated 300 days for in principle approval.

- c. As regard the CMD of Petitioner Company's letter to Secretary, Ministry of MoEF dated 23.5.2014, it is to inform that going through the content of the letter, it clearly indicates that Petitioner in spite of taking advance action like obtaining SC permission in January 2014 is unable to proceed with the work in the absence of pending NBWL and Forest clearance. Such letter is emphasizing petitioner company's concern regarding substantial delay in NBWL and Forest clearance in spite of taking all possible action by the Petitioner together with other follow up actions acted as a catalyst in expediting the reconstitution of standing committee of NBWL in July 2014.

Moreover, it is also to submit that Petitioner in spite of taking all possible steps to expedite the clearances has regularly sought assistance from Ministry of Power. Even the services of Hon'ble Power Minister were sought in expediting the Forest Clearances including one like of 400kV D/C Vindhyachal-Vindhyachal Pooling station line involving only 9.37 Ha. in M.P. Apart from this the issue regarding delay in wildlife clearance for Gwalior-Jaipur line was also brought to the notice of PMO for their help and support in the matter. The aforesaid facts clearly indicate that the petitioner in spite of its best possible efforts and timely submission of application for forest/WL clearance could not get the required statutory clearance from the MoEF and SC due to various constraints as explained above. Therefore, for such delay POWERGRID alone cannot be held responsible.

C. Delay for Asset 2, Asset 3 and Asset 5 (ii):

- a. The petitioner had submitted application for the acquisition of total 12.485 Ha (10.269 Ha Pvt. Land and 2.216 Ha Govt. Land) on 24.2.2010 and further



gazette notification were issued in following order (i) Sec 4 - 23. 7.2010 & 14. 9.2010 (ii) Sec 6 - 27. 8.2010 & 19.11.2010. The amount as per the demand note raised by revenue authorities was deposited on 15.11.2010. Award letter for the land was passed by District Collector Satna on 19.6.2012. However, the following litigations were filed by land owners:

- Shравan Kumar Tripathi Vs State of MP, Power Grid Corp of India & others,
- Bhai Lal Charmakar Vs State of MP, Power Grid Corp of India & others.

b. The case was further listed for final hearing during the last week of July 2014. However the physical possession of this land after evacuation by the Land owner could be obtained in the last week of July 2014.

c. In view of the reasons explained above and based on the documentation/ correspondences etc., the petitioner has submitted that delay in execution of the project was beyond the control of the petitioner, therefore Hon'ble Commission may kindly condone the delay and allow full tariff as claimed in the petition.

23. We have considered the submission of the petitioner w.r.t the time overrun in the transmission assets due to delay in land acquisition, delay in forest clearance and further delay due to litigations filed by the land owners. Based on the reasons explained above and the documentary evidences submitted by the petitioner, we are of the view that the delay in commissioning of the assets was beyond the control of the petitioner and hence the time overrun in the instant assets is condoned.

Initial Spares

24. The initial spares claimed by the petitioner towards the transmission assets as mentioned below:-



(₹ in lakh)

Assets	P&M Cost		Initial Spares Claimed	
	TL	SS	TL	SS
Asset 1	14887.24	0.00	139.33	0.00
Asset 2	0.00	2405.73	0.00	144.34
Asset 3	0.00	3086.18	0.00	185.17
Asset 4	50522.19	4272.16	496.00	3.00
Asset 5 (i)	54670.07	14168.82	547.05	570.71
Asset 5 (ii)	0.00	2539.08	0.00	152.00
Asset 5 (iii)	0.00	6050.55	0.00	240.00
Asset 5 (iv)	41213.13	4413.00	410.00	176.00
Asset 5 (v)	0.00	3168.74	0.00	126.00
Asset 5 (vi)	0.00	1168.04	0.00	46.00
Asset 5 (vii)	0.00	411.08	0.00	16.00
Asset 5 (viii)	0.00	448.75	0.00	18.00
Asset 5 (ix)	0.00	575.22	0.00	23.01
Asset 6	0.00	448.76	0.00	18.00

25. The initial spares claimed by the petitioner are within the normative limits hence the same is allowed.

26. Based on the above, capital costs considered as on COD for the purpose of the determination of transmission tariff are as below:-

(₹ in lakh)

Assets	Capital cost as on COD
Asset 1	15753.03
Asset 2	1745.35
Asset 3	2395.34
Asset 4	61764.64
Asset 5 (i)	85726.58
Asset 5 (ii)	2054.42
Asset 5 (iii)	4628.57
Asset 5 (iv)	48747.19
Asset 5 (v)	2227.98
Asset 5 (vi)	1006.84
Asset 5 (vii)	452.97
Asset 5 (viii)	479.98
Asset 5 (ix)	594.33
Asset 6	3726.25



Additional Capital Expenditure

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

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

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

28. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines cut-off date as follows:-

“Cut-off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31st March of the year closing after three years of the year of commercial operation:

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer ”

29. The petitioner has claimed estimated additional capital expenditure towards balance and retention payments as mentioned below:-

(₹ in lakh)

Assets	Capital cost as on COD	Additional capital expenditure during 2014-19					Capital cost as 31.3.2019
		2014-15	2015-16	2016-17	2017-18	Total	
Asset 1	15753.03	1587.20	0.00	0.00	0.00	1587.20	17340.23
Asset 2	1745.35	25.98	641.95	184.42	0.00	852.35	2597.70
Asset 3	2395.34	13.44	815.55	223.49	0.00	1052.48	3447.82
Asset 4	61764.64	0.00	3090.34	457.39	0.00	3547.73	65312.37
Asset 5 (i)	85726.58	0.00	7161.86	2488.54	369.35	10019.75	95746.33
Asset 5 (ii)	2054.42	0.00	605.88	229.60	35.41	870.89	2925.31
Asset 5 (iii)	4628.57	0.00	1179.85	594.16	197.60	1971.61	6600.18
Asset 5 (iv)	48747.19	0.00	4824.19	1474.89	0.00	6299.08	55046.27



Assets	Capital cost as on COD	Additional capital expenditure during 2014-19					Capital cost as 31.3.2019
		2014-15	2015-16	2016-17	2017-18	Total	
Asset 5 (v)	2227.98	0.00	663.37	548.24	144.00	1355.61	3583.59
Asset 5 (vi)	1006.84	0.00	231.05	98.98	0.00	330.03	1336.87
Asset 5 (vii)	452.97	0.00	21.85	12.82	0.00	34.67	487.64
Asset 5 (viii)	479.98	0.00	43.10	7.13	0.00	50.23	530.21
Asset 5 (ix)	594.33	0.00	45.56	168.40	19.80	233.76	828.09
Asset 6	3726.25	0.00	68.04	68.86	0.00	136.90	3863.15

30. The petitioner vide its submission dated 25.5.2016 has revised the tariff forms and has adjusted the cash IDC as and when discharged i.e. upto COD and after COD.

31. The additional capital expenditure claimed by the petitioner is on account of balance and retention payments. The same is allowed under Regulation 14(1) of 2014 Tariff Regulations, subject to true up on actual basis. Thus the additional capital expenditure allowed for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Assets	Capital cost as on COD	Additional capital expenditure during 2014-19					Capital cost as 31.3.2019
		2014-15	2015-16	2016-17	2017-18	Total	
Asset 1	15753.03	1587.20	0.00	0.00	0.00	1587.20	17340.23
Asset 2	1745.35	25.98	641.95	184.42	0.00	852.35	2597.70
Asset 3	2395.34	13.44	815.55	223.49	0.00	1052.48	3447.82
Asset 4	61764.64	0.00	3090.34	457.39	0.00	3547.73	65312.37
Asset 5 (i)	85726.58	0.00	7161.86	2488.54	369.35	10019.75	95746.33
Asset 5 (ii)	2054.42	0.00	605.88	229.60	35.41	870.89	2925.31
Asset 5 (iii)	4628.57	0.00	1179.85	594.16	197.60	1971.61	6600.18
Asset 5 (iv)	48747.19	0.00	4824.19	1474.89	0.00	6299.08	55046.27
Asset 5 (v)	2227.98	0.00	663.37	548.24	144.00	1355.61	3583.59
Asset 5 (vi)	1006.84	0.00	231.05	98.98	0.00	330.03	1336.87
Asset 5 (vii)	452.97	0.00	21.85	12.82	0.00	34.67	487.64
Asset 5 (viii)	479.98	0.00	43.10	7.13	0.00	50.23	530.21
Asset 5 (ix)	594.33	0.00	45.56	168.40	19.80	233.76	828.09
Asset 6	3726.25	0.00	68.04	68.86	0.00	136.90	3863.15



Debt: Equity

32. Clause (1) of Regulation 19 of the 2014 Tariff Regulations provides as under:-

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan”

Provided that:

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

33. The petitioner has considered the debt: equity ratio of 70:30, which is in line with the 2014 Tariff Regulations, hence the same is considered for calculation of tariff.

34. Accordingly, the details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows

(₹ in lakh)

Asset 1						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	11027.12	70.00	1111.04	70.00	12138.16	70.00
Equity	4725.91	30.00	476.16	30.00	5202.07	30.00
Total	15753.03	100.00	1587.20	100.00	17340.23	100.00
Asset 2						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	1221.75	70.00	596.65	70.00	1818.39	70.00
Equity	523.61	30.00	255.71	30.00	779.31	30.00
Total	1745.35	100.00	852.35	100.00	2597.70	100.00
Asset 3						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	1676.74	70.00	736.74	70.00	2413.47	70.00
Equity	718.60	30.00	315.74	30.00	1034.35	30.00
Total	2395.34	100.00	1052.48	100.00	3447.82	100.00



Asset 4						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	43235.25	70.00	2483.41	70.00	45718.66	70.00
Equity	18529.39	30.00	1064.32	30.00	19593.71	30.00
Total	61764.64	100.00	3547.73	100.00	65312.37	100.00
Asset 5 (i)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	60008.61	70.00	7013.83	70.00	67022.43	70.00
Equity	25717.97	30.00	3005.93	30.00	28723.90	30.00
Total	85726.58	100.00	10019.75	100.00	95746.33	100.00
Asset 5 (ii)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	1438.09	70.00	609.62	70.00	2047.72	70.00
Equity	616.33	30.00	261.27	30.00	877.59	30.00
Total	2054.42	100.00	870.89	100.00	2925.31	100.00
Asset 5 (iii)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	3240.00	70.00	1380.13	70.00	4620.13	70.00
Equity	1388.57	30.00	591.48	30.00	1980.05	30.00
Total	4628.57	100.00	1971.61	100.00	6600.18	100.00
Asset 5 (iv)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	34123.03	70.00	4409.36	70.00	38532.39	70.00
Equity	14624.16	30.00	1889.72	30.00	16513.88	30.00
Total	48747.19	100.00	6299.08	100.00	55046.27	100.00
Asset 5 (v)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	1559.59	70.00	948.93	70.00	2508.51	70.00
Equity	668.39	30.00	406.68	30.00	1075.08	30.00
Total	2227.98	100.00	1355.61	100.00	3583.59	100.00
Asset 5 (vi)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	704.79	70.00	231.02	70.00	935.81	70.00



Equity	302.05	30.00	99.01	30.00	401.06	30.00
Total	1006.84	100.00	330.03	100.00	1336.87	100.00
Asset 5 (vii)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	317.08	70.00	24.27	70.00	341.35	70.00
Equity	135.89	30.00	10.40	30.00	146.29	30.00
Total	452.97	100.00	34.67	100.00	487.64	100.00
Asset 5 (viii)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	335.99	70.00	35.16	70.00	371.15	70.00
Equity	143.99	30.00	15.07	30.00	159.06	30.00
Total	479.98	100.00	50.23	100.00	530.21	100.00
Asset 5 (ix)						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	416.03	70.00	163.63	70.00	579.66	70.00
Equity	178.30	30.00	70.13	30.00	248.43	30.00
Total	594.33	100.00	233.76	100.00	828.09	100.00
Asset 6						
Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	2608.38	70.00	95.83	70.00	2704.21	70.00
Equity	1117.88	30.00	41.07	30.00	1158.95	30.00
Total	3726.25	100.00	136.90	100.00	3863.15	100.00

Return on Equity ("ROE")

35. Clause (1) and (2) of Regulations 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:
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.”

36. The petitioner has claimed ROE at the rate of 20.961% after grossing up the ROE of 15.5% with MAT rate as per the above said 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.

37. 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.

38. 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. The ROE allowed for the instant transmission asset is given below:-

(₹ in lakh)

Asset 1					
Return on Equity	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	4725.91	5202.07	5202.07	5202.07	5202.07
Additions	476.16	0.00	0.00	0.00	0.00
Closing Equity	5202.07	5202.07	5202.07	5202.07	5202.07
Average Equity	4963.99	5202.07	5202.07	5202.07	5202.07
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	973.46	1025.09	1025.09	1025.09	1025.09
Pro-rata Return on Equity	717.43	1025.09	1025.09	1025.09	1025.09

(₹ in lakh)

Asset 2					
Return on Equity	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	523.61	531.40	723.98	779.31	779.31
Additions	7.79	192.59	55.33	0.00	0.00
Closing Equity	531.40	723.98	779.31	779.31	779.31
Average Equity	527.50	627.69	751.65	779.31	779.31
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	103.45	123.69	148.12	153.57	153.57
Pro-rata Return on Equity	39.39	123.69	148.12	153.57	153.57

(₹ in lakh)

Asset 3					
Return on Equity	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	718.60	722.63	967.30	1034.34	1034.34
Additions	4.03	244.67	67.05	0.00	0.00
Closing Equity	722.63	967.30	1034.34	1034.34	1034.34
Average Equity	720.62	844.97	1000.82	1034.34	1034.34
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	141.32	166.50	197.22	203.82	203.82
Pro-rata Return on Equity	29.81	166.50	197.22	203.82	203.82



(₹ in lakh)

Asset 4				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	18529.39	19456.49	19593.71	19593.71
Additions	927.10	137.22	0.00	0.00
Closing Equity	19456.49	19593.71	19593.71	19593.71
Average Equity	18992.94	19525.10	19593.71	19593.71
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	3742.65	3847.51	3861.03	3861.03
Pro-rata Return on Equity	2362.16	3847.51	3861.03	3861.03

(₹ in lakh)

Asset 5(i)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	25717.97	27866.53	28613.09	28723.90
Additions	2148.56	746.56	110.81	0.00
Closing Equity	27866.53	28613.09	28723.90	28723.90
Average Equity	26792.25	28239.81	28668.50	28723.90
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	5279.54	5564.79	5649.26	5660.18
Pro-rata Return on Equity	5265.11	5564.79	5649.26	5660.18

(₹ in lakh)

Asset 5 (ii)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	616.33	798.09	866.97	877.59
Additions	181.76	68.88	10.62	0.00
Closing Equity	798.09	866.97	877.59	877.59
Average Equity	707.21	832.53	872.28	877.59
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	139.36	164.05	171.89	172.93
Pro-rata Return on Equity	106.99	164.05	171.89	172.93



(₹ in lakh)

Asset 5 (iii)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	1388.57	1742.53	1920.77	1980.05
Additions	353.96	178.25	59.28	0.00
Closing Equity	1742.53	1920.77	1980.05	1980.05
Average Equity	1565.55	1831.65	1950.41	1980.05
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	308.50	360.94	384.34	390.18
Pro-rata Return on Equity	229.27	360.94	384.34	390.18

(₹ in lakh)

Asset 5 (iv)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	14624.16	16071.41	16513.88	16513.88
Additions	1447.26	442.47	0.00	0.00
Closing Equity	16071.41	16513.88	16513.88	16513.88
Average Equity	15347.79	16292.65	16513.88	16513.88
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	3024.35	3210.54	3254.14	3254.14
Pro-rata Return on Equity	1933.60	3210.54	3254.14	3254.14

(₹ in lakh)

Asset 5 (v)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	668.39	867.41	1031.88	1075.08
Additions	199.01	164.47	43.20	0.00
Closing Equity	867.41	1031.88	1075.08	1075.08
Average Equity	767.90	949.64	1053.48	1075.08
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	151.32	187.13	207.59	211.85
Pro-rata Return on Equity	91.37	187.13	207.59	211.85



(₹ in lakh)

Asset 5 (vi)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	302.05	371.37	401.06	401.06
Additions	69.32	29.69	0.00	0.00
Closing Equity	371.37	401.06	401.06	401.06
Average Equity	336.71	386.21	401.06	401.06
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	66.35	76.11	79.03	79.03
Pro-rata Return on Equity	38.79	76.11	79.03	79.03

(₹ in lakh)

Asset 5 (vii)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	135.89	142.45	146.29	146.29
Additions	6.56	3.85	0.00	0.00
Closing Equity	142.45	146.29	146.29	146.29
Average Equity	139.17	144.37	146.29	146.29
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	27.42	28.45	28.83	28.83
Pro-rata Return on Equity	12.21	28.45	28.83	28.83

(₹ in lakh)

Asset 5 (viii)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	143.99	156.92	159.06	159.06
Additions	12.93	2.14	0.00	0.00
Closing Equity	156.92	159.06	159.06	159.06
Average Equity	150.46	157.99	159.06	159.06
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	29.65	31.13	31.34	31.34
Pro-rata Return on Equity	11.91	31.13	31.34	31.34

(₹ in lakh)

Asset 5 (ix)				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	178.30	191.97	242.49	248.43
Additions	13.67	50.52	5.94	0.00
Closing Equity	191.97	242.49	248.43	248.43
Average Equity	185.13	217.23	245.46	248.43



Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	36.48	42.81	48.37	48.95
Pro-rata Return on Equity	1.10	42.81	48.37	48.95

(₹ in lakh)

Asset 6				
Return on Equity	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	1117.88	1138.29	1158.95	1158.95
Additions	20.41	20.66	0.00	0.00
Closing Equity	1138.29	1158.95	1158.95	1158.95
Average Equity	1128.08	1148.62	1158.95	1158.95
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	222.29	226.34	228.38	228.38
Pro-rata Return on Equity	102.64	226.34	228.38	228.38

Interest on Loan (“IoL”)

39. Clause 5 and 6 of Regulation 26 of 2014 Tariff Regulations provides that:-

“(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.”

40. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. Further, the petitioner has prayed to allow it to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period, if any from the respondents. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner’s prayer to bill and adjust the impact on interest on loan



due to change in interest rate on account of floating rate of interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The details of weighted average rate of interest are placed at Annexure-I and the IOL has been worked out as follows:-

(₹ in lakh)

Asset 1					
Interest on Loan	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	11027.12	12138.16	12138.16	12138.16	12138.16
Cumulative Repayment upto Previous Year	0.00	643.88	1559.44	2475.01	3390.57
Net Loan-Opening	11027.12	11494.28	10578.72	9663.16	8747.59
Additions	1111.04	0.00	0.00	0.00	0.00
Repayment during the year	643.88	915.56	915.56	915.56	915.56
Net Loan-Closing	11494.28	10578.72	9663.16	8747.59	7832.03
Average Loan	11260.70	11036.50	10120.94	9205.37	8289.81
Weighted Average Rate of Interest on Loan (%)	6.6466	6.7756	7.1757	7.4378	7.4322
Interest on Loan	748.45	747.79	726.25	684.68	616.12
Pro rate Interest on Normative Loan	551.60	747.79	726.25	684.68	616.12

(₹ in lakh)

Asset 2					
Interest on Loan	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1221.75	1239.93	1689.30	1818.39	1818.39
Cumulative Repayment upto Previous Year	0.00	35.36	145.83	278.12	415.28
Net Loan-Opening	1221.75	1204.58	1543.47	1540.27	1403.11
Additions	18.19	449.37	129.09	0.00	0.00
Repayment during the year	35.36	110.47	132.29	137.16	137.16
Net Loan-Closing	1204.58	1543.47	1540.27	1403.11	1265.95
Average Loan	1213.16	1374.02	1541.87	1471.69	1334.53
Weighted Average Rate of Interest on Loan (%)	7.7975	8.0115	8.5008	8.7946	8.7927
Interest on Loan	94.60	110.08	131.07	129.43	117.34
Pro rate Interest on Normative Loan	36.02	110.08	131.07	129.43	117.34



(₹ in lakh)

Asset 3					
Interest on Loan	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1676.74	1686.15	2257.03	2413.48	2413.48
Cumulative Repayment upto Previous Year	0.00	26.76	175.47	351.61	533.66
Net Loan-Opening	1676.74	1659.39	2081.56	2061.86	1879.82
Additions	9.41	570.89	156.44	0.00	0.00
Repayment during the year	26.76	148.71	176.14	182.04	182.04
Net Loan-Closing	1659.39	2081.56	2061.86	1879.82	1697.77
Average Loan	1668.06	1870.48	2071.71	1970.84	1788.79
Weighted Average Rate of Interest on Loan (%)	9.0480	9.0437	9.0395	9.0349	9.0316
Interest on Loan	150.93	169.16	187.27	178.06	161.56
Pro rate Interest on Normative Loan	31.84	169.16	187.27	178.06	161.56

(₹ in lakh)

Asset 4				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	43235.25	45398.49	45718.66	45718.66
Cumulative Repayment upto Previous Year	0.00	2110.38	5547.77	8997.24
Net Loan-Opening	43235.25	43288.10	40170.89	36721.42
Additions	2163.24	320.17	0.00	0.00
Repayment during the year	2110.38	3437.39	3449.47	3449.47
Net Loan-Closing	43288.10	40170.89	36721.42	33271.96
Average Loan	43261.68	41729.49	38446.15	34996.69
Weighted Average Rate of Interest on Loan (%)	7.2207	7.3638	7.4505	7.4728
Interest on Loan	3123.80	3072.86	2864.41	2615.23
Pro rate Interest on Normative Loan	1971.58	3072.86	2864.41	2615.23

(₹ in lakh)

Asset 5(i)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	60008.61	65021.91	66763.89	67022.43
Cumulative Repayment upto Previous Year	0.00	4309.54	8870.55	13503.20
Net Loan-Opening	60008.61	60712.37	57893.34	53519.23
Additions	5013.30	1741.98	258.55	0.00
Repayment during the year	4309.54	4561.01	4632.65	4642.40
Net Loan-Closing	60712.37	57893.34	53519.23	48876.83
Average Loan	60360.49	59302.85	55706.28	51198.03
Weighted Average Rate of Interest on Loan (%)	8.4824	8.6388	8.7123	8.6981
Interest on Loan	5120.04	5123.05	4853.27	4453.24
Pro rate Interest on Normative Loan	5106.05	5123.05	4853.27	4453.24



(₹ in lakh)

Asset 5 (ii)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	1438.09	1862.21	2022.93	2047.72
Cumulative Repayment upto Previous Year	0.00	95.56	242.09	395.61
Net Loan-Opening	1438.09	1766.65	1780.84	1652.11
Additions	424.12	160.72	24.79	0.00
Repayment during the year	95.56	146.53	153.52	154.46
Net Loan-Closing	1766.65	1780.84	1652.11	1497.65
Average Loan	1602.37	1773.75	1716.48	1574.88
Weighted Average Rate of Interest on Loan (%)	9.1373	9.1320	9.1209	9.1079
Interest on Loan	146.41	161.98	156.56	143.44
Pro rate Interest on Normative Loan	112.41	161.98	156.56	143.44

(₹ in lakh)

Asset 5 (iii)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	3240.00	4065.89	4481.81	4620.13
Cumulative Repayment upto Previous Year	0.00	204.77	527.14	870.41
Net Loan-Opening	3240.00	3861.12	3954.67	3749.71
Additions	825.90	415.91	138.32	0.00
Repayment during the year	204.77	322.37	343.27	348.49
Net Loan-Closing	3861.12	3954.67	3749.71	3401.22
Average Loan	3550.56	3907.89	3852.19	3575.47
Weighted Average Rate of Interest on Loan (%)	8.9032	8.8965	8.8867	8.8772
Interest on Loan	316.11	347.67	342.33	317.40
Pro rate Interest on Normative Loan	234.93	347.67	342.33	317.40

(₹ in lakh)

Asset 5 (iv)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	34123.03	37499.97	38532.39	38532.39
Cumulative Repayment upto Previous Year	0.00	1727.58	4596.03	7503.42
Net Loan-Opening	34123.03	35772.38	33936.36	31028.97
Additions	3376.93	1032.42	0.00	0.00
Repayment during the year	1727.58	2868.45	2907.39	2907.39
Net Loan-Closing	35772.38	33936.36	31028.97	28121.58
Average Loan	34947.71	34854.37	32482.66	29575.27
Weighted Average Rate of Interest on Loan (%)	8.8400	8.8350	8.8294	8.8243
Interest on Loan	3089.36	3079.39	2868.02	2609.81
Pro rate Interest on Normative Loan	1975.17	3079.39	2868.02	2609.81



(₹ in lakh)

Asset 5 (v)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	1559.59	2023.95	2407.71	2508.51
Cumulative Repayment upto Previous Year	0.00	81.61	248.74	434.16
Net Loan-Opening	1559.59	1942.34	2158.97	2074.36
Additions	464.36	383.77	100.80	0.00
Repayment during the year	81.61	167.14	185.41	189.21
Net Loan-Closing	1942.34	2158.97	2074.36	1885.14
Average Loan	1750.96	2050.65	2116.66	1979.75
Weighted Average Rate of Interest on Loan (%)	9.0835	9.0720	9.0575	9.0600
Interest on Loan	159.05	186.04	191.72	179.37
Pro rate Interest on Normative Loan	96.04	186.04	191.72	179.37

(₹ in lakh)

Asset 5 (vi)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	704.79	866.52	935.81	935.81
Cumulative Repayment upto Previous Year	0.00	35.23	104.23	175.84
Net Loan-Opening	704.79	831.29	831.58	759.96
Additions	161.74	69.29	0.00	0.00
Repayment during the year	35.23	69.00	71.61	71.61
Net Loan-Closing	831.29	831.58	759.96	688.35
Average Loan	768.04	831.44	795.77	724.16
Weighted Average Rate of Interest on Loan (%)	9.6017	9.5994	9.5941	9.5882
Interest on Loan	73.75	79.81	76.35	69.43
Pro rate Interest on Normative Loan	43.12	79.81	76.35	69.43

(₹ in lakh)

Asset 5 (vii)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	317.08	332.37	341.35	341.35
Cumulative Repayment upto Previous Year	0.00	11.15	37.12	63.43
Net Loan-Opening	317.08	321.22	304.23	277.92
Additions	15.30	8.97	0.00	0.00
Repayment during the year	11.15	25.97	26.31	26.31
Net Loan-Closing	321.22	304.23	277.92	251.62
Average Loan	319.15	312.72	291.08	264.77
Weighted Average Rate of Interest on Loan (%)	9.5189	9.5180	9.5160	9.5137
Interest on Loan	30.38	29.77	27.70	25.19
Pro rate Interest on Normative Loan	13.53	29.77	27.70	25.19



(₹ in lakh)

Asset 5 (viii)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	335.99	366.16	371.15	371.15
Cumulative Repayment upto Previous Year	0.00	10.86	39.22	67.77
Net Loan-Opening	335.99	355.30	331.93	303.38
Additions	30.17	4.99	0.00	0.00
Repayment during the year	10.86	28.36	28.55	28.55
Net Loan-Closing	355.30	331.93	303.38	274.83
Average Loan	345.64	343.61	317.65	289.10
Weighted Average Rate of Interest on Loan (%)	9.1872	9.1789	9.1609	9.1434
Interest on Loan	31.75	31.54	29.10	26.43
Pro rate Interest on Normative Loan	12.75	31.54	29.10	26.43

(₹ in lakh)

Asset 5 (ix)				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	416.03	447.92	565.80	579.66
Cumulative Repayment upto Previous Year	0.00	0.98	39.21	82.41
Net Loan-Opening	416.03	446.94	526.59	497.25
Additions	31.89	117.88	13.86	0.00
Repayment during the year	0.98	38.23	43.20	43.72
Net Loan-Closing	446.94	526.59	497.25	453.53
Average Loan	431.49	486.77	511.92	475.39
Weighted Average Rate of Interest on Loan (%)	9.1909	9.1527	9.1309	9.1115
Interest on Loan	39.66	44.55	46.74	43.32
Pro rate Interest on Normative Loan	1.19	44.55	46.74	43.32

(₹ in lakh)

Asset 6				
Interest on Loan	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	2608.38	2656.00	2704.21	2704.21
Cumulative Repayment upto Previous Year	0.00	91.93	294.64	499.17
Net Loan-Opening	2608.38	2564.07	2409.56	2205.04
Additions	47.63	48.20	0.00	0.00
Repayment during the year	91.93	202.71	204.53	204.53
Net Loan-Closing	2564.07	2409.56	2205.04	2000.51
Average Loan	2586.22	2486.82	2307.30	2102.77
Weighted Average Rate of Interest on Loan (%)	9.1738	9.1643	9.1434	9.1198
Interest on Loan	237.26	227.90	210.97	191.77
Pro rate Interest on Normative Loan	109.55	227.90	210.97	191.77



Depreciation

41. Clause (2), (5) and (6) of Regulation 27 of 2014 Tariff Regulations provide that:-

"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."

42. Clause (67) of Regulation 3 of the 2014 Tariff Regulations defines useful life as follows:-

"(67) '**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) Gas Insulated Substation (GIS) 25 years
- (d) Hydro generating station including pumped Storage hydro generating stations
35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years"

43. The depreciation has been worked out considering the admitted capital cost as on COD and the additional capital expenditure admitted during 2014-19 period. The weighted average useful life of the transmission assets has been considered in



accordance with the above regulation. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

Asset 1					
Depreciation	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	15753.03	17340.23	17340.23	17340.23	17340.23
Additional Capitalisation	1587.20	0.00	0.00	0.00	0.00
Closing Gross Block	17340.23	17340.23	17340.23	17340.23	17340.23
Average Gross Block	16546.63	17340.23	17340.23	17340.23	17340.23
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	14891.97	15606.21	15606.21	15606.21	15606.21
Balance useful life of the asset	35	34	33	32	31
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	14891.97	14046.77	13131.20	12215.64	11300.07
Depreciation during the year	643.88	915.56	915.56	915.56	915.56
Cumulative depreciation (incl. of AAD)	643.88	1559.44	2475.01	3390.57	4306.13

(₹ in lakh)

Asset 2					
Depreciation	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1745.35	1771.33	2413.28	2597.70	2597.70
Additional Capitalisation	25.98	641.95	184.42	0.00	0.00
Closing Gross Block	1771.33	2413.28	2597.70	2597.70	2597.70
Average Gross Block	1758.34	2092.31	2505.49	2597.70	2597.70
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	1582.51	1883.07	2254.94	2337.93	2337.93
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	1582.51	1737.25	1976.82	1922.65	1785.49
Depreciation during the year	35.36	110.47	132.29	137.16	137.16
Cumulative depreciation (incl. of AAD)	35.36	145.83	278.12	415.28	552.44

(₹ in lakh)

Asset 3					
Depreciation	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	2395.34	2408.78	3224.33	3447.82	3447.82
Additional Capitalisation	13.44	815.55	223.49	0.00	0.00
Closing Gross Block	2408.78	3224.33	3447.82	3447.82	3447.82
Average Gross Block	2402.06	2816.56	3336.08	3447.82	3447.82
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	2161.85	2534.90	3002.47	3103.04	3103.04
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	2161.85	2359.43	2650.85	2569.38	2387.33
Depreciation during the year	26.76	148.71	176.14	182.04	182.04
Cumulative depreciation (incl. of AAD)	26.76	175.47	351.61	533.66	715.70



(₹ in lakh)

Asset 4				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	61764.64	64854.98	65312.37	65312.37
Additional Capitalisation	3090.34	457.39	0.00	0.00
Closing Gross Block	64854.98	65312.37	65312.37	65312.37
Average Gross Block	63309.81	65083.68	65312.37	65312.37
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	56978.83	58575.31	58781.13	58781.13
Balance useful life of the asset	34	33	32	31
Elapsed life	0	1	2	3
Remaining Depreciable Value	56978.83	53027.53	49783.89	46334.43
Depreciation during the year	2110.38	3437.39	3449.47	3449.47
Cumulative depreciation (incl. of AAD)	2110.38	5547.77	8997.24	12446.70

(₹ in lakh)

Asset 5(i)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	85726.58	92888.44	95376.98	95746.33
Additional Capitalisation	7161.86	2488.54	369.35	0.00
Closing Gross Block	92888.44	95376.98	95746.33	95746.33
Average Gross Block	89307.51	94132.71	95561.66	95746.33
Rate of Depreciation (%)	4.84	4.85	4.85	4.85
Depreciable Value	73840.64	78183.32	79469.37	79635.57
Balance useful life of the asset	33	32	31	30
Elapsed life	0	1	2	3
Remaining Depreciable Value	73840.64	69312.76	65966.16	61489.97
Depreciation during the year	4309.54	4561.01	4632.65	4642.40
Cumulative depreciation (incl. of AAD)	4309.54	8870.55	13503.20	18145.61

(₹ in lakh)

Asset 5 (ii)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	2054.42	2660.30	2889.90	2925.31
Additional Capitalisation	605.88	229.60	35.41	0.00
Closing Gross Block	2660.30	2889.90	2925.31	2925.31
Average Gross Block	2357.36	2775.10	2907.61	2925.31
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	2121.62	2497.59	2616.84	2632.78
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	2121.62	2255.50	2221.24	2082.71
Depreciation during the year	95.56	146.53	153.52	154.46
Cumulative depreciation (incl. of AAD)	95.56	242.09	395.61	550.07



(₹ in lakh)

Asset 5 (iii)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	4628.57	5808.42	6402.58	6600.18
Additional Capitalisation	1179.85	594.16	197.60	0.00
Closing Gross Block	5808.42	6402.58	6600.18	6600.18
Average Gross Block	5218.50	6105.50	6501.38	6600.18
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	4696.65	5494.95	5851.24	5940.16
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	4696.65	4967.81	4980.83	4721.26
Depreciation during the year	204.77	322.37	343.27	348.49
Cumulative depreciation (incl. of AAD)	204.77	527.14	870.41	1218.90

(₹ in lakh)

Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	48747.19	53571.38	55046.27	55046.27
Additional Capitalisation	4824.19	1474.89	0.00	0.00
Closing Gross Block	53571.38	55046.27	55046.27	55046.27
Average Gross Block	51159.29	54308.83	55046.27	55046.27
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	46043.36	48877.94	49541.64	49541.64
Balance useful life of the asset	34	33	32	31
Elapsed life	0	1	2	3
Remaining Depreciable Value	46043.36	44281.91	42038.22	39130.83
Depreciation during the year	1727.58	2868.45	2907.39	2907.39
Cumulative depreciation (incl. of AAD)	1727.58	4596.03	7503.42	10410.81

(₹ in lakh)

Asset 5 (v)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	2227.98	2891.35	3439.59	3583.59
Additional Capitalisation	663.37	548.24	144.00	0.00
Closing Gross Block	2891.35	3439.59	3583.59	3583.59
Average Gross Block	2559.67	3165.47	3511.59	3583.59
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	2303.70	2848.92	3160.43	3225.23
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	2303.70	2600.18	2726.28	2601.86
Depreciation during the year	81.61	167.14	185.41	189.21
Cumulative depreciation (incl. of AAD)	81.61	248.74	434.16	623.37



(₹ in lakh)

Asset 5 (vi)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	1006.84	1237.89	1336.87	1336.87
Additional Capitalisation	231.05	98.98	0.00	0.00
Closing Gross Block	1237.89	1336.87	1336.87	1336.87
Average Gross Block	1122.37	1287.38	1336.87	1336.87
Rate of Depreciation (%)	5.37	5.36	5.36	5.36
Depreciable Value	1010.13	1158.64	1203.18	1203.18
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	1010.13	1054.41	1027.34	955.73
Depreciation during the year	35.23	69.00	71.61	71.61
Cumulative depreciation (incl. of AAD)	35.23	104.23	175.84	247.46

(₹ in lakh)

Asset 5 (vii)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	452.97	474.82	487.64	487.64
Additional Capitalisation	21.85	12.82	0.00	0.00
Closing Gross Block	474.82	487.64	487.64	487.64
Average Gross Block	463.90	481.23	487.64	487.64
Rate of Depreciation (%)	5.40	5.40	5.39	5.39
Depreciable Value	417.51	433.11	438.88	438.88
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	417.51	395.99	375.45	349.14
Depreciation during the year	11.15	25.97	26.31	26.31
Cumulative depreciation (incl. of AAD)	11.15	37.12	63.43	89.73

(₹ in lakh)

Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	479.98	523.08	530.21	530.21
Additional Capitalisation	43.10	7.13	0.00	0.00
Closing Gross Block	523.08	530.21	530.21	530.21
Average Gross Block	501.53	526.65	530.21	530.21
Rate of Depreciation (%)	5.39	5.39	5.38	5.38
Depreciable Value	451.38	473.98	477.19	477.19
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	451.38	434.76	409.42	380.87
Depreciation during the year	10.86	28.36	28.55	28.55
Cumulative depreciation (incl. of AAD)	10.86	39.22	67.77	96.32



(₹ in lakh)

Asset 5 (ix)				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	594.33	639.89	808.29	828.09
Additional Capitalisation	45.56	168.40	19.80	0.00
Closing Gross Block	639.89	808.29	828.09	828.09
Average Gross Block	617.11	724.09	818.19	828.09
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	555.40	651.68	736.37	745.28
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	555.40	612.47	653.96	619.15
Depreciation during the year	0.98	38.23	43.20	43.72
Cumulative depreciation (incl. of AAD)	0.98	39.21	82.41	126.13

(₹ in lakh)

Asset 6				
Depreciation	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	3726.25	3794.29	3863.15	3863.15
Additional Capitalisation	68.04	68.86	0.00	0.00
Closing Gross Block	3794.29	3863.15	3863.15	3863.15
Average Gross Block	3760.27	3828.72	3863.15	3863.15
Rate of Depreciation (%)	5.29	5.29	5.29	5.29
Depreciable Value	3384.24	3445.85	3476.84	3476.84
Balance useful life of the asset	34.00	33.00	32.00	31.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	3384.24	3151.21	2977.67	2773.14
Depreciation during the year	91.93	202.71	204.53	204.53
Cumulative depreciation (incl. of AAD)	91.93	294.64	499.17	703.70

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

44. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specify the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets have been worked out and allowed are as follows:-



(₹ in lakh)

Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
S/C (Bundle Conductor- 4 sub-c):					
Line Length (km)	65.00	65.00	65.00	65.00	65.00
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
Total O&M Expenses (₹ lakh)	29.03	40.76	42.06	43.49	44.92

(₹ in lakh)

Asset 2					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
765 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.20
Total O&M Expenses (₹ lakh)	32.15	87.22	90.12	93.11	96.20

(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
765 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.20
Total O&M Expenses (₹ lakh)	17.81	87.22	90.12	93.11	96.20

(₹ in lakh)

Asset 4				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Line: S/C (Bundle Conductor- 4 sub-c)				
Line Length (km)	300.33	300.33	300.33	300.33
Norms (₹ lakh/km)	0.627	0.647	0.669	0.691
Total O&M Expenses (₹ lakh)	173.90	284.43	294.03	303.73

(₹ in lakh)

Asset 5(i)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
765 kV Bays:				
No. of Bays	5	5	5	5



Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20
400 kV Bays:				
No. of Bays	2	2	2	2
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Line: S/C (Bundle Conductor- 6 or more sub-c)				
Line Length (km)	192	192	192	192
Norms (₹ lakh/km)	0.731	0.755	0.780	0.806
Line: S/C (Bundle Conductor- 4 sub-c)				
Line Length (km)	6.00	6.00	6.00	6.00
Norms (₹ lakh/km)	0.627	0.647	0.669	0.691
Line: D/C Bundled(4 or more sub-c)				
Line Length (km)	78.11	78.11	78.11	78.11
Norms (₹ lakh/km)	1.097	1.133	1.171	1.210
Total O&M Expenses (₹ lakh)	788.57	816.91	844.05	872.08

(₹ in lakh)

Asset 5 (ii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
765 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20
Total O&M Expenses (₹ lakh)	66.96	90.12	93.11	96.20

(₹ in lakh)

Asset 5 (iii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
765 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20
400 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	111.12	154.49	159.62	164.91

(₹ in lakh)

Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
765 kV Bays:				
No. of Bays	2	2	2	2
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20



Line: S/C (Bundle Conductor- 6 or more sub-c)				
Line Length (km)	193.06	193.06	193.06	193.06
Norms (₹ lakh/km)	0.731	0.755	0.780	0.806
Total O&M Expenses (₹ lakh)	201.76	326.00	336.81	348.01

(₹ in lakh)

Asset 5 (v)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
765 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	87.22	90.12	93.11	96.20
Total O&M Expenses (₹ lakh)	52.67	90.12	93.11	96.20

(₹ in lakh)

Asset 5 (vi)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
400 kV Bays:				
No. of Bays	2	2	2	2
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	72.85	128.74	133.02	137.42

(₹ in lakh)

Asset 5 (vii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
400 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	27.75	64.37	66.51	68.71

(₹ in lakh)

Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
400 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	25.02	64.37	66.51	68.71



(₹ in lakh)

Asset 5 (ix)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
220 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	1.87	64.37	66.51	68.71

(₹ in lakh)

Asset 6				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
400 kV Bays:				
No. of Bays	1	1	1	1
Norms (₹ lakh/Bay)	62.30	64.37	66.51	68.71
Line: S/C (Bundle Conductor- 4 sub-c):				
Line Length (km)	65.00	65.00	65.00	65.00
Norms (₹ lakh/km)	0.627	0.647	0.669	0.691
Total O&M Expenses (₹ lakh)	47.59	106.43	110.00	113.63

45. 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.

46. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.



Interest on Working Capital

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

“28. Interest on Working Capital

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

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

48. The petitioner has considered the rate of interest on working capital to be 13.50%.

49. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

Interest on Working Capital	Asset 1				
	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	3.28	3.40	3.50	3.62	3.74
Maintenance Spares	5.91	6.11	6.31	6.52	6.74
Receivables	449.48	465.55	462.11	455.27	443.84
Total	458.67	475.06	471.93	465.42	454.32
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	61.92	64.13	63.71	62.83	61.33
Pro-rata Interest on Working Capital	45.63	64.13	63.71	62.83	61.33



(₹ in lakh)

Asset 2					
Interest on Working Capital	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	64.44	74.03	86.01	88.01	86.50
Total	84.14	94.39	107.04	109.74	108.94
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	11.36	12.74	14.45	14.81	14.71
Pro-rata Interest on Working Capital	4.33	12.74	14.45	14.81	14.71

(₹ in lakh)

Asset 3					
Interest on Working Capital	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	86.30	97.93	111.44	112.53	110.26
Total	106.00	118.28	132.47	134.25	132.70
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	14.31	15.97	17.88	18.12	17.91
Pro-rata Interest on Working Capital	3.02	15.97	17.88	18.12	17.91

(₹ in lakh)

Asset 4				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	22.96	23.70	24.50	25.31
Maintenance Spares	41.33	42.67	44.10	45.56
Receivables	1789.32	1816.05	1786.56	1745.78
Total	1853.61	1882.42	1855.17	1816.65
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	250.24	254.13	250.45	245.25
Pro-rata Interest on Working Capital	157.94	254.13	250.45	245.25

(₹ in lakh)

Asset 5(i)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	65.89	68.08	70.34	72.67
Maintenance Spares	118.61	122.54	126.61	130.81
Receivables	2649.03	2743.65	2729.04	2669.29
Total	2833.53	2934.26	2925.99	2872.77



Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	382.53	396.13	395.01	387.82
Pro-rata Interest on Working Capital	381.48	396.13	395.01	387.82

(₹ in lakh)

Asset 5 (ii)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	85.29	96.42	98.55	97.20
Total	105.64	117.45	120.28	119.64
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	14.26	15.86	16.24	16.15
Pro-rata Interest on Working Capital	10.95	15.86	16.24	16.15

(₹ in lakh)

Asset 5 (iii)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	12.46	12.87	13.30	13.74
Maintenance Spares	22.43	23.17	23.94	24.74
Receivables	179.77	202.95	210.50	209.07
Total	214.66	239.00	247.75	247.55
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	28.98	32.27	33.45	33.42
Pro-rata Interest on Working Capital	21.54	32.27	33.45	33.42

(₹ in lakh)

Asset 5 (iv)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	26.30	27.17	28.07	29.00
Maintenance Spares	47.34	48.90	50.52	52.20
Receivables	1558.63	1618.87	1598.80	1556.74
Total	1632.26	1694.93	1677.39	1637.95
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	220.35	228.82	226.45	221.12
Pro-rata Interest on Working Capital	140.88	228.82	226.45	221.12

(₹ in lakh)

Asset 5 (v)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43



Receivables	91.30	107.97	116.07	115.88
Total	111.65	129.00	137.80	138.33
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	15.07	17.42	18.60	18.67
Pro-rata Interest on Working Capital	9.10	17.42	18.60	18.67

(₹ in lakh)

Asset 5 (vi)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	10.38	10.73	11.09	11.45
Maintenance Spares	18.69	19.31	19.95	20.61
Receivables	56.07	60.99	62.10	61.69
Total	85.15	91.03	93.14	93.76
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	11.49	12.29	12.57	12.66
Pro-rata Interest on Working Capital	6.72	12.29	12.57	12.66

(₹ in lakh)

Asset 5 (vii)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	25.08	25.67	25.82	25.78
Total	39.62	40.69	41.34	41.81
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	5.35	5.49	5.58	5.64
Pro-rata Interest on Working Capital	2.38	5.49	5.58	5.64

(₹ in lakh)

Asset 5 (viii)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	26.04	26.84	26.87	26.80
Total	40.57	41.86	42.39	42.84
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	5.48	5.65	5.72	5.78
Pro-rata Interest on Working Capital	2.20	5.65	5.72	5.78



(₹ in lakh)

Asset 5 (ix)				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	29.49	32.73	35.28	35.27
Total	44.03	47.75	50.80	51.30
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	5.94	6.45	6.86	6.93
Pro-rata Interest on Working Capital	0.18	6.45	6.86	6.93

(₹ in lakh)

Asset 6				
Interest on Working Capital	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	8.59	8.87	9.17	9.47
Maintenance Spares	15.46	15.96	16.50	17.04
Receivables	130.43	130.73	129.13	126.49
Total	154.47	155.56	154.79	153.00
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	20.85	21.00	20.90	20.66
Pro-rata Interest on Working Capital	9.63	21.00	20.90	20.66

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

50. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period are summarised below:-

(₹ in lakh)

Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	15753.03	17340.23	17340.23	17340.23	17340.23
Additional Capitalisation	1587.20	0.00	0.00	0.00	0.00
Closing Gross Block	17340.23	17340.23	17340.23	17340.23	17340.23
Average Gross Block	16546.63	17340.23	17340.23	17340.23	17340.23
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	14891.97	15606.21	15606.21	15606.21	15606.21
Balance useful life of the asset	35	34	33	32	31
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	14891.97	14046.77	13131.20	12215.64	11300.07



Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation during the year	643.88	915.56	915.56	915.56	915.56
Cumulative depreciation (incl. of AAD)	643.88	1559.44	2475.01	3390.57	4306.13
Interest on Loan					
Gross Normative Loan	11027.12	12138.16	12138.16	12138.16	12138.16
Cumulative Repayments upto Previous Year	0.00	643.88	1559.44	2475.01	3390.57
Net Loan-Opening	11027.12	11494.28	10578.72	9663.16	8747.59
Additions	1111.04	0.00	0.00	0.00	0.00
Repayment during the year	643.88	915.56	915.56	915.56	915.56
Net Loan-Closing	11494.28	10578.72	9663.16	8747.59	7832.03
Average Loan	11260.70	11036.50	10120.94	9205.37	8289.81
Weighted Average Rate of Interest on Loan (%)	6.6466	6.7756	7.1757	7.4378	7.4322
Interest on Loan	551.60	747.79	726.25	684.68	616.12
Return on Equity					
Opening Equity	4725.91	5202.07	5202.07	5202.07	5202.07
Additions	476.16	0.00	0.00	0.00	0.00
Closing Equity	5202.07	5202.07	5202.07	5202.07	5202.07
Average Equity	4963.99	5202.07	5202.07	5202.07	5202.07
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	717.43	1025.09	1025.09	1025.09	1025.09
Interest on Working Capital					
O & M Expenses	3.28	3.40	3.50	3.62	3.74
Maintenance Spares	5.91	6.11	6.31	6.52	6.74
Receivables	449.48	465.55	462.11	455.27	443.84
Total Working Capital	458.67	475.06	471.93	465.42	454.32
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	45.63	64.13	63.71	62.83	61.33
Annual Transmission Charges					
Depreciation	643.88	915.56	915.56	915.56	915.56
Interest on Loan	551.60	747.79	726.25	684.68	616.12
Return on Equity	717.43	1025.09	1025.09	1025.09	1025.09
Interest on Working Capital	45.63	64.13	63.71	62.83	61.33
O & M Expenses	29.03	40.76	42.06	43.49	44.92
Total	1987.57	2793.33	2772.67	2731.65	2663.02

(₹ in lakh)

Asset 2					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	1745.35	1771.33	2413.28	2597.70	2597.70
Additional Capitalisation	25.98	641.95	184.42	0.00	0.00
Closing Gross Block	1771.33	2413.28	2597.70	2597.70	2597.70
Average Gross Block	1758.34	2092.31	2505.49	2597.70	2597.70
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28



Asset 2					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciable Value	1582.51	1883.07	2254.94	2337.93	2337.93
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	1582.51	1737.25	1976.82	1922.65	1785.49
Depreciation during the year	35.36	110.47	132.29	137.16	137.16
Cumulative depreciation (incl. of AAD)	35.36	145.83	278.12	415.28	552.44
Interest on Loan					
Gross Normative Loan	1221.75	1239.93	1689.30	1818.39	1818.39
Cumulative Repayments upto Previous Year	0.00	35.36	145.83	278.12	415.28
Net Loan-Opening	1221.75	1204.58	1543.47	1540.27	1403.11
Additions	18.19	449.37	129.09	0.00	0.00
Repayment during the year	35.36	110.47	132.29	137.16	137.16
Net Loan-Closing	1204.58	1543.47	1540.27	1403.11	1265.95
Average Loan	1213.16	1374.02	1541.87	1471.69	1334.53
Weighted Average Rate of Interest on Loan (%)	7.7975	8.0115	8.5008	8.7946	8.7927
Interest on Loan	36.02	110.08	131.07	129.43	117.34
Return on Equity					
Opening Equity	523.61	531.40	723.98	779.31	779.31
Additions	7.79	192.59	55.33	0.00	0.00
Closing Equity	531.40	723.98	779.31	779.31	779.31
Average Equity	527.50	627.69	751.65	779.31	779.31
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	39.39	123.69	148.12	153.57	153.57
Interest on Working Capital					
O & M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	64.44	74.03	86.01	88.01	86.50
Total Working Capital	84.14	94.39	107.04	109.74	108.94
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	4.33	12.74	14.45	14.81	14.71
Annual Transmission Charges					
Depreciation	35.36	110.47	132.29	137.16	137.16
Interest on Loan	36.02	110.08	131.07	129.43	117.34
Return on Equity	39.39	123.69	148.12	153.57	153.57
Interest on Working Capital	4.33	12.74	14.45	14.81	14.71
O & M Expenses	32.15	87.22	90.12	93.11	96.20
Total	147.25	444.21	516.05	528.08	518.97



Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	2395.34	2408.78	3224.33	3447.82	3447.82
Additional Capitalisation	13.44	815.55	223.49	0.00	0.00
Closing Gross Block	2408.78	3224.33	3447.82	3447.82	3447.82
Average Gross Block	2402.06	2816.56	3336.08	3447.82	3447.82
Rate of Depreciation (%)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	2161.85	2534.90	3002.47	3103.04	3103.04
Balance useful life of the asset	25	24	23	22	21
Elapsed life	0	1	2	3	4
Remaining Depreciable Value	2161.85	2359.43	2650.85	2569.38	2387.33
Depreciation during the year	26.76	148.71	176.14	182.04	182.04
Cumulative depreciation (incl. of AAD)	26.76	175.47	351.61	533.66	715.70
Interest on Loan					
Gross Normative Loan	1676.74	1686.15	2257.03	2413.48	2413.48
Cumulative Repayments upto Previous Year	0.00	26.76	175.47	351.61	533.66
Net Loan-Opening	1676.74	1659.39	2081.56	2061.86	1879.82
Additions	9.41	570.89	156.44	0.00	0.00
Repayment during the year	26.76	148.71	176.14	182.04	182.04
Net Loan-Closing	1659.39	2081.56	2061.86	1879.82	1697.77
Average Loan	1668.06	1870.48	2071.71	1970.84	1788.79
Weighted Average Rate of Interest on Loan (%)	9.0480	9.0437	9.0395	9.0349	9.0316
Interest on Loan	31.84	169.16	187.27	178.06	161.56
Return on Equity					
Opening Equity	718.60	722.63	967.30	1034.34	1034.34
Additions	4.03	244.67	67.05	0.00	0.00
Closing Equity	722.63	967.30	1034.34	1034.34	1034.34
Average Equity	720.62	844.97	1000.82	1034.34	1034.34
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	29.81	166.50	197.22	203.82	203.82
Interest on Working Capital					
O & M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	86.30	97.93	111.44	112.53	110.26
Total Working Capital	106.00	118.28	132.47	134.25	132.70
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	3.02	15.97	17.88	18.12	17.91
Annual Transmission Charges					
Depreciation	26.76	148.71	176.14	182.04	182.04
Interest on Loan	31.84	169.16	187.27	178.06	161.56
Return on Equity	29.81	166.50	197.22	203.82	203.82
Interest on Working Capital	3.02	15.97	17.88	18.12	17.91
O & M Expenses	17.81	87.22	90.12	93.11	96.20
Total	109.23	587.57	668.64	675.17	661.54

Asset 4				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	61764.64	64854.98	65312.37	65312.37
Additional Capitalisation	3090.34	457.39	0.00	0.00
Closing Gross Block	64854.98	65312.37	65312.37	65312.37
Average Gross Block	63309.81	65083.68	65312.37	65312.37
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	56978.83	58575.31	58781.13	58781.13
Balance useful life of the asset	34	33	32	31
Elapsed life	0	1	2	3
Remaining Depreciable Value	56978.83	53027.53	49783.89	46334.43
Depreciation during the year	2110.38	3437.39	3449.47	3449.47
Cumulative depreciation (incl. of AAD)	2110.38	5547.77	8997.24	12446.70
Interest on Loan				
Gross Normative Loan	43235.25	45398.49	45718.66	45718.66
Cumulative Repayments upto Previous Year	0.00	2110.38	5547.77	8997.24
Net Loan-Opening	43235.25	43288.10	40170.89	36721.42
Additions	2163.24	320.17	0.00	0.00
Repayment during the year	2110.38	3437.39	3449.47	3449.47
Net Loan-Closing	43288.10	40170.89	36721.42	33271.96
Average Loan	43261.68	41729.49	38446.15	34996.69
Weighted Average Rate of Interest on Loan (%)	7.2207	7.3638	7.4505	7.4728
Interest on Loan	1971.58	3072.86	2864.41	2615.23
Return on Equity				
Opening Equity	18529.39	19456.49	19593.71	19593.71
Additions	927.10	137.22	0.00	0.00
Closing Equity	19456.49	19593.71	19593.71	19593.71
Average Equity	18992.94	19525.10	19593.71	19593.71
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	2362.16	3847.51	3861.03	3861.03
Interest on Working Capital				
O & M Expenses	22.96	23.70	24.50	25.31
Maintenance Spares	41.33	42.67	44.10	45.56
Receivables	1789.32	1816.05	1786.56	1745.78
Total Working Capital	1853.61	1882.42	1855.17	1816.65
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	157.94	254.13	250.45	245.25
Annual Transmission Charges				
Depreciation	2110.38	3437.39	3449.47	3449.47
Interest on Loan	1971.58	3072.86	2864.41	2615.23
Return on Equity	2362.16	3847.51	3861.03	3861.03
Interest on Working Capital	157.94	254.13	250.45	245.25
O & M Expenses	173.90	284.43	294.03	303.73
Total	6775.96	10896.33	10719.39	10474.70

(₹ in lakh)

Asset 5(i)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	85726.58	92888.44	95376.98	95746.33
Additional Capitalisation	7161.86	2488.54	369.35	0.00
Closing Gross Block	92888.44	95376.98	95746.33	95746.33
Average Gross Block	89307.51	94132.71	95561.66	95746.33
Rate of Depreciation (%)	4.84	4.85	4.85	4.85
Depreciable Value	73840.64	78183.32	79469.37	79635.57
Balance useful life of the asset	33	32	31	30
Elapsed life	0	1	2	3
Remaining Depreciable Value	73840.64	69312.76	65966.16	61489.97
Depreciation during the year	4309.54	4561.01	4632.65	4642.40
Cumulative depreciation (incl. of AAD)	4309.54	8870.55	13503.20	18145.61
Interest on Loan				
Gross Normative Loan	60008.61	65021.91	66763.89	67022.43
Cumulative Repayments upto Previous Year	0.00	4309.54	8870.55	13503.20
Net Loan-Opening	60008.61	60712.37	57893.34	53519.23
Additions	5013.30	1741.98	258.55	0.00
Repayment during the year	4309.54	4561.01	4632.65	4642.40
Net Loan-Closing	60712.37	57893.34	53519.23	48876.83
Average Loan	60360.49	59302.85	55706.28	51198.03
Weighted Average Rate of Interest on Loan (%)	8.4824	8.6388	8.7123	8.6981
Interest on Loan	5106.05	5123.05	4853.27	4453.24
Return on Equity				
Opening Equity	25717.97	27866.53	28613.09	28723.90
Additions	2148.56	746.56	110.81	0.00
Closing Equity	27866.53	28613.09	28723.90	28723.90
Average Equity	26792.25	28239.81	28668.50	28723.90
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	5265.11	5564.79	5649.26	5660.18
Interest on Working Capital				
O & M Expenses	65.89	68.08	70.34	72.67
Maintenance Spares	118.61	122.54	126.61	130.81
Receivables	2649.03	2743.65	2729.04	2669.29
Total Working Capital	2833.53	2934.26	2925.99	2872.77
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	381.48	396.13	395.01	387.82
Annual Transmission Charges				
Depreciation	4309.54	4561.01	4632.65	4642.40
Interest on Loan	5106.05	5123.05	4853.27	4453.24
Return on Equity	5265.11	5564.79	5649.26	5660.18
Interest on Working Capital	381.48	396.13	395.01	387.82
O & M Expenses	788.57	816.91	844.05	872.08
Total	15850.75	16461.88	16374.25	16015.73



(₹ in lakh)

Asset 5 (ii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	2054.42	2660.30	2889.90	2925.31
Additional Capitalisation	605.88	229.60	35.41	0.00
Closing Gross Block	2660.30	2889.90	2925.31	2925.31
Average Gross Block	2357.36	2775.10	2907.61	2925.31
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	2121.62	2497.59	2616.84	2632.78
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	2121.62	2255.50	2221.24	2082.71
Depreciation during the year	95.56	146.53	153.52	154.46
Cumulative depreciation (incl. of AAD)	95.56	242.09	395.61	550.07
Interest on Loan				
Gross Normative Loan	1438.09	1862.21	2022.93	2047.72
Cumulative Repayments upto Previous Year	0.00	95.56	242.09	395.61
Net Loan-Opening	1438.09	1766.65	1780.84	1652.11
Additions	424.12	160.72	24.79	0.00
Repayment during the year	95.56	146.53	153.52	154.46
Net Loan-Closing	1766.65	1780.84	1652.11	1497.65
Average Loan	1602.37	1773.75	1716.48	1574.88
Weighted Average Rate of Interest on Loan (%)	9.1373	9.1320	9.1209	9.1079
Interest on Loan	112.41	161.98	156.56	143.44
Return on Equity				
Opening Equity	616.33	798.09	866.97	877.59
Additions	181.76	68.88	10.62	0.00
Closing Equity	798.09	866.97	877.59	877.59
Average Equity	707.21	832.53	872.28	877.59
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	106.99	164.05	171.89	172.93
Interest on Working Capital				
O & M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	85.29	96.42	98.55	97.20
Total Working Capital	105.64	117.45	120.28	119.64
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	10.95	15.86	16.24	16.15
Annual Transmission Charges				
Depreciation	95.56	146.53	153.52	154.46
Interest on Loan	112.41	161.98	156.56	143.44
Return on Equity	106.99	164.05	171.89	172.93
Interest on Working Capital	10.95	15.86	16.24	16.15
O & M Expenses	66.96	90.12	93.11	96.20



Asset 5 (ii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Total	392.88	578.53	591.31	583.18

(₹ in lakh)

Asset 5 (iii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	4628.57	5808.42	6402.58	6600.18
Additional Capitalisation	1179.85	594.16	197.60	0.00
Closing Gross Block	5808.42	6402.58	6600.18	6600.18
Average Gross Block	5218.50	6105.50	6501.38	6600.18
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	4696.65	5494.95	5851.24	5940.16
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	4696.65	4967.81	4980.83	4721.26
Depreciation during the year	204.77	322.37	343.27	348.49
Cumulative depreciation (incl. of AAD)	204.77	527.14	870.41	1218.90
Interest on Loan				
Gross Normative Loan	3240.00	4065.89	4481.81	4620.13
Cumulative Repayments upto Previous Year	0.00	204.77	527.14	870.41
Net Loan-Opening	3240.00	3861.12	3954.67	3749.71
Additions	825.90	415.91	138.32	0.00
Repayment during the year	204.77	322.37	343.27	348.49
Net Loan-Closing	3861.12	3954.67	3749.71	3401.22
Average Loan	3550.56	3907.89	3852.19	3575.47
Weighted Average Rate of Interest on Loan (%)	8.9032	8.8965	8.8867	8.8772
Interest on Loan	234.93	347.67	342.33	317.40
Return on Equity				
Opening Equity	1388.57	1742.53	1920.77	1980.05
Additions	353.96	178.25	59.28	0.00
Closing Equity	1742.53	1920.77	1980.05	1980.05
Average Equity	1565.55	1831.65	1950.41	1980.05
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	229.27	360.94	384.34	390.18
Interest on Working Capital				
O & M Expenses	12.46	12.87	13.30	13.74
Maintenance Spares	22.43	23.17	23.94	24.74
Receivables	179.77	202.95	210.50	209.07
Total Working Capital	214.66	239.00	247.75	247.55
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	21.54	32.27	33.45	33.42
Annual Transmission Charges				
Depreciation	204.77	322.37	343.27	348.49
Interest on Loan	234.93	347.67	342.33	317.40



Asset 5 (iii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Return on Equity	229.27	360.94	384.34	390.18
Interest on Working Capital	21.54	32.27	33.45	33.42
O & M Expenses	111.12	154.49	159.62	164.91
Total	801.62	1217.73	1263.01	1254.40

(₹ in lakh)

Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	48747.19	53571.38	55046.27	55046.27
Additional Capitalisation	4824.19	1474.89	0.00	0.00
Closing Gross Block	53571.38	55046.27	55046.27	55046.27
Average Gross Block	51159.29	54308.83	55046.27	55046.27
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	46043.36	48877.94	49541.64	49541.64
Balance useful life of the asset	34	33	32	31
Elapsed life	0	1	2	3
Remaining Depreciable Value	46043.36	44281.91	42038.22	39130.83
Depreciation during the year	1727.58	2868.45	2907.39	2907.39
Cumulative depreciation (incl. of AAD)	1727.58	4596.03	7503.42	10410.81
Interest on Loan				
Gross Normative Loan	34123.03	37499.97	38532.39	38532.39
Cumulative Repayments upto Previous Year	0.00	1727.58	4596.03	7503.42
Net Loan-Opening	34123.03	35772.38	33936.36	31028.97
Additions	3376.93	1032.42	0.00	0.00
Repayment during the year	1727.58	2868.45	2907.39	2907.39
Net Loan-Closing	35772.38	33936.36	31028.97	28121.58
Average Loan	34947.71	34854.37	32482.66	29575.27
Weighted Average Rate of Interest on Loan (%)	8.8400	8.8350	8.8294	8.8243
Interest on Loan	1975.17	3079.39	2868.02	2609.81
Return on Equity				
Opening Equity	14624.16	16071.41	16513.88	16513.88
Additions	1447.26	442.47	0.00	0.00
Closing Equity	16071.41	16513.88	16513.88	16513.88
Average Equity	15347.79	16292.65	16513.88	16513.88
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	1933.60	3210.54	3254.14	3254.14
Interest on Working Capital				
O & M Expenses	26.30	27.17	28.07	29.00
Maintenance Spares	47.34	48.90	50.52	52.20
Receivables	1558.63	1618.87	1598.80	1556.74
Total Working Capital	1632.26	1694.93	1677.39	1637.95
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	140.88	228.82	226.45	221.12



Asset 5 (iv)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Annual Transmission Charges				
Depreciation	1727.58	2868.45	2907.39	2907.39
Interest on Loan	1975.17	3079.39	2868.02	2609.81
Return on Equity	1933.60	3210.54	3254.14	3254.14
Interest on Working Capital	140.88	228.82	226.45	221.12
O & M Expenses	201.76	326.00	336.81	348.01
Total	5978.99	9713.20	9592.80	9340.46

(₹ in lakh)

Asset 5 (v)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	2227.98	2891.35	3439.59	3583.59
Additional Capitalisation	663.37	548.24	144.00	0.00
Closing Gross Block	2891.35	3439.59	3583.59	3583.59
Average Gross Block	2559.67	3165.47	3511.59	3583.59
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	2303.70	2848.92	3160.43	3225.23
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	2303.70	2600.18	2726.28	2601.86
Depreciation during the year	81.61	167.14	185.41	189.21
Cumulative depreciation (incl. of AAD)	81.61	248.74	434.16	623.37
Interest on Loan				
Gross Normative Loan	1559.59	2023.95	2407.71	2508.51
Cumulative Repayments upto Previous Year	0.00	81.61	248.74	434.16
Net Loan-Opening	1559.59	1942.34	2158.97	2074.36
Additions	464.36	383.77	100.80	0.00
Repayment during the year	81.61	167.14	185.41	189.21
Net Loan-Closing	1942.34	2158.97	2074.36	1885.14
Average Loan	1750.96	2050.65	2116.66	1979.75
Weighted Average Rate of Interest on Loan (%)	9.0835	9.0720	9.0575	9.0600
Interest on Loan	96.04	186.04	191.72	179.37
Return on Equity				
Opening Equity	668.39	867.41	1031.88	1075.08
Additions	199.01	164.47	43.20	0.00
Closing Equity	867.41	1031.88	1075.08	1075.08
Average Equity	767.90	949.64	1053.48	1075.08
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	91.37	187.13	207.59	211.85
Interest on Working Capital				
O & M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43



Asset 5 (v)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Receivables	91.30	107.97	116.07	115.88
Total Working Capital	111.65	129.00	137.80	138.33
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	9.10	17.42	18.60	18.67
Annual Transmission Charges				
Depreciation	81.61	167.14	185.41	189.21
Interest on Loan	96.04	186.04	191.72	179.37
Return on Equity	91.37	187.13	207.59	211.85
Interest on Working Capital	9.10	17.42	18.60	18.67
O & M Expenses	52.67	90.12	93.11	96.20
Total	330.78	647.84	696.43	695.30

(₹ in lakh)

Asset 5 (vi)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	1006.84	1237.89	1336.87	1336.87
Additional Capitalisation	231.05	98.98	0.00	0.00
Closing Gross Block	1237.89	1336.87	1336.87	1336.87
Average Gross Block	1122.37	1287.38	1336.87	1336.87
Rate of Depreciation (%)	5.37	5.36	5.36	5.36
Depreciable Value	1010.13	1158.64	1203.18	1203.18
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	1010.13	1054.41	1027.34	955.73
Depreciation during the year	35.23	69.00	71.61	71.61
Cumulative depreciation (incl. of AAD)	35.23	104.23	175.84	247.46
Interest on Loan				
Gross Normative Loan	704.79	866.52	935.81	935.81
Cumulative Repayments upto Previous Year	0.00	35.23	104.23	175.84
Net Loan-Opening	704.79	831.29	831.58	759.96
Additions	161.74	69.29	0.00	0.00
Repayment during the year	35.23	69.00	71.61	71.61
Net Loan-Closing	831.29	831.58	759.96	688.35
Average Loan	768.04	831.44	795.77	724.16
Weighted Average Rate of Interest on Loan (%)	9.6017	9.5994	9.5941	9.5882
Interest on Loan	43.12	79.81	76.35	69.43
Return on Equity				
Opening Equity	302.05	371.37	401.06	401.06
Additions	69.32	29.69	0.00	0.00
Closing Equity	371.37	401.06	401.06	401.06
Average Equity	336.71	386.21	401.06	401.06
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	38.79	76.11	79.03	79.03



Asset 5 (vi)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Interest on Working Capital				
O & M Expenses	10.38	10.73	11.09	11.45
Maintenance Spares	18.69	19.31	19.95	20.61
Receivables	56.07	60.99	62.10	61.69
Total Working Capital	85.15	91.03	93.14	93.76
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	6.72	12.29	12.57	12.66
Annual Transmission Charges				
Depreciation	35.23	69.00	71.61	71.61
Interest on Loan	43.12	79.81	76.35	69.43
Return on Equity	38.79	76.11	79.03	79.03
Interest on Working Capital	6.72	12.29	12.57	12.66
O & M Expenses	72.85	128.74	133.02	137.42
Total	196.72	365.95	372.59	370.16

(₹ in lakh)

Asset 5 (vii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	452.97	474.82	487.64	487.64
Additional Capitalisation	21.85	12.82	0.00	0.00
Closing Gross Block	474.82	487.64	487.64	487.64
Average Gross Block	463.90	481.23	487.64	487.64
Rate of Depreciation (%)	5.40	5.40	5.39	5.39
Depreciable Value	417.51	433.11	438.88	438.88
Balance useful life of the asset	25	24	23	22
Elapsed life	0	1	2	3
Remaining Depreciable Value	417.51	395.99	375.45	349.14
Depreciation during the year	11.15	25.97	26.31	26.31
Cumulative depreciation (incl. of AAD)	11.15	37.12	63.43	89.73
Interest on Loan				
Gross Normative Loan	317.08	332.37	341.35	341.35
Cumulative Repayments upto Previous Year	0.00	11.15	37.12	63.43
Net Loan-Opening	317.08	321.22	304.23	277.92
Additions	15.30	8.97	0.00	0.00
Repayment during the year	11.15	25.97	26.31	26.31
Net Loan-Closing	321.22	304.23	277.92	251.62
Average Loan	319.15	312.72	291.08	264.77
Weighted Average Rate of Interest on Loan (%)	9.5189	9.5180	9.5160	9.5137
Interest on Loan	13.53	29.77	27.70	25.19
Return on Equity				
Opening Equity	135.89	142.45	146.29	146.29
Additions	6.56	3.85	0.00	0.00
Closing Equity	142.45	146.29	146.29	146.29
Average Equity	139.17	144.37	146.29	146.29
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500



Asset 5 (vii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	12.21	28.45	28.83	28.83
Interest on Working Capital				
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	25.08	25.67	25.82	25.78
Total Working Capital	39.62	40.69	41.34	41.81
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	2.38	5.49	5.58	5.64
Annual Transmission Charges				
Depreciation	11.15	25.97	26.31	26.31
Interest on Loan	13.53	29.77	27.70	25.19
Return on Equity	12.21	28.45	28.83	28.83
Interest on Working Capital	2.38	5.49	5.58	5.64
O & M Expenses	27.75	64.37	66.51	68.71
Total	67.02	154.04	154.92	154.68

(₹ in lakh)

Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	479.98	523.08	530.21	530.21
Additional Capitalisation	43.10	7.13	0.00	0.00
Closing Gross Block	523.08	530.21	530.21	530.21
Average Gross Block	501.53	526.65	530.21	530.21
Rate of Depreciation (%)	5.39	5.39	5.38	5.38
Depreciable Value	451.38	473.98	477.19	477.19
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	451.38	434.76	409.42	380.87
Depreciation during the year	10.86	28.36	28.55	28.55
Cumulative depreciation (incl. of AAD)	10.86	39.22	67.77	96.32
Interest on Loan				
Gross Normative Loan	335.99	366.16	371.15	371.15
Cumulative Repayments upto Previous Year	0.00	10.86	39.22	67.77
Net Loan-Opening	335.99	355.30	331.93	303.38
Additions	30.17	4.99	0.00	0.00
Repayment during the year	10.86	28.36	28.55	28.55
Net Loan-Closing	355.30	331.93	303.38	274.83
Average Loan	345.64	343.61	317.65	289.10
Weighted Average Rate of Interest on Loan (%)	9.1872	9.1789	9.1609	9.1434
Interest on Loan	12.75	31.54	29.10	26.43
Return on Equity				
Opening Equity	143.99	156.92	159.06	159.06
Additions	12.93	2.14	0.00	0.00



Asset 5 (viii)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Closing Equity	156.92	159.06	159.06	159.06
Average Equity	150.46	157.99	159.06	159.06
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	11.91	31.13	31.34	31.34
Interest on Working Capital				
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	26.04	26.84	26.87	26.80
Total Working Capital	40.57	41.86	42.39	42.84
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	2.20	5.65	5.72	5.78
Annual Transmission Charges				
Depreciation	10.86	28.36	28.55	28.55
Interest on Loan	12.75	31.54	29.10	26.43
Return on Equity	11.91	31.13	31.34	31.34
Interest on Working Capital	2.20	5.65	5.72	5.78
O & M Expenses	25.02	64.37	66.51	68.71
Total	62.74	161.06	161.23	160.82

(₹ in lakh)

Asset 5 (ix)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	594.33	639.89	808.29	828.09
Additional Capitalisation	45.56	168.40	19.80	0.00
Closing Gross Block	639.89	808.29	828.09	828.09
Average Gross Block	617.11	724.09	818.19	828.09
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	555.40	651.68	736.37	745.28
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	555.40	612.47	653.96	619.15
Depreciation during the year	0.98	38.23	43.20	43.72
Cumulative depreciation (incl. of AAD)	0.98	39.21	82.41	126.13
Interest on Loan				
Gross Normative Loan	416.03	447.92	565.80	579.66
Cumulative Repayments upto Previous Year	0.00	0.98	39.21	82.41
Net Loan-Opening	416.03	446.94	526.59	497.25
Additions	31.89	117.88	13.86	0.00
Repayment during the year	0.98	38.23	43.20	43.72
Net Loan-Closing	446.94	526.59	497.25	453.53
Average Loan	431.49	486.77	511.92	475.39
Weighted Average Rate of Interest on Loan (%)	9.1909	9.1527	9.1309	9.1115
Interest on Loan	1.19	44.55	46.74	43.32



Asset 5 (ix)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	178.30	191.97	242.49	248.43
Additions	13.67	50.52	5.94	0.00
Closing Equity	191.97	242.49	248.43	248.43
Average Equity	185.13	217.23	245.46	248.43
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	1.10	42.81	48.37	48.95
Interest on Working Capital				
O & M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	29.49	32.73	35.28	35.27
Total Working Capital	44.03	47.75	50.80	51.30
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	0.18	6.45	6.86	6.93
Annual Transmission Charges				
Depreciation	0.98	38.23	43.20	43.72
Interest on Loan	1.19	44.55	46.74	43.32
Return on Equity	1.10	42.81	48.37	48.95
Interest on Working Capital	0.18	6.45	6.86	6.93
O & M Expenses	1.87	64.37	66.51	68.71
Total	5.32	196.41	211.68	211.63

(₹ in lakh)

Asset 6				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	3726.25	3794.29	3863.15	3863.15
Additional Capitalisation	68.04	68.86	0.00	0.00
Closing Gross Block	3794.29	3863.15	3863.15	3863.15
Average Gross Block	3760.27	3828.72	3863.15	3863.15
Rate of Depreciation (%)	5.29	5.29	5.29	5.29
Depreciable Value	3384.24	3445.85	3476.84	3476.84
Balance useful life of the asset	34.00	33.00	32.00	31.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	3384.24	3151.21	2977.67	2773.14
Depreciation during the year	91.93	202.71	204.53	204.53
Cumulative depreciation (incl. of AAD)	91.93	294.64	499.17	703.70
Interest on Loan				
Gross Normative Loan	2608.38	2656.00	2704.21	2704.21
Cumulative Repayments upto Previous Year	0.00	91.93	294.64	499.17
Net Loan-Opening	2608.38	2564.07	2409.56	2205.04
Additions	47.63	48.20	0.00	0.00
Repayment during the year	91.93	202.71	204.53	204.53
Net Loan-Closing	2564.07	2409.56	2205.04	2000.51
Average Loan	2586.22	2486.82	2307.30	2102.77



Asset 6				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Weighted Average Rate of Interest on Loan (%)	9.1738	9.1643	9.1434	9.1198
Interest on Loan	109.55	227.90	210.97	191.77
Return on Equity				
Opening Equity	1117.88	1138.29	1158.95	1158.95
Additions	20.41	20.66	0.00	0.00
Closing Equity	1138.29	1158.95	1158.95	1158.95
Average Equity	1128.08	1148.62	1158.95	1158.95
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	102.64	226.34	228.38	228.38
Interest on Working Capital				
O & M Expenses	8.59	8.87	9.17	9.47
Maintenance Spares	15.46	15.96	16.50	17.04
Receivables	130.43	130.73	129.13	126.49
Total Working Capital	154.47	155.56	154.79	153.00
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	9.63	21.00	20.90	20.66
Annual Transmission Charges				
Depreciation	91.93	202.71	204.53	204.53
Interest on Loan	109.55	227.90	210.97	191.77
Return on Equity	102.64	226.34	228.38	228.38
Interest on Working Capital	9.63	21.00	20.90	20.66
O & M Expenses	47.59	106.43	110.00	113.63
Total	361.34	784.38	774.76	758.95

Filing Fee and the Publication Expenses

51. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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 Regulation 52 (1) of the 2014 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

52. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52 (2) (b) of the 2014 Tariff Regulations for 2014-19 tariff period. The

petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 52 (2) (a) of the 2014 Tariff Regulations for 2014-19 tariff period.

Service Tax

53. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

Foreign Exchange Rate Variation

54. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers / DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.

Sharing of Transmission Charges

55. 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..

56. This order disposes of Petition No. 71/TT/2015.

Sd/-

(Dr. M.K. Iyer)
Member

Sd/-

(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

(₹ in lakh)

Asset 1				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND-XXXIV-1-	8.84	3090.00	0.00	3090.00
BOND XXXVI-2-	9.35	50.00	0.00	50.00
BOND XXXVII-Loan 3-	9.25	3672.42	0.00	3672.42
IFC (IFC - A LOAN) (31419-00)-4-60.21	3.23	1505.25	0.00	1505.25
IFC (IFC - B LOAN) (31419-01)-5-60.21	2.38	2107.35	0.00	2107.35
IFC (ICFF LOAN) (31419-02)-6-60.21	3.23	602.10	0.00	602.10
Total		11027.12	0.00	11027.12

(₹ in lakh)

Asset 2				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND-XXXIV-Loan 1-	8.84	430.00	0.00	430.00
IPC (IFC - B LOAN) (31419-01)-Loan 2-62.06	2.38	186.18	0.00	186.18
FC - BOND (17.01.2013)-Loan 3-62.06	4.10	62.06	0.00	62.06
BOND XLVI -ADDCAP FOR 2014-2015 Loan 5 (Accrual IDC)-	9.30	0.00	1.09	1.09
BOND XLVI -Loan 4-	9.30	543.51	0.00	543.51
Bond XLVII-ADDCAP FOR 2014-2015 Loan 6 -	8.93	0.00	17.09	17.09
Total		1221.75	18.18	1239.93

(₹ in lakh)

Asset 3				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND-XXXIV-Loan 1-	8.84	350.00	0.00	350.00
BOND XXXVII-Loan 3-	9.25	710.00	0.00	710.00
Bond XLVII-Loan 2-	8.93	616.74	0.00	616.74
Bond XLVIII-ADDCAP FOR 2014-2015 Loan 4-	8.20	0.00	9.41	9.41
Total		1676.74	9.41	1686.15



(₹ in lakh)

Asset 4				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXII-Loan 1-	8.84	356.00	0.00	356.00
BOND-XXXIV-Loan 11-	8.84	4672.49	0.00	4672.49
BOND XXXVI-Loan 3-	9.35	839.45	0.00	839.45
BOND XXXIX-Loan 4-	9.40	2995.44	0.00	2995.44
BOND - XLI-Loan 7-	8.85	2342.40	0.00	2342.40
BOND - XLII-Loan 2-	8.80	1050.00	0.00	1050.00
IFC (IFC - A LOAN) (31419-00)- Loan 8-65.73	3.23	2642.35	0.00	2642.35
IFC (IFC - B LOAN) (31419-01)- Loan 5-65.73	3.23	3286.50	0.00	3286.50
IFC (ICFF LOAN) (31419-02)-Loan 6-65.73	3.23	2760.66	0.00	2760.66
FC - BOND (17.01.2013)-Loan 10- 65.73	4.10	3286.50	0.00	3286.50
BOND - XLIII-Loan 9-	7.93	10818.74	0.00	10818.74
BOND - XLIV-Loan 12-	8.70	483.68	0.00	483.68
SBI (2014-15)-Loan 13-	9.95	2139.90	0.00	2139.90
Proposed Loan 2015-2016 (8.40%)-Loan 14-	8.40	5561.14	0.00	5561.14
Total		43235.25	0.00	43235.25

(₹ in lakh)

Asset 5(i)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXIX-Loan 12-	9.40	300.00	0.00	300.00
SBI (21.03.2012)-Loan 13-	10.25	700.00	0.00	700.00
BOND XL-Loan 5-	9.30	16700.00	0.00	16700.00
BOND-XLI-Loan 6-	8.85	9655.88	0.00	9655.88
BOND - XLII-Loan 7-	8.80	5182.10	0.00	5182.10
IFC (IFC - A LOAN) (31419-00)- Loan 3-63.19	3.23	126.38	0.00	126.38
IFC (IFC - B LOAN) (31419-01)- Loan 1-63.19	3.23	3637.22	0.00	3637.22
IFC (ICFF LOAN) (31419-02)-Loan 2-63.19	3.23	126.38	0.00	126.38
FC - BOND (17.01.2013)-Loan 4- 63.19	4.10	2931.38	0.00	2931.38
BOND - XLIII-Loan 8-	7.93	3000.00	0.00	3000.00
BOND - XLIV-Loan 9-	8.70	6500.00	0.00	6500.00
BOND XLVI -Loan 10-	9.30	9175.25	0.00	9175.25
Bond XLVII-Loan 11-	8.93	1974.01	0.00	1974.01
Total		60008.60	0.00	60008.60



(₹ in lakh)

Asset 5(ii)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XL-Loan-1-	9.30	1044.39	0.00	1044.39
BOND -XLII-Loan-2-	8.80	300.00	0.00	300.00
Proposed Loan 2015-2016 (8.40%)-Loan 3-	8.40	93.70	0.00	93.70
Total		1438.09	0.00	1438.09

(₹ in lakh)

Asset 5(iii)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXVII-Loan 1-	9.25	450.00	0.00	450.00
BOND XXXIX-Loan-2-	9.40	450.00	0.00	450.00
BOND XL-Loan 6-	9.30	500.00	0.00	500.00
BOND - XLIV-Loan-3-	8.70	100.00	0.00	100.00
SBI (2014-15)-Loan 4-	9.95	200.00	0.00	200.00
Bond XLVII-Loan-5-	8.93	300.00	0.00	300.00
Bond XLVIII-Loan 7-	8.20	723.01	0.00	723.01
Proposed Loan 2015-2016 (8.40%)-Loan 8-	8.40	516.99	0.00	516.99
Total		3240.00	0.00	3240.00

(₹ in lakh)

Asset 5(iv)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXVI-Loan-1-	9.35	417.00	0.00	417.00
BOND XXXVII-Loan-2-	9.25	3500.00	0.00	3500.00
BOND XXXVIII-Loan-3-	9.25	1622.00	0.00	1622.00
BOND XXXIX-Loan-4-	9.40	6815.34	0.00	6815.34
SBI (21.03.2012)-Loan 15-	9.95	400.00	0.00	400.00
BOND XL-Loan-5-	9.30	1000.00	0.00	1000.00
BOND - XLI-Loan-6-	8.85	500.00	0.00	500.00
BOND - XLII-Loan 7-	8.80	6503.20	0.00	6503.20
BOND - XLIII-Loan 8-	7.93	781.26	0.00	781.26
BOND - XLIV-Loan-9-	8.70	100.00	0.00	100.00
BOND XLVI -Loan 10-	9.30	85.59	0.00	85.59
Bond XLVII-Loan-11-	8.93	2000.00	0.00	2000.00
Bond XLVIII-Loan 12-	8.20	4615.52	0.00	4615.52
BOND XLIX-Loan 13-	8.15	2862.38	0.00	2862.38
Proposed Loan 2015-2016 (8.40%)-Loan 14-	8.40	2920.74	0.00	2920.74
Total		34123.03	0.00	34123.03



(₹ in lakh)

Asset 5(v)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXIX-Loan-1-	9.40	450.00	0.00	450.00
SBI (21.03.2012)-Loan-2-	9.95	450.00	0.00	450.00
BOND - XLIII-Loan-3-	7.93	300.39	0.00	300.39
BOND - XLIV-Loan-4-	8.70	199.09	0.00	199.09
Proposed Loan 2015-2016 (8.40%)-Loan 5-	8.40	160.11	0.00	160.11
Total		1559.59	0.00	1559.59

(₹ in lakh)

Asset 5(vi)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
SBI (21.03.2012)-Loan 1-	9.95	350.00	0.00	350.00
BOND - XLI-Loan 2-	8.85	125.00	0.00	125.00
SBI (2014-15)-Loan 3-	9.95	160.14	0.00	160.14
Proposed Loan 2015-2016 (8.40%)-Loan 4-	8.40	69.65	0.00	69.65
Total		704.79	0.00	704.79

(₹ in lakh)

Asset 5(vii)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
SBI (21.03.2012)-Loan 1-	9.55	200.00	0.00	200.00
SBI (2014-15)-Loan 3-	9.55	77.69	0.00	77.69
Proposed Loan 2015-2016 (8.40%)-Loan-2-	9.30	39.39	0.00	39.39
Total		317.08	0.00	317.08

(₹ in lakh)

Asset 5(viii)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
SBI (21.03.2012)-Loan 1-	9.55	150.00	0.00	150.00
BOND XL-Loan 2-	9.30	50.00	0.00	50.00
Bond XLVII-Loan 3-	8.93	88.64	0.00	88.64
Proposed Loan 2015-2016 (8.40%)-Loan 4-	8.40	47.35	0.00	47.35
Total		335.99	0.00	335.99



(₹ in lakh)

Asset 5(ix)				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
SBI (21.03.2012)-Loan 1-	9.55	250.00	0.00	250.00
BOND - XLIV-Loan 2-	8.70	26.19	0.00	26.19
SBI (2014-15)-Loan 3-	9.55	31.07	0.00	31.07
Bond XLVII-Loan 4-	8.93	19.94	0.00	19.94
BOND L-Loan 5-	8.40	88.83	0.00	88.83
BOND LI-ADDCAP FOR 2015-2016 Loan 6-	8.40	0.00	31.89	31.89
Total		416.03	31.89	447.92

(₹ in lakh)

Asset 6				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XXXVI-Loan 1-	9.35	200.00	0.00	200.00
SBI (21.03.2012)-Loan 2-	9.55	1196.88	0.00	1196.88
BOND XL-Loan 3-	9.30	450.00	0.00	450.00
Bond XLVII-Loan 4-	8.93	88.64	0.00	88.64
Proposed Loan 2015-2016 (8.40%)-Loan 5-	8.40	672.86	0.00	672.86
Total		2608.38	0.00	2608.38

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

(₹ in lakh)

Asset 1					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	11027.12	11027.12	11027.12	11027.12	11027.12
Cumulative Repayments of Loans upto Previous Year	0.00	257.50	1874.72	3495.26	4272.87
Net Loans Opening	11027.12	10769.62	9152.40	7531.86	6754.25
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	257.50	1617.22	1620.54	777.61	777.61
Net Closing Loan	10769.62	9152.40	7531.86	6754.25	5976.64
Average Net Loan	10898.37	9961.01	8342.13	7143.06	6365.45
Rate of Interest on Loan (%)	6.65	6.78	7.18	7.44	7.43
Interest on Loan	724.74	675.36	598.96	531.44	472.95



(₹ in lakh)

Asset 2					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	1221.75	1239.93	1239.93	1239.93	1239.93
Cumulative Repayments of Loans upto Previous Year	35.83	35.83	164.75	293.67	329.50
Net Loans Opening	1185.92	1204.10	1075.18	946.26	910.43
Add: Draw(s) during the Year	18.18	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	128.92	128.92	35.83	37.25
Net Closing Loan	1204.10	1075.18	946.26	910.43	873.18
Average Net Loan	1195.01	1139.64	1010.72	928.35	891.81
Rate of Interest on Loan (%)	7.80	8.01	8.50	8.79	8.79
Interest on Loan	93.21	91.29	85.91	81.60	78.39

(₹ in lakh)

Asset 3					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	1676.74	1686.15	1686.15	1686.15	1686.15
Cumulative Repayments of Loans upto Previous Year	29.17	29.17	117.51	205.85	294.19
Net Loans Opening	1647.57	1656.98	1568.64	1480.30	1391.96
Add: Draw(s) during the Year	9.41	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	88.34	88.34	88.34	139.74
Net Closing Loan	1656.98	1568.64	1480.30	1391.96	1252.22
Average Net Loan	1652.28	1612.81	1524.47	1436.13	1322.09
Rate of Interest on Loan (%)	9.05	9.04	9.04	9.03	9.03
Interest on Loan	149.53	145.80	137.81	129.68	119.38

(₹ in lakh)

Asset 4				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	43235.25	43235.25	43235.25	43235.25
Cumulative Repayments of Loans upto Previous Year	448.70	2510.99	4824.44	6936.50
Net Loans Opening	42786.55	40724.26	38410.81	36298.75
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during	2062.29	2313.45	2112.06	2273.29



Asset 4				
Particulars	2015-16	2016-17	2017-18	2018-19
the year				
Net Closing Loan	40724.26	38410.81	36298.75	34025.46
Average Net Loan	41755.41	39567.54	37354.78	35162.11
Rate of Interest on Loan (%)	7.22	7.36	7.45	7.47
Interest on Loan	3014.74	2912.17	2782.93	2626.61

(₹ in lakh)

Asset 5(i)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	60008.60	60008.60	60008.60	60008.60
Cumulative Repayments of Loans upto Previous Year	0.00	1818.61	5897.19	8432.44
Net Loans Opening	60008.60	58189.99	54111.41	51576.16
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	1818.61	4078.58	2535.25	4866.42
Net Closing Loan	58189.99	54111.41	51576.16	46709.74
Average Net Loan	59099.30	56150.70	52843.79	49142.95
Rate of Interest on Loan (%)	8.48	8.64	8.71	8.70
Interest on Loan	5011.62	4851.42	4602.69	4275.44

(₹ in lakh)

Asset 5(ii)			
Particulars	2016-17	2017-18	2018-19
Gross Opening Loan	0.00	16592.00	16592.00
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00
Net Loans Opening	0.00	16592.00	16592.00
Add: Draw(s) during the Year	16592.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	1833.33
Net Closing Loan	16592.00	16592.00	14758.67
Average Net Loan	8296.00	16592.00	15675.34
Rate of Interest on Loan (%)	9.13	9.12	9.11
Interest on Loan	757.42	1513.19	1428.02



(₹ in lakh)

Asset 5(iii)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	3240.00	3240.00	3240.00	3240.00
Cumulative Repayments of Loans upto Previous Year	0.00	37.50	116.67	195.84
Net Loans Opening	3240.00	3202.50	3123.33	3044.16
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	37.50	79.17	79.17	137.50
Net Closing Loan	3202.50	3123.33	3044.16	2906.66
Average Net Loan	3221.25	3162.92	3083.75	2975.41
Rate of Interest on Loan (%)	8.90	8.90	8.89	8.88
Interest on Loan	286.69	281.50	274.14	264.22

(₹ in lakh)

Asset 5(iv)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	34123.03	34123.03	34123.03	34123.03
Cumulative Repayments of Loans upto Previous Year	0.00	291.67	772.50	1318.44
Net Loans Opening	34123.03	33831.36	33350.53	32804.59
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	291.67	480.83	545.94	745.94
Net Closing Loan	33831.36	33350.53	32804.59	32058.65
Average Net Loan	33977.20	33590.95	33077.56	32431.62
Rate of Interest on Loan (%)	8.84	8.84	8.83	8.82
Interest on Loan	3003.58	2969.44	2920.75	2860.47

(₹ in lakh)

Asset 5(v)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	1559.59	1559.59	1559.59	1559.59
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	40.91	106.85
Net Loans Opening	1559.59	1559.59	1518.68	1452.74
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	40.91	65.94	132.30



Asset 5(v)				
Particulars	2015-16	2016-17	2017-18	2018-19
Net Closing Loan	1559.59	1518.68	1452.74	1320.44
Average Net Loan	1559.59	1539.14	1485.71	1386.59
Rate of Interest on Loan (%)	9.08	9.07	9.06	9.06
Interest on Loan	141.61	139.60	134.61	125.63

(₹ in lakh)

Asset 5(vi)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	704.79	704.79	704.79	704.79
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	42.24	84.48
Net Loans Opening	704.79	704.79	662.55	620.31
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	42.24	42.24	42.24
Net Closing Loan	704.79	662.55	620.31	578.07
Average Net Loan	704.79	683.67	641.43	599.19
Rate of Interest on Loan (%)	9.60	9.60	9.59	9.59
Interest on Loan	67.66	65.63	61.51	57.46

(₹ in lakh)

Asset 5(vii)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	317.08	317.08	317.08	317.08
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	18.18	36.36
Net Loans Opening	317.08	317.08	298.90	280.72
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	18.18	18.18	18.18
Net Closing Loan	317.08	298.90	280.72	262.54
Average Net Loan	317.08	307.99	289.81	271.63
Rate of Interest on Loan (%)	9.41	9.40	9.39	9.38
Interest on Loan	29.84	28.95	27.21	25.48



(₹ in lakh)

Asset 5(viii)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	335.99	335.99	335.99	335.99	335.99
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	17.81	35.62	0.00
Net Loans Opening	335.99	335.99	318.18	300.37	335.99
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	17.81	17.81	25.20	0.00
Net Closing Loan	335.99	318.18	300.37	275.17	335.99
Average Net Loan	335.99	327.09	309.28	287.77	335.99
Rate of Interest on Loan (%)	9.19	9.18	9.16	9.14	9.19
Interest on Loan	30.88	30.03	28.33	26.30	30.88

(₹ in lakh)

Asset 5(ix)				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	416.03	447.92	447.92	447.92
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	22.73	45.46
Net Loans Opening	416.03	447.92	425.19	402.46
Add: Draw(s) during the Year	31.89	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	22.73	22.73	33.12
Net Closing Loan	447.92	425.19	402.46	369.34
Average Net Loan	431.98	436.56	413.83	385.90
Rate of Interest on Loan (%)	9.19	9.15	9.13	9.11
Interest on Loan	39.70	39.94	37.78	35.16

(₹ in lakh)

Asset 6				
Particulars	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	2608.38	2608.38	2608.38	2608.38
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	159.64	319.28
Net Loans Opening	2608.38	2608.38	2448.74	2289.10



Asset 6				
Particulars	2015-16	2016-17	2017-18	2018-19
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	159.64	159.64	167.03
Net Closing Loan	2608.38	2448.74	2289.10	2122.07
Average Net Loan	2608.38	2528.56	2368.92	2205.59
Rate of Interest on Loan (%)	9.17	9.16	9.14	9.12
Interest on Loan	239.19	231.62	216.52	201.15

