

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 187/TT/2011

Coram:

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

**Date of Hearing: 09.10.2014
Date of Order : 16.03.2015**

In the matter of:

Approval of Transmission Tariff of Combined Elements for combined assets (part) for **Asset-1:** 400 kV D/C Lucknow (New)-Lucknow (Old) line with associated bays at both end (Anticipated DOCO: 1.1.2012), **Asset-2:** 765 kV, S/C Balia-Lucknow line along with associated bays at both ends (Anticipated DOCO: 1.1.2012), **Asset-3:** 765/400 kV, 1500 MVA ICT-I at Balia Sub-station along with associated bays (Anticipated DOCO: 1.1.2012), **Asset-4:** 765/400 kV, 1500 MVA ICT-I at Lucknow Sub-station along with associated bays (Anticipated DOCO: 1.1.2012) and **Asset-5:** Associated bays at Biharshariff and Sasaram end (for Biharshariff-Sasaram 400 kV quad T/L under Supplementary transmission system for DVC Maithon Right Bank project) (Anticipated DOCO: 1.1.2012), under Common Scheme for 765 kV Pooling Stations and Network for NR, Import by NR from ER and Common Scheme for network for WR and Import by WR from ER and from NER/SR/WR via ER in Northern Region for tariff block 2009-14 under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulation 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009.

And in the matter of:

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

.....**Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302 005



2. Ajmer Vidyut Vitran Nigam Limited,
400 KV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited,
400 KV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
4. Jodhpur Vidyut Vitran Nigam Limited,
400 KV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building-II,
Shimla-171 004
6. Punjab State Electricity Board,
The Mall, Patiala-147 001
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109
8. Power Development Department,
Govt. of Jammu & Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226 001
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110 00
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
13. North Delhi Power Limited,
Power Trading & Load Dispatch Group,

CENNET Building, Adjacent to 66/11 kV Pitampura-3
GRID Building, Near PP Jewelers,
Pitampura, New Delhi-110 034

14. Chandigarh Administration,
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kasnwali Road,
Dehradun
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council, Palika Kendra,
Sansad Marg,
New Delhi-110 001

.....**Respondents**

For petitioner : Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri S.S. Raju, PGCIL
Ms Seema Gupta, PGCIL

For respondents: Shri Padamjit Singh, PSPCL
Ms Megha Bajpeyi, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission charges for **Asset-1:** 400 kV D/C Lucknow (New)-Lucknow (Old) line with associated bays at both ends, **Asset-2:** 765 kV S/C Balia-Lucknow line along with associated bays at both ends, **Asset-3:** 765/400 kV, 1500 MVA ICT-I at Balia Sub-station along with associated bays, **Asset-4:** 765/400 kV, 1500 MVA ICT-I at Lucknow Sub-station along with associated bays and **Asset-5:** Associated bays at Biharshariff and Sasaram end (for Biharshariff-Sasaram 400 kV quad transmission line under Supplementary transmission system for DVC Maithon



Right Bank project) (hereinafter referred to as “transmission assets”) under the Common Scheme for 765 kV Pooling Stations and Network for Northern Region, Import by NR from ER and Common scheme for network for WR and import by WR from ER and from NER/SR/WR via ER in Northern Region, from the date of commercial operation to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. This order has been issued after considering PGCIL affidavits dated 5.6.2012, 1.8.2013 and 10.12.2014, Jaipur Vidyut Vitran Nigam Ltd (JAVVNL) affidavit dated 14.9.2011, Jodhpur Vidyut Vitran Nigam Ltd (Jd.VVNL) affidavits dated 14.9.2011 and 21.3.2012 and Punjab State Power Company Ltd (PSPCL) vide affidavit dated 11.10.2014.

3. The comprehensive transmission schemes for import of power from Eastern Region to Northern, Western and Southern Regions were evolved as a consequence of discussions at various Standing Committee and Regional Power Committee Meetings of the concerned regions. The need of the transmission system was agreed to in the 22nd meeting of Standing Committee on Power System Planning of Northern Region held on 12.3.2007. The implementation of the transmission system was entrusted to the petitioner. The Investment Approval (IA) and expenditure sanction for the transmission system was accorded by the Board of Directors of the petitioner vide Memorandum No C/CP/DVC and Maithon RB Project dated 29.8.2008 at an estimated cost of ₹707533 lakh including an IDC of ₹71360 lakh (based on 1st Qtr 2008 price level). The transmission system was scheduled to be commissioned within 48 months from the

date of IA. Therefore, the scheduled date of commissioning of the transmission system was 1.9.2012. The scope of work covered under the scheme is broadly as follows:-

Transmission Lines:

- 1) Maithon-Gaya 400 kV Quad D/C line : 235 km
- 2) Gaya-Sasaram 765 kV S/C line : 148 km
- 3) Gaya-Balia 765 kV S/C line : 235.10 km
- 4) Balia-Lucknow 765 kV S/C line : 316 km
- 5) Ranchi-WR Pooling Station 765 kV S/C line : 372 km
- 6) Lucknow 765/400 kV new Sub-station-Lucknow
400/220 kV existing Sub-station 400 kV Quad D/C line : 40 km
- 7) Ranchi 765/400 kV new Sub-station-Ranchi
400/220 kV existing Sub-station 400 kV Quad 2xD/C line : 110 km
- 8) LILO of both circuits of Allahabad-Mainpuri 400 kV D/C line
at Fatehpur 765/400 kV Sub-station of POWERGRID : 34 km
- 9) LILO of Barh-Balia 400 kV Quad D/C line at Patna : 25 km

Sub-stations:

- 1) Augmentation of Maithon 400/220 kV Sub-station
 - a) 2 nos. of 400 kV line bays (for terminating Maithon-Gaya D/C line)
 - b) 2 nos. of 400 kV line bays (for terminating Mejia-Maithon D/C line)
- 2) New 765/400 kV Sub-station at Gaya
 - a) 3x1500 MVA, 765/400 kV Transformer along with associated bays
 - b) 2 nos. of 765 kV line bays (for Gaya-Sasaram & Gaya-Balia 765 kV lines)
 - c) 4 nos. of 400 kV line bays (for Maithon-Gaya line & kodarma-Gaya line)

- 3) New 765/400 kV Sub-station at Sasaram*
 - a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
 - b) 2 nos. of 765 kV line bays (for Gaya-Sasaram 765 kV S/C and Sasaram-Fatehpur 765 kV S/C)
 - c) 2 nos. of 400 kV bays (for Biharshariff-Sasaram 400 kV quad D/C line)

*Note: New 765/400 kV Sub-station at Sasaram is to be accommodated in the premises of existing Sasaram Sub-station.

- 4) Augmentation of Biharshariff 400/220 kV Sub-station
 - a) 2 nos. of 400 kV bays (for Biharshariff-Sasaram 400 kV quad D/C line)

- 5) New 765/400 kV Sub-station at Fatehpur
 - a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
 - b) 2 nos. of 765 kV line bays (for Sasaram-Fatehpur and Fatehpur-Agra 765 kV lines)
 - c) 4 nos. of 400 kV line bays (for LILO of Allahabad-Mainpuri 400 kV D/C line)

- 6) Augmentation of 400 kV Agra Sub-station to 765 kV
 - a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
 - b) 1 no. of 765 kV line bay (for Fatehpur-Agra 765 kV line)

- 7) Augmentation of 400 kV Balia Sub-station to 765 kV
 - a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
 - b) 2 nos. of 765 kV line bays (for Gaya-Balia and Balia-Lucknow 765 kV lines)

- 8) New 765/400 kV Sub-station at Lucknow
 - a) 2x1500 MVA, 765/400 kV Transformer along with associated bays

- b) 1 no. of 765 kV line bay (for Balia-Lucknow 765 kV line)
- c) 2 nos. of 400 kV bays (for Lucknow 765/400 kV new Sub-station-Lucknow 400/220 kV existing Sub-station 400 kV quad D/C line)

9) Augmentation of existing Lucknow 400/220 kV Sub-station

- a) 2 nos. of 400 kV bays (for Lucknow 765/400 kV new Sub-station-Lucknow 400/220 kV existing Sub-station 400 kV quad D/C line)

10) New 2x1500 MVA, 765/400 kV Sub-station at Ranchi

- a) 1 no. of 765 kV line bay (for Ranchi-WR Pooling 765 kV S/C line)
- b) 4 nos. of 400 kV bays (for Ranchi 400 kV new Sub-station-Ranchi 400/220 kV existing Sub-station 400 kV quad 2xD/C line)

11) Augmentation of Ranchi 400/220 kV Sub-Station

- a) 6 nos. of 400 kV bays (4 nos. for Ranchi 765/400 kV new Sub-station-Ranchi 400/220 kV existing Sub-station 400 kV quad 2xD/C line and 2 nos. for Raghunathpur TPS-Ranchi line)

12) 765/400 kV WR Pooling Sub-station

- a) 1 no. of 765 kV line bay (for Ranchi-WR Pooling 765 kV S/C line)

13) Augmentation of Patna 400/220 kV Sub-station

- a) 4 nos. of 400 kV line bays (for LILO of Barh-Balia 400 kV Quad line)

4. Provisional tariff in respect of instant assets was allowed vide order dated 29.3.2012, subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

5. The petitioner initially filed for approval of the transmission charges from the anticipated dates of commercial operation (DOCO) of the transmission assets. The

petitioner, vide affidavit dated 1.8.2013 has submitted the actual dates of commercial operation. The Assets-1, 2, 3 and 4 were declared under commercial operation on 1.3.2012, the components of Asset-5 were declared under commercial operation as under:-

Asset-5: Components

Particulars	Date of Commercial Operation
(i) One no. 400 kV line bay at Biharshariff Sub-station with 50 MVAR reactor and one no. 400 kV line bay at Sasaram with 400 kV Biharshariff-Sasaram Ckt-III (ii) One no 400 kV line bay at Biharshariff Sub-station with 50 MVAR reactor associated with 400 kV S/C Biharshariff-Gaya transmission line	1.2.2012
(iii) One no 400 kV line bay at Sasaram Sub-station associated with 400 kV S/C Sasaram-Balia transmission line	1.3.2012
(iv) 2x50 MVAR Bus Reactor at Sasaram	1.4.2012

6. The petitioner has submitted the reasons for splitting up commissioning of bays, 8 in total, of Asset-5 at Biharshariff and Sasaram Sub-stations. The petitioner has submitted that an interim arrangement to facilitate evacuation of power from DVC power projects, pending commissioning of 400 kV Koderma-Gaya (Quad) transmission line and 400 kV D/C (quad) Maithon-Gaya transmission line was worked out. Under this interim arrangement, one Ckt of 400 kV Biharshariff-Sasaram (Quad) D/C transmission line and one Ckt of 765 kV Gaya-Balia transmission line (charged at 400 kV) were connected in such a way that they formed (i) 400 kV Biharshariff-Gaya transmission line (Part of 765 kV Gaya-Balia S/C transmission line) and (ii) 400 kV Sasaram-Balia (Part of Gaya-Balia 765 kV S/C transmission line). As 400 kV Koderma-Biharshariff quad D/C transmission line is in operation so power from Koderma TPS (1000 MW) would be transferred to Northern Region through 765 kV Gaya-Fatehpur S/C transmission line and Bihar would also draw power utilizing 400/220 kV ICT at Gaya. The petitioner

further submitted that approval for the interim arrangement was accorded by CEA vide letter dated 25.1.2012. The petitioner has further submitted that the interim arrangement was subsequently approved at the 1st Standing Committee Meeting on Power System Planning in Eastern Region held on 8.12.2012.

7. The petitioner has filed revised calculations of tariff based on actual DOCO. The details of the transmission charges claimed by the petitioner are as under:-

Particulars	(₹ In lakh)					
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Depreciation	11.87	165.53	182.98	228.67	2,854.32	2,932.44
Interest on Loan	15.98	212.18	217.47	281.23	3,367.13	3,194.31
Return on Equity	13.00	179.13	196.45	227.71	2,842.09	2,919.66
Interest on Working Capital	1.76	23.15	24.64	16.81	207.37	208.53
O & M Expenses	19.77	250.86	265.20	43.28	549.22	580.55
Total	62.38	830.85	886.74	797.70	9820.13	9835.49
	Asset-3			Asset-4		
Depreciation	54.96	684.54	704.38	52.53	676.72	715.99
Interest on Loan	65.26	779.94	741.33	63.06	779.50	763.71
Return on Equity	54.74	681.78	701.53	53.51	688.54	727.61
Interest on Working Capital	4.06	49.99	50.42	3.94	49.96	51.62
O & M Expenses	11.71	148.60	157.10	11.71	148.60	157.10
Total	190.73	2344.85	2354.76	184.75	2343.32	2416.03
	Asset-5 (i)			Asset-5 (ii)		
Depreciation	11.95	81.67	93.40	10.29	63.07	65.73
Interest on Loan	14.01	92.20	98.63	12.03	70.58	68.00
Return on Equity	11.87	81.12	92.77	10.22	62.65	65.29
Interest on Working Capital	2.16	14.00	15.10	1.59	9.86	10.25
O & M Expenses	29.29	185.76	196.38	19.52	123.84	130.92
Total	69.28	454.75	496.28	53.65	330.00	340.19
	Asset-5 (iii)			Asset-5 (iv)		
Depreciation	0.83	18.63	27.71	-	35.98	37.75
Interest on Loan	0.99	21.63	30.67	-	40.84	39.65
Return on Equity	0.83	18.50	27.52	-	35.74	37.49
Interest on Working Capital	0.29	4.14	4.86	-	9.43	9.88
O & M Expenses	4.88	61.92	65.46	-	123.84	130.92
Total	7.82	124.82	156.22	-	245.83	255.69

8. The details submitted by the petitioner in support of its claim for interest on working capital are as overleaf:-

(₹ In lakh)

Particulars	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Maintenance Spares	35.59	37.63	39.78	77.90	82.38	87.08
O & M expenses	19.77	20.91	22.10	43.28	45.77	48.38
Receivables	124.78	138.51	147.82	1595.40	1636.69	1639.25
Total	180.14	197.05	209.70	1716.58	1764.84	1774.71
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	1.76	23.15	24.64	16.81	207.37	208.53
	Asset-3			Asset-4		
Maintenance Spares	21.08	22.29	23.56	21.08	22.29	23.56
O & M expenses	11.71	12.38	13.09	11.71	12.38	13.09
Receivables	381.46	390.81	392.46	369.50	390.55	402.67
Total	414.25	425.48	429.11	402.29	425.22	439.32
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	4.06	49.99	50.42	3.94	49.96	51.62
	Asset-5 (i)			Asset-5 (ii)		
Maintenance Spares	26.36	27.86	29.46	17.57	18.58	19.64
O & M expenses	14.65	15.48	16.37	9.76	10.32	10.91
Receivables	69.28	75.79	82.71	53.65	55.00	56.70
Total	110.29	119.13	128.54	80.98	83.90	87.25
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	2.16	14.0	15.10	1.59	9.86	10.25
	Asset-5 (iii)			Asset-5 (iv)		
Maintenance Spares	8.78	9.29	9.82	-	18.58	19.64
O & M expenses	4.88	5.16	5.46	-	10.32	10.91
Receivables	15.64	20.80	26.04	-	40.97	42.62
Total	29.30	35.25	41.32	-	69.87	73.17
Interest Rate	11.75%	11.75%	11.75%	-	13.50%	13.50%
Interest	0.29	4.14	4.86	-	9.43	9.88

9. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. Respondent No 2, JVVNL has filed reply vide affidavit dated 14.9.2011, Respondent No 4, Jd.VVNL has filed reply vide affidavit dated 14.9.2011 and 21.3.2012 and PSPCL, successor of Respondent No 6, has filed reply vide affidavit dated 11.10.2014. The respondents have mainly raised issues like actual dates of commercial operation, cost variation and over-run, interest on loan, O & M charges, etc. The submissions made by the respondents and their clarifications have been dealt in

relevant paragraphs of this order. The petitioner has not filed any rejoinder to the replies of JVVNL and Jd.VVNL.

10. The representative of PSPCL vide their affidavit submitted:-

“as per the originally approved scheme, 765 kV Balia was to receive power from 765 kV Gaya-Balia line and also through the 400 kV system through 765/400 kV ICTs. In the present case, while the Gaya-Balia 765 kV line has not been commissioned, the Balia-Lucknow 765 kV line has been commissioned by using the power stepped up from 400 kV Balia through ICTs. PGCIL may explain/clarify the mismatch in the commissioning whereby the outgoing line, Balia-Lucknow has been commissioned while the incoming line, Gaya-Balia has not been commissioned.”

11. During the hearing on 9.10.2014, the representative of PSPCL submitted that the assets were not commissioned in the sequence in which they were listed in the IA. In response, the representative of the petitioner clarified that it is not mandatory to commission the assets in the sequence given in the IA and explained that the assets are required to be commissioned as per the system requirements. The representative of the petitioner also submitted that Commission in an earlier instance observed that the assets should be commissioned as per the system requirements. We have considered the submissions made by PSPCL and the petitioner regarding the sequence in which the petitioner has commissioned the assets.

12. We have dealt with the issue of commissioning of assets in the sequence given in the IA in our order dated 3.7.2014 in Petition No.82/TT/2012. The relevant portion of the order is as follows:-

“15. However, in our opinion, for implementation of any transmission scheme involving multiple assets, there must be an agreed sequencing plan, whether that is finally achieved or not is another issue. The execution sequence of transmission scheme may change at later stage because of certain constraints like RoW, changing power scenario, delay by supplier etc not foreseen at the planning stage, but to state that there was no agreed upon sequencing plan is not a proper project management practice and is not in spirit of Section 38 of the Electricity Act, according to which the responsibility for planning

and coordination of the inter-State transmission system falls on the Central Transmission Utility, the petitioner. Accordingly, we hereby direct that henceforth while agreeing to the necessity of any transmission scheme having multiple elements, sequencing of commissioning of these elements should also be formulated. The sequencing plan must enable meeting the intended objective/use. The petitioner in its capacity as the Central Transmission Utility has an added responsibility to execute the project with proper planning. It will be responsibility of the Regional Power Committees to monitor implementation of projects as per sequencing plan agreed upon at the Standing Committee. We make it clear that though all efforts need to be made for execution of the transmission scheme in accordance with agreed sequencing, for valid reasons the transmission licensee may deviate from the agreed sequencing plan. However, such deviations needs to be discussed and agreed upon in at Regional Power Committee forum.”

13. In line with the above said order, we are of the view that the petitioner should formulate the sequence of commissioning of the assets to meet their intended use. The petitioner should also make all efforts to execute the assets in accordance with agreed sequencing and for valid reasons the petitioner may deviate from the agreed sequencing plan. However, such deviation should be discussed and agreed upon in the respective Regional Power Committee.

14. PSPCL in its reply has submitted that as per the originally approved scheme, 765 kV Balia was to receive power from 765 kV Gaya-Balia line and also through the 400 kV system through 765/400 kV ICTs. While the Gaya-Balia 765 kV line has not been commissioned, the Balia-Lucknow 765 kV line has been commissioned by using the power stepped up from 400 kV Balia through ICTs. The petitioner should clarify the mismatch in the commissioning whereby the outgoing line, Balia-Lucknow has been commissioned while the incoming line, Gaya-Balia has not been commissioned. In response, the petitioner in its rejoinder dated 10.12.2014 has submitted that the Bays at Biharshariff and Sasaram sub-Stations for the Biharshariff-Sasaram transmission line were commissioned on different dates because of interim arrangement taken up for

facilitating evacuation of power from DVC generation project without commissioning of 400 kV Koderma-Gaya (Quad) transmission line and 400 kV DC (Quad) Maithon-Gaya transmission line. As per this interim arrangement, one ckt. of 400 kV Biharshariff-Sasaram (Quad) DC transmission line and the ckt. of 765 kV Gaya-Balia transmission line (charged at 400 kV) was connected in such a way that it forms (i) 400 kV Biharshariff-Gaya (Part of Gaya-Balia 765 kV SC transmission line) and (ii) 400 kV Sasaram-Balia (Part of Gaya-Balia 765 kV SC D/L). CEA has granted in principle approval for this arrangement. The power is pooled in Biharshariff and it comes to Gaya, from Gaya to Sasaram and Sasaram to Fathepur. This is consistent with the interim arrangement. Once the Koderma-Gaya and Maithon-Gaya line comes up the normal arrangement would be restored. PSPCL has not pointed out any technical flaw in the interim arrangement worked out with the approval of CEA. Therefore, we do not consider it necessary to delve further into the issue.

15. During hearing on 9.10.2014, the Commission observed that the interim arrangement made by the petitioner for evacuation of power from DVC generation project should have been initially approved at the RPC forum and thereafter by the Board of Directors of the petitioner. The Commission accordingly directed the petitioner to obtain *ex post facto* approval of its Board. The petitioner has submitted RPC approval for the interim arrangement accorded in 21st ERPC and TCC meetings held on 20th and 21st April 2012 respectively, in Petition No 67/TT/2012. The petitioner further submitted that the approvals of Board are taken only for the original schemes and not for the contingency schemes, which by their very nature are only temporary and finally give way to the original scheme. In our view, any investment approval whether for the

original scheme or for the temporary scheme should have the approval of the Board. Accordingly, we direct the petitioner to obtain necessary approval from its Board and file it with the truing-up petition.

16. Having heard the representatives of the parties and the petitioner and perused the material available on record we proceed to dispose of the petition.

Capital cost

17. Regulation 7 of the 2009 Tariff Regulations so far as relevant provides as under:-

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

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

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

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

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

18. The details of the apportioned approved capital cost, capital cost as on the dates of commercial operation and estimated additional capital expenditure projected to be incurred for the transmission assets as submitted by the petitioner are given hereunder:-

Particulars	Apportioned approved cost	Cost as on DOCO	Additional capital expenditure Incurred/Projected			Total
			DOCO to 31.3.2012	2012-13	2013-14	
Asset-1	15215.51	2861.53	223.99	660.43	-	3745.95
Asset-2	64266.89	51492.92	1221.91	2958.18	-	55673.01
Asset-3	13290.33	12428.85	195.01	753.11	-	13376.97
Asset-4	14494.75	12106.14	278.00	1490.15	-	13874.29
Asset-5 (i)	2551.19	1316.60	82.10	296.12	148.33	1843.15
Asset-5 (ii)	1483.58	1148.20	41.49	9.75	90.91	1290.35
Asset-5 (iii)	1057.18	169.05	40.61	286.37	57.41	553.44
Asset-5 (iv)	1221.16	681.46	-	-	67.00	748.46

19. As per copy of the minutes of the meeting of 22nd Standing Committee on Power System of Northern Region held on 12.3.2007, submitted by the petitioner, approval for 2 line bays for 400 kV Biharshariff-Sasaram D/C (Quad) transmission line at Biharshariff, i.e. Asset-5 (i) and Asset-5 (ii), was accorded without any provision for reactors. However, the petitioner has considered 2 line reactors at Biharshariff associated with Biharshariff-Sasaram transmission line. As the reactors at Biharshariff have not been approved by the Standing Committee, capital cost of the associated bays and reactors at Biharshariff has not been considered for the purpose of tariff.

20. The segregated cost of bays and reactors considered by the petitioner while claiming tariff for Asset 5(i) and 5(ii) is not available on record. However, the segregated hard cost of bays and reactors has been provided in Form-5B submitted by the petitioner vide affidavit dated 10.12.2014. The details of segregated hard cost for reactors as per Form 5B and disallowed are as overleaf:-

(₹ in lakh)

Compensating Equipment (Reactor, SVCs etc) at Sl. No. 6.3 at Form-5B	Approved cost	Actual Hard cost as on DOCO (Disallowed)	Actual/ Projected additional capital expenditure (Disallowed)			Estimated completion cost as on 31.3.2014 (Disallowed)
			2011-12	2012-13	2013-14	
Asset-5 (i)	519.00	403.41	82.10	72.91	4.34	562.76
Asset-5 (ii)	510.22	421.16	41.49	9.75	24.52	496.92

21. The separate cost of Bays is also not available. However, as discussed vide para 19 of this order the same have been disallowed. The cost of bays to be disallowed has been worked out as follows:-

(₹ in lakh)

Asset	Actual Hard cost as on DOCO (Disallowed)	Actual/ Projected additional capital expenditure (Disallowed)			Estimated completion cost as on 31.3.2014 (Disallowed)
		2011-12	2012-13	2013-14	
Asset-5 (i)	270.37*	-	74.40	48.00	392.77
Asset-5 (ii)	317.74#	-	-	33.20	350.93

*Assumed Hard cost of one Bay out of three Bays=1/3 of (Total hard cost as per S.No. 11.0 of Form-5B minus hard cost pertaining to Reactor as per S.No. 6.3 of Form-5B).

assumed Hard cost of one Bay out of two Bays=1/2 of (Total hard cost as per S.No. 11.0 of Form-5B minus hard cost pertaining to Reactor as per S.No. 6.3 of Form-5B).

22. In view of above, the details of total hard cost of Bays and Reactors disallowed are as under:-

(₹ in lakh)

Assets	Actual Hard cost of Bays and Reactors as on DOC (Disallowed)	Actual/ Projected additional capital expenditure (Disallowed)			Estimated completion cost as on 31.3.2014 (Disallowed)
		2011-12	2012-13	2013-14	
Asset-5 (i)	673.78	82.10	147.31	52.34	955.53
Asset-5 (ii)	738.90	41.49	9.75	57.72	847.85

23. The pro-rata IDC and IEDC as on DOCO, corresponding to the hard cost above and to be disallowed, have been worked out in proportion to the total capital cost claimed on DOCO as per the details given below:-

(₹ in lakh)			
Particulars	Pro-rata IDC as on DOCO (Disallowed)	Pro-rata IEDC as on DOCO (Disallowed)	Total IDC/IEDC (Disallowed)
Asset-5 (i)	52.24*	16.04#	68.28
Asset-5 (ii)	58.93*	17.29#	76.21

*Pro-rata IDC to be disallowed=IDC as per S.No. 12.1 of Form-5B (Total hard cost to be disallowed as per para 18 above divided by total capital cost claimed as per S.No. 13.0 of Form-5B)

Pro-rata IEDC to be disallowed=IEDC as per management certificate (Total hard cost to be disallowed as per para 18 above divided by total capital cost claimed as per S.No. 13.0 of Form-5B)

24. The total capital cost including IDC and IEDC as on DOCO and 31.3.2014, of bays and reactors included in the cost of Asset-5 (i) and Asset-5 (ii), but disallowed is summarized as under:-

(₹ in lakh)					
Particulars	Actual cost (including IDC and IEDC) as on DOCO (Disallowed)	Actual/ Projected Additional Capitalization (Disallowed)			Estimated completion cost as on 31-03-2014 (Disallowed)
		2011-12	2012-13	2013-14	
Asset-5 (i)	742.06	82.10	147.31	52.34	1023.81
Asset-5 (ii)	815.11	41.49	9.75	57.72	924.06

25. The petitioner is, however, granted liberty to approach the Commission to allow tariff for 2 reactors and associated bays at the time of truing-up after obtaining approval of the Standing Committee and RPC.

26. The capital cost as on DOCO of the transmission assets considered for the purpose of tariff after disallowing the cost of bays and reactors included in the capital cost of Asset-5 (i) and Asset-5 (ii) is as under:-

(₹ in lakh)		
Particulars	DOCO	Capital Cost as on DOCO
Asset-1	1.3.2012	2861.53
Asset-2	1.3.2012	51492.92
Asset-3	1.3.2012	12428.85
Asset-4	1.3.2012	12106.14
Asset-5 (i)	1.2.2012	574.54
Asset-5 (ii)	1.2.2012	333.09
Asset-5 (iii)	1.3.2012	169.05
Asset-5 (iv)	1.4.2012	681.46

Initial Spares

27. Regulation 8 of the 2009 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

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

(iv) Transmission system

(a) Transmission line - 0.75%

(b) Transmission Sub-station - 2.5%

(c) Series Compensation devices and HVDC Station - 3.5%

Provided that where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost under first proviso to clause (2) of regulation 7, such norms shall apply to the exclusion of the norms specified herein.

28. The actual cost on the date of commercial operation claimed by the petitioner is inclusive of the cost of initial spares for sub-stations only, details of which are as under:-

(₹ in lakh)	
Particulars	Cost of Initial Spares
Asset-1	81.06
Asset-2	127.60
Asset-3	175.22
Asset-4	155.80
Asset -5 (i)	36.71
Asset -5 (ii)	22.89
Asset -5 (iii)	13.84
Asset -5 (iv)	18.72

29. Initial spares claimed by the petitioner in respect of Asset-2, Asset-3, Asset-4, Asset-5 (i), Asset-5 (ii) and Asset-5 (iii) are within the ceiling limits specified by the 2009 Tariff Regulations. However, initial spares for sub-stations claimed in respect of Asset-1 and Asset-5 (iv) are in excess of the specified ceiling limits as detailed under:-

(₹ in lakh)					
Particulars	Capital Cost as on 31.3.2014	Initial Spares Claimed	Ceiling Limit	Normative Initial Spares	Excess Initial Spares
Asset-1	2,673.86	81.06	2.50%	66.48	14.58
Asset-5 (iv)	748.46	18.72	2.50%	18.71	0.01

30. Accordingly, capital cost as on the date of commercial operation for each of the transmission assets is considered, after adjustment of excess initial spares included in the capital cost of Asset-1 and Asset-5 (iv) and is as given overleaf:-

(₹ in lakh)

Particulars	Capital Cost as on DOCO	Deduction in Capital Cost on account of Excess Initial Spares	Capital Cost after deduction of Initial Spares as on DOCO
Asset-1	2861.53	14.58	2846.95
Asset-2	51492.92	-	51492.92
Asset-3	12428.85	-	12428.85
Asset-4	12106.14	-	12106.14
Asset-5 (i)	574.54	-	574.54
Asset-5 (ii)	333.09	-	333.09
Asset-5 (iii)	169.05	-	169.05
Asset-5 (iv)	681.46	0.01	681.45

Projected Additional Capital Expenditure

31. Clause (1) of Regulation 9 of the Tariff Regulations provides as under:-

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

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law:”

32. Clause (11) of Regulation 3 of Tariff Regulations defines “cut-off” date as under:

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

33. After taking into account the date of commercial operation of the transmission assets, cut-off date arrived at is 31.3.2015.

34. The additional capital expenditure during 2011-12, 2012-13 and 2013-14 claimed by the petitioner is given at para 18 above. Jd.VVNL has submitted that the petitioner has claimed additional capital expenditure after date of commercial operation towards Balance/Retention payments and the petitioner should confirm that all the works have been completed. The additional capital cost claimed by the petitioner in respect of Asset-1, Asset-2, Asset-3, Asset-4, Asset-5 (iii) and Asset-5 (iv) is within the cut-off date and is on account of balance payments. The additional capital expenditure claimed in respect of these assets is therefore allowed, except that in case of Asset-3, additional capital expenditure for the year 2012-13 is restricted to ₹666.47 lakh so that the capital cost as on 31.3.2014 does not exceed the apportioned approved capital cost of ₹13290.33 lakh for this asset. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012, and subsequently the Commission, vide its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the apportioned approved cost of individual asset for restricting the capital expenditure due to cost over-run for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure has been restricted to apportioned approved cost. In case of Asset-5 (i) and Asset-5 (ii) cost of the reactors and bays at Biharshariff has not been taken into account for the reason that the Standing Committee on Power System of Northern Region had not considered these reactors and bays while agreeing to the need for the transmission system. Therefore, additional capital expenditure in respect of the reactors and bays has not been considered. The additional capital expenditure approved for the purpose of tariff is as overleaf:-

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14
Asset-1	223.99	660.43	-
Asset-2	1221.91	2958.18	-
Asset-3	195.01	666.47	-
Asset-4	278.00	1490.15	-
Asset-5 (i)	-	148.81	95.99
Asset-5 (ii)	-	-	33.20
Asset-5 (iii)	40.61	286.37	57.41
Asset-5 (iv)	-	-	67.00

35. Based on the above, gross block has been considered as per details given below:-

(₹ in lakh)

Particulars	Cost as on DOCO	Additional Capital Expenditure Incurred/Projected			Total capital cost
		DOCO to 31.3.2012	2012-13	2013-14	
Asset-1	2846.95	223.99	660.43	-	3731.36
Asset-2	51492.92	1221.91	2958.18	-	55672.99
Asset-3	12428.84	195.01	666.47	-	13290.33
Asset-4	12106.13	278.00	1490.15	-	13874.29
Asset-5 (i)	574.54	-	148.81	95.99	819.34
Asset-5 (ii)	333.09	-	-	33.20	366.29
Asset-5 (iii)	169.05	40.61	286.37	57.41	553.44
Asset-5 (iv)	681.45	-	-	67.00	748.45

Debt- Equity ratio

36. Regulation 12 of the Tariff Regulations provides as under:-

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

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

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

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

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

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

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

37. The capital cost on the dates of commercial operation arrived at as above and additional capitalization allowed have been considered in the normative debt-equity ratio of 70:30. Details of debt-equity as on dates of commercial operation and 31.3.2014 considered on normative basis are as under:-

Particulars	(₹ in lakh)					
	Cost on Date of Commercial Operation			Cost as on 31.3.2014		
	Debt	Equity	Total	Debt	Equity	Total
Asset-1	1992.87	854.09	2846.95	2611.95	1119.41	3731.36
Asset-2	36045.04	15447.88	51492.92	38971.09	16701.90	55672.99
Asset-3	8700.20	3728.66	12428.85	9303.23	3987.10	13290.33
Asset-4	8474.30	3631.84	12106.14	9712.01	4162.29	13874.30
Asset-5 (i)	402.18	172.36	574.54	573.54	245.80	819.34
Asset-5 (ii)	233.16	99.93	333.09	256.40	109.89	366.29
Asset-5 (iii)	118.34	50.72	169.05	387.41	166.03	553.44
Asset-5 (iv)	477.02	204.44	681.45	523.92	224.54	748.45

Return on equity

38. Regulation 15 of the 2009 Tariff Regulations provides as under:-

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

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage

hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

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

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

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

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

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

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

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

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

39. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account on return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission shall be dealt under Regulation 15(5). Return on Equity has been computed @ 17.481% p.a on average equity as per Regulation 15 of the 2009 Tariff Regulations.

40. Details of return on equity calculated are as under:-

Particulars	(₹ in lakh)					
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Opening Equity	854.09	921.28	1119.41	15447.88	15814.45	16701.90
Addition due to Additional Capitalization	67.19	198.13	-	366.57	887.45	-
Closing Equity	921.28	1119.41	1119.41	15814.45	16701.90	16701.90
Average Equity	887.68	1020.34	1119.41	15631.16	16258.17	16701.90
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	12.93	178.37	195.68	227.71	2842.09	2919.66
	Asset-3			Asset-4		
Opening Equity	3728.66	3787.16	3987.10	3631.84	3715.24	4162.29
Addition due to Additional Capitalization	58.50	199.94	-	83.40	447.05	-
Closing Equity	3787.16	3987.10	3987.10	3715.24	4162.29	4162.29
Average Equity	3757.91	3887.13	3987.10	3673.54	3938.77	4162.29
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	54.74	679.51	696.98	53.51	688.54	727.61
	Asset-5 (i)			Asset-5 (ii)		
Opening Equity	172.36	172.36	217.00	99.93	99.93	99.93
Addition due to Additional Capitalization	-	44.64	28.80	-	-	9.96
Closing Equity	172.36	217.00	245.80	99.93	99.93	109.89
Average Equity	172.36	194.68	231.40	99.93	99.93	104.91
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	5.02	34.03	40.45	2.91	17.47	18.34
	Asset-5 (iii)			Asset-5 (iv)		
Opening Equity	50.72	62.90	148.81	-	204.44	204.44
Addition due to	12.18	85.91	17.22	-	-	20.10

Additional Capitalization						
Closing Equity	62.90	148.81	166.03	-	204.44	224.54
Average Equity	56.81	105.85	157.42	-	204.44	214.49
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	-	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	-	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	-	17.481%	17.481%
Return on Equity (Pre Tax)	0.83	18.50	27.52	-	35.74	37.49

Interest on loan

41. Regulation 16 of the 2009 Tariff Regulations provides as under:-

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

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

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

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

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

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

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

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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest

and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

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

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

42. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner’s entitlement to interest on loan has been calculated on the following basis:-

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

(b) The yearly repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

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

43. Detailed calculations in support of interest on loan have been calculated as given at Annexure I to Annexure VIII of this order.

44. Details of Interest on Loan calculated are as under:-

Particulars	(₹ in lakh)					
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Gross Normative Loan	1992.87	2149.65	2611.95	36045.04	36900.37	38971.09
Cumulative Repayment upto Previous Year	-	11.81	176.57	-	228.67	3083.00
Net Loan-Opening	1992.87	2137.84	2435.39	36045.04	36671.70	35888.10
Addition due to Additional Capitalisation	156.79	462.30	-	855.33	2070.72	-
Repayment during the year	11.81	164.76	182.21	228.67	2854.32	2932.44
Net Loan-Closing	2137.84	2435.39	2253.18	36671.70	35888.10	32955.66
Average Loan	2065.36	2286.61	2344.28	36358.37	36279.90	34421.88
Weighted Average Rate of Interest on Loan	9.2459%	9.2481%	9.2498%	9.2818%	9.2810%	9.2799%
Interest on Loan	15.91	211.47	216.84	281.23	3367.13	3194.30
	Asset-3			Asset-4		
Gross Normative Loan	8700.20	8836.70	9303.23	8474.30	8668.90	9712.01
Cumulative Repayment upto Previous Year	-	54.96	737.22	-	52.53	729.25
Net Loan-Opening	8700.20	8781.74	8566.01	8474.30	8616.36	8982.76
Addition due to Additional Capitalisation	136.51	466.53	-	194.60	1043.11	-
Repayment during the year	54.96	682.26	699.82	52.53	676.72	715.99
Net Loan-Closing	8781.74	8566.01	7866.19	8616.36	8982.76	8266.77
Average Loan	8740.97	8673.87	8216.10	8545.33	8799.56	8624.76
Weighted Average Rate of Interest on Loan	8.9587%	8.9617%	8.9617%	8.8547%	8.8584%	8.8549%
Interest on Loan	65.26	777.33	736.30	63.06	779.50	763.71
	Asset-5 (i)			Asset-5 (ii)		
Gross Normative Loan	402.18	402.18	506.34	233.16	233.16	233.16
Cumulative Repayment upto Previous Year	-	5.06	39.32	-	2.93	20.52
Net Loan-Opening	402.18	397.12	467.02	233.16	230.23	212.65
Addition due to Additional Capitalisation	-	104.16	67.20	-	-	23.24
Repayment during the year	5.06	34.26	40.73	2.93	17.59	18.46
Net Loan-Closing	397.12	467.02	493.49	230.23	212.65	217.42
Average Loan	399.65	432.07	480.26	231.70	221.44	215.03

Weighted Average Rate of Interest on Loan	8.9014%	8.9515%	8.9829%	8.8747%	8.8847%	8.8868%
Interest on Loan	5.93	38.68	43.14	3.43	19.67	19.11
	Asset-5 (iii)			Asset-5 (iv)		
Gross Normative Loan	118.34	146.76	347.22	-	477.02	477.02
Cumulative Repayment upto Previous Year	-	0.83	19.46	-	-	35.98
Net Loan-Opening	118.34	145.93	327.76	-	477.02	441.04
Addition due to Additional Capitalisation	28.43	200.46	40.19	-	-	46.90
Repayment during the year	0.83	18.63	27.71	-	35.98	37.75
Net Loan-Closing	145.93	327.76	340.24	-	441.04	450.19
Average Loan	132.13	236.84	334.00	-	459.03	445.61
Weighted Average Rate of Interest on Loan	8.9812%	9.1318%	9.1813%	-	8.8979%	8.8984%
Interest on Loan	0.99	21.63	30.67	-	40.84	39.65

Depreciation

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

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

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

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

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

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

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

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

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

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

46. The petitioner has claimed actual depreciation. In our calculations, depreciation has been calculated in accordance with clause (4) of Regulation 17 extracted above.

47. The transmission assets were put under commercial operation during the last quarter of 2011-12 and 2012-13. Accordingly, they will complete 12 years after 2013-14. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2009 Tariff Regulations.

48. Details of the depreciation worked out are as under:-

(₹ in lakh)

Particulars	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Gross Block as on DOCO	2846.95	3070.93	3731.36	51492.92	52714.82	55672.99
Addition during 2009-14 due to Projected Additional Capitalisation	223.98	660.43	0.00	1221.90	2958.17	0.00
Gross Block as on 31 st March	3070.93	3731.36	3731.36	52714.82	55672.99	55672.99
Average Gross Block	2958.94	3401.15	3731.36	52103.87	54193.91	55672.99
Rate of Depreciation	4.7889%	4.8442%	4.8832%	5.2665%	5.2669%	5.2673%
Depreciable Value	2516.77	2912.24	3209.43	46820.35	48700.12	50031.30
Remaining Depreciable Value	2516.77	2900.43	3032.86	46820.35	48471.45	46948.30
Depreciation	11.81	164.76	182.21	228.67	2854.32	2932.44
Cumulative Depreciation/ Advance against Depreciation	11.81	176.57	358.78	228.67	3083.00	6015.44
	Asset-3			Asset-4		
Gross Block as on DOCO	12428.85	12623.86	13290.33	12106.14	12384.14	13874.30
Addition during 2009-14 due to Projected Additional Capitalisation	195.01	666.47	0.00	278.00	1490.16	0.00
Gross Block as on 31 st March	12623.86	13290.33	13290.33	12384.14	13874.30	13874.30
Average Gross Block	12526.36	12957.10	13290.33	12245.14	13129.22	13874.30

Rate of Depreciation	5.2653%	5.2655%	5.2656%	5.1482%	5.1543%	5.1606%
Depreciable Value	11273.72	11661.39	11961.30	10874.35	11667.50	12338.07
Remaining Depreciable Value	11273.72	11606.42	11224.07	10874.35	11614.97	11608.82
Depreciation	54.96	682.26	699.82	52.53	676.72	715.99
Cumulative Depreciation/ Advance against Depreciation	54.96	737.22	1437.04	52.53	729.25	1445.24
	Asset-5 (i)			Asset-5 (ii)		
Gross Block as on DOCO	574.54	574.54	723.35	333.09	333.09	333.09
Addition during 2009-14 due to Projected Additional Capitalisation	-	148.81	95.99	-	-	33.20
Gross Block as on 31 st March	574.54	723.35	819.34	333.09	333.09	366.29
Average Gross Block	574.54	648.94	771.34	333.09	333.09	349.69
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	517.09	584.05	694.21	299.78	299.78	314.72
Remaining Depreciable Value	517.09	578.99	654.89	299.78	296.85	294.20
Depreciation	5.06	34.26	40.73	2.93	17.59	18.46
Cumulative Depreciation/ Advance against Depreciation	5.06	39.32	80.05	2.93	20.52	38.98
	Asset-5 (iii)			Asset-5 (iv)		
Gross Block as on DOCO	169.05	209.66	496.03	-	681.45	681.45
Addition during 2009-14 due to Projected Additional Capitalisation	40.61	286.37	57.41	-	-	67.00
Gross Block as on 31 st March	209.66	496.03	553.44	-	681.45	748.45
Average Gross Block	189.36	352.85	524.74	-	681.45	714.95
Rate of Depreciation	5.2800%	5.2800%	5.2800%	-	5.2800%	5.2800%
Depreciable Value	170.42	317.56	472.26	-	613.31	643.46
Remaining Depreciable Value	170.42	316.73	452.80	-	613.31	607.48
Depreciation	0.83	18.63	27.71	-	35.98	37.75
Cumulative Depreciation/ Advance against Depreciation	0.83	19.46	47.17	-	35.98	73.73

Operation & maintenance expenses (O&M Expenses)

49. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

Elements	2009-10	2010-11	2011-12	2012-13	2013-14
S/C four conductor T/L (₹ lakh/ km)	0.537	0.568	0.600	0.635	0.671
D/C four conductor T/L (₹ lakh/ km)	0.940	0.994	1.051	1.111	1.174
765 kV bays (₹ lakh per bay)	73.36	77.56	81.99	86.68	91.64

400 kV bays (₹ lakh per bay)	52.40	55.40	58.57	61.92	65.46
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50. The allowable O&M expenses for the assets are as under:-

Particulars	No. of Bays	(₹ in lakh)		
		2011-12 (Pro rata)	2012-13	2013-14
Asset-1				
2.862 km, 400 kV D/C four conductor transmission line	-	0.25	3.18	3.36
4 nos. 400 kV bays	-	19.52	247.68	261.84
Total Asset-1	-	19.77	250.86	265.20
Asset-2				
318.905 km, 765 kV S/C four conductor transmission line	-	15.95	202.50	213.99
4 nos. 765 kV bays	-	27.33	346.72	366.56
Total Asset-2	-	43.28	549.22	580.55
Asset-3				
1 no. 765 kV bay	-	6.83	86.68	91.64
1 no. 400 kV bay	-	4.88	61.92	65.46
Total Asset-3	-	11.71	148.60	157.10
Asset-4				
1 no. 765 kV bay	-	6.83	86.68	91.64
1 no. 400 kV bay	-	4.88	61.92	65.46
Total Asset-4	-	11.71	148.60	157.10
Asset-5 (i)				
2 nos. 400 kV bays	-	19.52	123.84	130.92
Asset-5 (ii)				
1 nos. 400 kV bay	-	9.76	61.92	65.46
Asset-5 (iii)				
1 no. 400 kV bay	-	4.88	61.92	65.46
Asset-5 (iv)				
2 nos. 400 kV bays	-	-	123.84	130.92

51. Since reactors at Biharshariff have not been considered for the purpose of tariff, O&M expenses for line reactor bays at Biharshariff Sub-station have not been allowed.

52. The petitioner has submitted that O&M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the years of

tariff period. The wage link of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for suitable revision in norms for O&M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%. JAVVNL and Jd.VVNL have submitted that O&M expenses be allowed as per the 2009 Tariff Regulations.

53. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms. In view of above, the prayer of the petitioner is rejected.

Interest on working capital

54. The petitioner is entitled to claim interest on working capital as per the Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months' of fixed cost. The petitioner has claimed the receivables on the basis of 2 months' of annual transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M expenses as part of the working capital from 1.4.2009. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

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

(iv) Rate of interest on working capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation after 1.4.2009 shall be equal to State Bank of India Base Rate as applicable on 1st April of the year of commercial operation plus 350 bps. State Bank of India base interest rate on 1.4.2011 was 8.25%. Therefore, interest rate of 11.75% has been considered in respect of all the transmission assets, except Asset-5 (iv) in respect of whom interest rate of 13.50% has been considered since SBI Base Rate of 10% was applicable on 1.4.2012. The interest on working capital for the assets covered in the petition has been worked out accordingly.

55. Necessary computations of interest on working capital are given under:-

(₹ in lakh)						
Particulars	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Maintenance Spares	35.59	37.63	39.78	77.90	82.38	87.08
O & M expenses	19.77	20.91	22.10	43.28	45.77	48.38
Receivables	124.37	138.09	147.42	1595.39	1636.69	1639.25
Total	179.72	196.63	209.30	1716.57	1764.84	1774.71
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	1.76	23.10	24.59	16.81	207.37	208.53
	Asset-3			Asset-4		
Maintenance Spares	21.08	22.29	23.57	21.08	22.29	23.57
O & M expenses	11.71	12.38	13.09	11.71	12.38	13.09
Receivables	381.46	389.59	390.06	369.50	390.55	402.67
Total	414.24	424.26	426.71	402.29	425.23	439.33
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	4.06	49.85	50.14	3.94	49.96	51.62
	Asset-5 (i)			Asset-5 (ii)		
Maintenance Spares	17.57	18.58	19.64	8.78	9.29	9.82
O & M expenses	9.76	10.32	10.91	4.88	5.16	5.46
Receivables	36.78	39.81	44.00	19.68	20.12	20.94
Total	64.11	68.71	74.55	33.35	34.57	36.21
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	1.26	8.07	8.76	0.65	4.06	4.25
	Asset-5 (iii)			Asset-5 (iv)		
Maintenance Spares	8.78	9.29	9.82	-	18.58	19.64
O & M expenses	4.88	5.16	5.46	-	10.32	10.91
Receivables	15.63	20.80	26.03	-	40.97	42.62
Total	29.30	35.25	41.31	-	69.87	73.16
Interest Rate	11.75%	11.75%	11.75%	-	13.50%	13.50%
Interest	0.29	4.14	4.85	-	9.43	9.88

Transmission charges

56. The transmission charges allowed for the transmission assets are summarized as under:-

(₹ in lakh)						
Particulars	2011-12 (Pro-rata)	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Depreciation	11.81	164.76	182.21	228.67	2854.32	2932.44
Interest on Loan	15.91	211.47	216.84	281.23	3367.13	3194.30
Return on Equity	12.93	178.37	195.68	227.71	2842.09	2919.66

Interest on Working Capital	1.76	23.10	24.59	16.81	207.37	208.53
O & M Expenses	19.77	250.86	265.20	43.28	549.22	580.55
Total	62.18	828.56	884.53	797.69	9820.13	9835.48
	Asset-3			Asset-4		
Depreciation	54.96	682.26	699.82	52.53	676.72	715.99
Interest on Loan	65.26	777.33	736.30	63.06	779.50	763.71
Return on Equity	54.74	679.51	696.98	53.51	688.54	727.61
Interest on Working Capital	4.06	49.85	50.14	3.94	49.96	51.62
O & M Expenses	11.71	148.60	157.10	11.71	148.60	157.10
Total	190.73	2337.55	2340.34	184.75	2343.32	2416.03
	Asset-5 (i)			Asset-5 (ii)		
Depreciation	5.06	34.26	40.73	2.93	17.59	18.46
Interest on Loan	5.93	38.68	43.14	3.43	19.67	19.11
Return on Equity	5.02	34.03	40.45	2.91	17.47	18.34
Interest on Working Capital	1.26	8.07	8.76	0.65	4.06	4.25
O & M Expenses	19.52	123.84	130.92	9.76	61.92	65.46
Total	36.78	238.89	264.00	19.68	120.71	125.63
	Asset-5 (iii)			Asset-5 (iv)		
Depreciation	0.83	18.63	27.71	-	35.98	37.75
Interest on Loan	0.99	21.63	30.67	-	40.84	39.65
Return on Equity	0.83	18.50	27.52	-	35.74	37.49
Interest on Working Capital	0.29	4.14	4.85	-	9.43	9.88
O & M Expenses	4.88	61.92	65.46	-	123.84	130.92
Total	7.82	124.82	156.20	-	245.83	255.69

Filing Fee and the Publication Expenses

57. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 A (1) (a) of the 2009 Tariff Regulations.

Licence Fee

58. The petitioner has submitted that the petitioner may be allowed to bill and recover license fee separately from the respondents as provided in the 2009 Tariff

Regulations. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

Service Tax

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

Sharing of Transmission Charges

60. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shared by the beneficiaries in accordance with Regulation 33 of the 2009 Tariff Regulation up to 30.6.2011. With effect from 1.7.2011, the billing, collection and disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

61. This order disposes of Petition No. 187/TT/2011.

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B Pradhan)
Chairperson



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXV			
	Gross loan opening	386.07	386.07	386.07
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	386.07	386.07	386.07
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	386.07	386.07	386.07
	Average Loan	386.07	386.07	386.07
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	37.22	37.22	37.22
	Rep Schedule	12 annual installments from 31.05.2015.		
2	BOND XXVIII			
	Gross loan opening	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	83.33
	Net Loan-Opening	1000.00	1000.00	916.67
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	83.33	83.33
	Net Loan-Closing	1000.00	916.67	833.33
	Average Loan	1000.00	958.33	875.00
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	93.30	89.41	81.64
	Rep Schedule	12 equal annual Installments from 15.12.2012		
3	Bond XXX			
	Gross loan opening	300.00	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	300.00	300.00	300.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	25.00
	Net Loan-Closing	300.00	300.00	275.00
	Average Loan	300.00	300.00	287.50
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	26.40	26.40	25.30
	Rep Schedule	12 annual installments from 29.09.2013		
4	Bond XXXI			
	Gross loan opening	300.00	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	300.00	300.00	300.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	25.00
	Net Loan-Closing	300.00	300.00	275.00
	Average Loan	300.00	300.00	287.50

	Rate of Interest	8.90%	8.90%	8.90%
	Interest	26.70	26.70	25.59
	Rep Schedule	12 annual installments from 25.02.2014		
5	Bond XXXII			
	Gross loan opening	17.00	17.00	17.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	17.00	17.00	17.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	1.42
	Net Loan-Closing	17.00	17.00	15.58
	Average Loan	17.00	17.00	16.29
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	1.50	1.50	1.44
	Rep Schedule	12 annual installments from 29.03.2014		
6	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	156.79	156.79
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	156.79	156.79
	Additions during the year	156.79	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	156.79	156.79	156.79
	Average Loan	78.40	156.79	156.79
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	7.33	14.66	14.66
	Rep Schedule	15 annual installments from 29.08.2016.		
	Total Loan			
	Gross loan opening	2003.07	2159.86	2159.86
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	83.33
	Net Loan-Opening	2003.07	2159.86	2076.53
	Additions during the year	156.79	0.00	0.00
	Repayment during the year	0.00	83.33	134.75
	Net Loan-Closing	2159.86	2076.53	1941.78
	Average Loan	2081.47	2118.19	2009.15
	Rate of Interest	9.2459%	9.2481%	9.2498%
	Interest	192.45	195.89	185.84

Annexure-II
(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXV			
	Gross loan opening	1668.04	1668.04	1668.04
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1668.04	1668.04	1668.04
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1668.04	1668.04	1668.04
	Average Loan	1668.04	1668.04	1668.04
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	160.80	160.80	160.80
	Rep Schedule	12 annual installments from 31.05.2015.		
2	BOND XXVIII			
	Gross loan opening	30000.00	30000.00	30000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	2500.00
	Net Loan-Opening	30000.00	30000.00	27500.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	2500.00	2500.00
	Net Loan-Closing	30000.00	27500.00	25000.00
	Average Loan	30000.00	28750.00	26250.00
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	2799.00	2682.38	2449.13
	Rep Schedule	12 equal annual Installments from 15.12.2012		
3	Bond XXX			
	Gross loan opening	4000.00	4000.00	4000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	4000.00	4000.00	4000.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	333.33
	Net Loan-Closing	4000.00	4000.00	3666.67
	Average Loan	4000.00	4000.00	3833.33
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	352.00	352.00	337.33
	Rep Schedule	12 annual installments from 29.09.2013		
4	Bond XXXI			
	Gross loan opening	377.00	377.00	377.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	377.00	377.00	377.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	31.42
	Net Loan-Closing	377.00	377.00	345.58
	Average Loan	377.00	377.00	361.29

	Rate of Interest	8.90%	8.90%	8.90%
	Interest	33.55	33.55	32.15
	Rep Schedule	12 annual installments from 25.02.2014		
5	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	855.34	855.34
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	855.34	855.34
	Additions during the year	855.34	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	855.34	855.34	855.34
	Average Loan	427.67	855.34	855.34
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	39.99	79.97	79.97
	Rep Schedule	15 annual installments from 29.08.2016.		
	Total Loan			
	Gross loan opening	36045.04	36900.38	36900.38
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	2500.00
	Net Loan-Opening	36045.04	36900.38	34400.38
	Additions during the year	855.34	0.00	0.00
	Repayment during the year	0.00	2500.00	2864.75
	Net Loan-Closing	36900.38	34400.38	31535.63
	Average Loan	36472.71	35650.38	32968.01
	Rate of Interest	9.2818%	9.2810%	9.2799%
	Interest	3385.34	3308.70	3059.39

Annexure-III

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	6193.00	6193.00	6193.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	6193.00	6193.00	6193.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	6193.00	6193.00	6193.00
	Average Loan	6193.00	6193.00	6193.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	547.46	547.46	547.46
	Rep Schedule	12 annual installments from 21.10.2014		
2	Bond XXXV			
	Gross loan opening	1507.18	1507.18	1507.18
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1507.18	1507.18	1507.18
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1507.18	1507.18	1507.18
	Average Loan	1507.18	1507.18	1507.18
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	145.29	145.29	145.29
	Rep Schedule	12 annual installments from 31.05.2015.		
3	Bond XXXIII			
	Gross loan opening	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1000.00	1000.00	1000.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1000.00	1000.00	1000.00
	Average Loan	1000.00	1000.00	1000.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	86.40	86.40	86.40
	Rep Schedule	12 annual installments from 08.07.2014		
4	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	136.51	136.51
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	136.51	136.51
	Additions during the year	136.51	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	136.51	136.51	136.51

Average Loan	68.26	136.51	136.51
Rate of Interest	9.35%	9.35%	9.35%
Interest	6.38	12.76	12.76
Rep Schedule	15 annual installments from 29.08.2016.		
Total Loan			
Gross loan opening	8700.18	8836.69	8836.69
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	8700.18	8836.69	8836.69
Additions during the year	136.51	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	8836.69	8836.69	8836.69
Average Loan	8768.44	8836.69	8836.69
Rate of Interest	8.9587%	8.9617%	8.9617%
Interest	785.54	791.92	791.92

Annexure-IV
(₹ in Lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	2994.00	2994.00	2994.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	2994.00	2994.00	2994.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	2994.00	2994.00	2994.00
	Average Loan	2994.00	2994.00	2994.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	264.67	264.67	264.67
	Rep Schedule	12 annual installments from 21.10.2014		
2	Bond XXXV			
	Gross loan opening	80.29	80.29	80.29
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	80.29	80.29	80.29
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	80.29	80.29	80.29
	Average Loan	80.29	80.29	80.29
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	7.74	7.74	7.74
	Rep Schedule	12 annual installments from 31.05.2015.		
3	BOND XXVIII			
	Gross loan opening	800.00	800.00	800.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	66.67
	Net Loan-Opening	800.00	800.00	733.33
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	66.67	66.67
	Net Loan-Closing	800.00	733.33	666.67
	Average Loan	800.00	766.67	700.00
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	74.64	71.53	65.31
	Rep Schedule	12 equal annual Installments from 15.12.2012		
4	Bond XXX			
	Gross loan opening	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1000.00	1000.00	1000.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	83.33
	Net Loan-Closing	1000.00	1000.00	916.67
	Average Loan	1000.00	1000.00	958.33

	Rate of Interest	8.80%	8.80%	8.80%
	Interest	88.00	88.00	84.33
	Rep Schedule	12 annual installments from 29.09.2013		
5	Bond XXXI			
	Gross loan opening	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1000.00	1000.00	1000.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	83.33
	Net Loan-Closing	1000.00	1000.00	916.67
	Average Loan	1000.00	1000.00	958.33
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	89.00	89.00	85.29
	Rep Schedule	12 annual installments from 25.02.2014		
6	Bond XXXII			
	Gross loan opening	600.00	600.00	600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	600.00	600.00	600.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	50.00
	Net Loan-Closing	600.00	600.00	550.00
	Average Loan	600.00	600.00	575.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	53.04	53.04	50.83
	Rep Schedule	12 annual installments from 29.03.2014		
7	Bond XXXIII			
	Gross loan opening	2000.00	2000.00	2000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	2000.00	2000.00	2000.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	2000.00	2000.00	2000.00
	Average Loan	2000.00	2000.00	2000.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	172.80	172.80	172.80
	Rep Schedule	12 annual installments from 08.07.2014		
8	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	194.60	194.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	194.60	194.60
	Additions during the year	194.60	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	194.60	194.60	194.60
	Average Loan	97.30	194.60	194.60

	Rate of Interest	9.35%	9.35%	9.35%
	Interest	9.10	18.20	18.20
	Rep Schedule	15 annual installments from 29.08.2016.		
	Total Loan			
	Gross loan opening	8474.29	8668.89	8668.89
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	66.67
	Net Loan-Opening	8474.29	8668.89	8602.22
	Additions during the year	194.60	0.00	0.00
	Repayment during the year	0.00	66.67	283.33
	Net Loan-Closing	8668.89	8602.22	8318.89
	Average Loan	8571.59	8635.56	8460.56
	Rate of Interest	8.8547%	8.8584%	8.8549%
	Interest	758.99	764.97	749.17

Annexure-V
(₹ in Lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	42.00	42.00	42.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	42.00	42.00	42.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	42.00	42.00	42.00
	Average Loan	42.00	42.00	42.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	3.71	3.71	3.71
	Rep Schedule	12 annual installments from 21.10.2014		
2	Bond XXXV			
	Gross loan opening	179.62	179.62	179.62
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	179.62	179.62	179.62
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	179.62	179.62	179.62
	Average Loan	179.62	179.62	179.62
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	17.32	17.32	17.32
	Rep Schedule	12 annual installments from 31.05.2015.		
3	Bond XXXII			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	16.67
	Net Loan-Closing	200.00	200.00	183.33
	Average Loan	200.00	200.00	191.67
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	17.68	17.68	16.94
	Rep Schedule	12 annual installments from 29.03.2014		
4	Bond XXXIII			
	Gross loan opening	500.00	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	500.00	500.00	500.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	500.00	500.00	500.00
	Average Loan	500.00	500.00	500.00

	Rate of Interest	8.64%	8.64%	8.64%
	Interest	43.20	43.20	43.20
	Rep Schedule	12 annual installments from 08.07.2014		
5	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	57.47	57.47
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	57.47	57.47
	Additions during the year	57.47	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	57.47	57.47	57.47
	Average Loan	28.74	57.47	57.47
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	2.69	5.37	5.37
	Rep Schedule	15 annual installments from 29.08.2016.		
6	Bond XL (Add Cap 2012-13)			
	Gross loan opening	0.00	0.00	207.28
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	207.28
	Additions during the year	0.00	207.28	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	207.28	207.28
	Average Loan	0.00	103.64	207.28
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	0.00	9.64	19.28
	Rep Schedule	12 annual installments from 28.06.2016		
	Total Loan			
	Gross loan opening	921.62	979.09	1186.37
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	921.62	979.09	1186.37
	Additions during the year	57.47	207.28	0.00
	Repayment during the year	0.00	0.00	16.67
	Net Loan-Closing	979.09	1186.37	1169.70
	Average Loan	950.36	1082.73	1178.04
	Rate of Interest	8.9014%	8.9515%	8.9829%
	Interest	84.59	96.92	105.82

Annexure-VI

(₹ in Lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	35.00	35.00	35.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	35.00	35.00	35.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	35.00	35.00	35.00
	Average Loan	35.00	35.00	35.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	3.09	3.09	3.09
	Rep Schedule	12 annual installments from 21.10.2014		
2	Bond XXXV			
	Gross loan opening	138.74	138.74	138.74
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	138.74	138.74	138.74
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	138.74	138.74	138.74
	Average Loan	138.74	138.74	138.74
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	13.37	13.37	13.37
	Rep Schedule	12 annual installments from 31.05.2015.		
3	Bond XXXII			
	Gross loan opening	180.00	180.00	180.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	180.00	180.00	180.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	15.00
	Net Loan-Closing	180.00	180.00	165.00
	Average Loan	180.00	180.00	172.50
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	15.91	15.91	15.25
	Rep Schedule	12 annual installments from 29.03.2014		
4	Bond XXXIII			
	Gross loan opening	450.00	450.00	450.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	450.00	450.00	450.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00

	Net Loan-Closing	450.00	450.00	450.00
	Average Loan	450.00	450.00	450.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	38.88	38.88	38.88
	Rep Schedule	12 annual installments from 08.07.2014		
5	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	29.04	29.04
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	29.04	29.04
	Additions during the year	29.04	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	29.04	29.04	29.04
	Average Loan	14.52	29.04	29.04
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	1.36	2.72	2.72
	Rep Schedule	15 annual installments from 29.08.2016.		
6	Bond XL (Add Cap 2012-13)			
	Gross loan opening	0.00	0.00	6.83
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	6.83
	Additions during the year	0.00	6.83	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	6.83	6.83
	Average Loan	0.00	3.42	6.83
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	0.00	0.32	0.64
	Rep Schedule	12 annual installments from 28.06.2016		
	Total Loan			
	Gross loan opening	803.74	832.78	839.61
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	803.74	832.78	839.61
	Additions during the year	29.04	6.83	0.00
	Repayment during the year	0.00	0.00	15.00
	Net Loan-Closing	832.78	839.61	824.61
	Average Loan	818.26	836.20	832.11
	Rate of Interest	8.8747%	8.8847%	8.8868%
	Interest	72.62	74.29	73.95

Annexure-VII
(₹ in Lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXIV			
	Gross loan opening	5.00	5.00	5.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	5.00	5.00	5.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	5.00	5.00	5.00
	Average Loan	5.00	5.00	5.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	0.44	0.44	0.44
	Rep Schedule	12 annual installments from 21.10.2014		
2	Bond XXXV			
	Gross loan opening	29.33	29.33	29.33
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	29.33	29.33	29.33
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	29.33	29.33	29.33
	Average Loan	29.33	29.33	29.33
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	2.83	2.83	2.83
	Rep Schedule	12 annual installments from 31.05.2015.		
3	Bond XXXII			
	Gross loan opening	24.00	24.00	24.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	24.00	24.00	24.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	2.00
	Net Loan-Closing	24.00	24.00	22.00
	Average Loan	24.00	24.00	23.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	2.12	2.12	2.03
	Rep Schedule	12 annual installments from 29.03.2014		
4	Bond XXXIII			
	Gross loan opening	60.00	60.00	60.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	60.00	60.00	60.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	60.00	60.00	60.00
	Average Loan	60.00	60.00	60.00

	Rate of Interest	8.64%	8.64%	8.64%
	Interest	5.18	5.18	5.18
	Rep Schedule	12 annual installments from 08.07.2014		
5	Bond XXXVI (Add Cap 2011-12)			
	Gross loan opening	0.00	28.43	28.43
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	28.43	28.43
	Additions during the year	28.43	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	28.43	28.43	28.43
	Average Loan	14.22	28.43	28.43
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	1.33	2.66	2.66
	Rep Schedule	15 annual installments from 29.08.2016.		
6	Bond XL (Add Cap 2012-13)			
	Gross loan opening	0.00	0.00	200.46
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	200.46
	Additions during the year	0.00	200.46	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	200.46	200.46
	Average Loan	0.00	100.23	200.46
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	0.00	9.32	18.64
	Rep Schedule	12 annual installments from 28.06.2016		
	Total Loan			
	Gross loan opening	118.33	146.76	347.22
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	118.33	146.76	347.22
	Additions during the year	28.43	200.46	0.00
	Repayment during the year	0.00	0.00	2.00
	Net Loan-Closing	146.76	347.22	345.22
	Average Loan	132.55	246.99	346.22
	Rate of Interest	8.9812%	9.1318%	9.1813%
	Interest	11.90	22.55	31.79

Annexure-VIII

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	250.00	250.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	250.00	250.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	250.00	250.00
	Average Loan	250.00	250.00
	Rate of Interest	8.64%	8.64%
	Interest	21.60	21.60
	Rep Schedule	12 annual installments from 08.07.2014	
2	Bond XXXII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	8.33
	Net Loan-Closing	100.00	91.67
	Average Loan	100.00	95.83
	Rate of Interest	8.84%	8.84%
	Interest	8.84	8.47
	Rep Schedule	12 annual installments from 29.03.2014	
3	Bond XXXIV		
	Gross loan opening	30.00	30.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	30.00	30.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	30.00	30.00
	Average Loan	30.00	30.00
	Rate of Interest	8.84%	8.84%
	Interest	2.65	2.65
	Rep Schedule	12 annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	97.02	97.02
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	97.02	97.02
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	97.02	97.02
	Average Loan	97.02	97.02
	Rate of Interest	9.64%	9.64%

	Interest	9.35	9.35
	Rep Schedule	12 annual installments from 31.05.2015.	
	Total Loan		
	Gross loan opening	477.02	477.02
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	477.02	477.02
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	8.33
	Net Loan-Closing	477.02	468.69
	Average Loan	477.02	472.85
	Rate of Interest	8.8979%	8.8984%
	Interest	42.44	42.08