# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

# Petition No. 33/TT/2013

Coram:

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

Date of Hearing : 26.03.2015 Date of Order : 15.12.2015

#### In the matter of:

Approval of transmission tariff form COD to 31.3.2014 for Sasan UMPP TS (Group 1) in Northern Region, under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Condition) Regulations, 2009

#### And in the matter of

Power Grid Corporation of India Limited, "Saudamani", Plot No.2, Sector-29, Gurgaon -122 001

.....Petitioner

#### Vs

- 1. Madhya Pradesh Power Trading Company Ltd., Shakti Bhawan, Rampur Jabalpur-482 008.
- Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd., 3/54, Press Complex, Agra-Bombay Road Indore-452 008.
- Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Vidyut Bhawan, Vidyut Marg, Jaipur- 302 005.
- Ajmer Vidyut Vitran Nigam Ltd., 400 kV GSS Building (Ground Floor), Ajmer Road,

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Heerapura, Jaipur.

- Jaipur Vidyut Vitran Nigam Ltd., 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur.
- Jodhpur Vidyut Vitran Nigam Ltd., 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur.
- Punjab State Power Corporation Ltd. 220 KV Sub-station, Ablowal Patiala-147 001.
- Haryana Power Purchase Centre, Shakti Bhawan, Sector-6 Panchkula (Haryana)-134 109
- 9. Uttar Pradesh Power Corporation Ltd., Shakti Bhawan, 14, Ashok Marg, Lucknow-226 001.
- 10. Delhi Transco Ltd., Shakti Sadan, Kotla Road, New Delhi-110 002.
- 11. BSES Yamuna Power Ltd., Shakti Kiran Building, Karkardooma, Delhi-110 092.
- 12. BSES Rajdhani Power Ltd., BSES Bhawan, Nehru Place, New Delhi.
- North Delhi Power Ltd., Power Trading & Load Dispatch Group, Cennet Building, Adjacent to 66/11 kV Pitampura-3, Grid Building, Near PP Jewellers, Pitampura, New Delhi-110 034.
- 14. Chandigarh Administration, Sector-9, Chandigarh.
- 15. Uttarakhand Power Corporation Ltd., Urja Bhawan, Kanwali Road,

Dehradun.

- 16. North Central Railway, Allahabad.
- 17. New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi-110 002.
- 18. Sasan Power Limited 1st Floor, I Block, Dhirubhai Ambani Knowledge City (DAKC), Thane-Belapur Road, Koparkhairane, Navi Mumbai.

.....Respondents

For Petitioner : Shri Jasbir Singh, PGCIL Shri S.S. Raju, PGCIL Mrs. Sangeeta Edwards, PGCIL Shri M.M. Mondal, PGCIL Shri S.K. Venkatesan, PGCIL

For Respondents : None

#### <u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for Sasan UMPP TS (Group 1) in Northern Region (hereinafter referred to as transmission asset), for the tariff block 2009-14, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter "the 2009 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company, vide C/CP/Sasan, dated 10.12.2008, at an estimated cost of ₹7031.88 lakh, including IDC of ₹76782 lakh (based on 2nd

Quarter, 20011 price level). As per the investment approval dated 10.12.2008, the transmission asset was scheduled to be commissioned within 48 months from the date of investment approval, i.e. by 1.1.2013 against this the assets covered under the instant petition have been commissioned on 1.11.2012, 1.2.2013, 1.6.2013 and 1.12.2013 respectively.

3. The scope of work covered under the scheme is as follows:-

# A-1: Transmission System of Sasan (4000 MW) UMPP

# Transmission Lines

- i. Sasan Satna 765 kV 2xS/C line : Ckt I 268 km & Ckt II 279 km
- ii. Satna Bina 765 kV 2xS/C line : Ckt I–272 km & Ckt II–274
- iii. LILO of both circuits of one of Vindhyachal-Jabalpur 400 kV D/C line at Sasan : 8 km
- iv. Bina Bina (MPPTCL) 400 kV D/C line: 5 km
- v. Sasaram Fatehpur 765 kV S/C line: 352 km
- vi. Fatehpur Agra 765 kV S/C line : 340 km

# A-2: Sub-stations

- i. Establishment of 765/400 kV, 2x1000 MVA Sub-station at Satna.
- ii. Line bays for operation of Agra-Gwalior –Bina- Seoni S/C lines at 765 kV level.

: 320 km

# B-1: Regional System Strengthening in WR for Sasan UMPP

# Transmission Lines

(i) Bina-Indore 765 kV S/C Line

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(ii) Indore-Indore (MPPTL) 400 kV D/C (Quad) line : 60 km

# B-2: Sub-stations

- i. Establishment of 765/400 kV, 2 x 1500 MVA substation at Indore.
- ii. Upgrading Bina-Gwalior substations to 765/400 kV: 2x1000 MVA, 765/400 kV at Bina and 2x1500 MVA, 765/400 at Gwalior.

4. The implementation of Sasan UMPP Transmission System in Western and Northern Region was discussed and agreed in the 5<sup>th</sup> WRPC meeting held on 6.10.2007 and 3<sup>rd</sup> and 6<sup>th</sup> NRPC meeting held on 9<sup>th</sup> and 10<sup>th</sup> November, 2006 and 24<sup>th</sup> and 25<sup>th</sup> October, 2007.

5. Provisional tariff was approved by the Commission vide its order dated 18.3.2013, subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

6. The details of various assets commissioned under Sasan UMPP Transmission System covered in this petition are as follows:-

S No	Assets
1	Asset-I: 765 kV S/C Sasaram Fatehpur Line-II
2	Asset-II: 765 kV S/C Fatehpur Agra Line-II
3	Asset- III: One no. 765 kV Line bay for 765 kV S/C Sasaram Fatehpur at Fatehpur
4	Asset- IV : One no. 765 kV Line bay for 765 kV S/C Fatehpur –Agra Line-II at Agra
5	Asset- V : One no. 765 kV Line bay for 765 kV S/C Fatehpur –Agra Line-II at Fatehpur
6	Asset- VI : 240 MVAR Bus Reactor at Agra

7. This order has been issued after considering the petitioner's affidavits dated 19.9.2013, 11.7.2014, 2.12.2014 and 21.8.2015.

8. The petitioner, in the main petition, had sought transmission tariff for the period from COD to 31.3.2014 based on actual COD for Asset-III, Asset-V and Asset-VI and based on anticipated COD for the remaining assets. Subsequently, the petitioner, vide affidavit dated 20.9.2013 and 4.12.2014, has submitted the actual COD of Asset-I, Asset-II and Asset-IV. Accordingly, the status of commissioning of the assets is as follows:-

Srl. No.	Assets	Scheduled COD	Actual COD
1	Asset-I	1.1.2013	1.6.2013
2	Asset-II		1.11.2013
3	Asset-III		1.11.2012
4	Asset-IV		1.2.2013
5	Asset-V		1.11.2012
6	Asset-VI		1.12.2012

9. The petitioner has claimed transmission charges for the instant assets as under:-

	(₹ in lakh)				
	Asset-I	Asset-II	Asse	et-III	
Particulars	2013-14	2013-14	2012-13	2013-14	
	(pro-rata)	(pro-rata)	(pro-rata)		
Depreciation	2,369.25	1,058.36	97.93	266.17	
Interest on Loan	2,823.38	1,288.24	114.97	296.73	
Return on equity	2,639.83	1,179.23	107.73	296.33	
Interest on Working Capital	186.90	84.35	9.38	24.84	
O & M Expenses	198.34	93.39	36.12	91.64	
Total	8217.70	3703.57	366.13	975.71	

					(- )	
Particulars	Asset-IV		Asset-V		Asset-VI	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation	41.29	265.71	99.10	271.77	78.22	261.07
Interest on Loan	49.87	307.84	117.63	306.75	93.98	299.03
Return on equity	45.36	295.42	109.01	302.56	86.12	290.89
Interest on Working Capital	4.74	30.13	9.49	25.34	7.54	24.65
O & M Expenses	28.89	183.28	36.12	91.64	28.89	91.64
Total	170.15	1082.38	371.35	998.06	294.75	967.28

(₹ in lakh)

10. The details submitted by the petitioner in support of its claim for interest on

working capital are given hereunder:-

				(₹ in lakh)
Particulars	Asset-I	Asset-II	Asset-III	
	2013-14 (pro-rata)	2013-14 (pro-rata)	2012-13 (pro-rata)	2013-14
Maintenance Spares	35.70	33.62	13.00	13.75
O & M expenses	19.83	18.68	7.22	7.64
Receivables	1643.54	1481.43	146.45	162.62
Total	1699.07	1533.73	166.67	184.01
Interest	186.90	84.36	9.38	24.84
Rate of Interest	13.20%	13.20%	13.50%	13.50%

					(₹ in lakh)	
Particulars	Asset-IV		Asset	-V	Asset-VI	
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Maintenance	26.00	27.49	13.00	13.75	13.00	13.75
Spares						
O & M expenses	14.45	15.27	7.22	7.64	7.22	7.64
Receivables	170.15	180.40	148.54	166.34	147.38	161.21
Total	210.60	223.16	168.76	187.73	167.60	182.60
Interest	4.74	30.13	9.49	25.34	7.54	24.65
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

11. 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. Reply has been filed by Ajmer Vidyut Vitran Nigam Limited Respondent No. 4, vide affidavit dated 23.5.2013. The AVVNL has raised the issues regarding time over-run, higher O&M charges and rate of interest on loan. The objections raised by the AVVNL in his reply are addressed in the relevant paragraphs of this order.

12. Having heard the representatives of the petitioner present at the hearing and perused the material on record, we proceed to dispose of the petition.

# Capital cost

13. Regulation 7 of the 2009 Tariff Regulations provides as follows:-

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

- (a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the 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."

14. The petitioner was directed vide Record of Proceedings of 16.3.2015, directed the petitioner to submit certain information in respect of actual undischarged liabilities loan agreements, details of deferred tax liability, default in interest payment, details of liability discharged corresponding to initial spares and Interest During Construction (IDC). In response, the petitioner, vide affidavit dated 21.8.2015 submitted Auditor's Certificate along with revised tariff forms.

15. Detail of the capital cost claimed as on COD(s) and details of additional capital expenditure for the period from COD to 31.3.2014 for the assets covered as claimed in the petition are summarized below:-

SI. No.	Asset	Original apportion ed cost	Cost incurred as on COD(A)	Additional capital expenditure COD to 31.3.13 (B)	Additional capital expenditure During 2013- 14 (C)	(₹ in lakh) Total completion cost up to 31.3.2014 (D)=(A+B+C)
1	Asset-I	62765.71	51781.09	-	4130.97	55912.06
2	Asset-II	54159.09	47324.23	-	1565.91	48890.14
3	Asset-III	7091.41	4016.51*	862.31	316.43	5195.25
4	Asset-IV	7091.41	4513.81*	335.29	344.90	5194.00
5	Asset-V	7091.41	4016.51*	968.31	316.43	5301.25
6	Asset-VI	9784.84	4117.88	652.71	347.90	5118.49

\*Expenditure as on COD for Asset-III, Asset-IV and Asset-V are based on the

COD submitted by the petitioner.

16. Accordingly, following capital cost up to COD of the assets have been considered, under 2009 Tariff Regulations, for the purpose of tariff:-

Assets	COD/ Tariff Date	Capital cost considered for the purpose of tariff before adjustment of IEDC/IDC & initial spares, if any, as on COD/ tariff date	Applicable period of tariff
Asset-I	1.6.2013	51781.00	1.6.2013 to 31.3.2014
Asset-II	1.11.2013	47324.23	1.11.2013 to 31.3.2014
Asset-III	1.6.2013	4931.56#	1.6.2013 to 31.3.2014
Asset-IV	1.11.2013	5050.29#	1.11.2013 to 31.3.2014
Asset-V	1.11.2013	5169.40#	1.11.2013 to 31.3.2014
Asset-VI	1.12.2012	4117.88	1.12.2013 to 31.3.2014

#In the absence of the segregated cost as on tariff date, the ACE during COD to 31.3.2013 and the pro-rata additional capital expenditure during 2013-14 has been added to the expenditure as on COD and considered as expenditure as on tariff date. Accordingly, the petitioner is directed to furnish segregated costs for the Asset-III, Asset-IV and Asset-V as on tariff date and thereafter duly certified by Auditor at the time of truing up.

## Cost over-run

17. Total estimated completion cost falls within the apportioned approved cost for all the assets. Hence, there is no cost over-run in commissioning of the assets.

## Time over-run

18. As per the investment approval dated 10.12.2008, the assets were scheduled to be commissioned by 1.1.2013. The petitioner vide affidavit dated

11.7.2014 has submitted the actual COD of assets. The details of COD of assets are as follows:-

Srl. No.	Assets	Actual COD	Time over-run
1	Asset-I	1.6.2013	5 months
2	Asset-II	1.11.2013	10 months
3	Asset-III	1.11.2012	No delay
4	Asset-IV	1.2.2013	1 month
5	Asset-V	1.11.2012	No delay
6	Asset-VI	1.12.2012	No delay

Hence, there is no time over-run in commissioning of Asset- III, V and VI. However, there is delay in case of Asset-I, Asset-II and Asset-IV.

19. The petitioner vide affidavit dated 11.7.2014 has submitted the reasons for delay in commissioning of Asset-I, II and IV. As regards Asset-I, the petitioner has submitted that Smt. Kusum Devi filed a case at location no 91 in High Court Allahabad on 23.11.2010, which was cleared on 15.12.2012. Time taken to resolve this issue is 13 months. Further on Location No. 19/0, 19/1, 19/2, the owner of the land created hindrance and stopped work on these locations. Matter could not be resolved through mutual discussion and persuasion. Shri Banarasi Singh and Shri Kaushalendra Singh created hindrance and stopped work at Location No. 19/0, 19/1, 19/2. The whole matter was taken up to the District Magistrate, Kaimur, Bihar vide letter dated 4.4.2013. The issue was resolved on 22.5.2013. Time taken to resolve this issue took around one and the half months. This caused further delay of one and the half months. Total time taken to resolve the RoW issue was around

14 months. Immediately after resolution of RoW issue on all locations line was commissioned

20. As regards Asset-II, the petitioner has submitted that letter written to Regional Director Forest, Agra on 3.9.2011 for approval of forest clearance. Proposal for tree cutting was submitted to Forest Authorities (DFO Kanpur Forest Division Kanpur) on 9.4.2012 for approval. Letters were written to Regional Director Forest, Firozabad on 19.5.2012, 16.7.2012 and 19.7.2012 for approval of forest clearance letter written to Regional Director Forest, Etawah on 4.8.2012 for approval of forest clearance on 19.12.2012 and 23.7.2013 for start of work with compliance of certain conditions. Forest clearance is related to cutting of trees at different locations. The whole process took around 15 months.

21. The petitioner further submitted that some of the owners raised objection and approached court for stoppage of work. Sri Sayesh Singh filed a case in the court of Civil Judge case on 22.3.2013 with respect to Location No. 126 and the issue was resolved on 25.6.2013. Total time taken to resolve the issue was 3 months. Sri Lalta Prasad filed the case in Etawah on 14.2.2013 with respect to Location No. 111 and the issue was resolved on 15.6.2013. Total time taken to resolve the issue to resolve the issue was 4 months. Sri Arvind Kumar filed a case in the court of Civil Judge Auraiya on 19.3.2013 at Location No. 89, issue resolved on 25.5.2013. Total time taken to resolve the issue was 2 months. The whole process took around 4 months.

22. As regards Asset-IV, the petitioner has submitted that due to delay in commissioning of Fatehpur-Agra line, the associated 765 kV line bay for 765 kV S/C Fatehpur-Agra line was also delayed.

23. The petitioner has further submitted bar-chart for both the lines indicating all the activities such as notification of award, furnishing of drawing of tower, erection, manufacture and inspection of towers and extensions, pile foundations, earthing of tower, tower erection, stringing, testing and commissioning, type testing with the start date and end date of each activity.

24. AVVNL has submitted that the delay in commissioning the assets is on account of petitioner as such no IDC for the delay period should be allowed.

25. We have considered the submission of petitioner and respondent. As regards Asset-I, there was time over-run of 5 months in commissioning of the asset. It is observed that one of the land owners filed a Writ Petition in Allahabad High Court and it was disposed after 13 months (23.10.2010 to 15.12.2012) and it took 1½ months to solve RoW issue raised by another person (4.4.2013 to 22.5.2013). We are of the view that the delay of 15 months due to court case and RoW issue was beyond the control of the petitioner and accordingly the time over-run of 5 months is condoned. In case of Asset-II, there was a time over-run of 10 months. The time over-run was due to forest clearance and court cases. The forest clearance took 15 months (9.4.2012 to 23.7.2013) and the disposal of court cases took further 4 months (14.2.2013 to 15.6.2013). The period of 4 months delay due to court cases is subsumed by the delay of 15 months in getting the forest Page 13 of 54

clearance. We are of the view that the time taken to get the forest clearance was beyond the control of the petitioner. Accordingly, the delay of 10 months in commissioning Asset-II is condoned. As regards Asset-IV, the time over-run of one month was due to delay in commissioning of Asset-II, which has already been condoned. Accordingly, the time over-run in case of Asset-IV is condoned.

26. In this case, the petitioner has claimed commissioning of the bays prior to commissioning of associated line namely 765 kV Sasaram-Fatehpur and Fatehpur-Agra line. The petitioner has not submitted any reason and justification how line bay could achieve COD without completion of line. Hence, we are not inclined to approve COD of two bays at Fatehpur (i.e. Asset No.-III and V) and one bay at Agra (i.e. Asset-IV). The 765 kV line bay at Fatehpur (i.e. Asset-III) for 765 kV S/C Sasaram-Fatehpur line-II is claimed to have been commissioned on 1.11.2012, while the line has been commissioned on 1.6.2013. The line bays should achieve COD alongwith associated transmission line. The COD of line bay and line should be the same. Therefore, COD of line bay will be considered to be 1.6.2013. Similarly, the 765 kV line bays at Agra (i.e Asset-IV) and Fatehpur (i.e. Asset-V) for 765 kV S/C Fatehpur-Agra line-II were commissioned on 1.2.2013 and 1.11.2012 respectively. Hence, COD of line bay at Agra and Fatehpur is considered to be the COD of line i.e. 1.11.2013. Since the time over-run in case of Asset-II (i.e. 765 kV S/C Fatehpur-Agra) has been condoned, the time over-run in commissioning of associated assets, namely Asset IV and V is also condoned. Similarly, Asset-III is associated with Asset-I (i.e. Sasaram-Fatehpur line), the time over-run in

commissioning of Asset-I also been condoned. Therefore, the delay in commissioning of Asset-III is also condoned. Accordingly, for the purpose of tariff, the following status of commissioning of the assets has been considered:-

SI No.	Assets	Scheduled COD	Actual COD
1.	Asset-I	1.1.2013	1.6.2013
2.	Asset -I		1.11.2013
3.	Asset-III		1.6.2013
4.	Asset-IV		1.11.2013
5.	Asset-V		1.11.2013
6.	Asset-VI		1.12.2012

# Treatment of IDC & IEDC

27. IDC has been worked out based on the loans deployed for the assets as per Form-13 of the petition on cash basis assuming that the petitioner has not made any default in the payment of interest. Amount of IDC accrued as on COD and to be discharged after COD has not been considered in the capital cost due to nonavailability of adequate information. The un-discharged liability pertaining to IDC would be considered once it is paid subject to prudence check and submission of adequate information at the time of truing up.

28. Details of IDC claimed by the petitioner, IDC on cash basis up to the actual date of commercial operation considered in our calculations based on the above and IDC disallowed are given overleaf:-

			(₹ in lakh)
Assets	IDC claimed by	IDC on cash basis	IDC accrued and
	the petitioner	considered in our	hence Disallowed
		calculation	
Asset-I	5272.07	3904.83	1367.24
Asset-II	5098.42	4531.49	566.93
Asset-III	427.04	325.74	101.30
Asset-IV	432.38	297.36	135.02
Asset-V	427.04	298.34	128.70
Asset-VI	426.91	293.83	133.08

The petitioner is directed to submit the detailed working corresponding to the IDC in respect of all deployed loans and the actual cash expenditure in Form 14A at the time of truing up.

29. The petitioner has claimed ₹707.73 lakh, ₹620.99 lakh, ₹76.35 lakh, ₹78.39 lakh, ₹76.35 lakh and ₹77.32 lakh as incidental expenditure incurred and paid during Construction (IEDC) as on COD in respect of the Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI respectively, which are within the percentage on hard cost as indicated in the abstract cost estimate. Similar approach was adopted in order dated 20.5.2015 in Petition No. 109/TT/2013.

# Treatment of initial spares

30. Regulation 8 of 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

Transmission line	0.75%
Transmission sub-station	2.5%
Series compensation devices	
& HVDC Station	3.5%

31. The petitioner has claimed the following initial spares included in the capital cost of the assets discharged as on COD and discharged in the period from COD to 31.3.2014:-

				(₹ in lakh)	
Assets	Transmiss	sion Line	Sub-station		
	Discharged as on COD	Discharged during COD to 31.3.2014	Discharged as on COD	Discharged during COD to 31.3.2014	
Asset-I	401.64	-	-	-	
Asset-II	401.64	-	-	-	
Asset-III	-	-	-	29.18	
Asset-IV	-	-	31.90	-	
Asset-V	-	-	-	29.18	
Asset-VI	-	-	31.90	-	

32. Initial spares, claimed and discharged by the petitioner as on COD, in respect of Asset-III, Asset-IV, Asset-V and Asset-VI are within the ceiling limits specified in the 2009 Tariff Regulations, hence no adjustment of initial spares are required. However, initial spares claimed and discharged by the petitioner as on COD in respect of Asset-I, Asset-II corresponding to transmission line are being adjusted while determining tariff of the assets.

33. Similarly, initial spares claimed and discharged by the petitioner from COD to 31.3.2014 in respect of all the assets except Asset-III are within the ceiling as prescribed by the Commission, hence, no adjustment of initial spares are required in the additional capital expenditure.

34. However, initial spares claimed and discharged by the petitioner from COD to 31.3.2014 in respect of Asset-III is being adjusted in the additional capital

expenditure while determining tariff of the Assets.

35. Accordingly, the excess initial spares claimed in respect of Asset-II is deducted to arrive at the capital cost considered for the purpose of tariff are given overleaf:-

	(₹ in lakh)						
Particulars	Capital cost claimed	Initial spares claimed against capital cost claimed	Capital cost after adjustment of IEDC/IDC disallowed	Proportionate claim of initial spares against the adjusted capital cost	Ceiling limit as per 2009 Tariff Regula- tions	Initial spares worked out	Excess initial spares
Asset-I: Transmission Line (as on COD)	51781.0 0	401.64	50413.76	391.03	0.75%	378.01	13.03
Asset-II: Transmission Line (as on COD)	47324.2 3	401.64	46757.30	396.83	0.75%	350.33	46.50
Asset-III: Sub- Station (including Land, Building and PLCC) (From COD to 31.3.2014)	263.69	29.18	263.69	29.18	2.50%	6.01	23.17

Initial spares shall be reviewed on submission of capital cost at the time of truing

up.

36. Accordingly, capital costs considered for the purpose of tariff calculation after scrutiny of IDC&IEDC and initial spares are given overleaf:-

#### (₹ in lakh)

Assets	Capital cost considered for the purpose of tariff before adjustment of IEDC/IDC & initial spares, if any, as on COD/ Tariff Date (A)	IDC Disallowed (B)	IEDC Disallowed (C)	Excess initial spares disallowed (D)	Capital cost considered for the purpose of tariff after scrutiny of IEDC/IDC & initial spares as on COD (E)=(A)-(B+C+D)
Asset-I	51781.00	1367.24	0.00	13.03	50400.73
Asset-II	47324.23	566.93	0.00	46.50	46710.80
Asset-III	4931.56	101.30	0.00	0.00	4830.26
Asset-IV	5050.29	135.02	0.00	0.00	4915.27
Asset-V	5169.40	128.70	0.00	0.00	5040.70
Asset-VI	4117.88	133.08	0.00	0.00	3984.80

## Projected additional capital expenditure

37. Clause (1) of Regulation 9 of the 2009 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:"

38. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines "cut-off"

date as under:-

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

39. The petitioner has claimed the following additional capital expenditure for the period from COD to 31.3.2014, as per Clause 9 (1) of 2009 Tariff Regulations:-

			(₹ in lakh)
Assets	COD to 31.3.2013	2013-14	Total
Asset-I	-	4130.97	4130.97
Asset-II	-	1565.91	1565.91
Asset-III	862.31	316.43	1178.74
Asset-IV	335.29	344.90	680.19
Asset-V	968.31	316.43	1284.74
Asset-VI	652.71	347.90	1000.61

In respect of Asset-III, Asset-IV and Asset-V, as it was discussed earlier, in absence of the segregated cost as on tariff dates, the additional capital expenditure has been added to the cost as on COD and considered for the purpose of tariff calculation.

40. Further, the excess initial spares corresponding to additional capital expenditure in respect of Asset III is deducted from the additional capital expenditure of the same asset to arrive at the additional capital considered for the purpose of tariff.

41. Accordingly, the additional capital expenditure in respect of instant assets considered for the purpose of tariff are as follows:-

			(₹ in lakh)
Assets	Additional Cap	oitalization	Total
	COD to 31.3.2013	2013-14	
Asset-I	-	4130.00	4130.00
Asset-II	-	1565.91	1565.91
Asset-III	-	240.52	240.52
Asset-IV	-	143.71	143.71
Asset-V	-	131.85	131.85
Asset-VI	652.71	347.90	1000.61

## Debt- equity ratio

42. Regulation 12 of the 2009 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."

43. Details of debt-equity in respect of the asset as on the date of commercial

operation are as follows:-

				(₹ in la	kh)	
Capital cost as on date of commercial operation						
	Asset-I			Asset-IV		
Particulars	Amount	%	Particulars	Amount	%	
Debt	35,280.51	70.00	Debt	3,440.69	70.00	
Equity	15,120.22	30.00	Equity	1,474.58	30.00	
Total	50400.73	100.00	Total	4915.27	100.00	
	Asset-II			Asset-V		
Particulars	Amount	%	Particulars	Amount	%	
Debt	32,697.56	70.00	Debt	3,528.50	70.00	
Equity	14013.24	30.00	Equity	15,12.21	30.00	
Total	46710.80	100.00	Total	5040.70	100.00	

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Asset-III			Asset-VI		
Particulars	Amount	%	Particulars	Amount	%
Debt	3,381.18	70.00	Debt	2,789.37	70.00
Equity	1,449.07	30.00	Equity	1,195.44	30.00
Total	4830.26	100.00	Total	3984.80	100.00

44. Detail of debt-equity ratio of asset as on 31.3.2014 is as per details given hereunder:-

				(₹ in	lakh)		
	Capital cost as on 31.3.2014						
	Asset-I			Asset-IV			
Particulars	Amount	%	Particulars	Amount	%		
Debt	38,171.51	70.00	Debt	3,541.29	70.00		
Equity	16,359.22	30.00	Equity	1,517.69	30.00		
Total	54530.73	100.00	Total	5058.98	100.00		
	Asset-II			Asset-V			
Particulars	Amount	%	Particulars	Amount	%		
Debt	33,793.70	70.00	Debt	3620.79	70.00		
Equity	14,483.01	30.00	Equity	1551.76	30.00		
Total	48276.71	100.00	Total	5172.55	100.00		
	Asset-III			Asset-VI			
Particulars	Amount	%	Particulars	Amount	%		
Debt	3,549.55	70.00	Debt	3489.79	70.00		
Equity	1521.23	30.00	Equity	1495.62	30.00		
Total	5070.78	100.00	Total	4985.41	100.00		

The additional capital expenditure allowed during 2013-14 has been considered in the

debt-equity ratio of 70:30.

## Return on equity

45. 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".

46. Based on the above, the return on equity considered are as follows:-

		(₹	in lakh)
Particulars	Asset I	Asset II	Asset III
	2013-14	2013-14	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)
Opening Equity	15120.22	14013.24	1449.07
Addition due to Additional	1239.00	469.77	72.16
Capitalisation			
Closing Equity	16359.22	14483.01	1521.23
Average Equity	15739.72	14248.13	1485.15
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.611%	19.611%	19.611%
Return on Equity (Pre Tax)	2572.26	1164.25	242.71





		(₹ in lakh)			
Particulars	Asset IV	Asset V	Asset VI		
	2013-14	2013-14	2012-13	2013-14	
	(pro-rata)	(pro-rata)	(pro-rata)	(pro-rata)	
Opening Equity	1474.58	1512.21	1195.44	1391.25	
Addition due to Additional	43.11	39.55	195.81	104.37	
Capitalisation					
Closing Equity	1517.69	1551.76	1391.25	1495.62	
Average Equity	1496.13	1531.98	1293.34	1443.43	
Return on Equity (Base	15.50%	15.50%	15.50%	15.50%	
Rate)					
Tax rate for the year 2008-	20.961%	20.961%	20.008%	20.961%	
09 (MAT)					
Rate of Return on Equity	19.611%	19.611%	19.377%	19.611%	
(Pre Tax )					
Return on Equity (Pre Tax)	122.25	125.18	83.54	283.07	

47. The petitioner has submitted that it may be allowed to recover the shortfall or refund the excess Annual Fixed Charges, on account of 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 under Regulation 15(5) of the 2009 Tariff Regulations. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account of 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 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) Pre-tax ROE of 20.961% has been considered for Asset-I, Asset-II, Asset-III, Asset-IV and Asset-V. In respect of Asset-VI, pre-tax ROE of 20.008% and 20.961% have been considered for 2012-13 and 2013-14 respectively.

#### Interest on loan

48. 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."

49. AVVNL has submitted that the rate of interest as applicable on 1.10.2012 has been considered. The actual rate of interest as on COD or at the time of filing the petition should be considered and details of actual rate of interest during construction period should be accounted for in the petition.

50. 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:-

- (i) Gross amount of loan, repayment of instalments and rate of interest on loan have been considered as per petition ;
- (ii) The repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period; and
- (iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

51. Based on the above, interest on loan has been calculated are given overleaf:-

		(₹	<sup>*</sup> in lakh)
Particulars	Asset-I	Asset-II	Asset-III
	2013-14	2013-14	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)
Gross Normative Loan	35280.51	32697.56	3381.18
Cumulative Repayment upto Previous	0.00	0.00	0.00
Year			
Net Loan-Opening	35280.51	32697.56	3381.18
Addition due to Additional capitalisation	2891.00	1096.14	168.37
Repayment during the year	2308.49	1044.86	218.00
Net Loan-Closing	35863.02	32748.84	3331.55
Average Loan	35571.76	32723.20	3356.37
Weighted Average Rate of Interest on	9.2408%	9.2913%	8.9862%
Loan			
Interest	2739.27	1266.84	251.34

#### (₹ in lakh)

Particulars	Asset-IV	Asset-V	Ass	et-VI
	2013-14	2013-14	2012-13	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)	(pro-rata)
Gross Normative Loan	3440.69	3528.50	2789.37	3246.26
Cumulative Repayment upto Previous	0.00	0.00	0.00	75.88
Year				
Net Loan-Opening	3440.69	3528.50	2789.37	3170.39
Addition due to Additional	100.60	92.29	456.90	243.53
Capitalisation				
Repayment during the year	109.95	112.43	75.88	254.05
Net Loan-Closing	3431.34	3508.36	3170.39	3159.87
Average Loan	3436.02	3518.43	2979.88	3165.13
Weighted Average Rate of Interest on	9.1757%	9.1153%	9.1777%	9.1942%
Loan				
Interest	131.37	133.63	91.16	291.01

## **Depreciation**

52. 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."

53. The assets in the instant petition will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually, based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations. Accordingly, depreciation has been worked out on the basis of capital expenditure as on the date of commercial operation and additional capital expenditure incurred/projected to be incurred thereafter, wherein depreciation for the first year has been calculated on *pro-rata* basis for the part of year.

54. Based on the above, the depreciation has been considered are given overleaf:-

		(₹	in lakh)
Particulars	Asset-I	Asset-II	Asset-III
	2013-14	2013-14	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)
Opening Gross Block	50400.73	46710.80	4830.26
Addition during 2009-14 due to	4130.00	1565.91	240.52
Projected Additional Capitalisation			
Closing Gross Block	54530.73	48276.71	5070.78
Average Gross Block	52465.73	47493.76	4950.52
Rate of Depreciation	5.2800%	5.2800%	5.2842%
Depreciable Value	47219.16	42744.38	4455.47
Remaining Depreciable Value	47219.16	42744.38	4455.47
Depreciation	2308.49	1044.86	218.00

			(₹ in	lakh)
Particulars	Asset-IV	Asset-V	Ass	et-VI
	2013-14	2013-14	2012-13	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)	(pro-rata)
Opening Gross Block	4915.27	5040.70	3984.80	4637.51
Addition during 2009-14 due to	143.71	131.85	652.71	347.90
Projected Additional Capitalisation				
Closing Gross Block	5058.98	5172.55	4637.51	4985.41
Average Gross Block	4987.13	5106.63	4311.16	4811.46
Rate of Depreciation	5.2913%	5.2841%	5.2800%	5.2800%
Depreciable Value	4488.41	4595.96	3880.04	4330.32
Remaining Depreciable Value	4488.41	4595.96	3880.04	4254.44
Depreciation	109.95	112.43	75.88	254.05

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

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

Element	2009-10	2010-11	2011-12	2012-13	2013-14
765 kV bay / (₹ Iakh/bay)	73.36	77.56	81.99	86.68	91.64
S/C bundled conductor T/L (₹ lakh/ km)	0.537	0.568	0.600	0.635	0.671

56. The O&M expenses allowed for the assets covered in the petition are as

under:-

	(₹ in lakh)	
Elements	2012-13	2013-14 (pro-rata)
Asset-I	-	
354.7 km S/C bundled conductor Sasaram –Fatehpur T/L (COD 1.6.2013)	-	198.33
Asset-II	-	
334.04 km S/C bundled conductor T/L (COD 1.11.2013)	-	93.39
Asset-III:	-	
1 no 765 kV bay (COD 1.6.2013)	-	76.36
Asset-IV:	-	
1 no 765 kV bay (COD 1.11.2013)	-	38.18
Asset-V:	-	
1 no 765 kV bay (COD 1.11.2013)	-	38.18
Asset-VI:	(pro-rata)	
1 no 765 kV bay (COD 1.12.2012)	28.89	91.64

57. AVVNL has submitted that O&M expenses should be allowed as per 2009 Tariff Regulations.

58. The petitioner has submitted that O&M expenses for the period 2009-14 was arrived at on the basis of normalized actual O&M expenses during the period 2003-04 to 2007-08. The wage hike 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 additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff.

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59. 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.

#### Interest on working capital

60. The petitioner is entitled to claim interest on working capital as per the 2009 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' fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. 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 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 as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

## (iv) Rate of interest on working capital

The SBI Base rate (9.70%) as on 1.4. plus 350 Bps i.e. 13.20% for all the assets except Asset-II has been considered as the rate of interest on working capital. For Asset VI, SBI base rate plus 350 bps as on 1.4.2012 (i.e. 13.50%) has been considered on the rate of interest on working capital.

61. Necessary computations in support of interest on working capital are as follows:-

	(₹ in lakh)			
	Asset-I	Asset-III		
Particulars	2013-14	2013-14	2013-14	
	(pro-rata)	(pro-rata)	(pro-rata)	
Maintenance Spares	35.70	33.62	13.74	
O & M expenses	19.83	18.68	7.64	
Receivables	1600.09	1461.03	161.71	
Total	1655.63	1513.33	183.09	
Rate of Interest	182.12	83.23	20.14	
Rate of interest	13.20%	13.20%	13.20%	

				(₹ in lakh)
Particulars	Asset-IV	Asset-V	Asse	et-VI
	2013-14	2013-14	2012-13	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)	(pro-rata)
Maintenance Spares	13.74	13.74	13.00	13.75
O & M expenses	7.64	7.64	7.22	7.64
Receivables	164.80	167.94	143.41	157.31
Total	186.18	189.32	163.64	178.70
Rate of Interest	10.24	10.41	7.36	24.12
Rate of interest	13.20%	13.20%	13.20%	13.20%

# Transmission charges

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

	(₹ in lakh)		
Particulars	Asset-I	Asset-II	Asset-III
	2013-14	2013-14	2013-14
	(pro-rata)	(pro-rata)	(pro-rata)
Depreciation	2308.49	1044.86	218.00
Interest on Loan	2739.27	1266.84	251.34
Return on equity	2572.26	1164.25	242.71
Interest on Working Capital	182.12	83.23	20.14
O & M Expenses	198.33	93.39	76.36
Total	8000.47	3652.57	808.55

Particulars	Asset-IV (pro-rata)	Asset-V (pro-rata)		et-VI •rata)
	2013-14	2013-14	2012-13	2013-14
Depreciation	109.95	112.43	75.88	254.05
Interest on Loan	131.37	133.63	91.16	291.01
Return on equity	122.25	125.18	83.54	283.07
Interest on Working Capital	10.24	10.41	7.36	24.12
O & M Expenses	38.18	38.18	28.89	91.64
Total	411.99	419.84	286.83	943.89

## Filing fee and the publication expenses

63. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 of the 2009 Tariff Regulations.

## Licence fee

64. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

## Service tax

65. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

## **Sharing of Transmission Charges**

66. 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.

67. This order disposes of Petition No. 33/TT/2013.

-sd-(A.S. Bakshi) Member -sd-(A.K. Singhal) Member -sd-(Gireesh B. Pradhan) Chairperson



## <u>Annexure l</u>

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET I

	Details of Loan	(₹ in Lakh) 2013-14
1	Bond XXIX	
	Gross loan opening	1000.00
	Cumulative Repayment upto DOCO/previous year	83.33
	Net Loan-Opening	916.67
	Additions during the year	0.00
	Repayment during the year	83.33
	Net Loan-Closing	833.34
	Average Loan	875.00
	Rate of Interest	9.20%
	Interest	80.50
	Rep Schedule	12 annual installments from 12.03.2013
2	Bond XXX	
	Gross loan opening	3050.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	3050.00
	Additions during the year	0.00
	Repayment during the year	254.17
	Net Loan-Closing	2795.83
	Average Loan	2922.92
	Rate of Interest	8.80%
	Interest	257.22
	Rep Schedule	12 annual installments from 29.09.2013
3	Bond XXXII	
	Gross loan opening	1937.18
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1937.18
	Additions during the year	0.00
	Repayment during the year	161.43
	Net Loan-Closing	1775.75
	Average Loan	1856.46
	Rate of Interest	8.84%
	Interest	164.11
	Rep Schedule	12 annual installments from 29.03.2014
	Dand VVVIII	
4	Bond XXXIII	
	Gross loan opening	2145.00

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	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2145.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2145.00
	Average Loan	2145.00
	Rate of Interest	8.64%
	Interest	185.33
	Rep Schedule	12 annual installments from 08.07.2014
5	Bond XXXIV	
•	Gross loan opening	390.81
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	390.81
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	390.81
	Average Loan	390.81
	Rate of Interest	8.84%
	Interest	34.55
	Rep Schedule	12 annual installments from 21.10.2014
~	Bond XXXV	
6	Gross loan opening	2500.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2500.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2500.00
	Average Loan	2500.00
	Rate of Interest	9.64%
	Interest	241.00
	Rep Schedule	12 annual installments from 31.05.2015.
7	Bond XXXVII	
	Gross loan opening	1800.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1800.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1800.00
	Average Loan	1800.00
	Rate of Interest	9.25%
	Interest	166.50
	Rep Schedule	12 annual installments from 26.12.2015.
8	Bond XXXVIII	
	Gross loan opening	600.00



	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	600.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	600.00
	Average Loan	600.00
	Rate of Interest	9.25%
	Interest	55.50
	Rep Schedule	Bullet Payment as on 09.03.2027
9	Bond XXXIX	
	Gross loan opening	11427.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	11427.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	11427.00
	Average Loan	11427.00
	Rate of Interest	9.40%
	Interest	1074.14
	Rep Schedule	Bullet Payment as on 29.03.2027
10	Bond XL	
	Gross loan opening	11396.77
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	11396.77
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	11396.77
	Average Loan	11396.77
	Rate of Interest	9.30%
	Interest	1059.90
	Rep Schedule	12 annual installments from 28.06.2016
	Total Loan	
	Gross loan opening	36246.76
	Cumulative Repayment upto DOCO/previous year	83.33
	Net Loan-Opening	36163.43
	Additions during the year	0.00
	Repayment during the year	498.93
	Net Loan-Closing	35664.50
	Average Loan	35913.96
	Rate of Interest	9.2408%
	Interest	3318.74

# <u>Annexure II</u>

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET II

	Details of Loan	(₹ in lakh) 2013-14
1	Bond XLI	
•	Gross loan opening	1591.29
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1591.29
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1591.29
	Average Loan	1591.29
	Rate of Interest	8.85%
	Interest	140.83
	Rep Schedule	12 annual installments from 19.10.2016
2	Bond XXIX	
	Gross loan opening	900.00
	Cumulative Repayment upto DOCO/previous year	75.00
	Net Loan-Opening	825.00
	Additions during the year	0.00
	Repayment during the year	75.00
	Net Loan-Closing	750.00
	Average Loan	787.50
	Rate of Interest	9.20%
	Interest	72.45
	Rep Schedule	12 annual installments from 12.03.2013
3	Bond XXX	
-	Gross loan opening	250.00
	Cumulative Repayment upto DOCO/previous year	125.00
	Net Loan-Opening	125.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	125.00
	Average Loan	125.00
	Rate of Interest	8.80%
	Interest	11.00
	Rep Schedule	12 annual installments from 29.09.2013
4	Bond XXXII	
	Gross loan opening	1675.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1675.00
	Additions during the year	0.00

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	Net Loan-Closing	1535.42
	Average Loan	1605.21
	Rate of Interest	8.84%
	Interest	141.90
	Rep Schedule	12 annual installments from 29.03.2014
5	Bond XXXIII	
5	Gross loan opening	2525.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2525.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2525.00
	Average Loan	2525.00
	Rate of Interest	8.64%
		218.16
	Interest	218.10 12 annual installments from 08.07.2014
	Rep Schedule	12 annual installments from 08.07.2014
6	Bond XXXV	
	Gross loan opening	2200.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2200.00
	Average Loan	2200.00
	Rate of Interest	9.64%
	Interest	212.08
	Rep Schedule	12 annual installments from 31.05.2015.
7	Bond XXXVI	
	Gross loan opening	4710.49
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	4710.49
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	4710.49
	Average Loan	4710.49
	Rate of Interest	9.35%
	Interest	440.43
	Rep Schedule	15 annual installments from 29.08.2016.

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8	Bond XXXVII	
0	Gross loan opening	1600.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1600.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1600.00
	Average Loan	1600.00
	Rate of Interest	9.25%
	Interest	148.00
	Rep Schedule	12 annual installments from 26.12.2015.
9	Bond XXXVIII	
	Gross loan opening	400.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	400.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	400.00
	Average Loan	400.00
	Rate of Interest	9.25%
	Interest	37.00
	Rep Schedule	Bullet Payment as on 09.03.2027
10	Bond XXXIX	
	Gross loan opening	10112.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	10112.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	10112.00
	Average Loan	10112.00
	Rate of Interest	9.40%
	Interest	950.53
	Rep Schedule	Bullet Payment as on 29.03.2027
11	Bond XL	
	Gross loan opening	3396.08
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	3396.08
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	3396.08
	Average Loan	3396.08
	Rate of Interest	9.30%

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	Interest	315.84
	Rep Schedule	12 annual installments from 28.06.2016
12	Bond XLII	
	Gross loan opening	1189.75
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1189.75
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1189.75
	Average Loan	1189.75
	Rate of Interest	8.80%
	Interest	104.70
	Rep Schedule	Bullet Payment as on 13.03.2023
13	SBI	
	Gross loan opening	2577.35
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2577.35
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2577.35
	Average Loan	2577.35
	Rate of Interest	10.24%
	Interest	263.92
	Rep Schedule	22 half yearly installment from 31.08.2016
	Total Loan	
	Gross loan opening	33126.96
	Cumulative Repayment upto DOCO/previous year	200.00
	Net Loan-Opening	32926.96
	Additions during the year	1096.14
	Repayment during the year	214.58
	Net Loan-Closing	33808.52
	Average Loan	33367.74
	Rate of Interest	9.2913%
	Interest	3100.29

#### Annexure-III

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET III

# (₹ in lakh)

	Details of Loan	2013-14
1	Bond XXXIII	
	Gross loan opening	1413.56
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1413.56
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1413.56
	Average Loan	1413.56
	Rate of Interest	8.64%
	Interest	122.13
	Rep Schedule	12 annual installments from 08.07.2014
2	Bond XXXV	
_	Gross loan opening	500.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	500.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	500.00
	Average Loan	500.00
	Rate of Interest	9.64%
	Interest	48.20
	Rep Schedule	12 annual installments from 31.05.2015.
3	Bond XXXVI	
	Gross loan opening	350.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	350.00
	Additions during the year	0.00
$\rightarrow$	Repayment during the year	0.00
	Net Loan-Closing	350.00
	Average Loan	350.00
	Rate of Interest	9.35%
	Interest	32.73
	Rep Schedule	15 annual installments from 29.08.2016.



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		_
	Gross loan opening	350.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	350.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	350.00
	Average Loan	350.00
	Rate of Interest	9.25%
	Interest	32.38
	Rep Schedule	12 annual installments from 26.12.2015.
,	Bond XXXVIII	
	Gross loan opening	178.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	178.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	178.00
	Average Loan	178.00
	Rate of Interest	9.25%
	Interest	16.47
	Rep Schedule	Bullet Payement as on 09.03.2027
	Bond XXXIX	
	Gross loan opening	20.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	20.00
	Additions during the year	0.00
	Panayment during the year	
	Repayment during the year	0.00
	Net Loan-Closing	0.00
	Net Loan-Closing Average Loan	0.00 20.00 20.00
	Net Loan-Closing Average Loan Rate of Interest	0.00 20.00 20.00 9.40%
	Net Loan-Closing Average Loan Rate of Interest Interest	0.00 20.00 20.00 9.40% 1.88
	Net Loan-Closing Average Loan Rate of Interest	0.00 20.00 20.00 9.40%
	Net Loan-Closing Average Loan Rate of Interest Interest	0.00 20.00 20.00 9.40% 1.88
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00 603.62
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00 603.62
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00 603.62 0.00
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00 603.62 0.00 603.62
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan	0.00 20.00 20.00 9.40% 1.88 Bullet Payment as on 29.03.2027 603.62 0.00 603.62 0.00 603.62 0.00
	Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule Bond XLII Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing	0.00 20.00 20.00 9.40% 1.88



Total Loan	
Gross loan opening	3415.18
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	3415.18
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	3415.18
Average Loan	3415.18
Rate of Interest	8.9862%
Interest	306.90



# Annexure-IV

## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET IV (₹ in lakh)

		(₹ in lakh)
De	etails of Loan	2013-14
1 Bo	ond XLI	
Gi	ross loan opening	89.92
	umulative Repayment upto DOCO/previous year	0.00
	et Loan-Opening	89.92
Ac	dditions during the year	0.00
	epayment during the year	0.00
	et Loan-Closing	89.92
	verage Loan	89.92
	ate of Interest	8.85%
	terest	7.96
Re	ep Schedule	12 annual installments from 19.10.2016
2	ond XXXII	
Gi	ross loan opening	300.00
Сι	umulative Repayment upto DOCO/previous year	0.00
Ne	et Loan-Opening	300.00
Ac	dditions during the year	0.00
	epayment during the year	25.00
	et Loan-Closing	275.00
	/erage Loan	287.50
	ate of Interest	8.84%
	terest	25.42
	ep Schedule	12 annual installments from 29.03.2014
5	ond XXXIII	
	ross loan opening	478.79
	umulative Repayment upto DOCO/previous year	0.00
Ne	et Loan-Opening	478.79
Ac	dditions during the year	0.00
Re	epayment during the year	0.00
Ne	et Loan-Closing	478.79
	/erage Loan	478.79
	ate of Interest	8.64%
	terest	41.37
Re	ep Schedule	12 annual installments from 08.07.2014
4 Bo	ond XXXIV	
	ross loan opening	21.25
Сι	umulative Repayment upto DOCO/previous year	0.00

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Í	Net Loan-Opening	21.25
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	21.25
	Average Loan	21.25
	Rate of Interest	8.84%
	Interest	1.88
	Rep Schedule	12 annual installments from 21.10.2014
5	Bond XXXV	
	Gross loan opening	621.35
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	621.35
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	621.35
	Average Loan	621.35
	Rate of Interest	9.64%
	Interest	59.90
	Rep Schedule	12 annual installments from 31.05.2015.
6	Bond XXXVI	
	Gross loan opening	300.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	300.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	300.00
	Average Loan	300.00
	Rate of Interest	9.35%
	Interest	28.05
	Rep Schedule	15 annual installments from 29.08.2016.
7	Bond XXXVII	
	Gross loan opening	748.70
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	748.70
	Additions during the year	0.00
	Repayment during the year	0.00
		748.70
	Net Loan-Closing	
_	Net Loan-Closing Average Loan	
	Average Loan Rate of Interest	748.70 9.25%

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	Rep Schedule	12 annual installments from 26.12.2015.
8	Bond XXXVIII	
	Gross loan opening	100.62
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	100.62
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.62
	Average Loan	100.62
	Rate of Interest	9.25%
	Interest	9.31
	Rep Schedule	Bullet Payment as on 09.03.2027
9	Bond XXXIX	
	Gross loan opening	425.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	425.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	425.00
	Average Loan	425.00
	Rate of Interest	9.40%
	Interest	39.95
	Rep Schedule	Bullet Payment as on 29.03.2027
10	Bond XL	
-	Gross loan opening	12.25
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	12.25
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	12.25
	Average Loan	12.25
	Rate of Interest	9.30%
	Interest	1.14
	Rep Schedule	12 annual installments from 28.06.2016
11	Bond XLII	
	Gross loan opening	296.49
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	296.49
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	296.49
	Average Loan	296.49
	-	
	Rate of Interest	8.80%

# Annexure-V

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET V

Details of Loan	2013-14
1 Bond XXXII	
Gross loan opening	933.56
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	933.56
Additions during the year	0.00
Repayment during the year	77.80
Net Loan-Closing	855.76
Average Loan	894.66
Rate of Interest	8.84%
Interest	79.09
Rep Schedule	12 annual installments from 29.03.2014
2 Bond XXXIII	
Gross loan opening	300.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	300.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	300.00
Average Loan	300.00
Rate of Interest	8.64%
Interest	25.92
Rep Schedule	12 annual installments from 08.07.2014
3 Bond XXXV	
Gross loan opening	500.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	500.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	500.00
Average Loan	500.00
Rate of Interest	9.64%
Interest	48.20
Rep Schedule	12 annual installments from 31.05.2015.

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4 Bond XXXVI	
Gross loan opening	350.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	350.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	350.00
Average Loan	350.00
Rate of Interest	9.35%
Interest	32.73
Rep Schedule	15 annual installments from 29.08.2016.
5 Bond XXXVII	
Gross loan opening	350.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	350.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	350.00
Average Loan	350.00
Rate of Interest	9.25%
Interest	32.38
Rep Schedule	12 annual installments from 26.12.2015.
6 Bond XXXVIII	
Gross loan opening	178.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	178.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	178.00
Average Loan	178.00
Rate of Interest	9.25%
Interest	16.47
Rep Schedule	Bullet Payment as on 09.03.2027
7 Bond XXXIX	
Gross loan opening	200.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	200.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	200.00
Average Loan	200.00
	200.00

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Rate of Interest	9.40%
Interest	18.80
Rep Schedule	Bullet Payment as on 29.03.2027
8 Bond XLII	
Gross loan opening	677.82
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	677.82
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	677.82
Average Loan	677.82
Rate of Interest	8.80%
Interest	59.65
Rep Schedule	Bullet Payment as on 13.03.2023
9 SBI	
Gross loan opening	0.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	0.00
Additions during the year	221.50
Repayment during the year	0.00
Net Loan-Closing	221.50
Average Loan	110.75
Rate of Interest	10.29%
Interest	11.40
Rep Schedule	22 half yearly installment from 31.08.2016
Total Loan	
Gross loan opening	3489.38
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	3489.38
Additions during the year	221.50
Repayment during the year	77.80
Net Loan-Closing	3633.08
Average Loan	3561.23
Rate of Interest	9.1153%
Interest	324.62

### Annexure-VI

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET VI (₹ in lakh)

	Details of Loan	2012-13	2013-14
1	Bond XXXII		
-	Gross loan opening	525.00	525.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	525.00	525.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	43.75
	Net Loan-Closing	525.00	481.25
	Average Loan	525.00	503.13
	Rate of Interest	8.84%	8.84%
	Interest	46.41	44.48
	Rep Schedule	12 annual installme	ents from 29.03.2014
•	David VVVIII		
2	Bond XXXIII	400.00	400.00
	Gross loan opening	400.00	400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	400.00	400.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	400.00	400.00
	Average Loan	400.00	400.00
	Rate of Interest	8.64%	8.64%
	Interest	34.56	34.56
	Rep Schedule	12 annual installme	ents from 08.07.2014
3	Bond XXXVII	-	
5	Gross loan opening	305.52	305.52
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	305.52	305.52
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	305.52	305.52
	Average Loan	305.52	305.52
	Rate of Interest	9.25%	9.25%
	Interest	28.26	28.26
	Rep Schedule		ents from 26.12.2015.
4	Bond XXXVIII		
	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

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	Repayment during the year	0.00	0.00
	Net Loan-Closing	100.00	100.00
	Average Loan	100.00	100.00
	Rate of Interest	9.25%	9.25%
	Interest	9.25	9.25
	Rep Schedule	Bullet Payment as on 0	9.03.2027
_			
5	Bond XXXIX	160.00	160.00
	Gross loan opening Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	160.00	160.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	160.00	160.00
	Average Loan	160.00	160.00
	Rate of Interest	9.40%	9.40%
	Interest	15.04	15.04
	Rep Schedule	Bullet Payment as on 2	
6	SBI		
	Gross loan opening	0.00	0.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	0.00
	Additions during the year	0.00	243.53
	Repayment during the year	0.00	0.00
	Net Loan-Closing	0.00	243.53
	Average Loan	0.00	121.77
	Rate of Interest	10.29%	10.29%
	Interest	0.00	12.53
	Rep Schedule		
7	Bond XLII		
	Gross loan opening	0.00	456.90
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	456.90
	Additions during the year	456.90	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	456.90	456.90
	Average Loan	228.45	456.90
	Rate of Interest	8.80%	8.80%
	Interest	20.10	40.21
	Rep Schedule	Bullet Payment as on 1	3.03.2023
8	Bond XXXVI		
~	Gross loan opening	792.00	792.00

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	Net Loan-Opening	792.00	792.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	792.00	792.00
	Average Loan	792.00	792.00
	Rate of Interest	9.35%	9.35%
	Interest	74.05	74.05
	Rep Schedule	15annual installment	ts from 29.08.2016.
9	Bond XXXV		
9		000.00	<u> </u>
	Gross loan opening	600.00	600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	600.00	600.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	600.00	600.00
	Average Loan	600.00	600.00
	Rate of Interest	9.64%	9.64%
	Interest	57.84	57.84
	Rep Schedule	12 annual installments from 31.05.2015.	
	Total Loan		
	Gross loan opening	2882.52	3339.42
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2882.52	3339.42
	Additions during the year	456.90	243.53
	Repayment during the year	0.00	43.75
	Net Loan-Closing	3339.42	3539.20
	Average Loan	3110.97	3439.31
	Rate of Interest	9.1777%	9.1942%
	Interest	285.52	316.22