

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 68/TT/2012**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson  
Shri M. Deena Dayalan, Member  
Shri A. K. Singhal, Member  
Smt. Neerja Mathur, Member (EO)**

**Date of Hearing : 25.02.2014**

**Date of Order : 31.10.2014**

**In the matter of:**

Approval of transmission tariff from DOCO to 31.3.2014 for assets (part-II) under Common Scheme for 765 kV Pooling Station 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 Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) 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. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur- 302 005.
2. Ajmer Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur.
3. Jaipur Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd.,  
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 and Kashmir,  
Mini Secretariat, Jammu.
9. UP 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.,  
BSES Bhawan, Nehru Place,  
New Delhi.
12. BSES Rajdhani Power Ltd.,  
BSES Bhawan, Nehru Place,  
New Delhi.
13. North Delhi Power Ltd.,  
Power Trading & Load Dispatch Group,  
Cennet Building, Adjacent to 66/11kV 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.

....Respondents

**For petitioner** : Ms. Seema Gupta, PGCIL  
Shri A. M. Pavgi, PGCIL  
Shri S.S Raju, PGCIL  
Ms. Sangeeta Edwards, PGCIL  
Shri P. Saraswat, PGCIL  
Shri M. M. Mondal, PGCIL  
Shri S. K. Venkatesan, PGCIL

**For respondent** : Shri R. B. Sharma, Advocate, BRPL  
Shri Hari Mohan, NDMC

### **ORDER**

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission tariff for assets (part-II) under Common Scheme for 765 kV Pooling Station 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, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. Investment Approval for the transmission project was accorded by Board of Directors of PGCIL, vide letter No. C/CP/DVC and Maithon RP project, dated 29.8.2008, at an estimated cost of ₹707533 lakh, including IDC of ₹71360 lakh, based on 1<sup>st</sup> quarter, 2008 price level. The project was scheduled to be commissioned within 48 months progressively from the date of investment approval, i.e. by 1.9.2012. The scope of work covered 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” is as follows:-

**Transmission Line:**

- 1) Maithon-Gaya 400 kV Quad D/C line
- 2) Gaya – Sasaram 765 kV S/C line
- 3) Gaya – Balia 765 kV S/C line
- 4) Balia – Lucknow 765 kV S/C line
- 5) Ranchi – WR Pooling Station 765 kV S/C line
- 6) Lucknow 765 / 400 kV new sub-station – Lucknow 400/220 kV existing sub-station 400 kV Quad D/C line
- 7) Ranchi 765/400 kV new sub-station – Ranchi 400/220 kV existing sub-station 400 kV Quad 2xD/C line
- 8) LILO of both circuits of Allahabad- Mainpuri 400 kV D/C line at Fatehpur 765/400 kV sub-station of PGCIL
- 9) LILO of Barh-Balia 400 kV Quad D/C line at Patna

**Substations:**

1. Augmentation of Maithon 400/220 kV sub-station
  - 2 nos. 400 kV line bays (for terminating Maithon-Gaya D/C line)
  - 2 nos. 400 kV line bays (for terminating Mejia-Maithon D/C line)
2. New 765/400 kV sub-station at Gaya
  - 3x1500 MVA, 765/400 kV Transformer alongwith associated bays
  - 2 nos. 765 kV line bays (for Gaya-Sasaram & Gaya-Balia 765 kV lines)
  - 4 nos. 400 kV line bays (for Maithon-Gaya line & Kodarm-Gaya line)
3. New 765/400 kV sub-station at Sasaram
  - 2x1500 MVA, 765/400 kV Transformer along with associated bays
  - 2 nos. 765 kV line bays (for Gaya-Sasaram 765 kV S/C & Sasaram -Fatehpur 765 kV S/C line)

- 2 nos. 400 kV bays (for Biharshariff-Sasaram 400 kV Quad D/C line)  
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
    - 2 nos. 400 kV bays (for Biharshariff – Sasaram 400 kV Quad D/C line)
  5. New 765/400 kV sub-station at Fatehpur
    - 2x1500 MVA, 765/400 kV Transformer alongwith associated bays
    - 2 nos. 765 kV line bays (for Sasaram-Fatehpur & Fatehpur-Agra 765 kV lines)
    - 4 nos. 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
    - 2x1500 MVA, 765/400 kV transformer alongwith associated bays
    - 1 nos. 765 kV line bay (for Fatehpur-Agra 765 kV line)
  7. Augmentation of 400 kV Balia sub-station to 765 kV
    - 2x1500 MVA, 765/400 kV transformer along with associated bays
    - 2 nos of 765 kV line bay (for Gaya-Balia & Balia-Lucknow 765 kV lines)
  8. New 765/400 kV sub-station at Lucknow
    - 2x1500 MVA, 765/400 kV transformer along with associated bays
    - 1 nos. 765 kV line bay (for Balia-Lucknow 765 kV line)
    - 2 nos. 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
    - 2 nos. 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
    - 1 nos. 765 kV line bays (for Ranchi-WR Pooling 765 kV S/C line)
    - 4 nos. 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

- 6 nos. 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

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

13. Augmentation of Patna 400/220 kV sub-station

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

3. The details of transmission assets along with the status of commissioning of the assets are as follows:-

Description	DOCO as per petition	Actual DOCO
125 MVAR Bus Reactor at Lucknow (Existing)400 /220 kV S/S (hereinafter referred to as " <b>Asset-1</b> ")	1.10.2011 (Actual)	1.10.2011
765/400 kV,1500 MVA ICT II at Lucknow S/S alongwith associated bays (hereinafter referred to as " <b>Asset-2</b> ")	1.1.2012 (Anticipated)	1.3.2012
765/400 kV,1500 MVA ICT I at Fatehpur S/S alongwith associated bays (hereinafter referred to as " <b>Asset-3</b> ")		1.4.2012
765/400 kV,1500 MVA ICT II at Ballia S/S alongwith associated bays (hereinafter referred to as " <b>Asset-4</b> ")		1.3.2012
765 kV Sasaram Fatehpur S/C TL bays at Fatehpur S/S (hereinafter referred to as " <b>Asset-5</b> ")		1.4.2012
LILO of 400 kV Allahabad Mainpuri TL alongwith associated bays at Fatehpur (hereinafter referred to as " <b>Asset-6</b> ")		1.8.2012
765/400 kV,1500 MVA ICT II at Fatehpur S/S alongwith associated Bays (hereinafter referred to as " <b>Asset-7</b> ")	1.3.2012 (Anticipated)	1.4.2012
125 MVAR Bus Reactor at Ballia (hereinafter referred to as " <b>Asset-8</b> ")	1.11.2011 (Actual)	1.11.2011

4. Some of the assets covered under the scope of the project have been allowed tariff vide order dated 21.10.2011 in Petition No. 99/TT/2011 and some of the assets are covered in Petition No. 187/TT/2011, which is pending for determination of final tariff.

5. The petitioner has submitted, vide affidavit dated 10.8.2012, that Asset-2, Asset-3 and Asset-4 have been put under commercial operation on 1.3.2012, 1.4.2012 and 1.3.2012 respectively. The petitioner vide affidavit dated 20.9.2013 has submitted that Asset-5, Asset-6 and Asset-7 have been put under commercial operation on 1.4.2012, 1.8.2012 and 1.4.2012 respectively and submitted revised management certificates along with revised tariff forms for all the assets.

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

(₹ in lakh)

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	16.65	34.42	39.15	52.63	665.00	691.34
Interest on Loan	20.22	39.42	41.85	63.48	770.43	741.51
Return on equity	16.54	34.18	38.89	53.48	675.33	701.64
Interest on Working Capital	2.47	5.13	5.53	3.95	49.28	50.17
O & M Expenses	29.29	61.92	65.46	11.71	148.60	157.10
<b>Total</b>	<b>85.17</b>	<b>175.07</b>	<b>190.88</b>	<b>185.25</b>	<b>2308.64</b>	<b>2341.76</b>

(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	647.24	689.93	56.24	680.95	696.60
Interest on Loan	749.13	740.84	66.79	775.72	732.48
Return on equity	645.95	688.40	55.98	677.84	693.42
Interest on Working Capital	55.22	57.46	4.14	49.76	49.93
O & M Expenses	148.60	157.10	11.71	148.60	157.10
<b>Total</b>	<b>2246.14</b>	<b>2333.73</b>	<b>194.86</b>	<b>2332.87</b>	<b>2329.53</b>

(₹ in lakh)

Particulars	Asset-5		Asset-6		Asset-7	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14	2012-13	2013-14
Depreciation	235.89	259.33	223.09	373.23	647.24	689.93
Interest on Loan	285.88	291.62	276.79	435.29	749.13	740.84
Return on equity	236.56	259.77	229.35	382.45	645.95	688.40
Interest on Working Capital	27.03	28.78	26.48	42.78	55.22	57.46
O & M Expenses	173.36	183.28	175.52	278.33	148.60	157.10
<b>Total</b>	<b>958.72</b>	<b>1022.78</b>	<b>931.23</b>	<b>1512.08</b>	<b>2246.14</b>	<b>2333.73</b>



(₹ in lakh)

Particulars	Asset-8		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	22.35	71.87	78.14
Interest on Loan	26.57	84.50	87.70
Return on equity	22.82	75.81	84.14
Interest on Working Capital	2.60	7.61	8.13
O & M Expenses	24.40	61.92	65.46
<b>Total</b>	<b>98.74</b>	<b>301.71</b>	<b>323.57</b>

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

(₹ in lakh)

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	8.79	9.29	9.82	21.08	22.29	23.56
O & M Expenses	4.88	5.16	5.46	11.71	12.38	13.09
Receivables	28.39	29.18	31.81	370.50	384.77	390.29
<b>Total</b>	<b>42.06</b>	<b>43.63</b>	<b>47.09</b>	<b>403.29</b>	<b>419.44</b>	<b>426.94</b>
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	2.47	5.13	5.53	3.95	49.28	50.17

(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	22.29	23.56	21.08	22.29	23.56
O & M Expenses	12.38	13.09	11.71	12.38	13.09
Receivables	374.36	388.96	389.72	388.81	388.26
<b>Total</b>	<b>409.03</b>	<b>425.61</b>	<b>422.51</b>	<b>423.48</b>	<b>424.91</b>
Rate of Interest	13.50%	13.50%	11.75%	11.75%	11.75%
Interest	55.22	57.46	4.14	49.76	49.93

(₹ in lakh)

Particulars	Asset-5		Asset-6		Asset-7	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14	2012-13	2013-14
Maintenance Spares	26.00	27.49	39.49	41.75	22.29	23.56
O & M Expenses	14.45	15.27	21.94	23.19	12.38	13.09
Receivables	159.79	170.46	232.81	252.02	374.36	388.96
<b>Total</b>	<b>200.24</b>	<b>213.22</b>	<b>294.24</b>	<b>316.96</b>	<b>409.03</b>	<b>425.61</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	27.03	28.78	26.48	42.79	55.22	57.46



(₹ in lakh)

Particulars	Asset-8		
	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	8.78	9.29	9.82
O & M Expenses	4.88	5.16	5.46
Receivables	39.50	50.29	53.93
<b>Total</b>	<b>53.16</b>	<b>64.74</b>	<b>69.21</b>
Rate of Interest	11.75%	11.75%	11.75%
Interest	2.60	7.61	8.13

8. 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. Jodhpur Vidyut Vitran Nigam Ltd (Jd.VVNL), Respondent No. 4, has filed reply vide affidavit dated 14.5.2012. Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 9, has filed its reply vide affidavit dated 30.8.2012 and BSES Rajdhani Power Ltd (BRPL), Respondent No. 12, has filed its reply vide affidavit dated 7.2.2014. The respondents have raised the issue of additional capital expenditure, O&M Expenses, cost over-run, time over-run, etc. The petitioner has filed rejoinder to the reply of BRPL vide affidavit dated 19.2.2014.

9. We have heard the representatives of the parties present at the hearing and have perused the material on record. We proceed to dispose of the petition. While doing so, the submissions of the respondents shall be duly taken note of.

## **Capital cost**

10. 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.”

11. Details of apportioned approved cost, capital cost as on actual dates of commercial operation and additional capital expenditure projected to be incurred for the asset covered in this petition are summarized overleaf:-

(₹ in lakh)

S. No	Name of Asset	Apportioned approved cost	Projected Exp. as on DOCO*	Projected additional capital expenditure			Total estimated completion cost
				DOCO to 31.3.12	2012-13	2013-14	
<b>Sub-total of assets claimed in 99/2011 &amp; 187/2011 covered under same project scope.</b>		113624.98	87856.12	5169.59	5106.89	227.00	98359.60
1.	<b>Asset-1</b>	1428.57	626.65	8.28	33.75	145.61	814.29
2.	<b>Asset-2</b>	14494.75	12097.58	278.00	1003.55	0.00	13379.13
3.	<b>Asset-3</b>	12939.61	11787.04		1060.06	559.09	13406.19
4.	<b>Asset-4</b>	13290.33	12712.65	195.01	35.16	558.95	13501.77
5.	<b>Asset-5</b>	5618.43	4307.95		405.58	479.72	5193.25
6.	<b>Asset-6</b>	9488.53	6146.83		826.52	638.84	7612.19
7.	<b>Asset-7</b>	12939.61	11787.04		1060.06	559.09	13406.19
8.	<b>Asset-8</b>	1620.66	801.62	485.20	317.65	0.00	1604.47
<b>Sub-Total</b>		<b>71820.49</b>	<b>60267.36</b>	<b>966.49</b>	<b>4742.33</b>	<b>2941.30</b>	<b>68917.48</b>
<b>Total</b>		<b>185445.47</b>	<b>148123.48</b>	<b>6136.08</b>	<b>9849.22</b>	<b>3168.30</b>	<b>180654.25</b>

\* Inclusive of initial spares pertaining to sub-station.

### Cost Over-run

12. Total estimated completion cost of the transmission assets covered in the petition falls within apportioned approved cost. Though there is no increase in overall cost, there is individual cost over-run in case of Asset-3, Asset-4 and Asset-7.

13. BRPL has submitted vide affidavit dated 7.2.2014 that there is cost over-run in case of Asset-2, Asset-3, Asset-4, Asset-5 and Asset-7 and the reasons given in Form 5B for the cost variations are casual like its being based on actual and the higher tendered cost, etc. In the absence of the proper justification, cost over-run may not be allowed.

14. The petitioner has submitted vide affidavits dated 10.8.2012 and 19.2.2014 detailed justification regarding cost over-run which is discussed in the following paragraphs:-

(i) Increase in cost of certain items is more as the awarded cost is more than the estimated FR cost. In case of civil works, rates envisaged in FR estimation were on lower side than the awarded cost. The land cost has also increased. There was no provision for township and colony in FR cost. Variation in cost is due to construction of staff quarters at Balia Sub-station.

(ii) The increase in cost of transformer and reactor is mainly due to additional cost of excise/custom duty and lower cost envisaged in FR. For procurement of these items, open competitive bidding route is followed and lowest possible market prices for required product/ services was obtained and contract was awarded to the lowest evaluated eligible bidder. The competitive bid prices against tender may be lower or higher than the cost estimate, depending upon prevailing market conditions.

15. During the hearing on 25.2.2014, the Commission observed that the cost estimates are high in this case like other cases. The representative of petitioner submitted that the approved cost of the 8 assets covered is ₹71800 lakh and the completion cost is ₹69000 lakh and there is a saving of about ₹2800 lakh. The representative of the petitioner submitted that the initial cost estimation is based on the anticipated date of commercial operation and the actual cost is based on the actual date of commercial operation and in a huge project of this nature there is always a possibility of change in the cost.

16. During hearing on 25.2.2014, the Commission directed petitioner to review the methodology adopted for estimation of tariff and to adopt an effective approach to ensure that the estimates arrived at are closer to the actual cost. In response, the petitioner has submitted vide affidavit dated 31.3.2014 as under:-

a) For working out cost estimate of projects, bi-monthly Schedule of Rates (SOR) for various items of Bill of Quantities (BOQ) for the Transmission Line and Substation is prepared. Such SOR forms the basis for preparation of cost estimate. The Schedule of Rates (SOR) is prepared for all major items of Transmission Lines and Sub-stations (e.g., Tower parts, Conductor, Insulator, Transformer, Substation Equipments etc.) on the basis of average of awarded unit rates of generally three latest award letters for similar work. This is done in order to avoid any unbalanced unit rate in a single contract. These unit rates obtained against open competitive bidding are considered to represent best possible market rates for similar work prevailing at that time as participant bidders offer their best possible competitive prices so as to win the contract after taking into consideration, various relevant factors and market forces such as:-

- Input raw material cost and future variation for the same,
- Local conditions & risk perceptions,
- Availability of resources,
- Implications of Technical Specification and Conditions of Contracts,
- Overheads / profit margin besides considering their marketing strategies, order booking position, financial and organization strength.

- Availability of skilled manpower
- Law & order condition
- Type of Terrain, etc.

Hence, these are used for the purpose of working out cost estimate. These unit rates are, however, updated from respective base dates till the latest quarter using applicable PV formula and published indices for the material involved and labour to take care of variation in input cost during the intervening period. [Here the base date means the date 30 days prior to the Bid Opening Date (OBD) of respective package as defined in the Bidding Documents].

- b) The unit rates thus arrived at based on the SOR and the BOQ furnished by the respective Engineering group is used for preparation of the cost estimate. For the items, for which in-house cost data/latest cost data is not available, budgetary quotations are obtained from the prospective bidders for such items/services. The various taxes and duties such as Excise duty, Sales tax, Customs Duty, Service Tax, State Entry Tax or any other applicable taxes/duties are also taken into account for preparation of Cost estimates. The cost of preliminary works, land and compensation, civil works for infrastructure, building and colony is further added to the equipment cost. Further, the cost towards Centages (i.e., IEDC) such as Miscellaneous Tools and Plants, Maintenance during construction, Engineering & Administration and Contingency is added on percentage basis. Thereafter, considering the implementation schedule and the funding pattern of the project, interest

during construction (IDC) is worked out and added to the above cost to arrive at the total cost of the project at particular quarterly price level.

c) PGCIL continuously revisits its methodology of estimation in order to make the estimates more realistic and details are given below:-

- Initially in 1990s, cost estimates were prepared on the basis of unit rates of latest LOA (Single LOA).
- Subsequently, cost estimates were prepared on the basis of average of unit rates of three latest contracts awarded so as to avoid any unbalanced unit rate in a single contract.
- From January 2008, based on advice of CTE (Chief Technical Examiner, CVC), methodology for working out Schedule of Rates (SOR) on quarterly basis was started.
- From June 2011 onwards, estimates are being prepared considering average of three latest bids opened (instead of three latest award letters) for similar work.
- From December, 2011 onwards, the unit rates of major Transmission Line items viz. Tower Steel, Conductor, Concreting & Reinforcement Steel are derived based on Raw material cost, labour, etc.
- From February, 2012 onwards, SOR is prepared on a bi-monthly basis instead of quarterly basis.

17. The petitioner has further submitted that in spite of all these endeavours, in certain cases variation between estimated price and actual price are inevitable as bid

prices against competitive bidding are market-driven and based on perception of the bidder. Further, in some cases the cost variation is also due to quantity variation. At the time of preparation of FR the quantities are considered on the basis of walkover survey, however the contract is awarded after the detailed survey and detailed engineering. There may be variation in line length due to diversion etc. The type of Tower may also vary depending upon the wind zone routing after detailed survey. The cost of foundation may also vary due to the type of soil and geographical surprises encountered during construction. The various factors may lead to change in quantities in actual execution of the project as compared to the estimates. Therefore, such variations are beyond the control of the executing agencies.

18. We have considered the submissions of the petitioner and BRPL. The increase and variation in cost of certain is due to difference in FR cost and the awarded cost and due to variation in quantity of certain items and due to increase in cost of civil works and land cost. The reasons for the cost variation are beyond the control of the petitioner and, accordingly, the cost variation is allowed.

19. The estimated completion cost of the Asset-3, Asset-4 and Asset-7 exceeds the apportioned approved cost. The petitioner has contended that since overall cost of the project is within the approved cost, the cost variation of the Asset-3, Asset-4 and Asset-7 may be allowed. The Hon'ble Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012 has decided the issue where the petition sought cost variation without obtaining revised cost estimates of their own Board -



".....The Appellant is a Nava Public Sector Company of the Central Government. Its Board is empowered to approve its projects including the cost estimates for such projects. The Central Commission also accepts the cost approved by the Board of the Appellant. Under such circumstances, the Appellant could have approached its own Board for approval of the Revised Cost Estimates as desired by the Central Commission."

20. Accordingly, the capital cost of the Asset-3, Asset-4 and Asset-7 have been restricted to their apportioned approved cost. The capital cost shall be reviewed at the time of truing-up subject to the filing of Revised Cost Estimates by the petitioner.

### **Time Over-run**

21. As per the investment approval dated 29.8.2008, the project was scheduled to be commissioned within 48 months from the date of investment approval, i.e. by 1.9.2012. BRPL has vide its affidavit 7.2.2014 submitted that the elements covered in the petition were not completed as per the completion schedule in Form 5C and there is delay in commissioning of the assets. During the hearing on 25.2.2014, the learned counsel for BRPL requested to furnish the date of completion of various elements. The petitioner has submitted vide affidavit dated 31.3.2014 that the completion schedule of the project has been considered on the basis of Investment Approval. Accordingly, there is no time over-run in completion of the assets.

### **Treatment of Initial Spares**

22. Initial spares claimed by the petitioner for sub-stations vide affidavit dated 19.9.2013 are as given overleaf: -

(₹ in lakh)

Asset	Initial spares claimed	Percentage
Asset-1	30.39	4.1
Asset-2	203.69	1.58
Asset-3	243.68	2.06
Asset-4	234.87	2.00
Asset-5	104.00	2.27
Asset-6	76.43	1.13
Asset-7	243.68	1.8
Asset-8	15.24	1.9

23. Initial spares claimed for all the assets, except Asset-1, falls within the ceiling limit specified under Regulation 8 of the 2009 Tariff Regulations. The initial spares considered for the Asset-1 is worked out as follows:-

(₹ in lakh)

Calculation of initial spares					
Particulars	Capital Cost up to cut off date*	Initial Spares Claimed	Ceiling Limits as per clause 8 Regulation 2009	Initial Spares worked out	Excess Initial Spares
Sub-station	814.29	30.39	2.50%	20.10	<b>-10.29</b>

Excess initial spares have been reduced from the opening capital cost of Asset-1 and the same will be reviewed at the time of triung up on the submission of the actual capital expenditure.

24. The capital cost claimed by the petitioner as on the date of commercial operation has been considered for the purpose of determination of transmission tariff except in case of Asset-1, in which the petitioner has claimed excess initial spares. Capital cost of Asset-1 i.e. ₹616.36 lakh (Capital cost claimed ₹626.65 lakh less excess initial spares claimed ₹10.26 lakh) as on the date of commercial operation has been considered for the purpose of determination of transmission tariff.

## **Projected Additional Capital Expenditure**

25. Clause (1) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

“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.”

26. 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”.

Accordingly, cut-off date for the above mentioned assets is 31.3.2014.

27. Details of the projected additional capital expenditure claimed and considered for tariff computation is as follows:-

### **Asset-1 and Asset-2:**

Particular	(₹ in lakh)					
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Claimed and Considered					
	Asset-1			Asset-2		
Building & Other Civil Works	0.00	0.00	0.00	15.84	14.85	0.00
Sub-Station Equipments	8.28	33.75	145.61	256.56	988.70	0.00
<b>Total</b>	<b>8.28</b>	<b>33.75</b>	<b>145.61</b>	<b>278.00</b>	<b>1003.55</b>	<b>0.00</b>

### Asset-3:

(₹ in lakh)

Particular	2012-13		2013-14	
	Claimed		Considered	
Building & Other Civil Works	6.30	0.00	6.30	0.00
Sub-Station Equipments	1053.76	559.09	1053.76	92.51
<b>Total</b>	<b>1060.06</b>	<b>559.09</b>	<b>1060.06</b>	<b>92.51</b>

Total estimated completion cost i.e. ₹12939.61 lakh for the Asset-3 exceeds the apportioned approved cost i.e. ₹13406.19 lakh by ₹466.58 lakh. Accordingly, to restrict the completion cost up to apportioned approved cost, projected additional cost for the year 2013-14 has been restricted to ₹92.51 lakh.

### Asset-4

(₹ in lakh)

Particular	2011-12			2012-13			2013-14		
	Claimed			Considered					
Building & Other Civil Works	0.00	4.18	0.00	0.00	4.18	0.00			
Sub-Station Equipments	195.01	30.98	558.95	195.01	30.98	347.51			
<b>Total</b>	<b>195.01</b>	<b>35.16</b>	<b>558.95</b>	<b>195.01</b>	<b>35.16</b>	<b>347.51</b>			

Total estimated completion cost i.e. ₹13501.77 lakh for the Asset exceeds the apportioned approved cost i.e. ₹13290.33 lakh by ₹211.44 lakh. Accordingly, to restrict the completion cost up to apportioned approved cost, projected additional cost for the year 2013-14 has been restricted to ₹347.51 lakh.

### Asset-5 and Asset-6

(₹ in lakh)

Particular	2012-13		2013-14	
	Asset-5		Asset-6	
Claimed and Considered		Claimed and Considered		
Building & Other Civil Works	3.15	0.00	12.58	0.00
Transmission Line	0.00	0.00	515.94	275.93
Sub-Station Equipments	393.48	470.74	298.00	357.50
PLCC	8.98	8.98	0.00	5.41
<b>Total</b>	<b>405.58</b>	<b>479.72</b>	<b>826.52</b>	<b>638.84</b>

### Asset-7

(₹ in lakh)

Particular	2012-13		2013-14	
	Claimed		Considered	
Building & Other Civil Works	6.30	0.00	6.30	0.00
Sub-Station Equipments	1053.76	559.09	1053.76	92.51
<b>Total</b>	<b>1060.06</b>	<b>559.09</b>	<b>1060.06</b>	<b>92.51</b>

Total estimated completion cost i.e. ₹12939.61 lakh for the Asset-3 exceeds the apportioned approved cost i.e. ₹13406.19 lakh by ₹466.58 lakh. Accordingly, to restrict the completion cost up to apportioned approved cost, projected additional cost for the year 2013-14 has been restricted to ₹92.51 lakh.

**Asset-8:**

(₹ in lakh)			
Particular	2011-12	2012-13	2013-14
	Claimed and considered		
Building & Other Civil Works	87.34	218.18	0.00
Sub-Station Equipments	397.86	99.47	0.00
Total	8.28	33.75	0.00

28. Jd. VVNL and UPPCL have requested for details like total estimated cost up to the date of commercial operation, additional capital expenditure upto 31.3.2011, balance and retention payment for 2011-12, payment during 2011-12 and balance and retention payment for 2012-13, in respect of "Building and Civil Works", "Transmission Lines", "Sub-station" and "PLCC".

29. Additional capital expenditure claimed by the petitioner falls within the cut-off date and is mainly on account of balance and retention payments. Hence, the same has been considered for all the transmission assets covered in the instant petition for the purpose of determination of tariff, under Regulations 9 of the 2009 Tariff Regulations. Further, projected additional capital expenditure claimed for 2013-14 pertaining to Asset-3, Asset-4 and Asset-7 has been restricted due to cost over-run. The entire projected additional capital expenditure will be reviewed at the time of truing up on the submission of actual additional capital expenditure and/or revised apportioned approved cost, as the case may be.

## Debt- Equity Ratio

30. 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.”

31. Debt-Equity Ratio as on actual date of commercial operation considered for the purpose of tariff calculation are as follows:-

(₹ in lakh)

Particulars	Apportioned approved cost		Capital cost as on DOCO	
	Amount	%	Amount	%
<b>Asset-1</b>				
Debt	1000.00	70.00	431.45	70.00
Equity	428.57	30.00	184.91	30.00
<b>Total</b>	<b>1428.57</b>	<b>100.00</b>	<b>616.36</b>	<b>100.00</b>
<b>Asset-2</b>				
Debt	10146.33	70.00	8468.31	70.00
Equity	4348.43	30.00	3629.27	30.00
<b>Total</b>	<b>14494.75</b>	<b>100.00</b>	<b>12097.58</b>	<b>100.00</b>
<b>Asset-3</b>				
Debt	9057.73	70.00	8250.93	70.00

Equity	3881.88	30.00	3536.11	30.00
<b>Total</b>	<b>12939.61</b>	<b>100.00</b>	<b>11787.04</b>	<b>100.00</b>
<b>Asset-4</b>	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	9303.23	70.00	8898.86	70.00
Equity	3987.10	30.00	3813.80	30.00
<b>Total</b>	<b>13290.33</b>	<b>100.00</b>	<b>12712.66</b>	<b>100.00</b>

(₹ in lakh)

Particulars	Apportioned approved cost		Capital Cost as on DOCO	
	Amount	%	Amount	%
<b>Asset-5</b>	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	3932.90	70.00	3015.57	70.00
Equity	1685.53	30.00	1292.38	30.00
<b>Total</b>	<b>5618.43</b>	<b>100.00</b>	<b>4307.95</b>	<b>100.00</b>
<b>Asset-6</b>	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	6641.97	70.00	4302.78	70.00
Equity	2846.56	30.00	1844.05	30.00
<b>Total</b>	<b>9488.53</b>	<b>100.00</b>	<b>6146.83</b>	<b>100.00</b>
<b>Asset-7</b>	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	9057.73	70.00	8250.93	70.00
Equity	3881.88	30.00	3536.11	30.00
<b>Total</b>	<b>12939.61</b>	<b>100.00</b>	<b>11787.04</b>	<b>100.00</b>
<b>Asset-8</b>	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	1134.46	70.00	561.13	70.00
Equity	486.20	30.00	240.49	30.00
<b>Total</b>	<b>1620.66</b>	<b>100.00</b>	<b>801.62</b>	<b>100.00</b>

32. Debt-equity ratio for projected additional capital expenditure are as follows-

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	Normative		Normative	
	2011-12		2011-12	
	Amount	%	Amount	%
Debt	5.80	70.00	194.60	70.00
Equity	2.48	30.00	83.40	30.00
<b>Total</b>	<b>8.28</b>	<b>100.00</b>	<b>278.00</b>	<b>100.00</b>
	2012-13		2012-13	
Debt	23.63	70.00	702.49	70.00
Equity	10.13	30.00	301.07	30.00
<b>Total</b>	<b>33.75</b>	<b>100.00</b>	<b>1003.55</b>	<b>100.00</b>
	2013-14		2013-14	
Debt	101.93	70.00	0.00	0.00
Equity	43.68	30.00	0.00	0.00
<b>Total</b>	<b>145.61</b>	<b>100.00</b>	<b>0.00</b>	<b>0.00</b>

(₹ in lakh)

Asset-3			Asset-4	
Particulars	Normative 2012-13		Normative 2011-12	
	Amount	%	Amount	%
	Debt	742.04	70.00	136.51
Equity	318.02	30.00	58.50	30.00
<b>Total</b>	<b>1060.06</b>	<b>100.00</b>	<b>195.01</b>	<b>100.00</b>
2013-14			2012-13	
Debt	64.76	70.00	24.61	70.00
Equity	27.75	30.00	10.55	30.00
<b>Total</b>	<b>92.51</b>	<b>100.00</b>	<b>35.16</b>	<b>100.00</b>
			2013-14	
Debt			243.26	70.00
Equity			104.25	30.00
<b>Total</b>			<b>347.51</b>	<b>100.00</b>

(₹ in lakh)

Asset-5			Asset-6	
Particulars	Normative 2012-13		Normative 2012-13	
	Amount	%	Amount	%
	Debt	283.91	70.00	578.56
Equity	121.67	30.00	247.96	30.00
<b>Total</b>	<b>405.58</b>	<b>100.00</b>	<b>826.52</b>	<b>100.00</b>
2013-14			2013-14	
Debt	335.80	70.00	447.19	70.00
Equity	143.92	30.00	191.65	30.00
<b>Total</b>	<b>479.72</b>	<b>100.00</b>	<b>638.84</b>	<b>100.00</b>

(₹ in lakh)

Asset-7			Asset-8	
Particulars	Normative 2012-13		Normative 2011-12	
	Amount	%	Amount	%
	Debt	742.04	70.00	339.64
Equity	318.02	30.00	145.56	30.00
<b>Total</b>	<b>1060.06</b>	<b>100.00</b>	<b>485.20</b>	<b>100.00</b>
2013-14			2012-13	
Debt	64.76	70.00	222.36	70.00
Equity	27.75	30.00	95.30	30.00
<b>Total</b>	<b>92.51</b>	<b>100.00</b>	<b>317.65</b>	<b>100.00</b>
			2013-14	
Debt			0.00	0.00
Equity			0.00	0.00
<b>Total</b>			<b>0.00</b>	<b>0.00</b>



33. Detail of debt-equity ratio of assets as on 31.3.2014 is as follows:-

(₹ in lakh)

Particulars	AppORTIONED approved cost		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
<b>Asset-1</b>				
Debt	1000.00	70.00	562.80	70.00
Equity	428.57	30.00	241.20	30.00
<b>Total</b>	<b>1428.57</b>	<b>100.00</b>	<b>804.00</b>	<b>100.00</b>
<b>Asset-2</b>				
Debt	14204.86	70.00	9365.40	70.00
Equity	6087.80	30.00	4013.74	30.00
<b>Total</b>	<b>20292.65</b>	<b>100.00</b>	<b>13379.14</b>	<b>100.00</b>
<b>Asset-3</b>				
Debt	9057.73	70.00	9057.73	70.00
Equity	3881.88	30.00	3881.88	30.00
<b>Total</b>	<b>12939.61</b>	<b>100.00</b>	<b>12939.61</b>	<b>100.00</b>
<b>Asset-4</b>				
Debt	9303.23	70.00	9303.23	70.00
Equity	3987.10	30.00	3987.10	30.00
<b>Total</b>	<b>13290.33</b>	<b>100.00</b>	<b>13290.33</b>	<b>100.00</b>

(₹ in lakh)

Particulars	AppORTIONED approved cost		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
<b>Asset-5</b>				
Debt	3932.90	70.00	3635.28	70.00
Equity	1685.53	30.00	1557.97	30.00
<b>Total</b>	<b>5618.43</b>	<b>100.00</b>	<b>5193.25</b>	<b>100.00</b>
<b>Asset-6</b>				
Debt	6641.97	70.00	5328.53	70.00
Equity	2846.56	30.00	2283.66	30.00
<b>Total</b>	<b>9488.53</b>	<b>100.00</b>	<b>7612.19</b>	<b>100.00</b>
<b>Asset-7</b>				
Debt	9057.73	70.00	9057.73	70.00
Equity	3881.88	30.00	3881.88	30.00
<b>Total</b>	<b>12939.61</b>	<b>100.00</b>	<b>12939.61</b>	<b>100.00</b>
<b>Asset-8</b>				
Debt	1134.46	70.00	1123.13	70.00
Equity	486.20	30.00	481.34	30.00
<b>Total</b>	<b>1620.66</b>	<b>100.00</b>	<b>1604.47</b>	<b>100.00</b>

### Return on Equity

34. 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".

35. 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(3) as state above. Return on Equity has been calculated as per Regulation 15 of the 2009 Tariff Regulations with pre-tax ROE of 17.481% based on the tax rate of 11.33% for the year 2008-09.

36. Return on equity has been considered as per details given hereunder:-

(₹ in lakh)

Particular	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-1			Asset-2		
Opening Equity	184.91	187.39	197.52	3629.27	3712.67	4013.74
Addition due to Additional Capitalisation	2.48	10.13	43.68	83.40	301.07	0.00
Closing Equity	187.39	197.52	241.20	3712.67	4013.74	4013.74
Average Equity	186.15	192.45	219.36	3670.97	3863.20	4013.74
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%
<b>Return on Equity (Pre Tax)</b>	<b>16.27</b>	<b>33.64</b>	<b>38.35</b>	<b>53.48</b>	<b>675.33</b>	<b>701.64</b>

(₹ in lakh)

Particular	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-3		Asset-4		
Opening Equity	3536.11	3854.13	3813.80	3872.30	3882.85
Addition due to Additional Capital Expenditure	318.02	27.75	58.50	10.55	104.25
Closing Equity	3854.13	3881.88	3872.30	3882.85	3987.10
Average Equity	3695.12	3868.00	3843.05	3877.57	3934.97
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%
<b>Return on Equity (Pre Tax)</b>	<b>645.94</b>	<b>676.17</b>	<b>55.98</b>	<b>677.84</b>	<b>687.87</b>

(₹ in lakh)

Particular	2012-13	2013-14	2012-13	2013-14
	Asset-5		Asset-6	
Opening Equity	1292.38	1414.06	1844.05	2092.01
Addition due to Additional Capital Expenditure	121.67	143.92	247.96	191.65
Closing Equity	1414.06	1557.97	2092.01	2283.66
Average Equity	1353.22	1486.02	1968.03	2187.83
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%	17.481%
<b>Return on Equity (Pre Tax)</b>	<b>236.56</b>	<b>259.77</b>	<b>229.35</b>	<b>382.45</b>

(₹ in lakh)

Particular	2012-13	2013-14	2011-12	2012-13	2013-14
	Asset-7		Asset-8		
Opening Equity	3536.11	3854.13	240.49	386.05	481.34
Addition due to Additional Capital Expenditure	318.02	27.75	145.56	95.30	0.00
Closing Equity	3854.13	3881.88	386.05	481.34	481.34
Average Equity	3695.12	3868.00	313.27	433.69	481.34
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%
<b>Return on Equity (Pre Tax)</b>	<b>645.94</b>	<b>676.17</b>	<b>22.82</b>	<b>75.81</b>	<b>84.14</b>

### Interest on Loan

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

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

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

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

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

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

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

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

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

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

beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

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

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

38. 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 repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

(c) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

(d) 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.

39. Accordingly, the interest on loan has been calculated on the basis of prevailing rate available as on date of commercial operation. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing up. Detailed calculations in support of the weighted average rates of interest have been given in Annexure I to VIII to this order.

40. Based on the above, interest on loan has been calculated as hereunder:-

(₹ in lakh)

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Gross Normative Loan	431.45	437.25	460.87	8468.31	8662.91	9365.40
Cumulative Repayment upto previous year	0.00	16.38	50.25	0.00	52.63	717.63
Net Loan-Opening	431.45	420.87	410.62	8468.31	8610.28	8647.77
Addition due to additional capital expenditure	5.80	23.63	101.93	194.60	702.49	0.00
Repayment during the year	16.38	33.87	38.61	52.63	665.00	691.34
Net Loan-Closing	420.87	410.62	473.94	8610.28	8647.77	7956.42
Average Loan	426.16	415.74	442.28	8539.29	8629.02	8302.09
Weighted Average Rate of Interest on Loan	9.3340%	9.3325%	9.3339%	8.9204%	8.9284%	8.9316%
<b>Interest</b>	<b>19.89</b>	<b>38.80</b>	<b>41.28</b>	<b>63.48</b>	<b>770.43</b>	<b>741.51</b>

(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12	2012-13	2013-14
Gross Normative Loan	8250.93	8992.97	8898.86	9035.36	9059.97
Cumulative Repayment upto previous year	0.00	647.24	0.00	56.24	737.20
Net Loan-Opening	8250.93	8345.73	8898.86	8979.12	8322.78
Addition due to additional capital expenditure	742.04	64.76	136.51	24.61	243.26
Repayment during the year	647.24	677.61	56.24	680.95	691.02
Net Loan-Closing	8345.73	7732.87	8979.12	8322.78	7875.02
Average Loan	8298.33	8039.30	8938.99	8650.95	8098.90
Weighted Average Rate of Interest on Loan	9.0275%	9.0386%	8.9661%	8.9669%	8.9652%
<b>Interest</b>	<b>749.13</b>	<b>726.64</b>	<b>66.79</b>	<b>775.72</b>	<b>726.08</b>

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
Gross Normative Loan	3015.57	3299.47	4302.78	4881.35
Cumulative Repayment upto previous year	0.00	235.89	0.00	223.09
Net Loan-Opening	3015.57	3063.58	4302.78	4658.25
Addition due to additional capital expenditure	283.91	335.80	578.56	447.19
Repayment during the year	235.89	259.33	223.09	373.23
Net Loan-Closing	3063.58	3140.06	4658.25	4732.21
Average Loan	3039.57	3101.82	4480.52	4695.23
Weighted Average Rate of Interest on Loan	9.4054%	9.4017%	9.2663%	9.2710%
<b>Interest</b>	<b>285.88</b>	<b>291.62</b>	<b>276.79</b>	<b>435.29</b>

(₹ in lakh)

Particulars	Asset-7		Asset-8		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Gross Normative Loan	8250.93	8992.97	561.13	900.77	1123.13
Cumulative Repayment upto previous year	0.00	647.24	0.00	22.35	94.22
Net Loan-Opening	8250.93	8345.73	561.13	878.42	1028.91
Addition due to additional capital expenditure	742.04	64.76	339.64	222.36	0.00
Repayment during the year	647.24	677.61	22.35	71.87	78.14
Net Loan-Closing	8345.73	7732.87	878.42	1028.91	950.77
Average Loan	8298.33	8039.30	719.78	953.67	989.84
Weighted Average Rate of Interest on Loan	9.0275%	9.0386%	8.8601%	8.8601%	8.8601%
<b>Interest</b>	<b>749.13</b>	<b>726.64</b>	<b>26.57</b>	<b>84.50</b>	<b>87.70</b>

## Depreciation

41. Regulation 17 of the 2009 Tariff Regulations provides as follows:-

“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.”

42. Assets covered in this petition were put under commercial operation during the period 1.10.2011 to 1.8.2012. Accordingly, these assets will complete 12 years beyond 2013-14. Accordingly, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations.

43. Details of depreciation worked out are as under:-

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Opening Gross Block	616.36	624.64	658.39	12097.58	12375.58	13379.13
Addition due to Projected Additional Capital Expenditure	8.28	33.75	145.61	278.00	1003.55	0.00
Closing Gross Block	624.64	658.39	804.00	12375.58	13379.13	13379.13
Average Gross Block	620.50	641.52	731.20	12236.58	12877.36	13379.13
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.1616%	5.1641%	5.1673%
Depreciable Value	558.45	577.36	658.08	10866.65	11440.82	11892.42
Remaining Depreciable Value	558.45	560.98	607.82	10866.65	11388.19	11174.79
Depreciation	<b>16.38</b>	<b>33.87</b>	<b>38.61</b>	<b>52.63</b>	<b>665.00</b>	<b>691.34</b>
Cumulative Depreciation	16.38	50.25	88.86	52.63	717.63	1408.97

(₹ in lakh)





(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12	2012-13	2013-14
Opening Gross Block	11787.04	12847.10	12712.65	12907.66	12942.82
Addition due to Projected Additional Capital Expenditure	1060.06	92.51	195.01	35.16	347.51
Closing Gross Block	12847.10	12939.61	12907.66	12942.82	13290.33
Average Gross Block	12317.07	12893.36	12810.16	12925.24	13116.58
Rate of Depreciation	5.2549%	5.2555%	5.2686%	5.2684%	5.2683%
Depreciable Value	11044.28	11562.93	11529.14	11632.72	11804.92
Remaining Depreciable Value	11044.28	10915.69	11529.14	11576.47	11067.72
Depreciation	<b>647.24</b>	<b>677.61</b>	<b>56.24</b>	<b>680.95</b>	<b>691.02</b>
Cumulative Depreciation	647.24	1324.86	56.24	737.20	1428.21

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
Opening Gross Block	4307.95	4713.53	6146.83	6973.35
Addition due to Projected Additional Capital Expenditure	405.58	479.72	826.52	638.84
Closing Gross Block	4713.53	5193.25	6973.35	7612.19
Average Gross Block	4510.74	4953.39	6560.09	7292.77
Rate of Depreciation	5.2296%	5.2353%	5.1011%	5.1178%
Depreciable Value	4018.58	4416.97	5739.74	6399.15
Remaining Depreciable Value	4018.58	4181.07	5739.74	6176.06
Depreciation	<b>235.89</b>	<b>259.33</b>	<b>223.09</b>	<b>373.23</b>
Cumulative Depreciation	235.89	495.22	223.09	596.32

(₹ in lakh)

Particulars	Asset-7		Asset-8		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Opening Gross Block	11787.04	12847.10	801.62	1286.82	1604.47
Addition due to Projected Additional Capital Expenditure	1060.06	92.51	485.20	317.65	0.00
Closing Gross Block	12847.10	12939.61	1286.82	1604.47	1604.47
Average Gross Block	12317.07	12893.36	1044.22	1445.65	1604.47
Rate of Depreciation	5.2549%	5.2555%	5.1367%	4.9715%	4.8701%
Depreciable Value	11044.28	11562.93	939.80	1301.08	1444.02
Remaining Depreciable Value	11044.28	10915.69	939.80	1278.73	1349.80
Depreciation	<b>647.24</b>	<b>677.61</b>	<b>22.35</b>	<b>71.87</b>	<b>78.14</b>
Cumulative Depreciation	647.24	1324.86	22.35	94.22	172.36



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

44. The petitioner has claimed O&M Expenses for Asset-5 (DOCO: 1.4.2012) as under:-

(i) 765 kV Sasaram bay- 1 bay

(ii) 765 kV Switchable Line reactor bay for Sasaram – 1 bay

However, vide affidavit dated 20.9.2013, the petitioner has submitted details in Form-2, as under:

(i) 765 kV Sasaram bay- 1 bay

(ii) 765 kV Line reactor bay for Sasaram – 1 bay

For the purpose of O&M expenses, this line reactor has been considered as Switchable line reactor as mentioned in Form-2 of the petition.

45. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes the norms for O & M Expenses the transmission system based on the type of sub-station and the transmission line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

<b>Elements</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
400 kV S/C twin conductor T/Line (₹ lakh / Km)	0.940	0.994	1.051	1.111	1.174
765 kV bays (₹ lakh / bay)	73.36	77.56	81.99	86.68	91.64
400 kV bays (₹ lakh / bay)	52.40	55.40	58.57	61.92	65.46

46. The O&M Expenses for the assets covered in the petition, as per norms specified in 2009 Tariff Regulations are as under:-

Sr. No	Asset-1, 125 MVAR Bus Reactor at Lucknow (Existing) 400/220 kV S/S	DOCO	No. of bays
	<b>400/220 kV Lucknow sub-station:</b>		
1	400 kV bay Line reactor-II bay	1.10.2011	1
	<b>Asset-2: 765/400 kV, 1500 MVA ICT-II at Lucknow S/S along with associated bays</b>		
	<b>765/400 kV Lucknow sub-station</b>		
1	765 kV ICT-II bay	1.3.2012	1
2	400 kV ICT-II bay	1.3.2012	1
	<b>Asset-3, 765/400 kV, 1500 MVA ICT-I at Fatehpur S/S along with associated bays</b>		
	<b>765/400 kV Fatehpur sub-station</b>		
1	765 kV ICT-I bay	1.4.2012	1
2	400 kV ICT-I bay	1.4.2012	1
	<b>Asset-4, 765/400 kV, 1500 MVA ICT-II at Balia S/S along with associated bays</b>		
	<b>765/400 kV Balia sub-station</b>		
1	765 kV ICT-II bay	1.3.2012	1
2	400 kV ICT-II bay	1.3.2012	1
	<b>Asset-5, 765 kV Sasaram- Fatehpur S/C T/L bays at Fatehpur S/S</b>		
	<b>765/400 kV Fatehpur sub-station</b>		
1	765 kV Sasaram bay	1.4.2012	1
2	765 kV Line reactor bay at Sasaram	1.4.2012	1
	<b>Asset-6, LILO of 400 kV Allahabad- Mainpuri T/L along with associated bays at Fatehpur</b>		
	<b>Transmission Line:</b>	DOCO	Length (in km)
1	LILO of both Ckt of 400 kV D/C Allahabad- Mainpuri line at Fatehpur	1.8.2012	36.89
	<b>400 kV Fatehpur sub-station</b>		<b>No. of bays</b>
1	400 kV Allahabad-I & II bays (2 nos bays)	1.8.2012	2
2	400 kV Mainpuri-I & II bays (2 nos bays)	1.8.2012	2
	<b>Asset-7, 765/400 kV. 1500 MVA ICT-II at Fatehpur S/S along with associated bays</b>		
	<b>765 kV Fatehpur sub-station</b>		
1	765 kV ICT-II bay	1.4.2012	1
2	400 kV ICT-II bay	1.4.2012	1
	<b>Asset-8, 125 MVAR Bus Reactor at Balia sub-station</b>		
	<b>400 kV Balia sub-station</b>		
1	400 kV Bus reactor- IV bay	1.11.2011	1

47. As per the norms specified in the 2009 Tariff Regulations allowable O&M Expenses for the asset covered in the petition are as under:-

**Asset-1** (₹ in lakh)

Element	2011-12 (Pro-rata for 6 months)	2012-13	2013-14
1 no 400 kV bay	29.29	61.92	65.46
<b>Total</b>	<b>29.29</b>	<b>61.92</b>	<b>65.46</b>

**Asset-2** (₹ in lakh)

Element	2011-12 (Pro-rata for 1 month)	2012-13	2013-14
1 no 400 kV bay	4.88	61.92	65.46
1 no 765 kV bay	6.83	86.68	91.64
<b>Total</b>	<b>11.71</b>	<b>148.60</b>	<b>157.10</b>

**Asset-3** (₹ in lakh)

Element	2012-13	2013-14
1 no 400 kV bay	61.92	65.46
1 no 765 kV bay	86.68	91.64
<b>Total</b>	<b>148.60</b>	<b>157.10</b>

**Asset-4** (₹ in lakh)

Element	2011-12 (Pro-rata for 1 month)	2012-13	2013-14
1 no 765 kV bay	6.83	86.68	91.64
1 no 400 kV bay	4.88	61.92	65.46
<b>Total</b>	<b>11.71</b>	<b>148.60</b>	<b>157.10</b>

**Asset-5** (₹ in lakh)

Element	2012-13	2013-14
2 no 765 kV bay	173.36	183.28
<b>Total</b>	<b>173.36</b>	<b>183.28</b>

**Asset-6** (₹ in lakh)

Element	2012-13 (Pro-rata for 8 months)	2013-14
36.89 km, S/C, twin conductor T/L	10.40	16.49
4 no 400 kV bays	165.12	261.84
<b>Total</b>	<b>175.52</b>	<b>278.33</b>

**Asset-7** (₹ in lakh)

Element	2012-13	2013-14
1 no 400 kV bay	61.92	65.46
1 no 765 kV bay	86.68	91.64
<b>Total</b>	<b>148.60</b>	<b>157.10</b>

<b>Asset-8</b>		<b>(₹ in lakh)</b>	
<b>Element</b>	<b>2011-12</b> (Pro-rata for 5 months)	<b>2012-13</b>	<b>2013-14</b>
1 no 400 kV bay	24.40	61.92	65.46
<b>Total</b>	<b>24.40</b>	<b>61.92</b>	<b>65.46</b>

48. The petitioner has submitted that O & M Expenses for the year 2009-14 were 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 was also 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 the norms for O & M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

49. Jd. VVNL has submitted that O&M Expenses should be allowed as specified in the 2009 Tariff Regulations. BRPL has submitted that any further increase in the employee cost due to wage revision should be taken care by the petitioner by improving its productivity levels. The petitioner in its rejoinder has submitted that per Ckt Km and per bay O&M rates considered in the instant petition are based on the 2009 Tariff Regulations. At the time of framing 2009 Tariff Regulations, the petitioner furnished the actual O&M cost, line and Bay details of its transmission system for the 5 year period i.e. 2003-04, 2004-05, 2005-06, 2006-07 and 2007-08, without taking into account expected manpower cost implications on account of wage revision due w.e.f. 1.1.2007. 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.

50 The Commission has given effect to impact of pay revision in the 2009 Tariff Regulations by factoring 50% on account of pay revision of the employees of PSUs after extensive stakeholders consultation. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. However, in case the petitioner approaches with any such application, the same shall be dealt with in accordance with law.

### **Interest on Working Capital**

51. As per the 2009 Tariff Regulations, the components of the working capital and 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 in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months of 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 O & M 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 shall be equal to State Bank of India Base Rate of 8.25% as on 1.4.2011 plus 350 bps (11.75%) for the assets commissioned in 2011-12 and interest rate @ 13.5% (Base rate as on 1.4.2012, i.e 10% and 350 basis points) for the assets commissioned in 2012-13.

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

(₹ in lakh)

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	8.79	9.29	9.82	21.08	22.29	23.57
O & M Expenses	4.88	5.16	5.46	11.71	12.38	13.09
Receivables	28.09	28.89	31.53	370.50	384.77	390.29
Total	41.76	43.34	46.81	403.28	419.45	426.95
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest	<b>2.45</b>	<b>5.09</b>	<b>5.50</b>	<b>3.95</b>	<b>49.28</b>	<b>50.17</b>

(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12	2012-13	2013-14
Maintenance Spares	22.29	23.57	21.08	22.29	23.57
O & M Expenses	12.38	13.09	11.71	12.38	13.09
Receivables	374.36	382.35	389.73	388.81	385.28
Total	409.03	419.00	422.52	423.49	421.93
Rate of Interest	13.50%	13.50%	11.75%	11.75%	11.75%
Interest	<b>55.22</b>	<b>56.57</b>	<b>4.14</b>	<b>49.76</b>	<b>49.58</b>

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
Maintenance Spares	26.00	27.49	39.49	41.75
O & M Expenses	14.45	15.27	21.94	23.19
Receivables	159.79	170.46	232.81	252.02
Total	200.24	213.23	294.24	316.96
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	<b>27.03</b>	<b>28.79</b>	<b>26.48</b>	<b>42.79</b>

(₹ in lakh)

Particulars	Asset-7		Asset-8		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	22.29	23.57	8.78	9.29	9.82
O & M Expenses	12.38	13.09	4.88	5.16	5.46
Receivables	374.36	382.35	39.50	50.28	53.93
Total	409.03	419.00	53.16	64.73	69.20
Rate of Interest	13.50%	13.50%	11.75%	11.75%	11.75%
Interest	<b>55.22</b>	<b>56.57</b>	<b>2.60</b>	<b>7.61</b>	<b>8.13</b>

### Transmission Charges

53. The transmission charges being allowed for the assets are summarized below:-

(₹ in lakh)

Particulars	Asset-1			Asset-2		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	16.38	33.87	38.61	52.63	665.00	691.34
Interest on Loan	19.89	38.80	41.28	63.48	770.43	741.51
Return on Equity	16.27	33.64	38.35	53.48	675.33	701.64
Interest on Working Capital	2.45	5.09	5.50	3.95	49.28	50.17
O & M Expenses	29.29	61.92	65.46	11.71	148.60	157.10
<b>Total</b>	<b>84.28</b>	<b>173.33</b>	<b>189.20</b>	<b>185.25</b>	<b>2308.64</b>	<b>2341.76</b>





(₹ in lakh)

Particulars	Asset-3		Asset-4		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	647.24	677.61	56.24	680.95	691.02
Interest on Loan	749.13	726.64	66.79	775.72	726.08
Return on Equity	645.94	676.17	55.98	677.84	687.87
Interest on Working Capital	55.22	56.57	4.14	49.76	49.58
O & M Expenses	148.60	157.10	11.71	148.60	157.10
<b>Total</b>	<b>2246.14</b>	<b>2294.08</b>	<b>194.86</b>	<b>2332.88</b>	<b>2311.65</b>

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2012-13	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	235.89	259.33	223.09	373.23
Interest on Loan	285.88	291.62	276.79	435.29
Return on Equity	236.56	259.77	229.35	382.45
Interest on Working Capital	27.03	28.79	26.48	42.79
O & M Expenses	173.36	183.28	175.52	278.33
<b>Total</b>	<b>958.72</b>	<b>1022.79</b>	<b>931.23</b>	<b>1512.10</b>

(₹ in lakh)

Particulars	Asset-7		Asset-8		
	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	647.24	677.61	22.35	71.87	78.14
Interest on Loan	749.13	726.64	26.57	84.50	87.70
Return on Equity	645.94	676.17	22.82	75.81	84.14
Interest on Working Capital	55.22	56.57	2.60	7.61	8.13
O & M Expenses	148.60	157.10	24.40	61.92	65.46
<b>Total</b>	<b>2246.14</b>	<b>2294.08</b>	<b>98.74</b>	<b>301.71</b>	<b>323.58</b>

### **Filing Fee and the Publication Expenses**

54. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. UPPCL and BRPL have submitted that the petitioner's prayer for filing fee should be rejected in line with the Commission's order dated 11.9.2008 in Petition No.129/2005. 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**

55. 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. UPPCL has submitted that the petitioner's request for reimbursement for licence fee should be rejected as license fee is the eligibility fee of a licence holder and it is the onus of the petitioner.

56. 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**

57. 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. UPPCL and BRPL have objected to recovery of service tax from the beneficiaries in future as CBEC has exempted service tax on transmission. The petitioner has clarified that if notifications regarding granting of exemption to transmission service are withdrawn at a later date, the beneficiaries shall have to share the service tax paid by the petitioner. We consider the petitioner's prayer pre-mature and accordingly this prayer is rejected.

### **Sharing of Transmission Charges**

58. The billing, collection & disbursement of the transmission charges 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.

59. This order disposes of Petition No. 68/TT/2012.

sd/-

**(Neerja Mathur)**  
**Member (EO)**

sd/-

**(A. K. Singhal)**  
**Member**

sd/-

**(M. Deena Dayalan)**  
**Member**

sd/-

**(Gireesh B. Pradhan)**  
**Chairperson**

**Annexure 1**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 1  
(₹ in lakh)**

	Details of Loan	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond XXXII</b>			
	Gross loan opening	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	50.00	50.00	50.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	4.17
	Net Loan-Closing	50.00	50.00	45.83
	Average Loan	50.00	50.00	47.92
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	4.42	4.42	4.24
	Rep Schedule	12 annual installments from 27.3.2014		
<b>2</b>	<b>Bond XXXIII</b>			
	Gross loan opening	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	50.00	50.00	50.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	50.00	50.00	50.00
	Average Loan	50.00	50.00	50.00
	Rate of Interest	8.640%	8.640%	8.640%
	Interest	4.32	4.32	4.32
	Rep Schedule	12 Equal Annual Installments from 8.7.2014		
<b>3</b>	<b>Bond XXXIV</b>			
	Gross loan opening	55.00	55.00	55.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	55.00	55.00	55.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	55.00	55.00	55.00
	Average Loan	55.00	55.00	55.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	4.86	4.86	4.86
	Rep Schedule	12 Equal Annual Installments from 21.10.2014		
<b>4</b>	<b>Bond XXXV</b>			
	Gross loan opening	283.65	283.65	283.65
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	283.65	283.65	283.65
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	283.65	283.65	283.65
	Average Loan	283.65	283.65	283.65
	Rate of Interest	9.640%	9.64%	9.64%



	Interest	<b>27.34</b>	<b>27.34</b>	27.34
	Rep Schedule	12 Equal Annual Installments from 31.5.2015		
<b>5</b>	<b>Bond XXXVIII (AddCap)</b>			
	Gross loan opening	<b>0.00</b>	<b>5.80</b>	<b>5.80</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	5.80	5.80
	Additions during the year	5.80	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	5.80	5.80	5.80
	Average Loan	2.90	5.80	5.80
	Rate of Interest	9.250%	9.250%	9.250%
	Interest	<b>0.27</b>	<b>0.54</b>	0.54
	Rep Schedule	Bullet payment 9.3.2027		
<b>6</b>	<b>Bond XL (Add Cap)</b>			
	Gross loan opening	0.00	0.00	23.63
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	23.63
	Additions during the year	0.00	23.63	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	23.63	23.63
	Average Loan	0.00	11.82	23.63
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	0.00	1.10	2.20
	Rep Schedule	12 Annual Installments from 28.6.2016		
	<b>Total Loan</b>			
	Gross loan opening	<b>438.65</b>	<b>444.45</b>	<b>468.08</b>
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	438.65	444.45	468.08
	Additions during the year	5.80	23.63	0.00
	Repayment during the year	0.00	0.00	4.17
	Net Loan-Closing	444.45	468.08	463.91
	Average Loan	441.55	456.27	466.00
	Rate of Interest	<b>9.3340%</b>	<b>9.3325%</b>	<b>9.3339%</b>
	<b>Interest</b>	41.21	42.58	43.50

**Annexure 2**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 2**

(₹ in lakh)

	Details of Loan	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond XXXII</b>			
	Gross loan opening	290.00	290.00	290.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	290.00	290.00	290.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	24.17
	Net Loan-Closing	290.00	290.00	265.83
	Average Loan	290.00	290.00	277.92
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	25.64	25.64	24.57
	Rep Schedule	12 annual installments from 27.3.2014		
<b>2</b>	<b>Bond XXX</b>			
	Gross loan opening	1490.00	1490.00	1490.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1490.00	1490.00	1490.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	124.17
	Net Loan-Closing	1490.00	1490.00	1365.83
	Average Loan	1490.00	1490.00	1427.92
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	131.12	131.12	125.66
	Rep Schedule	12 Equal Annual Installments from 29.9.2013		
<b>3</b>	<b>BOND-XXXI</b>			
	Gross loan opening	1240.00	1240.00	1240.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1240.00	1240.00	1240.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	103.33
	Net Loan-Closing	1240.00	1240.00	1136.67
	Average Loan	1240.00	1240.00	1188.33
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	110.36	110.36	105.76
	Rep Schedule	12 Equal Annual Installments from 25.2.2014		
<b>4</b>	<b>Bond XXXIII</b>			
	Gross loan opening	1710.00	1710.00	1710.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1710.00	1710.00	1710.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1710.00	1710.00	1710.00
	Average Loan	1710.00	1710.00	1710.00



	Rate of Interest	8.640%	8.640%	8.640%
	Interest	<b>147.74</b>	<b>147.74</b>	<b>147.74</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014		
<b>5</b>	<b>Bond XXXIV</b>			
	Gross loan opening	<b>1910.00</b>	<b>1910.00</b>	<b>1910.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1910.00	1910.00	1910.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1910.00	1910.00	1910.00
	Average Loan	1910.00	1910.00	1910.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	<b>168.84</b>	<b>168.84</b>	<b>168.84</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014		
<b>6</b>	<b>Bond XXXVI</b>			
	Gross loan opening	<b>453.31</b>	<b>453.31</b>	<b>453.31</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	453.31	453.31	453.31
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	453.31	453.31	453.31
	Average Loan	453.31	453.31	453.31
	Rate of Interest	9.350%	9.35%	9.35%
	Interest	<b>42.38</b>	<b>42.38</b>	<b>42.38</b>
	Rep Schedule	15 Equal Annual Installments from 29.8.2016		
<b>7</b>	<b>Bond XXXV</b>			
	Gross loan opening	<b>230.00</b>	<b>230.00</b>	<b>230.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	230.00	230.00	230.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	230.00	230.00	230.00
	Average Loan	230.00	230.00	230.00
	Rate of Interest	9.640%	9.64%	9.64%
	Interest	<b>22.17</b>	<b>22.17</b>	<b>22.17</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015		
<b>8</b>	<b>Bond XXVIII</b>			
	Gross loan opening	<b>1145.00</b>	<b>1145.00</b>	<b>1145.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>95.42</b>
	Net Loan-Opening	1145.00	1145.00	1049.58
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	95.42	95.42
	Net Loan-Closing	1145.00	1049.58	954.17
	Average Loan	1145.00	1097.29	1001.88
	Rate of Interest	9.330%	9.330%	9.330%
	Interest	<b>106.83</b>	<b>102.38</b>	<b>93.47</b>

	Rep Schedule	12 Equal Annual Installments from 15.12.2012		
<b>9</b>	<b>Bond XL(For AddCap)</b>			
	Gross loan opening	<b>0.00</b>	<b>0.00</b>	<b>301.18</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	0.00	301.18
	Additions during the year	0.00	301.18	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	301.18	301.18
	Average Loan	0.00	150.59	301.18
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	<b>0.00</b>	<b>14.00</b>	28.01
	Rep Schedule	12 annual installments from 28.6.2016		
<b>10</b>	<b>Bond XXXVIII (For AddCap)</b>			
	Gross loan opening	<b>0.00</b>	<b>194.60</b>	<b>194.60</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	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	9.25%	9.25%	9.25%
	Interest	9.00	18.00	18.00
	Rep Schedule	Bullet Payment on 9.3.2027		
	<b>Total Loan</b>			
	Gross loan opening	<b>8468.31</b>	<b>8662.91</b>	<b>8964.09</b>
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	95.42
	Net Loan-Opening	8468.31	8662.91	8868.67
	Additions during the year	194.60	301.18	0.00
	Repayment during the year	0.00	95.42	347.08
	Net Loan-Closing	8662.91	8868.67	8521.59
	Average Loan	8565.61	8765.79	8695.13
	Rate of Interest	<b>8.9204%</b>	<b>8.9284%</b>	<b>8.9316%</b>
	<b>Interest</b>	764.09	782.64	776.62



## Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 3

(₹ in lakh)

	Details of Loan	2012-13	2013-14
<b>1</b>	<b>Bond XXXII</b>		
	Gross loan opening	<b>220.00</b>	<b>220.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	220.00	220.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	18.33
	Net Loan-Closing	220.00	201.67
	Average Loan	220.00	210.83
	Rate of Interest	8.84%	8.84%
	Interest	<b>19.45</b>	<b>18.64</b>
	Rep Schedule	12 annual installments from 27.3.2014	
<b>2</b>	<b>Bond XXX</b>		
	Gross loan opening	<b>1130.00</b>	<b>1130.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1130.00	1130.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	94.17
	Net Loan-Closing	1130.00	1035.83
	Average Loan	1130.00	1082.92
	Rate of Interest	8.80%	8.80%
	Interest	<b>99.44</b>	<b>95.30</b>
	Rep Schedule	12 Equal Annual Installments from 29.9.2013	
<b>3</b>	<b>BOND-XXXI</b>		
	Gross loan opening	<b>940.00</b>	<b>940.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	940.00	940.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	78.33
	Net Loan-Closing	940.00	861.67
	Average Loan	940.00	900.83
	Rate of Interest	8.90%	8.90%
	Interest	<b>83.66</b>	<b>80.17</b>
	Rep Schedule	12 Equal Annual Installments from 25.2.2014	
<b>4</b>	<b>Bond XXXIII</b>		
	Gross loan opening	<b>1290.00</b>	<b>1290.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1290.00	1290.00

	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1290.00	1290.00
	Average Loan	1290.00	1290.00
	Rate of Interest	8.640%	8.640%
	Interest	<b>111.46</b>	<b>111.46</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014	
<b>5</b>	<b>Bond XXXIV</b>		
	Gross loan opening	<b>1440.00</b>	<b>1440.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1440.00	1440.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1440.00	1440.00
	Average Loan	1440.00	1440.00
	Rate of Interest	8.84%	8.84%
	Interest	<b>127.30</b>	<b>127.30</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014	
<b>6</b>	<b>Bond XXXVI</b>		
	Gross loan opening	<b>2175.92</b>	<b>2175.92</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	2175.92	2175.92
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2175.92	2175.92
	Average Loan	2175.92	2175.92
	Rate of Interest	9.350%	9.35%
	Interest	<b>203.45</b>	<b>203.45</b>
	Rep Schedule	15 Equal Annual Installments from 29.8.2016	
<b>7</b>	<b>Bond XXXV</b>		
	Gross loan opening	<b>245.00</b>	<b>245.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	245.00	245.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	245.00	245.00
	Average Loan	245.00	245.00
	Rate of Interest	9.640%	9.64%
	Interest	<b>23.62</b>	<b>23.62</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015	
<b>8</b>	<b>Bond XL(For AddCap)</b>		
	Gross loan opening	<b>0.00</b>	<b>742.04</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>

	Net Loan-Opening	0.00	742.04
	Additions during the year	742.04	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	742.04	742.04
	Average Loan	371.02	742.04
	Rate of Interest	9.30%	9.30%
	Interest	<b>34.50</b>	<b>69.01</b>
	Rep Schedule	12 annual installments from 28.6.2016	
<b>9</b>	<b>Bond XXVIII</b>		
	Gross loan opening	<b>810.00</b>	<b>810.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>67.50</b>
	Net Loan-Opening	810.00	742.50
	Additions during the year	0.00	0.00
	Repayment during the year	67.50	67.50
	Net Loan-Closing	742.50	675.00
	Average Loan	776.25	708.75
	Rate of Interest	9.33%	9.33%
	Interest	72.42	66.13
	Rep Schedule	12 annual installments from 15.12.2012	
	<b>Total Loan</b>		
	Gross loan opening	<b>8250.92</b>	<b>8992.96</b>
	Cumulative Repayment upto DOCO/previous year	0.00	67.50
	Net Loan-Opening	8250.92	8925.46
	Additions during the year	742.04	0.00
	Repayment during the year	67.50	258.33
	Net Loan-Closing	8925.46	8667.13
	Average Loan	8588.19	8796.29
	Rate of Interest	<b>9.0275%</b>	<b>9.0386%</b>
	<b>Interest</b>	775.30	795.06

**Annexure 4**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 4**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXXII</b>			
	Gross loan opening	<b>270.00</b>	<b>270.00</b>	<b>270.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	270.00	270.00	270.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	22.50
	Net Loan-Closing	270.00	270.00	247.50
	Average Loan	270.00	270.00	258.75
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	<b>23.87</b>	<b>23.87</b>	<b>22.87</b>
	Rep Schedule	12 annual installments from 27.3.2014		
<b>2</b>	<b>Bond XXX</b>			
	Gross loan opening	<b>1390.00</b>	<b>1390.00</b>	<b>1390.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1390.00	1390.00	1390.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	115.83
	Net Loan-Closing	1390.00	1390.00	1274.17
	Average Loan	1390.00	1390.00	1332.08
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	<b>122.32</b>	<b>122.32</b>	<b>117.22</b>
	Rep Schedule	12 Equal Annual Installments from 29.9.2013		
<b>3</b>	<b>BOND-XXXI</b>			
	Gross loan opening	<b>1160.00</b>	<b>1160.00</b>	<b>1160.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1160.00	1160.00	1160.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	96.67
	Net Loan-Closing	1160.00	1160.00	1063.33
	Average Loan	1160.00	1160.00	1111.67
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	<b>103.24</b>	<b>103.24</b>	<b>98.94</b>
	Rep Schedule	12 Equal Annual Installments from 25.2.2014		
<b>4</b>	<b>Bond XXXIII</b>			
	Gross loan opening	<b>1590.00</b>	<b>1590.00</b>	<b>1590.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1590.00	1590.00	1590.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1590.00	1590.00	1590.00
	Average Loan	1590.00	1590.00	1590.00

	Rate of Interest	8.640%	8.640%	8.640%
	Interest	<b>137.38</b>	<b>137.38</b>	<b>137.38</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014		
<b>5</b>	<b>Bond XXXIV</b>			
	Gross loan opening	<b>1780.00</b>	<b>1780.00</b>	<b>1780.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1780.00	1780.00	1780.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1780.00	1780.00	1780.00
	Average Loan	1780.00	1780.00	1780.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	<b>157.35</b>	<b>157.35</b>	<b>157.35</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014		
<b>6</b>	<b>Bond XXXVI</b>			
	Gross loan opening	<b>1373.00</b>	<b>1373.00</b>	<b>1373.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1373.00	1373.00	1373.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1373.00	1373.00	1373.00
	Average Loan	1373.00	1373.00	1373.00
	Rate of Interest	9.350%	9.35%	9.35%
	Interest	<b>128.38</b>	<b>128.38</b>	<b>128.38</b>
	Rep Schedule	15 Equal Annual Installments from 29.8.2016		
<b>7</b>	<b>Bond XXXV</b>			
	Gross loan opening	<b>188.00</b>	<b>188.00</b>	<b>188.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	188.00	188.00	188.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	188.00	188.00	188.00
	Average Loan	188.00	188.00	188.00
	Rate of Interest	9.640%	9.64%	9.64%
	Interest	<b>18.12</b>	<b>18.12</b>	<b>18.12</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015		
<b>8</b>	<b>Bond XXVIII</b>			
	Gross loan opening	<b>1070.00</b>	<b>1070.00</b>	<b>1070.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>89.17</b>
	Net Loan-Opening	1070.00	1070.00	980.83
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	89.17	89.17
	Net Loan-Closing	1070.00	980.83	891.67
	Average Loan	1070.00	1025.42	936.25
	Rate of Interest	9.330%	9.330%	9.330%
	Interest	<b>99.83</b>	<b>95.67</b>	<b>87.35</b>

	Rep Schedule	12 Equal Annual Installments from 15.12.2012		
<b>9</b>	<b>Bond XL(For AddCap)</b>			
	Gross loan opening	<b>0.00</b>	<b>0.00</b>	<b>24.61</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	0.00	24.61
	Additions during the year	0.00	24.61	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	24.61	24.61
	Average Loan	0.00	12.31	24.61
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	<b>0.00</b>	<b>1.14</b>	2.29
	Rep Schedule	12 annual installments from 28.6.2016		
<b>10</b>	<b>Bond XXXVIII (For AddCap)</b>			
	Gross loan opening	<b>0.00</b>	<b>136.51</b>	<b>136.51</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	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	9.25%	9.25%	9.25%
	Interest	6.31	12.63	12.63
	Rep Schedule	Bullet Payment on 9.3.2027		
<b>10</b>	<b>Bond XXXVII</b>			
	Gross loan opening	<b>77.85</b>	<b>77.85</b>	<b>77.85</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	77.85	77.85	77.85
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	6.49
	Net Loan-Closing	77.85	77.85	71.36
	Average Loan	77.85	77.85	74.61
	Rate of Interest	9.25%	9.25%	9.25%
	Interest	7.20	7.20	6.90
	Rep Schedule	12 annual installments from 26.12.2015		
	<b>Total Loan</b>			
	Gross loan opening	<b>8898.85</b>	<b>9035.36</b>	<b>9059.97</b>
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	89.17
	Net Loan-Opening	8898.85	9035.36	8970.80
	Additions during the year	136.51	24.61	0.00
	Repayment during the year	0.00	89.17	330.65
	Net Loan-Closing	9035.36	8970.80	8640.15
	Average Loan	8967.11	9003.08	8805.48
	Rate of Interest	<b>8.9661%</b>	<b>8.9669%</b>	<b>8.9652%</b>
	<b>Interest</b>	804.00	807.30	789.43

**Annexure 5**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 5  
(₹ in lakh)**

	<b>Details of Loan</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXXII</b>		
	Gross loan opening	<b>10.00</b>	<b>10.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	10.00	10.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.83
	Net Loan-Closing	10.00	9.17
	Average Loan	10.00	9.58
	Rate of Interest	8.84%	8.84%
	Interest	<b>0.88</b>	<b>0.85</b>
	Rep Schedule	12 annual installments from 27.3.2014	
<b>2</b>	<b>Bond XXX</b>		
	Gross loan opening	<b>50.00</b>	<b>50.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	50.00	50.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	4.17
	Net Loan-Closing	50.00	45.83
	Average Loan	50.00	47.92
	Rate of Interest	8.80%	8.80%
	Interest	<b>4.40</b>	<b>4.22</b>
	Rep Schedule	12 Equal Annual Installments from 29.9.2013	
<b>3</b>	<b>BOND-XXXI</b>		
	Gross loan opening	<b>50.00</b>	<b>50.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	50.00	50.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	4.17
	Net Loan-Closing	50.00	45.83
	Average Loan	50.00	47.92
	Rate of Interest	8.90%	8.90%
	Interest	<b>4.45</b>	<b>4.26</b>
	Rep Schedule	12 Equal Annual Installments from 25.2.2014	
<b>4</b>	<b>Bond XXXIII</b>		
	Gross loan opening	<b>50.00</b>	<b>50.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	50.00	50.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	50.00	50.00

	Average Loan	50.00	50.00
	Rate of Interest	8.640%	8.640%
	Interest	<b>4.32</b>	<b>4.32</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014	
<b>5</b>	<b>Bond XXXIV</b>		
	Gross loan opening	<b>420.00</b>	<b>420.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	420.00	420.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	420.00	420.00
	Average Loan	420.00	420.00
	Rate of Interest	8.84%	8.84%
	Interest	<b>37.13</b>	<b>37.13</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014	
<b>6</b>	<b>Bond XXXVI</b>		
	Gross loan opening	<b>704.18</b>	<b>704.18</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	704.18	704.18
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	704.18	704.18
	Average Loan	704.18	704.18
	Rate of Interest	9.350%	9.35%
	Interest	<b>65.84</b>	<b>65.84</b>
	Rep Schedule	15 Equal Annual Instalments from 29.8.2016	
<b>7</b>	<b>Bond XXXV</b>		
	Gross loan opening	<b>1681.38</b>	<b>1681.38</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1681.38	1681.38
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1681.38	1681.38
	Average Loan	1681.38	1681.38
	Rate of Interest	9.640%	9.64%
	Interest	<b>162.09</b>	<b>162.09</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015	
<b>8</b>	<b>Bond XL(For AddCap)</b>		
	Gross loan opening	<b>0.00</b>	<b>283.91</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	283.91
	Additions during the year	283.91	0.00
	Repayment during the year	0.00	0.00



	Net Loan-Closing	283.91	283.91
	Average Loan	141.96	283.91
	Rate of Interest	9.30%	9.30%
	Interest	<b>13.20</b>	<b>26.40</b>
	Rep Schedule	12 annual installments from 28.6.2016	
<b>9</b>	<b>Bond XXVIII</b>		
	Gross loan opening	<b>50.00</b>	<b>50.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>4.17</b>
	Net Loan-Opening	50.00	45.83
	Additions during the year	0.00	0.00
	Repayment during the year	4.17	4.17
	Net Loan-Closing	45.83	41.67
	Average Loan	47.92	43.75
	Rate of Interest	9.33%	9.33%
	Interest	4.47	4.08
	Rep Schedule	12 annual installments from 15.12.2012	
	<b>Total Loan</b>		
	Gross loan opening	<b>3015.56</b>	<b>3299.47</b>
	Cumulative Repayment upto DOCO/previous year	0.00	4.17
	Net Loan-Opening	3015.56	3295.30
	Additions during the year	283.91	0.00
	Repayment during the year	4.17	13.33
	Net Loan-Closing	3295.30	3281.97
	Average Loan	3155.43	3288.64
	Rate of Interest	<b>9.4054%</b>	<b>9.4017%</b>
	<b>Interest</b>	296.78	309.19

**Annexure 6**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 6**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXXII</b>		
	Gross loan opening	<b>200.00</b>	<b>200.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	16.67
	Net Loan-Closing	200.00	183.33
	Average Loan	200.00	191.67
	Rate of Interest	8.84%	8.84%
	Interest	<b>17.68</b>	<b>16.94</b>
	Rep Schedule	12 annual installments from 27.3.2014	
<b>2</b>	<b>Bond XXX</b>		
	Gross loan opening	<b>300.00</b>	<b>300.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	300.00	300.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	25.00
	Net Loan-Closing	300.00	275.00
	Average Loan	300.00	287.50
	Rate of Interest	8.80%	8.80%
	Interest	<b>26.40</b>	<b>25.30</b>
	Rep Schedule	12 Equal Annual Installments from 29.9.2013	
<b>3</b>	<b>BOND-XXXI</b>		
	Gross loan opening	<b>300.00</b>	<b>300.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	300.00	300.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	25.00
	Net Loan-Closing	300.00	275.00
	Average Loan	300.00	287.50
	Rate of Interest	8.90%	8.90%
	Interest	<b>26.70</b>	<b>25.59</b>
	Rep Schedule	12 Equal Annual Installments from 25.2.2014	
<b>4</b>	<b>Bond XXXIII</b>		
	Gross loan opening	<b>50.00</b>	<b>50.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	50.00	50.00

	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	50.00	50.00
	Average Loan	50.00	50.00
	Rate of Interest	8.640%	8.640%
	Interest	<b>4.32</b>	<b>4.32</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014	
<b>5</b>	<b>Bond XXXIV</b>		
	Gross loan opening	<b>420.00</b>	<b>420.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	420.00	420.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	420.00	420.00
	Average Loan	420.00	420.00
	Rate of Interest	8.84%	8.84%
	Interest	<b>37.13</b>	<b>37.13</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014	
<b>6</b>	<b>Bond XXXVI</b>		
	Gross loan opening	<b>1555.00</b>	<b>1555.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1555.00	1555.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1555.00	1555.00
	Average Loan	1555.00	1555.00
	Rate of Interest	9.350%	9.35%
	Interest	<b>145.39</b>	<b>145.39</b>
	Rep Schedule	15 Equal Annual Installments from 29.8.2016	
<b>7</b>	<b>Bond XXXV</b>		
	Gross loan opening	<b>1030.00</b>	<b>1030.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1030.00	1030.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1030.00	1030.00
	Average Loan	1030.00	1030.00
	Rate of Interest	9.640%	9.64%
	Interest	<b>99.29</b>	<b>99.29</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015	
<b>8</b>	<b>Bond XL</b>		
	Gross loan opening	<b>247.78</b>	<b>826.34</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>

	Net Loan-Opening	247.78	826.34
	Additions during the year	578.56	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	826.34	826.34
	Average Loan	537.06	826.34
	Rate of Interest	9.30%	9.30%
	Interest	<b>49.95</b>	<b>76.85</b>
	Rep Schedule	12 annual installments from 28.6.2016	
<b>9</b>	<b>Bond XXVIII</b>		
	Gross loan opening	<b>200.00</b>	<b>200.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>16.67</b>
	Net Loan-Opening	200.00	183.33
	Additions during the year	0.00	0.00
	Repayment during the year	16.67	16.67
	Net Loan-Closing	183.33	166.67
	Average Loan	191.67	175.00
	Rate of Interest	9.33%	9.33%
	Interest	17.88	16.33
	Rep Schedule	12 annual instalments from 15.12.2012	
	<b>Total Loan</b>		
	Gross loan opening	<b>4302.78</b>	<b>4881.34</b>
	Cumulative Repayment upto DOCO/previous year	0.00	16.67
	Net Loan-Opening	4302.78	4864.67
	Additions during the year	578.56	0.00
	Repayment during the year	16.67	83.33
	Net Loan-Closing	4864.67	4781.34
	Average Loan	4583.73	4823.01
	Rate of Interest	<b>9.2663%</b>	<b>9.2710%</b>
	<b>Interest</b>	424.74	447.14

## Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 7

(₹ in lakh)

	Details of Loan	2012-13	2013-14
<b>1</b>	<b>Bond XXXII</b>		
	Gross loan opening	<b>220.00</b>	<b>220.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	220.00	220.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	18.33
	Net Loan-Closing	220.00	201.67
	Average Loan	220.00	210.83
	Rate of Interest	8.84%	8.84%
	Interest	<b>19.45</b>	<b>18.64</b>
	Rep Schedule	12 annual installments from 27.3.2014	
<b>2</b>	<b>Bond XXX</b>		
	Gross loan opening	<b>1130.00</b>	<b>1130.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1130.00	1130.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	94.17
	Net Loan-Closing	1130.00	1035.83
	Average Loan	1130.00	1082.92
	Rate of Interest	8.80%	8.80%
	Interest	<b>99.44</b>	<b>95.30</b>
	Rep Schedule	12 Equal Annual Installments from 29.9.2013	
<b>3</b>	<b>BOND-XXXI</b>		
	Gross loan opening	<b>940.00</b>	<b>940.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	940.00	940.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	78.33
	Net Loan-Closing	940.00	861.67
	Average Loan	940.00	900.83
	Rate of Interest	8.90%	8.90%
	Interest	<b>83.66</b>	<b>80.17</b>
	Rep Schedule	12 Equal Annual Installments from 25.2.2014	
<b>4</b>	<b>Bond XXXIII</b>		
	Gross loan opening	<b>1290.00</b>	<b>1290.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1290.00	1290.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1290.00	1290.00

	Average Loan	1290.00	1290.00
	Rate of Interest	8.640%	8.640%
	Interest	<b>111.46</b>	<b>111.46</b>
	Rep Schedule	12 Equal Annual Installments from 8.7.2014	
<b>5</b>	<b>Bond XXXIV</b>		
	Gross loan opening	<b>1440.00</b>	<b>1440.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1440.00	1440.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1440.00	1440.00
	Average Loan	1440.00	1440.00
	Rate of Interest	8.84%	8.84%
	Interest	<b>127.30</b>	<b>127.30</b>
	Rep Schedule	12 Equal Annual Installments from 21.10.2014	
<b>6</b>	<b>Bond XXXVI</b>		
	Gross loan opening	<b>2175.92</b>	<b>2175.92</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	2175.92	2175.92
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2175.92	2175.92
	Average Loan	2175.92	2175.92
	Rate of Interest	9.350%	9.35%
	Interest	<b>203.45</b>	<b>203.45</b>
	Rep Schedule	15 Equal Annual Installments from 29.8.2016	
<b>7</b>	<b>Bond XXXV</b>		
	Gross loan opening	<b>245.00</b>	<b>245.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	245.00	245.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	245.00	245.00
	Average Loan	245.00	245.00
	Rate of Interest	9.640%	9.64%
	Interest	<b>23.62</b>	<b>23.62</b>
	Rep Schedule	12 Equal Annual Installments from 31.5.2015	
<b>8</b>	<b>Bond XL(For AddCap)</b>		
	Gross loan opening	<b>0.00</b>	<b>742.04</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	742.04
	Additions during the year	742.04	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	742.04	742.04
	Average Loan	371.02	742.04
	Rate of Interest	9.30%	9.30%
	Interest	<b>34.50</b>	<b>69.01</b>



	Rep Schedule	12 annual installments from 28.6.2016	
<b>9</b>	<b>Bond XXVIII</b>		
	Gross loan opening	<b>810.00</b>	<b>810.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>67.50</b>
	Net Loan-Opening	810.00	742.50
	Additions during the year	0.00	0.00
	Repayment during the year	67.50	67.50
	Net Loan-Closing	742.50	675.00
	Average Loan	776.25	708.75
	Rate of Interest	9.33%	9.33%
	Interest	72.42	66.13
	Rep Schedule	12 annual installments from 15.12.2012	
	<b>Total Loan</b>		
	Gross loan opening	<b>8250.92</b>	<b>8992.96</b>
	Cumulative Repayment upto DOCO/previous year	0.00	67.50
	Net Loan-Opening	8250.92	8925.46
	Additions during the year	742.04	0.00
	Repayment during the year	67.50	258.33
	Net Loan-Closing	8925.46	8667.13
	Average Loan	8588.19	8796.29
	Rate of Interest	<b>9.0275%</b>	<b>9.0386%</b>
	<b>Interest</b>	775.30	795.06

**Annexure 8**

**Calculation of Weighted Average Rate of Interest on Actual Loans for Asset 8**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXXIII</b>			
	Gross loan opening	72.00	72.00	72.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	72.00	72.00	72.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	72.00	72.00	72.00
	Average Loan	72.00	72.00	72.00
	Rate of Interest	8.640%	8.640%	8.640%
	Interest	6.22	6.22	6.22
	Rep Schedule	12 Equal Annual Installments from 8.7.2014		
<b>2</b>	<b>Bond XXXIV</b>			
	Gross loan opening	457.00	457.00	457.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	457.00	457.00	457.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	457.00	457.00	457.00
	Average Loan	457.00	457.00	457.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	40.40	40.40	40.40
	Rep Schedule	12 Equal Annual Installments from 21.10.2014		
<b>3</b>	<b>Bond XXXV</b>			
	Gross loan opening	32.13	32.13	32.13
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	32.13	32.13	32.13
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	32.13	32.13	32.13
	Average Loan	32.13	32.13	32.13
	Rate of Interest	9.640%	9.64%	9.64%
	Interest	3.10	3.10	3.10
	Rep Schedule	12 Equal Annual Installments from 31.5.2015		
	<b>Total Loan</b>			
	Gross loan opening	561.13	561.13	561.13
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	561.13	561.13	561.13
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	561.13	561.13	561.13
	Average Loan	561.13	561.13	561.13
	Rate of Interest	8.8601%	8.8601%	8.8601%
	<b>Interest</b>	49.72	49.72	49.72

