

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 79/TT/2012**

**Coram:**

**Shri V.S. Verma, Member  
Shri M. Deena Dayalan, Member**

**Date of Hearing: 30.07.2013**

**Date of Order : 31.01.2014**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for determination of Transmission Tariff for 400 kV Gurgaon-Manesar (Quad) line along with associated bays (anticipated date of commercial operation: 1.5.2012) and 500 MVA 400/220 kV ICT-I & II at Manesar along with associated bays (anticipated date of commercial operation: 1.4.2012) associated with Northern Region System Strengthening- XIII (NRSS-XIII) of Northern Region, for tariff block 2009-14 period in Northern Region.

**And in the matter of**

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

**Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg, Jaipur-302005
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-171004.
  6. Punjab State Electricity Board,  
The Mall, Patiala-147001
  7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6, Panchkula (Haryana)-134109.
  8. Power Development Department,  
Govt. of Jammu & Kashmir, Mini Secretariat, Jammu
  9. Uttar Pradesh Power Corporation Limited,  
Shakti Bhawan, 14, Ashok Marg, Lucknow-226001.
  10. Delhi Transco Limited,  
Shakti Sadan, Kotla Road, New Delhi-110002.
  11. BSES Yamuna Power Limited,  
BSES Bhawan, Nehru Place, New Delhi.
  12. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place, New Delhi
  13. North Delhi Power Limited,  
Power Trading & Load Dispatch Group,  
CENNET Building, Adjacent to 66/11 kV Pitampura-3 GRID Building,  
Near PP Jewelers, Pitampura, New Delhi-110034.
  14. Chandigarh Administration,  
Sector-9, Chandigarh.
  15. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kasnwali Road, Dehradun.
  16. North Central Railway, Allahabad.
  17. New Delhi Municipal Council, Palika Kendra,  
Sansad Marg, New Delhi-110001.
- .....Respondents**

For petitioner :-

Shri S.S. Raju ,PGCIL  
Shri U.K. Tyagi, PGCIL  
Shri M.M. Mondal ,PGCIL



For respondents :-

Shri Padamjit Singh, PSPCL

### **ORDER**

The petition has been filed by Power Grid Corporation of India Limited for determination of transmission charges in respect of 400 kV Gurgaon-Manesar (Quad) transmission line along with associated bays (**Asset-I**), 500 MVA 400/220 kV ICT-I (**Asset-II A**) and 500 MVA 400/220 kV ICT-II at Manesar along with associated bays (**Asset-II B**), collectively referred to as "the assets", forming part of the Northern Region System Strengthening- XIII (**the Scheme**), for the period from the date of commercial operation of the respective asset to 31.3.2014 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The investment approval for the Scheme was accorded by the Board of Directors of the petitioner company vide letter dated 16.2.2009 for ₹31769 lakh, including Interest During Construction (IDC) of ₹2432 lakh based on 4<sup>th</sup> Quarter, 2008 price level. The scope of works covered under the Scheme *inter alia* includes:-

#### **Transmission Line**

Gurgaon (POWERGRID)- Manesar 400 kV (Quad) line

#### **Sub-station**

Manesar 400/220 kV (POWERGRID) GIS sub-station (New) – 2x500 MVA,  
400/220 kV Transformers



## Reactive Compensation

1. Delinking of Agra-Samaypur and Samaypur-Gurgaon 400 kV transmission lines from Samaypur and making a direct 400 kV S/C transmission line from Agra to Gurgaon,
  2. 125 MVAR Bus Reactor at Manesar,
  3. 50 MVAR Switchable Line Reactor at Agra, and
  4. 50 MVAR Switchable Line Reactor at Ballabgarh end of Agra-Ballabgarh line to be made switchable bus reactor on the vacated bay.
3. The details regarding line length and bays of the assets covered in the petition are as under:-

Particulars	Line Length (Kms)	No. of bays
Asset-I	16.9	4 (400 kV)
Asset-II A	-	6 (1 No. 400 kV + 5 Nos. 220 kV)
Asset-II B	-	6 (1 No. 400 kV + 5 Nos. 220 kV)

4. The scheduled, initial anticipated and actual dates of commercial operation of the respective asset are indicated hereunder:-

Asset	Scheduled date of commercial operation	Anticipated date of commercial operation	Actual date of commercial operation
Asset-I	1.12.2011	1.5.2012	1.9.2012
Asset-II A	1.12.2011	1.4.2012	1.6.2012
Asset-II B	1.12.2011	1.4.2012	1.8.2012

5. The transmission charges claimed by the petitioner from the actual date of commercial operation of the respective asset are given overleaf:-

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Depreciation	237.19	472.46	212.18	264.54	171.77	267.34
Interest on Loan	288.65	542.23	283.82	333.63	229.89	339.27
Return on Equity	242.06	480.37	235.86	295.27	190.82	298.16
Interest on Working Capital	26.26	49.97	29.67	36.84	23.90	37.10
O & M Expenses	155.43	281.68	232.18	294.56	185.75	294.56
<b>Total</b>	<b>949.59</b>	<b>1826.71</b>	<b>993.71</b>	<b>1224.84</b>	<b>802.13</b>	<b>1236.43</b>

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

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	39.97	42.25	41.79	44.18	41.79	44.18
O & M Expenses	22.20	23.47	23.22	24.55	23.22	24.55
Receivables	271.31	304.45	198.74	204.14	200.53	206.07
<b>Total</b>	<b>333.48</b>	<b>370.17</b>	<b>263.75</b>	<b>272.87</b>	<b>265.54</b>	<b>274.80</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	<b>26.26</b>	<b>49.97</b>	<b>29.67</b>	<b>36.84</b>	<b>23.90</b>	<b>37.10</b>

7. 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. The replies to the petition have been filed by Ajmer Vidyut Nigam Ltd Jaipur Vidyut Vitran Nigam Ltd, Jodhpur Vidyut Nigam Ltd and Ajmer Vidyut Nigam Ltd in vide affidavit dated 3.5.2012. The petitioner has submitted the rejoinder to the reply of AVVNL, JVVNL and Jd.VVNL in vide affidavit dated 24.7.2013

8. We have heard the representatives of the parties present at the hearing and have perused the material available 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**

9. 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.”

10. The details of FR cost, capital cost as on the date of commercial operation and estimated additional capital expenditure projected to be incurred for the asset covered in the instant petition are as follows:-

(₹ in lakh)

Particulars	Apportioned approved cost	Actual cost on date of commercial operation	Projected additional capital expenditure		Estimated completion cost
			2012-13	2013-14	
Asset-I	9567.08	6665.57	2494.37	0.00	9159.94
Asset-II A	8421.30	5163.72	466.65	0.00	5630.37
Asset-II B	8421.30	5230.77	454.63	0.00	5685.39
<b>Total</b>	<b>26409.68</b>	<b>17060.06</b>	<b>3415.65</b>	<b>0.00</b>	<b>20475.70</b>

### Cost over-run

11. There is no cost over-run in case of the assets covered in the instant petition. However, there is significant increase in cost of certain items, preliminary investigation, RoW, forest clearance, PTCC, general civil works (555.15%), Tower Steel (35.48%), insulators (30.66%), hardware fittings (122%), conductor & earth wire accessories 245.65%), erection stringing & civil works including foundations (94%). The petitioner has submitted that the cost overrun in case of preliminary investigation, RoW, forest clearance, PTCC, general civil works" is due to actual cost, based on demands raised by the statutory authority, exceeding the FR estimate. The petitioner has submitted that though there is no variation in the line length. However, the material used for the transmission line like Tower Steel, insulators, hardware fittings, conductor & earth wire accessories, erection stringing & civil works including foundations increased significantly as the normal towers (A-15, B-9, C-6 type: total 30 nos.) were replaced by Heavy type (D type–23 nos.) towers as the line passes through highly congested corridor of Gurgaon and Manesar. Similarly, the erection cost of D type tower increased which requires extra civil works including foundation.

12. As regards the reduction in actual cost by 35% in case of Asset-II, the petitioner has submitted that the estimates are prepared by the petitioner as per well-defined procedures for cost estimate. The cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts. For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders are lower as compared to the cost estimate depending upon prevailing market conditions. Further, it is submitted that the cost estimate is on the basis of 4<sup>th</sup> Quarter, 2008 price level, where the contract date is 2<sup>nd</sup> Quarter 2009 price level.

13. During the hearing on 30.7.2013, the representative of PSPCL submitted that the transmission lines must be commissioned first and then the ICTs as the ICTs cannot be utilised without the lines. In the instant case, the petitioner has commissioned the ICTs before the commissioning of 400 kV D/C Gurgao-Manesar line. The petitioner being the CTU should have coordinated with the State transmission utilities. The petitioner is commissioning GIS sub-stations all across the country and as such it should standardize the spares for the GIS Sub-stations and maintain a pool of spares, instead of claiming higher percentage of initial spares in every case. Higher initial spares should not be allowed in this case. The representative of the PSPCL further submitted that there is huge over-estimation of the cost by the petitioner at the time of filing the petition. As a result of this over-estimation, overall completion cost is within the apportioned approved cost in spite of time over-run.

14. In response, the petitioner has submitted that the Gurgaon-Manesar line was commissioned on 1.9.2012, whereas the Manesar-Neemrana line covered in Petition No. 69/TT/2012 was commissioned on 1.6.2012. The ICT-I at Manesar was commissioned to match the commissioning of Manesar-Neemrana line and there was no lack of co-ordination with State Transmission Utilities. As regard standardization of GIS spares, the petitioner submitted that the GIS sub-stations are modular and designed with respect to the location of the installation, available space in area of installation etc. and hence the spares cannot be standardized.

15. We have considered the submissions of the petitioner and the respondents regarding the cost of the project. The justification submitted by the petitioner for cost variation in respect of some of the items is found to be satisfactory and hence the cost variation is allowed. However, the completion cost is lower than the estimated cost inspite of time over-run. The cost estimates submitted by the petitioner are not realistic not only in this petition but also in other similar petitions. In our view, the petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic.

### **Time over-run**

16. The Asset-I, II A and II B were put into commercial operation after a delay of 9, 6 and 8 months respectively. AVVNL, JVVNL and Jd.VVNL, have submitted that the reasons given for the time over-run are not satisfactory and hence the IDC for the delay period should not be allowed while determining the tariff.

17. The petitioner, vide its affidavit dated 8.11.2012, has submitted the following reasons for the time over-run:-

a. As regards Asset-I, the petitioner submitted that the proposal for forest clearance was submitted to the Deputy Conservator of Forests, Gurgaon on 21.6.2010 which was approved on 29.6.2012. On account of delay in forest clearance, the commissioning of the assets got delayed by 6 months.

b. The construction work (foundation, erection & stringing activity) of Asset-I was held up for six months on account of stiff resistance by the land owners of Sakatpur village and stoppage of work by Sarpanch of Baad Gujjar Village, for which construction work of Asset-I suffered at Tapping Point to Loc. No. 6/0: 7 locations, Loc. No. 5/0: 1 location and Loc. No. 12/0 to 17/0: 7 locations.

c. The construction activity of entire transmission line was stayed by Punjab & Haryana High Court on 11.11.2011 and the stay was vacated on 18.1.2012.

d. Proactive steps were taken to solve the various issues, because of which the delay in commissioning of Asset-I was reduced to nine months.

e. As regards the delay in case of Asset-II A and Asset-II B, due to litigation issues, land acquisition of Manesar sub-station got delayed and finally possession of land was taken on 23.8.2010. Because of the delay in possession of land, 13 working months were lost in starting the construction activity, causing overall delay of 8 months.

18. During hearing on 30.7.2013 the representative of the petitioner submitted that Manesar-Neemrana transmission line covered in Petition No. 69/TT/2012 was commissioned on 1.6.2012 and Asset –II A (ICT-1 : 500 MVA 400/200 kV) was commissioned to match with the commissioning of Manesar-Neemrana transmission line.

19. We have considered the reasons for delay explained by the petitioner. The 400 kV Gurgaon-Manesar transmission line, Asset-I, passes through the forest land required forest clearance from the authorities before undertaking the construction work. The petitioner approached the concerned authorities on 21.6.2010 and the forest clearance was accorded on 29.6.2012. The petitioner could not start construction of the transmission line for 24 months. Further, the construction work on the transmission line was held up due to resistance by the land owners. The petitioner repeatedly approached the local administration for deployment of Police personnel to complete the transmission line. In the meanwhile, there was stay by the High Court on construction. We are of the view that the delay in commissioning of Asset-I is found to be for reasons beyond the control of the petitioner and thus the total delay of nine months is condoned.

20. As regards the delay in commissioning of Asset –II A & B, the petitioner has submitted in general terms that the commissioning was delayed because of delay in handing over of land at Manesar sub-station. The petitioner, however, did not furnish any specific details for the delay. The petitioner was asked to furnish the details of reasons and justification for delay supported by documentary evidence. The petitioner, vide its response dated 9.11.2012, submitted that due to litigation issues, land acquisition of Manesar Sub-station

got delayed and finally possession of land was taken on 23.8.2010. The petitioner placed on record the copies of the letter dated 10.9.2010 from Collector Gurgaon, that land has been handed over on 23.8.2010 and the letter addressed to M/s Siemens informing of the petitioner having taken possession of land on 23.8.2010. The petitioner has not explained the date on which it made application for acquisition of land. From the letters produced it does not follow that litigation or dispute claimed by the petitioner resulted in delay in transfer of land. The documents filed by the petitioner do not clearly indicate the critical activities. The onus for explaining the delay is on the petitioner. The petitioner was directed to file the PERT chart indicating the critical activities and the delay. The petitioner has ignored to file the PERT chart, instead filed the L2 network. The L2 network filed by the petitioner does not clearly indicate the critical activities. As per L2 network diagram, the land was to be handed over by the petitioner within a month of order for civil construction i.e. by 27.8.2009. The petitioner claims that he was given possession of land on 10.9.2010 and the delay was mainly on account of litigation and disputes of land. However, the petitioner has not given any proof of dispute/litigation and his efforts to obtain land as per his plan i.e. when did he apply for land and what efforts made by him for obtaining the land. We are not satisfied with the reasons for delay furnished by the petitioner in commissioning of Asset-II A and Asset-II B. It is, however, noted that the petitioner during the hearing submitted that as Neemrana- Manesar transmission line was not available, it was not possible to charge ICT-I whose commercial operation coincided with the commercial operation of Neemrana- Manesar transmission line. It is noted from the petitioner's submission in Petition No.

69/TT/2012 that Neemrana- Manesar transmission line was also delayed by six months. The issue of condonation of delay in that case is not yet heard and decided. Therefore, in these proceedings it is not possible to take a view on the late commissioning of this line. Accordingly, the delay in commissioning of Asset-II A and Asset-II B is not being condoned. In case delay in commissioning of Neemrana-Manesar transmission line (in Petition No. 69/TT/2012) is condoned, the petitioner is at liberty to approach the Commission for review.

21. Accordingly, IDC and IEDC for the delayed period in respect of Asset-II A and Asset-II B have been disallowed and adjusted against the capital cost as on the date of commercial operation for the purpose of determination of transmission tariff. Details of the disallowed IDC and IEDC are as follows:-

#### Asset-II A

(₹ in lakh)

Details of IDC and IEDC as per Management Certificate dated 2.7.2012		
	IEDC	IDC
Up to March 2011	0.41	1.42
April 2011 to March 2012	61.68	177.49
April 2012 to May 2012	5.33	15.33
<b>Total IDC and IEDC Claimed</b>	<b>67.42</b>	<b>194.24</b>
Details of IDC and IEDC for disallowed delay period		
For December 2011 to March 2012 (4 months)*	20.56	59.16
From April 2012 to May 2012 (2 months)	5.33	15.33
<b>Total Disallowed IDC and IEDC ( for Six months)</b>	<b>25.89</b>	<b>74.49</b>

\*IDC & IEDC for April 2012 to May 2012 i.e. 2 months have been taken directly from the management certificate dated 2.7.2012 and IDC & IEDC for the remaining period i.e. 4 months has been computed on pro rata basis from the IDC and IEDC of FY 2011-12.

#### Asset-II B

(₹ in lakh)

Details of IDC and IEDC as per Management Certificate dated 25.9.2012		
	IEDC	IDC
Upto March 2012	62.09	178.91
April 2012 to July 2012	3.34	72.35
<b>Total IDC and IEDC Claimed</b>	<b>65.43</b>	<b>251.26</b>
Details of IDC and IEDC for disallowed delay period		
For December 2011 to March 2012 (4 months)*	6.71	19.34
From April 2012 to July 2012 (4 months)	3.34	72.35
<b>Total Disallowed IDC and IEDC ( for eight months)</b>	<b>10.05</b>	<b>91.69</b>

\*IDC & IEDC for April 2012 to July 2012 i.e. 4 months have been taken directly from the management certificate dated 25.9.2012 and IDC & IEDC for the remaining period i.e. 4 months has been computed on pro rata basis from the IDC and IEDC up to March 2012.

### Treatment of Initial Spares

22. The actual cost on the date of commercial operation claimed by the petitioner is inclusive of the cost of initial spares for sub-station as under:-

(₹ In lakh)	
Particulars	Initial spares capitalised
<b>Asset-I</b>	437.36
<b>Asset-II A</b>	220.71
<b>Asset-II B</b>	220.71

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

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

(iv) Transmission system

(a) Transmission line - 0.75%

(b) Transmission Sub-station - 2.5%

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

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

24. AVVNL, JVVNL and Jd.VVNL, vide their affidavits dated 7.5.2012 have submitted that the request of the petitioner for higher initial spares should not be considered and they should be allowed as per the norms specified in the 2009 Tariff Regulations. The petitioner has clarified that GIS Sub-station is a compact, operating a GIS substation without adequate spares shall render the system un-

reliable and may call for long outages. In view of the special circumstances the initial spares as procured in the current project may be allowed in full.

25. The initial spares claimed in the present petition exceed ceiling limits specified under Regulation 8 of the 2009 Tariff Regulations as shown hereunder. We do not see any reason to relax the norms specified in the 2009 Tariff Regulations and accordingly the petitioner's prayer for allowing higher initial spares is rejected. The details of the initial spares, IDC and IEDC allowed and disallowed as under:-

(₹ in lakh)			
Particulars	Asset-I	Asset-II A	Asset-II B
Cost as on Cut-off date <b>(A)</b>	3993.48	5630.37	5685.39
Disallowed IDC & IEDC <b>(B)</b>	0.00	100.38	101.74
Capital cost after deducting IDC and IEDC <b>(C)= (A)-(B)</b>	3993.48	5529.99	5583.65
Initial spares claimed <b>(D)</b>	437.36	220.71	220.71
Proportionate Initial spares claimed <b>(E)= (D)*(C)/(A)</b>	437.36	216.77	216.76
Ceiling Limits as per clause 8 the 2009 Tariff Regulations <b>(F)</b>	3.50%		
Initial Spares worked out <b>(G)=[{(D)-(E)}*(F)/{(100%-(F))}]</b>	128.98	192.71	194.65
Excess Initial Spares Claimed <b>(H)=(G)-(E)</b>	308.38	24.07	22.11

### **Projected additional capital expenditure**

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

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

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;

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

27. 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”.

28. After taking in to account the dates of commercial operation of the assets, cut-off date arrived at is 31.3.2015.

29. The petitioner has claimed the following projected additional capital expenditure:-

Particulars	(₹ in lakh)		
	Asset-I	Asset-II A	Asset-II B
	2012-13	2012-13	2012-13
Building & Other Civil Works	0.00	246.55	238.83
Transmission Line	1892.82	0.00	0.00
Sub-Station Equipments	601.55	220.10	215.80
PLCC	0.00	0.00	0.00
<b>Total</b>	<b>2494.37</b>	<b>466.65</b>	<b>454.63</b>

30. AVVNL, JVVNL and Jd.VVNL, have submitted that the details of additional capitalization is indicated towards balance & retention payment. The petitioner should confirm that all works included in the project scope have completed and the completion cost would be within the cost indicated.

31. The projected additional capital expenditure during 2012-13 and 2013-14 claimed by the petitioner falls within the cut-off date and is mainly on account of

balance and retention pavements. Hence, the same has been considered for the purpose of tariff determination under Regulations 9(1) of the 2009 Tariff Regulations.

### **Gross Block**

32. Based on the above, gross block as given below has been considered for the purpose of computation of the transmission charges for the assets, after allowing projected additional capital expenditure claimed, and disallowing excess initial spares and IDC & IEDC for the period of delay in case of Asset-II A and Asset-II B within the apportioned approved cost: -

	(₹ in lakh)		
Particular	Asset-I	Asset-II A	Asset-II B
Capital Cost claimed as on DOCO	6665.57	5163.72	5230.76
<b>Less:</b> Excess Initial Spares	308.38	24.07	22.11
<b>Less:</b> Disallowed IDC & IEDC	0.00	100.38	101.74
Capital cost	<b>6357.19</b>	<b>5039.27</b>	<b>5106.91</b>

### **Debt- equity ratio**

33. 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.”

34. Details of debt-equity in respect of the assets as on dates of commercial operation are as follows:-

(₹ in lakh)

<b>Asset-I</b>		
Particulars	Amount	%
Debt	4450.03	70.00
Equity	1907.16	30.00
Total	6357.19	100.00
<b>Asset-II A</b>		
Debt	3527.49	70.00
Equity	1511.78	30.00
Total	5039.27	100.00
<b>Asset-II B</b>		
Debt	3574.84	70.00
Equity	1532.07	30.00
Total	5106.91	100.00

35. Details of debt-equity in respect of the assets as on 31.3.2014 are as follows:-

(₹ in lakh)

<b>Asset-I</b>		
Particulars	Amount	%
Debt	6196.09	70.00
Equity	2655.47	30.00
Total	8851.56	100.00
<b>Asset-II A</b>		
Debt	3854.14	70.00
Equity	1651.78	30.00
Total	5505.92	100.00
<b>Asset-II B</b>		
Debt	3893.08	70.00
Equity	1668.46	30.00
Total	5561.54	100.00

36. The debt-equity ratio for projected additional capital expenditure considered is as follows:-

(₹ in lakh)

<b>Asset-I</b>	<b>2012-13</b>	
Particulars	Amount	%
	Normative	
Debt	1746.06	70.00
Equity	748.31	30.00
Total	2494.37	100.00
<b>Asset-II A</b>	<b>2012-13</b>	
	Amount	%
	Normative	
Debt	326.66	70.00
Equity	140.00	30.00
Total	466.65	100.00
<b>Asset-II B</b>	<b>2012-13</b>	
	Amount	%
	Normative	
Debt	318.24	70.00
Equity	136.39	30.00
Total	454.63	100.00

### **Return on equity**

37. 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".

38. The petitioner has claimed RoE at the rate of 15.5% in accordance with clause (2) of Regulation 15 of the 2009 Tariff Regulations, which has been allowed for the years 2012-2013 and 2013-2014 and the details are as follows:-

(₹ in lakh)

Particulars	Asset-I		Asset-II A		Asset-II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Opening Equity	1907.16	2655.47	1511.78	1651.78	1532.07	1668.46
Addition due to Additional Capitalisation	748.31	0.00	140.00	0.00	136.39	0.00
Closing Equity	2655.47	2655.47	1651.78	1651.78	1668.46	1668.46
Average Equity	2281.31	2655.47	1581.78	1651.78	1600.27	1668.46
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</b>	<b>232.63</b>	<b>464.20</b>	<b>230.43</b>	<b>288.75</b>	<b>186.50</b>	<b>291.66</b>

## **Interest on loan**

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

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

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

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

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

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

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

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

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

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

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

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

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

40. In keeping with the provisions of Regulation 16, 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) 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.

41. Detailed calculations in support of the weighted average rates of interest are given in Annexure I (Asset-I) and Annexure II (Asset –I A and Asset-II B).

42. Based on the above, interest on loan has been calculated are given hereunder: -

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	4450.03	6196.09	3527.49	3854.14	3574.84	3893.08
Cumulative Repayment upto previous year	0.00	227.69	0.00	206.80	0.00	167.49
Net Loan-Opening	4450.03	5968.40	3527.49	3647.35	3574.84	3725.59
Addition due to additional capital expenditure	1746.06	0.00	326.66	0.00	318.24	0.00
Repayment during the year	227.69	456.18	206.80	258.08	167.49	260.92
Net Loan-Closing	5968.40	5512.22	3647.35	3389.26	3725.59	3464.67
Average Loan	5209.22	5740.31	3587.42	3518.30	3650.21	3595.13
Weighted Average Rate of Interest on Loan	9.1064%	9.1079%	9.2751 %	9.2753%	9.2310 %	9.2312%
Interest	<b>276.72</b>	<b>522.82</b>	<b>277.28</b>	<b>326.33</b>	<b>224.63</b>	<b>331.87</b>



## Depreciation

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

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

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

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

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

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

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

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

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

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

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

45. Asset-I was put under commercial operation on 1.9.2012 and Asset-II A and Asset-II B on 1.6.2012 and 1.8.2012 respectively. Accordingly, both the

assets will complete 12 years beyond 2013-14 and hence depreciation has been calculated annually based on Straight Line Method at the rate of depreciation specified in Appendix-III to the 2009 Tariff Regulations for sub-station, as per details given hereunder:-

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	6357.19	8851.56	5039.27	5505.92	5106.91	5561.54
Addition due to Projected Additional Capitalisation	2494.37	0.00	466.65	0.00	454.63	0.00
Closing Gross Block	8851.56	8851.56	5505.92	5505.92	5561.54	5561.54
Average Gross Block	<b>7604.37</b>	<b>8851.56</b>	<b>5272.59</b>	<b>5505.92</b>	<b>5334.22</b>	<b>5561.54</b>
Rate of Depreciation	5.1329%	5.1536%	4.7065%	4.6874%	4.7098%	4.6915%
Depreciable Value	6716.33	7838.80	4362.53	4572.52	4418.00	4622.58
Remaining Depreciable Value	6716.33	7611.11	4362.53	4365.72	4418.00	4455.09
Depreciation	<b>227.69</b>	<b>456.18</b>	<b>206.80</b>	<b>258.08</b>	<b>167.49</b>	<b>260.92</b>
Cumulative Depreciation	227.69	683.87	206.80	464.88	167.49	428.41

#### **Operation & maintenance expenses**

46. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes the norms for operation and maintenance expenses for 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 follows:-

Element	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C quad conductor T/L (₹ lakh/ km)	0.940	0.994	1.051	1.111	1.174
400 kV bay (₹ lakh/ bay)	52.40	55.40	58.57	61.92	65.46
220 kV bay (₹ lakh/ bay)	36.68	38.78	41.00	43.34	45.82

47. The allowable O&M expenses for the assets are as follows:-

(₹ in lakh)

Element	2012-13	2013-14
<b>Asset-I</b>		
16.9 km, 400 kV D/C quad conductor transmission line	10.95	19.84
4 Nos. 400 kV bay	144.48	261.84
<b>Total</b>	<b>155.43</b>	<b>281.68</b>
<b>Asset-II A</b>		
1 No. 400 kV bay	51.60	65.46
5 Nos. 220 kV bays	180.58	229.10
<b>Total</b>	<b>232.18</b>	<b>294.56</b>
<b>Asset-II B</b>		
1 No. 400 kV bay	41.28	65.46
5 Nos. 220 kV bays	144.47	229.10
<b>Total</b>	<b>185.75</b>	<b>294.56</b>

48. AVVNL, JVVNL and JDVVNL, have submitted that higher O&M charges than specified in 2009 Tariff Regulations should not be considered.

49. The petitioner has stated that O&M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O&M expenses of the petitioner during the year 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 charges for tariff period 2009-14. The petitioner has submitted that it reserved the right to approach the Commission for suitable revision in the norms for O&M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%.

50. While specifying the norms for Operation and Maintenance Expenses, the Commission has in the 2009 Tariff Regulations already factored 50% on account of pay revision of the employees of PSUs after extensive consultation with the stakeholders. At this stage there does not seem to be any justification for

deviating from the norms. However, in case the petitioner separately approaches the Commission by making an appropriate application, the same shall be dealt with in accordance with law.

### **Interest on working capital**

51. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder.

#### **(i) Receivables**

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

#### **(ii) Maintenance spares**

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

#### **(iii) O & M expenses**

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the

working capital. The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

**(iv) Rate of interest on working capital**

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate of 8.25% plus 350 bps as on 1.4.2012 (13.50%). The interest on working capital for the assets covered in the petition has been worked out accordingly.

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

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	39.97	42.25	41.79	44.18	41.79	44.18
O & M Expenses	22.20	23.47	23.22	24.55	23.22	24.55
Receivables	262.29	295.61	195.19	200.68	196.99	202.61
Total	324.46	361.34	260.20	269.41	262.00	271.34
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	<b>25.55</b>	<b>48.78</b>	<b>29.27</b>	<b>36.37</b>	<b>23.58</b>	<b>36.63</b>

**Transmission charges**

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

(₹ in lakh)

Particulars	Asset - I		Asset - II A		Asset - II B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Depreciation	227.69	456.18	206.80	258.08	167.49	260.92
Interest on Loan	276.72	522.82	277.28	326.33	224.63	331.87
Return on Equity	232.63	464.20	230.43	288.75	186.50	291.66
Interest on Working Capital	25.55	48.78	29.27	36.37	23.58	36.63
O & M Expenses	155.43	281.68	232.18	294.56	185.75	294.56
Total	<b>918.02</b>	<b>1773.66</b>	<b>975.95</b>	<b>1204.10</b>	<b>787.95</b>	<b>1215.65</b>

54. The transmission charges allowed for the year 2012-13 are on proportionate basis.

55. The transmission charges allowed are subject to truing up in accordance with the 2009 Tariff Regulations.

#### **Filing Fee, Licence Fee and Publication Expenses**

56. The petitioner has sought reimbursement of fee paid by it for filing the petition, licence fee and also the publication expenses. The petitioner shall be entitled for reimbursement of fee and licence fee directly from the beneficiaries in accordance with Regulation 42A of the 2009 Tariff Regulations. Similarly, the petitioner shall also be entitled to recover the publication expenses incurred in connection with the present petition. The reimbursement of filing fee, licence fee and the publication expenses shall be on *pro rata* basis in the same ratio as the transmission charges.

### **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. We consider petitioner's prayer premature and accordingly this prayer is rejected.

### **Sharing of Transmission Charges**

58. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of inter-state transmission charges and losses) Regulations, 2010, as amended from time to time.

59. This order disposes of Petition No. 79/TT/2012.

sd/-

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

sd/-

**(V.S. Verma)**  
**Member**

## Calculation of Weighted Average Rate of Interest (Asset –I)

(₹ in lakh)

Details of Loan	2012-13	2013-14
<b>Bond XXXI</b>		
Gross loan opening	<b>744.00</b>	<b>744.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	744.00	744.00
Additions during the year	0.00	0.00
Repayment during the year	0.00	62.00
Net Loan-Closing	744.00	682.00
Average Loan	744.00	713.00
Rate of Interest	8.90%	8.90%
Interest	<b>66.22</b>	<b>63.46</b>
Rep Schedule	12 annual installments from 25.2.2014	
<b>Bond XXXIII</b>		
Gross loan opening	<b>61.00</b>	<b>61.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	61.00	61.00
Additions during the year	0.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	61.00	61.00
Average Loan	61.00	61.00
Rate of Interest	8.64%	8.64%
Interest	<b>5.27</b>	<b>5.27</b>
Rep Schedule	12 Equal Annual Installments from 8.7.2014	
<b>BOND-XXXIV</b>		
Gross loan opening	<b>1282.00</b>	<b>1282.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	1282.00	1282.00
Additions during the year	0.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	1282.00	1282.00
Average Loan	1282.00	1282.00
Rate of Interest	8.84%	8.84%
Interest	<b>113.33</b>	<b>113.33</b>
Rep Schedule	12 Equal Annual Installments from 21.10.2014	

<b>Bond XXXV</b>		
Gross loan opening	<b>100.00</b>	<b>100.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	100.00	100.00
Additions during the year	0.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	100.00	100.00
Average Loan	100.00	100.00
Rate of Interest	9.640%	9.640%
Interest	<b>9.64</b>	<b>9.64</b>
Rep Schedule	12 Equal Annual Installments from 31.5.2015	
<b>Bond XXXVI</b>		
Gross loan opening	<b>1929.50</b>	<b>1929.50</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	1929.50	1929.50
Additions during the year	0.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	1929.50	1929.50
Average Loan	1929.50	1929.50
Rate of Interest	9.35%	9.35%
Interest	<b>180.41</b>	<b>180.41</b>
Rep Schedule	12 Equal Annual Installments from 29.8.2016	
<b>Total Loan</b>		
Gross loan opening	<b>4116.50</b>	<b>4116.50</b>
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	4116.50	4116.50
Additions during the year	0.00	0.00
Repayment during the year	0.00	62.00
Net Loan-Closing	4116.50	4054.50
Average Loan	4116.50	4085.50
Rate of Interest	<b>9.1064%</b>	<b>9.1079%</b>
Interest	374.86	372.10

## Calculation of Weighted Average Rate of Interest (Asset –II A and Asset – II B)

(₹ in lakh)

Details of Loan	2012-13	2013-14	2012-13	2013-14
	Asset II A		Asset II B	
<b>Bond XXXI</b>				
Gross loan opening	50.00	50.00	50.00	50.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	50.00	50.00	50.00	50.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	4.17	0.00	4.17
Net Loan-Closing	50.00	45.83	50.00	45.83
Average Loan	50.00	47.92	50.00	47.92
Rate of Interest	8.90%	8.90%	8.90%	8.90%
Interest	4.45	4.26	4.45	4.26
Rep Schedule	12 annual installments from 25.2.2014			
<b>Bond XXXIII</b>				
Gross loan opening	47.00	47.00	32.00	32.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	47.00	47.00	32.00	32.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	47.00	47.00	32.00	32.00
Average Loan	47.00	47.00	32.00	32.00
Rate of Interest	8.64%	8.64%	8.64%	8.64%
Interest	4.06	4.06	2.76	2.76
Rep Schedule	12 Equal Annual Installments from 8.7.2014			
<b>BOND-XXXIV</b>				
Gross loan opening	200.00	200.00	415.00	415.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	200.00	200.00	415.00	415.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	200.00	200.00	415.00	415.00
Average Loan	200.00	200.00	415.00	415.00
Rate of Interest	8.84%	8.84%	8.84%	8.84%
Interest	17.68	17.68	36.69	36.69
Rep Schedule	12 Equal Annual Installments from 21.10.2014			
<b>Bond XXXV</b>				
Gross loan opening	300.00	300.00	135.00	135.00

Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	300.00	300.00	135.00	135.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	300.00	300.00	135.00	135.00
Average Loan	300.00	300.00	135.00	135.00
Rate of Interest	9.640%	9.640%	9.640%	9.640%
Interest	<b>28.92</b>	<b>28.92</b>	<b>13.01</b>	<b>13.01</b>
Rep Schedule	12 Equal Annual Installments from 31.5.2015			
<b>Bond XXXVI</b>				
Gross loan opening	<b>1000.00</b>	<b>1000.00</b>	<b>873.00</b>	<b>873.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	1000.00	1000.00	873.00	873.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	1000.00	1000.00	873.00	873.00
Average Loan	1000.00	1000.00	873.00	873.00
Rate of Interest	9.35%	9.35%	9.35%	9.35%
Interest	<b>93.50</b>	<b>93.50</b>	<b>81.63</b>	<b>81.63</b>
Rep Schedule	12 Equal Annual Installments from 29.8.2016			
<b>Bond XXXVII</b>				
Gross loan opening	<b>600.00</b>	<b>600.00</b>	<b>1372.00</b>	<b>1372.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	600.00	600.00	1372.00	1372.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	600.00	600.00	1372.00	1372.00
Average Loan	600.00	600.00	1372.00	1372.00
Rate of Interest	9.250%	9.25%	9.250%	9.25%
Interest	<b>55.50</b>	<b>55.50</b>	<b>126.91</b>	<b>126.91</b>
Rep Schedule	12 Equal Annual Installments from 26.12.2015			
<b>Bond XXXVIII</b>				
Gross loan opening	<b>1345.00</b>	<b>1345.00</b>	<b>665.00</b>	<b>665.00</b>
Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Net Loan-Opening	1345.00	1345.00	665.00	665.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	1345.00	1345.00	665.00	665.00
Average Loan	1345.00	1345.00	665.00	665.00
Rate of Interest	9.250%	9.25%	9.250%	9.25%
Interest	<b>124.41</b>	<b>124.41</b>	<b>61.51</b>	<b>61.51</b>
Rep Schedule	Bullet Payment on 9.3.2027			

<b>Total Loan</b>				
Gross loan opening	<b>3542.00</b>	<b>3542.00</b>	<b>3542.00</b>	<b>3542.00</b>
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	3542.00	3542.00	3542.00	3542.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	4.17	0.00	4.17
Net Loan-Closing	3542.00	3537.83	3542.00	3537.83
Average Loan	3542.00	3539.92	3542.00	3539.92
Rate of Interest	<b>9.2751%</b>	<b>9.2753%</b>	<b>9.2310%</b>	<b>9.2312%</b>
<b>Interest</b>	328.52	328.34	326.96	326.78