

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 89/TT/2012

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A. K. Singhal, Member**

**Date of Hearing : 04.03.2014
Date of Order : 23.01.2015**

In the matter of:

Approval of transmission tariff for (a) 2X500 MVA ICTs at Jaipur-South (anticipated DOCO: 1.6.2012), (b) 2X315 MVA ICTs at Sohawal (anticipated DOCO: 1.7.2012) and (c) Combined Tariff of LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South (anticipated DOCO: 1.7.2012) and LILO of 400 kV D/C Balia-Lucknow Line at Sohawal (anticipated DOCO: 1.7.2012) under Northern Regional Transmission Strengthening Scheme in Northern Region for tariff block 2009-14 period 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

And in the matter of:

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

.....**Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur- 302 005
2. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
4. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur



5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171 004
6. Punjab State Electricity Board,
The Mall, Patiala-147 001
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109
8. Power Development Department,
Govt. of Jammu and Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226 001
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110 002
11. BSES Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
Delhi-110 092
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 66/11kV Pitampura-3,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi-110 034
14. Chandigarh Administration,
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Limited,
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 : Shri S. K. Venkatesan, PGCIL
Shri M. M. Mondal, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri S.S Raju, PGCIL
Shri P. Saraswat, PGCIL

For respondent : Shri R. B. Sharma, Advocate, BRPL

ORDER

In the instant petition, the petitioner, Power Grid Corporation of India Limited (PGCIL) has sought approval of transmission tariff of assets a) 2X500 MVA ICTs at Jaipur-South, (b) 2X315 MVA ICTs at Sohawal and (c) Combined Tariff of LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South and LILO of 400 kV D/C Balia-Lucknow Line at Sohawal under the Northern Regional Transmission Strengthening Scheme in Northern Region (hereinafter referred to as "transmission assets") from the date of commercial operation to 31.3.2014 for tariff block 2009-14 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations' 2009 (hereinafter referred to as the "2009 Tariff Regulations").

2. The Investment Approval (IA) of the project was accorded by the Board of Directors of PGCIL vide memorandum ref. C/CP/NRTSS dated 17.3.2010 at an estimated cost of ₹96568 lakh including IDC of ₹7003 lakh (based on 3rd quarter, 2009 price level). The project was scheduled to be commissioned within 32 months from the date of IA by 17.11.2012 i.e. 1.12.2012. The scope of project broadly includes:-

Transmission Lines:

- a) Bhiwani-Jind 400 kV D/C Line
- b) LILO of both circuits of 400 kV D/C Balia-Lucknow line at Sohawal

- c) LILO of both circuits of 400 kV D/C Dehradun-Bagpat line (Quad) at Saharanpur
- d) LILO of both circuits of 400 kV D/C Lucknow-Bareilly (POWERGRID) line (Quad) at Shahjahanpur
- e) LILO of both circuits of 400 kV D/C Agra-Jaipur line (Quad) at Jaipur

Sub-stations:

- a) New 2x315 MVA, 400/220 kV Sub-station at Sohawal
- b) New 2x315 MVA, 400/220 kV Sub-station at Shahjahanpur
- c) New 2x315 MVA, 400/220 kV Sub-station at Saharanpur
- d) New 2x315 MVA, 400/220 kV Sub-station at Jind
- e) New 2x315 MVA, 400/220 kV Substation at Jaipur (South)
- f) Extension of Bhiwadi 400/220 kV Substation-1x315 MVA, 400/220 kV transformer
- g) Extension of Gurgaon 400/220 kV Gas Insulated Sub-station
- h) Extension of Bhiwani 765/400/220 kV Sub-station
- i) Extension of Jaipur (Bassi) 400/220 kV Sub-station
- j) Extension of Bareilly 400/220 kV Sub-station

3. The instant petition covers the following assets:-

- (a) 2X500 MVA ICTs at Jaipur-South
- (b) 2X315 MVA ICTs at Sohawal
- (c) LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South
- (d) LILO of 400 kV D/C Balia-Lucknow Line at Sohawal

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

5. The petitioner has initially claimed transmission tariff for three assets on the

basis of anticipated date of commercial operation (DOCO). The initial claims made by the petitioner are as under:-

S. No.	Name of the Asset	Schedule completion	Anticipated DOCO
1	2X500 MVA ICTs at Jaipur-South	1.12.2012	1.6.2012
2	2X315 MVA ICTs at Sohawal		1.7.2012
3	Combined Tariff of LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South and LILO of 400 kV D/C Balia-Lucknow Line at Sohawal		1.7.2012

6. The petitioner vide affidavit dated 16.11.2012 has submitted that the above said three assets have been segregated and split into seven assets. Further, vide affidavit dated 20.9.2013, the petitioner has submitted the date of actual commissioning of the assets along with the revised claims. The petitioner has notified the commissioning of the respective assets. Accordingly, for the purpose of tariff calculations, the following dates of commissioning and completion cost have been considered.

(₹ in lakh)				
S. No.	Name of Transmission Assets	Actual DOCO	Revised completion cost	Approved apportioned cost
Asset-A	500 MVA ICT-I at Jaipur-South along with the associated bays	1.6.2012	3104.33	3818.17
Asset-B	500 MVA ICT-II at Jaipur-South along with the associated bays	1.12.2012	3078.42	3818.17
Asset-C	(i) 2x315 MVA ICT-I at Sohawal	1.7.2012	2836.46	7141.02
	(ii) 2x315 MVA ICT-II at Sohawal	1.7.2012	2831.53	
Asset-D	LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South (1st ckt)	1.6.2012	5799.50	5442.40
Asset-E	LILO of 400 kV D/C Balia-Lucknow Line at Sohawal (2nd ckt)	1.7.2012	2464.57	3330.52
Asset-F	LILO of 400 kV D/C Balia-Lucknow Line at Sohawal (1st ckt)	1.2.2013	2464.59	3330.52
Asset-G	LILO of 400 kV D/C Agra-Jaipur Line at Jaipur-South (2nd ckt)	1.9.2012	5799.49	5442.30
Total			28378.89	32323.10

7. In response to a query of the Commission, regarding the downstream network, the petitioner has submitted vide affidavit dated 27.5.2014 that as per the agreed methodology and norms, it was agreed for providing 220 kV line bays with

400/220 kV transformers in the 23rd Standing Committee Meeting of Northern Region held on 16.2.2008. The petitioner has submitted as follows:-

“i) It is relevant to mention that as per the methodology and norms agreed and approved during 23rd Standing Committee Meeting of Northern Region held on 16.02.2008 (extract enclosed at Annexure-I page 5 to 6, following norms are agreed for providing 220 kV line bays with 400/220 kV transformers:-

For 2X315 MVA - 6 nos. of line bays
For 500 MVA - 4 nos. of line bays

In line with above, for 2X500 MVA transformers at Jaipur (South) 8 nos. of line bays are provided. Similarly for 2X315 MVA transformers at Sohawal 6 nos. of line bays are provided.

ii) There are 8 nos. of 220 kV line bays at Jaipur (South) Sub-station for 220 kV line of RRVPNL. The details are as follows:-

Bay (220 kV)	Feeder Name
Bay 3	220 kV Chaksu-Jaipur (South) Ckt 1
Bay 4	220 kV Chaksu-Jaipur (South) Ckt 2
Bay 5	220 kV Duni-Jaipur (South) S/C
Bay 6	220 kV Mahindra SEZ-Jaipur (South) S/C
Bay 7	220 kV Vatika City-Jaipur (South) Ckt.1
Bay 8	220 kV Vatika City-Jaipur (South) Ckt. 2
Bay 9	Name is yet to be decided by RRVPNL
Bay 10	Name is yet to be decided by RRVPNL

The CEA Certificate for 2 nos. 220 kV line bays for 220 kV D/C Chaksu-Jaipur (South) is enclosed as Annexure-II. For the other line bays CEA certificate could not be issued as corresponding 220 kV lines which are to be constructed by RVPNL are yet to be commissioned. It is to mention that the issue was taken up with RRVPNL but the progress is very slow. The copy of correspondences made with RRVPNL is enclosed as Annexure-III at page 11 to 13. In view of the fact that the line may further take some more time, the petitioner may please be allowed the tariff in accordance with clause 12(c) of the Regulation, as the readiness of downstream network is not in the scope of the petitioner.

iii) There are 6 nos. of 220 kV line bays at Sohawal sub-station for 220 kV lines of UPPCL. The details are as follows:-

Bay (220 kV)	Feeder Name
Bay 3	220 kV Tanda-Sohawal Ckt. 1
Bay 4	220 kV Tanda-Sohawal Ckt. 2
Bay 5	Name is yet to be decided by UPPCL
Bay 6	Name is yet to be decided by UPPCL
Bay 7	Name is yet to be decided by UPPCL
Bay 8	Name is yet to be decided by UPPCL

The CEA Certificate for 220 kV line bays could not be issued as corresponding 220 kV lines, which are to be constructed by UPPCL are yet to be commissioned. It is to mention that the issue was taken up with UPPCL but the progress is very slow. The copy of correspondences made with UPPCL is enclosed as Annexure-IV at page 14 to 16. In view of the fact that the 220 kV lines may further take some more time, the petitioner may please be allowed the tariff in accordance with clause 12(c) of the Regulation as the readiness of downstream network is not in the scope of petitioner.”

8. The petitioner was directed vide letter dated 28.7.2014 to submit the CEA certificate of inspection for the remaining assets (12 bays) for determination of tariff in accordance with Regulation 12 (c) of the 2009 Tariff Regulations and in case CEA certificate cannot be furnished, to submit separate capital cost for assets for which inspection has been carried out by CEA.

9. The petitioner, vide affidavit dated 8.10.2014, has submitted that CEA certificate for two bays at Jaipur (south) has already been submitted and certificates in case of the remaining 6 nos. of 200 kV line bays at Jaipur (South) Sub-station and 6 nos. of 220 kV line bays at Sohawal Sub-station could not be obtained due to non-completion of downstream network by respective STUs. The petitioner submitted that the capital cost of 6 nos. of 200 kV line bays at Jaipur

(South) Sub-station and 6 nos. of 220 kV line bays at Sohawal Sub-station is ₹1239 lakh and ₹1138 lakh respectively.

10. Accordingly, following assets have been considered in the instant petition for tariff calculation:-

Asset No.	Asset	Description
Asset-A	500 MVA ICT-I at Jaipur- South	1 no. of 400 kV ICT-I Bay, 1 no. of 220 kV ICT-I Bay, 2 nos. of 220 kV line Bays
Asset-B	500 MVA ICT-II at Jaipur- South	1 no. of 400 kV ICT-I Bay, 1 no. of 220 kV ICT-I Bay
Asset-C	2X315 MVA ICTs at Sohawal	2 no. of 400 kV ICT-I Bay, 2 no. of 220 kV ICT-I Bay
Asset-D	LILO of 1 st Ckt of 400 kV D/C Agra-Jaipur Line at Jaipur-South	Line Length: 74.6 km, 2 nos. of 400 kV Line bays
Asset-E	LILO of 2 nd Ckt of 400 kV D/C Balia-Lucknow Line at Sohawal	Line Length: 11.898 km, 2 nos. of 400 kV Line bays
Asset-F	LILO of 1 st Ckt of 400 kV D/C Balia-Lucknow Line at Sohawal	Line Length: 11.898 km, 2 nos. of 400 kV Line bays
Asset-G	LILO of 2 nd Ckt of 400 kV D/C Agra-Jaipur Line at Jaipur-South	Line Length: 74.6 km, 2 nos. of 400 kV Line bays, 1 no. of 400 kV reactor bay

11. The transmission charges claimed by the petitioner are as follows:-

(₹ in lakh)

Particulars	Asset-A		Asset-B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	97.74	135.20	35.92	134.28
Interest on Loan	127.58	160.10	46.00	151.39
Return on Equity	110.46	151.87	41.04	150.51
Interest on working capital	20.55	26.57	7.96	26.31
O & M Expenses	232.18	294.56	92.87	294.56
Total	588.51	768.30	223.79	757.05

(₹ in lakh)

Particulars	Asset-C		Asset-D	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	149.08	253.38	193.77	273.04
Interest on Loan	180.17	263.41	225.53	289.15
Return on Equity	167.15	278.91	196.64	276.71
Interest on working capital	30.92	45.80	20.32	26.54
O & M Expenses	352.92	497.48	111.09	130.92
Total	880.24	1338.98	747.35	996.36

(₹ in lakh)

Particulars	Asset-E		Asset-F	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	80.43	121.10	19.56	121.26
Interest on Loan	94.11	126.73	17.81	105.89
Return on Equity	83.63	125.46	20.22	125.46
Interest on working capital	11.24	15.82	2.55	15.87
O & M Expenses	95.81	130.92	22.11	140.24
Total	365.22	520.03	82.25	508.72

(₹ in lakh)

Particulars	Asset-G	
	2012-13 (Pro-rata)	2013-14
Depreciation	139.52	273.09
Interest on Loan	166.76	303.67
Return on Equity	141.49	276.71
Interest on working capital	18.07	33.72
O & M Expenses	140.61	254.79
Total	606.45	1141.98

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

(₹ in lakh)

Particulars	Asset-A		Asset-B	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	41.79	44.18	41.79	44.18
O & M Expenses	23.22	24.55	23.22	24.55
Receivables	117.70	128.05	111.90	126.18
Total	182.71	196.78	176.91	194.91
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	20.55	26.57	7.96	26.31
Particulars	Asset-C		Asset-D	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	70.58	74.62	20.00	19.64
O & M Expenses	39.21	41.46	11.11	10.91
Receivables	195.61	223.16	149.47	166.06
Total	305.40	339.24	180.58	196.61
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	30.92	45.80	20.32	26.54
Particulars	Asset-E		Asset-F	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	19.16	19.64	19.90	21.04
O & M Expenses	10.65	10.91	11.06	11.69
Receivables	81.16	86.67	82.25	84.79
Total	110.97	117.22	113.21	117.52
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	11.24	15.82	2.55	15.87

Particulars	Asset-G	
	2012-13	2013-14
Maintenance Spares	36.16	38.22
O & M Expenses	20.09	21.23
Receivables	173.27	190.33
Total	229.52	249.78
Rate of Interest	13.50%	13.50%
Interest	18.07	33.72

13. 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. Ajmer Vidyut Vitran Nigam Limited (AVVNL), Respondent No. 2 Jaipur Vidyut Vitran Nigam Ltd (JVVNL), Respondent No. 3, Punjab State Power Corporation Limited (PSPCL), Respondent No. 7 and Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 9 have filed replies vide affidavits dated 3.5.2012, 3.5.2012, 13.7.2012 and 15.11.2013 respectively. The petitioner has filed rejoinders to the reply of JVVNL, AVVNL and UPPCL, vide affidavits dated 3.1.2014. The petitioner has also filed rejoinder to the reply of PSPCL, vide affidavit dated 4.6.2014. The respondents have broadly raised the issue of claiming additional RoE, cost variation, actual DOCO, additional capital expenditure, O&M Expenses, licence fee and service tax. The objections raised by the respondents and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

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

Capital Cost

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

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

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

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

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

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

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

16. The petitioner has submitted the capital cost incurred and capital cost projected to be incurred as per the anticipated date of commercial operation, as per the Auditor certificate, in the petition. Subsequently, during the pendency of the petition, the assets have been put in service. The petitioner vide affidavit dated 20.9.2013 has submitted the capital cost as per actual date of commercial operation as per the Management Certificate dated 16.9.2013 for all the assets covered in the instant petition.

17. The details of apportioned approved cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the assets covered in petition are as overleaf:-

(₹ in lakh)

Particulars	Apportioned approved cost	Cost incurred up to DOCO*	Projected expenditure		Total estimated completion Cost
			DOCO to 31.3.2013	1.4.2013 to 31.3.2014	
Asset-A	3818.17	2367.52	319.86	416.95	3104.33
Asset-B	3818.17	2034.32	627.18	416.92	3078.42
Asset-C	7141.02	#3530.63	1437.90	699.45	5667.99
Asset-D	5442.40	4245.47	507.94	1046.09	5799.50
Asset-E	3330.52	1932.64	387.36	144.57	2464.57
Asset-F	3330.52	2306.72	13.29	144.58	2464.59
Asset-G	5442.30	4496.76	256.64	1046.09	5799.49

*Inclusive of cost of the initial Spares;

Capital cost of ICT-I and II has been claimed through separate Management Certificate.

Cost variation

18. The estimated completion cost of the all the assets, except Asset-D and Asset-G is within the approved cost. However, there is cost variation in certain items due to high awarded cost.

19. PSPCL has submitted that the cost of outdoor lighting for the ICT and associated bays is excessive and the petitioner should explain the reasons of such high cost for providing outdoor lighting to the ICT. The petitioner in its rejoinder has clarified that the outdoor lighting includes the lighting in switchyard area, lighting in control room, DG room, street light etc. for this sub-station and the cost under the head of outdoor lighting is apportioned to ICT-1 and ICT-2 of Jaipur (South) Sub-station. JVVNL has submitted that there is variation in the completion cost and it indicates that estimates are prepared casually. The petitioner in the rejoinder to the reply of JVVNL has submitted that the item wise justification for cost variation has been furnished in Form-5B

20. During the hearing on 4.3.2014, the Commission observed that the total estimated completion cost in case of some assets is more than the apportioned approved cost and directed the petitioner to file asset-wise Revised Cost Estimates (RCE) approved by its Board. The petitioner was further directed to file Management Certificate, in future, certified by its statutory auditor. In response, the petitioner, vide affidavit dated 9.4.2014 has submitted that some assets under NRTSS are under progress and the total completion cost is envisaged to be less than the apportioned approved cost. Therefore, if required, the RCE will be prepared after completion of the project and approval for the same shall be submitted subsequently.

21. We have considered the submissions of the petitioner, JVVNL and PSPCL. The petitioner was directed to submit RCE approved by its Board of Directors as there was cost over-run in respect of Asset D and G. The petitioner has not furnished the RCE for assets covered in the instant case. Accordingly, the capital cost of these assets is restricted to the apportioned approved cost. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012, and subsequently the Commission, vide its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the apportioned approved cost of individual asset for restricting the capital expenditure due to cost over-run for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure has been restricted to apportioned approved cost in respect of Asset D and G. However, the capital cost in case of these assets shall be reviewed at the time of truing-up, subject to the petitioner filing the RCE and justification for cost over-run. Further, there is variation in cost of certain items due to increase in cost of tower Steel, conductor, erection, stringing & civil works including foundation, township &

colony, switchgear and compensation equipment (reactors). As regards cost variations, though the petitioner has stated to have taken various steps to make the cost estimates realistic, in actuality there continues to be wide variation between the FR cost and the actual cost. We are of the view that the petitioner should analyze the reasons for such huge variations and come out with the methodologies or procedure for preparation of cost estimates which are realistic and do not vary widely from the actual expenditure. We, however, direct the petitioner that in all tariff petitions to be submitted in future, the petitioner shall submit project details on the basis of which FR cost estimates in respect of the assets covered in the petition were prepared and actual cost along with reasons for variation, if any, as per the following format:-

S. No	Element	Basis forming FR Cost									FR Cost			Actual Cost			Remarks
		Project-1			Project-2			Project-3			Estimated						
		Q	R	PL	Q	R	PL	Q	R	PL	Q	R	PL	Q	R	PL	
1																	
2																	
3																	

Q-Quantity R-Rate PL-Price Level

22. The petitioner has not submitted the estimated completion cost of bays for which CEA certificate has not been furnished. Since, the petitioner has not furnished capital cost as on the date of commercial operation and additional capital expenditure till cut-off date, we are of the view that ₹1239 lakh for 6 nos. of bays at Jaipur-South and ₹1138 lakh for 6 nos. of bays at Sohawal Sub-station be subtracted from estimated expenditure incurred up to DOCO of Asset-A, B and C respectively. For Asset-D, the petitioner has not submitted RCE, therefore, capital cost in this regard has been restricted to apportioned approved cost.

23. The petitioner shall submit the details of actual capital cost as on DOCO and additional capital expenditure of the assets at the time of truing up. The petitioner is at liberty to approach the Commission after CEA inspection and DOCO of bays for remaining downstream 220 kV line bays, as per the 2009 Tariff Regulations.

24. We have also initiated a suo-moto Petition No. 11/SM/2014 vide order dated 12.8.2014 to consider the issue of co-ordination, when transmission line is in scope of CTU and related downstream bays are in the scope of STU and vice-versa, in accordance with Sections 38 and 39 of the Electricity Act, 2003. The issue of determination of tariff of remaining 6 nos. of line bays at Jaipur (South) Sub-station and 6 nos. of line bays at Sohawal Sub-station shall be dealt with separately. The petitioner is at liberty to file separate tariff petition in accordance with the 2014 Tariff Regulations.

Time Over-run

25. The commissioning schedule of the project is 32 months from the date of IA i.e. 17.3.2010. Hence, the assets were to be commissioned by 17.11.2012 i.e. 1.12.2012. The details of commissioning of assets and their date of commercial operation are as under:-

S. No.	Name of the Asset	Scheduled Commissioning	DOCO	Delay
1	Asset-A	1.12.2012	1.6.2012	No delay
2	Asset-B	1.12.2012	1.12.2012	No delay
3	Asset-C	1.12.2012	1.7.2012	No delay
4	Asset-D	1.12.2012	1.6.2012	No delay
5	Asset-E	1.12.2012	1.7.2012	No delay
6	Asset-F	1.12.2012	1.2.2013	2 months
7	Asset-G	1.12.2012	1.9.2012	No delay

26. There is a delay of 2 months in commissioning of the Asset-F. The petitioner has submitted vide affidavit dated 9.1.2014 that delay of 2 months in

commissioning of 1st Ckt of LILO of 400 kV, D/C Balia-Lucknow line at Sohawal was due to RoW issues and foggy weather conditions. The petitioner has submitted that the work was in the advanced stage of completion. However, during stringing, the villagers damaged the conductor between location no. 9 &10 in the 2nd week of November, 2012. Further, villagers also tried to stop the work. The matter was also taken up with police. The petitioner has submitted supporting documents in this regard. The petitioner has also submitted that the commissioning work was hampered from 25th December, 2012 to 2nd week of January, 2013 due to foggy weather conditions. The asset was charged on 16th January, 2013 and was declared under commercial operation on 1.2.2013.

27. We have considered the documents submitted by the petitioner in respect of the delay. The petitioner had, vide letter dated 11.11.2012, intimated SHO Rudauli that some anti-social elements have damaged the wiring and are causing hindrance for 2-3 days. No information regarding impact of delay due to hindrances created by local villagers and ROW issues faced during implementation of the project has been submitted by the petitioner. In the absence of full information, the impact of delay cannot be quantified. Hence, delay cannot be allowed. In respect of the petitioner's claim that the commissioning work was hampered due to foggy weather condition from 25.12.2012 to 2nd week of January, 2013, we are of the view that fog in the month of December and January is a normal phenomenon in Northern Region (NR) which the petitioner should have considered at the time of planning. Therefore, we cannot grant any relief on this account. Accordingly, the delay of two months in case of Asset-F is not condoned. IDC and IEDC for a period of 2 months are disallowed. The IDC and IEDC for the remaining assets have been allowed as claimed by the petitioner.

28. The details of the IDC and IEDC disallowed for Asset-F are as under:

(₹ In lakh)		
Detail of IDC and IEDC as per Management certificate dated 16.9.2013		
	IDC	IEDC
Up to 31.03.2012	112.70	61.83
From 01.04.2012 to 31.1.2013	38.33	35.41
Total IDC and IEDC Claimed	151.03	97.24
Detail of IDC and IEDC disallowed for 2 months		
From Dec, 2012 to Jan,2013	7.67	7.08
Total Disallowed IDC	7.67	7.08

Initial Spares

29. The petitioner has claimed the cost of the initial spares for transmission line and sub-station respectively. It is observed that initial spares claimed by the petitioner are within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence same is allowed.

30. The following amount of capital cost as on the date of commercial operation, after taking into account cost variation, capitalization of IDC, IEDC and cost of initial spares, has been considered for the purpose of the determination of transmission tariff:-

(₹ in lakh)							
Particular	Asset-A	Asset-B	Asset-C	Asset-D	Asset-E	Asset-F	Asset-G
Freehold land	269.41	269.41	454.62	89.80	90.92	90.92	89.80
Leasehold land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and Civil works	58.62	80.30	87.09	20.52	23.42	17.24	18.99
Transmission Line	0.00	0.00	0.00	3553.04	866.93	1173.01	3697.87
Sub-Station Equipments	1406.95	1049.04	1841.78	546.51	939.17	976.45	653.05
PLCC	13.04	16.07	9.14	35.60	12.20	34.35	37.05
Total capital cost	1748.02	1414.82	2392.63	4245.47	1932.64	2291.97	4496.76

Projected Additional Capital Expenditure

31. 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.”

32. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines “cut-off” date as under:-

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

Therefore, the cut-off date for the instant assets is 31.3.2015.

33. The admissibility of additional capital expenditure incurred after the date of commercial operation is to be dealt in accordance with the provisions of Regulation 9 (1) of the 2009 Tariff Regulations. JVVNL and AVVNL have submitted that the petitioner should confirm that all works included in the project scope have been completed and the completion cost would be within the cost indicated. UPPPCL has submitted that the figures of add-cap are estimated and show only the abstract of cost. The breakup of item wise cost has not been given by the petitioner and hence the add-cap should not be approved. In response, the petitioner has clarified that the add-cap is towards Balance and Retention

Payments and the breakup of add-cap has been given in Form-9 of each element. The petitioner has also prayed that the add-cap may be approved as claimed.

34. We have considered the submissions made by the petitioner. The additional capital expenditure incurred and projected to be incurred for the transmission assets from the date of commercial operation to 31.3.2013 and during 2013-14 is on account of Balance/Retention payments. The additional capital expenditure claimed by the petitioner is within the cut-off date and accordingly it is allowed in terms of Regulation 9 (1) (i) of the 2009 Tariff Regulations. The total estimated completion cost of Asset-D and Asset-G exceeds the apportioned approved cost and accordingly the projected additional capital expenditure during 2013-14 has been restricted. The projected additional capital expenditure shall be reviewed at the time of truing up on the submission of the actual additional capital expenditure.

35. Projected additional capital expenditure claimed by the petitioner and considered for the purpose of tariff determination is as follows:-

(₹ in lakh)

Particulars	Asset-A		Asset-B	
	Claimed and considered			
	2012-13	2013-14	2012-13	2013-14
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	99.04	66.51	62.92	50.43
Transmission Line	0.00	0.00	0.00	0.00
Sub-Station Equipments	216.34	343.08	562.46	357.30
PLCC	4.48	7.36	1.80	9.19
Total	319.86	416.95	627.18	416.92

(₹ in lakh)

Particulars	Asset-C	
	Claimed and Considered	
	2012-13	2013-14
Freehold Land	0.00	18.88
Leasehold Land	0.00	0.00

Building & Other Civil Works	3.48	144.18
Transmission Line	0.00	0.00
Sub-Station Equipments	1429.16	520.76
PLCC	5.26	15.64
Total	1437.90	699.46

(₹ in lakh)

Particulars	Asset-D			
	Claimed		Considered	
	2012-13	2013-14	2012-13	2013-14
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	30.46	23.57	30.46	15.52
Transmission Line	291.00	754.88	291.00	497.12
Sub-Station Equipments	184.67	265.82	184.67	175.05
PLCC	1.81	1.82	1.81	1.20
Total	507.94	1046.09	507.94	688.89

(₹ in lakh)

Particulars	Asset-E		Asset-F	
	Claimed and considered			
	2012-13	2013-14	2012-13	2013-14
Freehold Land	0.00	3.78	0.00	3.78
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.70	28.75	0.70	28.75
Transmission Line	274.70	60.53	4.35	60.54
Sub-Station Equipments	92.35	31.50	7.86	31.50
PLCC	19.61	20.01	0.38	20.01
Total	387.36	144.57	13.29	144.58

(₹ in lakh)

Particulars	Asset-G			
	Claimed		Considered	
	2012-13	2013-14	2012-13	2013-14
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	31.09	18.86	31.09	12.42
Transmission Line	152.80	679.47	152.80	447.46
Sub-Station Equipments	72.75	347.76	72.75	229.02
PLCC	0.00	0.00	0.00	0.00
Total	256.64	1046.09	256.64	688.90

Debt- Equity Ratio

36. 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.”

37. The petitioner has claimed debt-equity as on the respective dates of commercial operation of the assets and additional capital expenditure in the ratio of 70:30, which is in accordance with the above said Regulation. The debt-equity ratio of 70:30 has been considered for the purpose of calculation of tariff.

Return on Equity

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

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

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

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

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

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

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

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

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

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

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

39. The petitioner has submitted that it may be allowed to recover the shortfall or refund the excess Annual Fixed Charges, on account of return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission under Regulation 15(5) of the 2009 Tariff Regulations. We would like to clarify that the petitioner is allowed to recover the shortfall or refund the excess Annual Transmission Charges under Regulation 15(5) of the 2009 Tariff Regulations. Accordingly, RoE has been computed @ 17.481% p.a on average equity as per Regulation 15(5) of the 2009 Tariff Regulations.

40. The petitioner initially prayed for additional return on equity of 0.5% for commissioning the assets within the timelines specified in Appendix-II of the 2009 Tariff Regulations. Later, this prayer was withdrawn by the petitioner as there was time over-run in case of one of the assets. Accordingly, the petitioner's prayer for additional return on equity has not been considered. The return on equity has been allowed as under:-

(₹ in lakh)

Particulars	Asset A		Asset B	
	2012-13	2013-14	2012-13	2013-14
Opening Equity	524.41	620.36	424.45	612.60
Addition due to Additional Capitalization	95.96	125.09	188.15	125.08
Closing Equity	620.37	745.45	612.60	737.68
Average Equity	572.39	682.91	518.52	675.14
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	83.38	119.38	30.21	118.02

(₹ in lakh)

Particulars	Asset C		Asset D	
	2012-13	2013-14	2012-13	2013-14
Opening Equity	717.79	1149.16	1273.64	1426.02
Addition due to Additional Capitalization	431.37	209.84	152.38	206.67
Closing Equity	1149.16	1359.00	1426.02	1632.69
Average Equity	933.47	1254.08	1349.83	1529.36
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	122.39	219.23	196.64	267.35

(₹ in lakh)

Particulars	Asset E		Asset F	
	2012-13	2013-14	2012-13	2013-14
Opening Equity	579.79	696.00	687.59	691.58
Addition due to Additional Capitalization	116.21	43.37	3.99	43.37
Closing Equity	696.00	739.37	691.58	734.95
Average Equity	637.89	717.68	689.58	713.26
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	83.63	125.46	20.09	124.69

Particulars	(₹ in lakh)	
	Asset G	
	2012-13	2013-14
Opening Equity	1349.03	1426.02
Addition due to Additional Capitalization	76.99	206.67
Closing Equity	1426.02	1632.69
Average Equity	1387.52	1529.36
Return on Equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	141.49	267.35

Interest on Loan

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) The 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.

(d) 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.

43. The petitioner has considered the proposed loan for working out interest on loan. The proposed loan is not considered as it is not supported by the relevant proof of interest on loan. Accordingly, the interest on loan has been calculated on the basis of prevailing rate available as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be

considered at the time of truing up.

44. Detailed calculations in support of the weighted average rates of interest have been given at Annexure 1 to 7.

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

(₹ in lakh)

Particulars	Asset A		Asset B	
	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	1223.61	1447.52	990.37	1429.40
Cumulative Repayment upto Previous Yr	0.00	70.48	0.00	25.02
Net Loan-Opening	1223.61	1377.04	990.37	1404.38
Addition due to Additional Capitalisation	223.90	291.87	439.03	291.84
Repayment during the year	70.48	102.49	25.02	101.57
Net Loan-Closing	1377.03	1566.41	1404.38	1594.66
Average Loan	1300.32	1471.72	1197.38	1499.52
Weighted Avg. Rate of Interest on Loan	8.8990%	8.5992%	8.4899%	7.9432%
Interest	96.43	126.56	33.89	119.11

(₹ in lakh)

Particulars	Asset C		Asset D	
	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	1674.84	2681.37	2971.83	3327.39
Cumulative Repayment upto Previous Yr	0.00	104.02	0.00	193.77
Net Loan-Opening	1674.84	2577.35	2971.83	3133.62
Addition due to Additional Capitalisation	1006.53	489.62	355.56	482.22
Repayment during the year	104.02	193.29	193.77	263.68
Net Loan-Closing	2577.36	2873.68	3133.62	3352.16
Average Loan	2126.10	2725.52	3052.73	3242.89
Weighted Avg. Rate of Interest on Loan	8.2833%	7.6418%	8.8655%	8.5974%
Interest	132.08	208.28	225.53	278.81

(₹ in lakh)

Particulars	Asset E		Asset F	
	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	1352.85	1624.00	1604.38	1613.69
Cumulative Repayment upto Previous Yr	0.00	80.43	0.00	19.31
Net Loan-Opening	1352.85	1543.57	1604.38	1594.38
Addition due to Additional Capitalization	271.15	101.20	9.30	101.21
Repayment during the year	80.43	121.10	19.31	119.73
Net Loan-Closing	1543.57	1523.67	1594.38	1575.85
Average Loan	1448.21	1533.62	1599.38	1585.11
Weighted Avg. Rate of Interest on Loan	8.6645%	8.2632%	6.6392%	6.6412%
Interest	94.11	126.73	17.70	105.27

Particulars	(₹ in lakh)	
	Asset G	
	2012-13	2013-14
Gross Normative Loan	3147.73	3327.38
Cumulative Repayment upto Previous Yr	0.00	139.52
Net Loan-Opening	3147.73	3187.86
Addition due to Additional Capitalization	179.65	482.23
Repayment during the year	139.52	263.72
Net Loan-Closing	3187.86	3406.37
Average Loan	3167.79	3297.11
Weighted Avg. Rate of Interest on Loan	9.0246%	8.8859%
Interest	166.76	292.98

Depreciation

46. 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.”

47. The petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The instant transmission assets were put under commercial operation during 2012-13. Accordingly, all assets will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 Tariff Regulations, as per details hereunder:-

(₹ in lakh)

Particulars	Asset A		Asset B	
	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	1748.02	2067.88	1414.82	2042.00
Additional Capital Expenditure	319.86	416.95	627.18	416.92
Closing Gross Block	2067.88	2484.83	2042.00	2458.92
Average Gross Block	1907.95	2276.36	1728.41	2250.46
Rate of Depreciation	4.4329%	4.5022%	4.3419%	4.5132%
Depreciable Value	1474.69	1806.25	1313.10	1782.95
Remaining Depreciable Value	1474.69	1735.77	1313.10	1757.93
Depreciation	70.48	102.49	25.02	101.57

(₹ in lakh)

Particulars	Asset C		Asset D	
	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	2392.63	3830.53	4245.47	4753.41
Additional Capital Expenditure	1437.90	699.46	507.94	688.89
Closing Gross Block	3830.53	4529.99	4753.41	5442.30
Average Gross Block	3111.58	4180.26	4499.44	5097.86
Rate of Depreciation	4.4571%	4.6239%	5.1677%	5.1725%
Depreciable Value	2391.26	3344.58	3968.68	4507.25
Remaining Depreciable Value	2391.26	3240.56	3968.68	4313.48
Depreciation	104.02	193.29	193.77	263.68

(₹ in lakh)

Particulars	Asset E		Asset F	
	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	1932.64	2320.00	2291.97	2305.26
Additional Capital Expenditure	387.36	144.57	13.29	144.58
Closing Gross Block	2320.00	2464.57	2305.26	2449.84
Average Gross Block	2126.32	2392.29	2298.62	2377.55
Rate of Depreciation	5.0434%	5.0623%	5.0397%	5.0360%
Depreciable Value	1831.86	2069.53	1986.93	2056.27
Remaining Depreciable Value	1831.86	1989.10	1986.93	2036.96
Depreciation	80.43	121.10	19.31	119.73

(₹ in lakh)

Particulars	Asset G	
	2012-13	2013-14
Opening Gross Block	4496.76	4753.40
Additional Capital Expenditure	256.64	688.90
Closing Gross Block	4753.40	5442.30
Average Gross Block	4625.08	5097.85
Rate of Depreciation	5.1714%	5.1732%
Depreciable Value	4081.75	4507.25
Remaining Depreciable Value	4081.75	4367.72
Depreciation	139.52	263.72

Operation & Maintenance Expenses (O&M Expenses)

48. The norms for O&M Expenses for the transmission system based on the type of sub-station and the transmission line are specified in clause (g) of Regulation 19 of the 2009 Tariff Regulations. Accordingly, the following amount of O&M Expenses has been considered for the purpose of tariff calculations:-

(₹ in lakh)

S. No.	Asset No.	2012-13 (pro-rata)	2013-14
1	Asset-A	169.10	202.92
2	Asset-B	37.09	111.28
3	Asset-C	166.92	222.56
4	Asset-D	111.09	130.92
5	Asset-E	140.61	254.79
6	Asset-F	22.11	140.24
7	Asset-G	95.81	130.92

49. The petitioner has submitted that O & M Expenses for the period 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 has also been considered while calculating the O & M Expenses for the tariff period 2009-14. The petitioner has further submitted that it may approach the Commission for additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff.

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. In this order, we have allowed O&M Expenses as per the existing norms.

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 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 @ 13.20% (Base rate as on 1.4.2013 and 350 basis points) for asset. 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 hereunder:-

(₹ in lakh)

Particulars	Asset-A		Asset-B	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	30.44	30.44	16.69	16.69
O & M Expenses	16.91	16.91	9.27	9.27
Receivables	86.90	95.10	65.15	77.32
Total	134.25	142.45	91.11	103.28
Interest	15.10	19.23	4.10	13.94

(₹ in lakh)

Particulars	Asset-C		Asset-D	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	33.38	33.38	20.00	19.64
O & M Expenses	18.55	18.55	11.11	10.91
Receivables	120.64	144.99	149.47	161.11
Total	172.57	196.92	180.58	191.66
Interest	17.47	26.58	20.31	25.87

(₹ in lakh)

Particulars	Asset-E		Asset-F	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	19.16	19.64	19.90	21.04
O & M Expenses	10.65	10.91	11.06	11.69
Receivables	81.16	86.67	81.74	84.29
Total	110.97	117.22	112.70	117.02
Interest	11.24	15.82	2.54	15.80

(₹ in lakh)

Particulars	Asset-G	
	2012-13	2013-14
Maintenance Spares	36.16	38.22
O & M Expenses	20.09	21.23
Receivables	173.27	185.31
Total	229.52	244.76
Interest	18.07	33.04

Transmission Charges

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

(₹ in lakh)

Particulars	Asset A		Asset B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	70.48	102.49	25.02	101.57
Interest on Loan	96.43	126.56	33.89	119.11
Return on Equity	83.38	119.38	30.21	118.02
Interest on Working Capital	15.10	19.23	4.10	13.94
O & M Expenses	169.10	202.92	37.09	111.28
Total	434.49	570.58	130.31	463.92

(₹ in lakh)

Particulars	Asset C		Asset D	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	104.02	193.29	193.77	263.68
Interest on Loan	132.08	208.28	225.53	278.81
Return on Equity	122.39	219.23	196.64	267.35
Interest on Working Capital	17.47	26.58	20.31	25.87
O & M Expenses	166.92	222.56	111.09	130.92
Total	542.88	869.94	747.34	966.63

(₹ in lakh)

Particulars	Asset E		Asset F	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	80.43	121.10	19.31	119.73
Interest on Loan	94.11	126.73	17.70	105.27

Return on Equity	83.63	125.46	20.09	124.69
Interest on Working Capital	11.24	15.82	2.54	15.80
O & M Expenses	95.81	130.92	22.11	140.24
Total	365.22	520.03	81.75	505.73

(₹ in lakh)

Particulars	Asset G	
	2012-13 (Pro-rata)	2013-14
Depreciation	139.52	263.72
Interest on Loan	166.76	292.98
Return on Equity	141.49	267.35
Interest on Working Capital	18.07	33.04
O & M Expenses	140.61	254.79
Total	606.45	1111.88

Filing Fee and the Publication Expenses

54. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The BRPL submitted that the filing fee shall be governed as per the Commission's order. 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 42A (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 and BRPL have 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. The petitioner has clarified that the licence fee has been a new component of cost to the transmission licence under O&M stage of the

project and has become incidental to the petitioner only from 2008-09. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

Service Tax

56. 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 has objected to recovery of service tax from the beneficiaries in future, as matter is pending before the Hon'ble Supreme Court. The petitioner clarified that service tax on transmission has been put on negative list w.e.f. 1.4.2012 and therefore the transmission charges, is exclusive of service tax and shall be born and additionally paid by the respondents. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

57. 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.

58. This order disposes of Petition No. 89/TT/2012.

sd/-
(A. K. Singhal)
Member

sd/-
(M. Deena Dayalan)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson

Annexure-1

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-A			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	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	8.64%	8.64%
	Interest	4.32	4.32
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	150.00	150.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	150.00	150.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	12.50
	Net Loan-Closing	150.00	137.50
	Average Loan	150.00	143.75
	Rate of Interest	8.84%	8.84%
	Interest	13.26	12.71
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	188.00	188.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	188.00	188.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	188.00	188.00
	Average Loan	188.00	188.00
	Rate of Interest	8.84%	8.84%
	Interest	16.62	16.62
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.64%	9.64%
	Interest	19.28	19.28
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.35%	9.35%
	Interest	18.70	18.70
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XXXIX		
	Gross loan opening	83.00	83.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	83.00	83.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	83.00	83.00
	Average Loan	83.00	83.00
	Rate of Interest	9.40%	9.40%
	Interest	7.80	7.80
	Rep Schedule	Bullet Payment as on 29.3.2027	
7	Bond XL		
	Gross loan opening	786.26	786.26
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	786.26	786.26
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	786.26	786.26
	Average Loan	786.26	786.26
	Rate of Interest	9.30%	9.30%
	Interest	73.12	73.12
	Rep Schedule	12 Annual installments from 28.6.2016	
8	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	223.90
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	223.90
	Additions during the year	223.90	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	223.90	223.90
	Average Loan	111.95	223.90
	Rate of Interest	3.8750%	3.88%
	Interest	4.34	8.68
	Rep Schedule	Bullet Payment in 2023	
	Total Loan		
	Gross loan opening	1657.26	1881.16
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1657.26	1881.16
	Additions during the year	223.90	0.00
	Repayment during the year	0.00	12.50
	Net Loan-Closing	1881.16	1868.66

Average Loan	1769.21	1874.91
Weighted Average Rate of Interest	8.8990%	8.5992%
Interest	157.44	161.23

Annexure-2

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-B			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	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	8.64%	8.64%
	Interest	4.32	4.32
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	150.00	150.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	150.00	150.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	12.50
	Net Loan-Closing	150.00	137.50
	Average Loan	150.00	143.75
	Rate of Interest	8.84%	8.84%
	Interest	13.26	12.71
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	188.00	188.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	188.00	188.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	188.00	188.00
	Average Loan	188.00	188.00
	Rate of Interest	8.84%	8.84%
	Interest	16.62	16.62
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.64%	9.64%
	Interest	19.28	19.28
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.35%	9.35%
	Interest	18.70	18.70
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XXXVIII		
	Gross loan opening	600.00	600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	600.00	600.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	600.00	600.00
	Average Loan	600.00	600.00
	Rate of Interest	9.25%	9.25%
	Interest	55.50	55.50
	Rep Schedule	Bullet Payment as on 9.3.2027	
7	Bond XL		
	Gross loan opening	36.02	36.02
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	36.02	36.02
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	36.02	36.02
	Average Loan	36.02	36.02
	Rate of Interest	9.30%	9.30%
	Interest	3.35	3.35
	Rep Schedule	12 Annual installments from 28.6.2016	
8	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	439.03
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	439.03
	Additions during the year	439.03	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	439.03	439.03
	Average Loan	219.52	439.03
	Rate of Interest	3.8750%	3.88%
	Interest	8.51	17.01
	Rep Schedule	Bullet payment in 2023	
	Total Loan		
	Gross loan opening	1424.02	1863.05
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1424.02	1863.05
	Additions during the year	439.03	0.00
	Repayment during the year	0.00	12.50
	Net Loan-Closing	1863.05	1850.55
	Average Loan	1643.54	1856.80

Weighted Average Rate of Interest	8.4899%	7.9432%
Interest	139.54	147.49

Annexure-3

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-C			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	100.00	100.00
	Average Loan	100.00	100.00
	Rate of Interest	8.64%	8.64%
	Interest	8.64	8.64
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	250.00	250.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	250.00	250.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	20.83
	Net Loan-Closing	250.00	229.17
	Average Loan	250.00	239.58
	Rate of Interest	8.84%	8.84%
	Interest	22.10	21.18
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	286.00	286.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	286.00	286.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	286.00	286.00
	Average Loan	286.00	286.00
	Rate of Interest	8.84%	8.84%
	Interest	25.28	25.28
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.64%	9.64%
	Interest	19.28	19.28
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	200.00	200.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	200.00	200.00
	Average Loan	200.00	200.00
	Rate of Interest	9.35%	9.35%
	Interest	18.70	18.70
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XXXVIII		
	Gross loan opening	950.00	950.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	950.00	950.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	950.00	950.00
	Average Loan	950.00	950.00
	Rate of Interest	9.25%	9.25%
	Interest	87.88	87.88
	Rep Schedule	Bullet Payment as on 9.3.2027	
7	Bond XL		
	Gross loan opening	241.44	241.44
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	241.44	241.44
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	241.44	241.44
	Average Loan	241.44	241.44
	Rate of Interest	9.30%	9.30%
	Interest	22.45	22.45
	Rep Schedule	12 Annual installments from 28.6.2016	
8	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	1006.53
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	1006.53
	Additions during the year	1006.53	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1006.53	1006.53
	Average Loan	503.27	1006.53
	Rate of Interest	3.8750%	3.88%
	Interest	19.50	39.00
	Rep Schedule		
9	Bond XXXVII		
	Gross loan opening	244.00	244.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	244.00	244.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	244.00	244.00
	Average Loan	244.00	244.00

Rate of Interest	9.25%	9.25%
Interest	22.57	22.57
Rep Schedule	12 Annual installments from 26.12.2015	
Total Loan		
Gross loan opening	2471.44	3477.97
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	2471.44	3477.97
Additions during the year	1006.53	0.00
Repayment during the year	0.00	20.83
Net Loan-Closing	3477.97	3457.14
Average Loan	2974.71	3467.55
Weighted Average Rate of Interest	8.2833%	7.6418%
Interest	246.40	264.98

Annexure-4

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-D			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	220.00	220.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	220.00	220.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	220.00	220.00
	Average Loan	220.00	220.00
	Rate of Interest	8.64%	8.64%
	Interest	19.01	19.01
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	450.00	450.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	450.00	450.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	37.50
	Net Loan-Closing	450.00	412.50
	Average Loan	450.00	431.25
	Rate of Interest	8.84%	8.84%
	Interest	39.78	38.12
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	450.00	450.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	450.00	450.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	450.00	450.00
	Average Loan	450.00	450.00
	Rate of Interest	8.84%	8.84%
	Interest	39.78	39.78
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	9.64%	9.64%
	Interest	48.20	48.20
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	9.35%	9.35%
	Interest	46.75	46.75
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XXXVIII		
	Gross loan opening	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	300.00	300.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	300.00	300.00
	Average Loan	300.00	300.00
	Rate of Interest	9.25%	9.25%
	Interest	27.75	27.75
	Rep Schedule	Bullet Payment as on 9.3.2027	
7	Bond XL		
	Gross loan opening	51.83	51.83
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	51.83	51.83
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	51.83	51.83
	Average Loan	51.83	51.83
	Rate of Interest	9.30%	9.30%
	Interest	4.82	4.82
	Rep Schedule	12 Annual installments from 28.6.2016	
8	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	355.56
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	355.56
	Additions during the year	355.56	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	355.56	355.56
	Average Loan	177.78	355.56
	Rate of Interest	3.8750%	3.88%
	Interest	6.89	13.78
	Rep Schedule		
9	Bond XXXVII		
	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00

Rate of Interest	9.25%	9.25%
Interest	46.25	46.25
Rep Schedule	12 Annual installments from 26.12.2015	
Total Loan		
Gross loan opening	2971.83	3327.39
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	2971.83	3327.39
Additions during the year	355.56	0.00
Repayment during the year	0.00	37.50
Net Loan-Closing	3327.39	3289.89
Average Loan	3149.61	3308.64
Weighted Average Rate of Interest	8.8655%	8.5974%
Interest	279.23	284.46

Annexure-5

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-E			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	100.00	100.00
	Average Loan	100.00	100.00
	Rate of Interest	8.64%	8.64%
	Interest	8.64	8.64
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	8.33
	Net Loan-Closing	100.00	91.67
	Average Loan	100.00	95.83
	Rate of Interest	8.84%	8.84%
	Interest	8.84	8.47
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	309.00	309.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	309.00	309.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	309.00	309.00
	Average Loan	309.00	309.00
	Rate of Interest	8.84%	8.84%
	Interest	27.32	27.32
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	175.00	175.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	175.00	175.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	175.00	175.00
	Average Loan	175.00	175.00
	Rate of Interest	9.64%	9.64%
	Interest	16.87	16.87
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	175.00	175.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	175.00	175.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	175.00	175.00
	Average Loan	175.00	175.00
	Rate of Interest	9.35%	9.35%
	Interest	16.36	16.36
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XL		
	Gross loan opening	4.85	4.85
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4.85	4.85
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4.85	4.85
	Average Loan	4.85	4.85
	Rate of Interest	9.30%	9.30%
	Interest	0.45	0.45
	Rep Schedule	12 Annual installments from 28.6.2016	
7	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	271.15
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	271.15
	Additions during the year	271.15	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	271.15	271.15
	Average Loan	135.58	271.15
	Rate of Interest	3.8750%	3.88%
	Interest	5.25	10.51
	Rep Schedule		
8	Bond XXXVII		
	Gross loan opening	489.00	489.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	489.00	489.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	489.00	489.00
	Average Loan	489.00	489.00
	Rate of Interest	9.25%	9.25%
	Interest	45.23	45.23
	Rep Schedule	12 Annual installments from 26.12.2015	
	Total Loan		
	Gross loan opening	1352.85	1624.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1352.85	1624.00
	Additions during the year	271.15	0.00
	Repayment during the year	0.00	8.33
	Net Loan-Closing	1624.00	1615.67

Average Loan	1488.43	1619.83
Weighted Average Rate of Interest	8.6645%	8.2632%
Interest	128.97	133.85

Annexure-6

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-F			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	103.00	103.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	103.00	103.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	103.00	103.00
	Average Loan	103.00	103.00
	Rate of Interest	8.64%	8.64%
	Interest	8.90	8.90
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	8.33
	Net Loan-Closing	100.00	91.67
	Average Loan	100.00	95.83
	Rate of Interest	8.84%	8.84%
	Interest	8.84	8.47
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	309.00	309.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	309.00	309.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	309.00	309.00
	Average Loan	309.00	309.00
	Rate of Interest	8.84%	8.84%
	Interest	27.32	27.32
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	175.00	175.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	175.00	175.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	175.00	175.00
	Average Loan	175.00	175.00
	Rate of Interest	9.64%	9.64%
	Interest	16.87	16.87
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	61.15	61.15
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	61.15	61.15
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	61.15	61.15
	Average Loan	61.15	61.15
	Rate of Interest	9.35%	9.35%
	Interest	5.72	5.72
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XL (Add Cap for 2012-13 Drawl on 31.3.2013)		
	Gross loan opening	0.00	9.30
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	9.30
	Additions during the year	9.30	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	9.30	9.30
	Average Loan	4.65	9.30
	Rate of Interest	9.30%	9.30%
	Interest	0.43	0.86
	Rep Schedule	12 Annual installments from 28.6.2016	
7	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	757.55	757.55
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	757.55	757.55
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	757.55	757.55
	Average Loan	757.55	757.55
	Rate of Interest	3.8750%	3.88%
	Interest	29.36	29.36
	Rep Schedule		
8	Bond XXXVII		
	Gross loan opening	109.00	109.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	109.00	109.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	109.00	109.00
	Average Loan	109.00	109.00
	Rate of Interest	9.25%	9.25%
	Interest	10.08	10.08
	Rep Schedule	12 Annual installments from 26.12.2015	
	Total Loan		
	Gross loan opening	1614.70	1624.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1614.70	1624.00
	Additions during the year	9.30	0.00
	Repayment during the year	0.00	8.33

Net Loan-Closing	1624.00	1615.67
Average Loan	1619.35	1619.83
Weighted Average Rate of Interest	6.6392%	6.6412%
Interest	107.51	107.58

Annexure-7

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN-ASSET-G			
	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	220.00	220.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	220.00	220.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	220.00	220.00
	Average Loan	220.00	220.00
	Rate of Interest	8.64%	8.64%
	Interest	19.01	19.01
	Rep Schedule	12 Annual installments from 8.7.2014	
2	Bond XXXII		
	Gross loan opening	450.00	450.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	450.00	450.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	37.50
	Net Loan-Closing	450.00	412.50
	Average Loan	450.00	431.25
	Rate of Interest	8.84%	8.84%
	Interest	39.78	38.12
	Rep Schedule	12 Annual installments from 27.3.2014	
3	Bond XXXIV		
	Gross loan opening	450.00	450.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	450.00	450.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	450.00	450.00
	Average Loan	450.00	450.00
	Rate of Interest	8.84%	8.84%
	Interest	39.78	39.78
	Rep Schedule	12 Annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	9.64%	9.64%
	Interest	48.20	48.20
	Rep Schedule	12 Annual installments from 31.5.2015	
5	Bond XXXVI		

	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	9.35%	9.35%
	Interest	46.75	46.75
	Rep Schedule	15 Annual installments from 29.8.2016	
6	Bond XXXVIII		
	Gross loan opening	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	300.00	300.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	300.00	300.00
	Average Loan	300.00	300.00
	Rate of Interest	9.25%	9.25%
	Interest	27.75	27.75
	Rep Schedule	Bullet Payment as on 9.3.2027	
7	Bond XL		
	Gross loan opening	227.73	227.73
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	227.73	227.73
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	227.73	227.73
	Average Loan	227.73	227.73
	Rate of Interest	9.30%	9.30%
	Interest	21.18	21.18
	Rep Schedule	12 Annual installments from 28.6.2016	
8	FC- Bond (drawl on 17.1.2013) (Add Cap for 2012-13)		
	Gross loan opening	0.00	179.65
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	179.65
	Additions during the year	179.65	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	179.65	179.65
	Average Loan	89.83	179.65
	Rate of Interest	3.8750%	3.88%
	Interest	3.48	6.96
	Rep Schedule		
9	Bond XXXVII		
	Gross loan opening	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00

Rate of Interest	9.25%	9.25%
Interest	46.25	46.25
Rep Schedule	12 Annual installments from 26.12.2015	
Total Loan		
Gross loan opening	3147.73	3327.38
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	3147.73	3327.38
Additions during the year	179.65	0.00
Repayment during the year	0.00	37.50
Net Loan-Closing	3327.38	3289.88
Average Loan	3237.56	3308.63
Weighted Average Rate of Interest	9.0246%	8.8859%
Interest	292.18	294.00