

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 99/TT/2013

Coram:

Shri Gireesh B. Pradhan, Chairman

Shri A.K. Singhal, Member

Shri A.S. Bakshi, Member

Date of Hearing: 09.10.2014

Date of Order : 30.06.2015

In the matter of:

Approval for determination of transmission tariff for Asset-1: 400 kV Line Bays at Biharsharif Sub-station along with 80 MVAR Switchable Line Reactors for the 400 kV D/C Purnea-Biharsharif transmission line and Asset-2: 400 kV Line Bays at Purnea Sub-station for the 400 kV D/C Purnea-Biharsharif transmission line under Transmission Schemes (in Eastern Region) for enabling import of NER/ER surplus power by NR for tariff block 2009-14 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,
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 66/11kV 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

18. Sterlite Industries (I) Limited,
SIPCOT Industrial Complex,
Madurai Bypass Road, TV Puram P.O,
Tuticorin-628 002, Tamil Nadu

....Respondents

For petitioner: Shri Sanjay Sen, Advocate, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri S.S. Raju, PGCIL
Shri M.M. Mondal, PGCIL
Shri A.M. Pavgi, PGCIL
Shri Swapnil Verma, PGCIL

For respondents: None

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission charges for Asset-1: 400 kV Line Bays at Biharsharif Sub-station along with 80 MVAR Switchable Line Reactors for the 400 kV D/C Purnea-Biharsharif transmission line and Asset-2: 400 kV Line Bays at Purnea Sub-station for the 400 kV D/C Purnea-Biharsharif transmission line (hereinafter referred to as “transmission assets”) under Transmission Schemes (in Eastern Region) for enabling import of NER/ER surplus power by NR for the tariff block 2009-2014,

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 (IA) for the project was accorded by Board of Directors of the petitioner vide Memorandum No. C/CP/Import of NER/ER surplus power by NR dated 19.9.2011 at an estimated cost of ₹8042 lakh is including IDC of ₹317 lakh (Based on 2nd Quarter, 2011 price level).

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

At Bongaigaon (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, without reactors

At Siliguri (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, each with 80 MVAR switchable line reactors

At Purnea (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, without reactors

At Biharsharif (PG) 400 kV Sub-station:

(1) 2 nos. of 400 kV line bays, each with 80 MVAR switchable line reactors

4. The scope of works covered in the instant project is as under:-

Srl. No.	Scope under the Project	Required for and to be matched with
1	<u>At Bongaigaon (PG) 400 kV Sub-station</u> 2 nos. 400 kV line bays, without reactors	Bongaigaon-Siliguri 400 kV (Quad) D/C line
2	<u>At Siliguri (PG) 400 kV Sub-station</u> 2 nos. 400 kV line bays, each with 80 MVAR switchable line reactors	Bongaigaon-Siliguri 400 kV (Quad) D/C line
3	<u>At Purnea (PG) 400 kV Sub-station</u> 2 nos. 400 kV line bays, without reactors	Purnea-Biharshariff 400 kV (Quad) D/C line
4	<u>At Biharsharif (PG) 400 kV Sub-station</u> 2 nos. 400 kV line bays, each with 80 MVAR switchable line reactors	Purnea-Biharshariff 400 kV (Quad) D/C line

5. The petitioner initially in the petition sought tariff for two assets. Later, vide affidavit dated 31.12.2013 has submitted that Asset-1 was commissioned in two parts and has also submitted the actual date of commercial operation for all three assets as given hereunder :-

S. No.	Name of the Asset	Scheduled COD	Actual date of COD
1	Asset-1(a): 400 kV Line Bays at Biharsharif Sub-station along with 1x80 MVAR Switchable Line Reactor {for the 400 kV D/C Purnea-Biharsharif T/L}	1.4.2013	1.4.2013
2	Asset-1(b): 1x80 MVAR Switchable Line Reactor {at 400 kV Biharsharif Sub-station}		1.5.2013
3	Asset-2: 400 kV line bays at Purnea Sub-station {for the 400 kV D/C Purnea-Biharsharif T/L}		1.4.2013

6. The petitioner has claimed the following transmission charges for the instant assets:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14	Asset-1(b) 2013-14	Asset-2 2013-14
Depreciation	103.78	18.53	84.34
Interest on Loan	121.87	23.27	98.30
Return on Equity	105.66	19.00	85.96
Interest on Working Capital	22.29	4.61	13.11
O & M Expenses	274.92	60.01	130.92
Total	628.52	125.42	412.63

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

Particulars	(₹ in lakh)		
	Asset-1(a) 2011-12	Asset-1(b) 2012-13	Asset-2 2013-14
Maintenance Spares	41.24	9.82	19.64
O & M expenses	22.91	5.46	10.91
Receivables	104.75	22.80	68.77

Total	168.90	38.08	99.32
Rate of Interest	13.20%	13.20%	13.20%
Interest	11.15	2.51	6.56

8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. AVVNL, Respondent No 2, and BRPL, Respondent No 12, have filed reply vide affidavits dated 23.5.2013 and 22.8.2014, respectively. The respondents have mainly raised issues like additional return on equity, cost variation, additional capital expenditure, O&M Expenses, application fee and filing, etc. The petitioner has filed rejoinder to the replies of AVVNL and BRPL vide affidavits dated 3.1.2014 and 8.9.2014. The submissions made by the respondents and their clarifications have been dealt in relevant paragraphs of this order.

9. We have considered the submissions of the parties and perused the material on record, we proceed to dispose of the petition.

DATE OF COMMERCIAL OPERATION:

10. The petitioner vide affidavit dated 28.3.2014 has submitted that the 400 kV D/C Purnea-Biharshariff Transmission Line is constructed for enabling import of NER/ER surplus power in Eastern Region by Northern Region. The 400 kV D/C Purnea-Biharshariff Transmission Line is executed by Sterlite Ltd., selected through tariff based competitive bidding. The corresponding bays at Purnea and Biharshariff Sub-stations are in the petitioner's scope and covered in the instant petition. Asset 1(a), Asset 1(b) and Asset 2 were ready for its intended use on 1.4.2013, 1.5.2013 and 1.4.2013 respectively. However, the Purnea-Biharshariff Transmission Line was not

ready by the said dates. The petitioner has also prayed that the date of commercial operation of the bays may be approved by invoking the provisions of Regulation 3(12)(c) of 2009 Tariff Regulations and Regulation 24 of the Conduct of Business Regulations, 1999.

11. During the hearing on 26.8.2014, the petitioner prayed for impleadment of Sterlite Ltd. as one of the respondents. The Commission allowed impleadment of Sterlite Ltd. as one of the respondents and directed Sterlite to file reply. Sterlite Ltd. vide letter dated 16.10.2014 submitted that commissioning of Purnea-Biharshariff Transmission Line was shifted due to change in the co-ordinates, which has already been taken into cognizance by the Commission in Petition No.162/2011. Learned counsel for BRPL submitted that petitioner's request for approval of date of commercial operation by invoking Regulation 3(12)(c) of the 2009 Tariff Regulations needs to be decided in the light of the Hon'ble Appellate Tribunal of Electricity ("the Tribunal") Judgment dated 2.7.2012 in Appeal No. 123 of 2011.

12. Regulation 3(12) (c) of the 2009 Tariff Regulations provides as under:-

“(12) **‘date of commercial operation’** or **‘COD’** means

(c) in relation to the transmission system, the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its availability shall be accounted for, from that date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service.”

13. As per the Tribunal's judgement dated 2.7.2012 in Appeal No. 123 of 2011, the date of commercial operation of a transmission asset shall be considered to be achieved only when it is charged successfully, its trial operation has been successfully carried out, and it is in regular service. The relevant portion of the said judgement is extracted hereunder:-

"20. According to Tariff Regulations, the COD of a transmission line shall be achieved when the following conditions are met.

- i) The line has been charged successfully,
- ii) its trial operation has been successfully carried out, and
- iii) it is in regular service.

The above conditions in the case of 400 kV Barh-Balia line were not fulfilled on 01.07.2010, the date on which COD was declared by the Respondent no.1. Merely charging of the line from one end without the switchgear, protection and metering arrangements being ready at the other end, even if not in the scope of works of the transmission license, would not entitle the line for declaration of commercial operation."

14. As per the Tribunal's judgement, an element of the transmission system can be declared as having attained commercial operation only if it has been charged successfully, after successful trial operation and is in regular service. In the instant case, Bays and Line Reactors covered in the petition were ready, but the successful trial operation and charging could not be carried out without the Purnea-Biharshariff Transmission Line getting commissioned. The transmission line executed by Sterlite Ltd. was commissioned on 13.9.2013. This is also confirmed from CEA's Executive Summary report for the month of September, 2013 available at CEA website. As the Bays and Line Reactors could not have been charged for trial operation and cannot be considered ready for regular service without the availability of the transmission line. The bays and line reactors cannot be declared as commercial on the dates as claimed by the petitioner. Accordingly, the date of commercial operation of Asset

1(a), Asset 1(b) and Asset-2 cannot be approved as 1.4.2013, 1.5.2013 and 1.4.2013 respectively as claimed by the petitioner.

15. We are of the view that the instant transmission assets could be charged and trial operation could be successfully carried out only on commissioning of the Purnea-Biharshariff Transmission Line, which was commissioned on 13.9.2013. Accordingly, the date of commercial operation of the instant transmission assets could be only 13.9.2013, i.e. 1.10.2013. Therefore, the tariff for all the three assets in the instant petition is allowed from 1.10.2013 (hereinafter referred to as “tariff date”).

16. As per Section-38 (2) of Electricity Act, 2003, the petitioner as a CTU has to discharge all functions of planning and co-ordination relating to inter-state transmission system with State Transmission Utilities, Central Government, State Governments, Generating Companies, Regional Power Committees, Authority, licensees to ensure development of an efficient, co-ordinated and economical system of inter-State transmission lines for smooth flow of electricity from generating stations to the load centres. In the instant case, the petitioner has not submitted any documentary evidence in regard to co-ordination with M/s Sterlite. We therefore direct the CTU to properly co-ordinate development of ISTS, so as to ensure commissioning of transmission line and bays are commissioned in a matching time-frame, to ensure that the assets are put into regular service as soon as they are commissioned.

CAPITAL COST:

17. 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.”

18. The petitioner has submitted the capital cost as on the date of commercial operation based on the Management Certificate submitted vide affidavit dated 31.12.2013 and the projected additional capital expenditure. The details of revised apportioned approved cost have been submitted by the petitioner vide affidavit dated

28.11.2014. The details of apportioned approved cost, projected/actual expenditure as on the date of commercial operation and actual/estimated additional capitalization are as under:-

(₹ in lakh)

Particulars	Revised Apportioned approved cost	Cost incurred as on COD	Additional Capitalization			Total Estimated completion Cost
			COD to 31.8.2013	1.9.2013 To 31.3.2014	2014-15	
Asset-1(a)	2190.76	1469.63	236.62	728.01	423.21	2857.47
Asset-1(b)	551.20	296.28	54.28	118.84	70.28	539.68
Asset-2	1586.29	1027.33	121.38	999.92	321.58	2470.21
Total	4328.25	2793.24	412.28	1846.77	815.07	5867.36

19. As discussed at para 15, the tariff for the instant assets is allowed with effect from the tariff date i.e. 1.10.2013. However, the cost data submitted by the petitioner pertains to the date of commercial operation of the individual assets i.e. 1.4.2013 for Asset-1(a) and Asset-2 and 1.5.2013 for Asset-1(b). As per the Management Certificates submitted, the cost data for financial year 2013-14 is in two parts i.e. from 1.4.2013 to 31.8.2013 and from 1.9.2013 to 31.3.2014. The capital cost considered for the purpose of tariff computation is the sum of capital cost on the date of commercial operation claimed by the petitioner plus the additional capital expenditure up to 31.8.2013 and proportionate additional capital expenditure for the month of September, 2013. Thus, the balance additional capital expenditure claimed i.e. from 1.10.2013 to 31.3.2014 has been considered as an additional capital expenditure during 2013-14.

20. In view of above, the details of capital cost as on the tariff date, i.e. 1.10.2013, considered for the purpose of tariff computation is as follows:-

Particulars	Capital Cost considered as on tariff date	Projected additional capital expenditure		Total estimated completion cost
		1.10.2013 to 31.3.2014	2014-15	
Asset-1(a)	1810.25	624.01	423.21	2857.47
Asset-1(b)	367.54	101.86	70.28	539.68
Asset-2	1291.56	857.07	321.58	2470.21
Total	3469.35	1582.94	815.07	5867.36

TREATMENT OF IDC AND IEDC:

21. As per the IA, the commissioning schedule of the project was 18 months from the date of IA i.e. 19.9.2011. Accordingly the schedule date of completion works out to 18.3.2013, say 1.4.2013. There is no delay in commissioning of Asset-1(a) and

2. However, there is a delay of 1 month in commissioning of 1 no 80 MVAR Switchable Line Reactor i.e. Asset-1(b). The reason for delay in commissioning of 1 no. 80 MVAR Switchable Line Reactor is due to delay in commissioning of transmission line constructed by M/s Sterlite (through Tariff Based Competitive Bidding).

22. The petitioner has not claimed any IDC in respect of all three assets. The IEDC claimed by the petitioner has been considered with reference to the Abstract Cost Estimate submitted by the petitioner and is allowed subject to the petitioner submitting the details of expenditure as on the tariff date, i.e. 1.10.2013 and year wise detailed computation of IDC/IEDC on cash basis at the time of truing up.

Further, as the tariff date of the instant assets has been considered to be 1.10.2013 in line with judgement of the Tribunal, the claim of IDC/IEDC in respect of Asset-1(a) and Asset-2 for the period from 1.4.2013 to 1.10.2013 and in respect of Asset-1(b) for the period 1.5.2013 to 1.10.2013, if any, shall be considered at the time of truing-up.

COST OVER-RUN:

23. As discussed at para 5, Asset-1 was segregated in two parts as submitted by the petitioner vide affidavit dated 28.11.2014 and has submitted the asset wise segregated approved cost of Asset-1(a), Asset-1(b) and Asset-2. However, the capital costs of Asset-1(a) and Asset-2 as on 31.3.2014 exceed their revised apportioned approved cost. Thus, there is cost over-run in the case of both these assets. As such, the cost as on 31.3.2014 has been restricted to revised apportioned approved cost and the excess cost of these assets has been reduced from the additional capital expenditure during 2013-14. The petitioner was directed to indicate the basis of apportioned approved cost for all the assets of the project as it was observed that the apportioned approved cost of the entire project exceeds the expenditure given in the IA dated 19.9.2011. The variation with respect to original assets claimed in the project is as given hereunder:-

(₹ in lakh)

Name of the asset as per original petitions	Sanctioned expenditure for the project as a whole	Apportioned approved cost	Total estimated completion cost	Remarks
Asset-1: 400 kV Line Bays at Biharsharif S/s along with 80 MVAR switchable line reactors for the 400 kV D/C Purnea -	8042.00	2772.64	3416.39	Covered in the instant petition

Biharsharif transmission line				
Asset-2: 400 kV Line Bays at Purnea S/s for the 400 kV D/C Purnea-Biharsharif transmission line		2663.30	2493.08	
Asset-1: 2 nos. 400 kV line bays along with 2 nos. 80 MVAR switchable line reactors at 400 kV Siliguri S/S and 2 nos. 400 kV line bays at Bongaigaon S/s		3713.75	2975.78	Covered in Petition No. 42/TT/2013
Total	8042.00	9149.69	8885.25	

24. The petitioner vide affidavit dated 31.12.2013 submitted that as per the system requirement 2x63 MVAR switchable line reactor at Purnea Sub-station were removed from the scope of FR and subsequently were not considered in IA. It is observed that the petitioner has reduced the original apportioned approved cost of Asset-2 in the instant petition to ₹1586.29 lakh and later vide affidavit dated 28.11.2014 also reduced the original approved cost of Asset-1 (combined) in the instant petition to ₹2741.96 (Asset-1(a)-₹2190.76 lakh+Asset-1(b)-₹551.20 lakh), which is within the sanctioned cost of the project and the details of revised apportioned approved cost are as under:-

(₹ in lakh)

Name of the asset	Apportioned approved cost (as per original petitions)	Revised apportioned approved cost	Difference between original and revised apportioned approved cost
Asset-1(a)	2772.64	2190.76	30.68
Asset-1(b)		551.20	
Asset-2	2663.30	1586.29	1077.01
Asset-1 in Petition No. 42/TT/2013	3713.75	3713.75	Nil
Total	9149.69	8042.00	1107.69

25. It is observed that the capital cost submitted by the petitioner in Form-5B corresponding to switchable line reactor, stated to have been removed from the scope, is ₹915.65 lakh but the difference between original and revised approved cost is ₹1107.69 lakh. As such, the petitioner is directed to clarify the above discrepancy at the time of filing the truing up petition. There is no cost over-run in Asset-1(b). The capital cost for Asset-1(a) and Asset-2 has been restricted to revised apportioned approved cost and accordingly tariff has been worked out.

26. AVVNL has submitted that the petitioner may be directed to explain the reasons for cost variation. BRPL has submitted that there is cost over-run in case of combined cost of Asset-1 and though there is no cost over-run in the case of Asset-2 there is cost variation in some of the elements like. misc. civil works, switchgear, control relay & protection panel, bus bars/conductors & insulators and structure for switchyard. The petitioner was directed to submit the cost of the components involved in misc. civil works in case of both Asset-1 and Asset-2 and also to submit the scope of the misc. civil work as per FR and actual work executed.

27. During the hearing on 26.8.2014, learned counsel for BRPL submitted that the total estimated cost in the case of Asset-1 (combined) is much higher than the apportioned approved cost whereas in the case of Asset-2, it is within the apportioned approved cost resulting in a large savings and requested to direct the petitioner to give proper justification for the increase in cost of Asset-1.

28. In response to the Commission's queries and BRPL's objections, the petitioner made the following submissions:-

a) The item wise variation along with reason has been mentioned in the Form-5B in the remarks column. As regards the cost variation, the award of contract for these items was made on turnkey basis for various items under the sub-station package. Numbers of bids were received from different vendors through Domestic Competitive Bidding and the award was made to the lowest evaluated bidder. The item wise comparison of different items under the turnkey package with respective cost estimates may not lead to appropriate result as the actual prices solely depend on how the bifurcation of the total price has been made by the vendor while quoting for different items under complete turnkey package.

b) The bids for a particular package containing many small components/items are invited on overall basis and comparison of bidder's prices and decision of the successful bidder is done on the basis of the total bid price instead of price comparison of any individual item. The package is awarded on the overall comparison as a whole based on the lowest cost of complete package which may include many small items. The rates of individual items are asked only for the purpose of on 'account payment' and not for any evaluation/award.

29. We have considered the submissions made by the petitioner and the respondents with respect to variation in estimated completion cost against the apportioned approved cost of Asset-1(a) and Asset-2. The capital cost of Asset-1(a) and Asset-2 is restricted to the apportioned approved cost. The apportioned approved cost of the individual asset is considered for the purpose of tariff calculations. However, the capital cost in case of Asset-1(a) and Asset-2 shall be

reviewed at the time truing-up, subject to the petitioner filing the RCE and justification for cost over-run. 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-overrun for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure of Asset-1(a) and Asset-2 has been restricted to apportioned approved cost.

TREATMENT OF INITIAL SPARES:

30. The petitioner has claimed initial spares of 68.60 lakh, 13.37 lakh and 59.81 lakh for Asset-1(a), Asset-1(b) and Asset-2 respectively pertaining to sub-station. However, the claim in the case of Asset-1(b) exceeds the ceiling limit specified in the 2009 Tariff Regulations. The details are as given below:-

Particulars	(₹ in lakh)				
	Cost as on cut-off date	Initial Spares claimed	Ceiling limit	Initial Spares worked out	Excess Initial Spares claimed
	(a)	(b)	(c)	(d)={{(a)-(b)}*(c)/{(100%-(c))}}	(e)=(b)-(d)
Asset-1(a)	2190.76	*52.59	2.50%	54.82	-2.23
Asset-1(b)	469.40	13.37	2.50%	11.69	1.68
Asset-2	1586.29	*38.41	2.50%	39.69	-1.28

*Claim for Asset-1(a) and Asset-2 has been reduced in proportion to total completion cost considering additional capitalisation upto 2014-15 and revised apportioned approved cost and excess spares have been reduced from capital cost as on tariff date in the case of Asset-1(b).

31. In view of above, capital cost considered for the purpose of tariff after deducting disallowed initial spares is as overleaf:-

(₹ in lakh)

Particulars	Capital cost considered as on tariff date	Deduction in respect of excess Initial Spares	Capital cost considered as on tariff date
Asset-1(a)	1810.25	-	1810.25
Asset-1(b)	367.54	1.68	365.86
Asset-2	1291.56	-	1291.56

ADDITIONAL CAPITAL EXPENDITURE:

32. The 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:”

33. 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”.

34. Accordingly, the cut-off date for the instant assets is 31.3.2016.

35. AVVNL has submitted that the petitioner may be asked to confirm that all works in the scope would be completed within the costs indicated. The additional capital expenditure is allowed upto 31.3.2014. The additional capital expenditure claimed for the financial year 2014-15 is within the cut-off date but beyond the tariff

period and therefore it has not been considered. The additional capital expenditure is claimed under Regulation 9(1) of the 2009 Tariff Regulations, against estimated balance and retention payments and thus allowed. However, the cost in the case of Asset-1(a) and Asset-2 has been restricted to the apportioned approved cost as discussed at para 24, the additional capital expenditure in case of both these assets have been reduced for the financial year 2013-14. The details of add-cap allowed are as hereunder:-

(₹ in lakh)		
Particulars	2013-14	DOCO to 31.3.2010
Asset-1(a)	380.51	(i) Add-cap upto 31.8.2013 (₹236.62 lakh) is included as capital cost on tariff date. (ii) Pro-rata add-cap of ₹104.00 lakh for the month of September, 2013 is included as capital cost on tariff date. (iii) Balance add-cap for 2013-14 of ₹624.01 lakh for 1.10.2013 to 31.3.2014 is reduced by ₹243.50 lakh to restrict completion cost upto revised apportioned approved cost.
Asset-1(b)	101.86	(i) Add cap upto 31.8.2013 (₹54.28 lakh) is included as capital cost on tariff date. (ii) Pro-rata add-cap of ₹16.98 lakh for the month of September, 2013 is included as capital cost on tariff date.
Asset-2	294.73	(i) Add-cap upto 31.8.2013 (₹121.38 lakh) is included as capital cost on tariff date. ii) Pro-rata add-cap of ₹142.85 lakh for the month of September, 2013 is included as capital cost on tariff date. (iii) Balance add-cap for 2013-14 of ₹857.07 lakh for 1.10.2013 to 31.3.2014) is reduced by ₹562.34 lakh to restrict completion cost upto revised apportioned approved cost.

CAPITAL COST AS ON 31.3.2014:

36. Capital cost as on 31.3.2014 has been worked out by considering capital costs as on tariff date considered and the additional capital expenditure allowed during 2013-14 as under:-

Particulars	(₹ in lakh)		
	Capital cost as on tariff date	Additional capitalisation 2013-14	Total estimated cost
Asset-1(a)	1810.25	380.51	2190.76
Asset-1(b)	365.86	101.86	467.72
Asset-2	1291.56	294.73	1586.29

DEBT-EQUITY RATIO:

37. 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.”

38. The petitioner has claimed tariff based on debt: equity ratio of 70: 30 for all three transmission assets as on actual date of commercial claimed. The same debt: equity ratio has been considered for the tariff date after adjusting excess initial spares and add-cap also in the case of instant assets.

39. The details of the Debt: Equity Ratio considered for the purpose of tariff determination are as under:-

(₹ in lakh)

Particulars	Capital cost as on tariff date		Capital cost as on 31.3.2014	
	Amount	(%)	Amount	(%)
Asset-1(a)				
Debt	1267.18	70.00	1533.53	70.00
Equity	543.08	30.00	657.23	30.00
Total	1810.26	100.00	2190.76	100.00
Asset-1(b)				
Debt	256.11	70.00	327.41	70.00
Equity	109.75	30.00	140.31	30.00
Total	365.86	100.00	467.72	100.00
Asset-2				
Debt	904.09	70.00	1110.40	70.00
Equity	387.47	30.00	475.89	30.00
Total	1291.56	100.00	1586.29	100.00

RETURN ON EQUITY:

40. Regulation 15 of the 2009 Tariff Regulations provides for working out return on equity 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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".

41. The petitioner has claimed the return on equity as per Regulation 15 of the 2009 Tariff Regulations. The petitioner has also claimed additional return on equity @ 0.5% on account of the instant assets stated to be commissioned before time as the assets in the instant petition have been commissioned within 20 months from the date of IA as against 24 months required under the 2009 Tariff Regulations. The petitioner has submitted that, as per Appendix-II of the 2009 Tariff Regulations, in case of a scheme having combination of the various types of projects, the qualifying time schedule of the activity having maximum time period

shall be considered for the scheme as a whole for the purpose of additional RoE. In line with this, the timeline for this project is same as for 400 kV AC sub-station for Plain Area i.e. 24 months from the date of investment approval.

42. AVVNL and BRPL in their replies have opposed the petitioner's claim for additional return on equity. Learned counsel of BRPL during the hearing on 26.8.2014 also submitted that the petitioner's claim for 0.5% additional return on equity is not admissible in terms of the judgment of Tribunal dated 10.5.2012 in Appeal No. 155/2011.

43. We have considered the submissions of the petitioner and respondents. In the instant case, the transmission assets (bays at Biharsharif and Purnea) were executed by the petitioner in the existing Biharsharif and Purnea Sub-stations of the petitioner. Therefore, the timeline laid down in the 2009 Tariff Regulations which are for the new transmission assets cannot be the same for the transmission assets executed in the premises of the existing sub-station since land which is a major requirement is available in case of extension project as compared to the new project where land is required to be acquired. Thus, we are of the view that the timeline specified in case of 400 kV AC sub-station for Plain Area (i.e. 24 months) specified in the 2009 Tariff Regulations cannot be applied in the instant case. Accordingly, the petitioner's prayer for additional return on equity of 0.5% is not allowed.

44. 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. In this order, return on equity has been computed @ 17.481% p.a for all three assets on average equity, based on the tax rate of 11.330% for the year 2008-09, as per Regulation 15(5) of the 2009 Tariff Regulations.

45. Accordingly, the return on equity has been computed as under:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Opening Equity	543.08	109.75	387.47
Addition due to Additional Capitalisation	114.15	30.56	88.42
Closing Equity	657.23	140.31	475.89
Average Equity	600.15	125.03	431.68
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	52.46	10.93	37.73

INTEREST ON LOAN:

46. Regulation 16 of the 2009 Tariff Regulations provides that;

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

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

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

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

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

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

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

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

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

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

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

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

47. The interest on loan has been worked out as detailed below:-

a) Gross amount of loan, repayment of instalments and rate of interest on actual loan have been considered as per affidavit dated 31.12.2013;

b) The repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period; and

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.

48. The detailed calculations in support of the weighted average rate of interest on loan are attached at Annexure-I to III to this order.

49. The weighted average rate of interest on loans has been calculated on the basis of prevailing rates of interest on actual loans available as on the date of commercial operation. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing up.

50. Details of the interest calculated on normative loan are as follows:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Gross Normative Loan	1267.18	256.11	904.09
Cumulative Repayment upto Previous Year	-	-	-
Net Loan-Opening	1267.18	256.11	904.09
Addition due to Additional Capitalisation	266.36	71.30	206.31
Repayment during the year	53.19	11.00	38.21
Net Loan-Closing	1480.34	316.41	1072.19
Average Loan	1373.76	286.26	988.14
Weighted Average Rate of Interest on Loan	9.2716%	9.8137%	9.1918%
Interest	63.68	14.05	45.41

DEPRECIATION:

51. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner:-

“17. (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.”

52. Clause 17 (4) of the 2009 Tariff Regulations provides that 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. It further provides 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 asset. The tariff for transmission assets in the instant petition have been considered from tariff date i.e.

1.10.2013 and will complete 12 years beyond 2013-14. Accordingly, the depreciation has been calculated as under:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Opening Gross Block	1810.25	365.86	1291.56
Projected Additional Capitalization	380.51	101.86	294.73
Closing Gross Block	2190.76	467.72	1586.29
Average Gross Block	2000.51	416.79	1438.92
Rate of Depreciation	5.3176%	5.2800%	5.3115%
Depreciable Value	1800.46	375.11	1295.03
Remaining Depreciable Value	1800.46	375.11	1295.03
Depreciation	53.19	11.00	38.21

OPERATION AND MAINTENANCE EXPENSES (O&M Expenses):

53. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies norms for O&M Expenses for transmission system based on type of sub-stations and the transmission line. Norms specified in respect of O&M Expenses for assets covered in the petition are as follows:-

Elements	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV bays (₹ lakh per bay)	52.40	55.40	58.57	61.92	65.46

54. Accordingly, the petitioner's entitlement to O & M Expenses has been worked out as under:-

Elements	(₹ in lakh)
	2013-14 (Pro-rata)
Asset-1(a)	
2 nos. 400 kV line bays and 1 no. 400 kV switchable line reactor bay.	98.19
Total	98.19
Asset-1(b)	
1 no. 400 kV switchable line reactor bay	32.73
Total	32.73
Asset-2	

2 nos. 400 kV line bays	65.46
Total	65.46

55. The petitioner has submitted that O&M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the years of tariff period. The wage 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 suitable revision in norms for O&M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

56. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultation with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. AVVNL and BRPL have submitted that the request of the petitioner for higher O & M expense should not be entertained and the petitioner's contention related to levies, duties, cess or any other statutory taxes etc. also should not be accepted as these charges generally form part of and are included on normative basis in O & M expenses. In this order, we have allowed O&M Expenses as per the existing norms.

INTEREST ON WORKING CAPITAL:

57. The components of the working capital and the interest thereon are discussed hereunder:-

i) Maintenance spares

As stated above, O&M Expenses have been claimed in the instant petition. Accordingly, as per Regulation 19 Maintenance spares have been worked out as 15% of O&M Expenses.

ii) O & M Expenses

As stated above, O&M Expenses have been claimed in the instant petition. Accordingly, as per Regulation 19, working capital has been worked out by considering 1 month O&M Expenses.

iii) Receivables:

The receivables have been worked out on the basis of 2 months' of annual transmission charges as worked out above.

iv) Rate of interest on working capital:

Interest on working capital has been worked out considering SBI Base rate of 9.70% as on 1.4.2013 plus 350 bps i.e. 13.20%.

58. The necessary computation in support of the interest on working capital is as under:-

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Maintenance Spares	29.46	9.82	19.64
O & M expenses	16.37	5.46	10.91
Receivables	92.21	23.76	64.36

Total	138.03	39.04	94.91
Rate of Interest	13.20%	13.20%	13.20%
Interest	9.11	2.58	6.26

TRANSMISSION CHARGES:

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

Particulars	(₹ in lakh)		
	Asset-1(a) 2013-14 (pro-rata)	Asset-1(b) 2013-14 (pro-rata)	Asset-2 2013-14 (pro-rata)
Depreciation	53.19	11.00	38.21
Interest on Loan	63.68	14.05	45.41
Return on Equity	52.46	10.93	37.73
Interest on Working Capital	9.11	2.58	6.26
O & M Expenses	98.19	32.73	65.46
Total	276.63	71.28	193.08

FILING FEE AND THE PUBLICATION EXPENSES:

60. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. BRPL has submitted that filing fee and the expenses on publication of notices can be allowed at the discretion of the Commission. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 A (1) (a) of the 2009 Tariff Regulations.

LICENCE FEE:

61. The petitioner has submitted that in O&M norms for tariff block 2009-14, the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner has

submitted 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:

62. 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, the beneficiaries shall have to share the service tax paid by the petitioner. BRPL has raised objection to this prayer of the petitioner as the transmission of electricity under the category of Support services of business or commerce has been already exempted included for the past period. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

SHARING OF TRANSMISSION CHARGES:

63. The billing, collection and disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

64. This order disposes of Petition No. 99/TT/2013.

sd/-

**(A.S. Bakshi)
Member**

sd/-

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

sd/-

**(Gireesh B. Pradhan)
Chairperson**



ANNEXURE-I
(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	2013-2014
1	Bond XXXVIII	
	Gross loan opening	241.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	241.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	241.00
	Average Loan	241.00
	Rate of Interest	9.25%
	Interest	22.29
	Rep Schedule	Bullet payment 09.03.2027
2	Bond XL	
	Gross loan opening	34.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	34.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	34.00
	Average Loan	34.00
	Rate of Interest	9.30%
	Interest	3.16
	Rep Schedule	12 annual instalments from 28.06.2016
3	Bond XLI	
	Gross loan opening	225.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	225.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	225.00
	Average Loan	225.00
	Rate of Interest	8.85%
	Interest	19.91
	Rep Schedule	12 annual instalments from 19.10.2016
4	Bond XLII	
	Gross loan opening	250.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	250.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	250.00
	Average Loan	250.00

	Rate of Interest	8.80%
	Interest	22.00
	Rep Schedule	Bullet payment 13.03.2023
5	SBI Loans	
	Gross loan opening	278.74
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	278.74
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	278.74
	Average Loan	278.74
	Rate of Interest	10.05%
	Interest	28.01
	Rep Schedule	22 annual instalments from 31.08.2016
	Total Loan	
	Gross loan opening	1028.74
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1028.74
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1028.74
	Average Loan	1028.74
	Rate of Interest	9.2716%
	Interest	95.38

ANNEXURE-II
(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	2013-2014
1	Bond XLI	
	Gross loan opening	20.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	20.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	20.00
	Average Loan	20.00
	Rate of Interest	8.85%
	Interest	1.77
	Rep Schedule	12 annual instalments from 19.10.2016
2	Bond XLII	
	Gross loan opening	20.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	20.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	20.00
	Average Loan	20.00
	Rate of Interest	8.80%
	Interest	1.76
	Rep Schedule	Bullet payment 13.03.2023
3	SBI loan	
	Gross loan opening	167.40
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	167.40
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	167.40
	Average Loan	167.40
	Rate of Interest	10.05%
	Interest	16.82
	Rep Schedule	22 annual instalments from 31.08.2016
	Total Loan	
	Gross loan opening	207.40
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	207.40
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	207.40

	Average Loan	207.40
	Rate of Interest	9.8137%
	Interest	20.35

ANNEXURE-III

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	2013-2014
1	Bond XXXVIII	
	Gross loan opening	100.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	9.25%
	Interest	9.25
	Rep Schedule	Bullet payment 09.03.2027
2	Bond XL	
	Gross loan opening	80.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	80.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	80.00
	Average Loan	80.00
	Rate of Interest	9.30%
	Interest	7.44
	Rep Schedule	12 annual instalments from 28.06.2016
3	Bond XLI	
	Gross loan opening	200.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.85%
	Interest	17.70
	Rep Schedule	12 annual instalments from 19.10.2016
4	Bond XLII	
	Gross loan opening	189.72
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	189.72
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	189.72
	Average Loan	189.72

	Rate of Interest	8.80%
	Interest	16.70
	Rep Schedule	Bullet payment 13.03.2023
5	SBI Loan	
	Gross loan opening	149.41
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	149.41
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	149.41
	Average Loan	149.41
	Rate of Interest	10.05%
	Interest	15.02
	Rep Schedule	22 annual instalments from 31.08.2016
	Total Loan	
	Gross loan opening	719.13
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	719.13
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	719.13
	Average Loan	719.13
	Rate of Interest	9.1918%
	Interest	66.10