

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 303/TT/2013

Coram:

**Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member**

**Date of Hearing : 03.03.2015
Date of Order : 29.01.2016**

In the matter of:

Approval of transmission tariff from anticipated COD to 31.3.2014 for (1) 765/400 kV, 1500 MVA ICT-1 along with associated bays at Jabalpur Pooling S/S (New) (anticipated COD-1.12.2013) and (2) 400 kV D/C (Quad) Jabalpur Pooling S/S (New)- Jabalpur (Existing) S/S T/L along with associated bays (anticipated COD-1.12.2013) under Transmission System for Phase-1 Generation project in Orissa-Part B in Western 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 Condition of Tariff) Regulations, 2009

And in the matter of

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

.....Petitioner

Vs

1. GMR Kamalanga Energy Limited,
Skip House, 25/1, Museum Road,
Bangalore,
Karnataka-560025
2. Monnet Power Company Limited,
Monnet Marg, Mandir Hasaud,
Raipur,
Chattisgarh-492101



3. Lanco Babandh Power Limited
Plot no. 397, Phase-III, 2nd Floor,
UDyog Vihar, Gurgaon,
Haryana- 120016
4. Ind Barath energy(Utkal) Limited,
Plot no. 30-A, Road No. 1,
Film Nagar, Jubilee Hills,
Hyderabad, Andhra Pradesh- 500033
5. Navbharat Power Private limited,
Navbharat Chambers, 6-3-1109/1,
3rd Floor, Left wing, Rajbhawan Road,
Somajiguda,
Hyderabad, Andhra Pradesh-500082
6. Jindal India Thermal Power Limited,
Plot No. 12, Sector-B, Pocket-1,
Local Shopping Complex,
Vasant Kunj, New Delhi-110070
7. Sterlite Energy Limited,
Sipcot Industrial Complex,
Tuticorin, Tamilnadu- 628002
8. North Bihar Power Distribution Company Ltd.
Vidyut Bhawan, Bailey Road
Patna-800 001.
9. South Bihar Power Distributon Company Ltd.
Vidyut Bhawan, Bailey Road
Patna-800 001.
10. West Bengal State Electricity Distribution Company Ltd.
Bidyut Bhawan, Bidhan Nagar
Block DJ, Sector-II, Salt Lake City
Kolkata-700 091.
11. Grid Corporation of Orissa Ltd.
Shahid Nagar, Bhubaneswar-751 007.
12. Damodar Valley Corporation
DVC Tower, Maniktala



CIVIC Centre, VIP Road
Kolkata-700 054.

13. Power Department
Govt. of Sikkim
Gangtok-737 101
14. Jharkhand State Electricity Board
In Front of Main Secretariat, Doranda
Ranchi- 834 002.
15. Madhya Pradesh Power Management Company Ltd.,
Shakti Bhawan, Rampur
Jabalpur-482 008.
16. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, 4th floor
Andehri (East), Mumbai-400 052.
17. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390 007.
18. Electricity Department, Government of Goa,
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403 001.
19. Electricity Department,
Administration of Daman and Diu,
Daman-396210.
20. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T. Silvassa-396 230.
21. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013.
22. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra-Bombay Road
Indore-452 008.
23. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,



Vidyut Bhawan, Vidyut Marg,
Jaipur- 302 005.

24. Ajmer Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
25. Jaipur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
26. Jodhpur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
27. Himachal Pradesh State Electricity Board
Vidyut Bhawan, Kumar House Complex Building II
Shimla-171 004
28. Punjab State Electricity Board,
The Mall, Patiala-147 001.
29. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6
Panchkula (Haryana)-134 109
30. Power Development Department,
Govt. of Jammu and Kashmir,
Mini Secretariat, Jammu.
31. Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226 001.
32. Delhi Transco Ltd.,
Shakti Sadan, Kotla Road,
New Delhi-110 002.
33. BSES Yamuna Power Ltd.,
Shakti Kiran Building, Karkardooma,
Delhi-110 092.
34. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi.



35. North Delhi Power Ltd.,
Power Trading & Load Dispatch Group,
Cennet Building, Adjacent to 66/11 kV Pitampura-3,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi-110 034.

36. Chandigarh Administration,
Sector-9, Chandigarh.

37. Uttarakhand Power Corporation Ltd.,
Urja Bhawan, Kanwali Road,
Dehradun.

38. North Central Railway,
Allahabad.

39. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 002.

.....**Respondents**

For Petitioner : Shri Prashant Sharma, PGCIL
Shri Rakesh Prasad, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for (1) 765/400 kV, 1500 MVA ICT-1 along with associated bays at Jabalpur Pooling Sub-station (New) (Anticipated COD-1.12.2013) and (2) 400 kV D/C (Quad) Jabalpur Pooling Sub-station (New)-Jabalpur (existing) Sub-station transmission line along with associated bays (anticipated COD-1.12.2013) under transmission system for Phase-1 Generation project in Orissa-Part B in Western Region for tariff block 2009-14 period, in terms



of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter "the 2009 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company, vide C/CP/Orissa Ph-I IPPs (Part-B), dated 15.12.2010, at an estimated cost of ₹274319 lakh, including IDC of ₹18092 lakh (based on 3rd Quarter, 20010 price level). As per the investment approval, the transmission asset was scheduled to be commissioned within 36 months from the date of investment approval, i.e. by 1.1.2014.

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

Transmission lines:

- a. Jharsuguda Pooling Station-Dharamjaygarh/near Korba (WR) 765 kV D/C line
- b. LILO of Ranchi-Sipat (Bilaspur) Pooling Station 765 kV S/C line at Dharamjaygarh/near Korba (WR)
- c. Dharamjaygarh-Jabalpur Pooling Station 765 kV D/C line
- d. Jabalpur Pooling Station-Jabalpur 400 kV D/C (High Capacity) line

Sub-stations:

- a. Establishment of 765 kV Switching Station at Dharamjaygarh/near Korba
- b. Establishment of 2x1500 MVA, 765/400 kV Pooling Station at Jabalpur



4. Long Term Access Agreement has been entered into between the petitioner and IPPs situated in Orissa on 24.2.2010. The petitioner had approached the Commission for regulatory approval of High Capacity Power Transmission Corridors (including the system under consideration/assets covered in the instant petition) for which approval was granted by the Commission vide order dated 31.5.2010.

5. The scheme was approved in the Standing Committee Meeting of Eastern Region held on 14.9.2009 where the generation developers and constituents of ER agreed to the evacuation of power from Phase-I in Orissa. The transmission system was later discussed in the 13th ERPC held in Kolkata on 24.3.2010. The system was further discussed in the 14th ERPC held on 11.6.2010. The scheme was then finally agreed during the Standing Committee meeting of Eastern Region held on 20.9.2010 at NRPC. The proposed transmission system has also been discussed and agreed with the Regional Constituents in the Standing Committee Meeting (SCM) of Western Region (WR) held on 6.12.2008 and 10.9.2009, Meeting of WRPC held on 25.9.2009 and Standing Committee Meeting of Northern Region (NR) held on 30.5.2009 and 23.2.2010 and Meeting of NRPC held on 16.4.2010, as part of strengthening scheme for transfer of power to ER, NR and WR.

6. Provisional tariff was approved by the Commission vide its order dated 16.12.2013, subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.



7. The details of various assets commissioned under Transmission System for Phase-1 Generation project in Orissa-Part B covered in the instant petition are as follows:-

Srl. No	Assets
1	Asset-I 765/400 kV, 3*500 MVA (1-Ph) ICT-1 along with 765 kV bay & 400 kV bay at Jabalpur Pooling S/S (New)
2	Asset-II 400 kV D/C (Quad) Jabalpur Pooling S/S (New)- Jabalpur (Existing) S/S T/L along with associated bays at Jabalpur (Existing) S/S and Jabalpur 765/400 kV Pooling S/S (New)

8. This order has been issued after considering the petitioner's affidavits dated 6.3.2014, 10.11.2014, 21.5.2015, 3.7.2015, 15.7.2015 and 19.10.2015.

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

Particulars	₹ in lakh)	
	Asset-I 2013-14	Asset-II 2013-14
Depreciation	123.09	61.68
Interest on Loan	109.99	56.05
Return on equity	156.27	68.59
Interest on Working Capital	10.88	7.97
O & M Expenses	39.28	70.02
Total	439.51	264.31

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



Particulars	(₹ in lakh)	
	Asset-I 2013-14	Asset-II 2013-14
Maintenance Spares	23.57	42.01
O & M expenses	13.09	23.33
Receivables	293.01	176.19
Total	329.67	241.52
Interest	10.88	7.97
Rate of Interest	13.20%	13.20%

11. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. Reply has been filed by M. P. Power Management Company Limited Respondent No. 15, vide affidavit dated 2.12.2013 and Maharashtra State Electricity Distribution Company Limited (MSEDCL) Respondent No. 16, vide affidavit dated 9.1.2014. The petitioner has filed the rejoinder to the reply of MSEDCL vide affidavit dated 21.5.2015. The objections raised by the MPPMCL was already considered by the Commission in its provisional order dated 16.12.2013. The MSEDCL has raised the issues regarding rate of interest on loan, reimbursement of expenditures, license fee and cost-variation. The objections raised by the MSEDCL in his reply are addressed in the relevant paragraphs of this order.

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

Capital cost

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



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

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

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

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

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

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

14. The petitioner, vide affidavit dated 19.7.2015, has submitted the capital cost incurred up to COD and for the financial year 2013-14 as per actual COD for the assets vide auditor's certificate dated 28.4.2015 for Asset-I. Accordingly, detail of the capital cost claimed as on COD(s) and additional capital expenditure incurred or to be incurred are given overleaf:-



(₹ in lakh)

Particular	Apportioned approved cost (FR)	Expenditure to be incurred up to COD	Projected additional capital expenditure for 2013-14	Total estimated cost up to 31.3.2014	Projected additional capital expenditure		Total estimated completion cost
					2014-15	2015-16	
Asset-I	14173.11	10446.49	357.72	10804.21	1260.57	4065.21	16129.99
Asset-II	4431.00	4586.28	154.34	4740.62	515.16	814.17	6069.95

Cost over-run

15. Total estimated completion cost exceeds the apportioned approved cost in both the assets. However, total completion cost up to 31.3.2014 in respect of Asset – I, falls within the apportioned approved cost. Hence, there is no cost overrun till 31.3.2014 in respect of Asset - I. In case of Asset – II actual expenditure upto COD has also exceeded apportioned approved cost.

16. There is variation in actual cost as compared to approved FR cost. The variation in costs is because of the cost of actual execution of works which includes mandatory spares. Cost has increased as per actual award cost. There is variation in cost of certain heads like total preliminary work and land, total civil works (township & colony), sub-station equipments, switchgear, transformer, control, relay & protection panel, bus bars/conductors/insulators, outdoor lighting emergency, DG set, structure for switchyard and auxiliary system.

17. The Commission vide letter dated 6.6.2014 sought the information from the petitioner regarding norms adopted by the petitioner in respect of cost for associated allied works and mandatory spares, reasons for huge variation in cost , values of indices as on the date of investment approval date of order and date of



commencing to arrive at reasons for variation of hard cost, details of other parts of the scheme and their commissioning schedule, how the ICTs were commissioned i.e. which lines were used for their charging and how these ICTs will be useful (loading) if other lines namely Dharamjaygarh-Jabalpur line is not commissioned and status of IPPs and their commissioning schedule for which their system was planned

18. In response, petitioner has vide affidavit dated 10.11.2014 submitted as follows:-

- a) The cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts. For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions;
- b) Contract of sub-station package are awarded in totality which includes number of items. Multiple no of bids are received from different vendors through open competitive bidding. Award is made to the lowest evaluated bidder for the sub-station package as a whole. The item wise comparison of different items under one package with respective cost estimates does not give appropriate results since the actual prices of various items under sub-



station package solely depend on how the bifurcation of the total price has been made by the vendor while quoting the prices for different items under complete package. The rates of individual items of vendors are asked, only for the purpose of on account payment and not for any comparison;

c) Reason for huge variation in cost are as under:-

Description	As per investment approval	As per actual
Asset-I: 765/400 kV, 1500 MVA ICT-1 along-with associated bays at Jabalpur Pooling Sub-station (new)		
Land	₹575 lakh (including R & R cost). Cost considered per acre land = ₹4.60 lakh Area of land = 125 Acre	₹1172.96 lakh Cost incurred per acre land = ₹9.384 lakh Area of land = 125 Acre. (Based on actual assessment by revenue authorities and compensation payment order issued).
Colony and other infrastructures	₹2116 lakh (as per FR norms)	₹2840.51 lakh (as per awarded and estimated cost)
Asset- II: 400 kV D/C (QUAD) Jabalpur Pooling Sub-station (New) – Jabalpur (existing) Sub-station transmission line		
Preliminary work and total civil works	₹33.51 lakh. cost considered per km = ₹2.39 lakh Length of line considered for compensation and other works = 14 kms	₹325 lakh (As per actual and anticipated). cost considered per km = ₹20.97 lakh Length of line considered for compensation and other works = 15.5 kms Due to development and with the increase of number of transmission lines in and around Jabalpur area, the compensations have increased considerably.



d) 765/400 kV ICT#1 was commissioned on 30.12.2013 at 765/400 kV Jabalpur pooling station

Sequence of charging:

- I. 400 kV Jabalpur-Jabalpur (pooling station #1) on 30.12.2013.
- II. 400 kV Jabalpur-Jabalpur (pooling station #2) on 30.12.2013.
- III. 765/400 kV ICT#1 on 30.12.2013.
- IV. 765 kV Jabalpur (pooling station)-Bina #2 on 30.12.2013.

e) 765/400 kV ICT #2 was commissioned on 31.3.2013 at 765/400kV Jabalpur pooling station

Sequence of charging:

- i. 400 kV Jabalpur-Jabalpur pooling station #1 & #2 were already in service.
- ii. 765 kV Jabalpur (pooling station)-Bina # 1 & # 2 were already in service.
- iii. 765/400 kV ICT #2 on 31.3.2014.

With charging of 765/400 kV Jabalpur pooling station, the bulk power to Bina is being fed through 765 kV network (shortest path) utilizing 400 kV Jabalpur- Jabalpur (Pooling station) D/C line, 765/400 kV ICT 1 & 2 and 765 kV Jabalpur (pooling station)-Bina D/C line.

f) Status of IPPs and their commissioning schedule for which their system was planned has been submitted as under:-



Srl. No.	Projects	Generation developer/ Open access applicant	Date of commissioning as per DPR	Installed capacity (MW)	Present status
1	Sterlite	Sterlite Energy Ltd.	February-2010	2400	U#1 (600 MW) –30.3.2011 (comm.) U#2 (600 MW) – 8.11.2010 (comm.) U#3 (600 MW) – 19.8.2011 (comm.) U#4 (600 MW) – 26.4.2012 (comm.)
2	GMR	GMR Kamalanga Energy Ltd.	September - 2011	1050	U#1 (350 MW) – 30.4.2013 (comm.) U#2 (350 MW) – 12.11.2013 (comm.) U#3 (350 MW) – 25.3.2014 (comm.)
3	Navbharat	Navabharat Power Pvt. Ltd.	July - 2011	1050	**
4	Monnet	Monnet Power Company Ltd.	June-2012	1050	U#1 – March 2015 (anticipated) U#2 – September 2015 (anticipated)
5	Jindal	Jindal India Thermal Power Ltd.	March-2011	1200	U#1 (600 MW) – 6.6.2014 (comm.) U#2 (600 MW)- November/December 2014 (anticipated)
6	Lanco Babandh	Lanco Babandh Power Pvt Ltd.	December-2013	2640	U#1 – May 2016 (anticipated) U#2 –August 2016 (anticipated)
7	Ind Barath	Ind Barath Energy(Utkal) Ltd.	September-2011	700	U#1 – January 2015 (anticipated) U#2 –March 2015(anticipated)

U – Unit, comm. – commissioned, ant.-anticipated

**Navbharat Power Pvt. Ltd.(NPPL) project has not been able to come up due to reasons beyond its control like coal blocks de-allocation, MOU not getting extended by Government of Odisha etc. NPPL had updated CTU regarding the same through various correspondences. As per advice from CTU, NPPL was informed to take up the same with the Commission. NPPL has filed Petition No: 317/MP/2013 in



December, 2013 for relinquishment of the LTA of 720MW. Hearings of the same are completed in the Commission and the matter is reserved for order.

19. MSEDCL has submitted that petitioner has claimed total additional capital expenditure of ₹24149.94 lakh under regulation 9(1) of 2009 Tariff Regulations, 2009. There is huge variation in capital cost as compared to original estimates as per Form 5B. In response, the petitioner in it's rejoinder clarified that revised estimated completion cost has been submitted vide audited cost certificate in subsequent submissions wherein additional capital expenditure has been shown up-to 2015-16. Reasons for variation of estimated completion cost from apportioned approved cost has been shown in Form 5B of both the assets.

20. The matter was heard on 3.3.2015. During the hearing, the Commission directed the petitioner to submit the status of revised cost estimate, clarification for cost variation along-with documentary evidence and approval of competent authority/ RPC for increase in line length from 14 km to 15.46 km due to change in location of sub-station. In response, the petitioner has vide affidavit dated 3.7.2015, submitted that the project is under various stages of implementation and RCE of the project is under preparation. The same shall be submitted on approval. Regarding the reason for increase in cost the petitioner further submitted that the identified land was allotted to some other government agency due to which petitioner was forced to shift to a new location. Due to change in location of sub-station the cost of land increased as the land was purchased from private land owners. The new land



of sub-station was in the vicinity of Narmada River and undulated which involves more site leveling and preparation work which causes increase in cost. Due to excess filling in land of sub-station, the type of foundation changed from normal to pile foundation causing substantial increase in cost. Further the actual awarded value received in competitive bidding is higher as compared to FR (3rd Qtr' 2010 price level) cost. The petitioner has further submitted that the change in line length was approved by the competent authority.

21. We have considered the submissions of the petitioner and respondent and documents available on records. It is observed that there is cost over-run of 13.87% in Asset-I and 37.00% in Asset-II. There is increase in line length from 14 km to 15.456 km due to change in location of sub-station. The petitioner has not submitted revised cost estimate for the assets. The petitioner vide affidavit dated 19.10.2015 has submitted that RCE for the project is under preparation and shall be submitted on approval. Cost of Asset-I is within FR cost of ₹14173.11 lakh as on 31.3.2014, the same is allowed and cost of Asset-II be restricted to FR cost of ₹4431.00 lakh as the expenditure upto 31.3.2014 is more than the apportioned FR cost. The petitioner is directed to submit the RCE and apportioned approved cost for the assets based on the RCE at the time of true-up.

Time over-run

22. As per Investment Approval (IA), the project was scheduled to be commissioned within 36 months from the date of investment approval i.e. by



1.1.2014. The petitioner vide affidavit dated 7.3.2014 submitted that both the assets have been commissioned on 1.1.2014. Hence there is no time over-run.

Treatment of IDC and IEDC

23. As per Auditor's certificate dated 28.4.15 for Asset-I and Asset-II (as per affidavit dated 15.7.2015), the petitioner has capitalised IDC of ₹ 626.82 lakh and ₹ 239.18 lakh for Asset-I and Asset-II respectively. The Commission vide letter dated 5.8.2015 directed the petitioner to submit computation of actual IDC on cash basis alongwith soft copy in excel format. In response, the petitioner vide affidavit dated 19.10.2015 submitted the IDC of ₹ 429.59 lakh and ₹ 96.42 lakh in case of Asset-I and Asset-II respectively as on COD on cash basis. Further, details submitted are inadequate as the petitioner has not submitted the computation in support of the IDC discharged after COD.

24. Accordingly, IDC of ₹426.74 lakh in case of Asset-I as on COD have been considered for the purpose of tariff determination. However, in case of Asset – II the capital cost has been restricted at ₹4431.00 lakh i.e. approved capital cost. Therefore, no adjustment has been done regarding IDC in case of Asset – II. The same would be reviewed at the time of true-up after submission of approved revised capital cost. Further, IDC discharged after COD will be allowed at the time of true- up on the submission of adequate information along with computation in soft copy in excel format.



Treatment of initial spares

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

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

26. The petitioner has claimed initial spares of ₹349.92 lakh for Asset-I pertaining to sub-station and ₹ 85.52 lakh for Asset-II pertaining to transmission line and sub-station. As per Regulation 8 of the 2009 Regulations, admissible initial spares works out to ₹ 225.81 lakh and ₹ 57.52 lakh for Asset-I and Asset-II respectively up to 31.3.2014. Further, the petitioner vide affidavit dated 19.10.2015 submitted that ₹ 83.55 lakh has been paid till 31.3.2014 for Asset-I and ₹19.64 lakh has been discharged till 31.3.2014 for Asset-II. As the amount discharges is within the admissible limit, same has been considered for the purpose of tariff determination. However, in case of Asset – II the capital cost has been restricted to approved capital cost therefore, no adjustment has been made regarding initial spares in respect of Asset – II. The same would be reviewed at the time of true-up after submission of approved revised capital cost and other relevant information.

Capital cost as on COD

27. Detail of the capital cost considered as on COD after making the necessary adjustment in respect Capitalization of IDC and cost overrun is as follows:-



Asset-I

(₹ in lakh)

Particulars	Capital cost claimed as on COD vide Auditor's certificate dated 28.4.15 (affidavit dated 15.7.15)	Capital cost considered as on COD after considering IDC on cash basis & IEDC as worked out
Freehold Land	1172.96	1172.96
Leasehold Land	0.00	0.00
Building & Other Civil Works	324.98	317.97
Transmission Line	0.00	0.00
Sub-Station Equipments	8948.55	8717.06
PLCC	0.00	0.00
Total	10446.49	10207.99

Asset-II

(₹ in lakh)

Particulars	Capital cost claimed as on COD vide Auditor's certificate dated 28.4.2015 (affidavit dated 15.7.2015)	Capital cost considered as on COD restricting the capital cost as per approved capital cost
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	3087.94	2983.39
Sub-Station Equipments	1451.59	1402.44
PLCC	46.75	45.17
Total	4586.28	4431.00

Projected additional capital expenditure

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

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

- (i) Undischarged liabilities;



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

29. 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”.

30. Cut-off date of both the assets falls in the next tariff block. Detail of the additional capital expenditure claimed from COD to 31.3.2014 for the assets is as follows:-

(₹ in lakh)		
Particulars	Asset-I	Asset-II
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	42.57	0.00
Transmission Line	0.00	70.14
Sub-Station Equipments	315.15	84.20
PLCC	0.00	0.00
Total	357.72	154.34

Additional capital expenditure is mainly on account of balance retention payment. The additional capital expenditure claimed for Asset-I has been considered for the purpose of determination of tariff as per Regulation 9(1) of 2009 Tariff Regulations. Further, as mentioned under the head of Interest During Construction, IDC worked out on cash basis has been considered only upto COD and IDC discharged after



COD will be allowed at the time of truing up as under relevant regulation subject to submission of relevant information.

31. Further, in respect of Asset – II no additional capital expenditure has been considered as the approved capital cost is less than the actual capital expenditure as on COD. Thus, capital cost as on COD has been restricted to approved capital cost and no additional capital expenditure has been considered for Asset – II.

Capital Cost as on 31.3.2014

32. Considering the admitted capital cost as on COD and admissible additional capital expenditure, capital cost as on 31.3.2014 works out as follows:-

Asset-I

(₹ in lakh)			
Particulates	As on COD	Additional capital expenditure	As on 31.3.2014
Freehold Land	1172.96	0.00	1172.96
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	317.97	42.57	360.54
Transmission Line	0.00	0.00	0.00
Sub-Station Equipments	8717.06	315.15	9032.21
PLCC	0.00	0.00	0.00
Total	10207.99	357.72	10565.71

Asset-II

(₹ in lakh)			
Particulars	As on COD	additional capital expenditure	As on 31.3.2014
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00
Transmission Line	2983.39	0.00	2983.39
Sub-Station Equipments	1402.44	0.00	1402.44
PLCC	45.17	0.00	45.17
Total	4431.00	0.00	4431.00



Debt- equity ratio

33. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. Debt-Equity Ratio (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

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

(₹ in lakh)

Asset-I			Asset-II		
Particulars	Amount	%	Particulars	Amount	%
Debt	7145.59	70.00	Debt	3101.70	70.00
Equity	3062.40	30.00	Equity	1329.30	30.00
Total	10207.99	100.00	Total	4431.00	100.00

35. Details of debt-equity in respect for additional capital expenditure is given overleaf:-



(₹ in lakh)

Asset-I		
Particulars	Amount	%
Debt	250.40	70.00
Equity	107.32	30.00
Total	357.72	100.00

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

(₹ in lakh)

Capital cost as on 31.3.2014					
Asset-I			Asset-II		
Particulars	Amount	%	Particulars	Amount	%
Debt	7396.00	70.00	Debt	3101.70	70.00
Equity	3169.71	30.00	Equity	1329.30	30.00
Total	10565.71	100.00	Total	4431.00	100.00

Return on equity

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

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

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

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

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

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



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

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

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".

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

Particulars	(₹ in lakh)	
	Asset I 2013-14	Asset II 2013-14
Opening Equity	3062.40	1329.30
Addition due to Additional Capitalisation	107.32	0.00
Closing Equity	3169.71	1329.30
Average Equity	3116.06	1329.30
Return on Equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%
Return on Equity (Pre Tax)	152.76	65.17

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 from the beneficiaries without making any application before the Commission under Regulation 15(5) of the 2009 Tariff Regulations. MSEDCL has



submitted that Return on Equity may be allowed in such a way that it avoids unnecessary burden on the beneficiaries and ultimately on end consumers and the Commission needs to conduct prudence check on loans availed by the petitioner and the average interest rate considered for computation of Return on Equity. The petitioner in it's rejoinder has clarified that RoE has been claimed by grossing up with MAT rate for 2008-09 as per 2009 Tariff Regulations. Further, annual fixed charges with respect to tax rates applicable shall be trued up in accordance with regulation 6 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 @ 19.610% p.a on average equity as per Regulation 15(5) of the 2009 Tariff Regulations

Interest on loan

40. 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.”

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

- (i) Gross amount of loan, repayment of instalments and rate of interest on loan have been considered as per petition ;
- (ii) The repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period;
- (iii) 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;

- (iv) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan; and
- (v) As per Regulation 16(5) only actual loans have been considered for computation of weighted average rate of interest.

42. MSEDCL submitted that the Commission needs to conduct prudence check on loans availed by the petitioner and the average interest rate considered for calculation of interest on long term basis. The petitioner in it's rejoinder has clarified that transmission tariff based on the actual rate of interest can be computed only at the end of the year and trued up petition for the same can be filed only once in every tariff block as per 2009 tariff regulations. We would like to clarify that as formulated under Regulation 16(5) actual loans have been considered for computation of weighted average rate of interest.

43. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I and II to this order.

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



(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Gross Normative Loan	7145.59	3101.70
Cumulative Repayment upto Previous Year	0.00	0.00
Net Loan-Opening	7145.59	3101.70
Addition due to Additional capitalisation	250.40	0.00
Repayment during the year	119.98	58.61
Net Loan-Closing	7276.02	3043.09
Average Loan	7210.81	3072.40
Weighted Average Rate of Interest on Loan	6.02%	6.96%
Interest	108.61	53.48

Depreciation

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

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

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

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

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

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

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

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



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

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

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

47. Based on the above, the depreciation has been considered are as follows:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Opening Gross Block	10207.99	4431.00
Addition during 2009-14 due to Projected Additional Capitalisation	357.72	0.00
Closing Gross Block	10565.71	4431.00
Average Gross Block	10386.85	4431.00
Rate of Depreciation	4.6204%	5.2905%
Depreciable Value	8292.50	4057.35
Remaining Depreciable Value	8292.50	4057.35
Depreciation	119.98	58.61



Operation & Maintenance Expenses (O&M Expenses)

48. The details of elements covered and their date of commercial operation (COD) are as under:-

SNo	<u>Assets</u>	COD	No of bays) / line length
	Asset-I		
1	765 kV ICT-I bay	1.1.2014	1
2.	400 kV ICT-I bay	1.1.2014	1
	Asset-II		
1	400 kV D/C (quad) conductor, Jabalpur Pooling Station (New) – Jabalpur existing s/s, T/L	1.1.2014	15.456 km
	Jabalpur Pooling Station (New)		
2.	400 kV Jabalpur (Existing) line bay -I	1.1.2014	1
3.	400 kV Jabalpur (Existing) line bay -II	1.1.2014	1
	400 kV Jabalpur sub-station (Existing)		
1	Jabalpur (PS) Line bay-I	1.1.2014	1
2	Jabalpur (PS) Line bay-II	1.1.2014	1

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

Element	2009-10	2010-11	2011-12	2012-13	2013-14
765 kV bay (₹ in lakh/ bay)	73.36	77.56	81.99	86.68	91.64
400 kV bay (₹ in lakh/ bay)	52.40	55.40	58.57	61.92	65.46
D/C Quad conductor T/L (₹ in lakh/ km)	0.940	0.994	1.051	1.111	1.174

50. As per the norms specified in the 2009 Tariff Regulations, allowable O&M expenses for the assets covered in the petition are given overleaf:-



(₹ in lakh)

Elements	2013-14 (pro-rata for 3 months)
Asset-I	
1 no., 765 kV bay	22.91
1 no., 400 kV bay	16.37
Asset-II	
15.456 km D/C Quad T/L	4.56
4 nos 400 kV bays	65.46

51. The petitioner has submitted that O&M expenses for the period 2009-14 was arrived at on the basis of normalized actual O&M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff.

52. While specifying the norms for the O & M expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M expenses as per the existing norms.



Interest on working capital

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

(i) Receivables

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

(ii) Maintenance spares

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

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

The SBI Base rate (9.70%) as on 1.4.2013 plus 350 Bps i.e. 13.20% for all the assets been considered as the rate of interest on working capital.



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

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Maintenance Spares	23.57	42.01
O & M expenses	13.09	23.34
Receivables	287.55	170.03
Total	324.22	235.38
Interest	10.70	7.77

Transmission charges

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

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14	2013-14
Depreciation	119.98	58.61
Interest on Loan	108.61	53.48
Return on equity	152.76	65.17
Interest on Working Capital	10.70	7.77
O & M Expenses	39.28	70.02
Total	431.33	255.04

Filing fee and the publication expenses

56. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. MSEDCL submitted that the issue of filing fee has been taken up with the Commission against its order dated 20.8.2010 in Petition No. 70/2010 and as such the claim should not be considered by the Commission. The petitioner in it's rejoinder has clarified that these expenditure is being done in line with para 42 of the 2009 Tariff Regulations and the Commission has already allowed the above expenditures in various other petitions of 2009-14 tariff period. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the



beneficiaries on *pro-rata* basis in accordance with Regulation 42 of the 2009 Tariff Regulations.

Licence fee

57. 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. MSEDCL have submitted that the Commission may pass such orders in respect to petitioner's request for reimbursement for licence fee, as it thinks just and proper to avoid unnecessary burden on beneficiaries and ultimately on end consumers. The petitioner in it's rejoinder has clarified that 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 42 A (1) (b) of the 2009 Tariff Regulations.

Service tax

58. 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. MSEDCL has submitted that as the petitioner itself submitted that service tax on transmission has been put in the negative list it will be too early to make any comment on such an issue. the petitioner in it's rejoinder has clarified that transmission charges is exclusive of service tax and same shall be borne and additionally paid by the respondents to the petitioner and the same shall



be charged, billed separately by the petitioner in case same is withdrawn from the negative list at any time as above in future. We consider petitioner's prayer premature and accordingly this prayer is rejected.

Sharing of Transmission Charges

59. 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.

60. This order disposes of Petition No. 303/TT/2013.

(A.S. Bakshi)
Member

(A.K. Singhal)
Member



Annexure I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

		(₹ in lakhs)
	Details of Loan	2013-14
1	Bond - XXXIV - LOAN - 1	
	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	8.84%
	Interest	19.89
	Rep Schedule	
2	Bond XXXVII - LOAN - 2	
	Gross loan opening	50.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	50.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	50.00
	Average Loan	50.00
	Rate of Interest	9.25%
	Interest	4.63
	Rep Schedule	
3	Bond XXXVIII - LOAN - 3	
	Gross loan opening	10.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	10.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	10.00
	Average Loan	10.00
	Rate of Interest	9.25%
	Interest	0.93
	Rep Schedule	
4	Bond XXXIX - LOAN - 4	
	Gross loan opening	85.00



	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	85.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	85.00
	Average Loan	85.00
	Rate of Interest	9.40%
	Interest	7.99
	Rep Schedule	
5	Bond XLIII - LOAN -11	
	Gross loan opening	368.50
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	368.50
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	368.50
	Average Loan	368.50
	Rate of Interest	7.93%
	Interest	29.22
	Rep Schedule	29.3.2027 Bullet Payment
6	SBI (21.3.2012)	
	Gross loan opening	220.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	220.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	220.00
	Average Loan	220.00
	Rate of Interest	10.25%
	Interest	22.55
	Rep Schedule	22 annual instalments from 31.8.2016
7	Bond XL	
	Gross loan opening	2264.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2264.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2264.00
	Average Loan	2264.00



	Rate of Interest	9.30%
	Interest	210.55
	Rep Schedule	12 Annual instalments from 28.6.2016
10	IFC (IFC-A Loan) (31419-00)	
	Gross loan opening	350.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	350.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	350.00
	Average Loan	350.00
	Rate of Interest	3.280%
	Interest	11.48
	Rep Schedule	20 half yearly from 15.9.2017
11	IFC (IFC-B Loan) (31419-01)	
	Gross loan opening	1210.01
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1210.01
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1210.01
	Average Loan	1210.01
	Rate of Interest	2.43%
	Interest	29.35
	Rep Schedule	
	IFC (ICFF Loan) (31419-02)	
12	Gross loan opening	510.01
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	510.01
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	510.01
	Average Loan	510.01
	Rate of Interest	3.28%
	Interest	16.71
	Rep Schedule	
	FC Bond (17.1.2013)	
	Gross loan opening	2020.02
	Cumulative Repayment upto	0.00



	DOCO/previous year	
	Net Loan-Opening	2020.02
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	2020.02
	Average Loan	2020.02
	Rate of Interest	4.097%
	Interest	82.75
	Rep Schedule	Bullet payment on 17.1.2023
	Bond XLV - ADD CAP FOR 2013-14	
	Gross loan opening	0.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	0.00
	Additions during the year	250.40
	Repayment during the year	0.00
	Net Loan-Closing	250.40
	Average Loan	125.20
	Rate of Interest	9.65%
	Interest	12.08
	Rep Schedule	
	Total Loan	
	Gross loan opening	7312.54
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	7312.54
	Additions during the year	250.40
	Repayment during the year	0.00
	Net Loan-Closing	7562.94
	Average Loan	7437.74
	Weighted Average Rate of Interest	6.0248%
	Interest	448.11



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakhs)

	2013-14
1 Bond - XXXIV - LOAN - 1	
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	8.84%
Interest	8.84
Rep Schedule	
2 Bond XXXVII - LOAN - 2	
Gross loan opening	25.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	25.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	25.00
Average Loan	25.00
Rate of Interest	9.25%
Interest	2.31
Rep Schedule	
3 Bond XXXVIII - LOAN - 3	
Gross loan opening	10.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	10.00
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	10.00
Average Loan	10.00
Rate of Interest	9.25%
Interest	0.93
Rep Schedule	
4 Bond XXXIX - LOAN - 4	
Gross loan opening	40.00



	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	40.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	40.00
	Average Loan	40.00
	Rate of Interest	9.40%
	Interest	3.76
	Rep Schedule	
5	Bond XLIII - LOAN -11	
	Gross loan opening	1830.36
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1830.36
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1830.36
	Average Loan	1830.36
	Rate of Interest	7.93%
	Interest	145.15
	Rep Schedule	29.3.2027 Bullet Payment
6	SBI (21.3.2012)	
	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	10.25%
	Interest	10.25
	Rep Schedule	22 annual instalments from 31.8.2016
7	Bond XL	
	Gross loan opening	220.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	220.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	220.00
	Average Loan	220.00
	Rate of Interest	9.30%



	Interest	20.46
	Rep Schedule	12 Annual instalments from 28.6.2016
10	IFC (IFC-A Loan) (31419-00)	
	Gross loan opening	75.02
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	75.02
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	75.02
	Average Loan	75.02
	Rate of Interest	3.280%
	Interest	2.46
	Rep Schedule	20 half yearly from 15.9.2017
11	IFC (IFC-B Loan) (31419-01)	
	Gross loan opening	260.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	260.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	260.00
	Average Loan	260.00
	Rate of Interest	2.43%
	Interest	6.31
	Rep Schedule	
	IFC (ICFF Loan) (31419-02)	
12	Gross loan opening	110.03
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	110.03
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	110.03
	Average Loan	110.03
	Rate of Interest	3.28%
	Interest	3.60
	Rep Schedule	
	FC Bond (17.1.2013)	
	Gross loan opening	439.99
	Cumulative Repayment upto DOCO/previous year	0.00



Net Loan-Opening	439.99
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	439.99
Average Loan	439.99
Rate of Interest	4.095%
Interest	18.02
Rep Schedule	Bullet payment on 17.1.2023
Bond XLV - ADD CAP FOR 2013-14	
Gross loan opening	0.00
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	0.00
Additions during the year	108.04
Repayment during the year	0.00
Net Loan-Closing	108.04
Average Loan	54.02
Rate of Interest	9.65%
Interest	5.21
Rep Schedule	
Total Loan	
Gross loan opening	3210.40
Cumulative Repayment upto DOCO/previous year	0.00
Net Loan-Opening	3210.40
Additions during the year	108.04
Repayment during the year	0.00
Net Loan-Closing	3318.44
Average Loan	3264.42
Weighted Average Rate of Interest	6.9629%
Interest	227.30

