

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 24/TT/2011

Coram:

**Dr. Pramod Deo, Chairperson
Shri S. Jayaraman, Member
Shri M. Deena Dayalan, Member**

Date of Hearing: 16.2.2012

Date of Order : 02.4.2013

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009, for tariff in respect of **Asset-I:** 400/220 kV Solapur S/S with 63 MVAR Bus Reactor along with Bays of LILO of Solapur–Karad, 2x50 MVAR Reactors in Kolhapur Bays as Switchable Reactors, **Asset- II:** 400/220 kV ICT I at Solapur S/S along with bays & **Asset- III:** Combined Assets of 400/220 kV ICT I and ICT II at Solapur along with associated bays under Western Region System Strengthening-II, Set B Scheme of Western Region for tariff block 2009-14 period

And

In the matter of:

Power Grid Corporation of India Limited, Gurgaon**Petitioner**

Vs

1. Madhya Pradesh Power Trading company Ltd., Jabalpur
2. Maharashtra State Electricity Distribution Company Ltd., Mumbai
3. Gujarat Urja Vikas Nigam Ltd. Vadodara
4. Electricity Department. Goa, Panaji
5. Electricity Department Administration of Daman and Diu, Daman
6. Electricity Department, Govt. of UT of Dadra and Nagar Haveli, Silvassa
7. Chattisgarh State Electricity Board, Raipur.
8. Madhya Pradesh Audyogik Kendra Vikas Nigam Ltd., Indore

.....**Respondents**

The following were present:

1. Shri. Rajeev Gupta, PGCIL
2. Shri S.S. Raju, PGCIL
3. Shri Pramod Chowdhry, MPPTCL



ORDER

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission tariff for 400/220 kV Solapur Sub-station with 63 MVAR Bus Reactor along with Bays of LILO of Solapur–Karad, 2x50 MVAR Reactors in Kolhapur Bays as Switchable Reactors (hereinafter referred to as Asset – I), 400/220 kV ICT I at Solapur Sub-station along with bays (hereinafter referred to as Asset – II) and 400/220 kV ICT-I & ICT-II at Solapur Sub-station along with bays (hereinafter referred to as Asset-III) under Western Region System Strengthening – II (WRSS-II), Set B Scheme of Western Region for tariff block 2009-14 period based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 Tariff Regulations”).

2. Investment approval for the scheme was accorded by the Ministry of Power, vide letter dated 24.7.2006, at an estimated cost of ₹522123 lakh including IDC of ₹38042 lakh (based on 4th Quarter, 2005 price level) consisting of (i) ₹358140 lakh (including IDC of ₹25062 lakh) for PGCIL’s portion and (ii) ₹163983 lakh (including IDC of ₹129.80 lakh) for Independent Private Transmission Company’s portion.

3. The details of the assets covered in the petition and their date of commercial operation is given hereunder:-

(a) **Asset- I:** 400/220 kV Solapur S/S with 63 MVAR Bus Reactor along with Bays of LILO of Solapur –Karad, 2x 50 MVAR Reactors in Kolhapur Bays as Switchable Reactors – from its date of commercial operation i.e. 1.2.2011 to 31.3.2014

(b) **Asset- II:** 400/220 kV ICT I at Solapur S/S along with bays from its date of commercial operation, i.e. 1.2.2011 to 31.3.2011

(c) **Asset- III:** Combined Assets of 400/220 kV ICT I and ICT II at Solapur along with associated bays from its date of commercial operation, i.e. 1.4.2011 to 31.3.2014.

4. The petitioner is implementing 11 assets in Western Region System Strengthening – II (WRSS-II), Set B Scheme of Western Region and the petitioner has filed three different petitions claiming transmission tariff for these assets. The details of the petitions filed, assets covered and their date of commercial operation are given hereunder:-

Srl. No.	Name of the Assets	Anticipated date of commercial operation	Actual date of commercial operation	Petition No.
1.	400/220 kV Solapur S/S with 63 MVAR Bus Reactor along with Bays of LILO of Solapur-Karad & Solapur Kolhapur along with 2x50 MVAR	1.2.2011	1.2.2011	24/TT2011
2.	ICT I at Solapur S/S along with Bays	1.2.2011	1.2.2011	
3.	ICT II at Solapur S/S along with Bays	1.3.2011	1.4.2011	
4.	400/220 kV Pune S/S with bays for LILO Ckt-I of Kalwa- Lonikhand D/C at Pune	1.4.2011	1.5.2011	81/TT2011
5.	Bus Reactor along with LILO Ckt-II of Kalwa-Lonikhand D/C at Pune	1.4.2011	1.9.2011	
6.	ICT I at Pune S/S along with associated bays	1.4.2011	1.5.2011	
7.	ICT II at Pune S/S along with associated bays	1.4.2011	1.9.2011	
8.	400 KV Bays for Solapur- Parli D/C line at Solapur S/S and Parli S/S	1.8.2011	1.9.2011	152/TT/2011
9.	400 kV Bays for Solapur-Kolhapur D/C line at Kolhapur S/S	1.9.2011	1.9.2011	
10.	400 kV Bays for Pune-Parli D/C (WRTML) line at Pune S/S and Parli S/S	1.9.2011	1.9.2011	
11.	400 kV Bays for Pune- Aurangabad D/C line at Pune S/S and Aurangabad S/S	1.9.2011	1.9.2011	

5. In the instant petition, the petitioner has claimed the actual expenditure incurred upto the date of commercial operation and projected additional capital expenditure during the tariff period 2009-14 as given hereunder:-

Name of the Asset	Apportioned approved cost	Actual cost incurred as on the date of commercial operation	Projected additional capital expenditure			Total estimated completion cost
			Commercial operation to 31.3.2011	2011-12	2012-13	
Asset-I	8127.96	4953.97	952.70	1126.23	103.00	7135.90
Asset-II	2288.17	2300.32	52.05	211.86	0.00	2564.23
Asset-III	4117.70	*4141.54	0.00	353.09	0.00	4494.63
Total (1+3)	12245.66	9095.51	952.70	1479.32	103.00	11630.53

* Based on the Management Certificate dated 12.1.2012 submitted by the petitioner. This amount includes the expenditure upto 31.3.2011 for Asset-II.

6. The petitioner, in Petition No. 152/TT/2011, vide affidavit dated 16.7.2012, has revised the expenditure incurred upto the date of commercial operation and the additional capital expenditure incurred during 2011, after the date of commercial operation, 2011-12 and 2012-13 pertaining to the assets covered in the instant petition and in Petition No.81/2011. The petitioner has submitted that Petition No. 24/TT/2011 and Petition No. 81/TT/2011 were heard and orders are reserved and requested to take on record the revised and updated cost and approve transmission tariff as per the updated cost. Further, the petitioner has submitted that all the assets covered in the Petition No.24/TT/2011 and Petition No.81/TT/2011 except ICTs have been clubbed in Petition No.152/TT/2011 and all tariff forms, revised management certificates and revised funding for all the assets are also filed along with the affidavit. The revised total estimated completion cost, the additional capital expenditure and the transmission tariff for the three assets covered in the instant

petition, submitted vide affidavit dated 16.7.2012, are lower than the claim made initially in the instant petition. Further, the respondents, both in the instant petition and Petition No.81/TT/2011 and Petition No.151/TT/2012 are same and hence all the information submitted vide affidavit dated 16.7.2012 is considered for the purpose of calculating the transmission tariff. The revised cost submitted by the petitioner in Petition No.152/TT/201, which is considered in the instant petition, is given hereunder:-

(₹ in lakh)

Name of the Asset	Apportioned approved cost	Actual cost incurred as on the date of commercial operation	Projected additional capital expenditure			Total estimated completion cost
			Commercial operation to 31.3.2011	2011-12	2012-13	
Asset-I	8127.96	4807.89	185.85	629.86	809.19	6432.79
Asset-II	2288.17	2198.04	25.91	150.82	102.60	2477.37
Asset-III	4117.70	3948.34	-	258.76	102.60	4309.70

7. Details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

	Asset 1			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	39.34	253.01	282.40	299.42
Interest on Loan	15.13	91.83	95.00	92.90
Return on equity	42.84	278.40	316.14	337.36
Interest on Working Capital	3.89	24.77	26.83	28.30
O & M Expenses	46.17	292.85	309.60	327.30
Total	147.37	940.86	1029.97	1085.28

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	18.36	206.70	215.55	218.26
Interest on Loan	4.52	54.92	58.65	53.76
Return on equity	19.33	213.85	223.32	226.01
Interest on Working Capital	2.07	26.91	28.34	29.40
O & M Expenses	28.62	363.14	383.88	405.84
Total	72.90	865.52	909.74	933.27

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

(₹ in lakh)

	Asset I			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Maintenance Spares	41.55	43.93	46.44	49.10
O & M expenses	23.09	24.40	25.80	27.28
Receivables	147.37	156.81	171.66	180.88
Total	212.01	225.14	243.90	257.26
Interest	3.89	24.77	26.83	28.30
Rate of Interest	11.00%	11.00%	11.00%	11.00%

(₹ in lakh)

	Asset -II	Asset III (Combined Assets II & III)		
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Maintenance Spares	25.76	54.47	57.58	60.88
O & M expenses	14.31	30.26	31.99	33.82
Receivables	72.90	144.25	151.62	155.55
Total	112.97	228.98	241.19	250.25
Interest	2.07	26.91	28.34	29.40
Rate of Interest	11.00%	11.75%	11.75%	11.75%

9. Reply to the petition has been filed only by Madhya Pradesh Power Trading Corporation Ltd. (MPPTCL) Respondent No.1, vide affidavit dated 21.5.2011. MPPTCL has submitted that as per the submissions of the petitioner, the transmission charges of Asset I shall be shared by all the constituents of Western Region and transmission charges for Asset II and III shall be recovered only from MSEDCL. MPPTCL has also submitted that in the case of Asset I, with the commissioning of the sub-station, only MSEDCL is benefitted and other constituents of Western Region are not benefitted, as associated transmission lines are not commissioned by WRTML. With the commissioning of the 2 X315 MVA 400/220 kV Solapur Sub-station getting feed from MSETCL 400 kV lines, consumers of MSEDCL are only benefitted and no other constituent of Western Region has received any benefit.

10. As the commissioning of the sub-station, without the line components being operational, is of no use to the beneficiaries other than MSEDCL, MPPTCL has requested that till the operationalisation of the line components as well as the sub-station components, other beneficiaries of the Region except MSEDCL, be exempted from payment of transmission charges. This issue is addressed in the later part of this order.

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, 2003. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

Capital cost

12. As regards the capital cost, Regulation 7 (1) of the 2009 Tariff Regulations provides as under:-

“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.”

Treatment of IDC and IEDC

13. As per the investment approval, the transmission scheme is scheduled to be commissioned within 48 months from the date of approval i.e. by July, 2010. It has been mentioned in the petition that in WRSS Scheme-II, petitioner is implementing substation portion (including bay extension works) for Set-B whereas WRTML is implementing transmission lines under Set B. This project is being implemented by

these two entities, i.e. PGCIL and WRTML. As per the Implementation Agreement, the lines and sub-stations are to be commissioned simultaneously. The schedule date of commercial operation of (Project-B) was 31.3.2010 in the Implementation Agreement. The Commission while granting the transmission licence to WRTML allowed nine months extension for achieving the commercial operation of the projects, i.e. up to 31.12.2010, considering the delay in signing of Power Transmission Agreement by the beneficiaries. Accordingly, amendment in Revised Commercial Operation Date (RCOD) upto 31.12.2010 was issued by PGCIL on 27.3.2009. Subsequently, in the order dated 31.12.2010 in Petition No. 296/2010, the Commission had directed WRTML and PGCIL to mutually decide the issue of extension of RCOD in respect of the transmission lines of WRTML and the commissioning of the sub-stations of PGCIL in terms of the relevant provisions of the Implementation Agreement keeping in view the finding of the Commission regarding the delay in commencement and completion of the project and to arrive at a mutual agreement for early completion of the project. PGCIL and WRTML have mutually agreed to amend the provisions regarding RCOD as under:-

"Required Commercial Operation Date"- means the date by which the Project-C is required to be made ready for commercial operation under the Agreement which, unless extended in accordance with Clause 3.5 or Clause 4.4, shall be August 31, 2011".

14. The transmission system developed by WRTML has not yet been commissioned. However, the petitioner has commissioned the Asset-I and Asset-2 on 1.2.2011 and 1.4.2011 respectively. Though there is a delay of one month in the commissioning of Asset-1 and 3 months in the commissioning of Asset-2 respectively from the original date of commercial operation, the assets have been commissioned prior to the date of RCOD of 31.8.2011 which was necessitated on

account of the delay in commissioning of the transmission lines of WRTML. The delay is therefore not attributable to the petitioner and therefore, IDC and IEDC are not being disallowed. However, liquidated damages, if any, received by the petitioner from the party at default shall be passed on to the beneficiaries.

Cost variation

15. The actual cost of the project is within the apportioned approved cost, though in individual items, there is cost over-run. The petitioner was asked, during technical validation stage, to explain the cost variation of 85.49% in cost of Auxiliary System. The petitioner, vide affidavit dated 5.10.2011, submitted that the Auxiliary System as furnished in Form-5B is ₹706 lakh which consists of T&P (Test instruments ₹285 lakh). The petitioner also submitted that the cost of Test instruments is covered as centages under IEDC head in FR. If T&P is discounted from Auxiliary System, the remaining variation of ₹40 lakh is on account of price/rate variation. The petitioner further submitted, vide affidavit dated 11.5.2012, the basis of ₹285 lakh under T&P along with the list of testing equipment. Hence, the same has been allowed under the Auxiliary System.

16. The petitioner was also asked to explain 222.84% increase in cost under the head "foundation for structure" in Asset III. The petitioner has submitted that the total variation for the head "foundation for structure" for entire Solapur (Asset I, II and III) is ₹213.91 lakh against FR value of 836.03 lakh which is only 25.58% instead of 222.84%. The petitioner has submitted that there is an inadvertent error in apportionment of civil works for FR among Asset I, II and III which led to showing large variation in one of the assets, whereas, the total variation is only 25%. The petitioner has explained that the variation on these items is due to variation in

quantity as per site requirement and variation in awarded rates. The petitioner has further submitted, vide affidavit dated 11.5.2012, that the variation under the head "foundation for structure" at Sholapur sub-station is mainly due to increase in quantity of concrete in the footings as per the requirement of site. The RCC quantity for tower footings, equipment footings, cable trenches, roads and building structures have been provided as per drawings and technical requirements due to soil conditions and loads. We are satisfied with the explanation given by the petitioner and accordingly the variation in the cost of "foundation for structure" is allowed.

Treatment of initial spares

17. The capital cost of Asset I is ₹6432.79 lakh as on the cut-off date. The petitioner has claimed ₹213.72 lakh as initial spares against sub-station (inclusive of PLCC) and it is in excess of the ceiling norm of 2.5% specified in the 2009 Tariff Regulations by ₹54.26 lakh. Accordingly, this amount has been reduced pro-rata from the cost of all the elements of Asset I. Initial spares have been worked out by taking into consideration the land, building and civil works expenditure. The petitioner has not claimed any initial spares in respect of Asset-II & Asset-III.

18. Based on the above, the following capital cost, as on the date of commercial operation has been considered for the purpose of computation of tariff:-

(₹ in lakh)		
Particulars	Actual/ Notional date of commercial operation	Capital cost considered for the purpose of tariff
Asset-I	1.2.2011	4753.63
Asset-II	1.2.2011	2198.04
Asset-III (Combined Assets of II & III)	1.4.2011	3948.34

19. In view of above, capital costs of ₹4753.63 lakh for Asset I as on 1.2.2011 (date of commercial operation), as per Management Certificate dated 18.6.2012 has been considered. Capital cost of ₹2198.04 lakh for Asset II as on 1.2.2011 (date of commercial operation) as per the Management Certificate dated 15.6.2012 has been considered. Capital cost of ₹3948.34 lakh for Asset III (combined Assets II&III) as on 1.4.2011 (Notional date of commercial operation) has been considered on the basis of the Management Certificate dated 15.6.2012, for the purpose of calculation of tariff.

Additional capital expenditure

20. With regard to additional capital expenditure, clause 9(1) 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:”

21. As per the 2009 Tariff Regulations,

“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 of 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”.

22. As per the above definition, cut-off date in respect of all the transmission assets whose transmission tariff is being approved vide this order is 31.3.2014.

23. As mentioned in Paragraph No. 6 of this order, the petitioner has claimed the following additional capital expenditure:-

(₹ in lakh)

Name of Asset	AppORTIONED approved cost	Actual cost incurred as on date of commercial operation	Projected additional capital expenditure			Total estimated completion cost
			Commercial operation to 31.3.2011	2011-12	2012-13	
Asset-I	8127.96	4807.89	185.85	629.86	809.19	6432.79
Asset-II	2288.17	2198.04	25.91	150.82	102.60	2477.37
Asset-III	4117.70	3948.34	-	258.76	102.60	4309.70

24. The additional capital expenditure claimed falls within the cut-off date. Hence, the same has been considered for the purpose of tariff calculation.

DEBT- EQUITY RATIO

25. Regulation 12 of the 2009 regulations provides that,-

“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.”

26. Details of debt-equity in respect of the transmission assets as on the date of commercial operation are as under:-

(₹ in lakh)

Asset-I	Apportioned Approved Cost		As on date of commercial operation	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	5689.57	70.00	3327.54	70.00
Equity	2438.39	30.00	1426.09	30.00
Total	8127.96	100.00	4753.63	100.00

(₹ in lakh)

Asset-II	Apportioned Approved Cost		As on date of commercial operation	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	1601.72	70.00	1538.63	70.00
Equity	686.45	30.00	659.41	30.00
Total	2288.17	100.00	2198.04	100.00

(₹ in lakh)

Asset III (Combined Assets II & III)	Apportioned Approved Cost		As on date of commercial operation	
	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	2882.39	70.00	2763.84	70.00
Equity	1235.31	30.00	1184.50	30.00
Total	4117.70	100.00	3948.34	100.00

RETURN ON EQUITY

27. Regulation 15 of the 2009 regulations provides that,-

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

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

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

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

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

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

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

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

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

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

28. The petitioner has prayed to allow grossing up of base rate of return with the applicable base rate as per the Finance Act for the relevant year and direct settlement of tax liability between generating company/transmission license and the beneficiaries/long term transmission customers on year to year basis. The petitioner's request to allow grossing up the base rate of return on equity based on tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of 2009 Tariff Regulations.

29. The following amount of return on equity has been allowed:-

(₹ in lakh)

	Asset –I			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Opening Equity	1426.09	1481.85	1670.80	1913.56
Addition due to Additional Capitalisation	55.76	188.96	242.76	0.00
Closing Equity	1481.85	1670.80	1913.56	1913.56
Average Equity	1453.97	1576.32	1792.18	1913.56
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	42.36	275.56	313.29	334.51

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Opening Equity	659.41	1184.50	1262.13	1292.91
Addition due to Additional Capitalisation	7.77	77.63	30.78	0.00
Closing Equity	667.19	1262.13	1292.91	1292.91
Average Equity	663.30	1223.32	1277.52	1292.91
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	19.33	213.85	223.32	226.01

INTEREST ON LOAN

30. Regulation 16 of the 2009 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.”

31. In these calculations, interest on loan has been worked out as detailed hereunder:-

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per affidavit dated 16.7.2012. .

(b) Tariff is worked out considering normative loan and normative repayments. Depreciation allowed has been taken as normative repayment for the tariff period 2009-14.

(c) 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.

32. Detailed calculation of the weighted average rate of interest has been given in Annexure I to III to this order.

33. Details of the interest on loan worked on the above basis are given hereunder:-

(₹ in lakh)

	Asset -I			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Gross Normative Loan	3327.54	3457.64	3898.54	4464.97
Cumulative Repayment upto Previous Year	0.00	38.91	289.30	569.09
Net Loan-Opening	3327.54	3418.73	3609.24	3895.88
Addition due to additional capital expenditure	130.10	440.90	566.43	0.00
Repayment during the year	38.91	250.40	279.79	296.81
Net Loan-Closing	3418.73	3609.24	3895.88	3599.08
Average Loan	3373.14	3513.99	3752.56	3747.48
Weighted Average Rate of Interest on Loan	2.6623%	2.5867%	2.5090%	2.4586%
Interest	14.97	90.90	94.15	92.14

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Gross Normative Loan	1538.63	2763.84	2944.97	3016.79
Cumulative Repayment upto Previous Year	0.00	18.36	225.06	440.62
Net Loan-Opening	1538.63	2745.48	2719.91	2576.17
Addition due to additional capital expenditure	18.14	181.13	71.82	0.00
Repayment during the year	18.36	206.70	215.55	218.26
Net Loan-Closing	1538.41	2719.91	2576.17	2357.91
Average Loan	1538.52	2732.69	2648.04	2467.04
Weighted Average Rate of Interest on Loan	1.7646%	2.0098%	2.2149%	2.1792%
Interest	4.52	54.92	58.65	53.76

DEPRECIATION

34. Regulation 17 of the 2009 Tariff Regulations provides for depreciation as under:-

“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.”

35. Asset-I, Asset-II and Asset-III (Combined Asset-II&III) in the instant petition were put on commercial operation on 1.2.2011, 1.2.2011 and 1.4.2011 respectively. Accordingly, these assets 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 of the 2009 Tariff Regulations.

36. Details of the depreciation worked out are as under:-

(₹ in lakh)

	Asset -I			
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
As on date of commercial operation	4753.63	4939.48	5569.34	6378.53
Addition during 2009-14 due to Projected Additional Capitalisation	185.85	629.86	809.19	0.00
Gross Block	4939.48	5569.34	6378.53	6378.53
Average Gross Block	4846.56	5254.41	5973.94	6378.53
Rate of Depreciation	4.8164%	4.7654%	4.6835%	4.6532%
Depreciable Value	4341.78	4708.85	5356.43	5720.56
Remaining Depreciable Value	4341.78	4669.95	5067.12	5151.47
Depreciation	38.91	250.40	279.79	296.81

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro rata)	2011-12	2012-13	2013-14
As on date of commercial operation	2198.04	3948.34	4207.10	4309.70
Addition during 2009-14 due to Projected Additional Capitalisation	25.91	258.76	102.60	0.00
Gross Block	2223.95	4207.10	4309.70	4309.70
Average Gross Block	2211.00	4077.72	4258.40	4309.70
Rate of Depreciation	4.9823%	5.0691%	5.0618%	5.0644%
Depreciable Value	1989.90	3669.95	3832.56	3878.73
Remaining Depreciable Value	1989.90	3651.59	3607.50	3438.11
Depreciation	18.36	206.70	215.55	218.26

OPERATION & MAINTENANCE EXPENSES

37. 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 given as under:-

(₹ in lakh)

Element	2010-11	2011-12	2012-13	2013-14
400 kV bays (₹ lakh per bay)	55.40	58.57	61.92	65.46
220 kV bays (₹lakh per bay)	38.78	41.00	43.34	45.82

38. Based on the above norms, the following operation and maintenance expenses are allowed:-

(₹ in lakh)				
Elements	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Assets-I				
5 Nos., 400 kV bays	46.16	292.85	309.60	327.30
Total O&M (Asset-I)	46.16	292.85	309.60	327.30
Assets-II				
1 No., 400 kV bay	9.23	-	-	-
3 Nos., 220 kV bays	19.39	-	-	-
Total O&M (Asset-II)	28.62	-	-	-

(₹ in lakh)				
Asset III (Combined Assets II & III)	2010-11	2011-12	2012-13	2013-14
2 Nos., 400 kV bays	--	117.14	123.84	130.92
6 Nos., 220 kV bays	--	246.00	260.04	274.92
Total O&M (Asset-III)	--	363.14	383.88	405.84

39. 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. 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 suitable revision in the norms for O & M expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

40. We would like to clarify that the O&M expenses have been allowed as per the norms of 2009 Tariff Regulations. If any application is filed by the petitioner for revision of O&M norms on account of impact of pay revision, it will be dealt in accordance with law.

INTEREST ON WORKING CAPITAL

41. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months 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. This has been considered in the working capital.

(iv) Rate of interest on working capital

The SBI Base rate @ 7.50% effective from 1.7.2010 plus 350 basis points i.e. @ 11% is considered as the rate of interest on working capital for Asset-I and Asset-II. As regards Asset III (Combined Asset II&III), the SBI Base rate @ 8.25% as on 1.4.2011 plus 350 basis points i.e. @ 11.75% is considered as the rate of interest on working capital.

42. Necessary computations in support of interest on working capital are appended herein below:-

(₹ in lakh)

	Asset I			
	2010-11 (Pro -rata)	2011-12	2012-13	2013-14
Maintenance Spares	41.55	43.93	46.44	49.10
O & M expenses	23.09	24.40	25.80	27.28
Receivables	146.27	155.72	170.59	179.82
Total	210.91	224.06	242.83	256.19
Interest	3.87	24.65	26.71	28.18

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro -rata)	2011-12	2012-13	2013-14
Maintenance Spares	25.76	54.47	57.58	60.88
O & M expenses	14.31	30.26	31.99	33.82
Receivables	72.90	144.25	151.62	155.55
Total	112.97	228.99	241.20	250.24
Interest	2.07	26.91	28.34	29.40

TRANSMISSION CHARGES

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

(₹ in lakh)

	Asset 1			
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	38.91	250.40	279.79	296.81
Interest on Loan	14.97	90.90	94.15	92.14
Return on equity	42.36	275.56	313.29	334.51
Interest on Working Capital	3.87	24.65	26.71	28.18
O & M Expenses	46.17	292.85	309.60	327.30
Total	146.27	934.35	1023.55	1078.93

(₹ in lakh)

	Asset II	Asset III (Combined Assets II & III)		
	2010-11 (Pro-rata)	2011-12	2012-13	2013-14
Depreciation	18.36	206.70	215.55	218.26
Interest on Loan	4.52	54.92	58.65	53.76
Return on equity	19.33	213.85	223.32	226.01
Interest on Working Capital	2.07	26.91	28.34	29.40
O & M Expenses	28.62	363.14	383.88	405.84
Total	72.90	865.52	909.75	933.28

FILING FEE AND THE PUBLICATION EXPENSES:-

44. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiary on *pro-rata* basis.

LICENCE FEE

45. 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 hence the license fee may be allowed to be recovered separately from the respondents. It is clarified that the petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A(1)(b) of the 2009 Tariff Regulations.

SERVICE TAX

46. The petitioner has made a specific prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if the exemption granted to it is withdrawn in future and transmission of power is made a

taxable service. We consider the prayer pre-mature and accordingly this prayer is rejected.

SHARING OF TRANSMISSION CHARGES

47. The petitioner in paragraph 8.0 of the petition has submitted that tariff for the Asset I (400/220 Solapur S/S with 63 MVAR Bus Reactor along with Bays of LILO of Solapur-Karad, 2x50 MVAR Reactors in Kolhapur Bays as Switchable Reactors) shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the beneficiaries of WR in accordance with Regulation 33 of 2009 Tariff Regulations. As regards, Asset 2 & 3, it has been submitted that the same shall be recovered on monthly basis in accordance with the Commission's order dated 28.3.2008 in Petition No. 85/2007 (Suo-Moto).

48. MPPTCL in its reply has submitted that with the commissioning of the sub-station alone (Asset-I), the beneficiaries of the Western Region other than MSEDCL are not benefitted as the connected transmission lines which are being implemented by WRTML are not put into commercial operation at a matching date. It has been further submitted that Asset-I gets feed from MSETCL 400 kV lines and therefore consumers of MSETCL have only been benefitted and other respondents have not derived any benefit. The petitioner, in its rejoinder dated 22.9.2011 has submitted that commissioning of Asset-I shall provide network integration of 400kV and 220kV system and increase the system connectivity, visibility and stability of WR Grid. It will provide an outlet to 220 kV Network at Southern Solapur area from 400 kV Network and strengthen the system by way of knitting 400 kV and 220 kV System together and optimize the System loading/losses. The petitioner has also submitted that in all, 163 MVAR reactive power compensation has been provided at Solapur Sub-station

which proved very useful to compensate high voltage in Solapur-Kolhapur corridor. Therefore, commissioning of Asset-I is beneficial for all constituents of Western Region and not only of MSEDCL. The petitioner has also submitted that the System was cleared by WRPC and its constituents (including MP), which was originally also intended to feed the local load in southern Solapur area.

49. We have considered the submissions of the petitioner and the respondent. There is no dispute about the sharing of the transmission charges for Asset II & III which will be borne only by MSEDCL till 30.6.2011. However after 1.7.2011, the transmission charges for Asset II & III shall be included in the PoC charges and shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. As regards Asset I, the requirement for the asset has been approved by the constituents of the Western Region. As submitted by the petitioner, the asset is useful for system strengthening in the Western Region and all constituents are benefitted on account of connectivity, visibility and stability of the Western Region grid. In our view, the transmission charges of Asset-I should be shared by all constituents of the Western Region in accordance with Regulation 23 read with Regulation 33 of the 2009 Tariff Regulations upto 30.6.2011 and with effect from 1.7.2011, in accordance with Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010.

50. This order disposes of Petition No. 24/TT/2011.

sd/-
(M. Deena Dayalan)
Member

sd/-
(S. Jayaraman)
Member

sd/-
(Dr. Pramod Deo)
Chairperson



Annexure-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
(' in lakh)					
	Details of Loan	2010-11	2011-12	2012-13	2013-14
1	Bond XXIV				
	Gross loan opening	23.94	23.94	23.94	23.94
	Cumulative Repayment upto DOCO/previous year	0.00	2.00	3.99	5.99
	Net Loan-Opening	23.94	21.95	19.95	17.96
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	2.00	2.00	2.00	2.00
	Net Loan-Closing	21.95	19.95	17.96	15.96
	Average Loan	22.94	20.95	18.95	16.96
	Rate of Interest	9.95%	9.95%	9.95%	9.95%
	Interest	2.28	2.08	1.89	1.69
	Rep Schedule	12 annual installments from 26-03-2011			
2	Bond XXVIII				
	Gross loan opening	300.00	300.00	300.00	300.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	25.00
	Net Loan-Opening	300.00	300.00	300.00	275.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	25.00	25.00
	Net Loan-Closing	300.00	300.00	275.00	250.00
	Average Loan	300.00	300.00	287.50	262.50
	Rate of Interest	9.33%	9.33%	9.33%	9.33%
	Interest	27.99	27.99	26.82	24.49
	Rep Schedule	12 annual installments from 15.12.2012			
3	Bond XXIX				
	Gross loan opening	100.00	100.00	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	8.33
	Net Loan-Opening	100.00	100.00	100.00	91.67
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	8.33	8.33
	Net Loan-Closing	100.00	100.00	91.67	83.34
	Average Loan	100.00	100.00	95.84	87.51
	Rate of Interest	9.20%	9.20%	9.20%	9.20%
	Interest	9.20	9.20	8.82	8.05
	Rep Schedule	12 annual installments from 12.03.2013			
4	IBRD- IV				

	Gross loan opening	1823.20	1823.20	1823.20	1823.20
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	1823.20	1823.20	1823.20	1823.20
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	40.35
	Net Loan-Closing	1823.20	1823.20	1823.20	1782.84
	Average Loan	1823.20	1823.20	1823.20	1803.02
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	31.36	31.36	31.36	31.01
	Rep Schedule	30 HY installments from 15.11.2013			
5	IBRD IV ADDL				
	Gross loan opening	1118.22	1118.22	1118.22	1118.22
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	18.90
	Net Loan-Opening	1118.22	1118.22	1118.22	1099.32
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	18.90	38.13
	Net Loan-Closing	1118.22	1118.22	1099.32	1061.19
	Average Loan	1118.22	1118.22	1108.77	1080.26
	Rate of Interest	1.73%	1.73%	1.73%	1.73%
	Interest	19.35	19.35	19.18	18.69
	Rep Schedule	30 HY installments from 01.02.2013			
6	IBRD IV ADDL (For Add Cap 2010-11)				
	Gross loan opening	0.00	130.02	130.02	130.02
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	2.20
	Net Loan-Opening	0.00	130.02	130.02	127.82
	Additions during the year	130.02	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	2.20	4.43
	Net Loan-Closing	130.02	130.02	127.82	123.38
	Average Loan	65.01	130.02	128.92	125.60
	Rate of Interest	1.73%	1.73%	1.73%	1.73%
	Interest	1.12	2.25	2.23	2.17
	Rep Schedule	30 HY installments from 01.02.2013			
7	IBRD IV ADDL (For Add Cap 2011-12)				
	Gross loan opening	0.00	0.00	440.89	440.89
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	7.45
	Net Loan-Opening	0.00	0.00	440.89	433.44
	Additions during the year	0.00	440.89	0.00	0.00
	Repayment during the year	0.00	0.00	7.45	15.03
	Net Loan-Closing	0.00	440.89	433.44	418.40
	Average Loan	0.00	220.44	437.16	425.92

Rate of Interest	1.73%	1.73%	1.73%	1.73%
Interest	0.00	3.81	7.56	7.37
Rep Schedule	30 HY installments from 01.02.2013			
Total Loan				
Gross loan opening	3365.36	3495.37	3936.26	3936.26
Cumulative Repayment upto DOCO/previous year	0.00	2.00	3.99	67.86
Net Loan-Opening	3365.36	3493.38	3932.27	3868.40
Additions during the year	130.02	440.89	0.00	0.00
Repayment during the year	2.00	2.00	63.87	133.28
Net Loan-Closing	3493.38	3932.27	3868.40	3735.12
Average Loan	3429.37	3712.83	3900.34	3801.76
Rate of Interest	2.6623%	2.5867%	2.5090%	2.4586%
Interest	91.30	96.04	97.86	93.47

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
(` in lakh)					
	Details of Loan	2010-11	2011-12	2012-13	2013-14
1	IBRD IV				
	Gross loan opening	1538.89	1538.89	1538.89	1538.89
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	1538.89	1538.89	1538.89	1538.89
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	34.06
	Net Loan-Closing	1538.89	1538.89	1538.89	1504.83
	Average Loan	1538.89	1538.89	1538.89	1521.86
	Rate of Interest	1.72%	1.72%	1.72%	1.72%
	Interest	26.47	26.47	26.47	26.18
	Rep Schedule	30 HY installments from 15.11.2013			
2	Bond XXVIII (For Add Cap)				
	Gross loan opening	0.00	18.14	18.14	18.14
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	1.51
	Net Loan-Opening	0.00	18.14	18.14	16.63
	Additions during the year	18.14	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	1.51	1.51
	Net Loan-Closing	18.14	18.14	16.63	15.12
	Average Loan	9.07	18.14	17.38	15.87
	Rate of Interest	9.33%	9.33%	9.33%	9.33%
	Interest	0.85	1.69	1.62	1.48
	Rep Schedule	12 annual installments from 15.12.2012			
	Total Loan				
	Gross loan opening	1538.89	1557.03	1557.03	1557.03
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	1.51
	Net Loan-Opening	1538.89	1557.03	1557.03	1555.52
	Additions during the year	18.14	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	1.51	35.57
	Net Loan-Closing	1557.03	1557.03	1555.52	1519.94
	Average Loan	1547.96	1557.03	1556.27	1537.73
	Rate of Interest	1.7646%	1.8087%	1.8050%	1.7986%
	Interest	27.32	28.16	28.09	27.66

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON
LOAN**

(` in lakh)

	Details of Loan	2011-12	2012-13	2013-14
1	IBRD -IV (Exchange Rate: 45.23)			
	Gross loan opening	1206.74	1206.74	1206.74
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1206.74	1206.74	1206.74
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	26.71
	Net Loan-Closing	1206.74	1206.74	1180.03
	Average Loan	1206.74	1206.74	1193.38
	Rate of Interest	1.72%	1.72%	1.72%
	Interest	20.76	20.76	20.53
	Rep Schedule	30 HY instalments from 15-11-2013		
2	IBRD -IV (Exchange Rate: 46.38)			
	Gross loan opening	1538.89	1538.89	1538.89
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1538.89	1538.89	1538.89
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	34.06
	Net Loan-Closing	1538.89	1538.89	1504.83
	Average Loan	1538.89	1538.89	1521.86
	Rate of Interest	1.72%	1.72%	1.72%
	Interest	26.47	26.47	26.18
	Rep Schedule	30 HY instalments from 15-11-2013		
3	BOND XXVIII			
	Gross loan opening	18.14	18.14	18.14
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1.51
	Net Loan-Opening	18.14	18.14	16.63
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	1.51	1.51
	Net Loan-Closing	18.14	16.63	15.12
	Average Loan	18.14	17.38	15.87
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	1.69	1.62	1.48
	Rep Schedule	12 equal annual Instalments from 15.12.2012		

4	BOND XXVIII (For Add Cap 2011-12)			
	Gross loan opening	0.00	181.13	181.13
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	15.09
	Net Loan-Opening	0.00	181.13	166.04
	Additions during the year	181.13	0.00	0.00
	Repayment during the year	0.00	15.09	15.09
	Net Loan-Closing	181.13	166.04	150.94
	Average Loan	90.57	173.58	158.49
	Rate of Interest	9.33%	9.33%	9.33%
	Interest	8.45	16.20	14.79
	Rep Schedule	12 equal annual Instalments from 15.12.2012		
	Total Loan			
	Gross loan opening	2763.76	2944.89	2944.89
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.61
	Net Loan-Opening	2763.76	2944.89	2928.29
	Additions during the year	181.13	0.00	0.00
	Repayment during the year	0.00	16.61	77.38
	Net Loan-Closing	2944.89	2928.29	2850.91
	Average Loan	2854.33	2936.59	2889.60
	Rate of Interest	2.0098%	2.2149%	2.1792%
	Interest	57.37	65.04	62.97