# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No.166/2010

### Coram:

- 1. Dr. Pramod Deo, Chairperson
- 2. Shri V.S.Verma, Member
- 3. Shri M.Deena Dayalan, Member

DATE OF HEARING: 25.11.2010 DATE OF ORDER: 2.5.2011

#### In the matter of

Determination of transmission tariff for (i) combined asset of 400 kV Gandhar-Padge S/C transmission line with associated bays and 400 kV Gandhar-Gandhar S/C transmission line; (ii) 220 kV Gandhar-Bharuch D/C transmission line with associated bays and 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam under Gandhar Gas Power Station (Stage-I) in Western Region for the period from 1.4.2009 to 31.3.2014.

## 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 Co. Ltd., Mumbai
- 3. Gujarat Urja Vikas Nigam Ltd., Vadodara
- 4. Electricity Deptt., Govt., of Goa, Panaji
- 5. Electricity Department, Administration of Daman and Diu, Daman
- 6. Electricity Department, Administration of Dadra Nagar Haveli, Silvassa
- 7. Chhattisgarh State Electricity Board, Raipur
- 8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd. Indore .....Respondents

#### The following were present:

- 1. Shri Rajiv Gupta, PGCIL
- 2. Shri M.M. Mondal, PGCIL
- 3. Shri R.Prasad, PGCIL

#### **ORDER**

The petition has been filed seeking approval of tariff in respect of combined assets of (i) 400 kV Gandhar-Padge S/C transmission line with associated bays and 400 kV Gandhar-Gandhar S/C transmission line; (ii) 220 kV Gandhar-Bharuch D/C transmission line with associated bays and 400 kV Gandhar-Dehgam D/C transmission line with sub-station at Dehgam (hereinafter referred to as "the transmission system") under Gandhar Gas Power Station (Stage-I) in Western Region for the period 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations"). The petitioner has made the following additional prayers:-

- (a) To invoke the provision of Regulation 44 of the 2009 regulations for relaxation of clause 15 (3) of the 2009 regulations so that grossing up the base rate shall be allowed considering the tax rates, viz, MAT, surcharge, any other cess, charges, levies etc as per the relevant Finance Act and allow consequential impact on tariff on account of truing up to be billed and settled directly with the beneficiaries every year in the tariff block;
- (b) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations and other expenditure, if any in relation to the filing of the petition;

- (c) Allow to bill and recover the service tax on transmission charges separately from the respondents, if the petitioner is subjected to such service tax; and
- (d) Allow reimbursement of licence fee separately from the respondents.
- 2. The transmission lines included in the transmission system and the date of commercial operation thereof are as stated below:

S.No.	Name of the transmission line	Notional	date of
		commercia	al operation
1	400 kV Gandhar-Padge S/C transmission line with	1.3.1998	and
	associated bays and 400 kV Gandhar-Gandhar	1.6.1998	
	S/C transmission line (Combined Asset-I)		
2	220 kV Gandhar-Bharuch D/C transmission line with	1.8.1994	
	associated bays and 400 kV Gandhar-Dehgam		
	D/C transmission line with sub-station at Dehgam		
	under Gandhar Power Station (Asset-II)		

- 3. The annual transmission charges for the transmission system up to 31.3.2009 were approved by the Commission vide order dated 14.2.2006 in Petition No. 112/2004 and same were subsequently revised vide order dated 14.3.2008, in the process of implementation of the judgment of the Hon'ble Appellate Tribunal for Electricity dated 16.5.2007 in Appeal No. 121 of 2005.
- 4. The investment approval of the transmission system was accorded by the Ministry of Power initially at an estimated cost ₹ 20381.00 lakh which was subsequently revised under letter dated 4.1.2000 to ₹ 24414.00 lakh.

5. The petitioner has claimed the transmission charges as under:

(₹ in lakh)

			Asset-I					Asset-II		
	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	632.80	632.80	216.97	216.97	216.97	230.30	230.30	230.30	230.30	230.30
Interest on Loan	7.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return on Equity	843.02	843.02	843.02	843.02	843.02	1026.54	1026.54	1026.54	1026.54	1026.54
Interest on Working Capital	39.11	39.41	31.25	31.77	32.32	48.07	49.32	50.65	52.04	53.52
O & M Expenses	163.74	172.96	182.97	193.47	204.48	437.30	462.34	488.82	516.75	546.24
Total	1686.48	1688.19	1274.21	1285.23	1296.79	1742.21	1768.50	1796.31	1825.63	1856.60

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

(₹ in lakh)

	1		A 1 I							
			Asset-I					Asset-II		
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012- 13	2013- 14
Maintenance Spares	24.56	25.94	27.45	29.02	30.67	65.60	69.35	73.32	77.51	81.94
O & M expenses	13.65	14.41	15.25	16.12	17.04	36.44	38.53	40.74	43.06	45.52
Receivables	281.08	281.37	212.37	214.21	216.13	290.37	294.75	299.39	304.27	309.43
Total	319.29	321.72	255.07	259.35	263.84	392.41	402.63	413.45	424.84	436.89
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	39.11	39.41	31.25	31.77	32.32	48.07	49.32	50.65	52.04	53.52

- 7. No comments or suggestions have been received from the public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Madhya Pradesh Power Trading Company Limited (MPPTCL).
- 8. Madhya Pradesh Power Trading Company Limited (MPPTCL) has made following submissions:
  - (i) The possibility of variations in MAT rate and surcharge on account of the Finance Acts has been taken care in proviso

- to Regulation 15 (3) of the 2009 regulations. Therefore, the revision of MAT rates and surcharge etc. should be dealt strictly in accordance with the 2009 regulations without the requirement in invoke Regulation 44 to relax Regulations 15 (3) of the 2009 regulations; and
- (ii) The O & M expenditure should be derived strictly based on the norms of O &M expenditure as specified under Regulation 19 (g) of the 2009 regulations. Escalation of 5.72% per annum should not be considered for want of sufficient justification supported by reliable and audited data.
- 9. As regard the grossing up of the base rate of return with applicable tax rate as per the relevant Finance Act, the Commission has already taken a view in its order dated 3.8.2010 in Petition No. 17/2010 as under:

"We are of the view that this issue of 'grossing up the base rate with the normal tax rate for the year 2008-09' is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise."

The amendment is under process and pending the amendment, ROE has been calculated as per the Regulation 15 (3) of the 2009 regulations.

10. As regard the escalation factor of 5.72%, it is clarified that the same has been applied at the time of delivering the norms for the O & M expenses for the transmission system. In this connection, para 23.6 (vii) of the Statement of Reasons of the 2009 regulations provides as under:

"(vii) The base norm at 2007-08 price level is escalated at 5.72% per annum to reach to 2009-10 price level. It is estimated that 55% of the sub-station O & M expenditure, 52% of the line O &M expenditure and 30% of the HVDC station O & M expenditure is on account of employee cost. Wage hike of 50% has been applied accordingly in the norms for O & M expenditure."

The O & M expenses of the transmission assets has been determined as per the 2009 regulations.

## **CAPITAL COST**

11. The last proviso to clause (2) of Regulation 7 of the 2009 regulations provides as under:

"Provided that in case of the existing projects, capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission, shall form the basis for determination of tariff".

12. The petitioner has claimed the capital expenditure of ₹11989.48 lakh and ₹11744.66 lakh for Asset-I and Asset-II, respectively which was admitted vide order dated 14.2.2006 read with order dated 14.3.2008 in Petition No. 112/2004. The petitioner has not claimed any additional capital expenditure incurred or projected to be incurred during the period 2009-14.

13. Accordingly, gross block of ₹11989.48 lakh and ₹11744.66 lakh for Asset-I and Asset-II, respectively as on 31.3.2009 has been considered as the capital cost for the purpose of tariff.

## **DEBT- EQUITY RATIO**

- 14. Clause (2) of Regulation 12 of the 2009 regulations *inter-alia* provides that,-
  - "(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."
- 15. The petitioner has claimed tariff based on debt-equity ratio of 59.78:40.22 and 50:50 for Asset-I and Asset-II, respectively as admitted vide order dated 14.2.006 read with order dated 14.3.2008 in Petition No. 112/2004. The same debt-equity ratio has been considered for the purpose of tariff during the period 2009-14 in terms of clause (2) of Regulation 12 as quoted above.

## **RETURN ON EQUITY**

- 16. Regulation 15 of the 2009 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% to 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 normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:

Provided that return on equity with respect to the actual 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 year during the tariff period shall be trued up separately for each year of the tariff period along with the tariff petition filed for the next tariff period.

- (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."
- 17. The petitioner has computed return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and claimed return on equity of ₹ 843.02 lakh and ₹ 1026.54 lakh each year during the tariff period @ 17.481% against the equity base of ₹ 4822.48 lakh and ₹ 5872.33 lakh for Asset-I and Asset-II, respectively. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹ 843.02 lakh and ₹ 1026.54 lakh each year for Asset-I and Asset-II, respectively during the tariff period, as claimed.
- 18. The petitioner has submitted that it would approach the Commission if and when the applicable MAT rate undergoes change or is revised as per the Finance Act of respective year as provided under Regulation 15 (3) of the 2009 regulations. The Commission is in the process of amending the regulation to allow grossing up of the ROE as per the applicable MAT

rate in accordance with the relevant Finance Act, which would take care of the interest of the petitioner.

## **INTEREST ON LOAN**

- 19. Regulation 16 of the 2009 regulations provides as under:-
  - "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 refinancing 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."

- 20. The interest on loan has been worked out as detailed below:
  - (i) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, repayment schedule for the loans, rate of interest etc. have been taken from the order dated 14.2.2006 read with order dated 14.3.2008 in Petition No. 112/2004 for Asset-I and Asset-II, respectively for working out weighted average rate of interest;
  - (ii) The tariff has been worked out considering normative loan and normative repayments;
  - (iii) Weighted average rate of interest on actual average loan has been worked out as per (i) above and applied on the notional average loan during the year to arrive at the interest on loan;
  - (iv) The normative loan for Asset-I has been repaid in the year 2009-10, but the actual loan will be fully paid in the year 2012-13; and

- (v) As entire loan for Asset-II has been repaid prior to 31.3.2009, the petitioner has not claimed any interest on loan and the actual loan also gets repaid in year 2012-13;
- 21. The detailed calculations in support of the weighted revised average rate of interest for Asset-I and Asset-II are contained in *Annexure-I* and *Annexure-II*, respectively attached to this order. Interest on loan has been worked out as under:

(₹ in lakh)

			Ass	et-I					Ass	et-II	•	
Details of loan		2009-10	2010-11	2011-12	2012-13	2013-14		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	7167.00	7167.00	7167.00	7167.00	7167.00	7167.00	5872.33	5872.33	5872.33	5872.33	5872.33	5872.33
Cumulative Repayment up to Previous Year		6919.14	7167.00	7167.00	7167.00	7167.00		5872.33	5872.33	5872.33	5872.33	5872.33
Net Loan- Opening		247.86	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Repayment during the year		247.86	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Net Loan-Closing		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Average Loan		123.93	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest on Loan		6.3000%	6.3000%	6.3000%	6.3000%	0.0000%		6.3000%	6.3000%	6.3000%	6.3000%	0.0000%
Interest		7.81	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00

## **DEPRECIATION**

- 22. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner:
  - "17. (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

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

XXXX

- (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."
- 23. The Asset-I has completed 12 years on 31.3.2011. Thus, remaining depreciable value of transmission system as on 1.4.2012 has to be spread over the balance useful life of the transmission system. The 2009 Regulations provides useful life of 35 years and 25 years for transmission line and sub-station, respectively. For calculation of depreciation, the life of building and Power Line Carrier Communication (PLCC) has been taken as 25 years as these are not specified in the 2009 regulations. The combined weighted average value of assets as on 1.4.2009 has been considered to work out the weighted average life of the transmission system including sub-station, which is 34 years. As regards Asset II, the weighted average life has been worked out to 32 years and balance

useful life has been taken as 19 years as on 1.4.2008. Accordingly, depreciation has been worked out as under:

(₹in lakh)

			Ass	et-I					Ass	Asset-II				
Details of loan		2009-10	2010-11	2011-12	2012-13	2013-14		2009-10	2010-11	2011-12	2012-13	2013-14		
As per order 14.2.2006 read with order 14.3.2008	11989.48	11989.48	11989.48	11989.48	11989.48	11989.48	11744.66	11744.66	11744.66	11744.66	11744.66	11744.66		
Addition during 2009-14 due to projected Additional Capitalisation		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Gross block as on 31.3.2009		11989.48	11989.48	11989.48	11989.48	11989.48		11744.66	11744.66	11744.66	11744.66	11744.66		
Rate of Depreciation		5.2779%	5.2779%	5.2779%	5.2779%	5.2779%		5.1224%	5.1224%	5.1224%	5.1224%	5.1224%		
Depreciable Value	90%	10790.53	10790.53	10790.53	10790.53	10790.53	90%	10475.96	10475.96	10475.96	10475.96	10475.96		
Elapsed Life		10	11	12	13	14		14	15	16	17	18		
Balance Useful life of the asset		24	23	22	21	20		18	17	16	15	14		
Remaining Depreciable Value		6039.00	5406.21	4773.41	4556.44	4339.46		4145.32	3915.02	3684.72	3454.43	3224.13		
Depreciation		632.80	632.80	216.97	216.97	216.97		230.30	230.30	230.30	230.30	230.30		

## **OPERATION & MAINTENANCE EXPENSES**

24. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C, twin conductor, 400 kV S/C twin conductor, 220 kV, D/C single conductor transmission line, 400 kV 220 kV bays have been specified for O & M expenses:

			Year		
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C , twin conductor transmission	0.627	0.663	0.701	0.741	0.783
line (₹ in lakh/per ckt.km.)					
400 kV S/C , twin conductor transmission	0.358	0.378	0.400	0.423	0.447
line (₹ in lakh/per ckt.km.)					
220 kV D/C, Single conductor transmission	0.269	0.284	0.301	0.318	0.336
line (₹ in lakh/per ckt.km.)					
400 kV bays (₹ in lakh/per bay)	52.40	55.40	58.57	61.92	65.46
220 kV bays (₹ in lakh/per bay)	36.68	38.78	41.00	43.34	45.82

25. The petitioner's entitlement to O & M expenses has been worked out as given hereunder:

Asset-I

(₹ in lakh)

			Year		
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV S/C, twin conductor	111.34	117.56	124.40	131.55	139.02
transmission line (311 km)					
400 kV bays (one bay)	52.40	55.40	58.57	61.92	65.46
Total	163.74	172.96	182.97	193.47	204.48

#### Asset-II

(₹ in lakh)

			Year		
	2009-10	2010-11	2011-12	2012-13	2013-14
220 kV D/C, Single conductor	3.50	3.69	3.91	4.13	4.37
transmission line (13 km)					
400 kV D/C, twin conductor	98.44	104.09	110.06	116.34	122.93
transmission line (157 km)					
400 kV bays (five bays)	262.00	277.00	292.85	309.60	327.30
220 kV bays (two bays)	73.36	77.56	82.00	86.68	91.64
Total	437.30	462.34	488.82	516.75	546.24

26. The petitioner has submitted that O & M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O & M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O & M charges for 2009-14 periods. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%. With reference to the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.

#### **INTEREST ON WORKING CAPITAL**

- 27. 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 regulations, receivables will be equivalent to two months of annual transmission charges. The petitioner has claimed the receivables on the basis of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.
  - (ii) Maintenance spares: Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses specified in Regulation 19. The value of maintenance spares has been accordingly worked out.
  - (iii) O & M expenses: Regulation 18(1) (c) (iii) of the 2009 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 O&M expenses of the respective year which has been considered for computing the working capital.

- (iv) Rate of interest on working capital: As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009 for both the assets, which is in accordance with the 2009 regulations and has been allowed.
- 28. The computations in support of interest on working capital are given as under:

(₹ in lakh)

			Asset-I					Asset-II		
	2009-	2010-	2011-	2012-	2013-	2009-	2010-	2011-	2012-	2013-
	10	11	12	13	14	10	11	12	13	14
Maintenance Spares	24.56	25.94	27.45	29.02	30.67	65.60	69.35	73.32	77.51	81.94
O & M expenses	13.65	14.41	15.25	16.12	17.04	36.44	38.53	40.74	43.06	45.52
Receivables	281.08	281.36	212.37	214.21	216.13	290.37	294.75	299.38	304.27	309.43
Total	319.28	321.72	255.06	259.35	263.84	392.40	402.63	413.44	424.85	436.89
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	39.11	39.41	31.24	31.77	32.32	48.07	49.32	50.65	52.04	53.52

## **TRANSMISSION CHARGES**

29. The transmission charges being allowed for the transmission asset are summarised below:

(₹ in lakh)

			Asset-I			Asset-II					
	2009- 10	2010- 11	2011- 12	2012- 13	2013- 14	2009-10	2010-11	2011-12	2012-13	2013-14	
Depreciation	632.80	632.80	216.97	216.97	216.97	230.30	230.30	230.30	230.30	230.30	
Interest on Loan	7.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Return on Equity	843.02	843.02	843.02	843.02	843.02	1026.54	1026.54	1026.54	1026.54	1026.54	
Interest on Working Capital	39.11	39.41	31.24	31.77	32.32	48.07	49.32	50.65	52.04	53.52	
O & M Expenses	163.74	172.96	182.97	193.47	204.48	437.30	462.34	488.82	516.75	546.24	
Total	1686.47	1688.18	1274.21	1285.23	1296.79	1742.21	1768.50	1796.30	1825.63	1856.60	

## Application fee and the publication expenses

30. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries. The petitioner shall also be entitled for reimbursement of expenses in connection with publication of notices from the beneficiaries on pro rata basis.

## Licence fee

31. The petitioner has prayed to allow reimbursement of licence fee separately from the respondents. It is clarified that the matter is under consideration of the Commission and any decision on the issue as and when taken will be applicable to this petition.

#### Service Tax

32. The petitioner has prayed to be allowed to bill and recover the service tax on transmission charges if the petitioner is subjected to service tax. The prayer of the petitioner is premature and is accordingly not considered.

- 33. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.
- 34. This order disposes of Petition No. 166/2010.

Sd/- sd/- Sd/- (M.DEENA DAYALAN) (V.S.VERMA) (Dr. PRAMOD DEO) MEMBER CHAIRPERSON

## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

# Annexure-I

## Asset-I

					₹	in lakh)
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond- III Series - I					
	Gross loan opening	100.97	100.97	100.97	100.97	100.97
	Cumulative Repayment up to	100.97	100.97	100.97	100.97	100.97
	DOCO/previous year					
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
	Interest	0.00	0.00	0.00	0.00	0.00
_	Rep Schedule		кера	id in 28.2.200	)2 	1
2	Bond- III Series - 2	421.02	621.02	£21.02	(21.02	621.02
	Gross loan opening	631.03	631.03	631.03	631.03	631.03
	Cumulative Repayment upto DOCO/previous year	631.03	631.03	631.03	631.03	631.03
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.75%	9.75%	9.75%	9.75%	9.75%
	Interest	0.00	0.00	0.00	0.00	0.00
	Rep Schedule		Repai	d in 28.10.20	01	_
3	Bond- I (Issue-III)					
	Gross loan opening	127.00	127.00	127.00	127.00	127.00
	Cumulative Repayment upto	127.00	127.00	127.00	127.00	127.00
	DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	9.00%	9.00%	9.00%	9.00%	9.00%
	Interest	0.00	0.00	0.00	0.00	0.00
	Rep Schedule	0.00		id in 10.3.200		0.00
4	Bond- II					
•	Gross loan opening	2157.00	2157.00	2157.00	2157.00	2157.00
	Cumulative Repayment upto	2157.00	2157.00	2157.00	2157.00	2157.00
	DOCO/previous year					
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	14.78%	14.78%	14.78%	14.78%	14.78%

	Interest	0.00	0.00	0.00	0.00	0.00
	Rep Schedule		Repai	d in 31.3.200	)1	
5	UTI					
	Gross loan opening	1296.00	1296.00	1296.00	1296.00	1296.00
	Cumulative Repayment upto DOCO/previous year	1296.00	1296.00	1296.00	1296.00	1296.00
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
	Average Loan	0.00	0.00	0.00	0.00	0.00
	Rate of Interest	16.70%	16.70%	16.70%	16.70%	16.70%
	Interest	0.00	0.00	0.00	0.00	0.00
	Rep Schedule		Repai	d in 31.3.200	)1	
6	GOI replaced byLIC		·			
	Gross loan opening	2855.00	2855.00	2855.00	2855.00	2855.00
	Cumulative Repayment upto DOCO/previous year	2039.76	2243.57	2447.38	2651.19	2855.00
	Net Loan-Opening	815.24	611.43	407.62	203.81	0.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	203.81	203.81	203.81	203.81	0.00
	Net Loan-Closing	611.43	407.62	203.81	0.00	0.00
	Average Loan	713.34	509.53	305.72	101.91	0.00
	Rate of Interest	6.30%	6.30%	6.30%	6.30%	6.30%
	Interest	44.94	32.10	19.26	6.42	0.00
	Rep Schedule	10	Annual Insta	alments from	31.3.2004	
	Total Loan					
	Gross loan opening	7167.00	7167.00	7167.00	7167.00	7167.00
	Cumulative Repayment upto DOCO/previous year	6351.76	6555.57	6759.38	6963.19	7167.00
	Net Loan-Opening	815.24	611.43	407.62	203.81	0.00
<u> </u>	Additions during the year	0.00	0.00	0.00	0.00	0.00
<u> </u>	Repayment during the year	203.81	203.81	203.81	203.81	0.00
	Net Loan-Closing	611.43	407.62	203.81	0.00	0.00
	Average Loan	713.34	509.53	305.72	101.91	0.00
<u> </u>	Rate of Interest	6.3000%	6.3000%	6.3000%	6.3000%	0.0000%
	Interest	44.94	32.10	19.26	6.42	0.00

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# CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

<u>ANNEXURE-II</u>

## Asset-II

(7)							
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14	
1	Bond- III Series - I						
	Gross loan opening	98.76	98.76	98.76	98.76	98.76	
	Cumulative Repayment up to DOCO/previous year	98.76	98.76	98.76	98.76	98.76	
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
	Average Loan	0.00	0.00	0.00	0.00	0.00	
	Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	
	Interest	0.00	0.00	0.00	0.00	0.00	
	Rep Schedule		Repa	aid in 28.2.20	02	•	
2	Bond- III Series - 2						
	Gross loan opening	617.24	617.24	617.24	617.24	617.24	
	Cumulative Repayment up to DOCO/previous year	617.24	617.24	617.24	617.24	617.24	
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
	Average Loan	0.00	0.00	0.00	0.00	0.00	
	Rate of Interest	9.75%	9.75%	9.75%	9.75%	9.75%	
	Interest	0.00	0.00	0.00	0.00	0.00	
	Rep Schedule	Repaid in 28.10.2001					
3	Bond- I (Issue-III)						
	Gross loan opening	125.00	125.00	125.00	125.00	125.00	
	Cumulative Repayment upto DOCO/previous year	125.00	125.00	125.00	125.00	125.00	
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
	Average Loan	0.00	0.00	0.00	0.00	0.00	
	Rate of Interest	9.00%	9.00%	9.00%	9.00%	9.00%	
	Interest	0.00	0.00	0.00	0.00	0.00	
	Rep Schedule	Repaid in 10.3.2002					
4	Bond- II						
	Gross loan opening	2118.00	2118.00	2118.00	2118.00	2118.00	
	Cumulative Repayment up to DOCO/previous year	2118.00	2118.00	2118.00	2118.00	2118.00	
	Net Loan-Opening	0.00	0.00	0.00	0.00	0.00	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	0.00	0.00	
	Net Loan-Closing	0.00	0.00	0.00	0.00	0.00	
	Average Loan	0.00	0.00	0.00	0.00	0.00	
	Rate of Interest	14.78%	14.78%	14.78%	14.78%	14.78%	
1	Interest	0.00	0.00	0.00	0.00	0.00	

S UTI   Cross loan opening   1269.00   1269.		Rep Schedule	Repaid in 31.03.2001					
Cumulative Repayment up to DOCO/previous year   Net Loan-Opening   0.00   0.0	5	UTI						
Net Loan-Opening		Gross loan opening	1269.00	1269.00	1269.00	1269.00	1269.00	
Net Loan-Opening		. ,	1269.00	1269.00	1269.00	1269.00	1269.00	
Additions during the year								
Repayment during the year         0.00         0.00         0.00         0.00           Net Loan-Closing         0.00         0.00         0.00         0.00         0.00           Average Loan         0.00         0.00         0.00         0.00         0.00           Rate of Interest         16.70%         16.70%         16.70%         16.70%         16.70%           Interest         0.00         0.00         0.00         0.00         0.00         0.00           Rep Schedule         Repaid in 31.3.2001         Repaid in 31.3.2001         0.00         0.00         0.00         0.00           Gross loan opening         2797.00         2797								
Net Loan-Closing		ų ,						
Average Loan         0.00         0.00         0.00         0.00           Rate of Interest         16.70%         16.70%         16.70%         16.70%         16.70%           Interest         0.00         0.00         0.00         0.00         0.00           Rep Schedule         Repaid in 31.3.2001           6         GOI replaced byLIC         Cumulative Repayment upto DOCO/previous year         2797.00         20828.2								
Rate of Interest         16.70%         0.00         0.00         0.00         0.00         0.00         0.00         0.00         2797.00         2000.00         2000.00         2000.00         2000.00         2000.00 <t< td=""><td></td><td>Ü</td><td></td><td></td><td></td><td></td><td></td></t<>		Ü						
Interest		Ü						
Rep Schedule         Repaid in 31.3.2001           6 GOI replaced byLIC         2797.00         0.00 <td></td> <td></td> <td>16.70%</td> <td>16.70%</td> <td></td> <td>16.70%</td> <td>16.70%</td>			16.70%	16.70%		16.70%	16.70%	
6         GOI replaced byLIC         2797.00			0.00				0.00	
Gross loan opening         2797.00		'	Repaid in 31.3.2001					
Cumulative Repayment upto DOCO/previous year         1963.84         2172.13         2380.42         2588.71         2797.00           Net Loan-Opening         833.16         624.87         416.58         208.29         0.00           Additions during the year         0.00         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004         10.00	6							
DOCO/previous year         833.16         624.87         416.58         208.29         0.00           Additions during the year         0.00         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004         10.00		. 0	2797.00	2797.00	2797.00	2797.00	2797.00	
Additions during the year         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004         10.00         10.0			1963.84	2172.13	2380.42	2588.71	2797.00	
Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004           Total Loan         0         0         7025.00		Net Loan-Opening	833.16	624.87	416.58	208.29	0.00	
Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004         7025.00         70		Additions during the year	0.00	0.00	0.00	0.00	0.00	
Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004           Total Loan         7025.00 <td< td=""><td></td><td>Repayment during the year</td><td>208.29</td><td>208.29</td><td>208.29</td><td>208.29</td><td>0.00</td></td<>		Repayment during the year	208.29	208.29	208.29	208.29	0.00	
Rate of Interest         6.30%         6.30%         6.30%         6.30%         6.30%           Interest         45.93         32.81         19.68         6.56         0.00           Rep Schedule         10 Annual Instalments from 31.3.2004           Total Loan         0         7025.00         <		Net Loan-Closing	624.87	416.58	208.29	0.00	0.00	
Interest   45.93   32.81   19.68   6.56   0.00		Average Loan	729.02	520.73	312.44	104.15	0.00	
Rep Schedule       10 Annual Instalments from 31.3.2004         Total Loan       Curs loan opening       7025.00       7025.00       7025.00       7025.00       7025.00       7025.00         Cumulative Repayment up to DOCO/previous year       6191.84       6400.13       6608.42       6816.71       7025.00         Net Loan-Opening       833.16       624.87       416.58       208.29       0.00         Additions during the year       0.00       0.00       0.00       0.00       0.00       0.00         Repayment during the year       208.29       208.29       208.29       208.29       0.00       0.00         Net Loan-Closing       624.87       416.58       208.29       0.00       0.00         Average Loan       729.02       520.73       312.44       104.15       0.00         Rate of Interest       6.3000%       6.3000%       6.3000%       6.3000%       0.0000%		Rate of Interest	6.30%	6.30%	6.30%	6.30%	6.30%	
Total Loan         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         7025.00         816.71         7025.00         7025.00         7025.00         7025.00         816.71         7025.00         7025.00         816.71         7025.00         7025.00         816.71         7025.00         7025.00         816.71         7025.00         816.71         7025.00         816.71         7025.00         816.71         7025.00         90.00		Interest	45.93	32.81	19.68	6.56	0.00	
Gross loan opening 7025.00 7025.00 7025.00 7025.00 7025.00  Cumulative Repayment up to DOCO/previous year  Net Loan-Opening 833.16 624.87 416.58 208.29 0.00  Additions during the year 0.00 0.00 0.00 0.00 0.00  Repayment during the year 208.29 208.29 208.29 208.29 0.00  Net Loan-Closing 624.87 416.58 208.29 0.00 0.00  Average Loan 729.02 520.73 312.44 104.15 0.00  Rate of Interest 6.3000% 6.3000% 6.3000% 0.00000		Rep Schedule	10 Annual Instalments from 31.3.2004					
Cumulative Repayment up to DOCO/previous year         6191.84         6400.13         6608.42         6816.71         7025.00           Net Loan-Opening         833.16         624.87         416.58         208.29         0.00           Additions during the year         0.00         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%		Total Loan						
to DOCO/previous year         833.16         624.87         416.58         208.29         0.00           Additions during the year         0.00         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%		Gross loan opening	7025.00	7025.00	7025.00	7025.00	7025.00	
Net Loan-Opening         833.16         624.87         416.58         208.29         0.00           Additions during the year         0.00         0.00         0.00         0.00         0.00           Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%		. ,	6191.84	6400.13	6608.42	6816.71	7025.00	
Repayment during the year         208.29         208.29         208.29         208.29         0.00           Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%			833.16	624.87	416.58	208.29	0.00	
Net Loan-Closing         624.87         416.58         208.29         0.00         0.00           Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%		Additions during the year	0.00	0.00	0.00	0.00	0.00	
Average Loan         729.02         520.73         312.44         104.15         0.00           Rate of Interest         6.3000%         6.3000%         6.3000%         6.3000%         0.0000%		Repayment during the year	208.29	208.29	208.29	208.29	0.00	
Rate of Interest 6.3000% 6.3000% 6.3000% 6.3000% 0.0000%		Net Loan-Closing	624.87	416.58	208.29	0.00	0.00	
		Average Loan	729.02	520.73	312.44	104.15	0.00	
Interest         45.93         32.81         19.68         6.56         0.00		Rate of Interest	6.3000%	6.3000%	6.3000%	6.3000%	0.0000%	
		Interest	45.93	32.81	19.68	6.56	0.00	