

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 251/2010

Coram:

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

DATE OF HEARING: 8.2.2011

DATE OF ORDER: 25.5.2011

In the matter of

Determination of transmission tariff for (i) LILO of 400 kV Hissar Bassi transmission line at Bhiwadi; and (ii) LILO of 400 kV Hissar-Bassi transmission line at Bhiwadi and 400 kV D/C Agra-Bhiwadi transmission line under Northern Region system Strengthening Scheme-V in Northern 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. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Jaipur
3. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jaipur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Govt. of J&K, Jammu
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Delhi Transco Ltd, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Ltd., New Delhi
14. Chandigarh Administration, Chandigarh
15. Uttarakhand Power Corporation Ltd, Dehradun
16. North Central Railway, Allahabad
17. New Delhi Municipal Council, New Delhi

.....Respondents



The following were present:

1. Shri Rajiv Gupta, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri R.Prasad, PGCIL
4. Shri T.P.S.Bawa, HPCC

ORDER

The petition has been filed seeking approval of tariff in respect of (i) LILO of 400 kV Hissar Bassi transmission line at Bhiwadi; and (ii) LILO of 400 kV Hissar-Bassi transmission line at Bhiwadi and 400 kV D/C Agra-Bhiwadi transmission line under Northern Region System Strengthening Scheme-V (hereinafter referred to as "the transmission scheme") in Northern 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") after accounting for additional capital expenditure during 2009-10 to 2012-13. The petitioner has made the following additional prayers:-

(a) To allow grossing up the base rate of return with the applicable tax rate as per the relevant Finance Acts and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long-term transmission customers on year to year basis;

(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) In case of the assets being combined to calculate the transmission charges, allow to recover full depreciation (90% of the gross block) of the asset during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of the commercial operation and also permit to treat the recovery of depreciation after achieving the useful life by the asset (to be reckoned from the actual date of commercial operation);

(d) Allow to bill and adjust impact of interest on loan due to change in interest rate on account of floating rate of interest applicable during the period 2009-14, if any from the respondents;

(e) Allow to bill and recover the service tax on transmission charges separately from the respondents, if at any time exemption from service tax is withdrawn and transmission is notified as a taxable service; and

(f) Allow reimbursement of licence fee separately from the respondents.

2. The transmission lines included in the transmission scheme and the date of commercial operation thereof are as stated below:



S. No.	Name of the transmission line	Notional date of commercial operation
1.	LILO of 400 kV Hissar Bassi transmission line at Bhiwadi (Asset-I)	1.4.2009
2.	Combined asset of LILO of 400 kV Hissar-Bassi transmission line at Bhiwadi and 400 kV D/C Agra-Bhiwadi transmission line (Asset-II)	1.9.2009

3. The investment approval of the transmission scheme was accorded by the Ministry of Power under letter dated 9.6.2006 at an estimated cost ₹ 72125.00 lakh, including IDC of ₹ 3266.00 lakh based on 4th quarter, 2005 price level.

4. The petitioner has claimed the transmission charges as under. However, it is noticed that the charges in respect of Asset-I are subsumed in the charges for Asset-II after 1.9.2009 i.e the date of commercial operation of Asset-II. Accordingly, the calculations shown in this order in respect of Asset-I are relevant only for the period 1.4.2009 to 31.8.2009:

(₹ 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	382.81	426.98	479.61	493.72	493.72	870.56	1579.76	1668.91	1684.74	1684.74
Interest on Loan	147.28	153.04	160.29	150.51	134.98	336.26	575.37	561.74	515.71	463.61
Return on Equity	379.65	423.39	475.56	489.57	489.57	863.79	1566.82	1655.15	1670.84	1670.84
Interest on Working Capital	26.62	29.02	31.82	32.69	32.88	57.58	103.72	108.64	109.91	110.49
O & M Expenses	153.20	161.98	171.26	181.04	191.37	288.43	522.79	552.72	584.31	617.61
Total	1089.56	1194.41	1318.54	1347.53	1342.52	2416.62	4348.46	4547.16	4565.51	4547.29

5. The details submitted by the petitioner in support of its claim for Interest on Working Capital are given hereunder:

(₹ 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
Maintenance Spares	22.98	24.30	25.69	27.16	28.71	74.17	78.42	82.91	87.65	92.64
O & M expenses	12.77	13.50	14.27	15.09	15.95	41.20	43.57	46.06	48.69	51.47
Receivables	181.59	199.07	219.76	224.59	223.75	690.46	724.74	757.86	760.92	757.88
Total	217.34	236.87	259.72	266.84	268.41	805.83	846.73	886.83	897.26	901.99
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	26.62	29.02	31.82	32.69	32.88	57.58	103.72	108.64	109.91	110.49

6. No comments or suggestions have been received from the general public in response to the public notice published by the petitioner on 19/21.9.2010 as required under Section 64 of the Electricity Act, 2003 (the Act) read with Regulation 3 (6) of the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004.

7. Reply to the petition has been filed only by Haryana Power Purchase Centre (HPCC) who has suggested that the issue of change in interest due to loan on floating interest rate may be dealt in the same manner as the issue of change of tax rate as per the relevant Finance Act as decided by the Commission in its order dated 3.8.2010 in Petition No. 38/2010. In this connection, it is clarified that, notwithstanding the prayer of the petitioner, the rate of interest on loan has been calculated in this order strictly in accordance with the provisions of the 2009 regulations.

CAPITAL COST

8. Regulation 7 of the 2009 regulations provides for determination of capital cost as under:



“7. Capital Cost: (1) Capital cost for a project shall include:

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan-(i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

(b) Additional capital expenditure determined under regulation 9:

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

9. The petitioner has claimed tariff based on the following capital cost, after accounting for additional capital expenditure as under:

(₹ in lakh)

Name of Asset	Apportioned approved cost	Actual cost incurred as on the date of commercial operation	Projected additional capital expenditure			Total estimated completion cost
			Date of commercial operation to 31.3.2010	2010-11	2011-12	
Asset-I	9290.43	7132.56	212.98	1454.98	534.47	9334.99
Asset-II	23400.32	20850.00	298.42	1315.00	64.05	22527.47
Total	32690.75	27982.56	511.4	2769.98	598.52	31862.46

10. Admissibility of the capital cost as claimed above is being examined hereunder.

Time over-run

11. As per the investment approval, 400 kV D/C Bhiwani-Agra transmission line was to be commissioned after 36 months i.e. by June 2009. However, the was declared under commercial operation 1.9.2009 and therefore, there is a time over-run of 3 months. In this



connection, petitioner has explained the reasons for time over-run as under:

- (a) There was a court case involving location No. 34/5;
- (b) Tower erection could not be started due to objection by farmers at location No. 35/3; and
- (c) The stringing activity was slowed down due to ROW problem in section 35/0-36/0 .

12. The petitioner has filed additional information vide its affidavit dated 7.1.2011. On perusal of affidavit, it is observed that there was time over-run at different locations ranging from 5 to 122 days. It is further noted that the date of finalization of court case pertaining to location No. 34/5 was 10.3.2009 and date of clearance of ROW problem was 16.4.2009. At location No. 35/3, tower erection work could not be started till 21.1.2009, due to objection by farmers. The line was constructed four months after the last clearance. Based on the above, the petitioner has pleaded that since the problem was beyond the control of the petitioner, the delay of 3 months in completion of transmission asset may be condoned. We are convinced that the delay in commissioning is not attributable to the petitioner and condone the



same.

Cost over-run

13. It can be seen that the estimated completion cost in respect of Asset-1 is ₹ 9334.99 lakh against the apportioned approved cost of ₹ 9290.43 lakh which implies that there is cost over-run of ₹ 55.56 lakh. The petitioner has submitted that the cost over-run for Asset-I was mainly due to various power lines of HVPNL and RRVPNL which were not taken at the time of survey in 2005 resulting in increased number of power line crossings. As a result number of tension towers had increased along with insulators and other hardware fittings. The petitioner has further submitted that due to fast industrial and real estate development, different types of towers were to be used for maintaining safe clearance. After completion of detailed survey in 2005, six power line crossings and five towers were increased in the transmission line and cost of tower steel also increased approximately by ₹ 62.00 lakh. From the above, we notice that cost variation is mainly due to variation in awarded cost. Therefore, the explanations given by the petitioner are accepted and the cost over-run is condoned.

ADDITIONAL CAPITAL EXPENDITURE



14. Regulation 9 (1) of the 2009 regulations provides as under:

(1) The capital expenditure incurred or projected to be incurred, on the following counts with in 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 regulating 8 ;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in law;*

Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of the tariff.

15. Regulation 3 (11) of the 2009 regulations, pertaining to cut-off date provides as under:

"cut-off date" means 31st march of the year closing after 2 years of the year of commercial operation of the project, and in case 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.

16. As per the above, the cut-off date of the transmission assets is 31.3.2012. The additional capital expenditure claimed for the transmission assets have been or are proposed to be incurred with in the cut-off date.

17. The petitioner has submitted the following details in support of its claim for projected additional capital expenditure for the transmission



assets:

	Years	Nature and details of expenditure	Amount (₹ in lakh)
Asset-I	2009-10	Transmission line- Final Retention payments	125.13
		Sub-station equipments- Final Retention payments	13.18
		Power Line Carrier Communication- Final Retention payments	4.67
		Total	212.98
	2010-11	Transmission line- Final Retention payments	974.87
		Sub-station- Final Retention payments	458.47
		Power Line Carrier Communication- Final Retention payments	21.04
		Total	1454.98
	2011-12	Transmission line- Final Retention payments	419.85
Sub-station- Final Retention payments		114.62	
Total		534.47	
Asset-II (Combined Asset)	2009-10	Transmission line- Final Retention payments	278.69
		Sub-station equipments- Final Retention payments	126.52
		Power Line Carrier Communication - Final Retention payments	106.20
		Total	511.40
	2010-11	Transmission line- Final Retention payments	1774.87
		Sub-station equipments- Final Retention payments	958.47
		Power Line Carrier Communication - Final Retention payments	36.64
		Total	2769.98
	2011-12	Transmission line- Final Retention payments	454.88
Sub-station equipments- Final Retention payments		137.70	
Power Line Carrier Communication - Final Retention payments		5.94	
Total	598.52		

18. The above additional capital expenditures are of the nature of undischarged liabilities and are projected to be capitalised within the cut-off date of the transmission assets which is up to 31.3.2012 as computed according to Regulation 3 (11) of the 2009 regulations. Therefore, the projected additional capital expenditure during 2009-10, 2010-11 and

2011-12 are admissible under Regulation 9 (1) of the 2009 regulations and are accordingly allowed.

TOTAL CAPITAL COST

19. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission asset, after allowing projected additional capital expenditure as claimed by the petitioner.

(₹ in lakh)

Name of Asset	Actual cost incurred as on the date of commercial operation	Projected Additional capital expenditure			Capital cost as on 31.3.2014
		Date of commercial operation to 31.3.2010	2010-11	2011-12	
Asset-I	7132.56	212.98	1454.98	534.47	9334.99
Asset-II	20850.00	298.42	1315.00	64.05	22527.47
Total	27982.56	511.40	2769.98	598.52	31862.46

DEBT- EQUITY RATIO

20. 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.”

21. The petitioner has claimed tariff based on debt-equity ratio of 70:30 for the transmission asset. The petitioner has further claimed the amount of additional capital expenditure in the debt-equity ratio of 70:30 for the years 2009-10 to 2012-13, which is the same as considered for the calculation of tariff as on the date of commercial operation.



RETURN ON EQUITY

22. 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."*

23. 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 has claimed return on equity @ 17.481% .

24. 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. In this regard, we clarify that 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 will address the grievance of the petitioner with regard to the MAT rate.

25. Accordingly, annual return on equity has been computed as per the existing provisions of Regulation 15 (3) of the 2009 as under:

(₹ in lakh)

Details of return on equity	Asset-I	Asset-II				
	2009-10	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Opening Equity	2139.86	8394.06	8547.48	9378.47	9558.03	9558.03
Addition due to Additional Capitalisation	63.89	153.42	830.99	179.56	0.00	0.00
Closing Equity	2203.75	8547.48	9378.47	9558.03	9558.03	9558.03
Average Equity	2171.81	8470.77	8962.98	9468.25	9558.03	9558.03
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	379.65*	863.79	1566.82	1655.15	1670.84	1670.84

* *Pro rata* amount ₹ 158.19 lakh.

INTEREST ON LOAN

26. 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 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."

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

(i) The gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;

(ii) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period;



(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; and

(iv) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009/date of commercial operation. Any change in rate of interest subsequent to 1.4.2009/ date of commercial operation will be considered at the time of truing up.

28. The detailed calculations in support of the weighted average rate of interest for Asset-I and Asset-II are contained in **Annexure-I** and **Annexure-II**, respectively attached to this order. Based on the above, annual interest on loan has been worked out as under:

(₹ in lakh)

Details of loan	Asset - I	Asset-II				
	2009-10	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	4992.70	19588.50	19946.48	21885.47	22304.43	22304.43
Cumulative Repayment up to Previous Year	0.00	0.00	870.56	2450.31	4119.23	5803.97
Net Loan-Opening	4992.70	19588.50	19075.92	19435.15	18185.21	16500.46
Addition due to Additional Capitalisation	149.09	357.98	1938.99	418.97	0.00	0.00
Repayment during the year	382.81	870.56	1579.76	1668.91	1684.74	1684.74
Net Loan-Closing	4758.98	19075.92	19435.15	18185.21	16500.46	14815.72
Average Loan	4875.84	19332.21	19255.54	18810.18	17342.83	15658.09
Weighted Average Rate of Interest on Loan	3.0206%	2.9818%	2.9881%	2.9863%	2.9736%	2.9608%
Interest	147.28 *	336.26	575.38	561.73	515.71	463.61

* *Pro rata* amount ₹ 61.37 lakh.

DEPRECIATION

29. 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.

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(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."

30. Asset-I and Asset-II were declared under commercial operation on 1.4.2009 and 1.9.2009, respectively. Accordingly, they will complete 12 years beyond the current tariff block 2009-14. Depreciation, therefore, has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 regulations. Accordingly, annual depreciation has been worked out as under:

(₹ in lakh)

	Asset-I	Asset-II



Details of Depreciation		2009-10		2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Gross block		7132.56		27982.56	28493.96	31263.94	31862.46	31862.46
Addition during 2009-14 due to projected Additional Capitalisation		212.98		511.40	2769.98	598.52	0.00	0.00
Gross block as on 31.3.2009		7345.54		28493.96	31263.94	31862.46	31862.46	31862.46
Average Gross Block		7239.05		28238.26	29878.95	31563.20	31862.46	31862.46
Rate of Depreciation		5.2881%		5.2850%	5.2872%	5.2875%	5.2875%	5.2875%
Depreciable Value	90%	6515.15	90%	25414.43	26891.06	28406.88	28676.22	28676.22
Remaining Depreciable Value		6515.15		25414.43	26020.50	25956.57	24556.99	22872.25
Depreciation		382.81*		870.56	1579.76	1668.91	1684.74	1684.74

* *Pro rata* amount ₹ 159.50 lakh.

OPERATION & MAINTENANCE EXPENSES

31. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms 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 line (₹ in lakh/per ckt.km.)	0.627	0.663	0.701	0.741	0.783
400 kV S/C, twin conductor transmission line (₹ in lakh/per ckt.km.)	0.358	0.378	0.400	0.423	0.447
220 kV D/C, Single conductor transmission line (₹ in lakh/per ckt.km.)	0.269	0.284	0.301	0.318	0.336
400 kV bays (₹ in lakh/per bay)	52.40	55.40	58.57	61.92	65.46

32. Asset-I was operational in isolation during 1.4.2009 to 31.8.2009 and got merged with Asset- II with effect from 1.9.2009 i.e. the date of commissioning of Asset-II. Accordingly, O&M charges have been worked out as under:

Asset-I (for the period 1.4.2009 to 31.8.2009)

	(₹ in lakh)
	2009-10 (Pro rata)



400 kV D/C, twin conductor transmission line (76.485 km)	19.98
400 kV S/C, single conductor transmission line 4.242 ckt.km (1.25 km)	0.19
400 kV bays (2 bays)	43.67
Total	63.84

Asset-II : for the period from 1.9.2009 (Inclusive of Asset-I)

	(₹ in lakh)				
	Year				
	2009-10 (Pro rata)	2010-11	2011-12	2012-13	2013-14
400 kV D/C, twin conductor transmission line 284.745 ckt. km (207.158+76.485+1.102 km)	104.15	188.79	199.61	211.00	222.96
400 kV S/C, single conductor transmission line 4.242 ckt.km (1.25+2.352+0.640 km)	0.89	1.60	1.70	1.79	1.90
440 kV bays (six bays)	183.40	332.40	351.42	371.52	392.76
Total	288.44	522.79	552.72	584.31	617.61

33. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expense 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

34. 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.

35. The computations in support of interest on working capital are given



as under:

(₹ in lakh)

	Asset-I	Asset-II				
	1.4.2009 to 31.8.2009	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	9.58	74.17	78.42	82.91	87.65	92.64
O & M expenses	5.32	41.20	43.57	46.06	48.69	51.47
Receivables	75.66	690.46	724.74	757.86	760.92	757.88
Total	90.56	805.83	846.73	886.83	897.26	901.99
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	11.09	57.58	103.72	108.64	109.91	110.49

TRANSMISSION CHARGES

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

(₹ in lakh)

	Asset-I	Asset-II				
	1.4.2009 to 31.8.2009	2009-10 (Pro-rata)	2010-11	2011-12	2012-13	2013-14
Depreciation	159.50	870.56	1579.76	1668.91	1684.74	1684.74
Interest on Loan	61.37	336.26	575.38	561.73	515.71	463.61
Return on Equity	158.19	863.79	1566.82	1655.15	1670.84	1670.84
Interest on Working Capital	11.09	57.58	103.72	108.64	109.91	110.49
O & M Expenses	63.83	288.43	522.79	552.72	584.31	617.61
Total	453.98	2416.62	4348.47	4547.15	4565.52	4547.29

Application fee and the publication expenses

37. 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 on *pro rata* basis. 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

38. The petitioner has prayed for 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

39. The petitioner has prayed to be allowed to bill and recover the service tax on transmission charges if at any time exemption from service tax is withdrawn and transmission is notified as a taxable service. The prayer of the petitioner is premature at this stage and is accordingly rejected. The petitioner is at liberty to approach the Commission as per the provisions of law as and when such a contingency arises.

40. 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.

41. This order disposes of Petition No. 251/2010.

Sd/-	Sd/-	Sd/-	Sd/-
(M.Deena Dayalan) Member	(V.S.Verma) Member	(S.Jayaraman) Member	(Dr. Pramod Deo) Chairperson



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Annexure-I

Asset-I

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
1 ADB III					
Gross loan opening	4762.70	4762.70	4762.70	4762.70	4762.70
Cumulative Repayment up to DOCO/previous year	0.00	71.92	226.23	396.26	583.91
Net Loan-Opening	4762.70	4690.79	4536.48	4366.45	4178.80
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	71.92	154.31	170.03	187.65	206.70
Net Loan-Closing	4690.79	4536.48	4366.45	4178.80	3972.10
Average Loan	4726.75	4613.63	4451.46	4272.62	4075.45
Rate of Interest	2.715%	2.715%	2.715%	2.715%	2.715%
Interest	128.33	125.26	120.86	116.00	110.65
Rep Schedule	half yearly installment from 15.01.2010				
2 Bond XXVI					
Gross loan opening	230.00	230.00	230.00	230.00	230.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	19.17	38.33
Net Loan-Opening	230.00	230.00	230.00	210.83	191.67
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	19.17	19.17	19.17
Net Loan-Closing	230.00	230.00	210.83	191.67	172.50
Average Loan	230.00	230.00	220.42	201.25	182.08
Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
Interest	21.39	21.39	20.50	18.72	16.93
Rep Schedule	12 annual installments from 07.03.2012				
Total Loan					
Gross loan opening	4992.70	4992.70	4992.70	4992.70	4992.70
Cumulative Repayment upto DOCO/previous year	0.00	71.92	226.23	415.42	622.24
Net Loan-Opening	4992.70	4920.79	4766.48	4577.28	4370.46
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	71.92	154.31	189.20	206.82	225.87
Net Loan-Closing	4920.79	4766.48	4577.28	4370.46	4144.60
Average Loan	4956.75	4843.63	4671.88	4473.87	4257.53
Rate of Interest	3.0206%	3.0277%	3.0257%	3.0112%	2.9966%
Interest	149.72	146.65	141.36	134.72	127.58



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

ANNEXURE-II

Asset-II

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	ADB III Asset 1					
	Gross loan opening	4762.70	4762.70	4762.70	4762.70	4762.70
	Cumulative Repayment up to DOCO/previous year	0.00	71.92	226.23	396.26	583.91
	Net Loan-Opening	4762.70	4690.79	4536.48	4366.45	4178.80
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	71.92	154.31	170.03	187.65	206.70
	Net Loan-Closing	4690.79	4536.48	4366.45	4178.80	3972.10
	Average Loan	4726.75	4613.63	4451.46	4272.62	4075.45
	Rate of Interest	2.72%	2.72%	2.72%	2.72%	2.72%
	Interest	128.33	125.26	120.86	116.00	110.65
	Rep Schedule	half yearly installment from 15.1.2010				
2	Bond XXVI					
	Gross loan opening	788.00	788.00	788.00	788.00	788.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	65.67	131.33
	Net Loan-Opening	788.00	788.00	788.00	722.33	656.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	65.67	65.67	65.67
	Net Loan-Closing	788.00	788.00	722.33	656.67	591.00
	Average Loan	788.00	788.00	755.17	689.50	623.83
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	73.28	73.28	70.23	64.12	58.02
	Rep Schedule	12 annual installments from 7.3.2012				
3	ADB III Asset 2					
	Gross loan opening	14037.79	14037.79	14037.79	14037.79	14037.79
	Cumulative Repayment upto DOCO/previous year	0.00	211.97	666.80	1167.94	1721.03
	Net Loan-Opening	14037.79	13825.82	13371.00	12869.85	12316.76
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	211.97	454.82	501.15	553.09	609.24
	Net Loan-Closing	13825.82	13371.00	12869.85	12316.76	11707.52
	Average Loan	13931.81	13598.41	13120.42	12593.30	12012.14
	Rate of Interest	2.72%	2.72%	2.72%	2.72%	2.72%
	Interest	378.25	369.20	356.22	341.91	326.13
	Rep Schedule	half yearly installment from 15.1.2010				
	Total Loan					
	Gross loan opening	19588.50	19588.50	19588.50	19588.50	19588.50
	Cumulative Repayment up to DOCO/previous year	0.00	283.89	893.02	1629.87	2436.27
	Net Loan-Opening	19588.50	19304.61	18695.47	17958.63	17152.22
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	283.89	609.14	736.84	806.41	881.61
	Net Loan-Closing	19304.61	18695.47	17958.63	17152.22	16270.61
	Average Loan	19446.55	19000.04	18327.05	17555.43	16711.42
	Rate of Interest	2.9818%	2.9881%	2.9863%	2.9736%	2.9608%
	Interest	579.86	567.74	547.31	522.03	494.79