

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.79/2010

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: 24.8.2010

DATE OF ORDER: 1.12.2010

In the matter of

Approval of transmission tariff for (i) 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee sub-station; and (ii) LILO of 400 kV Rishikesh-Muzzafarnagar transmission line at Roorkee along with associated bays at Roorkee under System Strengthening Scheme in Roorkee 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 U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL



3. Mrs. Sangeeta Edwards, PGCIL
4. Shri T.P.S.Bawa, PGCIL

ORDER

The petition has been filed seeking approval of tariff for (i) 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee sub-station **(Asset-I)**; and (ii) LILO of 400 kV Rishikesh-Muzzafarnagar transmission line **(Asset-II)** (the transmission assets) at Roorkee along with associated bays at Roorkee under System Strengthening Scheme (The transmission scheme) in Roorkee 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 addition capital expenditure incurred during 2009-10 and 2010-11. The petitioner has made the following additional prayers:-

- (a) To invoke the provision of Regulation 44 of the 2009 regulations for relaxation of regulations 15 (3) of the 2009 regulations so that grossing up the base rate shall be considering the revised rate of MAT as per the Finance Act, 2009 for the year 2009-10 and as per the Finance Act, 2010 for the year 2010-11 and subsequent years and allow consequential impact on tariff for 2009-14 period accordingly;
- (b) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations;



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

(d) Allow to recover the service tax on transmission charges separately from the respondents, if the petitioner is subjected to such service tax; and

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

2. It is noted that the petitioner has filed Petition No. 269/2010 in respect of combined assets of 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee sub-station and 315 MVA 440/220 kV ICT-II along with associated bays at Roorkee sub-station under System Strengthening Scheme in Roorkee. In Petition No. 269/2010, Asset-I of the present petition has been clubbed with the third asset of transmission scheme, wherein the transmission charges have been claimed for the period from 1.4.2010 to 31.3.2014. Through this petition, for Asset-I, the transmission charges are being approved for the period 1.4.2009 to 31.3.2014, subject to adjustment in Petition No. 269/2010.

3. The administrative approval and expenditure sanction for the transmission scheme was accorded by Board of Directors of the petitioner company vide Memorandum dated 26.12.2005 at an estimated cost of ₹109.95 crore, which included IDC of ₹4.6 crore, based on 3rd quarter, 2005 price level. The transmission assets were declared under commercial operation w.e.f 1.4.2009.



4. The details of apportioned approved cost, capital cost as on date of the commercial operation and projected additional capital expenditure etc. of the transmission assets etc. are as under:

(₹ in lakh)

	Apportioned approved cost	Actual cost as on the date of commercial operation	Capital expenditure incurred from the date of the commercial operation to 31.3.2010	Capital expenditure incurred from 1.4.2010 to 31.3.2011	Total capital expenditure
Asset-I	4047.19	2948.74	954.09	5.00	3907.83
Asset-II	2900.79	1962.50	206.62	110.00	2279.12

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	151.60	174.45	174.58	174.58	174.58	95.85	103.16	106.07	106.07	106.07
Interest on Loan	218.50	234.67	218.24	201.73	185.30	131.72	132.74	126.40	116.36	106.37
Return on Equity	179.68	204.83	204.96	204.96	204.96	108.29	116.60	119.48	119.48	119.48
Interest on Working Capital	19.59	21.39	21.54	21.72	21.92	12.31	12.96	13.27	13.40	13.55
O & M Expenses	162.44	171.74	181.57	191.94	202.92	106.12	112.19	118.61	125.40	132.56
Total	731.81	807.08	800.89	794.93	789.68	454.29	477.65	483.83	480.71	478.03

6. 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	24.37	25.76	27.24	28.79	30.44	15.92	16.83	17.79	18.81	19.88
O & M expenses	13.54	14.31	15.13	16.00	16.91	8.84	9.35	9.88	10.45	11.05
Receivables	121.97	134.51	133.48	132.49	131.61	75.72	79.61	80.64	80.12	79.67
Total	159.88	174.58	175.85	177.28	178.96	100.48	105.79	108.31	109.38	110.60
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	19.59	21.39	21.54	21.72	21.92	12.31	12.96	13.27	13.40	13.55

7. Reply to the petition has been filed by Uttar Pradesh Power Corporation Ltd. (UPPCL) and Haryana Power Purchase Centre (HPPC). 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.

CAPITAL COST

8. As per clause (2) of Regulation 7 of the 2009 regulations, the project cost admitted by the Commission for determination of tariff prior to 1.4.2009 shall form the basis for determination of tariff.

9. The petitioner has claimed the tariff after accounting for projected additional capital expenditure as under:

(₹ in lakh)

	Apportioned approved cost	Actual cost as on the date of commercial operation	Projected capital expenditure from the date of the commercial operation to 31.3.2010	Projected capital expenditure from 1.4.2010 to 31.3.2011	Total capital expenditure
Asset-I	4047.19	2948.74	954.09	5.00	3907.83
Asset-II	2900.79	1962.50	206.62	110.00	2279.12

ADDITIONAL CAPITAL EXPEDNTURE FOR THE YEAR 2009-10 AND 2010-11

10. Regulation 9 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.

(2) The capital expenditure incurred on the following counts after the cut-off-date, in its discretion, be admitted by the Commission, subject to prudence check:



- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law;
- (iii) *****
- (iv) *****
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of the transmission system.

11. The details submitted by the petitioner in support of its claim for projected additional capital expenditure for the transmission line is given hereunder:

Asset-I			Asset-II		
Years	Nature and details of expenditure	Amount (₹ in lakh)	Years	Nature and details of expenditure	Amount (₹ in lakh)
2009-10	Freehold land-Balance and retention payments	30.50	2009-10	Freehold land-Balance and retention payments	15.25
	Building -Balance and retention payments	172.18		Building -Balance and retention payments	83.58
	Sub-station- Balance and retention payments	751.41		Transmission Line-Balance and retention payment	50.50
	Total	954.09		Sub-station- Balance and retention payments	240.50
			PLCC-Balance and retention payment	32.79	
			Total	206.62	
2010-11	Sub-station-Balance and retention payments	5.00	2010-11	Sub-station-Balance and retention payments	110.00
	Total	5.00		Total	110.00

12. UPPCL in its reply has requested not to allow the amount claimed towards additional capital expenditure for the year 2010-11 prior to execution



and subsequently the petitioner may claim the additional capital expenditure on actual basis through a separate petition in accordance with the 2009 regulations. In regard to depreciation, UPPCL has submitted that the figure of depreciation in Form-11 in respect of the transmission assets are required to be revised. UPPCL has further submitted that no floating rate of interest has been contracted in the financial packages of transmission assets and gross opening loan figures in Form 13A (Asset-2) for the period 2009-10 and 2010-11 are mismatched. The existing financial packages for transmission assets do not have any provision of floating rate of interest. Moreover, 2009 regulation provide for swapping of loans in the interest of consumers. Therefore, there appears no cause for the petitioner to pray for floating rate of interest which entailed the avoidable element of risk of increase in the rate of interest to which the consumers may be exposed. Therefore the prayer in this regard is not tenable. In regard to service tax, the UPPCL has submitted that the Commission has already deferred the application of service tax sine-dine vide order dated 5.11.2009 in Petition No. 62/2009, therefore, no need to raise the issue of service tax by petitioner in each and every petition. In regard to filing fee, UPPCL has submitted that the filing fee will be governed by orders of the Commission.

13. HPPC in its reply has submitted that the petitioner should supply copy/operative part of CESAT order and supply details of action/appeal/court case if any filed against CESAT order or against the order of Commissioner, Central Excise, and Shillong. In regard to O & M charges, HPPC has submitted that O & M charges claimed are not as per 2009 regulations, therefore prayer



in this regard is not tenable. HPCC has further submitted that details of additional capital expenditure after date of the commercial operation should be furnished by the petitioner.

14. We have carefully considered the objections of UPPCL and HPPC. The tariff of the transmission system has been determined in this order strictly in accordance with the provisions of 2004 regulations. The claim of the petitioner with regard to service tax, no more survives after issue of the notification by Government of India (vide notification No. 20/2010 dated 27.2.2010 read with notification No. 45/2010 dated 20.7.2010) exempting transmission of power from the purview of the taxable services. The Petitioner is directed to supply copy/operative part of CESAT order and supply details of action/appeal/court case if any filed against CESAT order or against the order of Commissioner, Central Excise, and Shillong, if any to the respondent, HPPC. UPPCL has also objected to considering reimbursement of the petition filing fee and service tax. These concerns have been taken care of in this order.

15. In view of the above, the projected additional capital expenditure claimed is within the original scope of work and is found to be in order as it is against committed liability. Accordingly, capitalization of the additional expenditure claimed by the petitioner has been allowed as per regulation 9 (2) (v) of the 2009 regulations by invoking power given under Regulation 44 of the 2009 regulations.



TOTAL CAPITAL COST

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

(₹ in lakh)

	Apportioned approved cost	Actual cost as on the date of commercial operation	Projected expenditure from the date of commercial operation 31.3.2010	Capital from the to	Projected Capital expenditure from 1.4.2010 to 31.3.2011	Total capital expenditure
Asset-I	4047.19	2948.74		954.09	5.00	3907.83
Asset-II	2900.79	1962.50		206.62	110.00	2279.12

DEBT- EQUITY RATIO

17. Clause (1) of Regulation 12 of the 2009 regulations *inter- alia* provides that,-

"(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"

18. The petitioner has claimed tariff based on debt-equity ratio of 70:30. The petitioner has further claimed the amount of additional capital expenditure in the debt-equity ratio of 70:30 for the year 2009-10 and 2010-11, same has been considered for the calculation of tariff. For the purpose of tariff, equity considered for the transmission asset is as under:

(₹ in lakh)

	Equity as on 1.4.2009	Notional equity due to projected additional capital expenditure for the period 2009-10	Average equity for 2009-10	Notional equity due to additional capital expenditure for the period 2010-11	Average equity for 2010-11	Equity for the period 2011-14	Average equity for 2011-14
Asset-I	884.74	286.23	1027.85	1.50	1171.72	0.00	1172.47
Asset-II	588.50	61.99	619.49	33.00	666.99	0.00	683.49

RETURN ON EQUITY

19. 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% 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.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.1133) = 17.481\%$

(ii) In case of generating company or the transmission licensee paying normal corporate tax @ 33.99% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.3399) = 23.481\%$.”

20. Equity has been considered as on 1.4.2009 as given in the table in para 18 above. However, the tariff for period 2009-14 has been allowed on average



equity. 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.

21. Accordingly, the petitioner shall be entitled to return on equity as under:

(₹ in lakh)

Return on equity	2009-10	2010-11	2011-12	2012-13	2013-14
Asset-I	179.68	204.83	204.96	204.96	204.96
Asset-II	108.29	116.60	119.48	119.48	119.48

22. The Commission vide its order dated 3.8.2010 in Petition No. 17/2010 has already taken a decision to amend the 2009 regulations and directed the staff to initiate the process accordingly. The draft regulations have already been published. The Commission is in the process of finalizing the amendment to 2009 regulations after considering the responses to the draft amendments. It is however, clarified that the existing provision of the 2009 regulation will be applicable with regard to the MAT rate till the regulations are amended.

INTEREST ON LOAN

23. 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."

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

(i) Details of gross loan allocated have been considered as per the petition and affidavit dated 7.6.2010 furnished by the petitioner. Rate of interest and repayment schedule has been considered as per balance sheet for the year 2008-09 annexed with the petition;

- (ii) The tariff has been worked out considering normative loan and normative repayment. Depreciation allowed has been taken as normative repayment for the period 2009-14; and
- (iii) Weighted average rate of interest on actual loan worked out as above is applied on the average loan during the year to arrive at the interest on loan.

25. Based on the above, the year-wise details of interest worked out are given hereunder:

(₹ in lakh)

Details of loan	Asset-I						Asset-II					
		2009-10	2010-11	2011-12	2012-13	2013-14		2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	2064.00	2064.00	2731.86	2735.36	2735.36	2735.36	1374.00	1374.00	1518.63	1595.63	1595.63	1595.63
Cumulative repayment up to previous year		0.00	151.60	326.05	500.63	675.21		0.00	95.85	199.01	305.08	411.15
Net Loan-Opening		2064.00	2580.26	2409.31	2234.73	2060.15		1374.00	1422.79	1396.62	1290.56	1184.49
Addition due to additional capitalisation		667.86	3.50	0.00	0.00	0.00		144.63	77.00	0.00	0.00	0.00
Repayment during the year		151.60	174.45	174.58	174.58	174.58		95.85	103.16	106.07	106.07	106.07
Net loan-closing		2580.26	2409.31	2234.73	2060.15	1885.57		1422.79	1396.62	1290.56	1184.49	1078.42
Average Loan		2322.13	2494.79	2322.02	2147.44	1972.86		1398.39	1409.71	1343.59	1237.52	1131.45
Weighted Average rate of interest on loan		9.4095%	9.4062%	9.3988%	9.3940%	9.3924%		9.4196%	9.4160%	9.4080%	9.4028%	9.4011%
Interest		218.50	234.67	218.24	201.73	185.30		131.72	132.74	126.40	116.36	106.37

26. The detailed calculations in support of the weighted revised average rate of interest are contained in **Annexure** attached.



DEPRECIATION

27. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner, namely:

"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."

28. The depreciation has been worked out on the basis of capital expenditure as on 31.3.2009 and projected additional capital expenditure thereafter. Accordingly, for the periods 1.4.2009 to 31.3.2010, 1.4.2010 to 31.3.2011 and 1.4.2011 to 31.3.2014 the depreciation works out to ₹151.60 lakh, ₹174.45 lakh and ₹174.58 lakh for Asset-I and ₹95.85, ₹103.16 lakh



and ₹106.07 lakh for Asset-II, respectively as shown below:

(₹ in lakh)

Details of loan	Asset-I						Asset-II					
	2009-10	2010-11	2011-12	2012-13	2013-14	2009-10	2010-11	2011-12	2012-13	2013-14		
Gross block as on 31.3.2009	0.00	2948.74	3902.83	3907.83	3907.83	3907.83	0.00	1962.50	2169.12	2279.12	2279.12	2279.12
Addition during 2009-14 due to projected Additional Capitalisation		954.09	5.00	0.00	0.00	0.00		206.62	110.00	0.00	0.00	0.00
Gross block as on 31.3.2009		3902.83	3907.83	3907.83	3907.83	3907.83		2169.12	2279.12	2279.12	2279.12	2279.12
Average gross block		3425.79	3905.33	3907.83	3907.83	3907.83		2065.81	2224.12	2279.12	2279.12	2279.12
Rate of depreciation		4.4254%	4.4669%	4.4674%	4.4674%	4.4674%		4.6397%	4.6384%	4.6539%	4.6539%	4.6539%
Depreciable Value	90%	2683.29	3101.16	3103.41	3103.41	3103.41	90%	1659.27	1794.89	1844.39	1844.39	1844.39
Elapsed life (Beginning of the year)		0	1	2	3	4		0	1	2	3	4
Balance useful life of the asset		-	-	-	-	-		-	-	-	-	-
Remaining depreciable Value		2683.29	2531.69	2357.24	2182.66	2008.08		1659.27	1563.43	1460.26	1354.19	1248.12
Depreciation		151.60	174.45	174.58	174.58	174.58		95.85	103.16	106.07	106.07	106.07

OPERATION & MAINTENANCE EXPENSES

29. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C, Twin conductor, transmission line, 400 kV and 220 kV bays are prescribed for O & M expenses:

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C transmission line (Twin conductor) (₹ in lakh /km)	0.672	0.663	0.701	0.741	0.783
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

30. 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
3 Nos. 220 kV Ramnagar, Haridwar and ICT-I bays at Roorkee sub-station	110.04	116.34	123.00	130.02	137.46
O&M expenses for 1 No. kV ICT-I bay at Roorkee sub-station (one bay)	52.40	55.40	58.57	61.92	65.46
Total	162.44	171.74	181.57	191.94	202.92



Asset-II

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C Twin conductor transmission line (2.1 ckt.km)	1.32	1.39	1.47	1.56	1.64
400 kV, Rishikesh & Muzzaffarnagar bays at Roorkee sub-station (2 bays)	104.80	110.80	117.14	123.84	130.92
Total	106.12	112.19	118.61	125.40	132.56

31. The petitioner has submitted that O & M expenditure for the year 2009-14 had been arrived at on the basis of normalized actual O & M expenses 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 has also been considered while calculating the O & M charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. The petitioner has further submitted that O & M norms for the period 2009-14, the cost associated with license fees had not been captured and the licence fee be allowed to be recovered separately from the respondents. The petitioner has not made any claim towards wage hike and licence fee in the present petition, these issues shall be considered after making the application by the petitioner in this regard.

INTEREST ON WORKING CAPITAL

32. 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 average billing calculated on target

availability level. The petitioner has claimed the receivables on the basis 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 from 1.4.2009. The value of maintenance spares works out to ₹ 24.37 lakh and ₹15.92 lakh for Asset-I and Asset-II, respectively as on 1.4.2009.

(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 as claimed in the petition. This has been considered in 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 interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed

interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

33. The necessary computations in support of interest on working capital are appended hereinbelow:

(₹ 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	24.37	25.76	27.24	28.79	30.44	15.92	16.83	17.79	18.81	19.88
O & M expenses	13.54	14.31	15.13	16.00	16.91	8.84	9.35	9.88	10.45	11.05
Receivables	121.97	134.51	133.48	132.49	131.61	75.72	79.61	80.64	80.12	79.67
Total	159.87	174.58	175.85	177.27	178.96	100.48	105.79	108.31	109.38	110.60
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	19.58	21.39	21.54	21.72	21.92	12.31	12.96	13.27	3.40	13.55

TRANSMISSION CHARGES

34. 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	151.60	174.45	174.58	174.58	174.58	95.85	103.16	106.07	106.07	106.07
Interest on Loan	218.50	234.67	218.24	201.73	185.30	131.72	132.74	126.40	116.36	106.37
Return on Equity	179.68	204.83	204.96	204.96	204.96	108.29	116.60	119.48	119.48	119.48
Interest on Working Capital	19.58	21.39	21.54	21.72	21.92	12.31	12.96	13.27	13.40	13.55
O & M Expenses	162.44	171.74	181.57	191.94	202.92	106.12	112.19	118.61	125.40	132.56
	731.81	807.07	800.89	794.93	789.68	454.29	477.65	483.83	480.71	478.03

Application fee and the publication expenses

35. 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.

Service Tax

36. The prayer of the petitioner for reimbursement of service tax has become infructuous as transmission service has been exempted from the ambit of the service tax.

Licence fee

37. The petitioner has prayed to allow reimbursement of licence fee separately from the respondents. A view in the matter is yet to taken by the Commission.

38. 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.

39. This order disposes of Petition No.79/2010.

Sd/-
(M.Deena Dayalan)
Member

Sd/-
(V.S.Verma)
Member

Sd/-
(S.Jayaraman)
Member

Sd/-
(Dr. Pramod Deo)
Chairperson



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Asset-I

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond XXVII					
	Gross loan opening	468.00	468.00	468.00	468.00	468.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	39.00	78.00
	Net Loan-Opening	468.00	468.00	468.00	429.00	390.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	39.00	39.00	39.00
	Net Loan-Closing	468.00	468.00	429.00	390.00	351.00
	Average Loan	468.00	468.00	448.50	409.50	370.50
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	44.32	44.32	42.47	38.78	35.09
	Rep Schedule	12 Annual Instalment from 31.3.2012				
2	Bond XXVIII					
	Gross loan opening	624.00	624.00	624.00	624.00	624.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	52.00
	Net Loan-Opening	624.00	624.00	624.00	624.00	572.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	52.00	52.00
	Net Loan-Closing	624.00	624.00	624.00	572.00	520.00
	Average Loan	624.00	624.00	624.00	598.00	546.00
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	58.22	58.22	58.22	55.79	50.94
	Rep Schedule	12 Annual Instalment from 15.12.2012				
3	Bond XXIX					
	Gross loan opening	672.00	672.00	672.00	672.00	672.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	56.00
	Net Loan-Opening	672.00	672.00	672.00	672.00	616.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	56.00	56.00
	Net Loan-Closing	672.00	672.00	672.00	616.00	560.00
	Average Loan	672.00	672.00	672.00	644.00	588.00
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
	Interest	61.82	61.82	61.82	59.25	54.10
	Rep Schedule	12 Annual Instalment from 12.3.2013				
4	Bond XXIV					
	Gross loan opening	300.00	300.00	300.00	300.00	300.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	25.00	50.00	75.00
	Net Loan-Opening	300.00	300.00	275.00	250.00	225.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	25.00	25.00	25.00	25.00

Net Loan-Closing	300.00	275.00	250.00	225.00	200.00
Average Loan	300.00	287.50	262.50	237.50	212.50
Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
Interest	29.85	28.61	26.12	23.63	21.14
Rep Schedule	12 Annual Instalment from 26.3.2011				
Total Loan					
Gross loan opening	2064.00	2064.00	2064.00	2064.00	2064.00
Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	25.00	89.00	261.00
Net Loan-Opening	2064.00	2064.00	2039.00	1975.00	1803.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	25.00	64.00	172.00	172.00
Net Loan-Closing	2064.00	2039.00	1975.00	1803.00	1631.00
Average Loan	2064.00	2051.50	2007.00	1889.00	1717.00
Rate of Interest	9.4095%	9.4062%	9.3988%	9.3940%	9.3924%
Interest	194.21	192.97	188.63	177.45	161.27



Asset-II

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond XXIV					
	Gross loan opening	225.00	225.00	225.00	225.00	225.00
	Cumulative Repayment up to the date of commercial operation/previous year	0.00	0.00	18.75	37.50	56.25
	Net Loan-Opening	225.00	225.00	206.25	187.50	168.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	18.75	18.75	18.75	18.75
	Net Loan-Closing	225.00	206.25	187.50	168.75	150.00
	Average Loan	225.00	215.63	196.88	178.13	159.38
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	22.39	21.45	19.59	17.72	15.86
	Rep Schedule	12 Annual Instalment from 26.3.2011				
2	Bond XXVII					
	Gross loan opening	300.00	300.00	300.00	300.00	300.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	25.00	50.00
	Net Loan-Opening	300.00	300.00	300.00	275.00	250.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	25.00	25.00	25.00
	Net Loan-Closing	300.00	300.00	275.00	250.00	225.00
	Average Loan	300.00	300.00	287.50	262.50	237.50
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	28.41	28.41	27.23	24.86	22.49
	Rep Schedule	12 Annual Instalment from 31.3.2012				
3	Bond XXVIII					
	Gross loan opening	400.00	400.00	400.00	400.00	400.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	33.33
	Net Loan-Opening	400.00	400.00	400.00	400.00	366.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	33.33	33.33
	Net Loan-Closing	400.00	400.00	400.00	366.67	333.33
	Average Loan	400.00	400.00	400.00	383.33	350.00
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	37.32	37.32	37.32	35.77	32.66
	Rep Schedule	12 Annual Instalment from 15.12.2012				
4	Bond XXIX					
	Gross loan opening	449.00	449.00	449.00	449.00	449.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00	37.42
	Net Loan-Opening	449.00	449.00	449.00	449.00	411.58
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	37.42	37.42
	Net Loan-Closing	449.00	449.00	449.00	411.58	374.17
	Average Loan	449.00	449.00	449.00	430.29	392.88



Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
Interest	41.31	41.31	41.31	39.59	36.14
Rep Schedule	12 Annual Instalment from 12.3.2013				
Total Loan					
Gross loan opening	1374.00	1374.00	1374.00	1374.00	1374.00
Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	18.75	62.50	177.00
Net Loan-Opening	1374.00	1374.00	1355.25	1311.50	1197.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	18.75	43.75	114.50	114.50
Net Loan-Closing	1374.00	1355.25	1311.50	1197.00	1082.50
Average Loan	1374.00	1364.63	1333.38	1254.25	1139.75
Rate of Interest	9.4196%	9.4160%	9.4080%	9.4028%	9.4011%
Interest	129.43	128.49	125.44	117.93	107.15

