

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 243/2009

Coram:

1. Dr. Pramod Deo, Chairperson
2. Shri S.Jayaraman, Member
3. Shri V.S.Verma, Member

DATE OF HEARING: 14.1.2010

DATE OF ORDER 11.2.2010

In the matter of

Determination of revised transmission tariff due to additional capital expenditure incurred during 2008-09 for 400 kV D/C Dhauliganga HEP-Bareilly (UPPCL) transmission line along with its associated bays at Bareilly (UPPCL) in Northern Region.

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. Chief Engineer, 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 Rakesh Prasad, PGCIL
3. Shri M.M.Mondal, PGCIL
4. Shri S.K.Niranjan, PGCIL
5. Shri Mohd. Mohsin, PGCIL

ORDER

This petition has been filed for revision of transmission tariff on account of additional capital expenditure incurred in respect of 400 kV D/C Dhauliganga HEP-Bareilly (UPPCL) transmission line (hereinafter referred to as "the transmission line") along with its associated bays at Bareilly (UPPCL) in Northern Region during the period from 1.4.2008 to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as "the 2004 regulations"). The petitioner has also prayed for reimbursement of the petition filing fee, licence fee and other expenditure in connection with the filing of the petition.

2. The investment approval for the transmission line was accorded by Government of India, Ministry of Power under letter dated 1.1.2001 at an estimated cost of Rs. 15053 lakh, which included IDC of Rs. 590 lakh based on 2nd quarter, 2000 price level. Subsequently, approval for the revised cost estimate was accorded by Board of Directors of the petitioner company vide memorandum dated 25.10.2006 at an estimated cost of Rs. 18207 lakh, which included IDC of Rs. 1004 lakh based on 1st quarter, 2000 price level. The transmission line was declared under commercial operation on 1.8.2005.

3. The transmission charges for the transmission line approved by the Commission vide its order dated 21.3.2007 in Petition No. 138/2006 were revised vide order dated 9.6.2009 in Petition No. 41/2009 due to additional capital expenditure incurred during 2006-07 and 2007-08. The summary of

the revised transmission charges approved by the said order dated 9.6.2009 is extracted hereunder:

(Rs. in lakh)

	2006-07	2007-08	2008-09
Depreciation	445.30	450.48	451.06
Interest on Loan	457.64	447.23	428.14
Return on Equity	615.58	623.71	624.65
Advance against Depreciation	0.00	0.00	0.00
Interest on Working Capital	49.67	50.98	52.03
O & M Expenses	237.10	246.17	256.41
Total	1805.29	1818.56	1812.29

4. The relevant details of the capital expenditure of the transmission line claimed by the petitioner are as under:

(Rs. in lakh)

Capital cost as on 1.4.2008	Additional Capital Expenditure during 2008-09	Capital cost as on 1.4.2009
17116.04 (As per order dated 9.6.2009)	89.41	17205.45

5. Based on the above additional capital expenditure, the petitioner has claimed the revised transmission charges for the year 2008-09 as under:

(Rs. in lakh)

	2008-09
Depreciation	452.21
Interest on Loan	429.32
Return on Equity	626.53
Advance against Depreciation	0.00
Interest on Working Capital	52.10
O & M Expenses	256.40
Total	1816.56

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

(Rs. in lakh)

	2008-09
Maintenance Spares	184.18
O & M expenses	21.37
Receivables	302.76
Total	508.31
Rate of Interest	10.25%
Interest	52.10

7. The reply to the petition has been filed by Uttar Pradesh Power Corporation Ltd.(UPPCL). UPPCL in its reply has requested to direct the petitioner to revise the petition for consideration under Regulation 53(2)(i) instead of Regulation 53 (1) of the 2004 regulations and give the specific work-wise details of Rs. 89.41 lakh to facilitate of the process of prudence check. UPPCL has also objected to reimbursement of filing fee. As regards the provisions of the 2004 regulation under which the additional capital expenditure is to be considered, it is seen that the respondent has not questioned the admissibility of additional capital expenditure. We do not consider it appropriate to direct the petitioner to withdraw the petition and file a revised petition for this purpose. In as much as that the additional capital expenditure is admissible, the omission to mention the provision are mention of a wrong provision is immaterial. Accordingly, we proceed to dispose of the petition. The petitioner vide its affidavit dated 5.1.2010 has submitted the specific work-wise details of Rs. 89.41 lakh. The concerns expressed by the respondent in respect of filing fee have been taken care of in the present petition.

CAPITAL COST

8. The details submitted by the petitioner in support of its claim for the additional capital expenditure are given hereunder:

Year	Amount (Rs. in lakh)	Nature and details of expenditure
2008-09	Transmission line = Rs. 89.41 lakh	Balance and retention payments
	Total = Rs. 89.41 lakh	

9. It is found that the additional capital expenditure claimed is in respect of committed liabilities. These are part of the deferred liabilities relating to works/services which have since materialised, and are within the original scope of work. Therefore, the additional expenditure sought to be capitalised is allowed under Regulation 53 of the 2004 regulations.

Initial spares

10. Clause (1) of the Regulation 52 of the 2004 regulations *inter alia* provides that,-

“(1) Subject to prudence check by the Commission, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalized initial spares subject to a ceiling norm as 1.5% of original project cost”.

11. The value of initial spares corresponding to the expenditure up to cut off date for the transmission line is well with in 1.5% of the expenditure.

TOTAL CAPITAL COST

12. Based on the above, capital cost for the purpose of tariff for transmission line as on 31.3.2009 works out as under:

			(Rs. in lakh)
Capital expenditure as on 1.4.2008	Additional capital expenditure during 2008-09	Capital expenditure as on 1.4.2009	
17116.04	89.41	17205.45	

DEBT- EQUITY RATIO

13. The petitioner has considered the amount of additional capital expenditure in the debt-equity ratio of 70:30. This has been found to be in

order. Accordingly, for the purpose of tariff, equity considered for the transmission line is as under:

(Rs. in lakh)

Equity as on 1.4.2008	Notional additional equity during 2008-09	Total equity considered as on 31.3.2009	Average equity for 2008-09
4461.82	26.82	4488.64	4475.23

RETURN ON EQUITY

14. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

15. Equity as given the table under para 13 above has been considered. The tariff for the year 2008-09 has been allowed on average equity. Accordingly, revised return on equity of Rs. 626.53 lakh has been allowed for the year 2008-09.

INTEREST ON LOAN

16. Clause (i) of regulation 56 of the 2004 regulations *inter alia* provides that,-

"(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 54.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The transmission licensee shall not make any profit on account of re-financing of loan and interest on loan;

(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest."

17. In our calculation, the interest on loan has been worked out as detailed below:

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual loan have been considered as per the order dated 9.6.2009 in Petition No. 41/2009. Bond XXII has been raised after the date of commercial operation for financing additional capital expenditure during the year 2006-07. There is no actual loan for the additional capital expenditure incurred during 2008-09.

(b) Notional loan arising out of additional capital expenditure for the year 2008-09 has been added in loan amount as on 31.3.2008 to arrive at total notional loan. This adjusted gross loan has been considered as normative loan for tariff calculations.

(c) Tariff has been worked out considering normative loan and normative repayments. Normative repayments have been worked out by the following formula:

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

(d) Moratorium in repayment of loan has been considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation during the year, it has been considered as moratorium and depreciation during the year has been deemed as normative repayment of loan during the year.

(e) Weighted average rate of interest on actual loan worked out as per (a) above has been applied on the average loan during the year to arrive at the interest on loan.

18. Based on above, revised interest on loan for the year 2008-09 has been worked out as under:

(Rs. in lakh)

Details	2008-09
Gross Normative Loan-Opening	12654.22
Cumulative Repayment up to Previous Year/date of commercial operation	1238.33
Net Loan-Opening	11415.89
Addition due to Additional Capitalisation	62.59
Repayment during the year	452.21
Net Loan-Closing	11026.27
Average Loan	11221.08
Weighted Average Rate of Interest on Loan	3.8260%
Interest	429.32

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

DEPRECIATION

20. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

"(i) The value base for the purpose of depreciation shall be the historical cost of the asset.

(ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

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

21. Depreciation allowed has been worked out as below:

(Rs. in lakh)

	2008-09
Gross block as on 1 st April of the year	17116.04
Addition due to Additional Capital expenditure	89.41
Gross Block as on 1.4.2008	17205.45
Rate of Depreciation	2.6351%
Depreciable Value	15444.67
Balance Useful life of the asset	-
Remaining Depreciable Value	14264.01
Depreciation	452.21

ADVANCE AGAINST DEPRECIATION

22. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

23. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

24. The petitioner has not claimed Advance Against Depreciation and, thereafter, Advance Against Depreciation has not been considered.

OPERATION & MAINTENANCE EXPENSES

25. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses:

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90

26. O&M expenses as taken for the tariff calculations as per order dated 21.3.2007 in Petition No. 138/2006 have been considered, since line length and number of bays remain unchanged.

INTEREST ON WORKING CAPITAL

27. The components of the working capital and the interest thereon are discussed hereunder:

(i) Maintenance spares

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. The petitioner has claimed maintenance spares after accounting for additional capital expenditure. For the purpose of computation of maintenance spares, the historical cost is being taken as the cost on the date of commercial operation. Maintenance spares on additional capital expenditure are not being considered for the present. Therefore, the petitioner's claim in this regard is not being allowed. Accordingly, maintenance spares have been worked out on the

historical cost, providing escalation from the date of commercial operation.

(ii) O & M expenses

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. O&M expenses as considered in the order dated 21.3.2007 in Petition No. 138/2006 have been considered.

(iii) Receivables

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. Accordingly, in the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(iv) Rate of interest on working capital

As per Regulation 56(v) (2) of the 2004 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 1.4.2004 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 @

10.25% based on SBI PLR as on 1.4.2008, which is in accordance with the 2004 regulations and has been allowed.

28. The necessary computations in support of revised interest on working capital, as revised, are appended herein below:

(Rs. in lakh)

	2008-09
Maintenance Spares	184.18
O & M expenses	21.37
Receivables	302.76
Total	508.31
Rate of Interest	10.25%
Interest	52.10

TRANSMISSION CHARGES

29. The revised transmission charges being allowed for the transmission line for the year 2008-09 are summarised below:

(Rs. in lakh)

	2008-09
Depreciation	452.21
Interest on Loan	429.32
Return on Equity	626.53
Advance against Depreciation	0.00
Interest on Working Capital	52.10
O & M Expenses	256.41
Total	1816.56

30. The petitioner shall recover from the respondent the additional transmission charges in one instalment and these charges shall be shared in accordance with the 2004 regulations.

31. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 (Suo-motu) has decided that the petitioner shall not be allowed

reimbursement of the petition filing fee. In respect of licence fee, decision will be communicated later on.

32. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

33. This order disposes of Petition No. 243/2009.

Sd/-
(V.S.VERMA)
MEMBER

sd/-
(S.JAYARAMAN)
MEMBER

sd/-
(DR.PRAMOD DEO)
CHAIRPERSON

Annexure

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
(Rs. in lakh)					
	Details of Loan	2005-06	2006-07	2007-08	2008-09
1	Bond X				
	Gross Loan opening	225.00	225.00	225.00	225.00
	Cumulative Repayment up to the date of commercial operation/previous year	37.50	37.50	56.25	75.00
	Net Loan-Opening	187.50	187.50	168.75	150.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	18.75	18.75	18.75
	Net Loan-Closing	187.50	168.75	150.00	131.25
	Average Loan	187.50	178.13	159.38	140.63
	Rate of Interest	10.90%	10.90%	10.90%	10.90%
	Interest	20.44	19.42	17.37	15.33
	Repayment Schedule	12 Annual instalments from 21.6.2004			
2	Bond XI Option-I				
	Gross Loan opening	240.00	240.00	240.00	240.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	20.00	40.00	60.00
	Net Loan-Opening	240.00	220.00	200.00	180.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	20.00	20.00	20.00	20.00
	Net Loan-Closing	220.00	200.00	180.00	160.00
	Average Loan	230.00	210.00	190.00	170.00
	Rate of Interest	9.80%	9.80%	9.80%	9.80%
	Interest	22.54	20.58	18.62	16.66
	Repayment Schedule	12 Annual instalments from 7.12.2005			
3	Bond XII				
	Gross Loan opening	17.00	17.00	17.00	17.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	1.42	2.84	4.26
	Net Loan-Opening	17.00	15.58	14.16	12.74
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	1.42	1.42	1.42	1.42
	Net Loan-Closing	15.58	14.16	12.74	11.32
	Average Loan	16.29	14.87	13.45	12.03
	Rate of Interest	9.70%	9.70%	9.70%	9.70%
	Interest	1.58	1.44	1.30	1.17
	Repayment Schedule	12 Annual instalments from 28.3.2006			
4	PNB-II				
	Gross Loan opening	132.00	132.00	132.00	132.00
	Cumulative Repayment up to the date of commercial operation /previous year	11.00	22.00	33.00	44.00
	Net Loan-Opening	121.00	110.00	99.00	88.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	11.00	11.00	11.00	11.00
	Net Loan-Closing	110.00	99.00	88.00	77.00
	Average Loan	115.50	104.50	93.50	82.50
	Rate of Interest	8.60%	8.60%	8.60%	8.60%
	Interest	9.93	8.99	8.04	7.10
	Repayment Schedule	12 Annual instalments from 8.3.2005			
5	OBC				
	Gross Loan opening	110.00	110.00	110.00	110.00
	Cumulative Repayment up to the date of commercial operation /previous year	9.17	18.34	27.51	36.68
	Net Loan-Opening	100.83	91.66	82.49	73.32
	Additions during the year	0.00	0.00	0.00	0.00

	Repayment during the year	9.17	9.17	9.17	9.17
	Net Loan-Closing	91.66	82.49	73.32	64.15
	Average Loan	9 6 . 2 5	8 7 . 0 8	77. 91	6 8 . 7 4
	Rate of Interest	8.60%	8.60%	8.60%	8.60%
	Interest	8.28	7.49	6.70	5.91
	Repayment Schedule	12 Annual instalments from 22.3.2005			
6	JBIC Loan (including additional dates of Drawal 09.09.05,20.09.05,04.11.05 & 26.12.05)				
	Gross Loan opening	10981.91	11949.47	11949.47	11949.47
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	149.16	447.01
	Net Loan-Opening	10981.91	11949.47	11800.30	11502.45
	Additions during the year	967.56	0.00	0.00	0.00
	Repayment during the year	0.00	149.16	297.85	297.85
	Net Loan-Closing	11949.47	11800.30	11502.45	11204.60
	Average Loan	11465.69	11874.88	11651.38	11353.53
	Rate of Interest	3.50%	3.50%	3.50%	3.50%
	Interest	401.30	415.62	407.80	397.37
	Repayment Schedule	Half Year Installments from 20.2.2007			
7	Bond XXII (addcap for 2006-07)				
	Gross Loan opening	0.00	0.00	185.00	185.00
	Cumulative Repayment up to the date of commercial operation /previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	185.00	185.00
	Additions during the year	0.00	185.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	0.00	185.00	185.00	185.00
	Average Loan	0.00	92.50	185.00	185.00
	Rate of Interest	8.68%	8.68%	8.68%	8.68%
	Interest	0.000	8.029	16.058	16.058
	Repayment Schedule	12 Annual instalments from 7-12-2010			
	Gross Loan opening	11705.91	12673.47	12858.47	12858.47
	Cumulative Repayment up to the date of commercial operation /previous year	57.67	99.26	308.76	666.95
	Net Loan-Opening	11648.24	12574.21	12549.70	12191.51
	Additions during the year	967.56	185.00	0.00	0.00
	Repayment during the year	41.59	209.50	358.19	358.19
	Net Loan-Closing	12574.21	12549.70	12191.51	11833.32
	Average Loan	12111.22	12561.95	12370.61	12012.42
	Rate of Interest	3.8317%	3.8335%	3.8470%	3.8260%
	Interest	464.067	481.563	475.894	459.593