

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 292/2009

Coram:

- 1. Shri S.Jayaraman, Member**
- 2. Shri V.S.Verma, Member**

DATE OF HEARING: 21.1.2010

DATE OF ORDER 11.3.2010

In the matter of

Revision of transmission tariff due to additional capital expenditure incurred during 2008-09 for (i) 315 MVA ICT-IV along with associated bays at Moga sub-station; and (ii) ICT-II along with associated bays and 2 Nos. PSEB feeder bays at Amritsar sub-station and 400 kV Bus Reactor and 2 Nos PSEB line bays at Moga sub-station under augmentation of transformation capacity at Amritsar and Moga sub-stations 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 due to additional capital expenditure incurred in respect of (i) 315 MVA ICT-IV along with associated bays at Moga sub-station (Asset-I); and (ii) ICT-II along with associated bays and 2 Nos. PSEB feeder bays at Amristsar sub-station and 400 kV Bus Reactor and 2 Nos PSEB line bays at Moga sub-station (Asset-II) (collectively referred to as "the transmission assets") under augmentation of transformation capacity at Amirtsar and Moga sub-stations (the transmission scheme) 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 scheme was accorded by Board of Directors of the petitioner company vide memorandum dated 1.9.2005 at an estimated cost of Rs. 4728.00 lakh, which included IDC of Rs. 250.00 lakh. Asset-I and Asset-II were declared under commercial operation on 1.7.2007 and 1.3.2008, respectively.

3. The transmission charges for the transmission assets were approved by the Commission vide its order dated 30.6.2009 in Petition No. 128/2008. The summary of the transmission charges approved by the said order dated 30.6.2009 is extracted hereunder:

(Rs. in lakh)				
	Asset-I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Depreciation	30.11	43.38	6.08	76.21
Interest on Loan	57.16	79.04	10.57	132.44
Return on Equity	35.12	50.60	7.02	88.10
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	4.25	5.97	1.27	15.79
O & M Expenses	23.72	32.90	18.45	230.30
Total	150.37	211.90	43.40	542.85

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

(Rs. in lakh)			
	Capital cost as on 1.4.2008 (As per order dated 30.6.2009)	Additional Capital Expenditure during 2008-09	Capital cost as on 1.4.2009
Asset-I	1205.08	94.30	1299.38
Asset-II	2097.59	73.37	2170.96

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

(Rs. in lakh)		
	Asset-I	Asset-II
	2008-09	2008-09
Depreciation	45.08	77.53
Interest on Loan	82.50	134.77
Return on Equity	52.58	89.64
Advance against Depreciation	0.00	0.00
Interest on Working Capital	6.12	15.90
O & M Expenses	32.90	230.30
Total	219.18	548.14

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

(Rs. in lakh)		
	Asset- I	Asset-II
	2008-09	2008-09
Maintenance Spares	10.72	19.26
O & M expenses	2.74	19.19
Receivables	36.53	91.36
Total	49.99	129.81
Rate of Interest	12.25%	12.25%
Interest	6.12	15.90

7. The reply to the petition has been filed by Uttar Pradesh Power Corporation Ltd. (UPPCL) and Jodhpur Vidyut Vitran Nigam Limited (JdVVNL). The petitioner has given para-wise reply to UPPCL and JdVVNL submission vide its affidavit dated 19.1.2010. UPPCL in its reply has contended following issues:

- (a) The petitioner should have mentioned the OM No. and date through which approval was accorded by the Board of Directors of the Petitioner company for implementation of the transmission scheme in respect of Asset-I and Asset-II;
- (b) The petitioner has failed to furnish technical justification for Asset-I and Asset-II, particularly Asset-II;
- (c) Head-wise break-up of retention and balance charges in respect of assets are to be provided; and
- (d) The petitioner has not mentioned the length of transmission line etc. for verifying the O & M expenses as a result the figures of O & M of Asset-II as Rs. 18.45 lakh for the year 2007-08 and Rs. 230.30 lakh for the year 2008-09 cannot be verified.

8. The petitioner in its reply dated 19.1.2010 has submitted that It had furnished the necessary details of approval by Board of Director while seeking the final tariff in Petition No. 128/2008, Accordingly, the same has not been repeated in this petition. As regards the para (b) above, the petitioner has clarified that the Asset-II has been installed as per the approved scope of work. As regard para (c) above, the petitioner has explained the details of additional capital expenditure incurred during 2008-09 and the estimated

balance expenditure has been claimed as per the 2004 regulations. As regards para (d) above, the petitioner has explained that the details of No. of bays covered under the petition have been provided in the Petition No. 128/2008 which were considered by the Commission in its order dated 30.6.2009. The concern expressed by UPPCL regarding reimbursement of filing fee and licence fee have been taken care of in this petition.

9. JdVVNL has in its reply observed that there is huge difference between the estimated completion cost and the apportioned approved cost. The petitioner has clarified vide its rejoinder that there was a typographic mistake in Form 5D of the petition and as per the corrected Form 5D, estimated completion cost is only Rs. 3920.11 lakh against the apportioned approved cost of Rs. 4728.00 lakh. We also observe that as per the petition, entire additional capital expenditure is towards balance and retention payments. We therefore, hold that no additional information is due from the petitioner. The concern expressed by JdVVNL regarding O & M charges is premature at this stage because the claim of the petitioner in this regard has not been allowed in this order.

CAPITAL COST

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

(Rs. in lakh)	
Asset-I	Asset-II

Year	Amount (Rs. in lakh)	Nature and details of expenditure	Year	Amount (Rs. in lakh)	Nature and details of expenditure
2008-09	sub-station = Rs. 94.30 lakh	Balance and retention payments	2008-09	Sub-station= Rs. 73.37 lakh	Balance and retention payments
Total	Rs. 94.30 lakh			Rs. 73.37 lakh	

11. The petitioner has submitted audited capital cost up to 31.3.2009 duly certified by Chartered Accountant. The additional capital expenditure claimed is within the original scope of work and on account of retention/balance payments. The additional expenditure sought to be capitalised is allowed under Regulation 53 of the 2004 regulations.

TOTAL CAPITAL COST

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

	Capital cost as on 1.4.2008 (As per order dated 30.6.2009)	Additional Capital Expenditure during 2008-09	(Rs. in lakh) Capital cost as on 1.4.2009
Asset-I	1205.08	94.30	1299.38
Asset-II	2097.59	73.37	2170.96

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 assets is as under:

	Equity as on 1.4.2008	Notional additional	Total equity considered as	(Rs. in lakh) Average equity for

		equity during 2008-09	on 31.3.2009	2008-09
Asset-I	361.44	28.29	389.73	375.59
Asset-II	629.28	22.01	651.29	640.28

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 in the table under para 13 above has been considered. However, tariff for 2008-09 has been allowed on average equity. Accordingly, return on equity allowed for the year 2008-09 is given as under:

(Rs. in lakh)	
Name of the asset	
	2008-09
Asset-I	52.58
Asset-II	89.64

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 30.6.2009 in Petition No. 128/2008. Bond XXVIII has been utilised for additional capital expenditure during 2008-09.

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

(c) Tariff has been worked out considering normative loan and normative repayments. Once the normative loan has been arrived at, it is considered for all purposes in the tariff. Normative repayment has 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 is considered as moratorium and depreciation during the year is 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 notional average loan during the year to arrive at the interest on loan.

18. Based on the above, the details of interest worked out are given hereunder:

(Rs. in lakh)		
Details	Asset- I	Asset-III

	2008-09	2008-09
Gross Normative Loan	843.64	1468.31
Cumulative Repayment up to Previous Year/date of commercial operation	30.11	6.08
Net Loan-Opening	813.52	1462.23
Addition due to Additional Capitalisation	66.01	51.36
Repayment during the year	45.08	77.53
Net Loan-Closing	834.45	1436.06
Average Loan	823.99	1449.15
Weighted Average Rate of Interest on Loan	10.0126%	9.3000%
Interest (Pro rata)	82.50	134.77

19. The detailed calculations in support of the weighted average rate of interest for two assets are contained in Annexure-I and Annexure-II, respectively 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)	
Details	Asset- I	Asset- II
	2008-09	2008-09
Gross block as on 1.4.2008	1205.08	2097.59
Additional Capitalisation during 2008-09	94.30	73.37
Gross Block at the end of the year	1299.38	2170.96
Rate of Depreciation	3.60%	3.63%
Depreciable Value	1127.01	1920.85
Balance Useful life of the asset	-	-
Remaining Depreciable Value	1096.89	1914.77
Depreciation	45.08	77.53

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. Petitioner has not claimed Advance Against Depreciation and accordingly, 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 30.6.2009 in Petition No. 128/2008 has 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. Accordingly, maintenance spares have been worked out on the historical cost and 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 30.6.2009 in Petition No. 128/2008 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 of 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 whether or not the transmission licensee has taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.

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

(Rs. in lakh)		
	Asset- I	Asset-II

	2008-09	2008-09
Maintenance Spares	10.72	19.26
O & M expenses	2.74	19.19
Receivables	36.53	91.36
Total	49.99	129.81
Rate of Interest	12.25%	12.25%
Interest	6.12	15.90

TRANSMISSION CHARGES

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

	(Rs.in lakh)	
	Asset- I	Asset-II
	2008-09	2008-09
Depreciation	45.08	77.53
Interest on Loan	82.50	134.77
Return on Equity	52.58	89.64
Advance against Depreciation	0.00	0.00
Interest on Working Capital	6.12	15.90
O & M Expenses	32.90	230.30
Total	219.19	548.14

30. The petitioner shall recover from the beneficiaries 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 reimbursement of the petition filing fee shall not be allowed during the tariff period 2004-09 as the same has been factored in the O&M norms. The decision on reimbursement of the licence fee shall be communicated separately.

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. 292/2009.

Sd/-
(V.S.VERMA)
MEMBER

sd/-
(S.JAYARAMAN)
MEMBER

Asset-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
(Rs. in lakh)			
	Details of Loan	2007-08	2008-09
1	Bond-XXIV		
	Gross Loan opening	223.00	223.00
	Cumulative Repayment up to the date of the commercial operation/previous year	0.00	0.00
	Net Loan-Opening	223.00	223.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	223.00	223.00
	Average Loan	223.00	223.00
	Rate of Interest	9.95%	9.95%
	Interest	22.19	22.19
	Repayment Schedule	12 Annual instalments from 26.3.2011	
2	Bond-XXV (Including add cap for 2007-08)		
	Gross Loan opening	495.00	525.00
	Cumulative Repayment up to the date of the commercial operation /previous year	0.00	0.00
	Net Loan-Opening	495.00	525.00
	Additions during the year	30.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	525.00	525.00
	Average Loan	510.00	525.00
	Rate of Interest	10.10%	10.10%
	Interest	51.51	53.03
	Repayment Schedule	12 Annual instalments from 12.6.2011	
3	SBI LOAN @ 7.95% w.e.f. 24/08/2007 / Bond-XXVI @ 9.3% w.e.f. 7/3/2008		
	Gross Loan opening	0.00	81.00
	Cumulative Repayment up to the date of the commercial operation /previous year	0.00	0.00
	Net Loan-Opening	0.00	81.00
	Additions during the year	81.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	81.00	81.00
	Average Loan	40.50	81.00
	Rate of Interest	8.10%	9.30%
	Interest	3.28	7.53
	Repayment Schedule	12 Annual instalments from 7-3-2012	
4	Bond-XXVIII (addcap for 2008-09) Drawl on 15-12-2008 (Replacement of STBL BoB Loan)		
	Gross Loan opening	0.00	0.00
	Cumulative Repayment up to the date of the commercial operation /previous year	0.00	0.00
	Net Loan-Opening	0.00	0.00
	Additions during the year	0.00	80.00

	Repayment during the year	0.00	0.00
	Net Loan-Closing	0.00	80.00
	Average Loan	0.00	40.00
	Rate of Interest	0.00%	10.66%
	Interest	0.00	4.26
	Repayment Schedule	12 Annual instalments from 15.12.2012	
	Total Loan		
	Gross Loan opening	718.00	829.00
	Cumulative Repayment up to the date of the commercial operation	0.00	0.00
	Net Loan-Opening	718.00	829.00
	Additions during the year	111.00	80.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	829.00	909.00
	Average Loan	773.50	869.00
	Rate of Interest	9.9520%	10.0126%
	Interest	76.98	87.01

Asset-II

(Rs. in Lakh)

	Details of Loan	2007-08	2008-09
1	SBI LOAN @ 7.95% w.e.f. 01/03/2008 / Bond-XXVI @ 9.3% w.e.f. 07/03/2008		
	Gross Loan opening	1341.00	1341.00
	Cumulative Repayment up to the date of the commercial operation /previous year	0.00	0.00
	Net Loan-Opening	1341.00	1341.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1341.00	1341.00
	Average Loan	1341.00	1341.00
	Rate of Interest	9.04%	9.30%
	Interest	121.23	124.71
	Repayment Schedule	12 Annual instalments from 7.3.2012	
2	Bond-XXVI (FOR ADDCAP 2007-08)		
	Gross Loan opening	0.00	127.00
	Cumulative Repayment up to the date of the commercial operation /previous year	0.00	0.00
	Net Loan-Opening	0.00	127.00
	Additions during the year	127.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	127.00	127.00
	Average Loan	63.50	127.00
	Rate of Interest	9.30%	9.30%
	Interest	5.91	11.81
	Repayment Schedule	12 Annual instalments from 7.3.2012	
	Total Loan		
	Gross Loan opening	1341.00	1468.00
	Cumulative Repayment up to the date of the commercial operation	0.00	0.00
	Net Loan-Opening	1341.00	1468.00
	Additions during the year	127.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1468.00	1468.00
	Average Loan	1404.50	1468.00
	Rate of Interest	9.0518%	9.3000%
	Interest	127.13	136.52