

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. Dr. Promod Deo, Chairperson
2. Shri Bhanu Bhushan, Member
3. Shri R. Krishnamoorthy, Member
4. Shri S. Jayaraman, Member

**IA No. 11/2008
in
Petition No.139/2005**

In the matter of

Approval of charges for Unified Load Despatch & Communication Scheme in Northern Region for the period from 1.4.2004.to 31.7.2017

And in the matter of

Power Grid Corporation of India Limited, Gurgaon **Petitioner**
Vs

1. Himachal Pradesh State Electricity Board, Shimla
2. Punjab State Electricity Board, Patiala
3. Haryana Power Corporation Ltd., Panchkula
4. Power Development Deptt. Govt of Jammu & Kashmir, Jammu
5. Uttar Pradesh Power Corporation Ltd., Lucknow
6. Delhi Transco Ltd, New Delhi
7. Chief Engineer. Chandigarh Administration, Chandigarh
8. Uttranchal Power Corporation Ltd, Dehradun
9. Rajasthan Power Procurement Centre, Jaipur
10. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
11. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
12. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
13. Northern Central Railway, Allahabad
14. BSES Yamuna Power Ltd., New Delhi
15. BSES Rajdhani Power Ltd., New Delhi
16. North Delhi Power Ltd., Delhi

.....Respondents

The following were present:

Shri U.K. Tyagi, PGCIL
Shri Harmeet Singh, PGCIL
Ms. Sangeeta Edwaros, PGCIL
Shri. M.M. Mondal, PGCIL

ORDER
(DATE OF HEARING: 11.11.2008)

The petitioner had filed this petition seeking approval of charges for Unified Load Despatch & Communication Scheme in Northern Region (hereinafter referred to as "the Scheme") for the period from 1.4.2004 to 31.7.2017 and additional capitalization during 2002-03 to 2004-05. The Commission vide its order dated 9.5.2006 awarded the charges for the period 2004-09. Subsequently, the petitioner, through Review Petition No. 133/2006 sought amendment of the methodology for calculation of recovery amount of equity and loan for the period from 1.4.2004. Accordingly, the charges were revised vide order dated 11.4.2008.

2. Through this IA the petitioner has requested the Commission to, -

(a) approve the methodology for adjustment of impact of floating rate of interest on year to year basis and approve the impact of floating rate of loan amount to be recovered from the respondents for the period 2004-08 period.

(b) allow the petitioner to directly raise the adjustment bills for the period 1.4.2008 onwards on account of floating interest rates to all the respondent mutually on year to year basis in line with the methodology approved by the commission.

(c) allow suitable escalation on the value of spares for arriving at the working capital component.

(d) approve additional capitalization and charges for the expenditure during 2004-05 as prayed in the Review Petition.

(e) consider the original loan instead of refinanced loan which was refinanced prior to 1.4.2004 for the purpose of calculating the weighted average interest rate.

(f) grant any other relief deemed fit appropriate by the Commission.

3. Reply to the IA has been filed by respondent No. 5 raising a preliminary objection to the maintainability of the IA on the ground that order dated 11.4.2008 in Review Petition No. 133/2006 in Petition No. 139/2005 has attained finality and the pre-conditions for review are not fulfilled. The said respondent has also contended that the petitioner should not be allowed to directly raise the adjustment bills on account of floating rates of interest on year to year basis. It has been urged that adjustment bills should be issued within 30 days. In this connection, the fifth respondent has invited our attention to the Commission's order dated 18.8.2005 in Petition No. 51/2005 wherein the Commission had directed that the benefit of lower rate of interest for the loans carrying floating rate of interest need to be passed on to the beneficiaries and the interest be resettled in a time bound manner.

4. In reply to the above objections, the petitioner has clarified that the present proceedings are not for seeking review of the order in Review Petition No. 133/2006. As regards the floating rate of interest on loan component, it has been clarified that the methodology for computation of the charges for the Scheme being different from that of normal transmission assets, it would not

be possible to mutually settle the deviations arising due to floating rate of interest.

5. The case was heard on 11.11.2008. Having heard the parties and gone through the pleadings, we proceed to dispose of the matter.

6. The substantive issue raised in the IA is regarding non-consideration of additional capital expenditure for the year 2004-05 claimed by the petitioner. The Commission, while awarding the charges for the Scheme vide its order dated 9.5.2006 in Petition No. 139/2005, did not consider the additional capital expenditure amounting to Rs. 220.51 lakh for the year 2004-05 because loan allocation statements for the said year were not finalized by the petitioner. The petitioner was, however, granted liberty to seek revision of fee and charges after finalization of loan allocation details. IA can be said to have been filed by the petitioner pursuant to the liberty granted by the Commission. Therefore, maintainability of IA for consideration of additional capitalization cannot be questioned.

CAPITAL COST

7. The Commission had admitted the following capital cost while awarding charges vide its order dated 11.4.2008 in Review Petition No. 133/2006:

(Rs. in lakh)

Central portion	24948.41
State portion	30330.50
Total	55278.91

8. Based on the audited accounts up to 31.3.2005, the petitioner has submitted the following details of capital expenditure:

(Rs. in lakh)

	Expenditure up to date of commercial operation (1.8.2002)	54050.89
	Expenditure from date of commercial operation to 31.3.2003	2218.94
	Expenditure from 1.4.2003 to 31.3.2004	582.31
	Expenditure from 1.4.2004 to 31.3.2005	220.51
	Expenditure from 1.4.2005 to 30.9.2005	7.82
	Balance estimated expenditure	867.64
	Total	57948.11

9. Additional capital expenditure amounting to Rs. 2218.94 lakh for the period 2002-03 and Rs. 582.31 lakh for the period 2003-04 was taken into account while awarding charges for the period ending 31.3.2004 vide Commission's order dated 9.5.2006 in Petition No. 139/2005. As regards the additional capital expenditure amounting to Rs. 220.51 lakh for the period 2004-05, as stated in para 6 above the same was approved by the Commission vide its above order, but was not considered for computation of tariff for the reason given above. The additional capital expenditure is, therefore, allowed for the revision of charges being awarded through this order.

DEBT- EQUITY RATIO

10. The Commission vide its order dated 11.4.2008 allowed the following debt-equity ratio:

		As on 31.3.2004	
		Rs. in lakh	Percentage
Debt	80.00%	46241.26	83.65%
Equity	20.00%	9037.65	16.35%
Total	100.00%	55278.91	100.00%

11. As regards the additional capital expenditure during 2004-05, the petitioner has claimed the following debt-equity ratio:

	Central Portion		State Portion		Total	
	Rs. in lakh	%	Rs. in lakh	%	Rs. in lakh	%
Debt	0.00	0.00%	0.00	0.00%	0.00	0.00%
Equity	52.73	100.00%	167.78	100.00%	220.51	100.00%
Total	52.73	100.00%	167.78	100.00%	220.51	100.00%

12. As regards the additional capital expenditure for the period after 1.4.2004, it has been decided to apply the debt-equity ratio of 70:30 in tune with regulation 54 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter “the 2004 regulations”). Accordingly, the following debt –equity ratio is considered for computation of charges in this order:

	Debt	Equity	Total	Debt %	Equity %
For the capital cost as on 31.3.2004	46241.26	9037.65	55278.91	83.65%	16.35%
For the additional capital expenditure during 2004-05	154.36	66.15	220.51	70.00%	30.00%
For the Capital cost as on 31.3.2005	46395.62	9103.80	55499.42	83.60%	16.40%

RETURN ON EQUITY

13. Return on equity as applicable @ 14% has been considered in the present calculation for the period 2004-09, as was done vide the Commission’s order dated 9.5.2006 in Petition No. 139/2005.

INTEREST ON LOAN

14. The petitioner has worked out yearwise weighted average rate of interest after taking into consideration, loans carrying floating interest rates for the years 2004-05 to 2007-08. The same has been used by the petitioner to workout the yearwise additional interest amount for Central as well as State

portion. However, we have considered the weighted average rate of interest for the tariff period as 6.037% as on 1.4.2004.

15. As regards the petitioner's request to adjust floating rate of interest on year-to-year basis, the Commission generally allows these to be settled between the parties themselves. We feel that the same procedure may be adopted in the case of charges in the present case also. Thus, the petitioner shall settle with the beneficiaries, changes in interest on loan component with changes in rates of interest on loan with floating rates. This does not prejudice any party for the reason that changes in rates can be on either side and that interest is to be claimed based on actuals.

CAPITAL RECOVERY FACTOR

16. Capital recovery factor corresponding to loan and equity for additional capital expenditure during 2004-05 has been considered taking the period as 12.33 years as against 13.33 considered for the capital expenditure up to 31.3.2004. Further, weighted average rate of interest for loan capital has been considered based on weighted rate of interest as on 1.4.2004. Recovery factor applied in the determination of charges awarded is as under:

Period	Annual Recovery Factor for loan	Annual Recovery Factor for equity
2002-03	0.111319	0.169551
2003-04	0.111319	0.169551
2004-05	0.117295	0.174714

OPERATION AND MAINTENANCE EXPENSES

17. The Commission, vide its order dated 9.5.2005 in Petition No. 139/2005, has decided to retain the O&M charges allowed for the previous period. Accordingly, in these calculations also O&M charges amounting to Rs. 1871.85 lakh per annum as approved in the previous tariff period, subject to adjustment based on actuals..

INTEREST ON WORKING CAPITAL

18. 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. In the present case, capital expenditure as on the date of commercial operation is Rs. 24958.31 lakh for the Powergrid portion, which has been considered as the historical cost for the purpose of the present petition and maintenance spares haven worked out accordingly by escalating 1% of the historical cost @ 6% per annum. The value of maintenance spares works out to Rs. 249.58 lakh as on 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. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the central sector as claimed in the petition. This has been considered in the working capital.

(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. The petitioner has claimed the receivables on the basis 2 months' charges claimed in the petition. In the fees and charges being allowed, receivables have been worked out on the basis 2 months' 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 1.4.2005, which is in accordance with the 2004 regulations and has been allowed.

19. The detailed calculation in support of interest on working capital with effect from 2005-06, consequent to allowing the additional capital expenditure amounting to Rs. 220.51 lakh during 2004.05, are as under:

CENTRAL PORTION

(Rs. in lakh)

	2005-06	2006-07	2007-07	2008-09
Maintenance spares	264.56	280.43	297.26	315.09
O&M Expenses	155.99	155.99	155.99	155.99
Receivables	799.69	799.95	800.22	800.52
Total	1220.24	1236.37	1253.47	1271.60
Rate of Interest on Working Capital	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	125.07	126.73	128.48	130.34

STATE PORTION

(Rs. in lakh)

	2005-06	2006-07	2007-07	2008-09
Maintenance spares	0.00	0.00	0.00	0.00
O&M Expenses	0.00	0.00	0.00	0.00
Receivables	591.80	591.80	591.80	591.80
Total	591.80	591.80	591.80	591.80
Rate of Interest on Working Capital	10.25%	10.25%	10.25%	10.25%
Interest on Working Capital	60.66	60.66	60.66	60.66

20. Based on the foregoing principles and methodologies, the annual fees and charges for the Scheme for the period from 2005-06 onwards, consequent to allowing additional capital expenditure amounting to Rs. 220.51 lakh for the year 2004-05, have been re-calculated. There is no change in the charges for the period up to 31.3.2005 over the fees and charges awarded

vide the Commission's order dated 11.4.2008 in Review Petition No. 133/2006. The revised charges awarded vide this order are as under:

CENTRAL PORTION

IMPACT OF ADDITIONAL CAPITAL EXPENDITURE

(Rs. in lakh)

Particulars	On Capital expenditure upto DOCO (1)	On Capital expenditure from DOCO to 31.03.2003 (including FERV) (2)	On Capital expenditure from 01.04.2003 to 31.03.2004 (including FERV) (3)	Total (On the Capital expenditure upto 31.03.2004) (4)	On Capital expenditure from 01.04.2004 to 31.03.2005 (5)
Capital Cost	24958.31	487.00	-496.90	24948.41	52.73
Notional Loan	22078.62	-152.71	-573.74	21352.17	36.91
Equity	2879.69	639.71	76.84	3596.24	15.82
	24958.31	487.00	-496.90	24948.41	52.73
O/S Loan as on 01.04.2004	20527.89	-145.99	-573.74		
O/S Equity as on 01.04.2004	2780.84	625.86	76.84		
Years	13.333333	13.333333	13.333333		12.333333
Recovery Factors -Loan	0.111319	0.111319	0.111319		0.117295
Annual Capital Recovery Charge - Loan	2285.15	-16.25	-63.87	2205.03	4.33
Recovery Factors -Equity	0.169551	0.169551	0.169551		0.174714
Annual Capital Recovery Charge - Equity	471.49	106.12	13.03	590.64	2.76
Annual Capital Recovery Charge - Total	2756.64	89.86	-50.84	2795.67	7.09
O&M Expenses	1871.85	0.00	0.00	1871.85	0.00
Interest on Working Capital ⁺	122.74	1.56	-0.88	123.42	0.12
Total Tariff	4751.23	91.43	-51.72	4790.93	7.22

ANNUAL CHARGES

(Rs. in lakh)

	2005-06	2006-07	2007-07	2008-09
Annual Capital Recovery Charge - Total	2802.76	2802.76	2802.76	2802.76
O&M Expenses	1871.85	1871.85	1871.85	1871.85
Interest on Working Capital ⁺	125.07	126.73	128.48	130.34
Total Tariff	4799.69	4801.34	4803.09	4804.95

STATE PORTION

IMPACT OF ADDITIONAL CAPITAL EXPENDITURE

(Rs. in lakh)

Particulars	On Capital expenditure upto DOCO	On Capital expenditure from DOCO to 31.03.2003 (including FERV)	On Capital expenditure from 01.04.2003 to 31.03.2004(including FERV)	Total (On the Capital expenditure upto 31.03.2004)	On Capital expenditure from 01.04.2004 to 31.03.2005
Capital Cost	29092.58	1401.22	-163.31	30330.50	167.78
Notional Loan	25735.88	-178.01	-668.78	24889.09	117.446
Equity	3356.70	1579.23	505.47	5441.40	50.334
	29092.58	1401.22	-163.31	30330.50	167.78
O/S Loan as on 01.04.2004	23928.28	-170.17	-668.78		
O/S Equity as on 01.04.2004	3241.48	1545.05	505.47		
Years	13.33333	13.333333	13.333333		12.333333
Recovery Factors –Loan	0.111319	0.111319	0.111319		0.117295
Annual Capital Recovery Charge – Loan	2663.68	-18.94	-74.45	2570.29	13.78
Recovery Factors –Equity	0.169551	0.169551	0.169551		0.174714
Annual Capital Recovery Charge – Equity	549.59	261.96	85.70	897.26	8.79
Annual Capital Recovery Charge - Total	3213.27	243.02	11.26	3467.55	22.57
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital ⁺	55.85	4.22	0.20	60.27	0.39
Total Tariff	3269.12	247.25	11.45	3527.82	22.96

ANNUAL CHARGES

(Rs. in lakh)

	2005-06	2006-07	2007-07	2008-09
Annual Capital Recovery Charge - Total	3490.12	3490.12	3490.12	3490.12
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital ⁺	60.66	60.66	60.66	60.66
Total Tariff	3550.78	3550.78	3550.78	3550.78

21. In addition to the above 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.

22. It is to be noted that as the full capital cost is being recovered over a period of 15 years with interest/return. After full recovery, the assets shall be transferred to the respective constituents at nominal value

23. This disposes of IA No. 11/2008 in Petition No. 139/2005

Sd/= (S. Jayaraman) Member	Sd/= (R. Krishnamoorthy) Member	Sd/= (Bhanu Bhushan) Member	Sd/= (Dr. Pramod Deo) Chairperson
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New Delhi, dated 29th January 2009