

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. **Shri Bhanu Bhushan, Member**
2. **Shri R. Krishnamoorthy, Member**

Petition No.35/2005

In the matter of

Approval for transmission charges for 220 kV Jalandhar-Hamirpur D/C transmission line along with associated bays in Northern Region for the period from 1.4.2004 to 31.3.2009 and impact of additional capitalization during 2001-04.

And in the matter of

Power Grid Corporation of India Limited

....Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitran Nigam Ltd., Ajmer
3. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
4. Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
8. Power Development Deptt., Govt. of Jammu & Kashmir, Jammu
9. Uttar Pradesh Power Corporation Limited, Lucknow
10. Delhi Transco Limited, New Delhi
11. Chandigarh Administration, Chandigarh
12. Uttaranchal Power Corporation Limited, Dehradun
13. Chief Electrical Distribution Engineer, Northern Railway, New Delhi.

.....Respondents

ORDER

In this petition, the petitioner had sought approval of transmission charges for 220 kV D/C Jalandhar-Hamirpur transmission line along with associated bays in Northern Region for the period from 1.4.2004 to 31.3.2009, and impact of

additional capitalization during 2001-04, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”).

2. In this case, assets were declared under commercial operation after 1.4.2001. While awarding tariff for the period 2004-09, vide order dated 23.1.2006, the Commission adopted capital cost, loan, equity, etc considered for determination of tariff for the period ending 31.3.2004 and FERV for the period up to 31.3.2004 was capitalized and apportioned between debt and equity in the same ratio as considered for the period ending 31.3.2004.

3. The details of capital cost, equity considered at the time of award of tariff and the summary of the tariff awarded are given hereunder.

(a) **Computation of capital cost**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Capital cost as on 31.3.2004	4117.70				
Additional capitalization up to 31.3.2004 (not considered while fixing tariff for the period ending 31.3.2004)	190.30				
FERV up to 31.3.2004	144.18				
Total	4452.18	4452.18	4452.18	4452.18	4452.18

(b) **Computation of equity**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Equity as on 31.3.2004	237.71				
Notional equity due to additional capitalization as on 31.3.2004	190.30				
Notional equity due to FERV as on 31.3.2004	144.18				
Total Notional equity	572.19	572.19	572.19	572.19	572.19

(c) **Advance Against Depreciation**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	388.00	388.00	388.00	388.00	388.00
Repayment of Loan	158.74	163.72	379.16	594.52	559.28
Minimum of the above	158.74	163.72	379.16	388.00	388.00
Depreciation during the year	123.03	123.03	123.03	123.03	123.03
(A) Difference	35.71	40.69	256.12	264.97	264.97
Cumulative Repayment of the Loan	304.66	468.38	847.54	1442.05	2001.33
Cumulative Depreciation/ Advance against Depreciation	447.18	570.21	693.25	970.57	1358.57
(B) Difference	(-) 142.52	(-) 101.83	154.29	471.48	642.76
Advance Against Depreciation Minimum of (A) and (B)	0.00	0.00	154.29	264.97	264.97

(d) **Computation of interest on loan**

(Rs. in lakh)

Details of loan	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan						
Gross loan	3879.99					
Addition due to additional capitalisation	0.00					
Addition due to FERV	0.00					
Gross Normative Loan	3879.99	3879.99	3879.99	3879.99	3879.99	3879.99
Cumulative Repayment up to Previous Year		145.92	304.66	468.38	847.54	1442.05
Net Loan-Opening		3734.07	3575.33	3411.61	3032.45	2437.94
Repayment during the year		158.74	163.72	379.16	594.52	559.28
Net Loan-Closing		3575.33	3411.61	3032.45	2437.94	1878.66
Average Loan		3654.70	3493.47	3222.03	2735.19	2158.30
Weighted Average Rate of Interest on Loan		5.7880%	5.4929%	5.2764%	5.1638%	5.1478%
Interest		211.53	191.89	170.01	141.24	111.11

(d) **Summary of the transmission charges awarded**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	123.03	123.03	123.03	123.03	123.03
Interest on Loan	211.53	191.89	170.01	141.24	111.11
Return on Equity	80.11	80.11	80.11	80.11	80.11
Advance against Depreciation	0.00	0.00	154.29	264.97	264.97
Interest on Working Capital	16.60	16.74	19.54	21.49	21.52
O & M Expenses	168.78	175.53	182.69	189.76	197.57
Total	600.05	587.30	729.67	820.59	798.30

4. Tamil Nadu Electricity Board (TNEB) filed Appeal No. 135/2005 in the Appellate Tribunal for Electricity (hereinafter referred to as "the Appellate Tribunal") against order dated 30.6.2006 of the Commission in Petition No 40/2002, wherein while fixing transmission tariff in respect of 400 kV D/C Kaiga-Sirsi transmission line along with associated bays for the period 1.4.2001 to 31.3.2004, the methodology similar to that adopted in respect of the various transmission assets was followed as regards apportionment of FERV into debt and equity. TNEB had, *inter alia*, questioned the methodology of bifurcation of FERV into debt and equity for the purpose of tariff determination. This appeal, along with some other linked appeals were disposed of by the Appellate Tribunal through a common judgment dated 4.10.2006. The Tribunal vide its judgment dated 4.10.2006 held as under:

"16. According to Explanation 1 to clause 4.4 (c), the premium raised by the Transmission Utility while issuing share capital and investment of internal resources created out of free reserve of the existing utility, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing the return on equity subject to fulfillment of certain conditions. Explanation also makes no provision for increasing the equity beyond 50% of the book value of the transmission system. Once the fixed cost has been agreed to be financed in a certain ratio of debt and equity, the equity can be affected by FERV only if the equity is in foreign exchange. The provision of FERV as a pass through has been kept to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates (whether debt or equity) is passed on to the beneficiary. In case there is no FERV liability or gain, as the case may be, there will not be any FERV adjustment. In the instant case the additional liability arising on account of FERV shall have an impact only on the debt liability and not equity capital. In this view of the matter, we hold that FERV adjustment is to be made in respect of debt liability and not in respect of the equity. Accordingly, we hold that the CERC is only to make adjustment in respect of debt liability and not in respect of the equity.

17. In view of the aforesaid discussion, the appeal is partly allowed to the extent indicated above. The Central Electricity Regulatory Commission shall re-calculate the effect of FERV on the debt liability."

5. In terms of the judgment dated 4.10.2006 of the Appellate Tribunal in Appeal No 135 of 2005 and other related appeals, addition of notional equity on account of FERV is not to be considered for computation of return on equity. As a consequence, the entire amount of FERV forms part of loan.

6. The above decision was reiterated by the Appellate Tribunal in its judgment dated 22.12.2006 in Appeal No 161 Of 2006 (M.P. State Electricity Board Vs. Power Grid Corporation of India and others) which related to the transmission tariff for Vindhyaachal Stage -I Additional Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.

7. The above rulings of the Appellate Tribunal on the question of apportionment of FERV has been considered to be judgments in *rem* and thereby have been applied in all cases of similar nature to re-calculate the transmission charges.

8. In the light of the foregoing discussion, the transmission charges for the transmission system forming subject-matter of the present order for the period 2004-09 are also being revised, and the revised transmission charges are summarized herein below. It is to be noted that there is no change in O & M components of the tariff because this was allowed on normative basis for per km line length and per bay. O & M charges already approved, therefore, hold good.

Other components of tariff (except depreciation), including Advance Against Depreciation, already allowed have been recalculated as follows:

(a) **Equity and Return on Equity**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Equity as on 31.3.2004	237.71				
Notional equity due to additional capitalization as on 31.3.2004	190.30				
Notional equity due to FERV as on 31.3.2004	0.00				
Total Notional equity	428.01	428.01	428.01	428.01	428.01
Return on equity @ 14%	59.92	59.92	59.92	59.92	59.92

(b) **Interest on loan**

(Rs. in lakh)

Details of loan	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan						
Gross loan as per order dated 21.2.2005	3879.99					
Addition due to additional capitalisation	0.00					
Addition due to FERV	144.18					
Gross Normative Loan	4024.17	4024.17	4024.17	4024.17	4024.17	4024.17
Cumulative Repayment up to Previous Year		151.34	315.98	485.79	879.03	1495.64
Net Loan-Opening		3872.83	3708.19	3538.38	3145.14	2528.53
Repayment during the year		164.64	169.80	393.25	616.61	580.06
Net Loan-Closing		3708.19	3538.38	3145.14	2528.53	1948.47
Average Loan		3790.51	3623.28	3341.76	2836.83	2238.50
Weighted Average Rate of Interest on Loan		5.7880%	5.4929%	5.2764%	5.1638%	5.1478%
Interest		219.40	199.02	176.32	146.49	115.23

(c) **Advance Against Depreciation**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
1/10th of Gross Loan(s)	402.42	402.42	402.42	402.42	402.42
Repayment of Loan	164.64	169.80	393.25	616.61	580.06
Minimum of the above	164.64	169.80	393.25	402.42	402.42
Depreciation during the year	123.03	123.03	123.03	123.03	123.03
(A) Difference	41.61	46.77	270.21	279.38	279.38
Cumulative Repayment of the Loan	315.98	485.79	879.03	1495.64	2075.70
Cumulative Depreciation/ Advance against Depreciation	447.18	570.21	693.25	1002.06	1404.48
(B) Difference	(-) 131.20	(-) 84.43	185.78	493.57	671.22
Advance Against Depreciation Minimum of (A) and (B)	0.00	0.00	185.78	279.38	279.38

(d) **Interest on Working Capital**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	47.89	50.76	53.80	57.03	60.45
O & M expenses	14.07	14.63	15.22	15.81	16.46
Receivables	97.92	95.67	124.60	138.68	132.77
Total	159.87	161.06	193.63	209.52	209.69
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	16.39	16.51	19.85	21.48	21.49

(e) **Revised transmission charges**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	123.03	123.03	123.03	123.03	123.03
Interest on Loan	219.40	199.02	176.32	146.49	115.23
Return on Equity	59.92	59.92	59.92	59.92	59.92
Advance against Depreciation	0.00	0.00	185.78	279.38	279.38
Interest on Working Capital	16.39	16.51	19.85	21.48	21.49
O & M Expenses	168.78	175.53	182.69	189.76	197.57
Total	587.52	574.02	747.60	820.06	796.64

10. The petitioner shall adjust the balance amount recoverable/refundable, as the case may be, against the future bills within six months, from the date of this order.

11. It is brought out that but for revision of debt and equity in line with the Appellate Tribunal's judgments dated 4.10.2006 and 22.12.2006, generally the methodology considered for re-computation of the transmission charges is the same as originally considered.

12. The revision of tariff allowed is subject to decision of the Hon`ble Supreme Court in the appeals filed by the petitioner against the Appellate Tribunal's judgment dated 4.10.2006.

Sd/-
(R KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 30th April, 2008