## CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

# Coram

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

## I.A.No. 20/2007 in Petition No. 134/2006

#### In the matter of

Correction of error in order dated 6.2.2007 in Petition No 134/2006 determining final transmission tariff for 400 kV D/C transmission line including bay extension at Raipur and Bhadrawati sub-stations in Western Region for the period 1.6.2005 to 31.3.2009.

# And in the matter of

# Power Grid Corporation of India Ltd., Gurgaon .... Petitioner Vs

- 1. Madhya Pradesh Power Transmission Company Ltd., Jabalpur
- 2. Maharashtra State Electricity Distribution Co. Ltd., Mumbai
- 3. Gujarat Urja Vikas Nigam Ltd., Baroda
- 4. Electricity Deptt., Govt. of Goa, Panaji
- 5. Electricity Deptt., Administration of Daman & Diu, Daman
- 6. Electricity Deptt., Administration of Dadra Nagar Haveli, Silvasa
- 7. Chhattisgarh State Electricity Board, Raipur
- 8. Madhya Pradesh Audyogik Kandra Vikas Nigam (Indore) Ltd., Indore

## ..Respondents

## ORDER

This application has been made for correction of an error in the Commission's order dated 6.2.2007, determining final transmission tariff in respect of 400 kV D/C transmission line including bay extension at Raipur and Bhadrawati sub-stations in Western Region (hereinafter referred to as "the transmission line") for the period from 1.6.2005 to 31.3.2009 after accounting for additional capitalization of Rs. 663.63 lakh up to 31.3.2006.

2. In the petition, the petitioner had shown bridge financing of loan from IOB having floating rate of interest of 5.90% p.a., in addition to some other loans. IOB loan was subsequently replaced with Bond XVII having fixed rate of interest of 7.39% p.a.,

with effect from 22.9.2005. Therefore, for the year 2005-06 weighted average rate of interest of 6.99% was worked out for IOB loan/Bond XVII. The weighted average rate of 6.99% was inadvertently considered for the subsequent years, that is, 2006-07 to 2008-09 as well. Accordingly, the Commission in its order of 6.2.2007 approved interest on loan as under after considering all loans allocated to the transmission line:

(Rs. in lakh)

Details of loan	2005-06 (Pro rata)	2006-07	2007-08	2008-09
Interest on Loan				
Opening Gross Loan	18083.37	18547.91	18547.91	18547.91
Cumulative Repayment	0.00	546.37	1210.71	1875.04
Net Loan-Opening	18083.37	18001.54	17337.21	16672.87
Additions due to Additional Capitalisation	464.54	-	-	-
Repayment during the year	546.37	664.33	664.33	953.96
Net Loan-Closing	18001.54	17337.21	16672.87	15718.91
Average Loan	18042.45	17669.37	17005.04	16195.89
Weighted Average Rate of Interest on Loan	6.98%	7.00%	7.00%	7.01%
Interest	1048.80	1236.20	1190.49	1135.15

3. The petitioner has pointed out that interest rate of 6.99% for the years 2006-07 to 2008-09 for IOB loan/Bond XVII has been wrongly applied and that for these years interest rate of 7.39% ought to have been considered for computation of the overall weighted average rate of interest. The petitioner accordingly seeks necessary correction.

4. Notice of the application was issued to the respondents. None of them has filed any reply.

5. We have perused the records and are satisfied that there is an inadvertent mathematical error in the computation of interest on loan component of tariff as pointed out by the petitioner and this error needs to be rectified.

6. Accordingly, the interest on loan component of tariff in respect of the transmission line is revised as under, which will supersede the interest allowed in the table given under para 22 of the order dated 6.2.2007:

#### **INTEREST ON LOAN**

(Rs. in lakh)

Details of loan	2005-06 (Pro rata)	2006-07	2007-08	2008-09
Interest on Loan				
Opening Gross Loan	18083.37	18547.91	18547.91	18547.91
Cumulative Repayment	0.00	546.37	1210.71	1875.04
Net Loan-Opening	18083.37	18001.54	17337.21	16672.87
Additions due to Additional Capitalisation	464.54	-	-	-
Repayment during the year	546.37	664.33	664.33	953.96
Net Loan-Closing	18001.54	17337.21	16672.87	15718.91
Average Loan	18042.45	17669.37	17005.04	16195.89
Weighted Average Rate of Interest on Loan	6.98%	7.12%	7.13%	7.14%
Interest	1048.80	1258.56	1212.31	1156.86

7. The detailed calculations in support of weighted average rate of interest considered in tariff are contained in Annexure-I attached.

8. The revision of interest on loan component has resulted in marginal adjustments in interest on working capital. The petitioner's entitlement to interest on working capital as revised, is given hereunder:

(Rs. in lakh)

	2005-06 (Pro rata)	2006-07	2007-08	2008-09
Maintenance Spares	241.14	253.19	268.39	284.49
O & M expenses	23.34	24.31	25.23	26.29
Receivables	522.19	528.22	522.53	564.68
Total	786.67	805.72	816.14	875.46
Rate of Interest	10.25%	10.25%	10.25%	10.25%
Interest	67.19	82.59	83.65	89.73

9. The other elements of tariff, namely return on equity, Advance Against Depreciation and O & M charges approved by order dated 6.2.2007 remain unaffected.

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10. The revised summary of the transmission charges applicable for the transmission line, in supersession of that given in the table in para 38 of the order dated 6.2.2007 shall be as under:

(Rs. in lakh)

	2005-06 (Pro rata)	2006-07	2007-08	2008-09
Depreciation	546.37	664.33	664.33	664.33
Interest on Loan	1048.80	1258.56	1212.31	1156.86
Return on Equity	715.16	872.12	872.12	872.12
Advance against Depreciation	0.00	0.00	0.00	289.63
Interest on Working Capital	67.19	82.59	83.65	89.73
O & M Expenses	233.42	291.69	302.75	315.43
Total	2610.94	3169.30	3135.18	3388.11

11. The revised summary sheet of the capital cost, etc in respect of the transmission line is attached as Annexure – II.

12. This order disposes of I.A. No 20/2007.

Sd-

(R. KRISHNAMOORTHY) MEMBER

New Delhi dated the 15<sup>th</sup> June, 2007

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(BHANU BHUSHAN) MEMBER

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# **ANNEXURE-I**

	Details of Large	0001 05	0005 00	0000 07		Rs. in Lakh)	
	Details of Loan	2004-05	2005-06	2006-07	2007-08	2008-09	
1	Bond-XV						
	Gross Loan opening		6300.00	6300.00	6300.00	6300.00	
	Cumulative Repayment up to DOCO/previous year		0.00	0.00	0.00	525.00	
	Net Loan-Opening		6300.00	6300.00	6300.00	5775.00	
	Additions during the year		0.00	0.00	0.00	0.00	
	Repayment during the year		0.00	0.00	525.00	525.00	
	Net Loan-Closing		6300.00	6300.00	5775.00	5250.00	
	Average Loan		6300.00	6300.00	6037.50	5512.5	
	Rate of Interest		6.68%	6.68%	6.68%	6.68%	
	Interest		420.84	420.84	403.31	368.24	
	Repayment Schedule		12 Annual ii	nstalments from	23.2.2008	•	
2	Bond- XVI						
	Gross Loan opening		5176.00	5176.00	5176.00	5176.00	
	Cumulative Repayment up to DOCO/previous year		0.00	0.00	0.00	0.0	
	Net Loan-Opening		5176.00	5176.00	5176.00	5176.0	
	Additions during the year		0.00	0.00	0.00	0.0	
	Repayment during the year		0.00	0.00	0.00	517.6	
	Net Loan-Closing		5176.00	5176.00	5176.00	4658.4	
	Average Loan		5176.00	5176.00	5176.00	4917.2	
	Rate of Interest		7.10%	7.10%	7.10%	7.10%	
	Interest		367.50	367.50	367.50	349.12	
	Repayment Schedule		10 Annual in	stalments from 1	8-2-2009		
3	Bond- XVII						
	Gross Loan opening		6000.00	6000.00	6000.00	6000.0	
	Cumulative Repayment up to DOCO/previous year		0.00	0.00	0.00	0.0	
	Net Loan-Opening		6000.00	6000.00	6000.00	6000.00	
	Additions during the year		0.00	0.00	0.00	0.0	
	Repayment during the year		0.00	0.00	0.00	0.0	
	Net Loan-Closing		6000.00	6000.00	6000.00	6000.0	
	Average Loan		6000.00	6000.00	6000.00	6000.0	
	Rate of Interest		6.99%	7.39%	7.39%	7.39%	
	Interest		419.67	443.40	443.40	443.4	
	Repayment Schedule			stalments from 2		440.4	
4	Bond- XVIII				2.3.2003		
4	Gross Loan opening		607.37	607.37	607.37	607.3	
	Cumulative Repayment up to		0.00	0.00	0.00	0.0	
	DOCO/previous year						
	Net Loan-Opening		607.37	607.37	607.37	607.3	
	Additions during the year		0.00	0.00	0.00	0.0	
	Repayment during the year		0.00	0.00	0.00	0.0	
	Net Loan-Closing		607.37	607.37	607.37	607.3	
	Average Loan		607.37	607.37	607.37	607.3	
	Rate of Interest		8.15%	8.15%	8.15%	8.15%	
	Interest		49.50	49.50	49.50	49.5	
	Repayment Schedule		12 annual ina	atalments from 9-	3-2010		
5	Bond- XVIII ( For ACE) (Date of						

#### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Drawal 9.3.2006)					
Gross Loan opening	0.00	663.63	663.63	663.63	
Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00	
Net Loan-Opening	0.00	663.63	663.63	663.63	
Additions during the year	663.63	0.00	0.00	0.00	
Repayment during the year	0.00	0.00	0.00	0.00	
Net Loan-Closing	663.63	663.63	663.63	663.63	
Average Loan	331.82	663.63	663.63	663.63	
Rate of Interest	8.15%	8.15%	8.15%	8.15%	
Interest	27.04	54.09	54.09	54.09	
Repayment Schedule	12 annual inatalments from 9.3.2010				
Total Loan					
Gross Loan opening	18083.37	18747.00	18747.00	18747.00	
Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	525.00	
Net Loan-Opening	18083.37	18747.00	18747.00	18222.00	
Additions during the year	663.63	0.00	0.00	0.00	
Repayment during the year	0.00	0.00	525.00	1042.60	
Net Loan-Closing	18747.00	18747.00	18222.00	17179.40	
Average Loan	18415.19	18747.00	18484.50	17700.70	
Rate of Interest	6.98%	7.12%	7.13%	7.14%	
Interest	1284.55	1335.32	1317.79	1264.34	

					Summary					
		Company: PGCIL								
me of	the Ele	ment:				Raipur-Chandrapur (Bhadrawati) 40 Transmission Line including Bay ex at Raipur and Bhadrawati S/S				
tual D	0000:					1.6.2005				
tition	No.:					134/2006				
riff set	tting Pe	riod:				2004-09				
									(Rs. in lakh)	
-				-	s on DOCO				24113.74	
Addit	tional C	apitali	zati	on					663.63	
					-	06				
Tatal	0	0						663.63	0 4777 07	
				on 1.4.	2006(1+2)				24777.37	
wean	S OF FI			000		on 1 4 2004	1			
Deht								18547 91		
	v									
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	s Loan:									
				As o	n DOCO			18083.37		
		Notional Loan corresponding to ACE during 2005-06 464.54								
				As on	1.4.2006			18547.91		
Cum	ulative	Repay	mer	nt up to					2829.00	
						0.00				
						.3.2009				
								2829.00		
					-				15718.91	
Depre	eciation	n recov	/ere	d up te	o 31.3.2009 :				2829.00	
			<u> </u>			2039.37	289.63			
Dalar							2829.00	19470.63		
Balar		oreciati								
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		_								
				Less: Land Cost						
			0	90% of Capital Cost as above						
				-						
				31.3.2009						
	tual C tition riff set Capit Addit Total Debt Equity Total Gross Cumu Balar Depro	tual DOCO: tition No.: riff setting Per Capital Cost Additional C Additional C Total Capita Means of Fir Debt Equity Total Gross Loan: Cumulative Balance Loa Depreciation	tition No.: riff setting Period: Capital Cost of the Additional Capitali Total Capital Cost Means of Finance As o Debt 74.99 Equity 25.07 Total 100.0 Gross Loan: Cumulative Repay Balance Loan to be Depreciation recovery	tual DOCO: tition No.: riff setting Period: Capital Cost of the Pro Additional Capitalizati Additional Capitalizati Additional Capitalizati Total Capital Cost as of Means of Finance : As on Do Debt 74.99% Equity 25.01% Total 100.00% Gross Loan: Cumulative Repayment Cumulative Repayment Balance Loan to be re Depreciation recoverent Balance Depreciation Cumulation recoverent Cumulation recove	tual DOCO: tition No.: riff setting Period: Capital Cost of the Project a Additional Capitalization Additional Capitalization Total Capital Cost as on 1.4. Means of Finance : As on DOCO Debt 74.99% Equity 25.01% Total 100.00% Gross Loan: As on Cumulative Repayment up to As on Cumulative Repayment up to Balance Loan to be repaid b Depreciation recovered up to Balance Depreciation to be r Balance Depreciation to be r Capital ACE du Capital ACE du	tual DOCO: tition No.: riff setting Period: Capital Cost of the Project as on DOCO Additional Capitalization Total Total Capital Cost as on 1.4.2006(1+2) Means of Finance : As on DOCO Debt 74.99% 18083.37 Equity 25.01% 6030.37 Total 100.00% 24113.74 Gross Loan: As on DOCO Notional Loan corresponding As on 1.4.2006 Cumulative Repayment up to 31.3.2009 : Up to DOCO Cumulative Repayment up to 31.3.2009 : Up to DOCO From DOCO to 31 Total Balance Loan to be repaid beyond 31.3.2009 : Depreciation recovered up to 31.3.2009 : Depreciation recovered up to 31.3.2009 : Depreciation recovered up to 31.3.2009 : Capital cost for the purpose ACE during 2005-06 Capital cost as 1.4.2006 Less: Land Cost 90% of Capital Cost as abov Cum. Depreciation to be rec	tual DOCO: 1.6.2005 tition No.: 134/2006 riff setting Period: 2004-09 Capital Cost of the Project as on DOCO Additional Capitalization Capital Cost as on 1.4.2006(1+2) Means of Finance : As on DOCO Debt 74.99% 18083.37 74.8 Equity 25.01% 6030.37 25.7 Total 100.00% 24113.74 100.0 Gross Loan: As on DOCO As on DOCO Cumulative Repayment up to 31.3.2009 : Up to DOCO Cumulative Repayment up to 31.3.2009 : Depreciation recovered up to 31.3.2009 : Depreciation recovered up to 31.3.2009 : Depreciation to be repaid beyond 31.3.2009 : Depreciation to be recovered beyond 31.3.2009 : Capital cost as 1.4.2006 Capital cost as 1.4.2006 Capital cost as 1.4.2006 Capital cost as 1.4.2009 : Capital cost as 1.4.2006 Capital cost as 1.4.2006 Capital cost as 1.4.2009 : Capital cost as 1.4.2006 Capital cost	Transmission Line inc at Raipur and Bhadrav 1.6.2005   tual DOCO:   Capital Cost of the Project as on DOCO   Additional Capitalization   For the year 2005-06   Total Capital Cost as on 1.4.2006(1+2)   Means of Finance :   As on DOCO   As on DOCO   Debt 74.99%   Total Capital Cost as on 1.4.2006(1+2)   Means of Finance : As on 1.4.2006   As on DOCO   As on DOCO   Debt 74.99%   Total Capital Cost as on DOCO   Capital Cost as on DOCO   Depreciation to be repaid beyond 31.3.2009 :   Depreciation recovered up to 31.3.2009   Total	Transmission Line including Bay e at Raipur and Bhadrawati S/S     titilion No.:     11.6.2005     titilion No.:     Transmission Line including Bay e at Raipur and Bhadrawati S/S     tition     Capital Cost of the Project as on DOCO     Additional Capitalization     Capital Cost of the Project as on DOCO     Additional Capitalization     Means of Finance:     As on DOCO     As on 1.4.2006     Teget colspan="2">As on DOCO     As on DOCO     As on DOCO     As on 1.4.2006     Up to DOCO     ODCO to 31.3.2009     Depreciation recovered up to 31.3.2009	

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