

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram:

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

Petition No.103/2007

In the matter of

Petition for determination of final transmission tariff of (i) 40% series compensation on Meramundali-Jeypore 400 kV S/C transmission line at Jeypore (Eastern Region scheme) (ii) 50% Fixed Series Compensation on 400 kV Jeypore-Gazuwaka D/C transmission line at Jeypore (inter-regional scheme between ER and SR) associated with augmentation of capacity of Gazuwaka HVDC back-to-back project for the period from 1.1.2007 31.3.2009.

And in the matter of

Power Grid Corporation of India Limited

....Petitioner

Vs

1. Bihar State Electricity Board, Patna
 2. West Bengal State Electricity Board, Kolkata
 3. Orissa Power Transmission Corporation Ltd., Bhubaneshwar
 4. Damodar Valley Corporation, Kolkata
 5. Power Department, Govt. of Sikkim, Gangtok
 6. Jharkhand State Electricity Board, Ranchi
 7. Karnataka Power Transmission Corporation Ltd., Bangalore
 8. Transmission Corporation of Andhra Pradesh, Hyderabad
 9. Kerala State Electricity Board, Thiruvananthapuram
 10. Tamil Nadu Electricity Board, Chennai
 11. Electricity Deptt, Government of Pondicherry, Pondicherry
- .Respondents**

ORDER

The Commission by its order dated 19.5.2008 had allowed tariff for (i) 40% series compensation on Meramundali-Jeypore 400 kV S/C transmission line at Jeypore (Eastern Region scheme) (Asset-I), and (ii) 50% Fixed Series Compensation on 400 kV Jeypore-Gazuwaka D/C transmission line at Jeypore (Inter-regional scheme between ER and SR) (Asset- II) (collectively referred to as ` the transmission assets`), associated with augmentation of capacity of Gazuwaka HVDC back-to-back project for the period from 1.1.2007 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”) after accounting for additional capitalization during 2006-07. The summary of tariff awarded is given as under:

(Rs. in lakh)

	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	14.02	57.44	57.44	22.59	92.09	92.09
Interest on Loan	22.03	87.09	81.84	34.65	136.36	128.10
Return on Equity	15.22	62.49	62.49	24.09	98.37	98.37
Advance against Depreciation	0.00	4.38	8.87	0.00	4.73	13.05
Interest on Working Capital	1.49	6.14	6.26	2.45	10.02	10.24
O & M Expenses	7.61	31.63	32.90	15.21	63.26	65.80
Total	60.37	249.16	249.80	98.99	404.84	407.66

2. Certain inadvertent mathematical errors in the computation of repayment of loan during 2008-09 and consequently the interest on loan component of tariff have been brought to the Commission’s notice. Through this order these errors are proposed to be rectified.

3. In the order dated 19.5.2008, during 2008-09, repayment of loan for Asset-I was considered as Rs. 66.31 lakh and for Asset-II as Rs. 105.14 lakh. However, actual repayments during the year work out to Rs. 64.21 lakh and Rs. 100.65 lakh for Asset-I and Asset-II respectively. The errors occurred because of the computational logic slip-up. Therefore, the interest on loan component of tariff in respect of the transmission assets is being revised as under, which will supersede the interest on loan allowed under para 24 of the order dated 19.5.2008:

INTEREST ON LOAN

(Rs. in lakh)

Details of loan	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Opening Gross Loan	1131.00	1184.04	1184.04	1788.00	1855.54	1855.54
Cumulative Repayment	47.00	61.02	122.83	74.24	96.83	193.66
Net Loan-Opening	1084.00	1123.02	1061.21	1713.76	1758.71	1661.89
Additions due to Additional Capitalisation	53.04			67.54		
Repayment during the year	14.02	61.81	64.21	22.59	96.83	100.65
Net Loan-Closing	1123.02	1061.21	997.00	1758.71	1661.89	1561.24
Average Loan	1103.51	1092.11	1029.10	1736.24	1710.30	1611.56
Weighted Average Rate of Interest on Loan	7.98%	7.97%	7.96%	7.98%	7.97%	7.96%
Interest	22.03	87.09	81.93	34.65	136.36	128.28

4. The revised detailed calculations in support of the weighted average rate of interest are contained in Annexure-I and Annexure-II attached.

ADVANCE AGAINST DEPECIATION

5. Consequent to revision of repayment of loan for the year 2008-09, the petitioner's entitlement to Advance Against Depreciation has also been recalculated and the relevant details are reproduced hereunder, which will supersede the Advance Against Depreciation allowed under para 28 of the order dated 19.5.2008:

(Rs. in lakh)

Advance against Depreciation	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
1/10th of Gross Loan(s)	113.10	118.40	118.40	178.80	185.55	185.55
Repayment of the Loan	14.02	61.81	64.21	22.59	96.83	100.65
Minimum of the above	14.02	61.81	64.21	22.59	96.83	100.65
Depreciation during the year	14.02	57.44	57.44	22.59	92.09	92.09
(A) Difference	0.00	4.38	6.77	0.00	4.73	8.55
Cumulative Repayment of the Loan	61.02	122.83	187.04	96.83	193.66	294.30
Cumulative Depreciation/ Advance against Depreciation	14.02	71.45	133.27	22.59	114.68	211.51
(B) Difference	47.00	51.38	53.77	74.24	78.97	82.79
Advance Against Depreciation: Minimum of (A) and (B)	0.00	4.38	6.77	0.00	4.73	8.55

INTEREST ON WORKING CAPITAL

6. The revision of above noted two components of tariff, namely, interest on loan and Advance Against Depreciation, has also resulted in marginal adjustments in

interest on working capital. The petitioner's entitlement to interest on working capital, as revised, which will supersede the interest on working capital allowed in para 37 of the order dated 19.5.2008 is given hereunder.

(Rs. in lakh)

	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Maintenance Spares	15.55	15.78	16.73	24.62	24.99	26.49
O & M expenses	2.54	2.64	2.74	5.07	5.27	5.48
Receivables	40.25	41.53	41.29	65.99	67.47	67.21
Total	58.33	59.94	60.76	95.68	97.73	99.18
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	1.49	6.14	6.23	2.45	10.02	10.17

7. The revised transmission charges being allowed in respect of transmission assets in suppression of the transmission charges approved under order dated 19.5.2008 are summarised below:

(Rs. in lakh)

	Asset-I			Asset-II		
	2006-07 (Pro rata)	2007-08	2008-09	2006-07 (Pro rata)	2007-08	2008-09
Depreciation	14.02	57.44	57.44	22.59	92.09	92.09
Interest on Loan	22.03	87.09	81.93	34.65	136.36	128.28
Return on Equity	15.22	62.49	62.49	24.09	98.37	98.37
Advance against Depreciation	0.00	4.38	6.77	0.00	4.73	8.55
Interest on Working Capital	1.49	6.14	6.23	2.45	10.02	10.17
O & M Expenses	7.61	31.63	32.90	15.21	63.26	65.80
Total	60.37	249.16	247.75	98.99	404.84	403.26

8. In all other respects order dated 19.5.2008 shall continue to apply.

Sd/-
(R.KRISHNAMOORTHY)
MEMBER
New Delhi dated the 21st August 2008

sd/-
(BHANU BHUSHAN)
MEMBER

Annexure –I

40% series compensation on Meramundali-Jeypore 400 kV S/C transmission line at Jeypore

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(Rs. in lakh)

Details of Loan		2006-07	2007-08	2008-09
1	Bond-XII			
	Gross Loan opening	37.00	37.00	37.00
	Cumulative Repayment upto DOCO/previous year	3.08	6.16	9.24
	Net Loan-Opening	33.92	30.84	27.76
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	3.08	3.08	3.08
	Net Loan-Closing	30.84	27.76	24.68
	Average Loan	32.38	29.30	26.22
	Rate of Interest	9.70%	9.70%	9.70%
	Interest	3.14	2.84	2.54
	Repayment Schedule	12 Annual instalments from 28.3.2006		
2	Bond-XIII Option-I			
	Gross Loan opening	455.00	455.00	455.00
	Cumulative Repayment upto DOCO/previous year	37.92	37.92	75.84
	Net Loan-Opening	417.08	417.08	379.16
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	37.92	37.92
	Net Loan-Closing	417.08	379.16	341.24
	Average Loan	417.08	398.12	360.20
	Rate of Interest	8.63%	8.63%	8.63%
	Interest	35.99	34.36	31.09
	Repayment Schedule	12 Annual instalments from 31.7.2006		
3	Bond-XV			
	Gross Loan opening	184.00	184.00	184.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	15.33
	Net Loan-Opening	184.00	184.00	168.67
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	15.33	15.33
	Net Loan-Closing	184.00	168.67	153.34
	Average Loan	184.00	176.34	161.01
	Rate of Interest	6.68%	6.68%	6.68%
	Interest	12.29	11.78	10.76
	Repayment Schedule	12 Annual instalments from 23-2-2008		
4	Bond- XVI			
	Gross Loan opening	23.00	23.00	23.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	23.00	23.00	23.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	2.30
	Net Loan-Closing	23.00	23.00	20.70
	Average Loan	23.00	23.00	21.85
	Rate of Interest	7.10%	7.10%	7.10%
	Interest	1.63	1.63	1.55
	Repayment Schedule	10 Annual instalments from 18-02-2009		
5	Bond- XVII			
	Gross Loan opening	213.00	213.00	213.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	213.00	213.00	213.00

	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	213.00	213.00	213.00
	Average Loan	213.00	213.00	213.00
	Rate of Interest	7.39%	7.39%	7.39%
	Interest	15.74	15.74	15.74
	Repayment Schedule	10 Annual Instalments from 22.9.2009		
6	Bond- XVIII			
	Gross Loan opening	183.00	183.00	183.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	183.00	183.00	183.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	183.00	183.00	183.00
	Average Loan	183.00	183.00	183.00
	Rate of Interest	8.15%	8.15%	8.15%
	Interest	14.91	14.91	14.91
	Repayment Schedule	12 annual instalments from 09-03-2010		
7	OBC			
	Gross Loan opening	36.00	36.00	36.00
	Cumulative Repayment upto DOCO/previous year	6.00	9.00	12.00
	Net Loan-Opening	30.00	27.00	24.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	3.00	3.00	3.00
	Net Loan-Closing	27.00	24.00	21.00
	Average Loan	28.50	25.50	22.50
	Rate of Interest	9.10%	9.10%	9.10%
	Interest	2.59	2.32	2.05
	Repayment Schedule	12 Annual Instalments from 22.3.2005		
	Total Loan			
	Gross Loan opening	1131.00	1131.00	1131.00
	Cumulative Repayment upto DOCO/previous year	47.00	53.08	112.41
	Net Loan-Opening	1084.00	1077.92	1018.59
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	6.08	59.33	61.63
	Net Loan-Closing	1077.92	1018.59	956.96
	Average Loan	1080.96	1048.26	987.78
	Rate of Interest	7.98%	7.97%	7.96%
	Interest	86.31	83.59	78.64

Annexure-II

50% Fixed Series Compensation on 400 kV Jeypore-Gazuwaka D/C transmission line at Jeypore (Inter-regional scheme between ER and SR)

(Rs. in lakh)

	Details of Loan	2006-07	2007-08	2008-09
1	Bond-XII			
	Gross Loan opening	58.00	58.00	58.00
	Cumulative Repayment upto DOCO/previous year	4.83	9.66	14.49
	Net Loan-Opening	53.17	48.34	43.51
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	4.83	4.83	4.83
	Net Loan-Closing	48.34	43.51	38.68
	Average Loan	50.76	45.93	41.10
	Rate of Interest	9.70%	9.70%	9.70%
	Interest	4.92	4.45	3.99
	Repayment Schedule	12 Annual instalments from 28.3.2006		
2	Bond-XIII Option-I			
	Gross Loan opening	721.00	721.00	721.00
	Cumulative Repayment upto DOCO/previous year	60.08	60.08	120.16
	Net Loan-Opening	660.92	660.92	600.84
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	60.08	60.08
	Net Loan-Closing	660.92	600.84	540.76
	Average Loan	660.92	630.88	570.80
	Rate of Interest	8.63%	8.63%	8.63%
	Interest	57.04	54.44	49.26
	Repayment Schedule	12 Annual instalments from 31.7.2006		
3	Bond-XV			
	Gross Loan opening	291.00	291.00	291.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	24.25
	Net Loan-Opening	291.00	291.00	266.75
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	24.25	24.25
	Net Loan-Closing	291.00	266.75	242.50
	Average Loan	291.00	278.88	254.63
	Rate of Interest	6.68%	6.68%	6.68%
	Interest	19.44	18.63	17.01
	Repayment Schedule	12 Annual instalments from 23-2-2008		
4	Bond- XVI			
	Gross Loan opening	37.00	37.00	37.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	37.00	37.00	37.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	3.70
	Net Loan-Closing	37.00	37.00	33.30
	Average Loan	37.00	37.00	35.15
	Rate of Interest	7.10%	7.10%	7.10%
	Interest	2.63	2.63	2.50
	Repayment Schedule	10 Annual instalments from 18-2-2009		
5	Bond- XVII			
	Gross Loan opening	337.00	337.00	337.00

	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	337.00	337.00	337.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	337.00	337.00	337.00
	Average Loan	337.00	337.00	337.00
	Rate of Interest	7.39%	7.39%	7.39%
	Interest	24.90	24.90	24.90
	Repayment Schedule	10 Annual Instalments from 22.9.2009		
6	Bond- XVIII			
	Gross Loan opening	288.00	288.00	288.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	288.00	288.00	288.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	288.00	288.00	288.00
	Average Loan	288.00	288.00	288.00
	Rate of Interest	8.15%	8.15%	8.15%
	Interest	23.47	23.47	23.47
	Repayment Schedule	12 annual inatalments from 9-3-2010		
7	OBC			
	Gross Loan opening	56.00	56.00	56.00
	Cumulative Repayment upto DOCO/previous year	9.33	14.00	18.67
	Net Loan-Opening	46.67	42.00	37.33
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	4.67	4.67	4.67
	Net Loan-Closing	42.00	37.33	32.66
	Average Loan	44.34	39.67	35.00
	Rate of Interest	9.10%	9.10%	9.10%
	Interest	4.03	3.61	3.18
	Repayment Schedule	12 Annual Instalments from 22.3.2005		
	Total Loan			
	Gross Loan opening	1788.00	1788.00	1788.00
	Cumulative Repayment upto DOCO/previous year	74.24	83.74	177.57
	Net Loan-Opening	1713.76	1704.26	1610.43
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	9.50	93.83	97.53
	Net Loan-Closing	1704.26	1610.43	1512.90
	Average Loan	1709.01	1657.35	1561.67
	Rate of Interest	7.98%	7.97%	7.96%
	Interest	136.44	132.14	124.31