# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

## **Petition No. 72/2010**

Coram:

Dr. Pramod Deo, Chairperson Shri S. Jayaraman, Member Shri V.S. Verma, Member Shri M. Deena Dayalan, Member

Date of Order: 20.2.2013

#### In the matter of

Revision of the Commission's order dated 1.6.2011 in Petition No.72/2010 in the light of the judgment of the Appellate Tribunal for Electricity dated 12.1.2012 in Appeal No.104 of 2011

#### And

### In the matter of:

Power Grid Corporation of India Limited, Gurgaon

...Petitioner

#### Vs

- 1. Karnataka Power Transmission Corporation, Ltd., Bangalore
- 2. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
- 3. Kerala State Electricity Board, Thiruvananthapuram
- 4. Tamil Nadu Electricity Board, Chennai
- 5. Electricity Department, Govt. of Goa, Panaji
- 6. Electricity Department, Govt. of Pondicherry, Pondicherry
- 7. Eastern Power Distribution Company of Andhra Pradesh Ltd., Visakhapatnam
- 8. Southern Power Distribution Company of Andhra Pradesh Ltd., Tirupati
- 9. Central Power Distribution Company of Andhra Pradesh Ltd., Hyderabad
- 10. Northern Power Distribution Company of Andhra Pradesh Ltd., Warangal
- 11. Bangalore Electricity Supply Company Ltd., Bangalore
- 12. Gulbarga Electricity Supply Company Ltd., Gulbarga
- 13. Hubli Electricity Supply Company Ltd., Hubli
- 14. MESCOM Corporate office, Mangalore
- 15. Chamundeswari Electricity Supply Company Ltd., Mysore ..... Respondents



## **ORDER**

This order is being issued for implementing the judgment of the Appellate Tribunal for Electricity dated 12.1.2012 in Appeal No. 104 of 2011.

2. The background of this case is that the Board of Directors of PGCIL accorded the investment approval vide letter dated 31.5.2005 for establishment of the scheme "System Strengthening-VII of Southern Regional Grid". This scheme consisted of (a) LILO of one circuit of Trichy-Madurai 400 kV D/C line at Karaikudi along with 1x80 MVAR Bus Reactor and associated bays & equipments at 400/230 kV Karaikudi Substation (Asset-I), (b) 400/220 kV, 2x315 MVA Auto Transformers & Downstream System with associated bays and equipments at Karaikudi Sub-station (Asset-II), (c) LILO of one circuit of existing Talaguppa - Neelamangala 400 kV D/C line along with 1x80 Reactor at Hassan (Asset-III), and (d) 400/220 kV, 2X315 MVA MVAR Line Transformers & Down-stream system with associated bays and equipment at Hassan sub-station (Asset-IV). PGCIL filed Petition No. 72/2010 for determination of transmission tariff for Asset-I and Asset-II, mentioned above, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations"). PGCIL later filed Petition No. 310/2010, seeking transmission tariff for Combined Asset-I & III and Asset-IV, which was approved by the Commission on 19.8.2011.



- 3. The transmission tariff in Petition No. 72/2010 was approved by the Commission by its order dated 1.6.2011 for the period 2009-14. While approving the transmission tariff, the Commission disallowed IDC and IEDC for 14 months, saying
  - "11. As per the investment approval, transmission assets were scheduled to be completed within period of 36 months from the date of approval i.e. August, 2006. However, the transmission assets were declared under commercial operation on 1.8.2009.
  - 12. The petitioner has submitted that the transmission assets were scheduled to be commissioned within a period of 36 months from the date of first letter of award, i.e. 23.8.2006 and same for the project as a whole is 12.7.2006. Accordingly, the schedules date of commercial operation of the projects work out to 1.8.2009, against which the asset covered in the petition were declared under commercial operation on 1.8.2009 which implies that there is no time over-run. It has been submitted that during the 9th SRPC meeting held on 6.3.2009 at Kumarakom, PGCIL informed the respondent, TNEB that the system would be ready by June 2009 and 400 kV sub-station along with LILO would be commissioned accordingly."
  - "14. We have examined the submission of the petitioner. It is noted that the petitioner has reckoned the period of execution of the project with reference to the issue of letter of award i.e. from 23.8.2006. However, in para 31.12.1 of the Statement of Reasons to the 2009 regulations provides that completion time schedule shall be reckoned from the date of investment approval of the project by the Board of Directors. In view of the above, the contention of the petition is not tenable and the completion time schedule has been reckoned from the date of the approval i.e. 31.5.2005.
  - 15. We are of the view that the petitioner is responsible for time over-run of the project by 14 months. Accordingly, we direct that the petitioner shall not be entitled for computation of Interest During Construction (IDC) and Incidental Expenses During Construction (IEDC) for the said period. The petitioner has furnished a certificate from Chartered Accountant which has indicated the IDC and IEDC in two spells i.e. up to 31.3.2009 and from 1.4.2009 till the date of commercial operation i.e. 31.7.2009. Accordingly, details of IDC and IEDC, which have not been allowed, are as under:-

Details of IDC and IEDC as per Chartered Account Certificate dated 9.12.2009							
	IEDC	IDC					
From date of Investment Approval to 31.3.2009	326.49	432.01					
From 1.4.2009 to 31.7.2009	175.09	143.20					
Total IDC and IEDC claimed	501.58	575.21					
Detail of IDC and IEDC disallowed from May, 2008 to J	uly, 2009						
From May, 2008 to March 2009 (for 10 months)	70.98	93.92					
From April 2009 to July 2009 (for 4 months)	175.09	143.20					
Total disallowed IDC and IEDC (for 14 months)	246.07	237.12					

Asset - II

Detail of IDC and IEDC as per Chartered Account Certificate dated 9.12.2009							
	IEDC	IDC					
From date of Investment Approval to 31.3.2009	173.07	229.00					
From 1.4.2009 to 31.7.2009	108.16	93.51					
Total IDC and IEDC claimed	281.23	322.51					
Detail of IDC and IEDC disallowed from May, 2008 to J	uly, 2009						
From May, 2008 to March 2009 (for 10 months)	37.62	49.78					
From April 2009 to July 2009 (for 4 months)	108.16	93.51					
Total disallowed IDC and IEDC (for 14 months)	145.78	143.29					

16. In view of the above, following capital expenditure has been considered for the purpose of tariff:

			( )
Name of Asset		IEDC Disallowed	Capital cost considered for the purpose of tariff as on date of
	the date of commercial		as on date of
	operation	from May, 2008	commercial operation
Asset - I	8743.61	(-) 483.19	8260.43
Asset - II	4372.56	(-) 289.07	4083.48

- 4. Aggrieved by the orders passed by the Commission, PGCIL filed Appeal No.104 of 2011 against the Commission's order dated 1.6.2011 before the Hon'ble Appellate Tribunal for Electricity (hereinafter referred to as "the Tribunal") contending that the Commission wrongly reckoned the period of execution of the project from 31.5.2005, the date of the approval of the project instead of 23.8.2006, the date of 1st Letter of Award for considering the scheduled commissioning for a period of 36 months ignoring the relevant Regulation 7 of 2009 Tariff Regulations.
- 5. The Tribunal in its judgment dated 12.1.2012 in Appeal No. 104 of 2011 has given the findings that the provisions of Regulation 15 of 2009 Tariff Regulations, which

deal with the incentives for early completion, cannot be applied to the calculation of the capital expenditure, and that Regulation 7 of the 2009 Tariff Regulations has to be applied in the present case for calculation of the IDC and IEDC. The relevant para of the judgment is as follows:-

- "19. (b) Para 13.12 of the Statement of Objects and Reasons to the Tariff Regulations 2009 would not apply to the present case as it deals with additional burden on equity to be allowed as 0.5% and it did not deal with the basic Return on Equity or the capital cost to be calculated. Therefore, the period of execution of the project i.e. 36 months should be calculated only from the date of Letter of Award for the purpose of calculating Interest During Construction and Incidental Expenditure During Construction and not from the date of the Investment Approval.
- 20. In view of our finding, we find that the impugned order suffers from the infirmity and therefore, the same is set aside. The Central Commission is directed to pass the consequential orders in terms of the findings rendered by this Tribunal as referred to above as expeditiously as possible."
- 6. Taking into consideration the observation of the Tribunal as above, the matter has been re-examined in order to arrive at the fair estimation of the original value of the Asset-I and Asset-II of the transmission system, return on equity, interest on loan, depreciation, interest on working capital and transmission charges as under:-

#### Capital cost

7. As per the investment approval accorded on 31.5.2005, the project was to be completed within 36 months. In the Commission's order dated 1.6.2011, the period of 36 months was counted from the date of investment approval. Accordingly it was held that the asset should have been commissioned in May 2008, and as Asset-I and Asset-II were commissioned on 1.8.2009, there was a delay of 14 months. In view of this, the



Commission disallowed IDC and IEDC of ₹483.19 lakh and ₹289.07 lakh for 14 months respectively for Asset-I and Asset-II. The capital cost considered for tariff was ₹8260.43 lakh and ₹4083.48 lakh, respectively for Asset-I and Asset-II. The Tribunal in its judgment dated 12.1.2012 in Appeal No. 104 of 2011 has held that the period of 36 months is computable from the date of letter of award and not from the date of investment approval in respect of IDC and IEDC. The petitioner has combined Asset-I of this petition with Asset-III of Petition No. 310/2010, and claimed tariff for Combined Assets I & III in that petition. Vide affidavit dated 21.6.2011 in Petition No. 310/2010, PGCIL have submitted the revised auditor's certificate revising capital cost for Asset-I and requested the Commission to revise the tariff after considering the updated cost. Accordingly, capital cost of ₹8766.88 for Asset-I and ₹ 4372.56 for Asset-II, is being considered as on the date of commercial operation in terms of the above judgment of the Tribunal.

## Return on equity

8. The revised return on equity, in terms of the Tribunal's order dated 12.1.2012 in Appeal No. 104 of 2011 in respect of transmission assets is given overleaf:-



	Asset-I								
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14				
Opening Equity	2629.88	2825.52	2852.42	2862.32	2862.32				
Addition due to additional capital expenditure	195.64	26.90	9.90	0.00	0.00				
Closing Equity	2825.52	2852.42	2862.32	2862.32	2862.32				
Average Equity	2727.70	2838.97	2857.37	2862.32	2862.32				
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%				
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%	11.330%				
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%	17.481%	17.481%				
Return on Equity (Pre Tax)	317.89	496.28	499.50	500.36	500.36				

(₹ in lakh)

Asset-II								
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14			
Opening Equity	1311.56	1447.51	1477.51	1477.51	1477.51			
Addition due to additional capital expenditure	135.95	30.00	0.00	0.00	0.00			
Closing Equity	1447.51	1477.51	1477.51	1477.51	1477.51			
Average Equity	1379.53	1462.51	1477.51	1477.51	1477.51			
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%			
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%	11.330%			
Rate of Return on Equity (Pre Tax )	17.48%	17.481%	17.481%	17.481%	17.481%			
Return on Equity (Pre Tax)	160.77	255.66	258.28	258.28	258.28			

# **Interest on loan**

9. The revised interest on loan, in terms of the Tribunal's order dated 12.1.2012 in Appeal No. 104 of 2011 in respect of transmission assets is given overleaf:-



	Asset-I								
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14				
Gross Normative Loan	6137.00	6593.49	6656.25	6679.35	6679.35				
Cumulative Repayment upto Previous	0.00	279.58	717.27	1158.12	1599.85				
Year									
Net Loan-Opening	6137.00	6313.91	5938.98	5521.23	5079.51				
Addition due to additional capital	456.49	62.76	23.10	0.00	0.00				
expenditure									
Repayment during the year	279.58	437.69	440.85	441.72	441.72				
Net Loan-Closing	6313.91	5938.98	5521.23	5079.51	4637.78				
Average Loan	6225.46	6126.45	5730.11	5300.37	4858.65				
Weighted Average Rate of Interest on	9.2777%	9.2646%	9.2618%	9.2560%	9.2510%				
Loan									
Interest	385.05	567.59	530.71	490.60	449.47				

(₹ in lakh)

					(
	Asset	-II			
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	3061.00	3378.21	3448.21	3448.21	3448.21
Cumulative Repayment upto Previous	0.00	161.89	419.33	679.40	939.48
Year					
Net Loan-Opening	3061.00	3216.32	3028.88	2768.80	2508.72
Addition due to additional capital	317.21	70.00	0.00	0.00	0.00
expenditure					
Repayment during the year	161.89	257.44	260.08	260.08	260.08
Net Loan-Closing	3216.32	3028.88	2768.80	2508.72	2248.65
Average Loan	3138.66	3122.60	2898.84	2638.76	2378.68
Weighted Average Rate of Interest on	9.2911%	9.2923%	9.2923%	9.2897%	9.2882%
Loan					
Interest	194.41	290.16	269.37	245.13	220.94

10. Detailed calculations of the weighted average rate of interest on loan have been given in respect of Asset-I and Asset-II respectively, in Annexure-I and II to this order.

## **Depreciation**

11. The revised depreciation, in terms of the Tribunal's order dated 12.1.2012 in Appeal No. 104 of 2011, in respect of transmission assets is given overleaf:-



Particulars	2009-10	2010-11	2011-12	2012-13	2013-14	
Opening Gross Block	8766.88	9419.01	9508.67	9541.67	9541.67	
Addition during 2009-14 due to	652.13	89.66	33.00	0.00	0.00	
Projected additional capital						
expenditure						
Closing Gross Block	9419.01	9508.67	9541.67	9541.67	9541.67	
Average Gross Block	9092.95	9463.84	9525.17	9541.67	9541.67	
Rate of Depreciation	4.6120%	4.6249%	4.6283%	4.6294%	4.6294%	
Depreciable Value	7377.03	7710.83	7766.03	7780.88	7780.88	
Remaining Depreciable Value	7377.03	7431.25	7048.76	6622.76	6181.03	
Depreciation	279.58	437.69	440.85	441.72	441.72	

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	4372.56	4825.71	4925.71	4925.71	4925.71
Addition during 2009-14 due to	453.15	100.00	0.00	0.00	0.00
Projected additional capital					
expenditure					
Closing Gross Block	4825.71	4925.71	4925.71	4925.71	4925.71
Average Gross Block	4599.14	4875.71	4925.71	4925.71	4925.71
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	4139.22	4388.14	4433.14	4433.14	4433.14
Remaining Depreciable Value	4139.22	4226.25	4013.81	3753.73	3493.66
Depreciation	161.89	257.44	260.08	260.08	260.08

## **INTEREST ON WORKING CAPITAL**

12. The revised interest on working capital, in terms of the Tribunal's order dated 12.1.2012 in Appeal No. 104 of 2011 in respect of transmission assets is as under:-

		Asset I			
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	28.15	29.77	31.47	33.27	35.17
O & M expenses	15.64	16.54	17.48	18.48	19.54
Receivables	283.60	290.21	287.00	282.57	277.79
Total	327.39	336.51	335.96	334.33	332.50
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	26.74	41.22	41.16	40.96	40.73

		Asset II			,
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	32.49	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	188.48	196.78	197.58	197.08	196.81
Total	248.04	276.92	282.31	286.65	291.50
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	20.26	33.92	34.58	35.12	35.71

# **TRANSMISSION CHARGES**

13. The revised transmission charges, in terms of the Tribunal's order dated 12.1.2012 in Appeal No. 104 of 2011 in respect of transmission assets is as under:-

(₹ in lakh)

Asset I								
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14			
Depreciation	279.58	437.69	440.85	441.72	441.72			
Interest on Loan	385.05	567.59	530.71	490.60	449.47			
Return on equity	317.89	496.28	499.50	500.36	500.36			
Interest on Working Capital	26.74	41.22	41.16	40.96	40.73			
O & M Expenses	125.13	198.45	209.81	221.80	234.47			
Total	1134.38	1741.23	1722.03	1695.44	1666.76			

Asset II									
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14				
Depreciation	161.89	257.44	260.08	260.08	260.08				
Interest on Loan	194.41	290.16	269.37	245.13	220.94				
Return on equity	160.77	255.66	258.28	258.28	258.28				
Interest on Working Capital	20.26	33.92	34.58	35.12	35.71				
O & M Expenses	216.59	343.48	363.14	383.88	405.84				
Total	753.92	1180.66	1185.45	1182.49	1180.85				

14. All other terms contained in orders dated 1.6.2011 in Petition No.72/2010 remains unaltered.

Sd/- Sd/- Sd/-

(M. Deena Dayalan) (V.S. Verma) (S. Jayaraman) (Dr. Pramod Deo) Member Member Chairperson

# **Annexure-I**

	CALCULATION OF WEIGHTED A	VERAGE RA	ATE OF INT	EREST ON	LOAN	
						(₹ in lakh)
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond XX					
	Gross loan opening	150.00	150.00	150.00	150.00	150.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	12.50	25.00	37.50
	year	450.00	4.000	40= =0	40=00	440 =0
	Net Loan-Opening	150.00	150.00	137.50	125.00	112.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	12.50	12.50	12.50	12.50
	Net Loan-Closing	150.00	137.50	125.00	112.50	100.00
	Average Loan	150.00	143.75	131.25	118.75	106.25
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	13.40	12.84	11.72	10.60	9.49
	Rep Schedule		12 equal ir	stallments w.e	e.f. 07.09.2010	
2	Bond XXI					
_	Gross loan opening	100.00	100.00	100.00	100.00	100.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	8.33	16.66	24.99
	year					
	Net Loan-Opening	100.00	100.00	91.67	83.34	75.01
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	8.33	8.33	8.33	8.33
	Net Loan-Closing	100.00	91.67	83.34	75.01	66.68
	Average Loan	100.00	95.84	87.51	79.18	70.85
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	8.73	8.37	7.64	6.91	6.18
	Rep Schedule		12 equal ir	ıstallments w.e	e.f. 11.10.2010	
3	Bond XXII					
Ť	Gross loan opening	100.00	100.00	100.00	100.00	100.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	8.33	16.66	24.99
	year   Net Loan-Opening	100.00	100.00	91.67	83.34	75.01
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	8.33	8.33	8.33	8.33
	Net Loan-Closing	100.00	91.67	83.34	75.01	66.68
	Average Loan	100.00	95.84	87.51	79.18	70.85
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	8.68	8.32	7.60	6.87	6.15
	Rep Schedule	3.30			e.f. 07.12.2010	
4	Bond XXIV					



	Gross loan opening	250.00	250.00	250.00	250.00	250.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	20.83	41.67	62.50
	year Not Loop Opening	250.00	250.00	229.17	208.33	187.50
	Net Loan-Opening	0.00	0.00			0.00
	Additions during the year  Repayment during the year	0.00	20.83	0.00 20.83	0.00 20.83	20.83
	Net Loan-Closing	250.00	229.17	208.33	187.50	166.67
	Average Loan	250.00	239.58	218.75	197.92	177.08
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	24.88	23.84	21.77	19.69	17.62
	Rep Schedule	24.00		stallments w.e		17.02
	rep ochedule		0400			
5	Bond XXVII					
	Gross loan opening	2000.00	2000.00	2000.00	2000.00	2000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	166.67	333.33
	Net Loan-Opening	2000.00	2000.00	2000.00	1833.33	1666.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	166.67	166.67	166.67
	Net Loan-Closing	2000.00	2000.00	1833.33	1666.67	1500.00
	Average Loan	2000.00	2000.00	1916.67	1750.00	1583.33
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	189.40	189.40	181.51	165.73	149.94
	Rep Schedule		12 equal in	stallments w.e	e.f. 31.03.2012	
6	Bond XXVIII					
	Gross loan opening	1400.00	1400.00	1400.00	1400.00	1400.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	0.00	0.00	116.67
	year					
	The state of the s	1400.00	1400.00	1400.00	1400.00	1283.33
	year	1400.00	1400.00	1400.00	1400.00	
	year  Net Loan-Opening  Additions during the year	0.00	0.00	0.00	0.00	0.00
	year Net Loan-Opening Additions during the year Repayment during the year					0.00 116.67
	year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing	0.00	0.00	0.00	0.00 116.67	0.00 116.67 1166.67
	year Net Loan-Opening Additions during the year Repayment during the year	0.00 0.00 1400.00	0.00 0.00 1400.00	0.00 0.00 1400.00	0.00 116.67 1283.33	0.00 116.67 1166.67 1225.00
	year  Net Loan-Opening  Additions during the year  Repayment during the year  Net Loan-Closing  Average Loan	0.00 0.00 1400.00 1400.00	0.00 0.00 1400.00 1400.00	0.00 0.00 1400.00 1400.00	0.00 116.67 1283.33 1341.67	0.00 116.67 1166.67 1225.00 9.33%
	year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest	0.00 0.00 1400.00 1400.00 9.33%	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 116.67 1283.33 1341.67 9.33%	0.00 116.67 1166.67 1225.00 9.33%
7	year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest	0.00 0.00 1400.00 1400.00 9.33%	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 116.67 1283.33 1341.67 9.33% 125.18	0.00 116.67 1166.67 1225.00 9.33%
7	year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule	0.00 0.00 1400.00 1400.00 9.33%	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 116.67 1283.33 1341.67 9.33% 125.18	0.00 116.67 1166.67 1225.00 9.33% 114.29
7	year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule  Bond XXIX	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 0.00 1400.00 1400.00 9.33% 130.62 12 equal in	0.00 0.00 1400.00 1400.00 9.33% 130.62 stallments w.e	0.00 116.67 1283.33 1341.67 9.33% 125.18 .f. 15.12.2012	0.00 116.67 1166.67 1225.00 9.33% 114.29
7	year  Net Loan-Opening  Additions during the year  Repayment during the year  Net Loan-Closing  Average Loan  Rate of Interest  Interest  Rep Schedule  Bond XXIX  Gross loan opening  Cumulative Repayment upto DOCO/previous	0.00 0.00 1400.00 1400.00 9.33% 130.62	0.00 0.00 1400.00 1400.00 9.33% 130.62 12 equal in	0.00 0.00 1400.00 1400.00 9.33% 130.62 stallments w.e	0.00 116.67 1283.33 1341.67 9.33% 125.18 2.f. 15.12.2012	1283.33 0.00 116.67 1166.67 1225.00 9.33% 114.29 1620.00 135.00



	Repayment during the year	0.00	0.00	0.00	135.00	135.00
	Net Loan-Closing	1620.00	1620.00	1620.00	1485.00	1350.00
	Average Loan	1620.00	1620.00	1620.00	1552.50	1417.50
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%
	Interest	149.04	149.04	149.04	142.83	130.41
	Rep Schedule		12 equal in	stallments w.e	e.f. 12.03.2013	
8	Bond XXX					
	Gross loan opening	517.00	517.00	517.00	517.00	517.00
	Cumulative Repayment upto DOCO/previous	0.00	0.00	0.00	0.00	0.00
	year					
	Net Loan-Opening	517.00	517.00	517.00	517.00	517.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	43.08
	Net Loan-Closing	517.00	517.00	517.00	517.00	473.92
	Average Loan	517.00	517.00	517.00	517.00	495.46
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
	Interest	45.50	45.50	45.50	45.50	43.60
	Rep Schedule		12 equal in	stallments w.e	e.f. 29.09.2013	
9	Bond XXXI (AddCap for 2009-10 Drwal on 31.03.2010)					
	Gross loan opening	0.00	456.50	456.50	456.50	456.50
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	456.50	456.50	456.50	456.50
	Additions during the year	456.50	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	456.50	456.50	456.50	456.50	456.50
	Average Loan	228.25	456.50	456.50	456.50	456.50
	Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
	Interest	20.31	40.63	40.63	40.63	40.63
	Rep Schedule		12 equal ir		e.f. 29.09.2013	
	Total Loan	010=01	0.000	0.000	0.500 -0	0.500.50
	Gross loan opening	6137.00	6593.50	6593.50	6593.50	6593.50
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	49.99	266.65	734.98
	Net Loan-Opening	6137.00	6593.50	6543.51	6326.85	5858.52
	Additions during the year	456.50	0.00	0.00	0.00	0.00
-	Repayment during the year	0.00	49.99	216.66	468.33	511.41
	Net Loan-Closing	6593.50	6543.51	6326.85	5858.52	5347.11
	Average Loan	6365.25	6568.50	6435.18	6092.68	5602.82
	Rate of Interest	9.2777%	9.2646%	9.2618%	9.2560%	9.2510%
-	Interest	590.55	608.54	596.01	563.94	518.32



## **Annexure-II**

	Name of the Company:	PGCIL						
	Name of the Tr. System:	Asset-2- 2X315 MVA Aurto Transformers & 230 kV Downstream System alongwith associated bays & Equipments at 400 kV/ 230 kV Karaikudi S/S						
	Notional DOCO:	01.08.2009	)					
	Petition No.:	72/2010						
	Tarrif setting Period:	2009-14						
	CALCULATION OF WEIGH	ITED AVERAGE R	ATE OF IN	TEREST O	N LOAN			
					(R	s. in Lacs)		
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14		
1	Bond XX							
	Gross loan opening	100.00	100.00	100.00	100.00	100.00		
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	8.33	16.67	25.00		
	Net Loan-Opening	100.00	100.00	91.67	83.33	75.00		
	Additions during the year	0.00	0.00	0.00	0.00	0.00		
	Repayment during the year	0.00	8.33	8.33	8.33	8.33		
	Net Loan-Closing	100.00	91.67	83.33	75.00	66.67		
	Average Loan	100.00	95.83	87.50	79.17	70.83		
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%		
	Interest	8.93	8.56	7.81	7.07	6.33		
	Rep Schedule		12 equal insta	allments w.e.f.	f. 07.09.2010			
2	Bond XXI							
	Gross loan opening	100.00	100.00	100.00	100.00	100.00		
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	8.33	16.66	24.99		
	Net Loan-Opening	100.00	100.00	91.67	83.34	75.01		
	Additions during the year	0.00	0.00	0.00	0.00	0.00		
	Repayment during the year	0.00	8.33	8.33	8.33	8.33		
	Net Loan-Closing	100.00	91.67	83.34	75.01	66.68		
	Average Loan	100.00	95.84	87.51	79.18	70.85		
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%		
	Interest	8.73	8.37	7.64	6.91	6.18		
	Rep Schedule		12 equal insta	allments w.e.f.	11.10.2010	<u> </u>		
3	Bond XXII							
	Gross loan opening	100.00	100.00	100.00	100.00	100.00		
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	8.33	16.66	24.99		
	Net Loan-Opening	100.00	100.00	91.67	83.34	75.01		
	Additions during the year	0.00	0.00	0.00	0.00	0.00		
	Repayment during the year	0.00	8.33	8.33	8.33	8.33		



	Net Loan-Closing	100.00	91.67	83.34	75.01	66.68
	Average Loan	100.00	95.84	87.51	79.18	70.85
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	8.68	8.32	7.60	6.87	6.15
	Rep Schedule		12 equal insta	allments w.e.f.	07.12.2010	
	·					
4	Bond XXIV					
	Gross loan opening	100.00	100.00	100.00	100.00	100.00
	Cumulative Repayment upto	0.00	0.00	8.33	16.67	25.00
	DOCO/previous year					
	Net Loan-Opening	100.00	100.00	91.67	83.33	75.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	8.33	8.33	8.33	8.33
	Net Loan-Closing	100.00	91.67	83.33	75.00	66.67
	Average Loan	100.00	95.83	87.50	79.17	70.83
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	9.95	9.54	8.71	7.88	7.05
	Rep Schedule		12 equal insta	allments w.e.f.	26.03.2011	
5	Bond XXVII					
	Gross loan opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	83.33	166.67
	Net Loan-Opening	1000.00	1000.00	1000.00	916.67	833.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	83.33	83.33	83.33
	Net Loan-Closing	1000.00	1000.00	916.67	833.33	750.00
	Average Loan	1000.00	1000.00	958.33	875.00	791.67
	Rate of Interest	9.47%	9.47%	9.47%	9.47%	9.47%
	Interest	94.70	94.70	90.75	82.86	74.97
	Rep Schedule			allments w.e.f.		
	•					
6	Bond XXVIII					
	Gross loan opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative Repayment upto	0.00	0.00	0.00	0.00	83.33
	DOCO/previous year					
	Net Loan-Opening	1000.00	1000.00	1000.00	1000.00	916.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	83.33	83.33
	Net Loan-Closing	1000.00	1000.00	1000.00	916.67	833.33
	Average Loan	1000.00	1000.00	1000.00	958.33	875.00
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	93.30	93.30	93.30	89.41	81.64



	Rep Schedule		12 equal installments w.e.f. 15.12.2012				
7	Bond XXIX						
	Gross loan opening	486.00	486.00	486.00	486.00	486.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	40.50	
	Net Loan-Opening	486.00	486.00	486.00	486.00	445.50	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	40.50	40.50	
	Net Loan-Closing	486.00	486.00	486.00	445.50	405.00	
	Average Loan	486.00	486.00	486.00	465.75	425.25	
	Rate of Interest	9.20%	9.20%	9.20%	9.20%	9.20%	
	Interest	44.71	44.71	44.71	42.85	39.12	
	Rep Schedule		12 equal inst	allments w.e.f.	12.03.2013		
8	Bond XXX						
	Gross loan opening	175.00	175.00	175.00	175.00	175.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00	
	Net Loan-Opening	175.00	175.00	175.00	175.00	175.00	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	0.00	0.00	0.00	14.58	
	Net Loan-Closing	175.00	175.00	175.00	175.00	160.42	
	Average Loan	175.00	175.00	175.00	175.00	167.71	
	Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%	
	Interest	15.40	15.40	15.40	15.40	14.76	
	Rep Schedule		12 equal inst	allments w.e.f.	29.09.2013		
	Total Loan						
	Gross loan opening	3061.00	3061.00	3061.00	3061.00	3061.00	
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	33.33	149.99	390.48	
	Net Loan-Opening	3061.00	3061.00	3027.67	2911.01	2670.52	
	Additions during the year	0.00	0.00	0.00	0.00	0.00	
	Repayment during the year	0.00	33.33	116.66	240.49	255.08	
	Net Loan-Closing	3061.00	3027.67	2911.01	2670.52	2415.44	
	Average Loan	3061.00	3044.34	2969.34	2790.77	2542.98	
	Rate of Interest	9.2911%	9.2923%	9.2923%	9.2897%	9.2882%	
	Interest	284.40	282.89	275.92	259.26	236.20	

