

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 136/2010

Coram:-

**Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member**

Date of Order: 10.2.2014

In the matter of

Revision of the Commission's order dated 11.1.2012 in Petition No. 136/2010 consequent to order dated 9.5.2013 in Petition No. 7/RP/2012.

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, Government of Goa, Panaji
 6. Electricity Department, Government 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, Mangalore
 15. Chamundeswari Electricity Supply Company Ltd., Mysore
-Respondents**



ORDER

The petitioner, Power Grid Corporation of India (PGCIL) filed Petition No. 136/2010 seeking approval of transmission tariff for (a) LILO of Ramagundam - Khammam T/L at Warangal Sub-station (b) 2x315 MVA Auto Transformer & 400/220 kV Bays Equipment at Warangal Sub-station (c) Combined assets of LILO of Ramagundam – Khammam TL and Neyveli - Pugalur –Madurai 400 kV DC TL and (d) 2x315 MVA Auto Transformer & 400/220 kV Bays Equipment at Pugalur (hereinafter "transmission assets") under Transmission System associated with Neyveli Lignite Corporation–II (NLC-II) Expansion Project in Southern Region for tariff block 2009-14 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as "the 2009 Tariff Regulations"). The transmission tariff for the subject assets was approved by the Commission vide order dated 11.1.2012 in Petition No.136/2010.

2. The Commission disallowed IDC and IEDC for 6 months in case of Asset 1 and Asset 2 and 7 months in case of Asset 3 and Asset 4 because of the time over-run. The relevant extract of the order is as under:-

"14. As regards the cost overrun, it is observed that the project was due for commissioning in January 2008 i.e. 35 months from date of Investment Approval dated 11.1.2005. Against this, Asset 1 and Asset 2 were commissioned on 1.8.2009 and Asset 3 and Asset 4 were commissioned on 1.9.2009. Accordingly, there is a delay of 20 months for Asset-1 and Asset-2 and 21 months for Asset-3 and Asset-4. The petitioner has submitted that during the coordination meeting with NLC in December 2006, the NLC had indicated the revised schedule of the commissioning of the first unit of the generation project as February 2009 as against March 2008, as indicated earlier. Accordingly, the petitioner rescheduled its implementation activities so as to commission its transmission lines matching with the commissioning of the generation project in February 2009. The petitioner has signed an Indemnification Agreement with NLC with Zero date as February 2009. Subsequently, a modification to the Indemnification Agreement was signed with

NLC specifying that in case of delay, the actual date of the commissioning of generating unit or associated transmission system whichever is commissioned earlier after the original zero date shall be considered as the revised zero date. For the period from January 2008 till February 2009, the delay cannot be attributable to the petitioner as the date of commissioning was extended till February 2009 after consultation with NLC to match with the commissioning of the generating station. The petitioner was expected to commission the assets by zero date i.e. February 2009. However, Asset 1 and 2 were commissioned on 1.8.2009 and Asset 3 and 4 were commissioned on 1.9.2009. There has been a delay of 6 months in the case of Asset 1 and 2 and 7 months in the case of Asset 3 and 4. Accordingly, IDC and IEDC for 6 months in case of Assets 1 and 2 and 7 months in case of Assets 3 and 4 are not allowed. The petitioner is at liberty to claim the loss on account of disallowance of IDC and IEDC from NLC in accordance with the Indemnification Agreement.

15. Based on the above, IDC and IEDC have been deducted for six months upto 31.7.2009 for Asset-1 and Asset-2 and upto 31.8.2009 for Asset- 3 and Asset-4. As per Investment approval dated 11.1.2005, project ought to have been completed within 35 months. As noted above, there is a delay of 20 months for Asset-1 and Asset-2 and 21 months for Asset-3 and Asset-4. Thus total Construction period for Asset-1 and Asset-2 is 55 months i.e. (35+20) months and for Asset-3 and Asset-4 it is 56 months i.e. (35+21) months."

3. Details of the IDC and IEDC disallowed in the said order are as under:-

(₹ in lakh)								
Detail of IDC and IEDC as per CA Certificate dated 2.11.2009								
Particulars	Asset-1		Asset-2		Asset-3		Asset-4	
	IDC	IEDC	IDC	IEDC	IDC	IEDC	IDC	IEDC
up to 31.3.2009	358.58	255.62	389.38	297.53	4197.67	3151.16	418.81	308.18
From April 2009 to July 2009/ August 09	38.07	49.52	45.31	20.53	686.97	308.68	80.43	51.10
Total IDC and IEDC Claimed	396.65	305.14	434.69	318.06	4884.64	3459.84	499.24	359.28
Detail of IDC and IEDC Disallowed for 6/7 months								
From February to March 2009	14.06	10.02	15.27	11.67	164.61	123.58	16.42	12.09
From April to July 2009/ August 2009 (for 4/5 months)	38.07	49.52	45.31	20.53	686.97	308.68	80.43	51.10
Total Disallowed IDC and IEDC (for 12 months)	52.13	59.54	60.58	32.20	851.58	432.26	96.85	63.19

4. Aggrieved by the said order, the petitioner filed Review Petition No. 7/RP/2012 seeking review of the Commission's order dated 11.1.2012 in Petition No.136/2010. The Commission, vide order dated 9.5.2013 in Petition No.7/RP/2012, while partially allowing the petitioner's prayer condoned the time over-run of 6 months in case of Asset 1&2 and accordingly, the IDC and IEDC for the period of 6 months is allowed to be capitalized. However, the petitioner's prayer seeking review of the Commission's order of not condoning the delay of 7 months in case of Asset 3&4 was rejected. The relevant extract of order is as under:-

"17. We consider the second issue of disallowance of IDC and IEDC for 6 and 7 months in case of Assets 1 & 2 and Assets 3 & 4 respectively. It is an admitted fact that all the four assets were scheduled to be commissioned in January 2008. However, the assets were commissioned only 1.8.2009 and 1.9.2009. The delay from January 2008 to February 2009 was condoned as PGCIL had rescheduled the commissioning of the transmission lines to February 2009 to match with the revised commissioning schedule of NLC, which was also discussed and agreed upon by the beneficiaries in the SRPC meetings. The delays beyond February 2009, i.e. 6 months in the case of Asset 1 and 2 and 7 months in the case of Asset 3 and 4 were not condoned and accordingly, IDC and IEDC were not allowed for the said period. It has been brought to our notice that PGCIL had submitted in the original petition (Petition No.136/2010) that APTRANSCO in the 9th and 10th SRPC meetings informed that Warangal Sub-station along with LILO of Ramagundam- Khammam line would be ready by July 2009 and accordingly Assets 1 & 2 were commissioned on 1.8.2009. This aspect was overlooked while passing the impugned order. Since PGCIL had delayed the commissioning of Assets 1 & 2 to match the APTRANSCO downstream assets, we are of the view that the delay cannot be attributed to PGCIL. Accordingly, IDC & IEDC for the period from 1.2.2009 to 31.7.2009 are allowed to be capitalised. The impugned order stands corrected to that extent.

18. As regards Assets 3 & 4, IDC & IEDC was not allowed from 1.2.2009 to 31.8.2009. PGCIL has submitted, in Petition No.136/2010, that commissioning of Assets 3 & 4 was discussed and agreed in the 9th SRPC meeting held on 6.3.2009 and accordingly the assets were commissioned on 1.9.2009. PGCIL has also filed a copy of the minutes of the 9th SRPC meeting. It is observed that though the document shows that the Committee agreed for commissioning of the said assets, it does not state when the assets are to be commissioned. During the hearing of the instant Review Petition on 22.11.2012, PGCIL has submitted that commissioning of Assets 3 & 4 was delayed due to litigation and due to the work related to increasing the height of the towers as per the directions of the Hon'ble Supreme Court. These reasons for delay were not submitted by

PGCIL in the original petition. Moreover, these were not even mentioned in the instant review petition. This contention of delay due to litigation has been raised only during the hearing of the review petition. PGCIL was in the knowledge of the reasons for delay in commissioning of Assets 3 & 4 at the time of filing the original petition and it has failed to furnish those details at that point of time. It appears that PGCIL was not diligent in pursuing the matter. We are of the view that PGCIL cannot be allowed to bring in new facts in the instant Review Petition. As such PGCIL's prayer to allow IDC and IEDC and its capitalisation in the case of Assets 3 & 4 is rejected."

5. Further, the total time over run of 20 months in case of Asset 1&2 has been revised to 19 months and in case of Asset 3&4 it has been reduced from 21 months to 20 months, vide order dated 9.5.2013 in Petition No. 136/2010. The relevant extract the said order is as under:-

"16. As regards the first issue of time over-run, it is noted that the Investment Approval for the project was granted on 11.1.2005 and the time schedule was 35 months from the date of Investment Approval. Accordingly, the date of scheduled commissioning of the assets work out to 11.12.2007. Assets 1 & 2 were commissioned on 1.8.2009 and Assets 3 & 4 were commissioned 1.9.2009 and thus there was a delay of 19 months and 20 months in commissioning Assets 1 & 2 and Assets 3 & 4 respectively and not 20 and 21 months as held in the impugned order. This is an error apparent on the face of record and this inadvertent error is corrected. The impugned order stands corrected accordingly."

6. Accordingly, the IDC and IEDC disallowed for 7 months in case of Assets 3&4 shall not be capitalized. However, the amount of IDC & IEDC disallowed would undergo change on account of change in the total completion period. Consequently, the revised IDC & IEDC disallowed in case of Assets 3&4 is as follows:-

Particulars	Asset-3		Asset-4	
	IDC	IEDC	IDC	IEDC
Up to March 2009	4197.67	3151.16	418.81	308.18
From April to August 2009	686.97	308.68	80.43	51.10
Total IDC and IEDC claimed	4884.64	3459.84	499.24	359.28
IDC and IEDC disallowed for 7 months				
From February to March 2009 (2 months)	167.91	126.05	16.75	12.33
From April 2009 to August 2009 (for 5 months)	686.97	308.68	80.43	51.10
Total disallowed IDC and IEDC (for 7 months)	854.88	434.73	97.18	63.43

7. The disallowed IDC and IEDC have been deducted proportionately from the capital cost of the elements (excluding land) of the respective assets as on the date of commercial operation. Accordingly, the capital cost as on the date of commercial operation has been revised to ₹3900.21 lakh, ₹4453.91 lakh, ₹46903.41 lakh (₹ 3900.21 lakh for Asset 1 and ₹43,003.20 lakh for Asset-3) and ₹4086.20 lakh for Asset-1, Asset 2 and Combined Asset-1&3 and Asset-4 respectively and has been considered for the purpose of revising the tariff. The debt-equity ratio, return on equity, interest on loan, depreciation, interest on loan and transmission charges of the subject transmission assets allowed in order dated 11.1.2012 in Petition No.136/2010 are revised in terms of Commission's order dated 9.5.2013 in Petition No. 7/RP/2012.

Debt-equity ratio

8. The debt-equity in respect of the transmission assets as on the date of commercial operation as allowed in Paragraph No.24 of the said order is revised as per details given overleaf:-

(₹ in lakh)

	Capital cost as on date of commercial operation	
	Asset - 1	
Particulars	Amount	%
Debt	2730.15	70.00
Equity	1170.06	30.00
Total	3900.21	100.00
	Asset - 2	
Particulars	Amount	%
Debt	3117.74	70.00
Equity	1336.17	30.00
Total	4453.91	100.00

(₹ in lakh)

	Combined Asset 1 & 3	
Particulars	Amount	%
Debt	32833.15	70.00
Equity	14070.25	30.00
Total	46903.41	100.00
	Asset-4	
Particular	Amount	%
Debt	2860.34	70.00
Equity	1225.86	30.00
Total	4086.20	100.00

9. The debt-equity ratio of the subject assets as on 31.3.2014 are as under:-

(₹ in lakh)

	Capital cost as on 31.3.2014	
	Asset - 2	
Particulars	Amount	%
Debt	3279.96	70.00
Equity	1405.70	30.00
Total	4685.66	100.00
	Combined Asset 1&3	
Particulars	Amount	%
Debt	34984.46	70.00
Equity	14992.24	30.00
Total	49976.71	100.00
	Asset-4	
Particulars	Amount	%
Debt	3097.87	70.00
Equity	1327.66	30.00
Total	4425.53	100.00

Return on equity

10. The return on equity as allowed in Paragraph No.29 of the said order is revised as under:-

(₹ in lakh)

Asset - 1	
Particulars	2009-10 (pro-rata)
Opening equity	1170.06
Addition due to additional capital expenditure	94.53
Closing equity	1264.59
Average equity	1217.33
Return on equity (Base Rate)	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%
Rate of return on equity (Pre-tax)	17.481%
Return on equity (Pre-tax)	141.87

(₹ in lakh)

Asset - 2					
Particulars	2019-10	2010-11	2011-12	2012-13	2013-14
Opening equity	1336.17	1370.03	1398.05	1405.70	1405.70
Addition due to additional capital expenditure	33.86	28.02	7.65	0.00	0.00
Closing equity	1370.03	1398.05	1405.70	1405.70	1405.70
Average equity	1353.10	1384.04	1401.87	1405.70	1405.70
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)	157.69	241.94	245.06	245.73	245.73

(₹ in lakh)

Combined Asset - 1&3					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening equity	14070.25	14752.17	14939.71	14992.24	14992.24
Addition due to additional capital expenditure	681.91	187.55	52.53	0.00	0.00
Closing equity	14752.17	14939.71	14992.24	14992.24	14992.24
Average equity	14411.21	14845.94	14965.98	14992.24	14992.24
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%	11.33%
Rate of return on equity (Pre-tax)	17.481%	17.481%	17.481%	17.481%	17.481%
Return on equity (Pre-tax)	1469.55	2595.22	2616.20	2620.79	2620.79

(₹ in lakh)

Combined Asset - 4					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening equity	1225.86	1298.42	1323.41	1327.66	1327.66
Addition due to additional capital expenditure	72.56	25.00	4.25	0.00	0.00
Closing equity	1298.42	1323.41	1327.66	1327.66	1327.66
Average equity	1262.14	1310.91	1325.54	1327.66	1327.66
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)	128.70	229.16	231.72	232.09	232.09

Interest on loan

11. The revised weighted average rate of interest is given in Annexure 1 to 4 of this order. The interest on loan as allowed in Paragraph No.33 of the said order is revised as under:-

(₹ in lakh)

Asset - 1	
Particulars	2009-10 (pro-rata)
Gross normative loan	2730.15
Cumulative repayment upto previous year	0.00
Net loan-opening	2730.15
Addition due to additional capital expenditure	220.56
Repayment during the year	134.18
Net loan-closing	2816.53
Average loan	2773.34
Weighted average rate of interest on loan	4.5047%
Interest	83.29



(₹ in lakh)

Asset - 2					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross normative loan	3117.74	3196.73	3262.11	3279.96	3279.96
Cumulative repayment upto previous year	0.00	155.64	393.12	632.67	872.65
Net loan-opening	3117.74	3041.09	2868.99	2647.29	2407.32
Addition due to additional capital expenditure	79.00	65.38	17.85	0.00	0.00
Repayment during the year	155.64	237.48	239.55	239.98	239.98
Net loan-closing	3041.09	2868.99	2647.29	2407.32	2167.34
Average loan	3079.41	2955.04	2758.14	2527.30	2287.33
Weighted average rate of interest on loan	4.6179%	4.5934%	4.5211%	4.4455%	4.3660%
Interest	94.80	135.74	124.70	112.35	99.86

(₹ in lakh)

Combined Asset - 1 & 3					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross normative loan	32833.15	34424.28	34861.89	34984.46	34984.46
Cumulative repayment upto previous year	16.30	1483.27	4071.16	6678.14	9289.15
Net loan-opening	32816.85	32941.01	30790.73	28306.32	25695.31
Addition due to additional capital expenditure	1591.13	437.61	122.57	0.00	0.00
Repayment during the year	1466.97	2587.89	2606.99	2611.00	2611.00
Net loan-closing	32941.01	30790.73	28306.32	25695.31	23084.31
Average loan	32878.93	31865.87	29548.53	27000.82	24389.81
Weighted average rate of interest on loan	4.6247%	4.6408%	4.6126%	4.5416%	4.4676%
Interest	886.98	1478.82	1362.95	1226.26	1089.63

(₹ in lakh)

Asset - 4					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross normative loan	2860.34	3029.64	3087.97	3097.87	3097.87
Cumulative repayment upto previous year	0.00	129.69	360.60	594.09	827.96
Net loan-opening	2860.34	2899.95	2727.37	2503.78	2269.91
Addition due to additional capital expenditure	169.30	58.33	9.91	0.00	0.00
Repayment during the year	129.69	230.91	233.49	233.87	233.87
Net loan-closing	2899.95	2727.37	2503.78	2269.91	2036.04
Average loan	2880.14	2813.66	2615.57	2386.84	2152.98
Weighted average rate of interest on loan	5.2119%	5.2521%	5.2408%	5.1584%	5.0728%
Interest	87.56	147.78	137.08	123.12	109.22

Depreciation

12. The depreciation allowed in Paragraph No.37 of the said order is revised as under:-

(₹ in lakh)

Asset – 1	
Particulars	2009-10 (pro-rata)
Opening gross block	3900.21
Addition during 2009-14 due to projected additional capital expenditure	315.09
Closing gross block	4215.30
Average gross block	4057.76
Rate of depreciation	4.9601%
Depreciable value (up to 90%)	3564.60
Remaining depreciable value	3564.60
Depreciation	134.18

(₹ in lakh)

Asset - 2					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening gross block	4453.91	4566.76	4660.16	4685.66	4685.66
Addition during 2009-14 due to projected additional capital expenditure	112.85	93.40	25.50	0.00	0.00
Closing gross block	4566.76	4660.16	4685.66	4685.66	4685.66
Average gross block	4510.34	4613.46	4672.91	4685.66	4685.66
Rate of depreciation	5.1762%	5.1474%	5.1264%	5.1215%	5.1215%
Depreciable value (up to 90%)	4021.85	4113.91	4167.41	4178.89	4178.89
Remaining depreciable value	4021.85	3958.27	3774.29	3546.22	3306.24
Depreciation	155.64	237.48	239.55	239.98	239.98

(₹ in lakh)

Combined Asset - 1 & 3					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening gross block	46903.41	49176.45	49801.61	49976.71	49976.71
Addition during 2009-14 due to projected additional capital expenditure	2273.04	625.16	175.10	0.00	0.00
Closing gross block	49176.45	49801.61	49976.71	49976.71	49976.71
Average gross block	48039.93	49489.03	49889.16	49976.71	49976.71
Rate of depreciation	5.2348%	5.2292%	5.2256%	5.2244%	5.2244%
Depreciable value (up to 90%)	43117.32	44419.74	44779.86	44858.65	44858.65
Remaining depreciable value	43101.02	42936.47	40708.70	38180.51	35569.51
Depreciation	1466.97	2587.89	2606.99	2611.00	2611.00

(₹ in lakh)

Combined Asset - 4					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening gross block	4086.20	4328.05	4411.38	4425.53	4425.53
Addition during 2009-14 due to projected additional capital expenditure	241.85	83.33	14.15	0.00	0.00
Closing gross block	4328.05	4411.38	4425.53	4425.53	4425.53
Average gross block	4207.13	4369.72	4418.46	4425.53	4425.53
Rate of depreciation	5.2844%	5.2844%	5.2845%	5.2845%	5.2845%
Depreciable value (up to 90%)	3786.41	3932.74	3976.61	3982.98	3982.98
Remaining depreciable value	3786.41	3803.06	3616.01	3388.88	3155.02
Depreciation	129.69	230.91	233.49	233.87	233.87

Interest on working capital

13. The interest on working capital allowed in Paragraph No.43 of the said order is revised as under:-

(₹ in lakh)

Asset - 1		
Particulars	2009-10 (pro-rata)	2009-10 (August 2009)
Maintenance Spares	17.03	2.13
O & M expenses	9.46	1.18
Receivables	111.57	13.95
Total	138.07	17.26
Interest	11.28	1.41

(₹ in lakh)

Combined Asset - 2					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	161.02	164.77	167.22	168.93	170.65
Total	236.82	244.92	251.95	258.51	265.35
Interest	19.34	30.00	30.86	31.67	32.51

(₹ in lakh)

Combined Asset - 1 & 3					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	94.53	99.95	105.67	111.71	118.08
O & M expenses	52.52	55.53	58.71	62.06	65.60
Receivables	1225.49	1250.07	1243.85	1229.11	1213.29
Total	1,372.54	1,405.55	1,408.23	1,402.88	1,396.97
Interest	98.08	172.18	172.51	171.85	171.13

(₹ in lakh)

Combined Asset - 4					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	48.73	51.52	54.47	57.58	60.88
O & M expenses	27.07	28.62	30.26	31.99	33.82
Receivables	157.76	163.53	166.02	167.41	168.88
Total	233.56	243.68	250.76	256.98	263.58
Interest	16.69	29.85	30.72	31.48	32.29

Transmission charges

14. The transmission charges as allowed in Paragraph No.44 of the said order is revised as under:-

(₹ in lakh)

Asset - 1		
Particulars	2009-10 (pro-rata)	2009-10 (August 2009)
Depreciation	134.18	16.77
Interest on loan	83.29	10.41
Return on equity	141.87	17.73
Interest on working capital	11.28	1.41
O & M expenses	75.69	9.46
Total	446.30	55.79

(₹ in lakh)

Combined Asset - 2					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	155.64	237.48	239.55	239.98	239.98
Interest on loan	94.80	135.74	124.70	112.35	99.86
Return on equity	157.69	241.94	245.06	245.73	245.73
Interest on working capital	19.34	30.00	30.86	31.67	32.51
O & M expenses	216.59	343.48	363.14	383.88	405.84
Total	644.07	988.64	1003.31	1013.61	1023.92

(₹ in lakh)

Combined Asset - 1 & 3					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1466.97	2587.89	2606.99	2611.00	2611.00
Interest on loan	886.98	1478.82	1362.95	1226.26	1089.63
Return on equity	1469.55	2595.22	2616.20	2620.79	2620.79
Interest on working capital	98.08	172.18	172.51	171.85	171.13
O & M expenses	367.63	666.33	704.48	744.75	787.20
Total	4289.20	7500.44	7463.13	7374.66	7279.76

(₹ in lakh)

Combined Asset - 4					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	129.69	230.91	233.49	233.87	233.87
Interest on loan	87.56	147.78	137.08	123.12	109.22
Return on equity	128.70	229.16	231.72	232.09	232.09
Interest on working capital	16.69	29.85	30.72	31.48	32.29
O & M expenses	189.51	343.48	363.14	383.88	405.84
Total	552.15	981.18	996.15	1004.44	1013.30

15. All other terms contained in order dated 11.1.2012 in Petition No. 136/2010 remains unaltered.

Sd/-

(M. Deena Dayalan)
Member

Sd/-

(V.S. Verma)
Member

Annexure 1**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN
Asset-I****(₹ in lakh)**

	Details of Loan	2009-10
1	ADB III (Exchange Rate @ 48.77)	
	Gross loan opening	1950.80
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1950.80
	Additions during the year	0.00
	Repayment during the year	29.46
	Net Loan-Closing	1921.34
	Average Loan	1936.07
	Rate of Interest	2.715%
	Interest	52.56
	Rep Schedule	30 Half Yearly Installments from 15.01.2010
2	Bond XXII	
	Gross loan opening	200.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.68%
	Interest	17.36
	Rep Schedule	12 annual Instalments from 07.12.2010
3	Bond XXI	
	Gross loan opening	400.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	400.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	400.00
	Average Loan	400.00
	Rate of Interest	8.73%
	Interest	34.92
	Rep Schedule	12 annual Instalments from 11.10.2010
4	Bond XIX	
	Gross loan opening	50.00

	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	50.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	50.00
	Average Loan	50.00
	Rate of Interest	9.25%
	Interest	4.63
	Rep Schedule	12 annual Instalments from 24.07.2010
5	Bond XXIV	
	Gross loan opening	129.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	129.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	129.00
	Average Loan	129.00
	Rate of Interest	9.95%
	Interest	12.84
	Rep Schedule	12 annual Instalments from 26.03.2011
	Total Loan	
	Gross loan opening	2729.80
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	2729.80
	Additions during the year	0.00
	Repayment during the year	29.46
	Net Loan-Closing	2700.34
	Average Loan	2715.07
	Rate of Interest	4.5047%
	Interest	122.30

Annexure 2**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN
Asset-II****(₹ in lakh)**

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	ADB - III					
	Gross loan opening	2194.65	2194.65	2194.65	2194.65	2194.65
	Cumulative Repayment upto DOCO/previous year	0.00	33.14	104.25	182.59	269.06
	Net Loan-Opening	2194.65	2161.51	2090.40	2012.06	1925.59
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	33.14	71.11	78.35	86.47	95.25
	Net Loan-Closing	2161.51	2090.40	2012.06	1925.59	1830.34
	Average Loan	2178.08	2125.96	2051.23	1968.82	1877.96
	Rate of Interest	2.715%	2.715%	2.715%	2.715%	2.715%
	Interest	59.13	57.72	55.69	53.45	50.99
	Rep Schedule	30 Half Yearly Installments from 15.01.2010				
2	Bond XXII					
	Gross loan opening	200.00	200.00	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67	33.33	50.00
	Net Loan-Opening	200.00	200.00	183.33	166.67	150.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	16.67	16.67	16.67	16.67
	Net Loan-Closing	200.00	183.33	166.67	150.00	133.33
	Average Loan	200.00	191.67	175.00	158.33	141.67
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	17.36	16.64	15.19	13.74	12.30
	Rep Schedule	12 Annual Installments from 07.12.2010				
3	Bond XXI					
	Gross loan opening	400.00	400.00	400.00	400.00	400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	33.33	66.67	100.00
	Net Loan-Opening	400.00	400.00	366.67	333.33	300.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	33.33	33.33	33.33	33.33
	Net Loan-Closing	400.00	366.67	333.33	300.00	266.67
	Average Loan	400.00	383.33	350.00	316.67	283.33
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	34.92	33.47	30.56	27.65	24.74
	Rep Schedule	12 annual Instalments from 11.10.2010				
4	Bond-XIX					
	Gross loan opening	50.00	50.00	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	4.17	8.33	12.50
	Net Loan-Opening	50.00	50.00	45.83	41.67	37.50

Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	4.17	4.17	4.17	4.17
Net Loan-Closing	50.00	45.83	41.67	37.50	33.33
Average Loan	50.00	47.92	43.75	39.58	35.42
Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
Interest	4.63	4.43	4.05	3.66	3.28
Rep Schedule	12 Annual Installments from 24.07.2010				
5 Bond XXIV					
Gross loan opening	273.00	273.00	273.00	273.00	273.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	22.75	45.50	68.25
Net Loan-Opening	273.00	273.00	250.25	227.50	204.75
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	22.75	22.75	22.75	22.75
Net Loan-Closing	273.00	250.25	227.50	204.75	182.00
Average Loan	273.00	261.63	238.88	216.13	193.38
Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
Interest	27.16	26.03	23.77	21.50	19.24
Rep Schedule	12 annual Instalments from 26.03.2011				
Total Loan					
Gross loan opening	3117.65	3117.65	3117.65	3117.65	3117.65
Cumulative Repayment upto DOCO/previous year	0.00	33.14	181.16	336.43	499.81
Net Loan-Opening	3117.65	3084.51	2936.49	2781.22	2617.84
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	33.14	148.02	155.27	163.39	172.16
Net Loan-Closing	3084.51	2936.49	2781.22	2617.84	2445.67
Average Loan	3101.08	3010.50	2858.85	2699.53	2531.75
Rate of Interest	4.6179%	4.5934%	4.5211%	4.4455%	4.3660%
Interest	143.20	138.29	129.25	120.01	110.54

Annexure 3

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN Combined Asset 1 & 3

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	ADB III (Exchange Rate @ 48.77)					
	Gross loan opening	1950.80	1950.80	1950.80	1950.80	1950.80
	Cumulative Repayment upto DOCO/previous year	0.00	29.46	92.66	162.31	239.17
	Net Loan-Opening	1950.80	1921.34	1858.14	1788.49	1711.63
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	29.46	63.21	69.64	76.86	84.66
	Net Loan-Closing	1921.34	1858.14	1788.49	1711.63	1626.97
	Average Loan	1936.07	1889.74	1823.32	1750.06	1669.30
	Rate of Interest	2.715%	2.715%	2.715%	2.715%	2.715%
	Interest	52.56	51.31	49.50	47.51	45.32
	Rep Schedule	30 Half Yearly Installments from 15.01.2010				
2	ABD III (Exchange Rate @ 49.29)					
	Gross loan opening	22426.95	22426.95	22426.95	22426.95	22426.95
	Cumulative Repayment upto DOCO/previous year	0.00	338.65	1065.28	1865.92	2749.54
	Net Loan-Opening	22426.95	22088.30	21361.67	20561.03	19677.41
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	338.65	726.63	800.64	883.62	973.33
	Net Loan-Closing	22088.30	21361.67	20561.03	19677.41	18704.08
	Average Loan	22257.63	21724.99	20961.35	20119.22	19190.74
	Rate of Interest	2.715%	2.715%	2.715%	2.715%	2.715%
	Interest	604.29	589.83	569.10	546.24	521.03
	Rep Schedule	30 Half Yearly Installments from 15.01.2010				
3	Bond XXII					
	Gross loan opening	1400.00	1400.00	1400.00	1400.00	1400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	116.67	233.33	350.00
	Net Loan-Opening	1400.00	1400.00	1283.33	1166.67	1050.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	116.67	116.67	116.67	116.67
	Net Loan-Closing	1400.00	1283.33	1166.67	1050.00	933.33
	Average Loan	1400.00	1341.67	1225.00	1108.33	991.67
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	121.52	116.46	106.33	96.20	86.08
	Rep Schedule	12 annual Instalments from 07.12.2010				
4	Bond XXVI					
	Gross loan opening	2200.00	2200.00	2200.00	2200.00	2200.00
	Cumulative Repayment upto	0.00	0.00	0.00	183.33	366.67

	DOCO/previous year					
	Net Loan-Opening	2200.00	2200.00	2200.00	2016.67	1833.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	183.33	183.33	183.33
	Net Loan-Closing	2200.00	2200.00	2016.67	1833.33	1650.00
	Average Loan	2200.00	2200.00	2108.33	1925.00	1741.67
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	204.60	204.60	196.08	179.03	161.98
	Rep Schedule	12 annual Instalments from 07.03.2012				
5	Bond XXI					
	Gross loan opening	500.00	500.00	500.00	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	41.67	83.33	125.00
	Net Loan-Opening	500.00	500.00	458.33	416.67	375.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	41.67	41.67	41.67	41.67
	Net Loan-Closing	500.00	458.33	416.67	375.00	333.33
	Average Loan	500.00	479.17	437.50	395.83	354.17
	Rate of Interest	8.73%	8.73%	8.73%	8.73%	8.73%
	Interest	43.65	41.83	38.19	34.56	30.92
	Rep Schedule	12 annual Instalments from 11.10.2010				
6	Bond XXV					
	Gross loan opening	4000.00	4000.00	4000.00	4000.00	4000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	333.33	666.67
	Net Loan-Opening	4000.00	4000.00	4000.00	3666.67	3333.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	333.33	333.33	333.33
	Net Loan-Closing	4000.00	4000.00	3666.67	3333.33	3000.00
	Average Loan	4000.00	4000.00	3833.33	3500.00	3166.67
	Rate of Interest	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	404.00	404.00	387.17	353.50	319.83
	Rep Schedule	12 annual Instalments from 12.06.2011				
7	Bond XXVIII					
	Gross loan opening	37.00	37.00	37.00	37.00	37.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	3.08
	Net Loan-Opening	37.00	37.00	37.00	37.00	33.92
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	3.08	3.08
	Net Loan-Closing	37.00	37.00	37.00	33.92	30.83
	Average Loan	37.00	37.00	37.00	35.46	32.38
	Rate of Interest	9.33%	9.33%	9.33%	9.33%	9.33%
	Interest	3.45	3.45	3.45	3.31	3.02
	Rep Schedule	12 equal installments w.e.f. 15.12.2012				
8	Bond XIX					
	Gross loan opening	400.00	400.00	400.00	400.00	400.00

	Cumulative Repayment upto DOCO/previous year	0.00	0.00	33.33	66.67	100.00
	Net Loan-Opening	400.00	400.00	366.67	333.33	300.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	33.33	33.33	33.33	33.33
	Net Loan-Closing	400.00	366.67	333.33	300.00	266.67
	Average Loan	400.00	383.33	350.00	316.67	283.33
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	37.00	35.46	32.38	29.29	26.21
	Rep Schedule	12 annual Instalments from 24.07.2010				
9	Bond XXIV					
	Gross loan opening	800.00	800.00	800.00	800.00	800.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	66.67	133.33	200.00
	Net Loan-Opening	800.00	800.00	733.33	666.67	600.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	66.67	66.67	66.67	66.67
	Net Loan-Closing	800.00	733.33	666.67	600.00	533.33
	Average Loan	800.00	766.67	700.00	633.33	566.67
	Rate of Interest	9.95%	9.95%	9.95%	9.95%	9.95%
	Interest	79.60	76.28	69.65	63.02	56.38
	Rep Schedule	12 annual Instalments from 26.03.2011				
	Total Loan					
	Gross loan opening	33714.75	33714.75	33714.75	33714.75	33714.75
	Cumulative Repayment upto DOCO/previous year	0.00	368.10	1416.28	3061.56	4800.13
	Net Loan-Opening	33714.75	33346.65	32298.47	30653.19	28914.62
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	368.10	1048.17	1645.29	1738.57	1836.08
	Net Loan-Closing	33346.65	32298.47	30653.19	28914.62	27078.54
	Average Loan	33530.70	32822.56	31475.83	29783.90	27996.58
	Rate of Interest	4.6247%	4.6408%	4.6126%	4.5416%	4.4676%
	Interest	1550.68	1523.22	1451.85	1352.65	1250.77

Annexure 4

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN
Asset-IV

(₹ in lakh)

	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	ADB - III					
	Gross loan opening	1972.59	1972.59	1972.59	1972.59	1972.59
	Cumulative Repayment upto DOCO/previous year	0.00	29.79	93.70	164.12	241.84
	Net Loan-Opening	1972.59	1942.80	1878.89	1808.47	1730.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	29.79	63.91	70.42	77.72	85.61
	Net Loan-Closing	1942.80	1878.89	1808.47	1730.75	1645.14
	Average Loan	1957.69	1910.84	1843.68	1769.61	1687.94
	Rate of Interest	2.715%	2.715%	2.715%	2.715%	2.715%
	Interest	53.15	51.88	50.06	48.04	45.83
	Rep Schedule	30 Half Yearly Installments from 15.01.2010				
2	Bond XXV					
	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	10.10%	10.10%	10.10%	10.10%	10.10%
	Interest	101.00	101.00	96.79	88.38	79.96
	Rep Schedule	12 annual Installments w.e.f. 12.06.2011				
	Total Loan					
	Gross loan opening	2972.59	2972.59	2972.59	2972.59	2972.59
	Cumulative Repayment upto DOCO/previous year	0.00	29.79	93.70	247.45	408.51
	Net Loan-Opening	2972.59	2942.80	2878.89	2725.13	2564.08
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	29.79	63.91	153.75	161.05	168.94
	Net Loan-Closing	2942.80	2878.89	2725.13	2564.08	2395.14
	Average Loan	2957.69	2910.84	2802.01	2644.61	2479.61
	Rate of Interest	5.2119%	5.2521%	5.2408%	5.1584%	5.0728%
	Interest	154.15	152.88	146.85	136.42	125.79