CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETITION NO.553/TT/2014

Coram:

Shri A.S. Bakshi, Member Dr. M. K. Iyer, Member

Date of Hearing: 20.01.2016 Date of Order : 28.03.2016

In the Matter of:

Truing up of transmission tariff for 2009-14 tariff block under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff block underCentral Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014for transmission assets under "Pallatana GBPP and Bongaigaon TPS Project" in North Eastern Regionunder Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the Matter of:

Power Grid Corporation of India Ltd, SAUDAMINI, Plot No.-2, Sector-29, Gurgaon-122001 (Haryana)

.....Petitioner

Versus

- Assam Electricity Grid Corporation Limited (Formerly Assam Electricity Board), Bijulee Bhawan, Paltan Bazar, Guwahati-781001
- Meghalaya Energy Corporation Limited (Formerly Known as Meghalaya State Electricity Board) Short Round Road, "Lumjingshai", Shillong – 793001, Meghalaya
- 3. Government of Arunachal Pradesh, Itanagar, Arunachal Pradesh
- 4. Power and Electricity Department, Government of Mizoram,



Aizawl, Mizoram

- Manipur Electricity Distribution Company Limited (Formerly Electricity Department, Government of Manipur), Keishampat, Imphal
- Department of Power, Government of Nagaland, Kohima, Nagaland
- Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W) – 799001, Tripura

....Respondent(s)

The following were present:

For Petitioner: Shri Rakesh Prasad, PGCIL Shri M.M. Mondal, PGCIL Shri S.S. Raju, PGCIL Shri S.K. Venkatasan, PGCIL Shri Nitish Kumar, PGCIL Shri G.C Dhal, PGCIL Shri Amit yadav, PGCIL Shri Jasbir Singh, PGCIL Shri Anshul Garg, PGCIL

For Respondents: None

<u>ORDER</u>

The petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the petitioner") for revision of tariff under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") based on truing up of capital expenditure from the date of commercial operation to 31.3.2014 and for determination of tariff under Central Electricity Regulations, 2014 (hereinafter referred to as "the 2014 Tariff



Regulations") for the period from 1.4.2014 to 31.3.2019 fortransmission assets under "Pallatana GBPP and Bongaigaon TPS Project" in North Eastern Region(hereinafter referred to as "the transmission asset").

2. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of North EasternRegion.

3. The brief facts of the case are as follows:-

a) The administrative approval for the transmission project was accorded by the Board of Directors of the petitioner's company vide C/CP/Pallatana-Bongaigaon dated 26.2.2010for₹214400 lakh, including IDC of ₹17835 lakh based on 3rdquarter, 2009 price level. However, the petitioner has submitted the RCE vide memorandum Reference No. C/CP/RCE:PB dated 29.1.2016 for ₹293288 lakh, including IDC of ₹38804 lakh in affidavit submitted on 19.1.2016The details of the assets covered in the instant petition and the date of commercial operations are given hereunder:

Asset	Name of the Asset	COD
1	1 No. 400kV Bay of Silchar-Bongaigaon(NETC) TL along with I No 63 MVAR Switchable Line Reactor at Silchar Sub-station (referred as " Asset 1 ")	1.11.2012
2	1 No. 400kV Bay of Silchar-Bongaigaon (NET C) TL along With 1 No. 63 MVAR Switchable Line Reactor at Silchar Sub-station(referred as " Asset 2 ")	1.12.2012
3	2 No. 400kV Bay of Silchar-Bongaigaon (NETC) TL along with 2 NO. 63 MVAR Line Reactor at 400kV Bongaigaon Sub-station(referred as " Asset 3 ")	1.4.2013
4	400 kV D/C Bongaigaon TPS- Bongaigaon Transmission Line along with associated bays at Bongaigaon Sub-station(referred as " Asset 4 ")	1.1.2013



	Combined Asset-1, 2,3, 4, 5, 6, 7, 8, 9, 10, 11 and 12	1.4.2013 (Notional)
12	80MVAR, 420kV Bus reactor at Bongaigaon along with associated bays(referred as "Asset 12")	1.11.2012
11	400kV D/C Pallatana-Surjamaninagar line (charges at 132kV) along with associated bays(referred as "Asset 11")	1.7.2012
10	200MVA, 400/132kV ICT-II at Silchar along with associated bays(referred as "Asset 10")	1.7.2012
9	132kV Silchar-Hailakandi TL upto LILO point of 132kV SIC Panchgram-Dullavcherra AEGCL line along with associated Bays(referred as " Asset 9 ")	1.7.2012
8	2 Nos. of 50 MVAR Switchable Line Reactors for 400 kV DIC Silchar-Palatana Transmission Line at Silchar(referred as " Asset 8 ")	1.7.2012
7	200 MVA, 400/132 kV ICT at Silchar Sub-station along with associated bays(referred as " Asset 7 ")	1.7.2012
6	132 kV DIC Silchar-Sirkona Transmission Line along with associated bays(referred as "Asset 6")	1.4.2012
5	132 kV DIC Silchar- Badarpur Transmission Line along with associated bays (referred as " Asset 5 ")	1.5.2012

b) As per the investment approval, the scheduled COD of the assets was1.1.2013. Accordingly, there was a delay of three month in COD of Asset-3.
While determination of tariff for 2009-14 tariff period in the order dated 18.2.2014 in Petition No. 216/TT/2012, thetime over of 3 month in case of Asset-3 was condoned.

c) The annual transmission charges for 2009-14 tariff periodsfor the transmission assetswere determined vide order dated 18.2.2014,22.2.2014 and 16.9.2014 in Petition Nos. 216/TT/2012,184/TT/2011 and 98/TT/2012 respectively based on admitted capital cost given as under:-



	(₹ in lakh)	
Asset	Capital cost approved as on COD as per order 216/TT/2012	Excess initial spares disallowed
Asset-1	865.02	19.90
Asset-2	737.13	11.74
Asset-3	1443.12	2.57
Asset	Capital cost approved as on COD as per order 184/TT/2011	Excess initial spares disallowed
Asset-4	1625.45	0.92
Asset-5	1404.70	0.23
Asset-6	2120.55	0.00
Asset-7	2252.25	0.00
Asset-8	2902.84	0.00
Asset	Capital cost approved as on COD as per order 98/TT/2012	Excess initial spares disallowed
Asset-9	1516.65	2.50
Asset-10	1995.45	0.00
Asset-11	8128.60	18.61
Asset-12	740.90	4.65

d) The debt:equity ratio is 70:30 as on COD for all the assets. The estimated additional capital expenditure approved was towards balance and retention payments and it is as follows:-

(₹ in lakh)							
Asset	Appor- tioned approved cost as per FR	Appor- tioned approved cost as per	Capital cost considered as on COD*	expenditure during 2009-14		Cost as on 31.3.2014	
		RCE		2012-13	2013-14		
Asset-1	1060.18	1471.54	865.02	150.00	45.16	1060.18	
Asset-2	1060.18	1258.98	737.13	85.40	159.22	981.75	
Asset-3	2434.81	2360.59	1443.12	0.00	347.79	1790.91	
Asset-4	2413.42	2574.72	1625.45	166.31	168.08	1959.84	
Asset-5	2300.26	2195.96	1404.70	185.73	221.43	1811.86	
Asset-6	3512.15	4439.53	2120.55	510.51	610.01	3241.07	
Asset-7	2301.62	3242.57	2252.25	49.37	0.00	2301.62	
Asset-8	4746.49	4642.36	2902.84	123.84	394.28	3420.96	
Asset-9	1758.12	3911.76	1516.65	241.47	0.00	1758.12	
Asset-10	2429.64	2613.83	1995.45	100.00	104.55	2200.00	
Asset-11	8128.60	10937.02	8128.60	0.00	0.00	8128.60	
Asset-12	740.90	1433.01	740.90	0.00	0.00	740.90	

*Capital cost after adjusting the disallowed excess initial spares.



e) The annual fixed charges were determined in orders dated 18.2.2014,22.2.2014 and 16.9.2014 in Petition Nos. 216/TT/2012,184/TT/2011 and 98/TT/2012 basedthe above capital cost and estimated additional capital expenditure for the instant transmission assets during 2009-14 as given below:-

		(₹ in lakh)			
Asse	Ass	et-2	Asset-3		
Particulars	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)
Depreciation	20.87	55.53	13.74	47.74	85.78
Interest on Loan	24.16	60.69	15.94	52.69	100.27
Return on Equity	20.54	54.41	13.63	47.31	84.80
Interest on Working Capital	4.36	11.16	3.28	10.63	20.23
O & M Expenses	51.60	130.92	41.28	130.92	261.84
Total	121.53	312.71	87.87	289.30	552.91

		(₹ in la	akh)			
Asset-4	Asset-4					et-6
Particulars	2012-13 (pro-rata)	2013- 14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation	22.60	99.24	72.64	89.85	103.96	132.69
Interest on Loan	27.70	116.04	87.63	101.38	153.09	179.11
Return on Equity	22.40	98.37	71.99	89.21	124.59	153.98
Interest on Working Capital	3.42	14.59	11.93	14.04	15.65	17.98
O & M Expenses	31.55	133.42	119.12	137.37	124.22	131.32
Total	107.67	461.65	363.31	431.85	521.52	615.08
		(₹ in la	akh)		•	

Asset-7	Asset-8		Asset-9			
Particulars	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation	89.65	120.84	118.06	171.22	64.94	92.96
Interest on Loan	105.92	133.21	138.12	187.51	77.95	103.82
Return on Equity	89.56	120.70	116.61	169.07	64.40	92.20
Interest on Working Capital	10.41	14.05	23.97	33.85	7.47	10.45
O & M Expenses	69.66	98.16	278.64	392.76	48.83	68.82
Total	365.20	486.95	675.41	954.40	263.59	368.25



(₹ in lakh)							
Asset-1	0		Asset-11		Asset-12		
Particulars	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14	
Depreciation	81.00	113.40	321.93	429.24	16.30	39.12	
Interest on Loan	97.90	128.16	389.89	484.61	19.59	44.47	
Return on Equity	80.45	112.63	319.72	426.29	16.19	38.86	
Interest on Working Capital	9.82	13.58	27.45	36.07	2.62	6.43	
O & M Expenses	69.66	98.18	67.11	94.59	25.80	65.46	
Total	338.83	465.95	1126.10	1470.80	80.50	194.34	

4. Regulation 6 of the 2009 Tariff Regulations provides that the Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up. Further, as per Regulation 15 of the 2009 Tariff Regulations, the petitioner is required to adjust the yearly impact of MAT rate in the truing up petition for 2009-14 tariff period. In this context, the petitioner has filed the instant petition for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/objections have been received from the public in response to the notice in newspaper. None of the respondents have filed the reply in the matter. The hearing in this matter was held on 20.1.2016. The petitioner was directed to submit the details in respect of the actual equity infused during 2009-14 and 2014-19 tariff periods, details of balance and payment and un-discharged liabilities. The petitioner has filed the information vide affidavit dated 19.1.2016.



6. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

TRUING UP OF ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD:-

- 7. Clause (3) of the Regulation 6 of the 2009 Tariff Regulationsprovides as under:-
 - "(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors".

8. The petitioner has submitted the information as required under the 2009 Tariff Regulations for truing up of annual fixed charges for 2009-14 tariff period. The tariff for 2009-14 tariff period has been trued upin the subsequent paragraphs.

Capital Cost

9. The petitioner has submitted that the actual capital expenditure incurred upto COD for all assets, as certified vide Auditor's Certificates dated 2.12.2014. Details of capital cost claimed is as under:-

	(₹ in lakh)
Asset	Capital cost as on COD as per auditor certificate
Asset-1	884.92
Asset-2	748.87
Asset-3	1445.69
Asset-4	1626.38
Asset-5	1404.93
Asset-6	2120.55
Asset-7	2252.25
Asset-8	2902.84
Asset-9	1519.15
Asset-10	1995.45
Asset-11	8306.04
Asset-12	828.38



10. Regulation 7(1) of the 2009 Tariff Regulations provides as follows:-

"(1) Capital cost for a project shall include:

- (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;
- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost."

11. The admissible capital cost of the transmission asset as on COD for the purpose

of computation of tariff for 2009-14 tariff period is worked out in the subsequent paragraph.

Treatment of Initial Spares

12. The petitioner has submitted that theactual initial spares vide Auditor's Certificates

dated 2.12.2014.We have worked out the admissible initial spares by considering

capital cost as per Auditor's Certificate in accordance with the 2009 Tariff Regulations.

The petitioner has claimed the initial spares by considering capital expenditure upto cut-

off date. The 2009 Tariff Regulation provides the definition of cut- off date as under:-

"(11) 'cut-off date' means 31st March of the year closing after two years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation;"

13. The cut-off date for the subject assets falls beyond 31.3.2014 as per the definition

of cut-off date specified in the 2009 Tariff Regulations. The petitioner has also



submitted the capital cost as on 31.3.2014. The petitioner has claimed the tariff for 2014-19 period as per the 2014 Tariff Regulation and the additional capital expenditure during the 2014-19 period has been admitted as set forth in this order. We have considered the additional capital expenditure upto cut-off date for the purpose of initial spares.

14. Regulation 8 of the 2009 Tariff Regulations provide for ceiling norms for capitalization of initial spares in respect of sub-station as 2.50% and transmission-line as 0.75%. Accordingly, the initial spares have been worked out as under:-

(₹	t in	la	kh))

Asse	et	Capital cost as on cut- off date	Capital cost after deduct- ing excess IDC	Initial spares as per Audi- torCerti- ficate	Proportion- ate Initial spares claimed after deducting IDC	Ceiling limit as per Regulation 8 of 2009 Tariff Regulations	Initial spares worked out	Excess initial spares
		(a)	(b)	(c)	(d) = (c)/(a) *(b)	(e)	(f)=((b- d*e))/ (100%-e)	(g)=(d)- (f)
Asset-1	S/S	1221.75	1221.75	46.39	46.39	2.50%	30.14	16.25
Asset-2	S/S	1003.49	1003.49	36.28	36.28	2.50%	24.80	11.48
Asset-3	S/S	1893.48	1893.48	47.34	47.34	2.50%	47.34	0.00
Asset-4	TL	1223.3	1223.3	9.08	9.08	0.75%	9.18	0.00
A5561-4	S/S	757.23	757.23	19.76	19.76	2.50%	18.91	0.85
Asset-5	TL	1367.24	1367.24	10.98	10.98	0.75%	10.25	0.73
Assel-5	S/S	555.91	555.91	8.93	8.93	2.50%	14.03	0.00
Asset-6	TL	164.01	164.01	1.23	1.23	0.75%	1.23	0.00
Assel-0	S/S	3642.17	3642.17	79.8	79.8	2.50%	91.34	0.00
Asset-7	S/S	2826.69	2826.69	70.67	70.67	2.50%	70.67	0.00
Asset-8	S/S	3420.96	3420.96	0.00	0.00	2.50%	87.72	0.00
Asset-9	TL	1919.06	1919.06	13.74	13.74	0.75%	14.40	0.00
A2261-3	S/S	205.26	205.26	4.53	4.53	2.50%	5.15	0.00
Asset-10	S/S	2250	2250	50.00	50.00	2.50%	56.41	0.00
Asset-11	TL	9580.47	9580.47	74.25	74.25	0.75%	71.84	2.41
ASSEL-11	S/S	287.46	287.46	7.19	7.19	2.50%	7.19	0.00
Asset-12	S/S	1057.61	1057.61	23.17	23.17	2.50%	26.52	0.00

(S/S- Substation, TL- Transmission line)

15. Accordingly, the capital cost as on COD considered for the purpose of truing up of

tariff of 2009-14 tariff period is worked out as under:-



(₹ in lakh)						
Asset	Capital cost on COD	Excess initialspares	Capital cost as on COD considered for tariff determination			
Asset-1	884.92	16.25	868.67			
Asset-2	748.87	11.48	737.39			
Asset-3	1445.69	0.00	1445.69			
Asset-4	1626.38	0.85	1625.53			
Asset-5	1404.93	0.73	1404.20			
Asset-6	2120.55	0.00	2120.55			
Asset-7	2252.25	0.00	2252.25			
Asset-8	2902.84	0.00	2902.84			
Asset-9	1519.15	0.00	1519.15			
Asset-10	1995.45	0.00	1995.45			
Asset-11	8306.04	2.41	8303.63			
Asset-12	828.38	0.00	828.38			

Additional Capital Expenditure

16. Regulation 6(1) of the 2009 Regulations provides that:-

"The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014"

17. The petitioner has submitted actual additional capital expenditure during 2009-14 towards balance and retention payments for the works completed before the cut-off date, as depicted below:-

Name of	Apportioned approved		Capital cost as on	Additional capital expenditure		Capital cost as on
Asset	cost as per RCE		COD	2012-13	2013-14	31.3.2014
		Approved in Order dated 18.2.2004	865.02	150.00	45.16	1060.18
Asset-1	Asset-1 1471.54	Claimed by the petitioner	884.92	180.37	104.51	1169.80
		Allowed in this Order	868.67	180.37	104.51	1153.55
Asset-2	1258.98	Approved in Order dated 18.2.2004	737.13	85.40	159.22	981.75
		Claimed by the petitioner	748.87	179.48	35.66	964.01



		Allowed in this	737.39	179.48	35.66	952.53
		Order Approved in	101.00	17 0.10	00.00	002.00
		Order dated 18.2.2004	1443.12	0.00	347.79	1790.91
Asset-3	2360.59	Claimed by the petitioner	1445.69	0.00	280.97	1726.66
		Allowed in this Order	1445.69	0.00	280.97	1726.66
		Approved in Order dated 22.2.2014	1625.45	166.31	168.08	1959.84
Asset-4	2574.72	Claimed by the petitioner	1626.38	7.30	260.77	1894.45
		Allowed in this Order	1625.53	7.30	260.77	1893.60
		Approved in Order dated 22.2.2014	1404.70	185.73	221.43	1811.86
Asset-5	2195.96	Claimed by the petitioner	1404.93	263.38	53.59	1721.90
		Allowed in this Order	1404.20	263.38	53.59	1721.17
		Approved in Order dated 22.2.2014	2120.55	510.51	610.01	3241.07
Asset-6	4439.53	Claimed by the petitioner	2120.55	862.46	371.37	3354.38
		Allowed in this Order	2120.55	862.46	371.37	3354.38
		Approved in Order dated 22.2.2014	2252.25	49.37	0.00	2301.62
Asset-7	3242.57	Claimed by the petitioner	2252.25	241.17	111.51	2604.93
		Allowed in this Order	2252.25	241.17	111.51	2604.93
		Approved in Order dated 22.2.2014	2902.84	123.84	394.28	3420.96
Asset-8	4642.36	Claimed by the petitioner	2902.84	229.15	101.68	3233.67
	Allowed in this Order	2902.84	229.15	101.68	3233.67	
Asset-9	3911.76	Approved in Order dated 16.9.2014	1516.65	241.47	0.00	1758.12
		Claimed by the	1519.15	470.40	60.61	2050.16



		petitioner				
		Allowed in this Order	1519.15	470.40	60.61	2050.16
		Approved in Order dated 16.9.2014	1995.45	100.00	104.55	2200.00
Asset-10	2613.83	Claimed by the petitioner	1995.45	120.81	30.12	2146.38
		Allowed in this Order	1995.45	120.81	30.12	2146.38
	Asset-11 10937.02	Approved in Order dated 16.9.2014	8128.60	0.00	0.00	8128.60
Asset-11		Claimed by the petitioner	8306.04	765.57	412.40	9484.01
		Allowed in this Order	8303.63	765.57	412.40	9481.60
		Approved in Order dated 16.9.2014	740.90	0.00	0.00	740.90
Asset-12	1433.01	Claimed by the petitioner	828.38	56.02	135.26	1019.66
		Allowed in this Order	828.38	56.02	135.26	1019.66

18. The petitioner has claimed the admissibility of additional capital expenditure before the cut-off date under Regulation 9(1)(i) of 2009 Tariff Regulations. We have considered the submissions of the petitioner with regard to the actual capital expenditure during 2009-14. The above mentioned Additional capital expenditure is towards balance and retention payments and the same has been certified by the Auditor vide certificates dated 2.12.2014. Further, the total capital expenditure during 2009-14 is within the limits of the total approved capital expenditure and the total cost as on 31.3.2014 is within the approved cost of the project. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 9(1)(i) and Regulation 6 of the 2009 Tariff Regulations.

Debt: Equity

19. Regulation 12 of the 2009 Tariff Regulations provides as under:-



"12. Debt-Equity Ratio. (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

20. The admitted debt:equity ratio in orders dated 18.2.2014,22.2.2014 and 16.9.2014

in Petition Nos. 216/TT/2012,184/TT/2011 and 98/TT/2012 respectively as on COD was

70:30, for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff

Regulations. The petitioner was directed to confirm that actual equity corresponding to

additional capital expenditure is not less than 30%. In response, the petitioner vide

affidavit dated 19.1.2016, has submitted that the actual equity infusion during 2009-14

period is not less than 30%.

21. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

					(₹ in la	kh)
Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
	·		Asset-1			
Debt	608.07	70.00	199.42	70.00	807.48	70.00
Equity	260.60	30.00	85.46	30.00	346.06	30.00
Total	868.67	100.00	284.88	100.00	1153.55	100.00
			Asset-2			
Debt	516.17	70.00	150.60	70.00	666.77	70.00
Equity	221.22	30.00	64.54	30.00	285.76	30.00
Total	737.39	100.00	215.14	100.00	952.53	100.00
	Asset-3					



Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	1011.98	70.00	196.68	70.00	1208.66	70.00
Equity	433.71	30.00	84.29	30.00	518.00	30.00
Total	1445.69	100.00	280.97	100.00	1726.66	100.00
Asset-4						
Debt	1137.87	70.00	187.65	70.00	1325.52	70.00
Equity	487.66	30.00	80.42	30.00	568.08	30.00
Total	1625.53	100.00	268.07	100.00	1893.60	100.00
			Asset-5			
Debt	983.08	70.01	221.88	70.00	1204.96	70.01
Equity	421.12	29.99	95.09	30.00	516.21	29.99
Total	1404.20	100.00	316.97	100.00	1721.17	100.00
			Asset-6			
Debt	1484.39	70.00	863.68	70.00	2348.07	70.00
Equity	636.16	30.00	370.15	30.00	1006.31	30.00
Total	2120.55	100.00	1233.83	100.00	3354.38	100.00
	·		Asset-7			
Debt	1576.58	70.00	246.88	70.00	1823.46	70.00
Equity	675.67	30.00	105.80	30.00	781.47	30.00
Total	2252.25	100.00	352.68	100.00	2604.93	100.00
			Asset-8			
Debt	2031.99	70.00	231.59	70.00	2263.57	70.00
Equity	870.85	30.00	99.24	30.00	970.10	30.00
Total	2902.84	100.00	330.83	100.00	3233.67	100.00
			Asset-9			
Debt	1063.41	70.00	371.71	70.00	1435.12	70.00
Equity	455.74	30.00	159.30	30.00	615.04	30.00
Total	1519.15	100.00	531.01	100.00	2050.16	100.00
			Asset-10			
Debt	1396.82	70.00	105.65	70.00	1502.47	70.00
Equity	598.63	30.00	45.28	30.00	643.91	30.00
Total	1995.45	100.00	150.93	100.00	2146.38	100.00
			Asset-11			
Debt	5812.54	70.00	824.58	70.00	6637.12	70.00
Equity	2491.09	30.00	353.39	30.00	2844.48	30.00
Total	8303.63	100.00	1177.97	100.00	9481.60	100.00
			Asset-12			
Debt	579.87	70.00	133.90	70.00	713.76	70.00
Equity	248.51	30.00	57.38	30.00	305.90	30.00
Total	828.38	100.00	191.28	100.00	1019.66	100.00



Return on Equity ("ROE")

22. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations

provideas follows:-

"(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

23. The variation in the tax rate during the 2009-14 tariff period applicable to the

petitioner as per the Finance Act of the relevant year for the purpose of grossing up of

return on equity (ROE) has been furnished as follows:-

Year	MAT Rate claimed in the current petition (%)	Grossed up ROE (Base Rate/(1-t)) claimed in the current petition (%)
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610



24. The ROE as trued up and allowed is as follows:-

		(₹ in lakh)
Asset-1		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	20.54	54.41
Claimed by the petitioner	23.62	65.75
Allowed in this Order	23.22	64.79

(₹ in lakh)

Asset-2		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	13.63	47.31
Claimed by the petitioner	16.25	55.66
Allowed in this Order	16.03	54.99

(₹ in lakh)

	((()))			
Asset-3				
Return on Equity	2013-14 (pro-rata)			
Approved in Order dated 18.2.2014	84.80			
Claimed by the petitioner	93.32			
Allowed in this Order	93.32			

(₹ in lakh)

Asset-4				
Return on Equity	2012-13 (pro-rata)	2013-14		
Approved in Order dated 22.2.2014	22.40	98.37		
Claimed by the petitioner	23.69	103.78		
Allowed in this Order	23.68	103.73		

Asset-5		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	71.99	89.21
Claimed by the petitioner	81.88	99.72
Allowed in this Order	81.82	99.65



Asset-6		· /
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	124.59	153.98
Claimed by the petitioner	148.34	186.41
Allowed in this Order	148.34	186.42

(₹ in lakh)

Asset-7		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	89.56	120.70
Claimed by the petitioner	103.45	149.97
Allowed in this Order	103.45	149.97

(₹ in lakh)

Asset-8		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	116.61	169.07
Claimed by the petitioner	131.55	187.24
Allowed in this Order	131.55	187.25

(₹ in lakh)

Asset-9		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	64.40	92.20
Claimed by the petitioner	76.49	118.83
Allowed in this Order	76.49	118.83

Asset-10		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	80.45	112.63
Claimed by the petitioner	89.63	125.38
Allowed in this Order	89.63	125.39



		(₹ in lakh)
Asset-11		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	319.72	426.29
Claimed by the petitioner	378.82	545.81
Allowed in this Order	378.71	545.68

Asset-12		
Return on Equity	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	16.19	38.86
Claimed by the petitioner	20.74	56.01
Allowed in this Order	20.74	56.01

The difference in the approved ROE and that allowed after truing up is on account of actual grossed up ROE based on actual MAT rate and increase due to actual additional capital expenditure.

Interest on Loan ("IoL")

25. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL. The Commission in its earlier order dated 8.6.2011 in Petition No. 238/2010 has dealt with similar issue and held that:-

"...in case of floating rate of interest, any change in the rates of interest during the tariff period will be considered at the time of true up".

26. The petitioner has submitted the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, the IoL has been calculated based on actual interest rate submitted by the petitioner, in accordance with the Regulation 16 of the 2009 Tariff Regulations The details of weighted average rate of interest are placed in Annexure-1.The IoL worked out is as follows:-



Asset-1		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	24.16	60.69
Claimed by the petitioner	25.04	65.29
Allowed in this Order	24.62	64.34

(₹ in lakh)

Asset-2		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	15.94	52.69
Claimed by the petitioner	17.14	55.21
Allowed in this Order	16.90	54.54

(₹ in lakh)

Asset-3		
Interest on Loan	2013-14 (pro-rata)	
Approved in Order dated 18.2.2014	100.27	
Claimed by the petitioner	95.09	
Allowed in this Order	95.09	

(₹ in lakh)

Asset-4		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	27.70	116.04
Claimed by the petitioner	26.42	108.63
Allowed in this Order	26.41	108.58

Asset-5		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	87.63	101.38
Claimed by the petitioner	89.80	100.19
Allowed in this Order	89.77	100.82



Asset-6		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	153.09	179.11
Claimed by the petitioner	163.84	191.17
Allowed in this Order	163.84	191.39

(₹ in lakh)

Asset-7		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	105.92	133.20
Claimed by the petitioner	110.49	148.20
Allowed in this Order	110.49	148.20

(₹ in lakh)

Asset-8		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	138.12	187.51
Claimed by the petitioner	140.67	184.91
Allowed in this Order	140.67	184.91

(₹ in lakh)

Asset-9		()
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	77.95	103.82
Claimed by the petitioner	83.52	119.63
Allowed in this Order	83.52	119.63

Asset-10		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	97.90	128.16
Claimed by the petitioner	98.17	126.70
Allowed in this Order	98.17	126.70



		(₹ in lakh)
Asset-11		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	389.89	484.61
Claimed by the petitioner	416.55	553.85
Allowed in this Order	416.43	553.71

Asset-12		
Interest on Loan	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	19.59	44.47
Claimed by the petitioner	22.65	57.14
Allowed in this Order	22.65	57.14

The difference in the approved IoL and that allowed after truing up is on account of change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.

Depreciation

27. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations. The depreciation allowed is as follows:-

		(₹ in lakh)
Asset-1		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	20.87	55.53
Claimed by the petitioner	21.61	59.61
Allowed in this Order	21.26	58.75
		(₹ in lakh)
Asset-2		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	13.74	47.74
Claimed by the petitioner	14.77	50.01



Allowed in this Order	14.56	49.41
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Asset-3	
Depreciation	2013-14 (pro-rata)
Approved in Order dated 18.2.2014	85.78
Claimed by the petitioner	84.03
Allowed in this Order	84.04

(₹ in lakh)

Asset-4		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	22.60	99.24
Claimed by the petitioner	21.59	93.40
Allowed in this Order	21.57	93.36

(₹ in lakh)

Asset-5		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	72.64	89.85
Claimed by the petitioner	74.27	95.55
Allowed in this Order	74.24	81.41

(₹ in lakh)

Asset-6		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	103.96	132.69
Claimed by the petitioner	111.72	145.37
Allowed in this Order	111.72	140.78

Asset-7		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	89.65	120.84
Claimed by the petitioner	93.45	133.91
Allowed in this Order	93.45	133.91



Asset-8		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	118.06	171.22
Claimed by the petitioner	120.09	168.95
Allowed in this Order	120.10	168.95

(₹ in lakh)

Asset-9		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	64.94	92.96
Claimed by the petitioner	69.59	106.84
Allowed in this Order	69.60	106.85

(₹ in lakh)

Asset-10		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	81.00	113.40
Claimed by the petitioner	81.41	112.53
Allowed in this Order	81.41	112.53

(₹ in lakh)

Asset-11		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	321.93	429.24
Claimed by the petitioner	344.13	489.91
Allowed in this Order	344.03	489.78

Asset-12		
Depreciation	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	16.30	39.12
Claimed by the petitioner	18.84	50.27
Allowed in this Order	18.84	50.27



The difference in the approved depreciation and that allowed after truing up is on account of change in gross block during the 2009-14 tariff period.

Operation & Maintenance Expenses ("O&M Expenses")

28. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system.

29. The petitioner has claimed O&M expenses for 400kV D/C Pallatana-Surjamaninagar line (charges at 132kV) along with associated bays (Asset 11). It is observed from the Form-2, that though the assets is having double circuit configuration, the petitioner has mentioned it as single circuit (2 sub-conductors) of length 37.20 km against the Double Circuit nature of the line. On perusal of the assets, it is observed that the the Commission had allowed the O&M expenses for Double Circuit line in Asset-11 vide order dated 16.9.2014 in Petition No. 98/TT/2012. Accordingly, we have considered the O&M expenses for 400 kV Double Circuit (2 sub-conductors) line in respect of Asset-11. However, the petitioner shall maintain accuracy in supplying information for determination of tariff.

30. Accordingly, the total allowable O&M expenses for the instant assets have been worked out based on norms of O&M Expenses and the details are as follows:-

Asset-1		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	51.60	130.92
Claimed by the petitioner	51.60	130.92
Allowed in this Order	51.60	130.92



Asset-2		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	41.28	130.92
Claimed by the petitioner	41.28	130.92
Allowed in this Order	41.28	130.92

(₹ in lakh)

Asset-3			
O&M Expenses	2013-14 (pro-rata)		
Approved in Order dated 18.2.2014	261.84		
Claimed by the petitioner	261.84		
Allowed in this Order	261.84		

(₹ in lakh)

Asset-4		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	31.55	133.42
Claimed by the petitioner	31.55	133.42
Allowed in this Order	31.55	133.42

(₹ in lakh)

Asset-5		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	119.12	137.37
Claimed by the petitioner	119.12	137.37
Allowed in this Order	119.12	137.37

Asset-6		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	124.22	131.32
Claimed by the petitioner	124.22	131.32
Allowed in this Order	124.22	131.32



Asset-7		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	69.66	98.16
Claimed by the petitioner	69.66	98.19
Allowed in this Order	69.66	98.19

(₹ in lakh)

Asset-8		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	278.64	392.76
Claimed by the petitioner	278.64	392.76
Allowed in this Order	278.64	392.76

(₹ in lakh)

Asset-9		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	48.83	68.82
Claimed by the petitioner	48.83	68.82
Allowed in this Order	48.83	68.82

(₹ in lakh)

Asset-10		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	69.66	98.18
Claimed by the petitioner	69.66	98.19
Allowed in this Order	69.66	98.19

Asset-11		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	67.11	94.59
Claimed by the petitioner	58.24	82.09
Allowed in this Order	67.11	94.59



Asset-12		
O&M Expenses	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	25.80	65.46
Claimed by the petitioner	25.80	65.46
Allowed in this Order	25.80	65.46

Interest on Working Capital ("IWC")

31. The IWC has been worked out as per the methodology provided in the Regulation

18 of the 2009 Tariff Regulations and allowed as under:-

		(₹ in lakh)
Asset-1		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	4.36	11.16
Claimed by the petitioner	4.47	11.62
Allowed in this Order	4.44	11.56

(₹ in lakh)

Asset-2		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 18.2.2014	3.28	10.63
Claimed by the petitioner	3.39	10.94
Allowed in this Order	3.37	10.89

Asset-3	
Interest on Working Capital	2013-14 (pro-rata)
Approved in Order dated 18.2.2014	20.23



Claimed by the petitioner	20.27
Allowed in this Order	20.26

Asset-4		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	3.42	14.59
Claimed by the petitioner	3.39	14.41
Allowed in this Order	3.39	14.41

(₹ in lakh)

Asset-5		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	11.93	14.04
Claimed by the petitioner	12.24	14.39
Allowed in this Order	12.24	14.08

		(III lakii)
Asset-6		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	15.65	17.98
Claimed by the petitioner	16.62	19.29
Allowed in this Order	16.62	19.19

		(₹ in lakh)
Asset-7		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	10.41	14.05
Claimed by the petitioner	10.92	15.37
Allowed in this Order	10.92	15.37



Asset-8		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 22.2.2014	23.97	33.85
Claimed by the petitioner	24.42	34.15
Allowed in this Order	24.42	34.15

(₹ in lakh)

Asset-9		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	7.47	10.45
Claimed by the petitioner	7.98	11.75
Allowed in this Order	7.98	11.75

(₹ in lakh)

Asset-10		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	9.82	13.58
Claimed by the petitioner	10.04	13.82
Allowed in this Order	10.04	13.82

(₹ in lakh)

		(III lakii)
Asset-11		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	27.45	36.07
Claimed by the petitioner	29.45	41.12
Allowed in this Order	29.93	41.80

Asset-12		
Interest on Working Capital	2012-13 (pro-rata)	2013-14
Approved in Order dated 16.9.2014	2.62	6.43
Claimed by the petitioner	2.86	7.38
Allowed in this Order	2.86	7.38



The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period.

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

32. The detailed computation of the various components of the trued up annual fixed charges for the instant transmission assets for the tariff period 2009-14 is summarised below:-

Asset 1:

Asset-1		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	868.67	1049.04
Additional Capitalisation	180.37	104.51
Closing Gross Block	1049.04	1153.55
Average Gross Block	958.85	1101.29
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.32	5.33
Depreciable Value	862.97	1072.33
Balance useful life of the asset	25.00	24.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	862.97	969.91
Depreciation during the year	21.26	58.75
Depreciation upto previous year	0.00	21.26
Cumulative depreciation	21.26	80.01
Interest on Loan		
Gross Normative Loan	608.07	734.33
Cumulative Repayment upto Previous Year	0.00	21.26
Net Loan-Opening	608.07	713.07
Additions	126.26	73.16
Repayment during the year	21.26	58.75
Net Loan-Closing	713.07	727.48
Average Loan	660.57	720.27
Weighted Average Rate of Interest on Loan (%)	8.9449	8.9330





Asset-1		
Particulars	2012-13 (pro-rata)	2013-14
Interest on Loan	24.62	64.34
Return on Equity		
Opening Equity	260.60	314.71
Additions	54.11	31.35
Closing Equity	314.71	346.06
Average Equity	287.66	330.39
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	23.22	64.79
Interest on Working Capital		
O & M expenses	10.32	10.91
Maintenance Spares	18.58	19.64
Receivables	50.06	55.06
Total	78.95	85.60
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	4.44	11.56
Annual Transmission Charges		
Depreciation	21.26	58.75
Interest on Loan	24.62	64.34
Return on Equity	23.22	64.79
Interest on Working Capital	4.44	11.56
O & M Expenses	51.60	130.92
Total	125.14	330.36

Asset-2		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	737.39	916.87
Additional Capitalisation	179.48	35.66
Closing Gross Block	916.87	952.53
Average Gross Block	827.13	934.70
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.28	5.29
Depreciable Value	744.42	922.00
Balance useful life of the asset	25.00	24.00



Asset-2		
Particulars	2012-13 (pro-rata)	2013-14
Elapsed life	0.00	1.00
Remaining Depreciable Value	744.42	826.67
Depreciation during the year	14.56	49.41
Depreciation upto previous year	0.00	14.56
Cumulative depreciation (incl. of AAD)	14.56	63.97
Interest on Loan		
Gross Normative Loan	516.17	641.81
Cumulative Repayment upto Previous Year	0.00	14.56
Net Loan-Opening	516.17	627.25
Additions	125.64	24.96
Repayment during the year	14.56	49.41
Net Loan-Closing	627.25	602.80
Average Loan	571.71	615.02
Weighted Average Rate of Interest on Loan (%)	8.8704	8.8678
Interest on Loan	16.90	54.54
Return on Equity		
Opening Equity	221.22	275.06
Additions	53.84	10.70
Closing Equity	275.06	285.76
Average Equity	248.14	280.41
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	16.03	54.99
Interest on Working Capital		
O & M expenses	10.32	10.91
Maintenance Spares	18.58	19.64
Receivables	46.07	50.12
Total	74.97	80.67
Rate of Interest	13.50	13.50
Interest on Working Capital	3.37	10.89
Annual Transmission Charges		
Depreciation	14.56	49.41
Interest on Loan	14.30	54.54
Return on Equity	16.03	54.99
Interest on Working Capital	3.37	10.89



Asset-2		
Particulars	2012-13 (pro-rata)	2013-14
O & M Expenses	41.28	130.92
Total	92.15	300.75

Asset-3			
Particulars	2013-14 (pro-rata)		
Depreciation			
Opening Gross Block	1445.69		
Additional Capitalisation	280.97		
Closing Gross Block	1726.66		
Average Gross Block	1586.18		
Freehold Land (Av. Cost)	0.00		
Rate of Depreciation (%)	5.2981		
Depreciable Value	1427.56		
Balance useful life of the asset	25.00		
Elapsed life	0.00		
Remaining Depreciable Value	1427.56		
Depreciation during the year	84.04		
Depreciation upto previous year	0.00		
Cumulative depreciation (incl. of AAD)	84.04		
Interest on Loan			
Gross Normative Loan	1011.98		
Cumulative Repayment upto Previous Year	0.00		
Net Loan-Opening	1011.98		
Additions	196.68		
Repayment during the year	84.04		
Net Loan-Closing	1124.62		
Average Loan	1068.30		
Weighted Average Rate of Interest on Loan (%)	8.9011		
Interest on Loan	95.09		
Return on Equity			
Opening Equity	433.71		
Additions	84.29		
Closing Equity	518.00		
Average Equity	475.85		
Return on Equity (Base Rate) (%)	15.500		
MAT rate for the respective year (%)	20.961		
Rate of Return on Equity (%)	19.610		



Asset-3			
Particulars	2013-14 (pro-rata)		
Return on Equity	93.32		
Interest on Working Capital			
O & M expenses	21.81		
Maintenance Spares	39.28		
Receivables	92.42		
Total	153.51		
Rate of Interest(%)	13.20		
Interest on Working Capital	20.26		
Annual Transmission Charges			
Depreciation	84.04		
Interest on Loan	95.09		
Return on Equity	93.32		
Interest on Working Capital	20.26		
O & M Expenses	261.84		
Total	554.55		

Asset-4			
Particulars	2012-13 (pro-rata)	2013-14	
Depreciation			
Opening Gross Block	1625.53	1632.83	
Additional Capitalisation	7.30	260.77	
Closing Gross Block	1632.83	1893.60	
Average Gross Block	1629.18	1763.21	
Freehold Land (Av. Cost)	0.00	0.00	
Rate of Depreciation (%)	5.30	5.29	
Depreciable Value	1466.26	1590.18	
Balance useful life of the asset	32.00	31.00	
Elapsed life	0.00	1.00	
Remaining Depreciable Value	1466.26	1565.32	
Depreciation during the year	21.57	93.36	
Depreciation upto previous year	0.00	21.57	
Cumulative depreciation (incl. of AAD)	21.57	114.93	
Interest on Loan			
Gross Normative Loan	1137.87	1142.98	
Cumulative Repayment upto Previous Year	0.00	21.57	
Net Loan-Opening	1137.87	1121.41	



Asset-4			
Particulars	2012-13 (pro-rata)	2013-14	
Additions	5.11	182.54	
Repayment during the year	21.57	93.36	
Net Loan-Closing	1121.41	1210.59	
Average Loan	1129.64	1166.00	
Weighted Average Rate of Interest on Loan (%)	9.3502	9.3122	
Interest on Loan	26.41	108.58	
Return on Equity			
Opening Equity	487.66	489.85	
Additions	2.19	78.23	
Closing Equity	489.85	568.08	
Average Equity	488.75	528.96	
Return on Equity (Base Rate) (%)	15.500	15.500	
MAT rate for the respective year (%)	20.008	20.961	
Rate of Return on Equity (%)	19.377	19.610	
Return on Equity	23.68	103.73	
Interest on Working Capital			
O & M expenses	10.52	11.11	
Maintenance Spares	18.93	20.01	
Receivables	71.06	75.58	
Total	100.51	106.71	
Rate of Interest(%)	13.50	13.50	
Interest on Working Capital	3.39	14.41	
Annual Transmission Charges			
Depreciation	21.57	93.36	
Interest on Loan	26.41	108.58	
Return on Equity	23.68	103.73	
Interest on Working Capital	3.39	14.41	
O & M Expenses	31.55	133.42	
Total	106.59	453.49	

Asset-5			
Particulars	2012-13 (pro-rata)	2013-14	
Depreciation			
Opening Gross Block	1404.20	1667.58	
Additional Capitalisation	263.38	53.59	
Closing Gross Block	1667.58	1721.17	



Asset-5		
Particulars	2012-13 (pro-rata)	2013-14
Average Gross Block	1535.89	1694.37
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.27	5.24
Depreciable Value	1382.30	1643.46
Balance useful life of the asset	33.00	32.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	1382.30	1450.70
Depreciation during the year	74.24	81.41
Depreciation upto previous year	0.00	74.24
Cumulative depreciation (incl. of AAD)	74.24	155.65
Interest on Loan		
Gross Normative Loan	983.08	1167.45
Cumulative Repayment upto Previous Year	0.00	74.24
Net Loan-Opening	983.08	1093.21
Additions	184.37	37.51
Repayment during the year	74.24	81.41
Net Loan-Closing	1093.21	1049.31
Average Loan	1038.14	1071.26
Weighted Average Rate of Interest on Loan (%)	9.4337	9.4117
Interest on Loan	89.77	100.82
Return on Equity		
Opening Equity	421.12	500.13
Additions	79.01	16.08
Closing Equity	500.13	516.21
Average Equity	460.63	508.17
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	81.82	99.65
Interest on Working Capital		
O & M expenses	10.83	11.44
Maintenance Spares	19.49	20.61
Receivables	68.58	72.22
Total	98.90	104.27



Asset-5		
Particulars	2012-13 (pro-rata)	2013-14
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	12.24	14.08
Annual Transmission Charges		
Depreciation	74.24	81.41
Interest on Loan	89.77	100.82
Return on Equity	81.82	99.65
Interest on Working Capital	12.24	14.08
O & M Expenses	119.12	137.37
Total	377.18	433.34

Asset-6		
Particulars	2012-13	2013-14
Depreciation		
Opening Gross Block	2120.55	2983.01
Additional Capitalisation	862.46	371.37
Closing Gross Block	2983.01	3354.38
Average Gross Block	2551.78	3168.70
Freehold Land (Av. Cost)	109.18	109.18
Rate of Depreciation (%)	4.38	4.44
Depreciable Value	2198.34	3141.67
Balance useful life of the asset	26.00	25.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	2198.34	2641.85
Depreciation during the year	111.72	140.78
Depreciation upto previous year	0.00	111.72
Cumulative depreciation (incl. of AAD)	111.72	252.50
Interest on Loan		
Gross Normative Loan	1484.39	2088.11
Cumulative Repayment upto Previous Year	0.00	111.72
Net Loan-Opening	1484.39	1976.40
Additions	603.72	259.96
Repayment during the year	111.72	140.78
Net Loan-Closing	1976.40	2095.57
Average Loan	1730.39	2035.98
Weighted Average Rate of Interest on Loan (%)	9.4682	9.4003



Asset-6		
Particulars	2012-13	2013-14
Interest on Loan	163.84	191.39
Return on Equity		
Opening Equity	636.16	894.90
Additions	258.74	111.41
Closing Equity	894.90	1006.31
Average Equity	765.53	950.60
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	148.34	186.42
Interest on Working Capital		
O & M expenses	10.35	10.94
Maintenance Spares	18.63	19.70
Receivables	94.12	111.52
Total	123.10	142.15
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	16.62	19.19
Annual Transmission Charges		
Depreciation	111.72	140.78
Interest on Loan	163.84	191.39
Return on Equity	148.34	186.42
Interest on Working Capital	16.62	19.19
O & M Expenses	124.22	131.32
Total	564.73	669.10

Asset-7		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	2252.25	2493.42
Additional Capitalisation	241.17	111.51
Closing Gross Block	2493.42	2604.93
Average Gross Block	2372.84	2549.18
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.25	5.25
Depreciable Value	2135.55	2402.78
Balance useful life of the asset	25.00	24.00



Asset-7		
Particulars	2012-13 (pro-rata)	2013-14
Elapsed life	0.00	1.00
Remaining Depreciable Value	2135.55	2200.81
Depreciation during the year	93.45	133.91
Depreciation upto previous year	0.00	93.45
Cumulative depreciation (incl. of AAD)	93.45	227.36
Interest on Loan		
Gross Normative Loan	1576.58	1745.40
Cumulative Repayment upto Previous Year	0.00	93.45
Net Loan-Opening	1576.58	1651.95
Additions	168.82	78.06
Repayment during the year	93.45	133.91
Net Loan-Closing	1651.95	1596.10
Average Loan	1614.27	1624.03
Weighted Average Rate of Interest on Loan (%)	9.1263	9.1252
Interest on Loan	110.49	148.20
Return on Equity		
Opening Equity	675.67	748.02
Additions	72.35	33.45
Closing Equity	748.02	781.47
Average Equity	711.85	764.75
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	103.45	149.97
Interest on Working Capital		
O & M expenses	7.74	8.18
Maintenance Spares	13.93	14.73
Receivables	86.22	90.94
Total	107.89	113.85
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	10.92	15.37
Annual Transmission Charges		
Depreciation	93.45	133.91
Interest on Loan	110.49	148.20
Return on Equity	103.45	149.97



Asset-7		
Particulars	2012-13 (pro-rata)	2013-14
Interest on Working Capital	10.92	15.37
O & M Expenses	69.66	98.19
Total	387.97	545.63

Asset-8		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	2902.84	3131.99
Additional Capitalisation	229.15	101.68
Closing Gross Block	3131.99	3233.67
Average Gross Block	3017.42	3182.83
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.31	5.31
Depreciable Value	2715.67	2967.66
Balance useful life of the asset	25.00	24.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	2715.67	2744.45
Depreciation during the year	120.10	168.95
Depreciation upto previous year	0.00	120.10
Cumulative depreciation (incl. of AAD)	120.10	289.04
Interest on Loan		
Gross Normative Loan	2031.99	2192.40
Cumulative Repayment upto Previous Year	0.00	120.10
Net Loan-Opening	2031.99	2072.30
Additions	160.41	71.18
Repayment during the year	120.10	168.95
Net Loan-Closing	2072.30	1974.53
Average Loan	2052.14	2023.42
Weighted Average Rate of Interest on Loan (%)	9.1399	9.1386
Interest on Loan	140.67	184.91
Return on Equity		
Opening Equity	870.85	939.59
Additions	68.74	30.50
Closing Equity	939.59	970.10
Average Equity	905.22	954.84
Return on Equity (Base Rate) (%)	15.500	15.500



Asset-8		
Particulars	2012-13 (pro-rata)	2013-14
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	131.55	187.25
Interest on Working Capital		
O & M expenses	30.96	32.72
Maintenance Spares	55.73	58.91
Receivables	154.53	161.34
Total	241.22	252.97
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	24.42	34.15
Annual Transmission Charges		
Depreciation	120.10	168.95
Interest on Loan	140.67	184.91
Return on Equity	131.55	187.25
Interest on Working Capital	24.42	34.15
O & M Expenses	278.64	392.76
Total	695.39	968.02

Asset-9		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	1519.15	1989.55
Additional Capitalisation	470.40	60.61
Closing Gross Block	1989.55	2050.16
Average Gross Block	1754.35	2019.86
Freehold Land (Av. Cost)	0.00	0.00
Rate of Depreciation (%)	5.29	5.29
Depreciable Value	1578.92	2029.55
Balance useful life of the asset	34.00	33.00
Elapsed life	0.00	1.00
Remaining Depreciable Value	1578.92	1748.27
Depreciation during the year	69.60	106.85
Depreciation upto previous year	0.00	69.60
Cumulative depreciation (incl. of AAD)	69.60	176.45
Interest on Loan		
Gross Normative Loan	1063.41	1392.69



Asset-9		
Particulars	2012-13 (pro-rata)	2013-14
Cumulative Repayment upto Previous Year	0.00	69.60
Net Loan-Opening	1063.41	1323.09
Additions	329.28	42.43
Repayment during the year	69.60	106.85
Net Loan-Closing	1323.09	1258.67
Average Loan	1193.25	1290.88
Weighted Average Rate of Interest on Loan (%)	9.3320	9.2669
Interest on Loan	83.52	119.63
Return on Equity		
Opening Equity	455.74	596.86
Additions	141.12	18.18
Closing Equity	596.86	615.04
Average Equity	526.30	605.95
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961
Rate of Return on Equity (%)	19.377	19.610
Return on Equity	76.49	118.83
Interest on Working Capital		
O & M expenses	5.43	5.73
Maintenance Spares	9.77	10.32
Receivables	63.65	70.98
Total	78.84	87.03
Rate of Interest(%)	13.50	13.50
Interest on Working Capital	7.98	11.75
Annual Transmission Charges		
Depreciation	69.60	106.85
Interest on Loan	83.52	119.63
Return on Equity	76.49	118.83
Interest on Working Capital	7.98	11.75
O & M Expenses	48.83	68.82
Total	286.40	425.87

Asset-10		
Particulars	2012-13 (pro-rata)	2013-14
Depreciation		
Opening Gross Block	1995.45	2116.26



Asset-10						
Particulars	2012-13 (pro-rata)	2013-14				
Additional Capitalisation	120.81	30.12				
Closing Gross Block	2116.26	2146.38				
Average Gross Block	2055.86	2131.32				
Freehold Land (Av. Cost)	0.00	0.00				
Rate of Depreciation (%)	5.28	5.28				
Depreciable Value	1850.27	1972.55				
Balance useful life of the asset	25.00	24.00				
Elapsed life	0.00	1.00				
Remaining Depreciable Value	1850.27	1836.78				
Depreciation during the year	81.41	112.53				
Depreciation upto previous year	0.00	81.41				
Cumulative depreciation (incl. of AAD)	81.41	193.95				
Interest on Loan						
Gross Normative Loan	1396.82	1481.39				
Cumulative Repayment upto Previous Year	0.00	81.41				
Net Loan-Opening	1396.82	1399.98				
Additions	84.57	21.08				
Repayment during the year	81.41	112.53				
Net Loan-Closing	1399.98	1308.53				
Average Loan	1398.40	1354.25				
Weighted Average Rate of Interest on						
Loan (%)	9.3600	9.3556				
Interest on Loan	98.17	126.70				
Return on Equity						
Opening Equity	598.63	634.87				
Additions	36.24	9.04				
Closing Equity	634.87	643.91				
Average Equity	616.75	639.39				
Return on Equity (Base Rate) (%)	15.500	15.500				
MAT rate for the respective year (%)	20.008	20.961				
Rate of Return on Equity (%)	19.377	19.610				
Return on Equity	89.63	125.39				
Interest on Working Capital						
O & M expenses	7.74	8.18				
Maintenance Spares	13.93	14.73				
Receivables	77.54	79.44				
Total	99.21	102.35				
Rate of Interest(%)	13.50	13.50				
Interest on Working Capital	10.04	13.82				
Annual Transmission Charges						
Depreciation	81.41	112.53				
Interest on Loan	98.17	126.70				
Return on Equity	89.63	125.39				
Interest on Working Capital	10.04	13.82				



Asset-10					
Particulars 2012-13 (pro-rata) 2013-1					
O & M Expenses	69.66	98.19			
Total	348.92	476.63			

Asset-11						
Particulars	2012-13 (pro-rata)	2013-14				
Depreciation						
Opening Gross Block	8303.63	9069.20				
Additional Capitalisation	765.57	412.40				
Closing Gross Block	9069.20	9481.60				
Average Gross Block	8686.41	9275.40				
Freehold Land (Av. Cost)	0.00	0.00				
Rate of Depreciation (%)	5.28	5.28				
Depreciable Value	7817.77	8692.36				
Balance useful life of the asset	35.00	34.00				
Elapsed life	0.00	1.00				
Remaining Depreciable Value	7817.77	8003.83				
Depreciation during the year	344.03	489.78				
Depreciation upto previous year	0.00	344.03				
Cumulative depreciation (incl. of AAD)	344.03	833.80				
Interest on Loan						
Gross Normative Loan	5812.54	6348.44				
Cumulative Repayment upto Previous Year	0.00	344.03				
Net Loan-Opening	5812.54	6004.41				
Additions	535.90	288.68				
Repayment during the year	344.03	489.78				
Net Loan-Closing	6004.41	5803.31				
Average Loan	5908.47	5903.86				
Weighted Average Rate of Interest on Loan (%)	9.3974	9.3788				
Interest on Loan	416.43	553.71				
Return on Equity						
Opening Equity	2491.09	2720.76				
Additions	229.67	123.72				
Closing Equity	2720.76	2844.48				
Average Equity	2605.92	2782.62				
Return on Equity (Base Rate) (%)	15.500	15.500				
MAT rate for the respective year (%)	20.008	20.961				
Rate of Return on Equity (%)	19.377	19.610				



Asset-11						
Particulars	2012-13 (pro-rata)	2013-14				
Return on Equity	378.71	545.68				
Interest on Working Capital						
O & M expenses	7.46	7.88				
Maintenance Spares	13.42	14.19				
Receivables	274.71	287.59				
Total	295.59	309.66				
Rate of Interest(%)	13.50	13.50				
Interest on Working Capital	29.93	41.80				
Annual Transmission Charges						
Depreciation	344.03	489.78				
Interest on Loan	416.43	553.71				
Return on Equity	378.71	545.68				
Interest on Working Capital	29.93	41.80				
O & M Expenses	67.11	94.59				
Total	1236.21	1725.57				

Asset-12						
Particulars	2012-13 (pro-rata)	2013-14				
Depreciation						
Opening Gross Block	828.38	884.40				
Additional Capitalisation	56.02	135.26				
Closing Gross Block	884.40	1019.66				
Average Gross Block	856.39	952.03				
Freehold Land (Av. Cost)	0.00	0.00				
Rate of Depreciation (%)	5.28	5.28				
Depreciable Value	770.75	882.04				
Balance useful life of the asset	25.00	24.00				
Elapsed life	0.00	1.00				
Remaining Depreciable Value	770.75	837.99				
Depreciation during the year	18.84	50.27				
Depreciation upto previous year	0.00	18.84				
Cumulative depreciation (incl. of AAD)	18.84	69.11				
Interest on Loan						
Gross Normative Loan	579.87	619.08				
Cumulative Repayment upto Previous Year	0.00	18.84				



Asset-12						
Particulars	2012-13 (pro-rata)	2013-14				
Net Loan-Opening	579.87	600.24				
Additions	39.21	94.68				
Repayment during the year	18.84	50.27				
Net Loan-Closing	600.24	644.65				
Average Loan	590.05	622.45				
Weighted Average Rate of Interest on Loan (%)	9.2137	9.1806				
Interest on Loan	22.65	57.14				
Return on Equity						
Opening Equity	248.51	265.32				
Additions	16.81	40.58				
Closing Equity	265.32	305.90				
Average Equity	256.92	285.61				
Return on Equity (Base Rate) (%)	15.500	15.500				
MAT rate for the respective year (%)	20.008	20.961				
Rate of Return on Equity (%)	19.377	19.610				
Return on Equity	20.74	56.01				
Interest on Working Capital						
O & M expenses	5.16	5.45				
Maintenance Spares	9.29	9.82				
Receivables	36.36	39.38				
Total	50.81	54.65				
Rate of Interest(%)	13.50	13.50				
Interest on Working Capital	2.86	7.38				
Annual Transmission Charges						
Depreciation	18.84	50.27				
Interest on Loan	22.65	57.14				
Return on Equity	20.74	56.01				
Interest on Working Capital	2.86	7.38				
O & M Expenses	25.80	65.46				
Total	90.89	236.26				

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD



33. For the determination of tariff for 2014-19 tariff period, the petitioner has combined all the assets. The effective COD for combined asset is considered as 1.8.2012. The tariff charges claimed for 2014-19 tariff period as under:-

(₹ in lakh)								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Depreciation	1679.84	1730.36	1730.36	1730.36	1730.36			
Interest on Loan	1780.37	1688.13	1527.81	1367.68	1208.25			
Return on Equity	1904.51	1963.51	1963.51	1963.51	1963.51			
Interest on Working Capital	211.56	214.88	214.21	213.65	213.20			
O & M Expenses	1594.29	1647.20	1701.88	1758.43	1816.76			
Total	7170.57	7244.08	7137.77	7033.63	6932.08			

34. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

					(₹ in la
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	132.86	137.27	141.82	146.54	151.40
Maintenance Spares	239.14	247.08	255.28	263.76	272.51
Receivables	1195.10	1207.35	1189.63	1172.27	1155.35
Total	1567.10	1591.70	1586.73	1582.57	1579.26
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	211.56	214.88	214.21	213.65	213.20

Capital Cost

35. Clause (3) and (6) of Regulation 9 of 2014 Tariff Regulation provide as follows:-

"(3) The Capital cost of an existing project shall include the following:

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;

(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."

"(6) The following shall be excluded or removed from the capital cost of the existing and new project:

(a) The assets forming part of the project, but not in use; (b) Decapitalisation of Asset;"



36. The petitioner has combined all the assets for claiming tariff during 2014-19 tariff period and accordingly claimed capital cost of combined assets is ₹31370.00lakh as on 31.3.2014.Capital cost of ₹31338.28 lakh was worked out by the Commission and the same has been considered as opening capital cost as on 1.4.2014 for determination of tariff in accordance with Regulation 9 of the 2014 Tariff Regulations as shown below:

(₹ in lakh)						
	Apportioned					
Name of	approved cost as	Capital cost as				
Asset	per RCE	on 31.3.2014				
Asset-1	1471.54	1153.55				
Asset-2	1258.98	952.53				
Asset-3	2360.59	1726.66				
Asset-4	2574.72	1893.6				
Asset-5	2195.96	1721.17				
Asset-6	4439.53	3354.38				
Asset-7	3242.57	2604.93				
Asset-8	4642.36	3233.67				
Asset-9	3911.76	2050.16				
Asset-10	2613.83	2146.38				
Asset-11	10937.02	9481.6				
Asset-12	1433.01	1019.66				
Total	41081.85	31338.28				

Additional Capital Expenditure

- 37. Clause (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-
- "The capital expenditure in respect of the new project or an existing projectincurredor projected to be incurred, on the following counts within the original scopeof work, after the date of commercial operation and up to the cut-off date may beadmitted by the Commission, subject to prudence check:
- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, inaccordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order ordecree of a court of law; and
- (v) Change in law or compliance of any existing law::"
- 38. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" as

follows:-



"Cut - off Date" means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31st March of the year closing after three years of the year of comm^{er}cial operation:"

39. The cut-off date for all the assets works out to be 31.3.2015. The petitioner has claimed additional capital expenditure for 2014-19 tariff period under Regulation 14(2)of the 2014 Tariff Regulations as shown below:

Name of Asset	Apportioned approved cost as per	Capital cost as on	Additional	Additional capital expenditure			
	RCE	1.3.2014	2014-15	2015-19	Total	31.3.2019	
Asset-1	1471.54	1153.55	51.95	0.00	51.95	1205.50	
Asset-2	1258.98	952.53	39.48	0.00	39.48	992.01	
Asset-3	2360.59	1726.66	166.82	0.00	166.82	1893.48	
Asset-4	2574.72	1893.60	86.08	0.00	86.08	1979.68	
Asset-5	2195.96	1721.17	201.25	0.00	201.25	1922.42	
Asset-6	4439.53	3354.38	451.8	0.00	451.80	3806.18	
Asset-7	3242.57	2604.93	221.76	0.00	221.76	2826.69	
Asset-8	4642.36	3233.67	187.29	0.00	187.29	3420.96	
Asset-9	3911.76	2050.16	74.16	0.00	74.16	2124.32	
Asset-10	2613.83	2146.38	103.62	0.00	103.62	2250.00	
Asset-11	10937	9481.60	383.92	0.00	383.92	9865.52	
Asset-12	1433.01	1019.66	37.95	0.00	37.95	1057.61	
Total	41081.85	31338.28	2006.08	0.00	2006.08	33344.36	

(₹ in lakh)

40. The petitioner has claimed the admissibility of additional capital expenditure before the cut-off date under Regulation 14(1) of 2014 Tariff Regulations. We have considered the submissions of the petitioner with regard to the estimated capital expenditure during 2014-19. The above mentioned additional capital expenditure is towards balance and retention payments and the same has been certified by the



Auditor vide certificates dated 2.12.2014 for all the assets. Further, the total capital cost

for all the assets as on31.3.2019 is within the approved apportioned cost of the project.

Thus, the same is allowed for the purpose of revision of tariff in accordance with

Regulation 14(1) of the 2014 Tariff Regulations.

Debt: Equity

41. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provideas

under:-

"19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:"

"(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered."

"(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as maybe admitted by the Commission as additional capital expenditure for determination oftariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

42. The normative debt:equity ratio has been considered to work out the tariff in

accordance with the 2014 Tariff Regulations as given below:-

					(₹ in I	akh)
Funding	Capital cost as on 31.3.2014	(%)	Additional capital expenditure during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	21936.80	70.00	1404.26	70.00	23341.05	70.00
Equity	9401.48	30.00	601.82	30.00	10003.31	30.00
Total	31338.28	100.00	2006.08	100.00	33344.36	100.00

Return on Equity ("ROE")

43. Clause (1) and (2) of Regulations 24 and Clause (2) of Regulation 25 of the 2014

Tariff Regulations specify as under:-



"24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system"

"25. Tax on Return on Equity:

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess."

44. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during the 2013-14 has been considered for the purpose of ROE, which shall be trued up with actual tax rate in accordance with Clause (3) of Regulation 25 of the 2014 Tariff Regulations. The ROE has been worked out and allowed as follows:-

				(₹ in	lakh)
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	9401.48	10003.31	10003.31	10003.31	10003.31
Additions	601.82	0.00	0.00	0.00	0.00
Closing Equity	10003.31	10003.31	10003.31	10003.31	10003.31
Average Equity	9702.40	10003.31	10003.31	10003.31	10003.31
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity	1902.68	1961.69	1961.69	1961.69	1961.69

Interest on Loan ("IoL")

45. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides as follows:-



"(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of thegenerating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest."

46. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2014. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed in Annexure 2. IoL has been worked out and allowed as follows:-

					(₹ in lakh)
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	21936.80	23341.05	23341.05	23341.05	23341.05
Cumulative Repayment upto Previous Year	2561.91	4240.08	5968.77	7697.46	9426.15
Net Loan-Opening	19374.89	19100.97	17372.28	15643.59	13914.90
Additions	1404.26	0.00	0.00	0.00	0.00
Repayment during the year	1678.17	1728.69	1728.69	1728.69	1728.69
Net Loan-Closing	19100.97	17372.28	15643.59	13914.90	12186.21
Average Loan	19237.93	18236.63	16507.94	14779.25	13050.56
Weighted Average Rate of Interest on Loan (%)	9.2442	9.2468	9.2449	9.2438	9.2478
Interest on Loan	1778.40	1686.30	1526.15	1366.16	1206.89

Depreciation



47. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as

follows:-

"27. Depreciation:

...(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis"

"(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets."

48. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014. depreciation up to 2014-19 tariff period has been calculated annually based on Straight Line Method and at rates specified in Appendix-II of the 2014 Tariff Regulations. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

				(₹ in la	akh)
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	31338.28	33344.36	33344.36	33344.36	33344.36
Additional Capitalisation	2006.08	0.00	0.00	0.00	0.00
Closing Gross Block	33344.36	33344.36	33344.36	33344.36	33344.36
Average Gross Block	32341.32	33344.36	33344.36	33344.36	33344.36
Freehold Land (Av. Cost)	109.18	109.18	109.18	109.18	109.18
Rate of Depreciation (%)	5.19	5.18	5.18	5.18	5.18
Depreciable Value	29008.93	30814.40	29911.66	29911.66	29911.66
Balance useful life of the asset	27.00	26.00	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Remaining Depreciable Value	26468.14	25692.70	23964.01	22235.32	20506.63



Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation during the year	1678.17	1728.69	1728.69	1728.69	1728.69
Depreciation upto previous year	2540.79	4218.96	5947.65	7676.34	9405.03
Cumulative depreciation	4218.96	5947.65	7676.34	9405.03	11133.72

Operation & Maintenance Expenses ("O&M Expenses")

49. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specifies the norms for

O&M Expenses for the transmission system. The total allowable O&M Expenses for the

instant assets have been worked out and allowed are as follows:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
132 kV Bays:	• •				
No. of Bays	14	14	14	14	14
Norms (₹lakh/Bay)	30.15	31.15	32.18	33.25	34.36
400 kV Bays:					
No. of Bays	19	19	19	19	19
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
S/C Single Conduc	torTransmissio	n line:			
Length(km)	15.00	15.00	15.00	15.00	15.00
Norms (₹ lakh/km)	0.202	0.209	0.216	0.223	0.230
D/C Twin/Triple Co	nductorTransm	ission line:			
Length(km)	40.387	40.387	40.387	40.387	40.387
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
D/C Single Conduc	torTransmissio	n line:			
Length(km)	20.40	20.40	20.40	20.40	20.40
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
Total O&M Expenses (₹ lakh)	1605.56	1658.84	1713.89	1770.85	1829.59

50. The petitioner has further submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be



effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also prayed that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase. Any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission asset as per prevailing norms.

Interest on Working Capital (IWC)

51. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specifies as follows:-

"28. Interest on Working Capital

(c) (i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) Operation and maintenance expenses for one month"

"(5) 'Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;"

52. The petitioner has submitted that it has computed interest on working capital for

the tariff block 2014-19 considering the SBI Base Rate plus 350 basis points as on

1.4.2014. The rate of interest on working capital considered is 13.50%.

53. The interest on working capital is worked out in accordance with Regulation 28 of

the 2014 Tariff Regulations. The rate of interest on working capital considered is

13.50% (SBI Base Rate of 10% plus 350 basis points). The components of the working

capital and interest thereon have been worked as follows:-

(₹ in lakh)



Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	133.74	138.18	142.77	147.51	152.40
Maintenance Spares	240.83	248.83	257.08	265.63	274.44
Receivables	1196.14	1208.49	1190.86	1173.60	1156.78
Total	1570.72	1595.50	1590.71	1586.74	1583.62
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	212.05	215.39	214.75	214.21	213.79

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

54. The transmission charges allowed for the instant transmission assets for the 2014-

19 tariff period are summarised below:-

				(₹ ir	n lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	31338.28	33344.36	33344.36	33344.36	33344.36
Additional Capitalisation	2006.08	0.00	0.00	0.00	0.00
Closing Gross Block	33344.36	33344.36	33344.36	33344.36	33344.36
Average Gross Block	32341.32	33344.36	33344.36	33344.36	33344.36
Freehold Land (Av. Cost)	109.18	109.18	109.18	109.18	109.18
Rate of Depreciation (%)	5.19	5.18	5.18	5.18	5.18
Depreciable Value	29008.93	30814.40	29911.66	29911.66	29911.66
Balance useful life of the asset	27.00	26.00	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Remaining Depreciable Value	26468.14	25692.70	23964.01	22235.32	20506.63
Depreciation during the year	1678.17	1728.69	1728.69	1728.69	1728.69
Depreciation upto previous year	2540.79	4218.96	5947.65	7676.34	9405.03
Cumulative depreciation	4218.96	5947.65	7676.34	9405.03	11133.72
Interest on Loan					
Gross Normative Loan	21936.80	23341.05	23341.05	23341.05	23341.05
Cumulative Repayment upto Previous Year	2561.91	4240.08	5968.77	7697.46	9426.15
Net Loan-Opening	19374.89	19100.97	17372.28	15643.59	13914.90
Additions	1404.26	0.00	0.00	0.00	0.00
Repayment during the year	1678.17	1728.69	1728.69	1728.69	1728.69
Net Loan-Closing	19100.97	17372.28	15643.59	13914.90	12186.21
Average Loan	19237.93	18236.63	16507.94	14779.25	13050.56
Weighted Average Rate of	9.2442	9.2468	9.2449	9.2438	9.2478



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Loan (%)					
Interest on Loan	1778.40	1686.30	1526.15	1366.16	1206.89
Return on Equity					
Opening Equity	9401.48	10003.31	10003.31	10003.31	10003.31
Additions	601.82	0.00	0.00	0.00	0.00
Closing Equity	10003.31	10003.31	10003.31	10003.31	10003.31
Average Equity	9702.40	10003.31	10003.31	10003.31	10003.31
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity	1902.68	1961.69	1961.69	1961.69	1961.69
Interest on Working Capital					
O & M expenses	133.74	138.18	142.77	147.51	152.40
Maintenance Spares	240.83	248.83	257.08	265.63	274.44
Receivables	1196.14	1208.49	1190.86	1173.60	1156.78
Total	1570.72	1595.50	1590.71	1586.74	1583.62
Rate of Interest(%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	212.05	215.39	214.75	214.21	213.79
Annual Transmission Charges					
Depreciation	1678.17	1728.69	1728.69	1728.69	1728.69
Interest on Loan	1778.40	1686.30	1526.15	1366.16	1206.89
Return on Equity	1902.68	1961.69	1961.69	1961.69	1961.69
Interest on Working Capital	212.05	215.39	214.75	214.21	213.79
O & M Expenses	1605.56	1658.84	1713.89	1770.85	1829.59
Total	7176.87	7250.92	7145.17	7041.60	6940.66

55. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. However, the COD of the asset is after 2009, hence the claim of the petitioner is infructuous.

Filing Fee and the Publication Expenses



56. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 52 (1) of the 2014 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

57. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52 (2) (b) of the 2014 Tariff Regulations for 2014-19 tariff period. The petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 52 (2) (a) of the 2014 Tariff Regulations for 2014-19 tariff period.

<u>Service Tax</u>

58. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

59. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations.

60. This order disposes of Petition No.553/TT/2014.

Sd/-

Sd/-

(Dr. M.K. lyer) Member (A.S. Bakshi) Member



Annexure – 1

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)

(₹ in lakh)

Accet 1							
Asset -1							
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total			
BOND XXXI-DOCO DRAWL ON 01-NOV 2012-	8.90	125.00	0.00	125.00			
BOND XXXIII-DOCO DRAWL ON 01-NOV- 2012-	8.64	125.00	0.00	125.00			
BOND-XXXIV-DOCO DRAWL ON 01-NOV- 2012-	8.84	125.00	0.00	125.00			
BOND XXXVII-DOCO Funding-	9.25	100.00	0.00	100.00			
BOND XXXVIII-DOCO Funding-	9.25	115.00	0.00	115.00			
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap Funding-	8.85	0.00	126.26	126.26			
BOND -XLI-ADDCAP FOR 2013-2014 Add Cap Funding-	8.85	0.00	73.16	73.16			
BOND - XLI-DOCO Funding-	8.85	29.44	0.00	29.44			
Total		619.44	199.42	818.86			

Ass	et -2			
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-DOCO DRAWL ON 01-DEC- 2012-	8.90	125.00	0.00	125.00
BOND XXXIII-DOCO DRAWL ON 01-DEC- 2012-	8.64	125.00	0.00	125.00
BOND-XXXIV-DOCO DRAWL ON 01-DEC- 2012-	8.84	125.00	0.00	125.00
BOND XXXVII-DOCO DRAWL ON 01-DEC- 2012-	9.25	83.00	0.00	83.00
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap Funding-	8.85	0.00	125.64	125.64
BOND - XLI-ADDCAP FOR 2013-2014 Add Cap Funding-	8.85	0.00	24.96	24.96
BOND - XLI-DOCO DRAWL ON 01-DEC- 2012-	8.85	66.21	0.00	66.21
Total		524.21	150.60	674.81



Asset -3						
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total		
BOND XXXI-DOCO Funding-	8.90	50.00	0.00	50.00		
BOND XXXIII-DOCO Funding-	8.64	50.00	0.00	50.00		
BOND-XXXIV-DOCO Funding-	8.84	200.00	0.00	200.00		
BOND XXXVIII-DOCO Funding-	9.25	100.00	0.00	100.00		
BOND XXXIX-DOCO Funding-	9.40	63.00	0.00	63.00		
BOND XL-DOCO Funding-	9.30	200.00	0.00	200.00		
BOND - XLI-DOCO Funding-	8.85	200.00	0.00	200.00		
BOND -XLII-DOCO Funding-	8.80	148.98	0.00	148.98		
BOND - XLIII-ADDCAP FOR ADDCAP FOR 2013-2014 Add Cap Funding-	7.93	0.00	196.68	196.68		
Total		1011.98	196.68	1208.66		

Asset -4							
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total			
BOND-XXXIV-DOCO DRAWL ON 01-JAN- 2013-	8.84	200.00	0.00	200.00			
BOND-XXXV-DOCO DRAWL ON 01-JAN- 2013-	9.64	725.00	0.00	725.00			
BOND -XLI-ADDCAP FOR 2012-2013 Add Cap Funding-	8.85	0.00	5.11	5.11			
BOND - XLI-ADDCAP FOR 2013-2014 Add Cap Funding-	8.85	0.00	182.54	182.54			
BOND - XLI-DOCO Funding-	8.85	213.47	0.00	213.47			
Total		1138.47	187.65	1326.12			

Asset -5							
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total			
BOND-XXXIV-DOCO Funding-	8.84	100.00	0.00	100.00			
BOND-XXXV-DOCO DRAWL ON 01-MAY- 2012-	9.64	600.00	0.00	600.00			
BOND XXXVIII-DOCO Funding-	9.25	283.45	0.00	283.45			
BOND XL-ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	0.00	184.37	184.37			
BOND - XLIV-ADDCAP FOR 2013-2014 Add Cap	8.70	0.00	37.51	37.51			
Total		983.45	221.88	1205.33			



Asset -6				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND-XXXIV-DOCO Funding-	8.84	200.00	0.00	200.00
BOND-XXXV-DOCO Funding-	9.64	1100.00	0.00	1100.00
BOND XXXIX-DOCO Funding-	9.40	184.38	0.00	184.38
BOND XL-ADDCAP FOR 2012-2013 ADDCAP Funding-	9.30	0.00	603.72	603.72
BOND - XLIV-ADDCAP FOR 2013-2014 ADDCAP Funding-	8.70	0.00	259.96	259.96
Total		1484.38	863.68	2348.06

Asset -7				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND-XXXIV-DOCO DRAWL ON 01-JUL- 2012-	8.84	900.00	0.00	900.00
BOND-XXXV-DOCO Funding-	9.64	400.00	0.00	400.00
BOND XXXVIII-DOCO Funding-	9.25	210.00	0.00	210.00
BOND XL-ADDCAP FOR 2012-2013 ADDCAP Funding-	9.30	0.00	168.82	168.82
BOND XL-DOCO Funding-	9.30	66.57	0.00	66.57
BOND - XLIV-ADDCAP FOR 2013-2014 ADDCAP Funding-	8.70	0.00	78.06	78.06
Total		1576.57	246.88	1823.45

Asset -8				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND-XXXIV-DOCO Funding-	8.84	900.00	0.00	900.00
BOND-XXXV-DOCO DRAWL ON 01-JUL-	9.64	200.00	0.00	200.00
2012-				
BOND XXXVIII-DOCO Funding-	9.25	515.00	0.00	515.00
BOND XXXIX-DOCO Funding-	9.40	335.00	0.00	335.00
BOND XL-ADDCAP FOR 2012-2013 Add Cap	9.30	0.00	160.41	160.41
Funding-				
BOND XL-DOCO Funding-	9.30	81.99	0.00	81.99
BOND - XLIV-ADDCAP FOR 2013-2014 Add	8.70	0.00	71.18	71.18
Cap Funding-				
Total		2031.99	231.59	2263.58



Asset -9				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-DOCO DRAWL ON 01-JUL- 2012-	8.90	45.00	0.00	45.00
BOND XXXIII-DOCO DRAWL ON 01-JUL- 2012-	8.64	25.00	0.00	25.00
BOND-XXXIV-DOCO DRAWL ON 01-JUL- 2012-	8.84	21.00	0.00	21.00
BOND-XXXV-DOCO Funding-	9.64	400.00	0.00	400.00
BOND XXXVI-DOCO Funding-	9.35	432.00	0.00	432.00
BOND XL-DOCO Funding-	9.30	140.40	0.00	140.40
BOND - XLI-ADDCAP FOR 2012-2013 Add Cap Funding-	8.85	0.00	329.28	329.28
BOND - XLIV-ADDCAP FOR 2013-2014 Add Cap Funding-	8.70	0.00	42.43	42.43
Total		1063.40	371.71	1435.11

Asset -10				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
	0.00	450.00	0.00	450.00
BOND XXXI-DOCO DRAWL ON 01-JUL- 2012-	8.90	150.00	0.00	150.00
BOND XXXIII-DOCO DRAWL ON 01-JUL- 2012-	8.64	50.00	0.00	50.00
BOND-XXXIV-DOCO Funding-	8.84	106.82	0.00	106.82
BOND-XXXV-DOCO Funding-	9.64	600.00	0.00	600.00
BOND XXXVI-DOCO Funding-	9.35	490.00	0.00	490.00
BOND XL-ADDCAP FOR 2012-2013	9.30	0.00	84.57	84.57
BOND - XLIV-ADDCAP FOR 2013-2014	8.70	0.00	21.08	21.08
Total		1396.82	105.65	1502.47

Asset -11				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-DOCO Funding-	8.90	300.00	0.00	300.00
BOND XXXIII-DOCO Funding-	8.64	150.00	0.00	150.00
BOND-XXXIV-DOCO Funding-	8.84	125.00	0.00	125.00



BOND-XXXV-DOCO Funding-	9.64	2000.00	0.00	2000.00
BOND XXXVI-DOCO Funding-	9.35	2140.00	0.00	2140.00
BOND XXXVII-DOCO Funding-	9.25	185.00	0.00	185.00
BOND XXXIX-DOCO Funding-	9.40	914.23	0.00	914.23
BOND XL-ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	0.00	535.90	535.90
BOND - XLIV-ADDCAP FOR 2013-2014 Add Cap Funding-	8.70	0.00	288.68	288.68
Total		5814.23	824.58	6638.81

Asset -12				
Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-DOCO Funding-	8.90	50.00	0.00	50.00
BOND XXXIII-DOCO DRAWL ON 01-NOV- 2012-	8.64	25.00	0.00	25.00
BOND XXXVI-DOCO Funding-	9.35	100.00	0.00	100.00
BOND XXXVII-DOCO Funding-	9.25	222.00	0.00	222.00
BOND XXXVIII-DOCO Funding-	9.25	182.87	0.00	182.87
BOND XL-ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	0.00	39.21	39.21
BOND - XLIV-ADDCAP FOR 2013-2014	8.70	0.00	94.68	94.68
Total		579.87	133.89	713.76

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

Asset-1					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	619.44	745.70			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	619.44	745.70			
Add: Drawl(s) during the Year	126.26	73.16			
Less: Repayments during the year	0.00	10.42			
Net Closing Loan	745.70	808.44			
Average Net Loan	682.57	777.07			
Rate of Interest on Loan (%)*	8.94486	8.93299			
Interest on Loan	61.05	69.42			





Asset-2					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	524.21	649.85			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	524.21	649.85			
Add: Drawl(s) during the Year	125.64	24.96			
Less: Repayments during the year	0.00	10.42			
Net Closing Loan	649.85	664.39			
Average Net Loan	587.03	657.12			
Rate of Interest on Loan (%)*	8.8704	8.8678			
Interest on Loan	52.07	58.27			

Asset-3				
Particulars	2013-14 (pro-rata)			
Gross Opening Loan	1011.98			
Cumulative Repayments of Loans up to Previous Year	0.00			
Net Loans Opening	1011.98			
Add: Drawl(s) during the Year	196.68			
Less: Repayments during the year	4.17			
Net Closing Loan	1204.49			
Average Net Loan	1108.24			
Rate of Interest on Loan (%)*	8.9011			
Interest on Loan	98.65			

Asset-4					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	1138.47	1143.58			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	1138.47	1143.58			
Add: Drawl(s) during the Year	5.11	182.54			
Less: Repayments during the year	0.00	0.00			
Net Closing Loan	1143.58	1326.12			
Average Net Loan	1141.03	1234.85			
Rate of Interest on Loan (%)*	9.3502	9.3122			
Interest on Loan	106.69	114.99			

Asset-5					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	983.45	1167.82			
Cumulative Repayments of Loans up	0.00	0.00			



to Previous Year		
Net Loans Opening	983.45	1167.82
Add: Drawl(s) during the Year	184.37	37.51
Less: Repayments during the year	0.00	0.00
Net Closing Loan	1167.82	1205.33
Average Net Loan	1075.64	1186.58
Rate of Interest on Loan (%)*	9.4337	9.4117
Interest on Loan	101.47	111.68

Asset-6					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	1484.38	2088.10			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	1484.38	2088.10			
Add: Drawl(s) during the Year	603.72	259.96			
Less: Repayments during the year	0.00	0.00			
Net Closing Loan	2088.10	2348.06			
Average Net Loan	1786.24	2218.08			
Rate of Interest on Loan (%)*	9.4682	9.4003			
Interest on Loan	169.12	208.51			

Asset-7					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	1576.57	1745.39			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	1576.57	1745.39			
Add: Drawl(s) during the Year	168.82	78.06			
Less: Repayments during the year	0.00	0.00			
Net Closing Loan	1745.39	1823.45			
Average Net Loan	1660.98	1784.42			
Rate of Interest on Loan (%)*	9.1263	9.1252			
Interest on Loan	151.59	162.83			

Asset-8					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	2031.99	2192.40			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	2031.99	2192.40			
Add: Drawl(s) during the Year	160.41	71.18			
Less: Repayments during the year	0.00	0.00			
Net Closing Loan	2192.40	2263.58			
Average Net Loan	2112.20	2227.99			



Rate of Interest on Loan (%)*	9.1399	9.1386
Interest on Loan	193.05	203.61

Asset-9					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	1063.40	1392.68			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	1063.40	1392.68			
Add: Drawl(s) during the Year	329.28	42.43			
Less: Repayments during the year	0.00	3.75			
Net Closing Loan	1392.68	1431.36			
Average Net Loan	1228.04	1412.02			
Rate of Interest on Loan (%)*	9.3320	9.2669			
Interest on Loan	114.60	130.85			

Asset-10					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	1396.82	1481.39			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	1396.82	1481.39			
Add: Drawl(s) during the Year	84.57	21.08			
Less: Repayments during the year	0.00	12.50			
Net Closing Loan	1481.39	1489.97			
Average Net Loan	1439.11	1485.68			
Rate of Interest on Loan (%)*	9.3600	9.3556			
Interest on Loan	134.70	138.99			

Asset-11					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	5814.23	6350.13			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	5814.23	6350.13			
Add: Drawl(s) during the Year	535.90	288.68			
Less: Repayments during the year	0.00	25.00			
Net Closing Loan	6350.13	6613.81			
Average Net Loan	6082.18	6481.97			
Rate of Interest on Loan (%)*	9.3974	9.3788			
Interest on Loan	571.57	607.93			



Asset-12					
Particulars	2012-13 (pro-rata)	2013-14			
Gross Opening Loan	579.87	619.08			
Cumulative Repayments of Loans up to Previous Year	0.00	0.00			
Net Loans Opening	579.87	619.08			
Add: Drawl(s) during the Year	39.21	94.68			
Less: Repayments during the year	0.00	4.17			
Net Closing Loan	619.08	709.59			
Average Net Loan	599.48	664.34			
Rate of Interest on Loan (%)*	9.2137	9.1806			
Interest on Loan	55.23	60.99			

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan upto two decimal points.



Annexure – 2

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)

				(₹ in lakh)
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXI-11.DOCO DRAWL ON 01-JUL- 2012-	8.90	45.00	0.00	45.00
BOND XXXI-25.DOCO DRAWL ON 01-JUL- 2012-	8.90	150.00	0.00	150.00
BOND XXXI-39.DOCO Funding-	8.90	300.00	0.00	300.00
BOND XXXI-49.DOCO Funding-	8.90	50.00	0.00	50.00
BOND XXXI-55.DOCO Funding-	8.90	125.00	0.00	125.00
BOND XXXI-63.DOCO DRAWL ON 01-DEC- 2012-	8.90	125.00	0.00	125.00
BOND XXXI-75.DOCO Funding-	8.90	50.00	0.00	50.00
BOND XXXIII-12.DOCO DRAWL ON 01-JUL- 2012-	8.64	25.00	0.00	25.00
BOND XXXIII-26.DOCO DRAWL ON 01-JUL- 2012-	8.64	50.00	0.00	50.00
BOND XXXIII-40.DOCO Funding-	8.64	150.00	0.00	150.00
BOND XXXIII-48.DOCO DRAWL ON 01-NOV- 2012-	8.64	25.00	0.00	25.00
BOND XXXIII-56.DOCO Funding-	8.64	125.00	0.00	125.00
BOND XXXIII-64.DOCO DRAWL ON 01-DEC- 2012-	8.64	125.00	0.00	125.00
BOND XXXIII-76.DOCO Funding-	8.64	50.00	0.00	50.00
BOND-XXXIV-1.DOCO Funding-	8.84	200.00	0.00	200.00
BOND-XXXIV-13.DOCO DRAWL ON 01-JUL- 2012-	8.84	21.00	0.00	21.00
BOND-XXXIV-19.DOCO DRAWL ON 01-JUL- 2012-	8.84	900.00	0.00	900.00
BOND-XXXIV-27.DOCO Funding-	8.84	106.82	0.00	106.82
BOND-XXXIV-32.DOCO Funding-	8.84	900.00	0.00	900.00
BOND-XXXIV-41.DOCO Funding-	8.84	125.00	0.00	125.00
BOND-XXXIV-57.DOCO Funding-	8.84	125.00	0.00	125.00
BOND-XXXIV-6.DOCO Funding-	8.84	100.00	0.00	100.00
BOND-XXXIV-65.DOCO DRAWL ON 01- DEC-2012-	8.84	125.00	0.00	125.00
BOND-XXXIV-70.DOCO DRAWL ON 01-JAN- 2013-	8.84	200.00	0.00	200.00
BOND-XXXIV-77.DOCO Funding-	8.84	200.00	0.00	200.00
BOND-XXXV-14.DOCO Funding-	9.64	400.00	0.00	400.00
BOND-XXXV-2.DOCO Funding-	9.64	1100.00	0.00	1100.00



BOND-XXXV-20.DOCO Funding-	9.64	400.00	0.00	400.00
BOND-XXXV-28.DOCO Funding-	9.64	600.00	0.00	600.00
BOND-XXXV-33.DOCO DRAWL ON 01-JUL- 2012-	9.64	200.00	0.00	200.00
BOND-XXXV-42.DOCO Funding-	9.64	2000.00	0.00	2000.00
BOND-XXXV-7.DOCO DRAWL ON 01-MAY- 2012-	9.64	600.00	0.00	600.00
BOND-XXXV-71.DOCO DRAWL ON 01-JAN- 2013-	9.64	725.00	0.00	725.00
BOND XXXVI-15.DOCO Funding-	9.35	432.00	0.00	432.00
BOND XXXVI-29.DOCO Funding-	9.35	490.00	0.00	490.00
BOND XXXVI-43.DOCO Funding-	9.35	2140.00	0.00	2140.00
BOND XXXVI-50.DOCO Funding-	9.35	100.00	0.00	100.00
BOND XXXVII-44.DOCO Funding-	9.25	185.00	0.00	185.00
BOND XXXVII-51.DOCO Funding-	9.25	222.00	0.00	222.00
BOND XXXVII-58.DOCO Funding-	9.25	100.00	0.00	100.00
BOND XXXVII-66.DOCO DRAWL ON 01- DEC-2012-	9.25	83.00	0.00	83.00
BOND XXXVIII-21.DOCO Funding-	9.25	210.00	0.00	210.00
BOND XXXVIII-34.DOCO Funding-	9.25	515.00	0.00	515.00
BOND XXXVIII-52.DOCO Funding-	9.25	182.87	0.00	182.87
BOND XXXVIII-59.DOCO Funding-	9.25	115.00	0.00	115.00
BOND XXXVIII-78.DOCO Funding-	9.25	100.00	0.00	100.00
BOND XXXVIII-8.DOCO Funding-	9.25	283.45	0.00	283.45
BOND XXXIX-3.DOCO Funding-	9.40	184.38	0.00	184.38
BOND XXXIX-35.DOCO Funding-	9.40	335.00	0.00	335.00
BOND XXXIX-45.DOCO Funding-	9.40	914.23	0.00	914.23
BOND XXXIX-79.DOCO Funding-	9.40	63.00	0.00	63.00
BOND XL-16.DOCO Funding-	9.30	140.40	0.00	140.40
BOND XL-22.ADDCAP FOR 2012-2013 ADDCAP Funding-	9.30	168.82	0.00	168.82
BOND XL-23.DOCO Funding-	9.30	66.57	0.00	66.57
BOND XL-31.ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	84.57	0.00	84.57
BOND XL-36.DOCO Funding-	9.30	81.99	0.00	81.99
BOND XL-37.ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	160.41	0.00	160.41
BOND XL-4.ADDCAP FOR 2012-2013 ADDCAP Funding-	9.30	603.72	0.00	603.72
BOND XL-46.ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	535.90	0.00	535.90
BOND XL-53.ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	39.21	0.00	39.21
BOND XL-80.DOCO Funding-	9.30	200.00	0.00	200.00
BOND XL-9.ADDCAP FOR 2012-2013 Add Cap Funding-	9.30	184.37	0.00	184.37
BOND - XLI-17.ADDCAP FOR 2012-2013 Add Cap Funding-	8.85	329.28	0.00	329.28



BOND - XLI-60.DOCO Funding-	8.85	29.44	0.00	29.44
BOND - XLI-61.ADDCAP FOR 2012-2013 Add	8.85	126.26	0.00	126.26
cap funding-				
BOND - XLI-62.ADDCAP FOR 2013-2014 Add	8.85	73.16	0.00	73.16
cap funding-				
BOND - XLI-67.ADDCAP FOR 2012-2013 Add	8.85	125.64	0.00	125.64
Cap Funding-				
BOND - XLI-68.ADDCAP FOR 2013-2014 Add	8.85	24.96	0.00	24.96
Cap Funding-		_		
BOND - XLI-69.DOCO DRAWL ON 01-DEC-	8.85	66.21	0.00	66.21
2012-				
BOND - XLI-72.ADDCAP FOR 2012-2013 Add	8.85	5.11	0.00	5.11
Cap Funding-				
BOND - XLI-73.ADDCAP FOR 2013-2014 Add	8.85	182.54	0.00	182.54
Cap Funding-	0.05	040.47	0.00	040.47
BOND - XLI-74.DOCO Funding-	8.85	213.47	0.00	213.47
BOND - XLI-81.DOCO Funding-	8.85	200.00	0.00	200.00
BOND - XLII-82.DOCO Funding-	8.80	148.98	0.00	148.98
BOND - XLIII-83.ADDCAP FOR ADDCAP	7.93	196.68	0.00	196.68
FOR 2013-2014 Add Cap Funding-				
BOND - XLIV-10.ADDCAP FOR 2013-2014	8.70	37.51	0.00	37.51
Add Cap Funding-				
BOND - XLIV-18.ADDCAP FOR 2013-2014	8.70	42.43	0.00	42.43
Add Cap Funding-				
BOND - XLIV-24.ADDCAP FOR 2013-2014	8.70	78.06	0.00	78.06
ADDCAP Funding-				
BOND - XLIV-30.ADDCAP FOR 2013-2014	8.70	21.08	0.00	21.08
Add Cap Funding-				
	_	1	1	I — .
BOND - XLIV-38.ADDCAP FOR 2013-2014	8.70	71.18	0.00	71.18
Add Cap Funding-				
BOND - XLIV-47.ADDCAP FOR 2013-2014	8.70	288.68	0.00	288.68
Add Cap Funding-	. = .			
BOND - XLIV-5.ADDCAP FOR 2013-2014	8.70	259.96	0.00	259.96

8.70

94.68

21959.02

0.00

0.00



ADDCAP Funding-BOND - XLIV-54.ADDCAP FOR 2013-2014

Add Cap Funding-

Total

94.68

21959.02

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2014-19 TARIFF PERIOD

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	21959.02	21959.02	21959.02	21959.02	21959.02
Cumulative Repayments of Loans up to Previous Year	70.43	436.95	1354.73	2786.84	4235.34
Net Loans Opening	21888.59	21522.07	20604.29	19172.18	17723.68
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the vear	366.52	917.78	1432.11	1448.50	1746.36
Net Closing Loan	21522.07	20604.29	19172.18	17723.68	15977.32
Average Net Loan	21705.33	21063.18	19888.24	18447.93	16850.50
Rate of Interest on Loan (%)*	9.2442	9.2468	9.2449	9.2438	9.2478
Interest on Loan	2006.49	1947.67	1838.66	1705.28	1558.30

*Petitioner, in the tariff computation submitted with the petition, has considered rate of interest on loan upto two decimal points.

