

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 7/TT/2015

Coram:

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

**Date of Hearing : 08.02.2016
Date of Order : 11.03.2016**

In the matter of:

Truing up of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for Asset-1(i): LILO of 400 kV D/C Bina –Nagda at Shujalpur S/S along with 50 MVAR Line Reactor at Shujalpur (COD: 1.6.2011), Asset-1(ii): Switchable Scheme for Reactor at Nagda S/S (COD: 1.6.2013), Asset-1(iii): Switchable Scheme for Reactor at Bina S/S (COD: 1.10.2013), Asset-2: 400kV, 63 MVAR Bus Reactor at Shujalpur along with associated bays of 400kV (COD: 1.4.2012), Asset-3: 400/220 kV ICT I at Shujalpur along with associated bays of 400kV & 220kV (COD: 1.10.2011), Asset-4: ICT II at Shujalpur along with associated bays of 400kV & 220kV (COD: 1.12.2011) associated with WRSS IX Transmission scheme in Western Region, under 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 -122 001 (Haryana).

.....**Petitioner**

Versus

1. Madhya Pradesh Power Trading Company Ltd.
Shakti Bhawan, Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.



Prakashgad, 4th Floor, Bandra (East), Mumbai-400052

3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara- 390007
4. Electricity Department
Govt. of Goa,
Vidyut Bhawan, Panaji- 403001
5. Electricity Department
Administration of Daman & Diu,
Daman- 396210
6. Electricity Department
Administration of Dadra Nagar Haveli,
U.T., Silvassa- 396230
7. Chhattisgarh State Electricity Board
P.O Sunder Nagar, Dangania, Raipur
Chhattisgarh-492013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road
Indore-452008

.....**Respondents**

The following were present:-

For Petitioner:	Shri Mohd Mohsin, PGCIL
	Shri S.K Venkatesan, PGCIL
	Shri M.M Mondal, PGCIL
	Shri Sonam Gangwar, PGCIL
	Shri A.M Pavgi, PGCIL
	Shri Pankaj Sharma, PGCIL
	Shri Jasbir Singh, PGCIL
	Shri S. S. Raju, PGCIL
	Shri Rakesh Prasad, PGCIL
	Shri Subhash C Taneja, PGCIL

For Respondent:	None
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ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. (“the petitioner”), for truing up of capital expenditure and tariff for transmission system under WRSS IX Scheme in Western Region (hereinafter referred as “transmission asset”) 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 actual capital expenditure for the period from COD to 31.3.2014 for the transmissions assets covered and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 for Combined Assets. The details of the assets along with COD and approved apportioned cost are as under:

Assets name	Date of commercial operation	Approved apportioned cost (₹ in lakh)
LILO of 400 kV D/C Bina –Nagda at Shujalpur S/S along with 50 MVAR Line Reactor at Shujalpur (referred as “Asset-1(i)”)	1.6.2011	10533.96
Switchable Scheme for Reactor at Nagda S/S (referred as “ Asset-1(ii) ”)	1.6.2013	307.81
Switchable Scheme for Reactor at Bina S/S (referred as “ Asset-1(iii) ”)	1.10.2013	282.02
400kV, 63 MVAR Bus Reactor at Shujalpur alongwith associated bays of 400kV (referred as “ Asset-2 ”)	1.4.2012	879.09
400/220 kV ICT I at Shujalpur along with associated bays of 400kV & 220kV (referred as “ Asset-3 ”)	1.10.2011	3854.72
ICT II at Shujalpur along with associated bays of 400kV & 220kV (“ Asset-4 ”)	1.12.2011	2106.09
Total		17963.69



2. The respondents are distribution licensees, electricity departments and centralised companies who are procuring transmission service from the petitioner, mainly beneficiaries of the Western Region.

3. 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 Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 8.2.2016. None of the respondents have filed their reply. In response to letter dated 8.2.2016, the petitioner has submitted its replies vide affidavit dated 17.2.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) Investment approval for the "Western Region Strengthening Scheme-IX" was accorded by the petitioner vide their letter no. C/CP/WRSSS-IX dated 25.4.2008 at an estimated cost of ₹23089 lakh including IDC of ₹1761 lakh (based on 1st Quarter 2008 price level). The petitioner has built the transmission asset in the Western Region. The tariff from COD to 31.3.2014 for the assets was allowed vide order dated 15.5.2014 in Petition No. 88/TT/2011 in accordance with the 2009 Tariff Regulations.

The tariff allowed for the 2009-14 tariff period is as under:-

(₹ in lakh)



Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	217.74	301.89	335.74
Interest on Loan	266.06	350.66	369.22
Return on Equity	232.66	325.33	365.08
Interest on Working Capital	24.29	32.19	34.75
O&M Expenses	208.11	264.02	279.11
Total	948.86	1274.09	1383.90

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Depreciation	6.66	3.50	32.88	35.34
Interest on Loan	7.83	4.14	38.52	38.38
Return on Equity	6.62	3.48	32.66	35.10
Interest on Working Capital	6.36	3.78	5.82	6.12
O&M Expenses	109.10	65.46	61.92	65.46
Total	136.57	80.36	171.80	180.40

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	67.20	151.69	165.08
Interest on Loan	78.54	167.73	169.46
Return on Equity	66.52	150.10	163.40
Interest on Working Capital	10.56	22.74	24.07
O&M Expenses	131.79	278.62	294.56
Total	354.61	770.88	816.57

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	21.92	72.50	80.25
Interest on Loan	26.17	82.34	84.74
Return on Equity	21.78	72.01	79.71
Interest on Working Capital	2.99	9.58	10.22



Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
O&M Expenses	33.19	105.26	111.28
Total	106.05	341.69	366.20

(b) The tariff for the assets was allowed vide order dated 15.5.2014 in Petition No. 88/TT/2011 considering the capital cost of ₹4911.90 lakh for Asset-1(i), ₹134.65 lakh for Asset-1(ii), ₹94.96 lakh for Asset-1(iii), ₹609.79 lakh for Asset-2, ₹2387.00 lakh for Asset-3 and ₹1183.19 lakh for Asset-4 as on COD.

(c) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

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

5. The truing up of tariff for the 2009-14 tariff period for the assets has been determined as discussed below:

Capital Cost

6. The Commission in its order dated 15.5.2014 in Petition No. 88/TT/2011 had approved the capital cost (including IDC/IEDC and excess initial spares) of ₹4996.02 lakh, ₹189.05 lakh, ₹143.30 lakh, ₹631.93 lakh, ₹2396.40 lakh and ₹1183.32 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively as on COD (1.6.2011, 1.6.2013, 1.10.2013, 1.4.2012, 1.10.2011



and 1.12.2011 for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, for the purpose of tariff. However, the capital cost as on COD has been revised for Asset-1(i), Asset-3 and Asset-4. Accordingly, the petitioner has claimed capital cost (including IDC/IEDC and excess initial spares) of ₹5018.44 lakh, ₹189.05 lakh, ₹143.33 lakh, ₹631.93 lakh, ₹2449.98 lakh and ₹1225.72 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively as on COD (as per Auditor's Certificate) for the purpose of tariff. In this regard, the petitioner was directed vide letter dated 8.2.2016, to submit the justification for revising cost as on COD for Asset-1(i), Asset-3 and Asset-4 vis-à-vis that approved by the Commission. The petitioner in response vide affidavit dated 17.2.2016 submitted that cost as on COD for Asset-1(i), Asset-3 and Asset-4 has been revised against that claimed earlier due to change in IDC/IEDC as the IDC/IEDC was finalized after finalization of 2011-12 balance sheet. The certificates submitted earlier were prepared during 2011-12 after commissioning of Assets- 1(i), 3 and 4 but before finalization of 2011-12 balance sheet.

7. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(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.”

8. The petitioner has submitted the Auditor’s Certificate certifying the capital cost as on COD and additional capitalization claimed thereafter. Thus, the capital cost (including excess initial spares and IDC/IEDC) has been considered as ₹5018.44 lakh, ₹189.05 lakh, ₹143.33 lakh, ₹631.93 lakh, ₹2449.98 lakh and ₹1225.72 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, as on COD.

IDC and IEDC

9. In accordance with the order dated 15.5.2015 in Petition No. 88/TT/2011, the IDC and IEDC were deducted from the capital cost of the assets. Details of IDC and IEDC disallowed by the Commission are as shown below:-

(₹ in lakh)			
Asset	Particulars	IDC	IEDC
Asset-1(ii)	Total IDC and IEDC claimed upto 31.5.2013	33.51	33.08
	Disallowed IDC and IEDC for 28 months	17.35	16.03
Asset-1(iii)	Total IDC and IEDC claimed 30.9.2013	24.65	18.21
	Disallowed IDC and IEDC for 32 months	17.42	10.33
Asset-2	Total IDC and IEDC claimed upto 31.3.2012	46.52	43.69
	Disallowed IDC and IEDC for 5 months	9.16	12.98
Asset-4	Total IDC and IEDC claimed upto 30.11.2011	61.12	77.55
	Disallowed IDC and IEDC for 1 month	0.12	0.01

10. The petitioner in the instant petition has submitted the capital cost of assets as on COD after deducting IDC and IEDC disallowed in order dated 13.5.2014. As the IDC/IEDC claimed by the petitioner for Asset-1(ii) and Asset-1(iii) in accordance with Auditor’s Certificate is same as that approved by the



Commission in its order dated 15.5.2014 in Petition No. 88/TT/2011, we have considered the petitioner's submissions for Asset-1(ii) and Asset-1(iii). However, there is change in IDC/IEDC claimed by the petitioner in accordance with Auditor's Certificate for Asset-2 and Asset-4 with reference to that approved by the Commission in order dated 15.5.2014. Consequently, IDC/IEDC disallowed corresponding to the delay period will undergo change. Accordingly, IDC and IEDC has been worked out for Asset-2 and Asset-4 is given as below:-

(₹ in lakh)

Asset-2		
Detail of IDC and IEDC as per Auditor Certificate dated 20.12.2014		
	IEDC	IDC
Total time (in months) taken for commissioning	47 months	47 months
Total IDC and IEDC Claimed	46.52	43.69
Total Disallowed IDC and IEDC (for 5 months)	4.95	4.65

(₹ in lakh)

Asset-4		
Detail of IDC and IEDC as per Auditor Certificate dated 20.12.2014		
	IEDC	IDC
Total time (in months) taken for commissioning	43 months	43 months
Total IDC and IEDC Claimed	82.69	98.38
Total Disallowed IDC and IEDC (for 1 month)	1.92	2.29

11. The IDC and IEDC disallowed are as follows:-

(₹ in lakh)

Asset	Particulars	IDC	IEDC
Asset-1(ii)	Disallowed IDC and IEDC for 28 months	17.35	16.03
Asset-1(iii)	Disallowed IDC and IEDC for 32 months	17.42	10.33
Asset-2	Disallowed IDC and IEDC for 5 months	4.95	4.65
Asset-4	Disallowed IDC and IEDC for 1 month	1.92	2.29

Initial Spares

12. The petitioner has claimed initial spares of ₹211.40 lakh, ₹29.67 lakh, ₹28.45 lakh, ₹7.59 lakh, ₹89.26 lakh and ₹36.10 lakh pertaining to the sub-



station for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively. In order dated 15.5.2014, initial spares of ₹84.12 lakh, ₹21.02 lakh, ₹20.58 lakh, ₹0.00 lakh, ₹9.40 lakh and ₹0.00 lakh pertaining to the sub-station for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, was disallowed considering the capital cost as on COD and additional capital expenditure upto the end of the tariff period 31.3.2014 and the initial spares was to be reviewed at the time of true up considering the additional capital expenditure during the 2014-19 period.

13. The petitioner has submitted actual capital expenditure for true up of tariff during 2009-14 tariff period as per 2009 Tariff Regulations and also submitted the estimated capital expenditure for determination of tariff during 2014-19 tariff period in accordance with the 2014 Tariff Regulations. The initial spares have been worked out by considering the additional capital expenditure upto cut-off date which falls beyond 31.3.2014 period.

14. Regulation 8 of the 2009 tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:

- (iv) Transmission system
 - (a) Transmission line - 0.75%
 - (b) Transmission Sub-station - 2.5%
 - (c) Series Compensation devices and HVDC Station - 3.5%.....”

15. The calculation for the treatment of initial spares for sub-station has been shown in the table given below:-



(₹ in lakh)

Description Sub-station (including PLCC)	Capital cost as on cut-off date i.e. 31.3.2015	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
	(a)	(b)	(c)	(d)=*((a-b)*c)/(100-c)%	(e)=(d)-(b)
Asset-1(i)	4946.24	211.40	2.50%	121.41	89.99
Asset-1(ii)	146.54	29.67	2.50%	3.00	26.67
Asset-1(iii)	118.98	28.45	2.50%	2.32	26.13
Asset-2	653.77	7.59	2.50%	16.57	0.00
Asset-3	2843.15	89.26	2.50%	70.61	18.65
Asset-4	1368.36	36.10	2.50%	34.16	1.94

16. The petitioner has submitted the Auditor's Certificate certifying the capital cost and additional capitalization claimed. Accordingly, the Commission has considered the capital cost of the assets for the purpose of tariff for tariff period 2009-14 as given below:

(₹ in lakh)

Particulars	Capital cost claimed as on DOCO	Disallowed IDC and IEDC	Excess initial spares	Capital cost of individual assets considered as on DOCO
Asset-1(i)	5018.44	0.00	-89.99	4928.45
Asset-1(ii)	189.05	-33.38	-26.67	129.00
Asset-1(iii)	143.33	-27.76	-26.13	89.44
Asset-2	631.93	-9.60	-0.00	622.33
Asset -3	2449.98	0.00	-18.65	2431.33
Asset -4	1225.72	-4.21	-1.94	1219.57

Additional Capital Expenditure

17. The petitioner has claimed additional capitalization of ₹2028.17 lakh, ₹1.53 lakh, ₹1.96 lakh, ₹15.07 lakh, ₹393.17 lakh and ₹151.06 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, on account of balance and retention payment within cut-off date under Regulation 9(1) of the 2009 Tariff Regulations.



18. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

“Additional Capitalisation. (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities...;”

19. The total capital cost of ₹6956.62 lakh, ₹130.53 lakh, ₹91.40 lakh, 637.40 lakh, 2824.50 lakh and ₹1370.63 lakh including actual additional capitalization claimed by the petitioner is within the overall approved cost of ₹10533.96 lakh, ₹307.81 lakh, ₹282.02 lakh, ₹879.09 lakh, ₹3854.72 lakh, and ₹2106.09 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, and additional capitalisation claimed is lower than the additional capitalization allowed in order dated 15.5.2014 in Petition No. 88/TT/2011. Hence, considering the submissions made by the petitioner, we have allowed total capital cost including additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations as shown in the table below:-

(₹ in lakh)								
Asset	Particulars	Approved Apporportioned Cost	Admitted capital cost as on COD (after deduction of IDC/IEDC & initial spares)	Additional capitalization			Total Addcap	Total capital cost including additional capitalization
				2011-12	2012-13	2013-14		
Asset-1(i)	Approved in order dated 15.5.2014	10533.96	4911.90 (4996.02-0.00-84.12)	824.01	935.63	580.28	2339.92	7251.82
	Approved in this order		4928.45 (4996.02-0.00-89.99)	1116.42	374.98	536.77	2028.17	6956.62
Asset-1(ii)	Approved in order dated 15.5.2014	307.81	134.65 (189.05-33.38-21.02)	0.00	0.00	33.48	33.48	168.13



Asset	Particulars	Approved Appor- tioned Cost	Admitted capital cost as on COD (after deduction of IDC/IEDC & initial spares)	Additional capitalization			Total Addcap	Total capital cost including additional capitalization
				2011-12	2012-13	2013-14		
	Approved in this order		129.00 (189.05-33.38- 26.67)	0.00	0.00	1.53	1.53	130.53
Asset- 1(iii)	Approved in order dated 15.5.2014	282.02	94.96 (143.3-27.76- 20.58)	0.00	0.00	75.53	75.53	170.49
	Approved in this order		89.44 (143.3-27.76- 26.13)	0.00	0.00	1.96	1.96	91.40
Asset- 2	Approved in order dated 15.5.2014	879.09	609.79 (631.93-22.14-0)	0.00	25.89	67.16	93.05	702.84
	Approved in this order		622.33 (631.93-9.60-0)	0.00	7.34	7.73	15.07	637.40
Asset- 3	Approved in order dated 15.5.2014	3854.72	2387.00 (2396.40-0.00- 9.40)	300.18	350.00	157.27	807.45	3194.45
	Approved in this order		2431.33 (2449.98-0.00- 18.65)	281.86	73.32	37.99	393.17	2824.50
Asset- 4	Approved in order dated 15.5.2014	2106.09	1183.19 (1183.32-0.13- 0.00)	125.00	130.00	163.49	418.49	1601.68
	Approved in this order		1219.57 (1225.72-4.21- 1.94)	132.23	12.60	6.23	151.06	1370.63

Debt: Equity

20. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide that:-

“(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:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....



(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.”

21. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 admitted as on COD in order dated 15.5.2014 in Petition No. 88/TT/2011 for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4. The admitted debt:equity ratio of 70:30 as on COD for the Assets have been considered for the purpose of truing up of the approved tariff of tariff period 2009-14, as given under:-

(₹ in lakh)		
Asset-1(i)	Amount	(%)
Debt	3449.91	70.00
Equity	1478.53	30.00
Total	4928.45	100.00

(₹ in lakh)		
Asset- 1(ii)	Amount	(%)
Debt	90.30	70.00
Equity	38.70	30.00
Total	129.00	100.00

(₹ in lakh)		
Asset- 1(iii)	Amount	(%)
Debt	62.61	70.00
Equity	26.83	30.00
Total	89.44	100.00

(₹ in lakh)		
Asset- 2	Amount	(%)
Debt	435.63	70.00
Equity	186.70	30.00
Total	622.33	100.00

(₹ in lakh)		
Asset- 3	Amount	(%)
Debt	1701.93	70.00
Equity	729.40	30.00
Total	2431.33	100.00



(₹ in lakh)		
Asset- 4	Amount	(%)
Debt	853.70	70.00
Equity	365.87	30.00
Total	1219.57	100.00

22. With respect to additional capitalization, the petitioner has claimed the debt:equity ratio of 70:30 as on COD for the instant assets . The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30%. In response the petitioner vide affidavit dated 17.2.2016 submitted that against the total additional capitalization during 2011-14, 70% loan has been deployed as shown in form-13. Further, in accordance with Clause 12(3) of the 2009 Tariff Regulations, 30% equity has been claimed as indicated in form-1A.

23. The overall debt equity ratio as on 31.3.2014 for the Asset including additional capitalization is as under:-

(₹ in lakh)		
Asset-1(i)	Amount	(%)
Debt	4869.63	70.00
Equity	2086.98	30.00
Total	6956.62	100.00

(₹ in lakh)		
Asset- 1(ii)	Amount	(%)
Debt	91.37	70.00
Equity	39.16	30.00
Total	130.53	100.00

(₹ in lakh)		
Asset- 1(iii)	Amount	(%)
Debt	63.98	70.00
Equity	27.42	30.00
Total	91.40	100.00



(₹ in lakh)		
Asset- 2	Amount	(%)
Debt	446.18	70.00
Equity	191.22	30.00
Total	637.40	100.00

(₹ in lakh)		
Asset- 3	Amount	(%)
Debt	1977.15	70.00
Equity	847.35	30.00
Total	2824.50	100.00

(₹ in lakh)		
Asset- 3	Amount	(%)
Debt	959.45	70.00
Equity	411.18	30.00
Total	1370.63	100.00

Interest on Loan (“IOL”)

24. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan.

25. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest. We have considered the submissions of the petitioner and accordingly calculated the IOL based on actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

Particulars	(₹ in lakh)		
	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	266.06	350.66	369.22
As claimed by the petitioner	276.16	356.67	357.41
Allowed after trued up	275.76	356.22	356.99



(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	7.83	4.14	38.52	38.38
As claimed by the petitioner	7.04	3.46	37.93	35.44
Allowed after trued up	6.71	2.86	38.71	36.16

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	78.54	167.73	169.46
As claimed by the petitioner	80.15	162.09	152.38
Allowed after trued up	79.84	161.50	151.83

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	26.17	82.34	84.74
As claimed by the petitioner	27.21	81.98	75.99
Allowed after trued up	27.08	81.61	75.65

26. There is variation in interest on loan due to variation in Capital Cost as on COD and variation in actual additional capitalization during 2009-14 tariff period.

Return on Equity (“ROE”)

27. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides that:-

“(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 maybe, 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.”

28. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 15.5.2014. However, for truing up purpose, the computation of RoE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

29. Accordingly, the ROE as trued up is as shown in the table below:-

(₹ in lakh)

Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	232.66	325.33	365.08
As claimed by the petitioner	266.12	362.69	393.87
Allowed after trued up	265.79	362.29	393.47



(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	6.62	3.48	32.66	35.10
As claimed by the petitioner	6.68	3.22	35.66	36.53
Allowed after trued up	6.36	2.66	36.39	37.27

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	66.52	150.10	163.40
As claimed by the petitioner	75.05	160.42	165.62
Allowed after trued up	74.76	159.85	165.05

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	21.78	72.01	79.71
As claimed by the petitioner	25.02	79.28	80.79
Allowed after trued up	24.91	78.95	80.45

30. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity, variation in capital cost and actual additional capitalization.

Depreciation

31. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-



“‘useful life’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

.....	
(c) AC and DC sub-station	25 years
(d) Hydro generating station	35 years
(e) Transmission line	35 years”

32. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"17. Depreciation:

...
 (4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.”

33. Depreciation was worked out in order dated 15.5.2014 in Petition No. 88/TT/2011 in accordance with Regulation 17 of the 2009 Tariff Regulations.

34. The weighted average useful life of the transmission asset has been considered as per Regulations 3 (42) and 17 (4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 29 years for Asset-1(i) and 25 years for Asset-1(ii), 1(iii), Asset-2, Asset-3 & Asset-4. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under.

Particulars	(₹ in lakh)		
	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated	217.74	301.89	335.74



Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
15.5.2014			
As claimed by the petitioner	224.07	303.04	324.55
Allowed after trued up	223.73	302.64	324.15

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	6.66	3.50	32.88	35.34
As claimed by the petitioner	5.99	2.89	32.39	32.79
Allowed after trued up	5.71	2.39	33.05	33.45

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	67.20	151.69	165.08
As claimed by the petitioner	68.40	146.28	149.22
Allowed after trued up	68.13	145.75	148.69

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	21.92	72.50	80.25
As claimed by the petitioner	22.73	72.03	72.52
Allowed after trued up	22.63	71.71	72.20

35. The variation in depreciation is on account of variation in Capital Cost as on COD and variation in additional capitalization vis-à-vis that approved in the Order.



Operation & Maintenance Expenses (“O&M Expenses”)

36. The petitioner has computed O&M expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in the tariff order dated 15.5.2014 in Petition No. 111/TT/2011. Accordingly, the O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)

Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	208.11	264.02	279.11
As claimed by the petitioner	208.11	264.02	279.11
Allowed after trued up	208.11	264.02	279.11

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	109.10	65.46	61.92	65.46
As claimed by the petitioner	109.10	65.46	61.92	65.46
Allowed after trued up	109.10	65.46	61.92	65.46

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	131.79	278.62	294.56
As claimed by the petitioner	131.79	278.62	294.56
Allowed after trued up	131.79	278.62	294.56



(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	33.19	105.26	111.28
As claimed by the petitioner	33.19	105.26	111.28
Allowed after trued up	33.19	105.26	111.28

Interest on working capital (“IWC”)

37. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

38. The petitioner submitted the rate of interest on working capital as 11.75% for Asset-1(i), 3 & 4 for the period 2011-12 to 2013-14, 13.20% for Asset-1(ii) & 1(iii) for the period 2013-14 and 13.50% for Asset-2 for the period 2012-13 to 2013-14 as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

39. The Commission in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, has considered the rate of interest on working capital on normative basis, as follows:

- State Bank of India Base Rate as applicable as on 1.4.2011 plus 350 basis points (=8.25% plus 350 basis points = 11.75%) for Asset-1(i), 3 & 4 for the period 2011-12 to 2013-14.



- State Bank of India Base Rate as applicable as on 1.4.2012 plus 350 basis points (=10.00% plus 350 basis points = 13.50%) for Asset-2 for the period 2012-13 to 2013-14.
- State Bank of India Base Rate as applicable as on 1.4.2013 plus 350 basis points (=9.70% plus 350 basis points = 13.20%) for Asset-1(ii) & 1(iii) for the period 2013-14.

40. Therefore, interest rate has been considered as 11.75% for Asset-1(i), 3 & 4 for the period 2011-12 to 2013-14, 13.20% for Asset-1(ii) & 1(iii) for the period 2013-14 and 13.50% for Asset-2 for the period 2012-13 to 2013-14 to work out the interest on working capital in the instant case.

41. The IWC tried up is as under:-

(₹ in lakh)

Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	31.22	39.60	41.87
O & M expenses	17.34	22.00	23.26
Receivables	166.44	219.70	231.43
Total	215.00	281.31	296.55
Rate of Interest (%)	11.75	11.75	11.75
Interest	25.26	33.05	34.84

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Maintenance Spares	16.37	9.82	9.29	9.82
O & M expenses	9.09	5.46	5.16	5.46
Receivables	22.37	12.85	29.33	29.74
Total	47.82	28.12	43.78	45.01
Rate of Interest (%)	13.20	13.20	13.50	13.50
Interest	6.31	3.71	5.91	6.08



(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	19.77	41.79	44.18
O & M expenses	10.98	23.22	24.55
Receivables	60.88	128.07	130.59
Total	91.63	193.08	199.32
Rate of Interest (%)	11.75	11.75	11.75
Interest	10.77	22.69	23.42

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Maintenance Spares	4.98	15.79	16.69
O & M expenses	2.77	8.77	9.27
Receivables	18.48	57.87	58.25
Total	26.23	82.43	84.21
Rate of Interest (%)	11.75	11.75	11.75
Interest	3.08	9.69	9.89

42. Further, interest on working capital trued up, claimed and approved in order dated 15.5.2014 is as follows:

(₹ in lakh)

Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	24.29	32.19	34.75
As claimed by the petitioner	25.28	33.08	34.87
Allowed after trued up	25.26	33.05	34.84

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	6.36	3.78	5.82	6.12
As claimed by the petitioner	6.33	3.75	5.86	6.03
Allowed after trued up	6.31	3.71	5.91	6.08



(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	10.56	22.74	24.07
As claimed by the petitioner	10.79	22.72	23.45
Allowed after trued up	10.77	22.69	23.42

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 15.5.2014	2.99	9.58	10.22
As claimed by the petitioner	3.09	9.71	9.91
Allowed after trued up	3.08	9.69	9.89

43. The variation in IWC is on account of variation in IOL, Depreciation and ROE due to variation in capital cost, actual additional capitalization and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

44. The detailed computation of the various components of the trued up annual fixed charges for the Asset for the tariff period 2009-14 is summarised below:-

(₹ in lakh)

Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Gross Block			
Opening Gross Block	4928.45	6044.87	6419.85
Additional Capitalization	1116.42	374.98	536.77
Closing Gross block	6044.87	6419.85	6956.62
Average Gross block	5486.66	6232.36	6688.23
Depreciation			
Rate of Depreciation (%)	4.078	4.856	4.847



Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciable Value	4860.93	5493.00	5871.38
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	29	28	27
Remaining Depreciable Value	4860.93	5269.27	5345.01
Depreciation	223.73	302.64	324.15
Interest on Loan			
Gross Normative Loan	3449.91	4231.41	4493.89
Cumulative Repayment upto Previous Year	0.00	223.73	526.37
Net Loan-Opening	3449.91	4007.67	3967.52
Additions	781.49	262.49	375.74
Repayment during the year	223.73	302.64	324.15
Net Loan-Closing	4007.67	3967.52	4019.11
Average Loan	3728.79	3987.60	3993.32
Weighted Average Rate of Interest on Loan (%)	8.8745	8.9331	8.9398
Interest	275.76	356.22	356.99
Return on Equity			
Opening Equity	1478.53	1813.46	1925.95
Additions	334.93	112.49	161.03
Closing Equity	1813.46	1925.95	2086.98
Average Equity	1646.00	1869.71	2006.47
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610
Return on Equity (Pre Tax)	265.79	362.29	393.47
Interest on Working Capital			
Maintenance Spares	31.22	39.60	41.87
O & M Expenses	17.34	22.00	23.26
Receivables	166.44	219.70	231.43
Total	215.00	281.31	296.55



Particulars	Asset-1(i)		
	2011-12 (Pro-rata)	2012-13	2013-14
Interest	25.26	33.05	34.84
Annual Transmission Charges			
Depreciation	223.73	302.64	324.15
Interest on Loan	275.76	356.22	356.99
Return on Equity	265.79	362.29	393.47
Interest on Working Capital	25.26	33.05	34.84
O & M Expenses	208.11	264.02	279.11
Total	998.66	1318.22	1388.56

(₹ in lakh)

Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Gross Block				
Opening Gross Block	129.00	89.44	622.33	629.67
Additional Capitalization	1.53	1.96	7.34	7.73
Closing Gross block	130.53	91.40	629.67	637.40
Average Gross block	129.76	90.42	626.00	633.54
Depreciation				
Rate of Depreciation (%)	4.400	5.280	5.280	5.280
Depreciable Value	116.79	81.38	563.40	570.18
Elapsed Life of the assets at beginning of the year	0	1	0	1
Weighted Balance Useful life of the assets	25	24	25	24
Remaining Depreciable Value	116.79	81.38	563.40	537.13
Depreciation	5.71	2.39	33.05	33.45
Interest on Loan				
Gross Normative Loan	90.30	62.61	435.63	440.77
Cumulative Repayment upto Previous Year	0.00	0.00	0.00	33.05
Net Loan-Opening	90.30	62.61	435.63	407.72
Additions	1.07	1.37	5.14	5.41
Repayment during the year	5.71	2.39	33.05	33.45
Net Loan-Closing	85.66	61.59	407.72	379.68
Average Loan	87.98	62.10	421.68	393.70



Particulars	Asset-1(ii)	Asset-1(iii)	Asset-2	
	2013-14 (Pro-rata)	2013-14 (Pro-rata)	2012-13	2013-14
Weighted Average Rate of Interest on Loan (%)	9.1498	9.2011	9.1800	9.1843
Interest	6.71	2.86	38.71	36.16
Return on Equity				
Opening Equity	38.70	26.83	186.70	188.90
Additions	0.46	0.59	2.20	2.32
Closing Equity	39.16	27.42	188.90	191.22
Average Equity	38.93	27.13	187.80	190.06
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.961	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.377	19.610
Return on Equity (Pre Tax)	6.36	2.66	36.39	37.27
Interest on Working Capital				
Maintenance Spares	16.37	9.82	9.29	9.82
O & M Expenses	9.09	5.46	5.16	5.46
Receivables	22.37	12.85	29.33	29.74
Total	47.82	28.12	43.78	45.01
Interest	6.31	3.71	5.91	6.08
Annual Transmission Charges				
Depreciation	5.71	2.39	33.05	33.45
Interest on Loan	6.71	2.86	38.71	36.16
Return on Equity	6.36	2.66	36.39	37.27
Interest on Working Capital	6.31	3.71	5.91	6.08
O & M Expenses	109.10	65.46	61.92	65.46
Total	134.19	77.08	175.98	178.42

(₹ in lakh)

Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Gross Block			
Opening Gross Block	2431.33	2713.19	2786.51
Additional Capitalization	281.86	73.32	37.99
Closing Gross block	2713.19	2786.51	2824.50



Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Average Gross block	2572.26	2749.85	2805.51
Depreciation			
Rate of Depreciation (%)	5.297	5.300	5.300
Depreciable Value	2315.04	2474.87	2524.96
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	25	24	23
Remaining Depreciable Value	2315.04	2406.74	2311.07
Depreciation	68.13	145.75	148.69
Interest on Loan			
Gross Normative Loan	1701.93	1899.23	1950.56
Cumulative Repayment upto Previous Year	0.00	68.13	213.88
Net Loan-Opening	1701.93	1831.11	1736.68
Additions	197.30	51.32	26.59
Repayment during the year	68.13	145.75	148.69
Net Loan-Closing	1831.11	1736.68	1614.58
Average Loan	1766.52	1783.89	1675.63
Weighted Average Rate of Interest on Loan (%)	9.0394	9.0533	9.0613
Interest	79.84	161.50	151.83
Return on Equity			
Opening Equity	729.40	813.96	835.95
Additions	84.56	22.00	11.40
Closing Equity	813.96	835.95	847.35
Average Equity	771.68	824.96	841.65
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610
Return on Equity (Pre Tax)	74.76	159.85	165.05
Interest on Working Capital			
Maintenance Spares	19.77	41.79	44.18
O & M Expenses	10.98	23.22	24.55
Receivables	60.88	128.07	130.59
Total	91.63	193.08	199.32



Particulars	Asset-3		
	2011-12 (Pro-rata)	2012-13	2013-14
Interest	10.77	22.69	23.42
Annual Transmission Charges			
Depreciation	68.13	145.75	148.69
Interest on Loan	79.84	161.50	151.83
Return on Equity	74.76	159.85	165.05
Interest on Working Capital	10.77	22.69	23.42
O & M Expenses	131.79	278.62	294.56
Total	365.28	768.41	783.56

(₹ in lakh)

Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Gross Block			
Opening Gross Block	1219.57	1351.80	1364.40
Additional Capitalization	132.23	12.60	6.23
Closing Gross block	1351.80	1364.40	1370.63
Average Gross block	1285.68	1358.10	1367.51
Depreciation			
Rate of Depreciation (%)	5.280	5.280	5.280
Depreciable Value	1157.12	1222.29	1230.76
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	25	24	23
Remaining Depreciable Value	1157.12	1199.66	1136.43
Depreciation	22.63	71.71	72.20
Interest on Loan			
Gross Normative Loan	853.70	946.26	955.08
Cumulative Repayment upto Previous Year	0.00	22.63	94.34
Net Loan-Opening	853.70	923.63	860.74
Additions	92.56	8.82	4.37
Repayment during the year	22.63	71.71	72.20
Net Loan-Closing	923.63	860.74	792.91
Average Loan	888.67	892.19	826.83



Particulars	Asset-4		
	2011-12 (Pro-rata)	2012-13	2013-14
Weighted Average Rate of Interest on Loan (%)	9.1414	9.1474	9.1493
Interest	27.08	81.61	75.65
Return on Equity			
Opening Equity	365.87	405.54	409.32
Additions	39.67	3.78	1.86
Closing Equity	405.54	409.32	411.18
Average Equity	385.71	407.43	410.25
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610
Return on Equity (Pre Tax)	24.91	78.95	80.45
Interest on Working Capital			
Maintenance Spares	4.98	15.79	16.69
O & M Expenses	2.77	8.77	9.27
Receivables	18.48	57.87	58.25
Total	26.23	82.43	84.21
Interest	3.08	9.69	9.89
Annual Transmission Charges			
Depreciation	22.63	71.71	72.20
Interest on Loan	27.08	81.61	75.65
Return on Equity	24.91	78.95	80.45
Interest on Working Capital	3.08	9.69	9.89
O & M Expenses	33.19	105.26	111.28
Total	110.89	347.21	349.48

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

45. The petitioner has claimed the transmission charges for Combined Asset for the 2014-19 tariff period as under:-

	(₹ in lakh)				
Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	632.99	658.48	658.48	658.48	658.48
Interest on Loan	630.96	603.71	544.39	485.05	425.72



Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Return on equity	737.17	765.57	765.57	765.57	765.57
Interest on Working Capital	97.56	99.88	100.28	100.74	101.26
O & M Expenses	932.15	963.08	995.08	1028.11	1062.18
Total	3030.83	3090.72	3063.80	3037.95	3013.21

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	139.82	144.46	149.26	154.22	159.33
O & M expenses	77.68	80.26	82.92	85.68	88.52
Receivables	505.14	515.12	510.63	506.33	502.20
Total	722.64	739.84	742.81	746.23	750.05
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	97.56	99.88	100.28	100.74	101.26

Capital Cost

47. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

“(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.”

48. The petitioner has claimed capital cost of ₹6964.26 lakh, ₹137.00 lakh, ₹110.33 lakh, ₹624.86 lakh, ₹2834.50 lakh and ₹1376.65 lakh as on 31.3.2014



and additional capitalization of ₹298.58 lakh, ₹22.72 lakh, ₹29.21 lakh, ₹25.96 lakh, ₹389.87 lakh and ₹199.30 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, for the 2014-15 tariff period.

49. The trued up capital cost of ₹6956.62 lakh, ₹130.53 lakh, ₹91.40 lakh, 637.40 lakh, 2824.50 lakh and ₹1370.63 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, totalling to ₹12011.08 lakh, as on 31.3.2014 is considered to work out tariff for tariff period 2014-19.

Additional Capital Expenditure

50. The petitioner has proposed additional capitalization of ₹298.58 lakh, ₹22.72 lakh, ₹29.21 lakh, ₹25.96 lakh, ₹389.87 lakh and ₹199.30 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations.

51. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(i) Undischarged liabilities recognized to be payable at a future date;

52. In this regard, the Commission vide its letter dated 8.2.2016 sought the amount of balance and retention payment yet to be made along with the details of contract for which the payment has been retained. In response the petitioner



vide affidavit dated 17.2.2016 submitted that the balance/retention payment yet to be made is ₹197.65 lakh, ₹21.45 lakh, ₹27.91 lakh, 9.38 lakh, 356.50 lakh and ₹192.21 lakh for Asset-1(i), Asset-1(ii), Asset-1(iii), Asset-2, Asset-3 and Asset-4, respectively.

53. The total capital cost of the transmission asset including additional capitalization incurred during the 2014-19 tariff period works out to ₹12976.72 lakh for Combined Assets-1(i), 1(ii), 1(iii), 2, 3 & 4. The Commission has considered the submissions of petitioner. It is observed that the additional capitalization proposed is mainly towards balance and retention payments due to undischarged liabilities for works executed within cut-off date. Further, the total completion cost is within the approved apportioned cost of the Asset. Accordingly, the capital cost claimed by the petitioner is allowed in accordance with Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations. The additional capitalisation for tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation while carrying out the true up for 2014-19 tariff period.

54. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-

Particulars	Approved Apportioned Cost	Admitted capital cost as on 31.3.2014	Additional capitalization		Total additional capitalization	Estimated Completion Cost
			2014-15			
Asset-1(i)	10533.96	6956.62	298.58		298.58	7255.2
Asset-1(ii)	307.81	130.53	22.72		22.72	153.25
Asset-1(iii)	282.02	91.40	29.21		29.21	120.61
Asset-2	879.09	637.40	25.96		25.96	663.36



Particulars	Approved Appportioned Cost	Admitted capital cost as on 31.3.2014	Additional capitalization	Total additional capitalization	Estimated Completion Cost
			2014-15		
Asset-3	3854.72	2824.50	389.87	389.87	3214.37
Asset-4	2106.09	1370.63	199.30	199.30	1569.93
Combined Asset	17963.69	12011.08	965.64	965.64	12976.72

Debt:Equity Ratio

55. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

“(3) In case of the generating station and the transmission 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.”

56. The petitioner has considered debt: equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

Particulars	(₹ in lakh)	
	Amount	(%)
Debt	8407.76	70.00
Equity	3603.31	30.00
Total	12011.08	100.00

57. For additional capitalization, the petitioner has proposed normative debt:equity ratio of 70:30 and the same has been considered. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-



(₹ in lakh)		
Funding	Amount	(%)
Debt	9083.71	70.00
Equity	3893.01	30.00
Total	12976.72	100.00

Interest on Loan (“IOL”)

58. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced as under:-

“(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 the generating 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.”

59. The weighted average rate of IOL has been considered on the basis of rate prevailing as on 1.4.2014.

60. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	8407.76	9083.71	9083.71	9083.71	9083.71
Cumulative Repayment up to previous year	1454.23	2085.29	2741.85	3398.40	4054.95



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening	6953.53	6998.42	6341.87	5685.32	5028.76
Additions during the year	675.95	0.00	0.00	0.00	0.00
Repayment during the year	631.06	656.55	656.55	656.55	656.55
Net Loan-Closing	6998.42	6341.87	5685.32	5028.76	4372.21
Average Loan	6975.98	6670.14	6013.59	5357.04	4700.49
Rate of Interest (%)	9.0164	9.0239	9.0256	9.0273	9.0297
Interest	628.98	601.91	542.77	483.60	424.44

Return on Equity (“ROE”)

61. Clause (1) & (2) of Regulation 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.”

62. The petitioner has submitted ROE at the rate of 19.610% after grossing up the ROE of 15.50% with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any



refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

63. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

64. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined by the Commission is given below:-

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	3603.31	3893.01	3893.01	3893.01	3893.01



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Capitalization	289.69	0.00	0.00	0.00	0.00
Closing Equity	3893.01	3893.01	3893.01	3893.01	3893.01
Average Equity	3748.16	3893.01	3893.01	3893.01	3893.01
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	735.01	763.42	763.42	763.42	763.42

Depreciation

65. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(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.”

66. The petitioner has computed depreciation considering capital expenditure of ₹12002.83 lakh as on 31.3.2014 with additional capitalization of ₹ 965.64 lakh for the 2014-19 tariff period. The effective date of commercial operation (October, 2011) has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation of for Combined Asset-1(i), 1(ii), 1(iii), 2, 3 & 4. Accordingly, for the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 27 years for Combined Asset.

67. We have considered the submissions of the petitioner and have allowed depreciation considering capital expenditure of ₹12011.08 lakh as on 31.3.2014 under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	12011.08	12976.72	12976.72	12976.72	12976.72
Additional Capitalization	965.64	0.00	0.00	0.00	0.00
Gross block at the end of the year	12976.72	12976.72	12976.72	12976.72	12976.72
Average gross block	12493.90	12976.72	12976.72	12976.72	12976.72
Rate of Depreciation (%)	5.051	5.059	5.059	5.059	5.059
Depreciable Value	11096.48	11531.02	11531.02	11531.02	11531.02
Elapsed Life of the assets at	2	3	4	5	6



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
beginning of the year					
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	9642.24	9445.72	8789.17	8132.62	7476.07
Depreciation	631.06	656.55	656.55	656.55	656.55

Operation & Maintenance Expenses (“O&M Expenses”)

68. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M Expenses has been worked out as given hereunder:-

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Actual	Double Circuit (Twin & Triple Conductor) (kms)	22.05	22.05	22.05	22.05	22.05
	400 kV Bays (Nos.)	11	11	11	11	11
	220 kV Bays (Nos.)	6	6	6	6	6
Norms as per Regulation	Double Circuit (Twin & Triple Conductor) (₹lakh/km)	0.707	0.731	0.755	0.78	0.806
	400 kV Bays (₹lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV Bays (₹lakh/bay)	42.21	43.61	45.06	46.55	48.10
Total (₹ in lakh)		932.15	963.08	995.08	1028.11	1062.18

69. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that



the wage revision of the employees of the petitioner Company is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

70. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

71. The details of O&M Expenses allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	932.15	963.08	995.08	1028.11	1062.18

Interest on Working Capital (“IWC”)

72. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify 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;”

73. The petitioner has submitted that it has computed Interest on working capital for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered is 13.50%.

74. 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 interest on working capital worked is shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	139.82	144.46	149.26	154.22	159.33
O & M Expenses	77.68	80.26	82.92	85.68	88.52
Receivables	504.10	514.12	509.66	505.38	501.29
Total	721.61	738.83	741.85	745.27	749.13
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	97.42	99.74	100.15	100.61	101.13

Annual Transmission Charges

75. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-



(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	12011.08	12976.72	12976.72	12976.72	12976.72
Additional Capitalisation	965.64	0.00	0.00	0.00	0.00
Closing Gross Block	12976.72	12976.72	12976.72	12976.72	12976.72
Average Gross Block	12493.90	12976.72	12976.72	12976.72	12976.72
Depreciation					
Rate of Depreciation	5.051	5.059	5.059	5.059	5.059
Depreciable Value	11096.48	11531.02	11531.02	11531.02	11531.02
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	9642.24	9445.72	8789.17	8132.62	7476.07
Depreciation	631.06	656.55	656.55	656.55	656.55
Interest on Loan					
Gross Normative Loan	8407.76	9083.71	9083.71	9083.71	9083.71
Cumulative Repayment upto Previous Year	1454.23	2085.29	2741.85	3398.40	4054.95
Net Loan-Opening	6953.53	6998.42	6341.87	5685.32	5028.76
Additions	675.95	0.00	0.00	0.00	0.00
Repayment during the year	631.06	656.55	656.55	656.55	656.55
Net Loan-Closing	6998.42	6341.87	5685.32	5028.76	4372.21
Average Loan	6975.98	6670.14	6013.59	5357.04	4700.49
Weighted Average Rate of Interest on Loan (%)	9.0164	9.0239	9.0256	9.0273	9.0297
Interest	628.98	601.91	542.77	483.60	424.44
Return on Equity					
Opening Equity	3603.31	3893.01	3893.01	3893.01	3893.01
Additions	289.69	0.00	0.00	0.00	0.00
Closing Equity	3893.01	3893.01	3893.01	3893.01	3893.01
Average Equity	3748.16	3893.01	3893.01	3893.01	3893.01
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	735.01	763.42	763.42	763.42	763.42



Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital					
Maintenance Spares	139.82	144.46	149.26	154.22	159.33
O & M expenses	77.68	80.26	82.92	85.68	88.52
Receivables	504.10	514.12	509.66	505.38	501.29
Total	721.61	738.83	741.85	745.27	749.13
Interest	97.42	99.74	100.15	100.61	101.13
Annual Transmission Charges					
Depreciation	631.06	656.55	656.55	656.55	656.55
Interest on Loan	628.98	601.91	542.77	483.60	424.44
Return on Equity	735.01	763.42	763.42	763.42	763.42
Interest on Working Capital	97.42	99.74	100.15	100.61	101.13
O & M Expenses	932.15	963.08	995.08	1028.11	1062.18
Total	3024.62	3084.70	3057.96	3032.29	3007.73

Filing Fee and Publication Expenses

76. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations.

77. The petitioner is 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

78. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and



charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

79. The petitioner has sought to recover Service Tax on Transmission Charges separately from the Respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer of Service Tax is premature.

Sharing of Transmission Charges

80. 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.

81. This Order disposes of Petition No. 7TT/2015.

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14**

(₹ in lakh)

2009-14	Asset-1(i)				Asset-1(ii)				Asset-1(iii)			
	Particulars	Interest Rate (%)	Loan deployed as on COD (1.6.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.6.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2013)	Additions during the tariff period
BOND XXIX-BOND XXIX-	9.20	200.00	0.00	200.00	9.20	0.00	0.00	0.00	9.20	0.00	0.00	0.00
BOND XXXI-BOND XXXI-	8.90	1175.00	0.00	1175.00	8.90	0.00	0.00	0.00	8.90	0.00	0.00	0.00
BOND XXXIII-BOND XXXIII-	8.64	1600.00	0.00	1600.00	8.64	25.00	0.00	25.00	8.64	20.00	0.00	20.00
BOND-XXXIV-BOND XXXIV-	8.84	367.00	0.00	367.00	8.84	20.00	0.00	20.00	8.84	17.00	0.00	17.00
BOND-XXXV-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.64	0.00	280.64	280.64	9.64	0.00	0.00	0.00	9.64	0.00	0.00	0.00
BOND-XXXV-DOCO-	9.64	113.50	0.00	113.50	9.64	30.00	0.00	30.00	9.64	38.86	0.00	38.86
BOND XXXVI-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.35	0.00	91.00	91.00	9.35	0.00	0.00	0.00	9.35	0.00	0.00	0.00
BOND XXXVI-DOCO-	9.35	0.00	0.00	0.00	9.35	9.00	0.00	9.00	9.35	0.00	0.00	0.00
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR	9.25	0.00	409.85	409.85	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00



2009-14	Asset-1(i)				Asset-1(ii)				Asset-1(iii)			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.6.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.6.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2013)	Additions during the tariff period	Total
2011-12-												
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR 2012-13-	9.25	0.00	142.32	142.32	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
BOND XXXVII-DOCO-	9.25	0.00	0.00	0.00	9.25	10.83	0.00	10.83	9.25	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	0.00	87.55	87.55	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2012-13 AddCap-	9.30	0.00	120.17	120.17	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00
BOND - XLI-ADDCAP FOR 2013-2014 AddCap-	8.85	0.00	46.00	46.00	8.85	0.00	0.00	0.00	8.85	0.00	0.00	0.00
BOND - XLII-ADDCAP FOR 2013-2014 AddCap-	8.80	0.00	11.00	11.00	8.80	0.00	0.00	0.00	8.80	0.00	0.00	0.00
BOND - XLIII-ADDCAP FOR 2013-14-	7.93	0.00	125.00	125.00	7.93	0.00	0.00	0.00	7.93	0.00	0.00	0.00
BOND - XLV-ADDCAP FOR 2013-14-	9.65	0.00	106.19	106.19	9.65	0.00	1.07	1.07	9.65	0.00	1.37	1.37



2009-14	Asset-1(i)				Asset-1(ii)				Asset-1(iii)			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.6.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.6.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2013)	Additions during the tariff period	Total
Total		3455.50	1419.72	4875.22		94.83	1.07	95.90		75.86	1.37	77.23

(₹ in lakh)

2009-14	Asset-2				Asset-3				Asset-4			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.4.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.12.2011)	Additions during the tariff period	Total
BOND XXIX-BOND XXIX-	9.20	25.00	0.00	25.00	9.20	100.00	0.00	100.00	9.20	0.00	0.00	0.00
BOND XXXI-BOND XXXI-	8.90	27.00	0.00	27.00	8.90	400.00	0.00	400.00	8.90	0.00	0.00	0.00
BOND XXXIII-BOND XXXIII-	8.64	45.00	0.00	45.00	8.64	500.00	0.00	500.00	8.64	100.00	0.00	100.00
BOND-XXXIV-BOND XXXIV-	8.84	100.00	0.00	100.00	8.84	259.00	0.00	259.00	8.84	416.00	0.00	416.00
BOND-XXXV-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.64	0.00	0.00	0.00	9.64	0.00	0.00	0.00	9.64	0.00	0.00	0.00
BOND-XXXV-DOCO-	9.64	100.00	0.00	100.00	9.64	450.00	0.00	450.00	9.64	342.00	0.00	342.00
BOND XXXVI-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.35	0.00	0.00	0.00	9.35	0.00	0.00	0.00	9.35	0.00	0.00	0.00



2009-14	Asset-2				Asset-3				Asset-4			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.4.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.12.2011)	Additions during the tariff period	Total
BOND XXXVI-DOCO-	9.35	100.00	0.00	100.00	9.35	0.00	0.00	0.00	9.35	0.00	0.00	0.00
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.25	0.00	0.00	0.00	9.25	0.00	197.30	197.30	9.25	0.00	92.56	92.56
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR 2012-13-	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
BOND XXXVII-DOCO-	9.25	29.85	0.00	29.85	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2012-13 AddCap-	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	0.00	5.14	5.14	9.30	0.00	51.32	51.32	9.30	0.00	8.82	8.82
BOND - XLI-ADDCAP FOR 2013-2014 AddCap-	8.85	0.00	0.00	0.00	8.85	0.00	0.00	0.00	8.85	0.00	0.00	0.00
BOND - XLII-ADDCAP FOR 2013-2014 AddCap-	8.80	0.00	0.00	0.00	8.80	0.00	0.00	0.00	8.80	0.00	0.00	0.00
BOND - XLIII-	7.93	0.00	0.00	0.00	7.93	0.00	0.00	0.00	7.93	0.00	0.00	0.00



2009-14	Asset-2				Asset-3				Asset-4			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.4.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.12.2011)	Additions during the tariff period	Total
ADDCAP FOR 2013-14-												
BOND - XLV-ADDCAP FOR 2013-14-	9.65	0.00	5.41	5.41	9.65	0.00	26.59	26.59	9.65	0.00	4.37	4.37
Total		426.85	10.55	437.40		1709.00	275.21	1984.21		858.00	105.75	963.75

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

(₹ in lakh)

2009-14	Asset-1(i)			Asset-1(ii)	Asset-1(iii)	Asset-2	
	2011-12	2012-13	2013-14	2013-14	2013-14	2012-13	2013-14
Gross Opening Loan	3455.50	4236.99	4499.48	94.83	75.86	426.85	431.99
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	16.67	0.00	0.00	0.00	2.08
Net Loans Opening	3455.50	4236.99	4482.81	94.83	75.86	426.85	429.91
Add: Drawl(s) during the year	781.49	262.49	375.74	1.07	1.37	5.14	5.41
Less: Repayment(s) of Loan during the year	0.00	16.67	114.59	0.00	0.00	2.08	4.33
Net Closing Loan	4236.99	4482.81	4743.96	95.90	77.23	429.91	430.99
Average Net Loan	3846.25	4359.90	4613.39	95.37	76.55	428.38	430.45
Interest on Loan	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	341.34	389.48	412.43	8.73	7.04	39.33	39.53



(₹ in lakh)

2009-14	Asset-3			Asset-4		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
Gross Opening Loan	1709.00	1906.30	1957.62	858.00	950.56	959.38
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	8.33	0.00	0.00	0.00
Net Loans Opening	1709.00	1906.30	1949.29	858.00	950.56	959.38
Add: Drawl(s) during the year	197.30	51.32	26.59	92.56	8.82	4.37
Less: Repayment(s) of Loan during the year	0.00	8.33	41.66	0.00	0.00	0.00
Net Closing Loan	1906.30	1949.29	1934.22	950.56	959.38	963.75
Average Net Loan	1807.65	1927.80	1941.76	904.28	954.97	961.57
Interest on Loan	0.09	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	163.40	174.53	175.95	82.66	87.36	87.98



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

(₹ in lakh)

2014-19 Particulars	Combined Asset-1(i), 1(ii), 1(iii), 2, 3 & 4			
	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXIX-BOND XXIX-	9.20	325.00	0.00	325.00
BOND XXXI-BOND XXXI-	8.90	1602.00	0.00	1602.00
BOND XXXIII-BOND XXXIII-	8.64	2290.00	0.00	2290.00
BOND-XXXIV-BOND XXXIV-	8.84	1179.00	0.00	1179.00
BOND-XXXV-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.64	280.64	0.00	280.64
BOND-XXXV-DOCO-	9.64	1074.36	0.00	1074.36
BOND XXXVI-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.35	91.00	0.00	91.00
BOND XXXVI-DOCO-	9.35	109.00	0.00	109.00
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR 2011-12-	9.25	699.71	0.00	699.71
BOND XXXVII-ADDCAP FOR 2013-2014 AddCap FOR 2012-13-	9.25	142.32	0.00	142.32
BOND XXXVII-DOCO-	9.25	40.68	0.00	40.68
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	87.55	0.00	87.55
BOND XL-ADDCAP FOR 2012-13 AddCap-	9.30	185.45	0.00	185.45
BOND XL-ADDCAP FOR 2013-2014 AddCap FOR 2013-14	9.30	0.00	0.00	0.00
BOND - XLI-ADDCAP FOR 2013-2014 AddCap-	8.85	46.00	0.00	46.00
BOND - XLII-ADDCAP FOR 2013-2014 AddCap-	8.80	11.00	0.00	11.00
BOND - XLIII-ADDCAP FOR 2013-14-	7.93	125.00	0.00	125.00



2014-19	Combined Asset-1(i), 1(ii), 1(iii), 2, 3 & 4			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND - XLV-ADDCAP FOR 2013-14-	9.65	145.00	0.00	145.00
Total		8433.71	0.00	8433.71

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

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	8433.71	8433.71	8433.71	8433.71	8433.71
Cumulative Repayments of Loans upto Previous Year	187.66	637.32	1273.43	1949.43	2647.93
Net Loans Opening	8246.05	7796.39	7160.28	6484.28	5785.78
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	449.66	636.11	676.00	698.50	698.50
Net Closing Loan	7796.39	7160.28	6484.28	5785.78	5087.28
Average Net Loan	8021.22	7478.34	6822.28	6135.03	5436.53
Interest on Loan	723.23	674.84	615.75	553.83	490.90
Rate of Interest on Loan (%)	9.0164	9.0239	9.0256	9.0273	9.0297

