# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

### **PETITION NO. 102/TT/2015**

#### Coram:

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

Date of Hearing: 08.02.2016 Date of Order : 20.02.2016

#### 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 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for (i) Asset I – 400 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station, (ii) Asset II: 400 kV, 125 MVAR Bus Reactor along with associated bays at Ranchi under ERSS-IV in Eastern Region

#### And in the Matter of:

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

.....Petitioner

#### Versus

- 1. BIHAR STATE ELECTRICITY BOARD VIDYUT BHAWAN, BAILEY ROAD PATNA - 800 001
- WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY BIDYUT BHAWAN, BIDHAN NAGAR BLOCK DJ, SECTOR-II, SALT LAKE CITY CALCUTTA - 700 091
- 3. GRID CORPORATION OF ORISSA LTD. SHAHID NAGAR, BHUBANESWAR - 751 007



DAMODAR VALLEY CORPORATION DVC TOWER, MANIKTALA CIVIC CENTRE, VIP ROAD, CALCUTTA - 700 054

- 4. POWER DEPARTMENT GOVT. OF SIKKIM, GANGTOK - 737 101
- 5. JHARKHAND STATE ELECTRICITY BOARD IN FRONT OF MAIN SECRETARIAT DORANDA, RANCHI - 834002

.....Respondent(s)

The following were present:

For Petitioner: Shri M.M. Mondal, PGCIL Shri S.K Venkatesan, PGCIL Shri S.S. Raju, PGCIL Shri Jasbir Singh, PGCIL Shri R. Prasad, PGCIL Shri S.C. Taneja, PGCIL

For Respondents: None

#### <u>ORDER</u>

The petition has been preferred 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 for the period from date of commercial operation to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 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 in respect of (i) Asset I – 400 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-



station, (ii) Asset II: 400 kV, 125 MVAR Bus Reactor along with associated bays at Ranchi under ERSS-IV in Eastern Region(hereinafter referred to as "the transmission assets").

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

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

- a) The investment approval to the transmission project was accorded by Board of Directors of the petitioner company vide letter dated 13.7.2011 for ₹6036 lakh including IDC of ₹245 lakh (based on 2<sup>nd</sup> Quarter, 2011 price level).
- b) The Asset I & II were commissioned on 1.4.2013 and 1.3.2013 respectively within the schedule date of commercial operation i.e. 1.5.2013 as per investment approval.
- c) The annual transmissions charges for 2009-14 tariff periods for the transmission asset were determined vide order dated 15.10.2014 in Petition No. 40/TT/2013 based on admitted capital cost of ₹652.55 lakh for Asset-I, and admitted capital cost of ₹197.88 lakh for Asset-II after deduction of excess initial spares of ₹0.19 lakh as on COD.
- d) The estimated additional capital expenditure considered by the Commission for determination of tariff for 2009-14 tariff period was ₹340.75 lakh for 2013-14 for Asset-II and ₹395.93 lakh for 2012-13and ₹350.69 lakh for 2013-14 for Asset-II.



e) The Commission determined the tariff for 2009-14tariff period, based on the above capital cost and estimated additional capital expenditure for the transmission assets during 2009-14 as given below:-

#### For Asset-I

	(₹ in lakh)
Particulars	2013-14
Depreciation	43.45
Interest on Loan	47.09
Return on Equity	43.16
Interest on Working Capital	6.54
O & M Expenses	65.46
Total	205.70

#### For Asset-II

		(₹ in lakh)
Particulars	2012-13 (Pro-rata)	2013-14
Depreciation	1.74	40.59
Interest on Loan	2.08	46.57
Return on Equity	1.73	40.31
Interest on Working Capital	0.41	6.55
O & M Expenses	5.16	65.46
Total	11.12	199.48

4. As per Regulation 6 of the 2009 Tariff Regulations, 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.

5. In this context, the petitioner has filed the instant petition on 18.3.2015, for revision of tariff for the tariff period 2009-14 in accordance with Regulation 6 of the 2009 Tariff Regulations.

6. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act'). 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.

7. The hearing in this matter was held on 8.2.2016. During the hearing, the petitioner was directed to submit the reply to its letter dated 8.2.2016 depicting the un-discharged liabilities, if any, to be recovered in future respect of the assets covered in the instant petition and an undertaking/certificate depicting that the actual equity infused in the project is not less than 30% during the tariff period 2009-14 and 2014-19. The petitioner has submitted the replies vide affidavit dated 13.2.2016.

8. 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:-

- 9. Clause (3) of the Regulation 6 of the 2009 Tariff Regulations provides 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".



10. 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 up in the subsequent paragraphs.

### Capital Cost

11. The petitioner has claimed actual capital cost certified vide Auditor's Certificates dated 23.2.2015, based on the capital cost incurred as on COD of ₹658.84 lakh for Asset-I and ₹183.02 lakh for Asset-II, in respect of the transmission asset for the purpose of tariff determination.

12. Clause (1) and (2) of the Regulation 7 of the 2009 Tariff Regulations specifies 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 fund 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.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:



Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff."

13. The actual capital cost claimed by the petitioner is certified by the auditor's certificate dated 23.2.2015. We have considered the submission of the petitioner in respect of the capital cost of Asset I & II as on COD. The capital cost considered for truing up of tariff for 2009-14 tariff period is arrived after disallowing excess initial spares.

#### Initial Spares

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:-

"Transmission line:	0.75%
Transmission sub-station	2.50%
Series compensation devices & HVDC Station:	3.50%"

15. The Commission had disallowed excess initial spares of ₹0.19 lakh against AssetII against claimed initial spares of ₹23.79 lakh in order dated 15.10.2014 in petition
40/TT/2013

16. The petitioner has claimed actual initial spares of ₹24.53 lakh for Asset – I and ₹24.34 lakh for Asset – II in the instant petition certified vide Auditors certificates dated 23.2.2015. In view of the change in the additional capital expenditure, the admissible initial spares for Asset – I and Asset-II has been reviewed as under:-



# <u>Asset-I</u>

(₹ in lakh)

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Particulars	Logical Formula	Substation: Amount	Transmission Lines: Amount
Capital cost as on cut- off date	(a)	839.99	00.00
Capital Cost after deducting excess IDC	(b)	0.00	00.00
Initial Spares claimed*	(C)	24.53	00.00
Proportionate Initial Spares claimed after deducting IDC	(d) = ( c)/(a) * (b)	24.53	00.00
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	0.75%
Initial spares worked out	(f)= ((b- d)*e))/(100%-e)	20.909	00.00
Excess initial spares claimed	(g)=(d)-(f)	3.620	00.00

### Asset-II

			(₹ in lakh)
Particulars	Logical Formula	Substation: Amount	Transmission Lines: Amount
Capital cost as on cut- off date	(a)	795.05	00.00
Capital Cost after deducting excess IDC	(b)	795.05	00.00
Initial Spares claimed*	(C)	24.34	00.00
Proportionate Initial Spares claimed after deducting IDC	(d) = ( c)/(a) * (b)	24.34	00.00
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	0.75%
Initial spares worked out	(f)= ((b- d)*e))/(100%-e)	19.761	00.00
Excess initial spares claimed	(g)=(d)-(f)	4.578	00.00

# Additional Capital Expenditure

17. 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..."



18. The petitioner has submitted that it has incurred following additional capital expenditure for all of the Assets during 2012-13 and 2013-14 period on account of balance and retention payments as certified vide Auditor's Certificates dated 23.2.2015 as depicted below:-

							(t in lakn)
Name of	Appro- ved	Actual Cost as	Additional Capital Approved / Expenditure Claimed		Total cost as on		
Asset	Cost	on COD	Ulaimed	2012-13	2013-14	Total	31.3.2014
		652.55	Approved by the Commission	-	340.75	340.75	993.30
Asset-I	993.3	658.84	Claimed by the Petitioner	-	87.53	87.53	746.37
Asset-	944.2	197.39	Approved by the Commission	395.93	350.69	746.62	944.01
II	011.2	183.02	Claimed by the Petitioner	395.93	141.52	537.45	720.47

19. We have considered the submissions of the petitioner with regard to the actual capital expenditure incurred during 2009-14 period. The capital addition is based on actual capital expenditure incurred as per the Auditor's Certificates dated 23.2.2015 submitted by the petitioner. We allow the same for the purpose of revision of tariff in accordance with Regulation 6 of the 2009 Tariff Regulations.

# Debt: Equity

20. 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



(Ŧ in lakh)

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."

21. The debt:equity ratio considered by the Commission vide order dated 15.10.2014 in Petition No. 40/TT/2013 as on COD for Asset I &Asset II, has been considered for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations.

22. The petitioner was directed to submit Undertaking/certificate depicting that the actual equity infused in the project is not less than 30% during the tariff period 2009-14 and 2014- 19. The petitioner has submitted, vide affidavit dated 19.2.2016, the details of actual equity infusion for the transmission assets during 2009-14 period. The actual debt:equity ratio for additional capital expenditure as claimed by the petitioner is in accordance with the Regulation 12(1) and Regulation 12 (3) of the 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

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

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	461.19	70.00	61.271	70.00	522.46	70.00
Equity	197.65	30.00	26.259	30.00	223.91	30.00
Total	658.84	100.00	87.53	100.00	746.37	100.00

For Asset I



### For Assets II

Funding	Capital cost as on COD	(%)	Additional capital expenditure during 2009-14	(%)	Total Cost as on 31.3.2014	(%)
Debt	54.91	70.00	161.24	70.00	216.14	70.00
Equity	128.12	30.00	376.21	30.00	504.33	30.00
Total	183.02	100.00	537.45	100.00	720.47	100.00

#### Return on Equity ("ROE")

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

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 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."

25. 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

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

# For Asset I

	(₹in lakh)
Return on Equity	2013-14
Approved in order dated 15.10.2014in petition 40/TT/2013	43.16
Claimed by the petitioner	41.33
Allowed after trued up in this order	41.33

### For Asset II

(₹in lakh)

Return on Equity	2012-13	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	1.73	40.31
Claimed by the petitioner	1.85	38.22
Allowed after trued up in this order	1.85	38.22

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")

27. 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".

28. 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:-

### For Asset I

	(₹in lakh)
Interest on Loan	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	47.09
Claimed by the petitioner	40.20
Allowed after trued up in this order	40.20

# For Asset II

(₹in lakh)

Interest on Loan	2012-13	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	2.08	46.57
Claimed by the petitioner	1.99	38.69
Allowed after trued up in this order	1.99	38.70

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**

29. 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:-



# For Asset I

	(₹in lak	kh)
Depreciation	2013-14	
Approved in order dated 15.10.2014 in petition 40/TT/2013	43.45	
Claimed by the petitioner	37.10	
Allowed after trued up in this order	37.10	

# For Asset II

(₹ in lakh)

Depreciation	2012-13	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	1.74	40.59
Claimed by the petitioner	1.68	34.30
Allowed after trued up in this order	1.68	34.30

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")**

30. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The normative O&M Expenses are not required to be trued up. 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:-

# For Asset I

	(₹in lakh)
O&M Expenses	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	65.46
Claimed by the petitioner	65.46
Allowed after trued up in this order	65.46



### For Asset II

(₹in lakh)

O&M Expenses	2012-13	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	5.16	65.46
Claimed by the petitioner	5.16	65.46
Allowed after trued up in this order	5.16	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:-

# For Asset I

	(₹ in lak
Interest on Working Capital	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	6.54
Claimed by the petitioner	6.20
Allowed after trued up in this order	6.20

#### For Asset II

		(₹ in lakh)
Interest on Working Capital	2012-13	2013-14
Approved in order dated 15.10.2014 in petition 40/TT/2013	0.41	6.55
Claimed by the petitioner	0.41	6.18
Allowed after trued up in this order	0.41	6.18

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:-

# For Asset I:

Particulars	2013-14
Depreciation	
Opening Gross Block	658.84
Additional Capitalisation	87.53
Closing Gross Block	746.37
Average Gross Block	702.60
Rate of Depreciation	5.28%
Depreciable Value	632.34
Balance Useful life of the asset	25
Elapsed Life	0
Remaining Depreciable Value	632.34
Depreciation during the year	37.10
Cumulative depreciation	37.10
Interest on Loan	
Gross Normative Loan	461.19
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	461.19
Additions	61.27
Repayment during the year	37.10
Net Loan-Closing	485.36
Average Loan	473.27
Weighted Average Rate of Interest on Loan (%)	8.4949
Interest on Loan	40.20
Return on Equity	
Opening Equity	197.65
Additions	26.26
Closing Equity	223.91
Average Equity	210.78
Return on Equity (Base Rate )	15.500
MAT rate for the respective year	20.961
Rate of Return on Equity	19.610



Particulars	2013-14
Return on Equity	41.34
Interest on Working Capital	
O & M expenses	5.45
Maintenance Spares	9.82
Receivables	31.72
Total	46.99
Rate of Interest(%)	13.20
Interest	6.20
Annual Transmission Charges	
Depreciation	37.10
Interest on Loan	40.20
Return on Equity	41.34
Interest on Working Capital	6.20
O & M Expenses	65.46
Total	190.30

#### For Asset II:

(₹ in lakh) 2012-13 2013-14 Particulars (pro-rata) Depreciation Opening Gross Block 183.02 578.95 Additional Capitalisation 395.93 141.52 Closing Gross Block 578.95 720.47 380.99 Average Gross Block 649.71 Rate of Depreciation (%) 5.28 5.28 **Depreciable Value** 342.89 762.91 Balance Useful life of the asset 25 24 Elapsed Life 0 1 Remaining Depreciable Value 342.89 583.06 Depreciation during the year 34.30 1.68 Cumulative depreciation (incl. of AAD) 1.68 35.98 Interest on Loan Gross Normative Loan 128.12 405.27 Cumulative Repayment upto Previous 0.00 1.68 Year Net Loan-Opening 128.12 403.59 99.06 Additions 277.15 Repayment during the year 1.68 34.30 Net Loan-Closing 403.59 468.35 Average Loan 265.85 435.97 Weighted Average Rate of Interest on 8.9769 8.8766 Loan (%) 1.99 38.70 Interest on Loan



Particulars	articulars 2012-13 (pro-rata)	
Return on Equity		
Opening Equity	54.91	173.69
Additions	118.78	42.46
Closing Equity	173.69	216.14
Average Equity	114.30	194.91
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	1.85	38.22
Interest on Working Capital		
O & M expenses	5.16	5.45
Maintenance Spares	9.29	9.82
Receivables	22.17	30.48
Total	36.61	45.75
Rate of Interest	13.50%	13.50
Interest on Working Capital	0.41	6.18
Annual Transmission Charges		
Depreciation	1.68	34.30
Interest on Loan	1.99	38.70
Return on Equity	1.85	38.22
Interest on Working Capital	0.41	6.18
O & M Expenses	5.16	65.46
Total	11.08	182.86

#### DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

33. The petitioner has claimed the tariff charges for 2014-19 tariff period as under:-

### <u>Asset-I</u>

					(₹ in lakh
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	41.78	44.16	44.16	44.16	44.16
Interest on Loan	41.97	40.96	37.16	33.42	29.72
Return on Equity	46.56	49.20	49.20	49.20	49.20
Interest on Working Capital	6.33	6.53	6.56	6.59	6.63
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	196.94	203.15	201.45	199.88	198.42



# <u>Asset-II</u>

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	39.89	41.74	41.74	41.74	41.74
Interest on Loan	41.53	40.07	36.35	32.66	29.01
Return on Equity	44.45	46.51	46.51	46.51	46.51
Interest on Working Capital	6.23	6.40	6.42	6.46	6.50
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	192.40	197.02	195.39	193.88	192.47

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

# <u>Asset-I</u>

				(₹ in lakh	ו)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.82	33.86	33.58	33.31	33.07
Total	46.90	48.40	48.60	48.83	49.11
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	6.33	6.53	6.56	6.59	6.63

# <u>Asset-II</u>

				(₹ in lakł	ר)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.07	33.84	32.57	32.31	32.08
Total	46.15	47.38	47.59	47.83	48.12
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	6.23	6.40	6.42	6.46	6.50

# 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 capital cost of ₹746.37 lakhfor Asset–I and ₹720.47 lakh for Asset – II worked

out by the Commission as on 31.3.2014 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.

#### Additional Capital Expenditure

37. Clause (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

"(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) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments:"



38. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" as follows:-

"Cut - off Date" means 31<sup>st</sup> 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 31<sup>st</sup> March of the year closing after three years of the year of comm<sup>er</sup>cial operation:"

39. The cut-off date for both Asset-I and Asset-II works out to be 31.3.2016. The petitioner has claimed additional capital expenditure of ₹90 lakh for Asset-I and ₹70 lakh for Asset-II for 2014-19 tariff period under Regulation 14(1)(i) of the 2014 Tariff Regulations.

40. We have considered the submissions of the petitioner with regard to the projected capital expenditure during 2014-19. The claimed Additional capital expenditure is towards balance and retention payments for works executed before the cut-off date and the same has been certified by the Auditor vide Certificate dated 23.2.2015. Further, the total capital expenditure during 2014-19 is within the limits of the total approved capital expenditure and the total cost as on 31.3.2019 is within the approved cost of the project. Thus, the same is allowed for the purpose of revision of tariff in accordance with Regulation 14(3)(v) of the 2014 Tariff Regulations, subject to true-up on actual basis.

41. Accordingly, the capital cost including the additional capital expenditure during 2014-19 tariff period is as below:



# <u>Asset-I</u>

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	746.37	836.369	836.37	836.37	836.369
Addition during 2014-19	90	0	0	0	0
Gross Block	836.37	836.37	836.37	836.37	836.37

### <u>Asset-II</u>

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	720.47	790.47	790.47	790.47	790.47
Addition during 2014-19	70	0	0	0	0
Gross Block	790.47	790.47	790.47	790.47	790.47

### Debt: Equity

42. 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."

43. The details of the debt:equity considered for the purpose oftariff for 2014-19 tariff period are as follows:-



# <u>Asset-I</u>

(₹in lakh)

Funding	Capital cost as on 31.3.2014	(%)	Additiona I capital expenditu re during 2014-19	(%)	Total Cost as on 31.3.2019	(%)
Debt	522.46	70.00	63.00	70.00	585.46	70.00
Equity	223.91	30.00	27.00	30.00	250.91	30.00
Total	746.37	100.00	90.00	100.00	836.37	100.00

# <u>Asset-II</u>

						(₹ in lal	kh)
Funding	Capital cost as on 31.3.2014	(%)	Additiona I capital expenditu re during 2014-19	(%)	Total Cost as on 31.3.2019	(%)	
Debt	216.14	70.00	21.00	70.00	237.14	70.00	
Equity	504.33	30.00	49.00	30.00	553.33	30.00	
Total	720.47	100.00	70.00	100.00	790.47	100.00	

# Return on Equity ("ROE")

44. 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."



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45. 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:-

### <u>Asset-I</u>

ABBELT				(₹ in	lakh)
Return on Equity	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	223.91	250.91	250.91	250.91	250.91
Additions	27.00	-	-	-	-
Closing Equity	250.91	250.91	250.91	250.91	250.91
Average Equity	237.41	250.91	250.91	250.91	250.91
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	46.56	49.20	49.20	49.20	49.20

#### <u>Asset-II</u>

(₹ in lakh)

				(())	
<b>Return on Equity</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	216.14	237.14	237.14	237.14	237.14
Additions	21.00	-	-	-	-
Closing Equity	237.14	237.14	237.14	237.14	237.14
Average Equity	226.64	237.14	237.14	237.14	237.14
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	44.45	46.50	46.50	46.50	46.50

# Interest on Loan ("IoL")

46. Clause 5 and Clause 6 of Regulation 26 of the 2014 Tariff Regulations provides that:-

Order in Petition No. 102/TT/2015



"(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."

47. 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. The details of weighted average rate of interest for 2014-19

tariff period are placed in Annexure 2, IoL allowed is as follows:-

#### Asset - I

					(K III lakii)
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	522.46	585.46	585.46	585.46	585.46
Cumulative Repayment upto Previous Year	37.10	78.88	123.04	167.20	211.36
Net Loan-Opening	485.36	506.58	462.42	418.26	374.10
Additions	63.00	0.00	0.00	0.00	0.00
Repayment during the year	41.78	44.16	44.16	44.16	44.16
Net Loan-Closing	506.58	462.42	418.26	374.10	329.94
Average Loan	495.97	484.50	440.34	396.18	352.02
Weighted Average Rate of Interest on Loan (%)	8.4619%	8.4538%	8.4410%	8.4368%	8.4442%
Interest on Loan	41.97	40.96	37.17	33.42	29.72

(₹ in lakh)



### <u>Asset - II</u>

					(र in lakh)
Interest on Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	504.33	553.33	553.33	553.33	553.33
Cumulative Repayment upto Previous Year	35.98	75.87	117.61	159.34	201.08
Net Loan-Opening	468.35	477.46	435.72	393.99	352.25
Additions	49.00	0.00	0.00	0.00	0.00
Repayment during the year	39.89	41.74	41.74	41.74	41.74
Net Loan-Closing	477.46	435.72	393.99	352.25	310.51
Average Loan	472.90	456.59	414.85	373.12	331.38
Weighted Average Rate of Interest on Loan (%)	8.7821%	8.7762%	8.7618%	8.7553%	8.7531%
Interest on Loan	41.53	40.07	36.35	32.67	29.01

#### **Depreciation**

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

that:-

"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."

49. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2014 and accumulated depreciation up to 31.3.2014.The



detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

#### Asset-I

				(₹	in lakh)
Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	746.37	836.37	836.37	836.37	836.37
Additional Capitalisation	90.00	-	-	-	-
Closing Gross Block	836.37	836.37	836.37	836.37	836.37
Average Gross Block	791.37	836.37	836.37	836.37	836.37
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	751.62	793.23	752.73	752.73	752.73
Balance Useful life of					
the asset	24	23	22	21	20
Elapsed Life	1	2	3	4	5
Remaining Depreciable					
Value	675.13	673.85	629.69	585.53	541.37
Depreciation	41.78	44.16	44.16	44.16	44.16
Cumulative depreciation	78.88	123.04	167.20	211.36	255.52

#### Asset-II

(₹ in lakh)

Depreciation	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	720.47	790.47	790.47	790.47	790.47
Additional Capitalisation	70.00	-	-	-	-
Closing Gross Block	790.47	790.47	790.47	790.47	790.47
Average Gross Block	755.47	790.47	790.47	790.47	790.47
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	743.61	742.92	711.42	711.42	711.42
Balance Useful life of	23	22	21		
the asset				20	19
Elapsed Life	2	3	4	5	6
Remaining Depreciable	643.94	635.55	593.82	552.08	510.34
Value					
Depreciation	39.89	41.74	41.74	41.74	41.74
Cumulative depreciation	75.87	117.61	159.34	201.08	242.82



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

50. The petitioner has 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 submitted that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

51. We have considered the submissions of the petitioner. We would like to clarify that 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 assets as per the prevailing norms.

52. 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 are as follows:-

# <u>Asset-I</u>

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
400 kV Bays:						
No. of Bays	1	1	1	1	1	
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71	
Total O&M Expenses (₹ lakh)	60.30	62.30	64.37	66.51	68.71	



# <u>Asset-II</u>

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV Bays:					
No. of Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.30	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	60.30	62.30	64.37	66.51	68.71

### Interest on Working Capital ("IWC")

53. 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;"

54. 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%.

55. 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:-



# Asset-I

					(₹in lakh)
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	5.02	5.19	5.36	5.54	5.72
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.82	33.86	33.58	33.32	33.07
Total	46.89	48.39	48.59	48.83	49.10
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	6.33	6.53	6.56	6.59	6.63

# <u>Asset-II</u>

					(₹ in lakh)
Interest on Working Capital	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	5.02	5.19	5.36	5.54	5.72
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.07	32.83	32.56	32.31	32.08
Total	46.13	47.37	47.58	47.83	48.11
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	6.23	6.39	6.42	6.46	6.49

# ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

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

19 tariff period are summarised below:-

# <u>Asset-I</u>

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	746.37	836.37	836.37	836.37	836.37
Additional Capitalisation	90.00	0.00	0.00	0.00	0.00
Closing Gross Block	836.37	836.37	836.37	836.37	836.37
Average Gross Block	791.37	836.37	836.37	836.37	836.37
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	751.62	793.23	752.73	752.73	752.73
Balance Useful life of the asset	24	23	22	21	20
Elapsed Life	1	2	3	4	5



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Remaining Depreciable Value	675.13	673.85	629.69	585.53	541.37
Depreciation	41.78	44.16	44.16	44.16	44.16
Cumulative depreciation	78.88	123.04	167.20	211.36	255.52
Interest on Loan					
Gross Normative Loan	522.46	585.46	585.46	585.46	585.46
Cumulative Repayment upto Previous Year	37.10	78.88	123.04	167.20	211.36
Net Loan-Opening	485.36	506.58	462.42	418.26	374.10
Additions	63.00	0.00	0.00	0.00	0.00
Repayment during the year	41.78	44.16	44.16	44.16	44.16
Net Loan-Closing	506.58	462.42	418.26	374.10	329.94
Average Loan	495.97	484.50	440.34	396.18	352.02
Weighted Average Rate of Interest on Loan	8.4619%	8.4538%	8.4410%	8.4368%	8.4442%
Interest	41.97	40.96	37.17	33.42	29.72
Return on Equity					
Opening Equity	223.91	250.91	250.91	250.91	250.91
Additions	27.00	0.00	0.00	0.00	0.00
Closing Equity	250.91	250.91	250.91	250.91	250.91
Average Equity	237.41	250.91	250.91	250.91	250.91
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	46.56	49.20	49.20	49.20	49.20
Interest on Working Capital					
O & M expenses	5.02	5.19	5.36	5.54	5.72
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.82	33.86	33.58	33.32	33.07
Total	46.89	48.39	48.59	48.83	49.10
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	6.33	6.53	6.56	6.59	6.63
Annual Transmission Charges					
Depreciation	41.78	44.16	44.16	44.16	44.16
Interest on Loan	41.97	40.96	37.17	33.42	29.72
Return on Equity	46.56	49.20	49.20	49.20	49.20
Interest on Working Capital	6.33	6.53	6.56	6.59	6.63
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	196.94	203.16	201.46	199.89	198.43



# <u>Asset-II</u>

Derticulare	2014 45	2015 10	2046 47	,	₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	720.47	790.47	790.47	790.47	790.47
Additional Capitalisation	70.00	0.00	0.00	0.00	0.00
Closing Gross Block	790.47	790.47	790.47	790.47	790.47
Average Gross Block	755.47	790.47	790.47	790.47	790.47
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	743.61	742.92	711.42	711.42	711.42
Balance Useful life of the asset	23	22	21	20	19
Elapsed Life	2	3	4	5	6
Remaining Depreciable Value	643.94	635.55	593.82	552.08	510.34
Depreciation	39.89	41.74	41.74	41.74	41.74
Cumulative depreciation	75.87	117.61	159.34	201.08	242.82
	10.01	111.01	100.01	201.00	212.02
Interest on Loan					
Gross Normative Loan	504.33	553.33	553.33	553.33	553.33
Cumulative Repayment upto Previous Year	35.98	75.87	117.61	159.34	201.08
Net Loan-Opening	468.35	477.46	435.72	393.99	352.25
Additions	49.00	0.00	0.00	0.00	0.00
Repayment during the year	39.89	41.74	41.74	41.74	41.74
Net Loan-Closing	477.46	435.72	393.99	352.25	310.51
Average Loan	472.90	456.59	414.85	373.12	331.38
Weighted Average Rate of Interest on Loan	8.7821%	8.7762%	8.7618%	8.7553%	8.7531%
Interest	41.53	40.07	36.35	32.67	29.01
Return on Equity					
	216.14	237.14	237.14	237.14	007 1 /
Opening Equity Additions					237.14
Closing Equity	21.00 237.14	0.00 237.14	0.00 237.14	0.00 237.14	0.00 237.14
Average Equity	226.64	237.14	237.14	237.14	237.14
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	44.45	46.50	46.50	46.50	46.50
Interest on Working Capital					
O & M expenses	5.02	5.19	5.36	5.54	5.72



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	32.07	32.83	32.56	32.31	32.08
Total	46.13	47.37	47.58	47.83	48.11
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	6.23	6.39	6.42	6.46	6.49
Annual Transmission Charges					
Depreciation	39.89	41.74	41.74	41.74	41.74
Interest on Loan	41.53	40.07	36.35	32.67	29.01
Return on Equity	44.45	46.50	46.50	46.50	46.50
Interest on Working Capital	6.23	6.39	6.42	6.46	6.49
O & M Expenses	60.30	62.30	64.37	66.51	68.71
Total	192.39	197.01	195.38	193.88	192.45

57. 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. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Since the COD is beyond 2009, the petitioner's prayer is not maintainable in this case.

# Filing Fee and the Publication Expenses

58. 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

59. 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.

### Service Tax

60. 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

61. 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.

62. This order disposes of Petition No.102/TT/2015.

Sd/-

(Dr. M.K. Iyer) Member

Order in Petition No. 102/TT/2015

Sd/-

(A.S. Bakshi) Member

#### Annexure – 1

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

### <u>Asset-I</u>

Particulars	Interst Rate (%)	Loan deployed as on DOCO	Additions during the tariff period	Total
BOND XXXVII-DOCO Funding-	9.25	110.00	0.00	110.00
BOND - XLII-DOCO Funding-	8.80	152.20	0.00	152.20
BOND - XLIII-ADDCAP FOR 2013-2014 Add Cap-	7.93	0.00	61.27	61.27
BOND - XLIII-DOCO XLIII-	7.93	198.99	0.00	198.99
Total		461.19	61.27	522.46

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

(₹ in lakh)

Particulars	2013-14
Gross Opening Loan	461.19
Cumulative Repayments of Loans upto Previous Year	0.00
Net Loans Opening	461.19
Add: Draw(s) during the Year	61.27
Less: Repayments of Loan during the year	0.00
Net Closing Loan	522.46
Average Net Loan	491.83
Rate of Interest on Loan* (%)	8.4945%
Interest on Loan	41.78

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



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

#### <u>Asset- II</u>

				(₹ in lakh)
Particulars	Interes t Rate (%)	Loan deploye d as on DOCO	Addition s during the tariff period	Repayme nt
BOND XXXVII-ADDCAP FOR 2012-2013 Add Cap -	9.25	0.00	133.98	133.98
BOND XXXVII-DOCO Funding-	9.25	38.22	0.00	38.22
BOND - XLII-ADDCAP FOR 2012-2013 Add Cap -	8.80	0.00	143.17	143.17
BOND - XLII-DOCO XLII-	8.80	89.89	0.00	89.89
BOND - XLIII-ADDCAP FOR 2013-2014 Add Cap -	0.00	0.00	99.06	99.06
Total		128.11	376.21	504.32

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

		(₹ in lakh)
Particulars	2012-13	2013-14
Gross Opening Loan	128.11	405.26
Cumulative Repayments of Loans upto Previous Year	0.00	0.00
Net Loans Opening	128.11	405.26
Add: Draw(s) during the Year	277.15	99.06
Less: Repayments of Loan during the year	0.00	0.00
Net Closing Loan	405.26	504.32
Average Net Loan	266.69	454.79
Rate of Interest on Loan (%)	8.9775	8.8756
Interest on Loan	23.94	40.37



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

#### <u>Asset-I</u>

(₹ in lakh)

Particulars	Interst Rate (%)	Loan deploye d as on 1.4.2014	Addition s during the tariff period	Repaymen t
BOND XXXVII-DOCO Funding-	9.25	110.00	0.00	110.00
BOND-XLII-DOCO Funding-	8.80	152.20	0.00	152.20
BOND - XLIII-ADDCAP FOR 2013-2014 Add Cap-	7.93	61.27	0.00	61.27
BOND - XLIII-DOCO XLIII-	7.93	198.99	0.00	198.99
Total		522.46	0.00	522.46

#### 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	522.46	522.46	522.46	522.46	522.46
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	9.17	18.34	49.20
Net Loans Opening	522.46	522.46	513.29	504.12	473.26
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the	0.00	9.17	9.17	30.86	30.86
year					
Net Closing Loan	522.46	513.29	504.12	473.26	442.40
Average Net Loan	522.46	517.88	508.71	488.69	457.83
Rate of Interest on Loan (%)	8.4614	8.4544	8.4400	8.4362	8.4438
Interest on Loan	44.21	43.78	42.93	41.23	38.66



# <u>Asset-II</u>

(₹ in lakh)

Particulars	Inters t Rate (%)	Loan deploye d as on 1.4.2014	Addition s during the tariff period	Repaymen t
BOND XXXVII-ADDCAP FOR 2012-2013 Add	9.25	133.98	0.00	133.98
Сар -				
BOND XXXVII-DODO Funding-	9.25	38.22	0.00	38.22
BOND - XLII-ADDCAP FOR 2012-2013 Add Cap	8.80	143.17	0.00	143.17
-				
BOND - XLII-DOCO XLII-	8.80	89.89	0.00	89.89
BOND - XLIII-ADDCAP FOR 2013-2014 Add	7.93	99.06	0.00	99.06
Cap -				
Total		504.32	0.00	504.32

#### 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	504.32	504.32	504.32	504.32	504.32
Cumulative Repayments of Loans up to Previous Year	0.00	0.00	14.36	28.72	51.34
Net Loans Opening	504.32	504.32	489.96	475.60	452.98
Add: Drawl(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments during the	0.00	14.36	14.36	22.62	22.62
year					
Net Closing Loan	504.32	489.96	475.60	452.98	430.36
Average Net Loan	504.32	497.14	482.78	464.29	441.67
Rate of Interest on Loan (%)	8.7828	8.7760	8.7619	8.7542	8.7535
Interest on Loan	44.29	43.63	42.30	40.64	38.66

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