

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.405/TT/2014

Coram:

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

**Date of Hearing: 23.11.2015
Date of Order: 30.12.2015**

In the matter of:

Determination of transmission tariff for 2014-19 tariff block for (i) Asset 1- 2 nos. 400 kV 63 MVAR Line Reactors for both circuits of Vijayawada-Nellore 400 KV D/C Transmission Line charged as Bus Reactors at Nellore (AP) S/S (DOCO:- 16.3.2015) (ii) Asset 2- 400 kV D/C Vijayawada-Nellore Transmission Line and associated bays along with 1 no. 400 kV 63 MVAR Line Reactor at Vijayawada (Nunna) S/S and 1 no. 63 MVAR Line Reactor at Vijayawada TPS (DOCO:- 8.8.2015) under "Southern Region System strengthening Scheme- XVIII", under Regulation-86 of CERC (Conduct of Business) Regulations, 1999 and CERC (Terms and Conditions of Tariff) Regulations, 2014.

And in the Matter of:

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

.....Petitioner

Versus

1. Karnataka Power Transmission Corporation Ltd.,
(KPTCL), Kaveri Bhavan, Bangalore – 560009
2. Transmission Corporation of Andhra Pradesh Ltd. Hyderabad
(APTRANSCO), Vidyut Soudha, Hyderabad- 500082
3. Kerala State Electricity Board, Thiruvananthapuram
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram - 695 004
4. Tamil Nadu Generation and Distribution Corporation Ltd
(Formerly Tamil Nadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai Chennai - 600 002



5. Electricity Department
Govt of Pondicherry, Pondicherry – 605001
6. Electricity Department
Government of Goa Vidyut Bhawan,
Panaji Goa 403001
7. Eastern Power Distribution Company of Andhra Pradesh Limited(APEPDCL)
APEPDCL, P&T Colony, Seethmmadhara Vishakhapatnam,
Andhra Pradesh
8. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)
Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road,
Kesavayana Gunta, Tirupati-517 501,
Chittoor District, Andhra Pradesh
9. Central Power Distribution Company of Andhra Pradesh limited (APCPDCL)
Corporate Office, Mint Compound,
Hyderabad- 500 063,Andhra Pradesh
10. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
Opp. NIT Petrol Pump Chaitanyapuri, Kazipet,
Warangal - 506 004 Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd.,(BESCOM),
Corporate Office, K.R.Circle Bangalore - 560 001 Karnataka
12. Gulbarga Electricity Supply Company Ltd., (GESCOM)
Station Main Road, Gulburga, Karnataka
13. Hubli Electricity Supply Company Ltd., (HESCOM)
Navanagar, PI3 Road Hubli, Karnataka
14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
Mangalore - 575 001 Karnataka
15. Chamundeswari Electricity Supply Corporation Ltd., (CESC)
927,L J Avenue Ground Floor,
New Kantharaj Urs Road Saraswatipuram,
Mysore - 570009 Karnataka

....Respondent(s)

The following were present:

For Petitioner: Shri S.K. Niranjana, PGCIL
 Shri S.S. Raju, PGCIL
 Shri Jasbir Singh, PGCIL



ShriRakesh Prasad, PGCIL
ShriAnshulGarg, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K Venkatesan, PGCIL

For Respondents: Shri S. Vallinayagam, Advocate, TANGEDCO

ORDER

The petition has been preferred by Power Grid Corporation of India Limited("the petitioner"), a transmission licensee, 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 1- 2 nos. 400 kV 63 MVAR Line Reactors for both circuits of Vijayawada-Nellore 400 KV D/C Transmission Line charged as Bus Reactors at Nellore (AP) S/S (ii) Asset 2- 400 kV D/C Vijayawada-Nellore Transmission Line and associated bays along with 1 no. 400 kV 63 MVAR Line Reactor at Vijayawada (Nunna) S/S and 1 no. 63 MVAR Line Reactor at Vijayawada TPS under "Southern Region System strengthening Scheme- XVIII", (hereinafter referred to as "the transmission asset")

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

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

a) The petitioner has implemented "SYSTEM STRENGTHENING – XVIII transmission scheme in Southern Regional Grid". The investment approval for the transmission scheme was accorded by Board of Directors of the petitioner company vide the memorandum no. C/CP/SRSS- XVIII dated



4.6.2012 with an estimated cost of ₹126326 lakh, which includes IDC of ₹7855 lakh.

b) The transmission system was scheduled to be commissioned within 29 months from the date of IA in a progressive manner. Thus, the scheduled date of commissioning of the transmission system was 4.11.2014.

c) The combined petition for the transmission assets was initially filed with anticipated COD of 1.2.2015 and provisional tariff was granted by the commission vide order dated 11.12.2014. Subsequently, the transmission assets were commissioned in two parts, Asset 1 commissioned on 16.3.2015 and Asset 2 commissioned on 8.8.2015. The balance elements under the scheme are already commissioned and applications for tariff determination for the same were submitted separately before the Commission. With commissioning of the transmission assets in the instant petition, entire scope of the project shall be completed.

d) The Commission, vide its order dated 11.12.2014, in Petition No.405/TT/2014 had approved the provisional tariff for the transmission asset for the years 2014-15 and 2015-16 for inclusion in PoC charges as per Regulation 7(7) (i) of the 2014 Tariff Regulations. The Commission in the said order further stated that there is time over-run and cost over-run in case of the instant asset and the same shall be dealt with at the time of determination of final tariff.

e) The petitioner has claimed a capital cost of ₹1880.58 lakh as on DOCO (16.3.2015) for Asset 1 and ₹49109.96 lakh as on DOCO (8.8.2015) for Asset 2 and additional capital expenditure of ₹117.60 lakh and ₹3776.42 lakh respectively in Asset 1 and Asset 2 in 2014-19 tariff period.

4. 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. In response to the instant petition, Respondent No. 3, KSEB and Respondent No. 4, TANGEDCO filed their reply vide affidavit dated 24.11.2014 and 6.1.2015 respectively. The petitioner has filed its rejoinder vide affidavit dated 18.11.2015, to the reply filed by TANGEDCO. However, the petitioner has not filed any rejoinder to the reply filed by KSEB. No comments/objections have been received from the public in response to the notice published in newspaper. The hearing in this matter was held on 23.11.2015. Having heard the representatives of the petitioner and respondents, and perused the material on record, we proceed to determine the tariff in accordance with the Tariff Regulations, 2014.

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

5. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as below:-

(₹ in lakh)

Particulars - Asset 1	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	4.12	98.48	100.21	100.51	100.51
Interest on Loan	5.53	127.15	119.93	110.63	101.03
Return on Equity	4.82	115.11	117.18	117.53	117.53
Interest on Working Capital	0.62	14.73	14.88	14.91	14.94
O & M Expenses	5.19	124.6	128.74	133.02	137.42
Total	20.28	480.07	480.94	476.60	471.43



Particulars - Asset 2	2014-15	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	-	1704.43	2720.39	2780.05	2789.99
Interest on Loan	-	1980.95	2965.94	2791.08	2556.00
Return on Equity	-	1900.51	3033.55	3100.20	3111.30
Interest on Working Capital	-	137.23	214.51	213.85	209.40
O & M Expenses	-	156.63	249.71	257.97	266.57
Total	-	5879.75	9184.10	9143.15	8933.26

6. Annual Fixed charges for 2014-19 tariff period are being determined in the succeeding paragraphs.

Capital Cost

7. 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;”

8. The details of apportioned approved cost, actual expenditure incurred as on date of commercial operation and additional capital expenditure incurred/projected to be incurred for the period from COD to 31.3.2019 for the transmission assets as submitted by the petitioner are as follows:-

(₹ in lakh)

Name of the Elements	Apportioned Approved Cost as per FR	Expenditure up to COD	Estimated Additional Capital Expenditure				Total completion cost
			FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	
Asset 1	1878.70	1880.58	46.87	58.57	11.72	-	1997.74
Asset 2	46695.24	49109.96	-	1510.57	1888.21	377.64	52886.38
Total	48573.94	50990.54	46.87	1569.14	1899.93	377.64	54884.12

9. The petitioner, vide Auditor's Certificate dated 9.9.2015, has submitted the capital cost as on the date of commercial operation as ₹1880.58lakh and ₹49109.96lakh for Asset 1 and Asset 2 respectively, with proposed additional capital expenditure of ₹46.87 lakh in 2014-15, ₹58.57 lakh in 2015-16, ₹11.72 lakh in 2016-17 for Asset 1 and ₹1510.57 lakh in 2015-16, ₹1888.21 lakh in 2016-17, ₹377.64 lakh in 2017-18 for Asset 2 respectively.

Initial Spares

10. The petitioner has claimed initial spares of ₹64.27 lakh pertaining to sub-station corresponding to capital cost of ₹1632.02 lakh (excluding IDC, IEDC, Land cost and cost of civil works) as on the cut-off date in Asset 1.

11. The petitioner has claimed initial spares of ₹65.37lakh pertaining to sub-station and ₹229.35lakh pertaining to transmission line corresponding to the capital cost of ₹1478.49 lakh and ₹45078.89 lakh respectively (excluding IDC, IEDC, Land cost and cost of civil works) as on the cut-off date in Asset 2. The petitioner, vide affidavit dated 6.11.2015, has submitted that the initial spares procured upto COD are of ₹64.27 lakh for Asset I and ₹210.90 lakh pertaining to transmission line for Asset II. The balance initial spares will be procured during 2015-16 as estimated by the petitioner. The total initial spares claimed by the



petitioner are within the limits prescribed under Regulation 13 of the Tariff Regulation, 2014 and therefore allowed for capitalisation

Cost over-run

12. The estimated completion cost in case of Asset 1 is ₹1997.74 lakh up to 31.3.2019, and it exceeds the apportioned approved cost of ₹1878.70 lakh. In case of Asset 2, estimated completion cost of ₹52886.38 lakh up to 31.3.2019 exceeds the apportioned approved cost of ₹46695.24 lakh.

13. The petitioner has submitted the reasons for the cost over-run in the petition vide affidavit dated 2.2.2014 and 6.11.2015. In response to the query of TANGEDCO regarding cost overrun, petitioner's submission is as follows:-

- (a) Cost overrun in respect of Asset 1 is mainly due to high rates received against competitive bidding under price discovery mechanism as compared to the rates considered in the initial estimate. Cost overrun is also due to the change in price levels.
- (b) Cost overrun in respect of Asset 2 is due to the increase in crop, tree, and PTCC compensation to resolve the RoW issue and increase of tower and conductor material due to rerouting of line as compared to that envisaged during the investment approval. Cost overrun is also due to the change in price levels and due to high rates received against competitive bidding as compared to the rates considered in the initial estimates.
- (c) Due to the Seemandhra movement, and agitation for united state by the people from Rayalaseema and Seemandhra region, land cost in

the area got drastically increased. The farmers demanded land compensation for the entire land corridor under the transmission line as per prevalent market rates.

- (d) CLRs (composite long rod insulators, polymer insulators) were used in place of disc insulators considering the pollution levels in line with the company's philosophy, leading to an increase in cost. With respect to the increase in cost of tower steel, earthwire and, hardware fittings and other transmission line material, the rates are based on the quotes received against competitive bidding and change in quantity as per site requirement.
- (e) For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon the prevailing market conditions.

14. In response to the Commission's query regarding length of the transmission line, the petitioner submitted that the length of the line is approximately 330 kms against the FR line length of 334 kms and there is no significant effect of change in line length on the completion cost of the asset.

15. We have considered the submissions of the petitioner. There is cost over-run in case of Asset 1 and Asset 2 against the apportioned approved cost. The petitioner has attributed the cost over-run in case of Asset 1 to higher award costs

of competitive bidding and in case of Asset 2 to increase in compensation, change in quality and quantity of line materials as per site requirement and higher award costs due to competitive bidding. It has been noticed that the petitioner has not submitted the revised cost estimate in respect of both the assets. Accordingly, the capital cost is restricted to ₹1878.70 lakh and ₹46695.24 lakh in respect of Asset 1 and Asset 2 respectively. However, liberty is given to the petitioner to submit the revised cost estimate in support of the cost over-run for consideration of the Commission at the time of truing up.

Time Over-run

13. As per the investment approval, the transmission assets were scheduled to be commissioned within 29 months of the sanction i.e. on 4.11.2014. However, these transmission assets were commissioned on 16.3.2015 and 8.8.2015. Thus, there is a time over-run of 5 months and 9 months respectively in Asset 1 and Asset 2.

14. As regards Asset 1, the petitioner has submitted that in order to ensure execution and commissioning of the project well within the timeline, Powergrid placed all orders for supply and erection of material within the framed schedule. However, during actual execution of the project, there were frequent “bandh calls/disturbances” caused in the state of Andhra Pradesh due to ongoing Telangana movement on regular basis. There were frequent interruptions in movement of manpower and materials forcing the work force deployed at various sites/locations to leave for their safety. Since, the commissioning of the asset was dependent on commissioning of transmission line, it led to the aforesaid delay.

15. As regards Asset 2, the petitioner has submitted the following reasons for the delay of 9 months:-

- (a) Line construction works were interrupted due to “Samaikya Andhra” movement because of various agitations taken up against AP state bifurcation. The frequency and magnitude of disturbances increased substantially from 2013. This led to frequent interruption in movement of men and material thereby causing delays in execution of work.
- (b) The major reason for the time delay is severe RoW problems encountered in Krishna and Guntur districts. More than 90 locations were facing severe RoW problems. Stiff resistance was faced from the land owners right from March 2013 when line works were taken up in Krishna district. The land owners were demanding exorbitant compensation and the line works were completely stalled. The problem was put up to Krishna district collector for resolution. The Krishna district collector passed an order dated 20.6.2013 for payment of ₹3.50 lakh per tower location. However, the land owners demanded compensation for stringing corridors in addition to crop and tower footing compensation. Many land owners filed writ petitions before AP High Court challenging the district collector’s order and requested the High court to restrain Powergrid from taking up further line works. These writ petitions are pending before the High Court. Even though the matter had been taken up with district authorities and state authorities at various levels, the RoW issues could not be resolved. Further to the bifurcation of AP state, the proposed state capital of the AP state is situated in close proximity to Vijayawada and Guntur, which has led to rapid

increase in the land prices and real estate ventures in and around Vijayawada. As such, the RoW problems near Vijayawada were not likely to be resolved.

(c) In view of the above, an alternative route was studied for terminating the line at Vijayawada Thermal Power Station instead of initially envisaged Vijayawada PG (Nunna) substation. The modified termination proposal was put up to CEA in January 2015 along with all relevant system studies. The proposal was accepted by APTRANSCO, APGENCO and was approved by CEA in the 38th meeting of Standing Committee on Power System Planning of Southern Region held on 7.3.2015.

Asset 1

16. We have considered the submissions of the petitioner. It is seen from the documents furnished by the petitioner that the work corresponding to bay extension and 2 nos. of 63 MVAR line reactors for both circuits at Nellore(AP) end was taken up as hereunder:

Items/activities	LOA Date	Work start date	Work completion date
Bay extension - Supply & erection (L&T)	6.9.2012	6.9.2012	5.8.2014
Shunt Reactor - supply & erection (CGL)	31.12.2012	31.12.2012	30.7.2014

As is evident from petitioner's submission, the Asset 1 was ready for commissioning by the end of August 2014. Further, the petitioner has stated that the problems related to over voltage situation in the Southern Region were deliberated in 26th SRPC meeting held on 20.12.2014, and it was only in this meeting that it was proposed to utilize the above reactors at the substations even

before the lines are commissioned. Subsequently, the 2 nos. 63 MVAR line reactors at the Nellore end of the 400 kV D/C Vijayawada-Nellore transmission line were charged as Bus Reactors at Nellore (AP) substation in next 3 months from 20.12.2014 i.e. 16.3.2015.

17. Thus, time over-run of 5 months is attributable to delay in commissioning of transmission line which in turn was affected by factors related to protests and frequent “bandh-calls” discussed in subsequent paragraphs. Based on the above, we condone the delay of 5 months on account of dependency of the commissioning of Asset 1 on commissioning of line, even when the Asset 1 was ready for commissioning by August 2014. We also take due cognizance of the fact that after the issue was deliberated in 26th SRPC meeting, the asset was commissioned in a span of 3 months duration which included time for implementation, synchronization and clearances for trial operation, etc before the actual commissioning of the asset.

17. As regards Asset 2, the documents submitted by the petitioner depict that the delay is attributable to line ROW issues. The chronology of ROW events in villages of Vijayawada rural Mandalam and Ibrahimpatnam Mandalam in the Krishna district and in Guntur district towards construction of the transmission line has been submitted as enclosures vide affidavit dated 6.11.2015. The Commission has observed that the first communication towards resolving ROW issues commenced on 13.7.2012 against the investment approval date of 29.5.2012, where the petitioner has communicated with the District Collector of Krishna district regarding determination of compensation amount for crops and tress in the region for skirting the right of way issues in a timely manner. We have gone through the documents,

copies of communication letters with the district collector, station house officer, sub-collector, police commissioner and other concerned officials. Further, the efforts made by the petitioner towards resolving the RoW issues, finding an alternative route for terminating the line at Vijayawada Thermal Power Station instead of initially envisaged Vijayawada PG (Nunna) substation and coordinating with other stakeholders involved viz. APTRANSCO, APGENCO have been looked into.

18. In view of the above, we hold that the inspite of timely efforts made by the petitioner to ensure resolution of ROW issues, the commissioning was delayed by 9 months which is beyond the control of the petitioner. We have condoned the time over-run of 9 months in the commissioning of Asset 2.

19. The petitioner has submitted the IDC and IEDC amount on cash basis as on COD and balance IDC/IEDC to be discharged thereafter as under:-

(₹ in lakh)

Details of IDC & IEDC (As per Auditor Certificate)		
Asset 1		
Period	IDC	IEDC
Up to DOCO 16.3.2015	94.82	25.45
To be discharged during 2015-16	3.52	
Total	98.34	25.45
Asset 2		
Period	IDC	IEDC
Up to DOCO 8.8.2015	3490.45	1198.84
To be discharged during 2015-16	1355.70	
To be discharged during 2016-17	119.44	
Total	4965.59	1198.84

The IDC and IEDC on cash basis has been included in the capital cost and the amount to be discharged thereafter has been considered as part of additional capitalization.

20. Consequent to the above , the capital cost as on DOCO works out as under:-

(₹ in lakh)			
Asset	Capital cost excluding IDC, IEDC as on COD (As per Auditor's Certificate dated 9.9.2015)	IDC and IEDC discharge till COD (cash basis) (As per affidavit dated 9.9.2015)	Capital cost as on COD
Asset 1	1756.80	120.26	1877.06
Asset 2	42945.53	4689.29	47634.82

21. As seen hereinabove, the capital cost as on COD is higher than the apportioned approved cost in respect of Asset 2. The petitioner has not submitted the revised cost estimate. Accordingly, the capital cost in respect of Asset 2 has been restricted to ₹46695.24 lakh till the submission of RCE. Capital cost of Asset 1 as on date of commercial operation shown above amounting to ₹1877.06 lakh is within the apportioned approved cost and therefore the same has been considered to work out the tariff.

Additional Capital Expenditure

22. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“(1) The capital expenditure in respect of the new project or an existing project 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 recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law.”

23. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

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

24. The petitioner has claimed an estimated additional capital expenditure of ₹117.17 lakh from COD to 31.3.2017 for Asset 1 and ₹3776.42 lakh from COD to 31.3.2018 for Asset 2 on account of balance and retention payments, covered under Regulation 14(1)(i) of Tariff Regulations’ 2014. However, since the capital cost of Asset 2 as on COD has been restricted to the apportioned cost as per FR, the additional capital expenditure for 2014-19 tariff period has not been considered in respect of Asset 2. However, liberty is given to the petitioner to submit the revised cost estimate in support of the cost over-run for consideration of the Commission at the time of truing up. The additional capital expenditure allowed for Asset 1 is restricted to the extent of apportioned approved cost i.e. ₹1.64 lakh (₹1878.80 lakh - ₹1877.06 lakh). The same is shown hereunder:

(₹ in lakh)

Particulars	Capital cost on COD	Additional capital expenditure					Capital cost on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset 1	1877.06	1.64	-	-	-	-	1878.7
Asset 2	46695.24	-	-	-	-	-	46695.24

Debt: Equity

25. Clause (1) and (3) of Regulation 19 of the 2014 Tariff Regulations provide as 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.”

The petitioner has considered the debt: equity ratio of 70:30, which is in line with the 2014 Tariff Regulations, hence same is considered for calculation of tariff.

26. Accordingly, the details of the debt:equity considered for the purpose of tariff for 2014-19 tariff period is as follows:-

	Capital cost as on DOCO (in ₹ lakh)	(%)	Additional capital expenditure in FY 2014-19 (in ₹ lakh)	(%)	Capital cost as on 31.3.2019	(%)
Asset 1						
Equity	563.12	30.00	0.49	30.00	563.61	30.00
Debt	1,313.94	70.00	1.15	70.00	1315.09	70.00
Total	1877.06	100.00	1.64	100.00	1878.70	100.00



	Capital cost as on DOCO (in ₹ lakh)	(%)	Additional capital expenditure in FY 2014- 19 (in ₹ lakh)	(%)	Capital cost as on 31.3.2019	(%)
Asset 2						
Equity	14008.57	30.00	-	30.00	14008.57	30.00
Debt	32686.67	70.00	-	70.00	32686.67	70.00
Total	46695.24	100.00		100.00	46695.24	100.00

Return on Equity (“ROE”)

27. 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.”

28. It further provides that in case the generating company or transmission licensee paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of ROE. 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 allowed is as follows:-

(₹ in lakh)

Asset 1					
Return on Equity	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	563.12	563.61	563.61	563.61	563.61
Additions	0.49	-	-	-	-
Closing Equity	563.61	563.61	563.61	563.61	563.61
Average Equity	563.36	563.61	563.61	563.61	563.61
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	110.48	110.53	110.53	110.53	110.53

(₹ in lakh)

Asset 2					
Return on Equity	2014-15	2015-16(Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	-	14008.57	14008.57	14008.57	14008.57
Additions	-	-	-	-	-
Closing Equity	-	14008.57	14008.57	14008.57	14008.57
Average Equity	-	14008.57	14008.57	14008.57	14008.57
Return on Equity (Base Rate) (%)	-	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	-	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	-	19.610	19.610	19.610	19.610
Return on Equity	-	2747.14	2747.14	2747.14	2747.14

29. Further, in response to the query of TANGEDCO regarding additional RoE, the petitioner has submitted that Asset 1 is an extension of existing substation and Asset 2 was not commissioned within CERC timelines. Thus, none of the assets

are eligible for additional RoE and hence the same has not been claimed by the petitioner.

Interest on Loan (“IoL”)

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

“(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.”

31. The weighted average rate of IoL has been considered on the basis of rate prevailing as on COD/1.2.2015. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2014-19 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. By considering above, the IoL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest for 2014-19 tariff period are placed at Annexure-1, IoL allowed is as follows:-

(₹ in lakh)

Asset 1					
Interest on Loan	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1313.94	1315.09	1315.09	1315.09	1315.09
Cumulative Repayment upto Previous Year	0.00	4.07	98.69	193.31	287.93
Net Loan-Opening	1313.94	1311.02	1216.40	1121.78	1027.16



Asset 1					
Interest on Loan	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Additions	1.15	0.00	0.00	0.00	0.00
Repayment during the year	4.07	94.62	94.62	94.62	94.62
Net Loan-Closing	1311.02	1216.40	1121.78	1027.16	932.54
Average Loan	1312.48	1263.71	1169.09	1074.47	979.85
Weighted Average Rate of Interest on Loan (%)	9.6683	9.6593	9.6593	9.6594	9.6692
Interest on Loan	5.46	122.07	112.93	103.79	94.74

Asset 2					
Interest on Loan	2014-15	2015-16(Pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	-	32686.67	32686.67	32686.67	32686.67
Cumulative Repayment upto Previous Year	-	0.00	1596.12	4059.85	6523.57
Net Loan-Opening	-	32686.67	31090.55	28626.82	26163.10
Additions	-	0.00	0.00	0.00	0.00
Repayment during the year	-	1596.12	2463.72	2463.72	2463.72
Net Loan-Closing	-	31090.55	28626.82	26163.10	23699.37
Average Loan	-	31888.61	29858.68	27394.96	24931.24
Weighted Average Rate of Interest on Loan (%)	-	8.9792	8.9793	8.9822	8.9935
Interest on Loan	-	1855.02	2681.12	2460.67	2242.19

Depreciation

32. Clause (2), (5) and (6) of Regulation 27 of 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."

33. 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:-

(₹ in lakh)

Asset 1					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1877.06	1878.70	1878.70	1878.70	1878.70
Additional Capitalisation	1.64	0.00	0.00	0.00	0.00
Closing Gross Block	1878.70	1878.70	1878.70	1878.70	1878.70
Average Gross Block	1877.88	1878.70	1878.70	1878.70	1878.70
Rate of Depreciation (%)	5.04	5.04	5.04	5.04	5.04
Depreciable Value	1690.09	1690.83	1690.83	1690.83	1690.83
Balance useful life of the asset	25	24	23	22	21
Elapsed life	-	1	2	3	4
Remaining Depreciable Value	1690.09	1686.76	1592.14	1497.52	1402.90
Depreciation during the year	4.07	94.62	94.62	94.62	94.62
Cumulative depreciation	4.07	98.69	193.31	287.93	382.55

Asset 2					
Particulars	2014-15	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	-	46695.24	46695.24	46695.24	46695.24
Additional Capitalisation	-	0.00	0.00	0.00	0.00
Closing Gross Block	-	46695.24	46695.24	46695.24	46695.24
Average Gross Block	-	46695.24	46695.24	46695.24	46695.24
Rate of Depreciation (%)	-	5.28	5.28	5.28	5.28
Depreciable Value	-	42025.72	42025.72	42025.72	42025.72
Balance useful life of the asset	-	35	34	33	32
Elapsed life	-	-	1	2	3
Remaining Depreciable Value	-	42025.72	40429.59	37965.87	35502.15
Depreciation during the year	-	1596.12	2463.72	2463.72	2463.72
Cumulative depreciation	-	1596.12	4059.85	6523.57	8987.29

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

34. 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.

35. In response to the query of TANGEDCO regarding O&M expenses, the petitioner has submitted that the norms for O&M Expenses for Transmission System as specified under Regulation 29 (3) (a) of the 2014 tariff regulations for 2014-19 has been arrived after considering (i) normalized actual O&M Expenses

of the petitioner on its various projects in various regions during the year 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13. The petitioner has submitted that being a CPSU, the scheme of wage revision is binding on the petitioner. However, the actual impact of wage hike (due w.e.f. 1.1.2017) has not been factored in fixation of the normative O&M rates prescribed for the 2014-19 tariff period.

36. We have considered the submissions of the petitioner and the respondents. 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.

37. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specify the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets are as follows:-

Asset 1					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
400 kV Bays :					
No. of Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
Total O&M Expenses (₹ lakh)	5.19	124.6	128.74	133.02	137.42
Asset 2					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
D/C Twin/Triple Conductor:					
Length (KM)		330.736	330.736	330.736	330.736
Norms (₹ Lakhs/KM))		0.731	0.755	0.78	0.806
Total O&M Expenses (₹ lakh)		156.63	249.71	257.97	266.57

Interest on Working Capital

38. 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;”

39. The petitioner has considered the rate of interest on working capital to be 13.50%.

40. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).The components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

Asset 1					
Interest on Working Capital	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	10.05	10.38	10.72	11.08	11.45
Maintenance Spares	18.09	18.69	19.31	19.95	20.61
Receivables	77.81	77.7	76.87	76.07	75.3
Total	105.95	106.77	106.91	107.1	107.36
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.62	14.41	14.43	14.46	14.49

Asset 2					
Interest on Working Capital	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M expenses	-	20.14	20.8	21.49	22.21
Maintenance Spares	-	36.27	37.46	38.7	39.99
Receivables	-	1,419.20	1,389.52	1,353.39	1,317.65
Total	-	1,475.60	1,447.78	1,413.58	1,379.84
Rate of Interest (%)	-	13.50	13.50	13.50	13.50
Interest on Working Capital	-	129.06	195.45	190.83	186.28

ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

41. The transmission charges allowed for the instant transmission assets for the 2014-19 tariff period are summarised below:-

Asset 1:

(₹ in lakh)

Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	1877.06	1878.70	1878.70	1878.70	1878.70
Additional Capitalisation	1.64	0.00	0.00	0.00	0.00
Closing Gross Block	1878.70	1878.70	1878.70	1878.70	1878.70
Average Gross Block	1877.88	1878.70	1878.70	1878.70	1878.70
Rate of Depreciation (%)	5.04	5.04	5.04	5.04	5.04
Depreciable Value	1690.09	1690.83	1690.83	1690.83	1690.83
Balance Useful life of the asset	25	24	23	22	21
Elapsed Life	-	1	2	3	4
Remaining Depreciable Value	1690.09	1686.76	1592.14	1497.52	1402.90
Depreciation	4.07	94.62	94.62	94.62	94.62
Cumulative depreciation	4.07	98.69	193.31	287.93	382.55

Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	1313.94	1315.09	1315.09	1315.09	1315.09
Cumulative Repayment upto Previous Year	0.00	4.07	98.69	193.31	287.93
Net Loan-Opening	1313.94	1311.02	1216.40	1121.78	1027.16
Additions	1.15	0.00	0.00	0.00	0.00
Repayment during the year	4.07	94.62	94.62	94.62	94.62
Net Loan-Closing	1311.02	1216.40	1121.78	1027.16	932.54
Average Loan	1312.48	1263.71	1169.09	1074.47	979.85
Weighted Average Rate of Interest on Loan (%)	9.6683	9.6593	9.6593	9.6594	9.6692
Interest	5.46	122.07	112.93	103.79	94.74
Return on Equity					
Opening Equity	563.12	563.61	563.61	563.61	563.61
Additions	0.49	-	-	-	-
Closing Equity	563.61	563.61	563.61	563.61	563.61
Average Equity	563.36	563.61	563.61	563.61	563.61
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	110.48	110.53	110.53	110.53	110.53
Interest on Working Capital					
O & M expenses	10.05	10.38	10.72	11.08	11.45
Maintenance Spares	18.09	18.69	19.31	19.95	20.61
Receivables	77.81	77.7	76.87	76.07	75.3
Total	105.95	106.77	106.91	107.1	107.36
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	14.3	14.41	14.43	14.46	14.49

Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Annual Transmission Charges					
Depreciation	4.07	94.62	94.62	94.62	94.62
Interest on Loan	5.46	122.07	112.93	103.79	94.74
Return on Equity	4.75	110.53	110.53	110.53	110.53
Interest on Working Capital	0.62	14.41	14.43	14.46	14.49
O & M Expenses	5.19	124.6	128.74	133.02	137.42
Total	20.08	466.23	461.25	456.41	451.8

Asset 2:

(₹in lakh)					
Particulars	2014-15	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	-	46695.24	46695.24	46695.24	46695.24
Additional Capitalisation	-	-	-	-	-
Closing Gross Block	-	46695.24	46695.24	46695.24	46695.24
Average Gross Block	-	46695.24	46695.24	46695.24	46695.24
Rate of Depreciation (%)	-	5.28	5.28	5.28	5.28
Depreciable Value	-	42025.72	42025.72	42025.72	42025.72
Balance Useful life of the asset	-	35	34	33	32
Elapsed Life	-	-	1	2	3
Remaining Depreciable Value	-	42025.72	40429.59	37965.87	35502.15
Depreciation	-	1596.12	2463.72	2463.72	2463.72
Cumulative depreciation	-	1596.12	4059.85	6523.57	8987.29
Interest on Loan					
Gross Normative Loan	-	32686.67	32686.67	32686.67	32686.67
Cumulative Repayment upto Previous Year	-	-	1596.12	4059.85	6523.57
Net Loan-Opening	-	32686.67	31090.55	28626.82	26163.10

Particulars	2014-15	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Additions	-	-	-	-	-
Repayment during the year	-	1596.12	2463.72	2463.72	2463.72
Net Loan-Closing	-	31090.55	28626.82	26163.10	23699.37
Average Loan	-	31888.61	29858.68	27394.96	24931.24
Weighted Average Rate of Interest on Loan (%)	-	8.9792	8.9793	8.9822	8.9935
Interest	-	1855.02	2681.12	2460.67	2242.19
Return on Equity					
Opening Equity	-	14008.57	14008.57	14008.57	14008.57
Additions	-	-	-	-	-
Closing Equity	-	14008.57	14008.57	14008.57	14008.57
Average Equity	-	14008.57	14008.57	14008.57	14008.57
Return on Equity (Base Rate) (%)	-	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	-	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	-	19.610	19.610	19.610	19.610
Return on Equity	-	2747.14	2747.14	2747.14	2747.14
	-				
Interest on Working Capital					
O & M expenses	-	20.14	20.8	21.49	22.21
Maintenance Spares	-	36.27	37.46	38.7	39.99
Receivables	-	1419.20	1389.52	1353.39	1317.65
Total	-	1475.60	1447.78	1413.58	1379.84
Rate of Interest (%)	-	13.50	13.50	13.50	13.50
Interest on working capital	-	199.21	195.45	190.83	186.28
	-				
Annual Transmission Charges	-				
Depreciation	-	1596.12	2463.72	2463.72	2463.72
Interest on Loan	-	1855.02	2681.12	2460.67	2242.19

Particulars	2014-15	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Return on Equity	-	1779.74	2747.14	2747.14	2747.14
Interest on Working Capital	-	129.06	195.45	190.83	186.28
O & M Expenses	-	156.63	249.71	257.97	266.57
Total	-	5516.56	8337.14	8120.34	7905.91

Filing Fee and the Publication Expenses

42. 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

43. 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

44. 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

45. 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.

46. This order disposes of Petition No.405/TT/2014.

(Dr. M.K. Iyer)
Member

(A.S. Bakshi)
Member



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

Asset 1:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
BOND XLV-DOCO loan					
Gross Opening Loan	450.00	450.00	450.00	450.00	450.00
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	37.50
Net Loans Opening	450.00	450.00	450.00	450.00	412.50
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	37.50	37.50
Net Closing Loan	450.00	450.00	450.00	412.50	375.00
Average Net Loan	450.00	450.00	450.00	431.25	393.75
Rate of Interest on Loan (%)	9.65	9.65	9.65	9.65	9.65
Interest on Loan	43.43	43.43	43.43	41.62	38.00
SBI 2014-15 -DOCO loan 1					
Gross Opening Loan	500.00	500.00	500.00	500.00	500.00
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	500.00	500.00	500.00	500.00	500.00
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	0.00
Net Closing Loan	500.00	500.00	500.00	500.00	500.00
Average Net Loan	500.00	500.00	500.00	500.00	500.00
Rate of Interest on Loan (%)	10.25	10.25	10.25	10.25	10.25
Interest on Loan	51.25	51.25	51.25	51.25	51.25
BOND XLVII-ADDCAP for 2014-15 Add Cap loan					
Gross Opening Loan	0.00	32.80	32.80	32.80	32.80
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00
Net Loans Opening	0.00	32.80	32.80	32.80	32.80
Add: Draw(s) during the Year	32.80	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	2.73
Net Closing Loan	32.80	32.80	32.80	32.80	30.07
Average Net Loan	16.40	32.80	32.80	32.80	31.44
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	1.46	2.93	2.93	2.93	2.81
BOND XLVII-DOCO loan 2					
Gross Opening Loan	366.41	366.41	366.41	366.41	366.41
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Loans Opening	366.41	366.41	366.41	366.41	366.41
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	0.00	30.53
Net Closing Loan	366.41	366.41	366.41	366.41	335.88
Average Net Loan	366.41	366.41	366.41	366.41	351.15
Rate of Interest on Loan (%)	8.93	8.93	8.93	8.93	8.93
Interest on Loan	32.72	32.72	32.72	32.72	31.36
Summary					
Gross Opening Loan	1316.41	1349.21	1349.21	1349.21	1349.21
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	37.50
Net Loans Opening	1316.41	1349.21	1349.21	1349.21	1311.71
Add: Draw(s) during the Year	32.80	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	0.00	37.50	70.76
Net Closing Loan	1349.21	1349.21	1349.21	1311.71	1240.95
Average Net Loan	1332.81	1349.21	1349.21	1330.46	1276.33
Rate of Interest on Loan (%)	9.6683	9.6593	9.6593	9.6594	9.6692
Interest on Loan	128.86	130.32	130.32	128.52	123.41

Asset 2:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
BOND XXXVIII					
Gross Opening Loan		24.00	24.00	24.00	24.00
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		24.00	24.00	24.00	24.00
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		24.00	24.00	24.00	24.00
Average Net Loan		24.00	24.00	24.00	24.00
Rate of Interest on Loan (%)		9.25	9.25	9.25	9.25
Interest on Loan		2.22	2.22	2.22	2.22
SBI loan (Oct 2013-Dec 2013)-Child 1					
Gross Opening Loan		397.00	397.00	397.00	397.00
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		397.00	397.00	397.00	397.00
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		397.00	397.00	397.00	397.00
Average Net Loan		397.00	397.00	397.00	397.00
Rate of Interest on Loan (%)		10.10	10.10	10.10	10.10
Interest on Loan		40.10	40.10	40.10	40.10
BOND XL					
Gross Opening Loan		2273.00	2273.00	2273.00	2273.00
Cumulative Repayments of Loans upto Previous Year		-	-	189.42	378.84
Net Loans Opening		2273.00	2273.00	2083.58	1894.16
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	189.42	189.42	189.42
Net Closing Loan		2273.00	2083.58	1894.16	1704.74
Average Net Loan		2273.00	2178.29	1988.87	1799.45
Rate of Interest on Loan (%)		9.30	9.30	9.30	9.30
Interest on Loan		211.39	202.58	184.96	167.35
BOND-XLI-CHILD 1					
Gross Opening Loan		6434.00	6434.00	6434.00	6434.00
Cumulative Repayments of Loans upto Previous Year		-	-	536.17	1,072.34
Net Loans Opening		6434.00	6434.00	5897.83	5361.66



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	536.17	536.17	536.17
Net Closing Loan		6434.00	5897.83	5361.66	4825.49
Average Net Loan		6434.00	6165.92	5629.75	5093.58
Rate of Interest on Loan (%)		8.85	8.85	8.85	8.85
Interest on Loan		569.41	545.68	498.23	450.78
BOND-XLIII-CHILD 1					
Gross Opening Loan		3911.00	3911.00	3911.00	3911.00
Cumulative Repayments of Loans upto Previous Year		-	-	-	325.92
Net Loans Opening		3911.00	3911.00	3911.00	3585.08
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	325.92	325.92
Net Closing Loan		3911.00	3911.00	3585.08	3259.16
Average Net Loan		3911.00	3911.00	3748.04	3422.12
Rate of Interest on Loan (%)		7.93	7.93	7.93	7.93
Interest on Loan		310.14	310.14	297.22	271.37
BOND-XLIV					
Gross Opening Loan		3438.22	3438.22	3438.22	3438.22
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		3438.22	3438.22	3438.22	3438.22
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	1146.07
Net Closing Loan		3438.22	3438.22	3438.22	2292.15
Average Net Loan		3438.22	3438.22	3438.22	2865.19
Rate of Interest on Loan (%)		8.70	8.70	8.70	8.70
Interest on Loan		299.13	299.13	299.13	249.27
BOND XLV					
Gross Opening Loan		3072.40	3072.40	3072.40	3072.40
Cumulative Repayments of Loans upto Previous Year		-	-	-	256.03
Net Loans Opening		3072.40	3072.40	3072.40	2816.37
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	256.03	256.03
Net Closing Loan		3072.40	3072.40	2816.37	2560.34
Average Net Loan		3072.40	3072.40	2944.39	2688.36
Rate of Interest on Loan (%)		9.65	9.65	9.65	9.65
Interest on Loan		296.49	296.49	284.13	259.43

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
BOND XLVI					
Gross Opening Loan		4702.44	4702.44	4702.44	4702.44
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		4702.44	4702.44	4702.44	4702.44
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		4702.44	4702.44	4702.44	4702.44
Average Net Loan		4702.44	4702.44	4702.44	4702.44
Rate of Interest on Loan (%)		9.30	9.30	9.30	9.30
Interest on Loan		437.33	437.33	437.33	437.33
BOND XLVII					
Gross Opening Loan		2704.40	2704.40	2704.40	2704.40
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		2704.40	2704.40	2704.40	2704.40
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	225.37
Net Closing Loan		2704.40	2704.40	2704.40	2479.03
Average Net Loan		2704.40	2704.40	2704.40	2591.72
Rate of Interest on Loan (%)		8.93	8.93	8.93	8.93
Interest on Loan		241.50	241.50	241.50	231.44
BOND XLVIII					
Gross Opening Loan		3418.16	3418.16	3418.16	3418.16
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		3418.16	3418.16	3418.16	3418.16
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		3418.16	3418.16	3418.16	3418.16
Average Net Loan		3418.16	3418.16	3418.16	3418.16
Rate of Interest on Loan (%)		8.20	8.20	8.20	8.20
Interest on Loan		280.29	280.29	280.29	280.29
BOND XLIX					
Gross Opening Loan		279.00	279.00	279.00	279.00
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		279.00	279.00	279.00	279.00
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		279.00	279.00	279.00	279.00
Average Net Loan		279.00	279.00	279.00	279.00
Rate of Interest on Loan (%)		8.15	8.15	8.15	8.15
Interest on Loan		22.74	22.74	22.74	22.74
PROPOSED LOAN 2015-16 (10.10)					
Gross Opening Loan		3723.36	3723.36	3723.36	3723.36
Cumulative Repayments of Loans upto Previous Year		-	-	-	-
Net Loans Opening		3723.36	3723.36	3723.36	3723.36
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	0.00	0.00	0.00
Net Closing Loan		3723.36	3723.36	3723.36	3723.36
Average Net Loan		3723.36	3723.36	3723.36	3723.36
Rate of Interest on Loan (%)		10.10	10.10	10.10	10.10
Interest on Loan		376.06	376.06	376.06	376.06
Summary					
Gross Opening Loan		34376.98	34376.98	34376.98	34376.98
Cumulative Repayments of Loans upto Previous Year		0.00	0.00	725.59	2033.13
Net Loans Opening		34376.98	34376.98	33651.39	32343.85
Add: Draw(s) during the Year		0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year		0.00	725.59	1307.54	2678.98
Net Closing Loan		34376.98	33651.39	32343.85	29664.87
Average Net Loan		34376.98	34014.19	32997.62	31004.36
Rate of Interest on Loan (%)		8.9792	8.9793	8.9822	8.9935
Interest on Loan		3086.79	3054.25	2963.91	2788.37