

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 113/TT/2016

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

Date of Order : 29.11.2017

In the matter of:

Approval of transmission tariff for Main SCADA EMS System of SLDCs of Assam, Tripura & Meghalaya under project-“Expansion/Upgradation of SCADA/EMS System of SLDCs of North Eastern Region” from COD to 31.3.2019 under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001

.....Petitioner

Vs

1. Assam Electricity Grid Corporation Limited,
(Formerly Assam State Electricity Board),
Bijulee Bhawan, Paltan Bazar,
Guwahati-781001, Assam
2. Meghalaya Energy Corporation Limited,
(Formerly Meghalaya State Electricity Board),
Short Round Road, Shilong-793 001
3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh
4. Power and Electricity Department,
Government of Mizoram, Mizoram, Aizwal



5. Electricity Department,
Government of Manipur,
Keishampat, Imphal
6. Department of Power,
Government of Nagaland,
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,
Bidyut Bhawan,
North Banamalipur,
Agartala, Tripura-700 001

.....Respondents

For petitioner : Shri Vivek Kumar Singh, PGCIL
Shri S.S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri M.M. Mondal, PGCIL
Shri Jasbir Singh, PGCIL
Shri K. K. Jain, PGCIL

For respondents : None

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission tariff for main SCADA EMS System of SLDCs of Assam, Tripura & Meghalaya (COD-1.4.2016) (hereinafter referred to as “transmission assets”) under “Expansion/Upgradation of SCADA/EMS System of SLDCs of North Eastern Region” (hereinafter referred to as “transmission system”) for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).



2. The Investment Approval (IA) and expenditure sanction for the transmission system was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/NER-SCADA dated 17.2.2014 at an estimated cost of ₹5618 lakh including IDC of ₹317 lakh (based on December, 2013 price level) in its 298th meeting dated 5.2.2014. The approval for Expansion/ Upgradation of SCADA/EMS System of SLDCs of North Eastern Region was discussed and approved in the 12th TCC and NERPC meeting held on 14th and 15.11.2011 at Amritsar, 13th TCC and NERPC meeting held on 9.7.2013 at Faridabad, Special TCC held on 9.2.2013 at Shillong and 14th TCC and NERPC held on 4.9.2013 at Agartala.

3. The scope of work covered under the transmission system is broadly as follows:-
- i. Installation of new EMS/SCADA platform equipped with Hardware & Software at existing SLDCs of Assam, Tripura establishment of SLDCs at Arunachal Pradesh, Mizoram, and Manipur and Nagaland.
 - ii. Installation of RTUs and Integration of RTUs/ SAS to Control Centre on IEC 60870-5-101/104 protocol.
 - iii. Integration of Control Centers of SLDCs with Main and Backup NERLDC on ICCP protocol.
 - iv. Installation of New Video Projection System (VPS) for SLDCs of Assam, Tripura, Meghalaya, Mizoram, Manipur, Arunachal Pradesh & Nagaland.
 - v. Installation of Video Conferencing System (VCS) at SLDCs for online meeting among SLDCs and NERLDC.
 - vi. Installation of Auxiliary Power Supply (APS) System for Control Centers.



vii. Construction of Control Room Building on top of existing SLDC building for Meghalaya.

4. The instant petition includes the main SCADA EMS System of SLDCs of Assam, Tripura & Meghalaya (COD-1.4.2016) under “Expansion/Upgradation of SCADA/EMS System of SLDCs of North Eastern Region.

5. The details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	Asset-I		
	2016-17	2017-18	2018-19
Depreciation	23.64	28.90	28.90
Interest on Loan	21.96	24.76	22.22
Return on Equity	22.07	26.99	26.99
Interest on working capital	1.48	1.76	1.70
O & M Expenses	0.00	0.00	0.00
Total	69.15	82.41	79.81
Particulars	Asset-II		
	2016-17	2017-18	2018-19
Depreciation	29.71	35.66	35.66
Interest on Loan	29.90	33.21	30.05
Return on Equity	29.71	35.63	35.63
Interest on working capital	1.95	2.28	2.21
O & M Expenses	0.00	0.00	0.00
Total	91.27	106.78	103.55
Particulars	Asset-III		
	2016-17	2017-18	2018-19
Depreciation	39.48	48.70	48.70
Interest on Loan	36.15	41.17	36.95
Return on Equity	36.87	45.48	45.48
Interest on working capital	2.45	2.95	2.86
O & M Expenses	0.00	0.00	0.00
Total	114.95	138.30	133.99

6. The details of the “Interest on Working Capital” claimed by the petitioner are as under:-



(₹ in lakh)

Particulars	Asset-I		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	11.52	13.74	13.30
Total	11.52	182.34	187.08
Interest	1.48	1.76	1.70
Interest Rate	12.80%	12.80%	12.80%
Particulars	Asset-II		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	15.21	17.80	17.26
Total	15.21	182.34	187.08
Interest	1.95	2.28	2.21
Interest Rate	12.80%	12.80%	12.80%
Particulars	Asset-III		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	19.16	23.05	22.33
Total	19.16	182.34	187.08
Interest	2.45	2.95	2.86
Interest Rate	12.80%	12.80%	12.80%

7. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. None of the respondents have filed any reply in the present petition.

8. The Commission, vide order dated 28.10.2016, had approved AFC under Regulation 7 (7) of the 2014 Tariff Regulations for the instant assets and directed the petitioner to submit the additional information. The petitioner has submitted additional information, vide affidavits dated 7.12.2016, 28.2.2017 and 28.9.2017.



9. The petitioner vide affidavit dated 7.12.2016 has submitted that the Regulation 43 of CEA (Measures Related to Safety and Electricity Supply) Regulations, 2010 (hereinafter referred as “Regulation 43” of CEA Regulations) and the detailed break-up of optical fibre length is not applicable for the instant assets because it is merely a monitoring system without any involvement of electricity supply. Subsequently, the petitioner vide letter dated 28.2.2017 has submitted the RLDC Certificate for the instant assets. As regards the petitioner’s contention regarding non-applicability of Regulation 43 of CEA Regulations, CEA may confirm whether the contention of petitioner regarding non-applicability of Regulation 43 is correct. A copy of this order may be served upon CEA by the petitioner. The reply of CEA shall be considered at the time of truing-up.

10. Taking into consideration the submissions made by the petitioner during the hearing on 15.12.2016, the petitioner was directed to submit the book value of and the replaced value of the assets/equipments dismantled. In response, the petitioner vide affidavit dated 28.9.2017 has submitted that the existing system after dismantling was taken away by the contractor and cost of the dismantled equipments is factored by the contractor while quoting the bid as per the LOA Terms and Conditions. Thus, there is no separate cost of the dismantled equipments. The petitioner has submitted that the replaced SCADA/EMS are electronic items with limited users and have no further use and commercial value. It is not possible for the petitioner to dispose these items because of limited buyers and hence the cost of the salvaged items is factored in the price bid. The petitioner requested to allow the entire cost and tariff as claimed in the



petition.

11. We have considered all the submissions of the petitioner and perused the material available on record and we proceed to dispose of the petition.

Date of commercial operation (COD)

12. The petitioner has claimed the date of the commercial operation of the instant assets as 1.4.2016 as follows:-

Asset	State	Actual COD
Asset-I	Assam	1.4.2016
Asset-II	Meghalaya	1.4.2016
Asset-III	Tripura	1.4.2016

13. The petitioner was directed to explain as to how these instant assets were being used and whether communication signal has been established. The petitioner vide affidavit dated 7.12.2016 has submitted that after the successful System Availability Test conducted, the instant assets have been put under operation for Power System monitoring purpose by the respective states with the use of existing Communication System. The commissioning and operation start of the upgradation of main SCADA/EMS System of Assam, Meghalaya and Tripura have been declared and recorded in the 120th OCC, NER Meeting in the presence of members from all the constituent states of NER and NERLDC as well. Hence, the same has been considered as certification by SLDCs and NERLDC.

14. We are of the view that the record notes of minutes cannot be considered as RLDC certification and petitioner was asked to submit the RLDC certificate as per the regulations in all cases.



15. Subsequently, the petitioner has submitted the certificate issued by North Eastern Regional Load Dispatch Centre (NERLDC) vide letter dated 28.2.2017 regarding completion of trial operation of the instant assets. Taking into considerations the submissions made by the petitioner and the Certification by SLDCs and NERLDC for commissioning of the instant assets and also the RLDC Certificate for commissioning of the instant assets, the commercial operation dates of the instant assets are allowed as claimed. Accordingly, the commercial operation date of the instant transmission assets is approved as 1.4.2016.

Capital Cost

16. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

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

(2) The Capital Cost of a new project shall include the following:

(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;



(f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations; 39

(g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.

17. The petitioner vide Auditor Certificate dated 16.6.2016 has submitted the details of capital cost as on the date of commercial operation (COD) and estimated additional capital expenditure incurred or projected to be incurred for the instant assets. The details as submitted by the petitioner and considered for the purpose of tariff are as follows:-

Asset*	Approved apportioned cost	Expenditure as on actual COD	Estimated Expenditure			Total estimated completion Cost
			2016-17	2017-18	2018-19	
Asset 1	548.37	297.89	158.67	-	-	456.56
Asset 2	709.72	411.21	191.49	-	-	602.70
Asset 3	1069.21	491.09	278.23	-	-	769.32
Total	2327.30	1200.19	628.39	-	-	1828.58

*The Capital costs have been verified from the audited statements of accounts, by the Auditor up to 31.3.2016.

18. The total estimated completion cost of ₹1828.58 lakh is within the approved apportioned cost of ₹2327.30. Accordingly, there is no cost over-run in case of the instant assets. The petitioner is directed to submit the “Abstract of Cost Estimate” at the time of true-up.

19. As per the investment approval, the commissioning schedule of the project was 27 months from the date of investment approval. The investment approval was accorded on 5.2.2014 and the schedule date of commercial operation was 4.5.2016



against which instant assets were put under commercial operation on 1.4.2016.

Hence, there is no time over-run in case of the instant assets.

Treatment of IDC

20. The petitioner, vide affidavit dated 30.6.2016, has submitted the Interest During Construction (IDC) discharged up to COD and the “IDC to be discharged” after COD i.e. in 2016-17 and 2017-18 for all the assets and the details are given as under:-

(₹ in lakh)

Interest During Construction (IDC)							
Particulars	Claimed as on COD as per the respective Auditor's Certificate	Discharged up to COD (as claimed)	Allowed/ Worked out on Cash Basis as on COD	Balance IDC as on COD to be discharged during FY 2016-17(as claimed)	Balance IDC allowed to be discharged during FY 2016-17 for calculation purpose	Balance IDC as on COD to be discharged during FY 2017-18(as claimed)	Balance IDC allowed to be discharged during FY 2017-18 for calculation purpose
Asset-I	8.80	1.18	1.10	7.62	0.00	0.00	0.00
Asset-II	11.44	2.81	2.72	8.63	0.00	0.00	0.00
Asset-III	14.46	1.39	1.25	13.07	0.00	0.00	0.00

21. The IDC on cash basis up to COD has been worked out on the basis of the available information i.e. loan details in Form-9C, as per the tariff forms submitted. The IDC on cash basis has been worked out up to COD and has been capitalized as on COD. Whereas, “the Balance IDC” as on COD, is not being allowed to be capitalized in our calculations because the balance accrued IDC as on COD is ‘yet to be discharged’ by the petitioner. Therefore, this balance accrued IDC as on COD would be capitalized once the actual payment is made by the petitioner on cash basis for the instant assets.

22. The IDC allowed/disallowed shall be verified at the time of truing up, subject to



submission of the adequate information regarding IDC,s actual disbursement/payment made against each of the instant assets. There is a difference in the Gross Loan claimed as on COD (as per Form-9C) and the Gross Loan considered for the working of IDC by the petitioner. The Gross Loan (as per Form-9C) is considered for the calculation of IDC, as it gives the details of actual loan deployed by the petitioner for the instant assets. Therefore, the petitioner is directed to reconcile the Gross Loan for the calculation of weighted average Rate of Interest (as in Form-9C) and for the calculation of IDC, and the same shall be reviewed at the time of truing-up.

Treatment of IEDC

23. The petitioner has submitted that in the instant assets, the entire claimed IEDC has been discharged as on COD. In the absence of the 'IEDC Limit' submitted by the petitioner, we considered 5.00% as the 'IEDC limit' in the instant petition. This is due to the fact that in the recent past, most of the transmission tariff petitions have claimed 5.00% of the Hard Cost as the 'IEDC limit'. Now, as the IEDC claimed by the petitioner as on COD, for each asset, is lower than 5.00% of the hard cost, the claimed IEDC corresponding to each asset is being allowed to be capitalized in the present case.

24. The IEDC claimed and allowed are as follows:-

Particulars	IEDC	
	Claimed	Allowed
Asset-I	12.48	12.48
Asset-II	16.37	16.37
Asset-III	20.80	20.80

25. The petitioner is directed to submit the IEDC as per the "Abstract of Cost



Estimate” at the time of true-up.

Treatment of Initial Spares

26. Regulation 13(d) of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

“13. Initial Spares

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(d) Transmission system

- (i) Transmission line - 1.00%
- (ii) Transmission Sub-station (Green Field) - 4.00%
- (iii) Transmission Sub-station (Brown Field) - 6.00%
- (iv) Series Compensation devices and HVDC Station - 4.00%
- (v) Gas Insulated Sub-station (GIS)-5.00%
- (vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) -----

(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:

(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the breakup of head wise IDC & IEDC in its tariff application.”

27. The petitioner has not claimed any initial spares for the instant assets. The details of the capital cost admitted for the purpose of transmission tariff considering the IEDC and IDC on cash basis is given below :-



(₹ in lakh)						
Assets	Capital cost as on COD	Less: Total IDC and IEDC claimed	Add: IDC allowed on cash basis as on COD	Add: IEDC allowed as on COD	Less: Excess initial spares as on COD	Capital cost as on COD considered for tariff
Asset-I	297.89	21.28	1.10	12.48	0.00	290.19
Asset-II	411.21	27.81	2.72	16.37	0.00	402.49
Asset-III	491.09	35.26	1.25	20.80	0.00	477.88

Additional capital expenditure

28. 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 recognised 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 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law or compliance of any existing law.”

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.”

29. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines “cut -off” date as under:-

“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 the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

30. The “cut-off date” in the case of instant assets is 31.3.2019.



31. The petitioner has claimed the following Additional Capital Expenditure for the period from COD to 31.3.2019, as per Regulation 14(1) of the 2014 Tariff Regulations:-

(₹ in lakh)				
Particulars	2016-17	2017-18	2018-19	Total
Asset-I	158.67	0.00	0.00	158.67
Asset-II	191.49	0.00	0.00	191.49
Asset-III	278.23	0.00	0.00	278.23

The additional capital expenditure claimed by the petitioner is within the “cut-off date” and accordingly it is allowed under Regulation 14(1) of the 2014 Tariff Regulations.

Debt- Equity ratio

32. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(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:

Provided that:

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

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.”



“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 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.”

33. The petitioner has claimed debt:equity ratio of 70:30 as on the date of commercial operation. The debt:equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt:equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under:-

(₹ in lakh)

Asset-I				
Particulars	As on COD		As on 31.3.2019	
	Amount	%	Amount	%
Debt	203.13	70.00	314.20	70.00
Equity	87.06	30.00	134.66	30.00
Total	290.19	100.00	448.86	100.00
Asset-II				
Particulars	As on COD		As on 31.3.2019	
	Amount	%	Amount	%
Debt	281.74	70.00	415.78	70.00
Equity	120.75	30.00	178.19	30.00
Total	402.49	100.00	593.98	100.00
Asset-III				
Particulars	As on COD		As on 31.3.2019	
	Amount	%	Amount	%
Debt	334.52	70.00	529.28	70.00
Equity	143.36	30.00	226.83	30.00
Total	477.88	100.00	756.11	100.00

Return on Equity (RoE)

34. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

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



(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in **Appendix-I**:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.

“25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income Stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

(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.”

35. The petitioner has submitted that RoE has been calculated at the rate of 19.71% after grossing up the RoE with MAT rate of 21.34% as per the above Regulations. The petitioner has further submitted that as per Regulation 25(2)(i) of the 2014 Tariff Regulations, the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/ adjustable after completion of income tax assessment of the financial year.

36. We have considered the submissions of the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return



on equity. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25(3) of the 2014 Tariff Regulations. Accordingly, the RoE allowed is given below:-

(₹ in lakh)

Asset-I			
Particulars	2016-17	2017-18	2018-19
Opening Equity	87.06	134.66	134.66
Addition due to Additional Capitalisation	47.60	0.00	0.00
Closing Equity	134.66	134.66	134.66
Average Equity	110.86	134.66	134.66
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	21.74	26.41	26.41
Asset-II			
Particulars	2016-17	2017-18	2018-19
Opening Equity	120.75	178.19	178.19
Addition due to Additional Capitalisation	57.45	0.00	0.00
Closing Equity	178.19	178.19	178.19
Average Equity	149.47	178.19	178.19
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	29.31	34.94	34.94
Asset-III			
Particulars	2016-17	2017-18	2018-19
Opening Equity	143.36	226.83	226.83
Addition due to Additional Capitalisation	83.47	0.00	0.00
Closing Equity	226.83	226.83	226.83
Average Equity	185.10	226.83	226.83
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	36.30	44.48	44.48



Interest on loan (IoL)

37. Regulation 26 of the 2014 Tariff Regulations are provides as under:-

“(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting 65 the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(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 66 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.”

38. In these calculations, interest on loan has been worked out as hereinafter:-

(i) Gross amount of loan, repayment of installments and rate of interest on actual loans have been considered as per the petition;

(ii) The yearly repayment for the tariff period 2014-19 has been considered to be



equal to the depreciation allowed for that year;

(iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

39. The petitioner has submitted that the interest on loan has been considered on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, for the project needs to be claimed/ adjusted over the tariff period 2014-19. The interest on loan has been calculated on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up. The petitioner has further submitted that the Government of India have introduced and imposed GST, where the transmission charges are not exempted. Therefore, any tax payable by the petitioner on account of the implementation of GST is likely to be reimbursed.

40. The IOL is worked out for the instant assets considering all the loans submitted in Form-9C. The petitioner is directed to reconcile the total Gross Loan for the calculation of weighted average rate of interest and for the calculation of IDC, which would be reviewed at the time of truing-up. Detailed calculation of the weighted average rate of interest has been given in **Annexure-I and III** to this order.

41. Based on above, details of IOL calculated are as follows:-



(₹ in lakh)

Asset-I			
Particulars	2016-17	2017-18	2018-19
Gross Normative Loan	203.13	314.20	314.20
Cumulative Repayment upto Previous Year	0.00	23.39	51.80
Net Loan-Opening	203.13	290.81	262.40
Addition due to Additional Capitalisation	111.07	0.00	0.00
Repayment during the year	23.39	28.41	28.41
Net Loan-Closing	290.81	262.40	233.99
Average Loan	246.97	276.61	248.19
Weighted Average Rate of Interest on Loan	8.7973%	8.7973%	8.7973%
Interest	21.73	24.33	21.83
Asset-II			
Particulars	2016-17	2017-18	2018-19
Gross Normative Loan	281.74	415.78	415.78
Cumulative Repayment upto Previous Year	0.00	29.80	65.67
Net Loan-Opening	281.74	385.98	350.12
Addition due to Additional Capitalisation	134.04	0.00	0.00
Repayment during the year	29.80	35.86	35.86
Net Loan-Closing	385.98	350.12	314.25
Average Loan	333.86	368.05	332.18
Weighted Average Rate of Interest on Loan	8.8717%	8.8717%	8.8717%
Interest	29.62	32.65	29.47
Asset-III			
Particulars	2016-17	2017-18	2018-19
Gross Normative Loan	334.52	529.28	529.28
Cumulative Repayment upto Previous Year	0.00	39.06	86.92
Net Loan-Opening	334.52	490.22	442.36
Addition due to Additional Capitalisation	194.76	0.00	0.00
Repayment during the year	39.06	47.86	47.86
Net Loan-Closing	490.22	442.36	394.50
Average Loan	412.37	466.29	418.43
Weighted Average Rate of Interest on Loan	8.6736%	8.6736%	8.6736%
Interest	35.77	40.44	36.29

Depreciation

42. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as follows:-

"27. Depreciation:

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

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

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

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.



(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.”

43. The instant assets were put under commercial operation on 1.4.2016. Accordingly, they will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

44. Details of the depreciation allowed are as under:-

(₹ in lakh)

Asset-I			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	290.19	448.86	448.86
Additional Capital expenditure	158.67	0.00	0.00
Closing Gross Block	448.86	448.86	448.86
Average Gross Block	369.53	448.86	448.86
Rate of Depreciation	6.3300%	6.3300%	6.3300%
Depreciable Value	332.57	403.98	403.98
Remaining Depreciable Value	332.57	380.58	352.17
Depreciation	23.39	28.41	28.41
Asset-II			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	402.49	593.98	593.98
Additional Capital expenditure	191.49	0.00	0.00
Closing Gross Block	593.98	593.98	593.98
Average Gross Block	498.23	593.98	593.98
Rate of Depreciation	5.9820%	6.0381%	6.0381%
Depreciable Value	448.41	534.58	534.58
Remaining	448.41	504.78	468.91



Depreciable Value			
Depreciation	29.80	35.86	35.86
Asset-III			
Particulars	2016-17	2017-18	2018-19
Opening Gross Block	477.88	756.11	756.11
Additional Capital expenditure	278.23	0.00	0.00
Closing Gross Block	756.11	756.11	756.11
Average Gross Block	616.99	756.11	756.11
Rate of Depreciation	6.3300%	6.3300%	6.3300%
Depreciable Value	555.30	680.50	680.50
Remaining Depreciable Value	555.30	641.44	593.58
Depreciation	39.06	47.86	47.86

Operation & Maintenance Expenses (O&M Expenses)

45. Regulation 29(4)(a) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system based on the type of sub-station and the transmission line. The instant assets are SCADA/ EMS systems i.e. IT Equipment which are to be maintained by the respective SLDCs as per their Annual Maintenance Contract. Moreover, the petitioner has not claimed any O&M Expenses for the assets. Therefore, no O&M Expenses are allowed for the instant assets.

Interest on working capital (IWC)

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

“28. Interest on Working Capital

(1) The working capital shall cover:

(c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:

(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”

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the 72 transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later.

“(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;”

47. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner’s entitlement to interest thereon are discussed hereunder:-

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has accordingly been worked out.

(iii) O & M Expenses

O&M Expenses have been considered for one month as a component of



working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per Regulation 28(3) of the 2014 Tariff Regulations, SBI Base rate of 9.30% as on 1.4.2016 plus 350 Bps i.e. 12.80% has been considered for working out the rate of interest on working capital for the instant assets.

48. The IWC allowed for the instant assets is shown in the table given below:-

(₹ in lakh)

Particulars	Asset-I		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	11.39	13.48	13.05
Total	11.39	13.48	13.05
Interest	1.46	1.73	1.67
Interest Rate	12.80%	12.80%	12.80%
Particulars	Asset-II		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	15.11	17.62	17.08
Total	15.11	17.62	17.08
Interest	1.93	2.26	2.19
Interest Rate	12.80%	12.80%	12.80%
Particulars	Asset-III		
	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00
O & M expenses	0.00	0.00	0.00
Receivables	18.92	22.61	21.91
Total	18.92	22.61	21.91
Interest	2.42	2.89	2.80
Interest Rate	12.80%	12.80%	12.80%

Transmission charges



49. The transmission charges being allowed for the instant assets are summarized as under:-

(₹ in lakh)

Asset-I			
Particulars	2016-17	2017-18	2018-19
Depreciation	23.39	28.41	28.41
Interest on Loan	21.73	24.33	21.83
Return on Equity	21.74	26.41	26.41
Interest on Working Capital	1.46	1.73	1.67
O & M Expenses	0.00	0.00	0.00
Total	68.31	80.88	78.32
Asset-II			
Particulars	2016-17	2017-18	2018-19
Depreciation	29.80	35.86	35.86
Interest on Loan	29.62	32.65	29.47
Return on Equity	29.31	34.94	34.94
Interest on Working Capital	1.93	2.26	2.19
O & M Expenses	0.00	0.00	0.00
Total	90.67	105.72	102.46
Asset-III			
Particulars	2016-17	2017-18	2018-19
Depreciation	39.06	47.86	47.86
Interest on Loan	35.77	40.44	36.29
Return on Equity	36.30	44.48	44.48
Interest on Working Capital	2.42	2.89	2.80
O & M Expenses	0.00	0.00	0.00
Total	113.54	135.68	131.44

50. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess filing fees, license fee RLDC fees and charges or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. We have considered the submissions of the petitioner. The petitioner is



entitled for late payment surcharge and FERV as per Regulations 45 and 50 respectively of the 2014 Tariff Regulations.

Filing Fee and the Publication Expenses

51. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC fees and Charges

52. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Sharing of charges for state sector portion

50. The transmission charges allowed in this order shall be recovered from respective States.

51. This order disposes of Petition No. 113/TT/2016.

sd/-
(M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure-I**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

Asset-I				
	Details of Loan	2016-17	2017-18	2018-19
1	Bond L			
	Gross loan opening	83.00	83.00	83.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	83.00	83.00	83.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	83.00	83.00	83.00
	Average Loan	83.00	83.00	83.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	6.97	6.97	6.97
	Rep Schedule	12 annual installments from 27.5.2019		
2	SBI 2014-15			
	Gross loan opening	70.19	70.19	70.19
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	70.19	70.19	70.19
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	70.19	70.19	70.19
	Average Loan	70.19	70.19	70.19
	Rate of Interest	9.55%	9.55%	9.55%
	Interest	6.70	6.70	6.70
	Rep Schedule	20 half yearly equal installments from 15.6.2019		
3	Bond LI			
	Gross loan opening	50.00	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	50.00	50.00	50.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	50.00	50.00	50.00
	Average Loan	50.00	50.00	50.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	4.20	4.20	4.20
	Rep Schedule	12 annual installments from 14.9.2019		
	Total Loan			
	Gross loan opening	203.19	203.19	203.19



Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	203.19	203.19	203.19
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	203.19	203.19	203.19
Average Loan	203.19	203.19	203.19
Rate of Interest	8.7973%	8.7973%	8.7973%
Interest	17.88	17.88	17.88



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

		Asset-II		
Details of Loan		2016-17	2017-18	2018-19
1	Bond L			
	Gross loan opening	60.00	60.00	60.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	60.00	60.00	60.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	60.00	60.00	60.00
	Average Loan	60.00	60.00	60.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	5.04	5.04	5.04
	Rep Schedule	12 annual installments from 27.5.2019		
2	SBI 2014-15			
	Gross loan opening	110.80	110.80	110.80
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	110.80	110.80	110.80
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	110.80	110.80	110.80
	Average Loan	110.80	110.80	110.80
	Rate of Interest	9.55%	9.55%	9.55%
	Interest	10.58	10.58	10.58
	Rep Schedule	20 half yearly equal installments from 15.6.2019		
3	Bond XLVI			
	Gross loan opening	7.00	7.00	7.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	7.00	7.00	7.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	7.00	7.00	7.00
	Average Loan	7.00	7.00	7.00
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	0.65	0.65	0.65
	Rep Schedule	Redeemable at par in 3 equal installments on 4.9.2019, 4.9.2024 and 4.9.2029		
4	Bond LI			



	Gross loan opening	100.00	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	100.00	100.00	100.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	100.00	100.00	100.00
	Average Loan	100.00	100.00	100.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	8.40	8.40	8.40
	Rep Schedule	12 annual installments from 14.9.2019		
5	Bond XLVIII			
	Gross loan opening	4.00	4.00	4.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	4.00	4.00	4.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	4.00	4.00	4.00
	Average Loan	4.00	4.00	4.00
	Rate of Interest	8.20%	8.20%	8.20%
	Interest	0.33	0.33	0.33
	Rep Schedule	Redeemable at par in 3 equal installments on 23.1.2020, 23.1.2022, 23.1.2025 and 23.1.2030		
	Total Loan			
	Gross loan opening	281.80	281.80	281.80
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	281.80	281.80	281.80
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	281.80	281.80	281.80
	Average Loan	281.80	281.80	281.80
	Rate of Interest	8.8717%	8.8717%	8.8717%
	Interest	25.00	25.00	25.00



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

Asset-III				
	Details of Loan	2016-17	2017-18	2018-19
1	Bond L			
	Gross loan opening	75.00	75.00	75.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	75.00	75.00	75.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	75.00	75.00	75.00
	Average Loan	75.00	75.00	75.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	6.30	6.30	6.30
	Rep Schedule	12 annual installments from 27.5.2019		
2	SBI 2014-15			
	Gross loan opening	79.61	79.61	79.61
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	79.61	79.61	79.61
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	79.61	79.61	79.61
	Average Loan	79.61	79.61	79.61
	Rate of Interest	9.55%	9.55%	9.55%
	Interest	7.60	7.60	7.60
	Rep Schedule	20 half yearly equal installments from 15.6.2019		
3	Bond LI			
	Gross loan opening	180.00	180.00	180.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	180.00	180.00	180.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	180.00	180.00	180.00
	Average Loan	180.00	180.00	180.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	15.12	15.12	15.12
	Rep Schedule	12 annual installments from 14.9.2019		
	Total Loan			
	Gross loan opening	334.61	334.61	334.61



Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	334.61	334.61	334.61
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	334.61	334.61	334.61
Average Loan	334.61	334.61	334.61
Rate of Interest	8.6736%	8.6736%	8.6736%
Interest	29.02	29.02	29.02

