CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 144/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 : 15.12.2017

In the matter of:

Approval of transmission tariff for Expansion and Replacement of existing SCADA/EMS System at SLDC's of Northern Region (NR ULDC Phase-II) 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. Rajasthan Rajya Vidyut Prasaran Nigam Limited
   Vidyut Bhawan, Vidyut Marg,
   Jaipur - 302005

2. Ajmer Vidyut Vitran Nigam Limited
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur

3. Jaipur Vidyut Vitran Nigam Limited
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur.

4. Jodhpur Vidyut Vitran Nigam Limited
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur

5. Himachal Pradesh State Electricity Board
Vidyut Bhawan
Kumar House Complex Building II
Shimla-171004

6. Punjab State Power Corporation Ltd.
Thermal Shed TIA,
Near 22 Phatak,
Patiala-147001

7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109

8. Power Development Department
Government of Jammu & Kashmir
Mini Secretariat, Jammu

9. Uttar Pradesh Power Corporation Limited
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg
Lucknow - 226 001

10. Delhi Transco Ltd.
Shakti Sadan, Kotla Road,
New Delhi-110002

11. BSES Yamuna Power Ltd.
BSES Bhawan, Nehru Place,
New Delhi.

12. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Place,
New Delhi

13. North Delhi Power Ltd.
Power Trading and Load Dispatch Group
Cennet Building, Adjacent to 66/11 kV Pitampura-3
Grid Building, Near PP Jewellers
Pitampura, New Delhi-110 034.

14. Chandigarh Administration
Sector -9, Chandigarh.

15. Uttarakhand Power Corporation Ltd.
Urja Bhawan, Kanwali Road,
Dehradun.

16. North Central Railway,
Allahabad.

17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002. **……Respondents**

For petitioner	:	Shri V. P. Rastogi, PGCIL Shri S.S. Raju, PGCIL Shri S.K. Venkatesan, PGCIL Shri Rakesh Prasad, PGCIL Shri M.M. Mondal, PGCIL Shri Jasbir Singh, PGCIL Shri Narendra Meena, PGCIL
For respondents	:	Shri R.B. Sharma, Advocate, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission tariff for New EMS/ SCADA platform equipped with hardware and software at SLDCs of UPPTCL, RRVPNL, DTL, HVPNL, BBMB, PSPTCL, HPSEBL and J&K PDD (hereinafter referred to as "transmission assets") under "Expansion and Replacement of existing SCADA/EMS System at SLDC's of Northern Region (NR ULDC Phase-II)" (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/NR-SCADA dated 7.8.2012 at an estimated cost of ₹7090 lakh including IDC of ₹548 lakh (based on 2nd quarter, 2011 price level) in its 275th meeting dated 6.8.2012. The approval for Expansion and Replacement of Existing SCADA/EMS System at SLDCs of Northern Region (Phase-II) was discussed and approved in the 24th ULDC Scheme Monitoring Group (USMG) meeting under NRPC dated 24.8.2009.

3. The scope of work covered under the transmission system is broadly as follows:-

Installation of:-

a. New EMS/ SCADA platform equipped with hardware and software at SLDCs of UPPTCL, RRVPNL, DTL, HVPNL, BBMB, PSPTCL, HPSEBL and J&K PDD.

b. New EMS/ SCADA platform equipped with hardware and software at Backup SLDCs of UPPTCL, RRVPNL, DTL, HVPNL, BBMB, PSPTCL, HPSEBL and J&K PDD. BBMB SLDC and PSPTCL SLDC shall be backup of each other and similarly HPSEBL SLDC and HVPNL SLDC shall be backup of each other.

c. Auxiliary power supply (APS) system for control centers.

d. Remote Terminal Units (RTU's) for UPPTCL, PSTCL, HPSEBL, BBMB and HVPNL which shall also work as data concentrator.

e. New Video projection System for main SLDC's of UPPTCL, PSTCL, BBMB, DTL, HVPNL, HPSEBL, J&K PDD and for backup SLDC's of RRVPNL and J&K PDD. UPPTCL has commissioned a 3x2 67" BARCO make video projection system (VPS) at existing SLDC system in July 2010. The scope includes the shifting, transportation, insurance and integration with the new system to be commissioned at backup control Centre of UPPTCL. Similarly RRVPNL is under the process of procurement of new VPS for main SLDC. The scope includes the integration of the integration of this new VPS with SCADA/EMS system of main SLDC at RRVPNL.

f. Video Conferencing Units at SLDCs.

Integration of:-

a. RTUs/SAS to Main and backup control Centre.
b. Main and Backup Control Centers (DISCOM) control Centre's with their respective main & backup SLDCs.

4. The instant petition includes New EMS/SCADA at SLDCs of UPPTCL, RRVPNL, DTL, HVPNL, BBMB, PSPTCL, HPSEBL and J&K PDD under "Expansion and Replacement of existing SCADA/EMS System at SLDC's of Northern Region (NR ULDC Phase-II)."

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

(₹ in lakh)

Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	69.57	301.56	307.99	307.99
Interest on Loan	68.52	280.58	259.48	231.70
Return on Equity	64.97	281.62	287.62	287.62
Interest on working capital	8.90	37.16	37.54	37.49
O & M Expenses	76.50	312.79	323.18	333.91
Total	**288.46**	**1213.71**	**1215.81**	**1198.71**

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

(₹ in lakh)

Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	45.41	46.92	48.48	50.09
O & M expenses	25.23	26.07	26.93	27.83
Receivables	190.26	202.28	202.63	199.78
Total	**260.90**	**275.27**	**278.04**	**277.70**
Interest	8.90	37.16	37.54	37.49
Interest Rate	13.50%	13.50%	13.50%	13.50%

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. The petitioner has served the petition on the all the 17 respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. BSES Rajdhani Power Limited (BRPL), Respondent No. 12, has filed reply vide affidavit dated 19.9.2016. The petitioner has filed its rejoinder, vide affidavit dated 7.12.2016. The submissions of the petitioner and BRPL are dealt in relevant paragraphs of the order.

8. The petitioner was directed to furnish the information pertaining to the requirement of TSA, revised Auditor Certificate explaining the reasons for the cost variation between the COD claimed in the main petition in case of J&K, PDD and the actual cost claimed in Auditor Certificate dated 6.2.2016 and the actual O&M Expenses incurred during 2015-16 (if any) along with detailed break up of O&M Expenses. In response, the petitioner vide affidavit dated 7.11.2016 has submitted that the cost in case of J&K PDD was wrongly shown in the petition and the capital cost given in the Auditor certificate is correct and the same may be considered. As regards the requirement of TSA with the designated inter-State customers, the petitioner has submitted that BRPL has already signed a TSA on 19.8.2011 and the instant assets are also covered under clause 4.3 of the said TSA.

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

10. The petitioner has submitted that the COD of the instant assets was 31.12.2015. The petitioner has submitted RLDC trial run operation certificate dated 31.12.2015. Taking into consideration the RLDC certificate dated 31.12.2015 and the fact that the instant asset was put to regular use, the COD of the instant assets is approved as 31.12.2015.

Capital Cost

11. 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."
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> (2) The Capital Cost of a new project shall include the following:
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> (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
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> (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;
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> (c) Increase in cost in contract packages as approved by the Commission;
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> (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
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> (e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
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> (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.

12. The petitioner vide Auditor Certificate dated 6.2.2016 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 of capital cost submitted by the petitioner and considered for the purpose of tariff computation are as follows:-

(₹ in lakh)

SLDC	**Approved apportioned cost**	**Expenditure up to COD (31.12.2015)**	**Additional capitalization during**		**Total estimated cost**
			2015-16 (31.12.2015 -31.3.2016)	**2016-17**	
Asset-I, UPPTCL	5901.99	672.34	102.77	30.93	806.04
Asset-II, RRVPNL		480.45	73.25	18.02	571.72
Asset-III, DTL		433.95	66.22	9.32	509.49
Asset-IV, HVPNL		502.24	76.61	12.77	591.62
Asset-V, BBMB		529.30	79.91	25.69	634.90
Asset-VI, PSPTCL		498.05	76.26	19.98	594.29
Asset-VII, HPSEB		468.70	72.20	14.17	555.07
Asset-VIII, J&K PDD		561.51	68.88	17.83	648.22
Total	5901.99	4146.54	616.10	148.71	4911.35

13. The total estimated completion cost of ₹4911.35 lakh is within the approved apportioned cost of ₹5901.99. 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.

14. BRPL vide affidavit dated 19.9.2016 has submitted that there is an apparent over-estimation while calculating the project cost as the estimated completion cost of

instant assets is ₹4865.52 lakh as against the apportioned approved cost of ₹7090 lakh. It is further submitted that despite the delay of 13 months and 25 days, the petitioner was able to gain savings of 31% in the execution of the instant asset which make it difficult to determine the cost over-run.

15. In response, the petitioner vide affidavit dated 7.12.2016 has submitted the reasons for cost variation between FR cost and actual cost. The petitioner has submitted that for the purpose of working out the estimated cost of the Project (FR cost), the unit rates given in the Schedule of Rates (SOR) was considered. The projects are divided into defined packages based on its scope of works viz; Supply-cum-Installation, Supply, Civil, Consultancy packages etc. for the purpose to provide competitiveness, efficiency, availability of prospective bidders project execution schedule, combination/clubbing of equipment/services that can be advantageously engineered and independent working content and clear cut terminal points for interfacing. The SOR is prepared bi-monthly and based on recommendation of an internal committee of the petitioner named “Empowered Committee for preparation of SOR”. The SOR and in turn the FR cost is prepared on the basis of the unit item rates of the bids/ award and contracts/rates derived which are updated to price level of SOR/FR on the basis of price variation formulae. Further, there may be increase/decrease in the award cost received in competitive bidding when compared to the initial estimates (FR cost). For procurement, open competitive bidding route is followed by providing equal opportunity to all eligible firms. The lowest possible market prices for required product/services are obtained and contracts are awarded on the

basis of lowest evaluated eligible bidder depending upon the prevailing market conditions. The petitioner has submitted that the reasons for cost variation are already given in Form-5 submitted alongwith the petition.

16. We have considered the submissions of BRPL and the petitioner. The capital cost claimed by the petitioner is allowed as it is within the approved apportioned cost. However, the petitioner is directed to adopt better methods to arrive at the FR cost.

Time over-run

17. As per the investment approval dated 7.8.2012, the instant assets were scheduled to be commissioned within 27 months from the date of investment approval. Accordingly, the scheduled date of commercial operation was 6.11.2014 against which instant assets were put under commercial operation on 31.12.2015. Hence, there is time over-run 13 months and 25 days in commissioning of the instant assets.

18. The petitioner has submitted the details of factors leading to the time over-run in the main petition which are as under:-

a) **Delay due to flood in Srinagar:-** The control centre at Srinagar was damaged due to flood in Srinagar in September, 2014 which required renovation of the building. Video projection system, video conferencing system, DG set due to which UPS, furniture and several RTUs installed in Srinagar were damaged. The affected materials were procured after assessment of damage by the Insurance Company and it delayed the project for almost 14-15 months. Taking into consideration the delay in completion of the control room in Srinagar, it was decided that capitalisation of Srinagar portion will be taken after its completion and the main control center at Jammu (main SLDC) was commissioned.

b) **Delay due to change in scope by the SLDCs:-**The installation activities were delayed due to the change of scope. The Video Projection System quantity in RRVPNL and VPS and VCS quantities in HVPNL increased. Many additional requirements were incorporated from time to time by the constituents for data base.

c) **Delay from SLDCs due to non-readiness of sites, control centers and supporting infrastructure:-** The control centre at Modipuram (UPPTCL) was delayed as the trench was not ready at DTL, UPPTCL, RRVPNL and J&K PDD sites. As a result, the Database validation was delayed due to integration of RTUs in the new SCADA system through Y Cable (for dual reporting). The need to add new sub-stations in existing system database and non-readiness of sites in J&K PDD and PSTCL further delayed the RTU installation.

19. BRPL has submitted that the reasons for the delay of the instant assets were not beyond the control of the petitioner and the petitioner is responsible for the delay. The petitioner has not submitted the documents relating to Detailed Project Report (DPR), CPM Analysis and PERT Chart and Bar Chart as per Tariff Filling Forms (Transmission & Communication System) for the determination of tariff.

20. We have considered the submissions of the petitioner and BRPL. The investment approval for the instant assets was approved on 7.8.2012 and the LOA was awarded on 18.10.2012. The petitioner has completed all the work except for the control room in Srinagar, which was delayed due to flood. The petitioner has completed all the major works before the schedule COD in November, 2014. As a proof, the petitioner has filed RLDC certificate dated 31.12.2015 whereby it is indicated that all items except UPS and DG Set at specified SLDCs has been commissioned before November, 2014. However, the work was delayed due to flood in Srinagar and revision of scope and non-readiness of sites, control centers and supporting infrastructure and non- installation of UPS and DG Set. The installation of DG set and UPS required basic infrastructure and LT supply, etc. which was under the scope of respective SLDCs**.** Despite numerous letters and reminders from 5.2.2014 to 28.10.2015 to the respective SLDCs to complete their work in time, the work was delayed on their part. As a result, the installation of DG set and UPS got delayed and put into commercial operation in February 2015 and April 2015 respectively. Further, due to flood in Srinagar, Bemina sub-SLDC was damaged and repair work could not be completed due to law and order problem at Srinagar. UPPCL shifted its control center from Shakti Bhawan (Lucknow) to Gomti Nagar (Lucknow) and the new building at Gomti Nagar was not ready. Therefore, the petitioner declared the COD of all the assets except Bemina sub-SLDC at Srinagar and UPPCL SLDC at Gomti Nagar. The petitioner has submitted the documents in support of the flood in Srinagar in September, 2013, its effect on the sub-SLDC at Srinagar and the correspondence with J&K PDD. The petitioner has also submitted the copy of the correspondence

made with HVPNL, RRVPNL and UPPTCL upto 28.10.2015 to expedite the work under its scope. The petitioner has submitted the documents in support of time over-run upto 28.10.2015. Accordingly, the time over-run of 11 months and 22 days from the scheduled COD of 6.11.2014 to 28.10.2015 is condoned. The petitioner has not submitted proper justification for the time over-run from 29.10.2015 to the date of commercial operation, i.e. 31.12.2015, and, therefore the said period of time over-run for the corresponding period is not condoned. The petitioner is granted liberty to file documents to show when the additional work sought by the SLDCs was completed to verify time over-run from 29.10.2015 to 31.12.2015 at the time of truing-up.

Interest During Construction (IDC)

21. The IDC on cash basis up to 28.10.2015 has been worked out on the basis of the i.e. loan details given in Form-9C. The IDC worked out on cash basis has been capitalized as on COD. The "Balance IDC" as on COD, is not being capitalized because the balance accrued IDC as on COD is 'yet to be discharged' by the petitioner. The balance accrued IDC as on COD would be capitalized once the actual payment is made by the petitioner.

22. The petitioner, vide auditor certificate dated 6.2.2016, has submitted the IDC discharged up to COD and the "IDC to be discharged" after COD i.e. in 2015-16 and 2016-17 for all the assets and the details are given as under:-

(₹ in lakh)

Interest During Construction (IDC)						
Asset	**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 28.10.2015**	**Balance IDC as on COD claimed to be discharged during 2015-16**	**Balance IDC discharged during 2015-16 for calculation purpose**	**Balance IDC claimed to be discharged during 2016-17 (as claimed)**
Asset-I (UPPTCL)	58.04	25.84	25.84	3.65	-	28.55
Asset-II (RRVPNL)	34.08	34.08	34.08	-	-	-
Asset-III (DTL)	30.40	30.40	30.40	-	-	-
Asset-IV (HVPNL)	37.93	33.94	32.76	3.99	-	-
Asset-V (BBMB)	38.90	38.90	38.28	-	-	-
Asset-VI (PSPTCL)	37.91	28.14	27.86	0.68	-	9.09
Asset-VII (HPSEB)	33.28	32.50	31.41	0.78	-	-
Asset-VIII (J&K PDD)	74.58	11.28	10.80	0.60	-	16.84
Total	345.12	235.08	231.43	9.70	-	54.48

23. The IDC allowed/disallowed shall be verified at the time of truing up, subject to submission of the adequate information regarding IDC, 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 at the time of truing-up.

Incidental Expenditure During Construction (IEDC)

24. The petitioner has combined the IEDC of all the instant assets. The entire IEDC

claimed has been discharged as on COD. The petitioner has submitted the 'IEDC Limit' as 10.75% of the Hard Cost. Hence, IEDC is allowed as per the limit. Further, the time over-run is not being allowed from 29.10.2015 to 30.12.2015 for all the assets and therefore, the combined IEDC is being deducted on pro-rata basis as per the delay for the instant assets.

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

(₹ in lakh)

Particulars	**IEDC**	
	Claimed	**Allowed**
Combined Asset	235.82	232.38

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 computation of 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
Combined Assets	4146.55	580.95	231.43	232.38	-	4029.41

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 31.3.2018.

31. The petitioner has claimed additional capital expenditure of ₹616.11 lakh and ₹148.72 lakh during 2015-16 and 2016-17 respectively in respect of the instant asset respectively. The additional capital expenditure claimed by the petitioner for the instant asset for the period 2015-16 and 2016-17 is within the "cut-off date" and is on account of balance and retention payments and accordingly it is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations. The additional capital expenditure allowed is as follows:-

(₹ in lakh)

Particulars	**Capital cost as on COD**	**2015-16**	**2016-17**	**Total**
Combined Assets	4029.41	616.11	148.72	4794.24

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)

Combined Assets				
Particulars	**As on COD**		**As on 31.3.2019**	
	Amount	**%**	**Amount**	**%**
Debt	2820.59	70.00	3355.97	70.00
Equity	1208.82	30.00	1438.27	30.00
Total	4029.41	100.00	4794.24	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 19.705% after grossing up the RoE with MAT rate of 21.342% 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)

Combined Assets				
Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Opening Equity	1208.82	1393.66	1438.27	1438.27
Addition due to Additional Capitalisation	184.83	44.62	0.00	0.00
Closing Equity	1393.66	1438.27	1438.27	1438.27
Average Equity	1301.24	1415.96	1438.27	1438.27
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	**64.14**	**277.67**	**282.05**	**282.05**

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.

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** to this order.

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

(₹ in lakh)

Combined Assets				
Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan	2820.59	3251.86	3355.97	3355.97
Cumulative Repayment upto Previous Year	-	69.02	367.78	671.26
Net Loan-Opening	2820.59	3182.85	2988.18	2684.71
Addition due to Additional Capitalisation	431.28	104.10	-	-
Repayment during the year	69.02	298.77	303.48	303.48
Net Loan-Closing	3182.85	2988.18	2684.71	2381.23
Average Loan	3001.72	3085.52	2836.45	2532.97
Weighted Average Rate of Interest on Loan	9.0099%	9.0099%	9.0099%	9.0102%
Interest	**67.98**	**278.00**	**255.56**	**228.23**

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 68 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 31.12.2015. 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)

Combined Assets				
Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Opening Gross Block	4029.41	4645.52	4794.24	4794.24
Additional Capital expenditure	616.11	148.72	0.00	0.00
Closing Gross Block	4645.52	4794.24	4794.24	4794.24
Average Gross Block	4337.46	4719.88	4794.24	4794.24
Rate of Depreciation	6.3300%	6.3300%	6.3300%	6.3300%
Depreciable Value	3903.72	4247.89	4314.82	4314.82
Remaining Depreciable Value	3903.72	4178.88	3947.03	3643.56
Depreciation	**69.02**	**298.77**	**303.48**	**303.48**

Operation & Maintenance Expenses (O&M Expenses)

45. The O&M Expenses claimed by the petitioner are as follows:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
O&M Expenses	76.50	312.79	323.18	333.91

46. The petitioner has submitted that the O&M Expenses are @ 7.5% of the capital cost in line with order dated 9.5.2006 in Petition No.139/2005 for NRULDC (Communication portion) and at the rate of 3.32% per annum for escalation from 2014-15 onwards.

47. BPRL has submitted that the assets may be warranty and accordingly no O&M Expenses may be warranted and the petitioner should explain as to how the wage revision is binding on the petitioner's company. It is submitted that the increase in the employee cost due to wage revision must be included under the purview of improvement so that the beneficiaries are not unduly overburdened under the provisions of the 2014 Tariff Regulations, In response, the petitioner vide affidavit dated 7.12.2016 has submitted that O&M Expenses is within the scope of respective DICs and AMC contract for the project have been signed by the constituent directly with the supplier, i.e. Siemens.

48. We have considered the submissions of the petitioner and BRPL. The O&M Expenses for 2015-16 to 2018-19 are not allowed in the absence of actual O&M Expenses. The petitioner's claim will be considered at the time of truing up and therefore, the petitioner is directed to submit actual O&M Expenses for the said period at the time of truing up.

Interest on Working Capital (IWC)

49. 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;"

50. 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 10.00% as on 1.4.2015 plus 350 Bps i.e. 13.50% has been considered for working out the rate of interest on working capital for the instant assets.

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

(₹ in lakh)

Particulars	**Combined Assets**			
	2015-16 (pro-rata)	**2016-17**	**2017-18**	**2018-19**
Maintenance Spares	-	-	-	-
O & M expenses	-	-	-	-
Receivables	136.43	145.68	143.41	138.75
Total	136.43	145.68	143.41	138.75
Interest Rate	13.50%	13.50%	13.50%	13.50%
Interest	4.63	19.67	19.36	18.73

Transmission charges

52. The transmission charges allowed for the instant assets are summarized as

under:-

(₹ in lakh)

	Combined Assets			
Particulars	**2015-16 (pro-rata)**	**2016-17**	**2017-18**	**2018-19**
Depreciation	69.02	298.77	303.48	303.48
Interest on Loan	67.98	278.00	255.56	228.23
Return on Equity	64.14	277.67	282.05	282.05
Interest on Working Capital	4.63	19.67	19.36	18.73
O & M Expenses	0.00	0.00	0.00	0.00
Total	**205.77**	**874.11**	**860.44**	**832.48**

53. 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, licence fees, RLDC fees and charges or any other kind of impositions, etc. The petitioner has further submitted that if the same is imposed shall be borne and additionally paid by the beneficiaries. 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

54. 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

55. 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

56. The transmission charges allowed in this order shall be recovered from respective States under the proviso to clause (2) of Regulation 43 of the 2014 Tariff Regulations.

57. This order disposes of Petition No. 144/TT/2016.

sd/-	sd/-	sd/-	sd/-
(M.K. Iyer)	**(A.S. Bakshi)**	**(A.K. Singhal)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Member**	**Chairperson**

Annexure

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

	Details of Loan	2015-16	2016-17	2017-18	2018-19
1	**Bond XLVII**				
	Gross loan opening	277.00	277.00	277.00	277.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	277.00	277.00	277.00	277.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	23.08
	Net Loan-Closing	277.00	277.00	277.00	253.92
	Average Loan	277.00	277.00	277.00	265.46
	Rate of Interest	8.93%	8.93%	8.93%	8.93%
	Interest	24.74	24.74	24.74	23.71
	Rep Schedule	12 annual installments from 20.10.2018			
2	**SBI 10000 (01.05.2014)**				
	Gross loan opening	320.00	320.00	320.00	320.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	320.00	320.00	320.00	320.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	320.00	320.00	320.00	320.00
	Average Loan	320.00	320.00	320.00	320.00
	Rate of Interest	9.55%	9.55%	9.55%	9.55%
	Interest	30.56	30.56	30.56	30.56
	Rep Schedule	20 Half yearly equal installments from 15.6.2019			
3	**SBI Loan (Oct 2013 - Dec 2013)**				
	Gross loan opening	300.00	300.00	300.00	300.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	300.00	300.00	300.00	300.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	300.00	300.00	300.00	300.00
	Average Loan	300.00	300.00	300.00	300.00
	Rate of Interest	9.55%	9.55%	9.55%	9.55%
	Interest	28.65	28.65	28.65	28.65

	Rep Schedule	20 Half yearly equal installments from 15.6.2019			
4	**SBI (21.03.2012)**				
	Gross loan opening	100.00	100.00	100.00	100.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	100.00	100.00	100.00	100.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	100.00	100.00	100.00	100.00
	Average Loan	100.00	100.00	100.00	100.00
	Rate of Interest	9.55%	9.55%	9.55%	9.55%
	Interest	9.55	9.55	9.55	9.55
	Rep Schedule	20 Half yearly equal installments from 15.6.2019			
5	**Bond XLVI**				
	Gross loan opening	898.40	898.40	898.40	898.40
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	898.40	898.40	898.40	898.40
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	898.40	898.40	898.40	898.40
	Average Loan	898.40	898.40	898.40	898.40
	Rate of Interest	9.30%	9.30%	9.30%	9.30%
	Interest	83.55	83.55	83.55	83.55
	Rep Schedule	Redeemable at par in 3 equal installments on 4.9.2019, 4.9.2024 and 4. 9.2029			
6	**Bond LI**				
	Gross loan opening	629.16	629.16	629.16	629.16
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	629.16	629.16	629.16	629.16
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	629.16	629.16	629.16	629.16
	Average Loan	629.16	629.16	629.16	629.16
	Rate of Interest	8.40%	8.40%	8.40%	8.40%
	Interest	52.85	52.85	52.85	52.85
	Rep Schedule	12 Equal Annual installments from 14.9.2019			
7	**Bond XLVIII**				
	Gross loan opening	301.00	301.00	301.00	301.00

	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	301.00	301.00	301.00	301.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	301.00	301.00	301.00	301.00
	Average Loan	301.00	301.00	301.00	301.00
	Rate of Interest	8.20%	8.20%	8.20%	8.20%
	Interest	24.68	24.68	24.68	24.68
	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	2825.56	2825.56	2825.56	2825.56
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00	0.00
	Net Loan-Opening	2825.56	2825.56	2825.56	2825.56
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	23.08
	Net Loan-Closing	2825.56	2825.56	2825.56	2802.48
	Average Loan	2825.56	2825.56	2825.56	2814.02
	Rate of Interest	9.0099%	9.0099%	9.0099%	9.0102%
	Interest	254.58	254.58	254.58	253.55