CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 477/TT/2014

Coram:

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

Date of Hearing: 06.10.2015
Date of Order : 30.03.2016

In the matter of:

Approval of transmission tariff for 80 MVAR Bus reactor at Kotputli Sub-station (Actual COD: 10.9.2014), under Northern Region System Strengthening Scheme XV in Northern Region for tariff block 2014-19 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulation 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014.

And in the matter of:

Power Grid Corporation of India Limited
"Soudamini", Plot No. 2, Sector 29
Gurgaon -122001 **….Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur- 302 005

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-171 004

6. Punjab State Power Corporation Limited,
   Thermal Shed TIA, Near 22 Phatak,
   Patiala-147 001

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

8. Power Development Department,
   Govt. of Jammu and 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 Limited,
    Shakti Sadan, Kotla Road,
    New Delhi-110 002

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

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

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

14. Chandigarh Administration,
    Sector-9, Chandigarh

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

16. North Central Railway,
Allahabad

17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 002 **……Respondents**

For petitioner : Ms. Sangeeta Edwards, PGCIL
Shri Subash C. Taneja, PGCIL
Shri S.S. Raju, PGCIL
Shri Jasbir Singh, PGCIL
Shri A.K. Hisab, PGCIL
Shri K.K. Jain, PGCIL

For respondents: Shri Vinod Kumar Yadav, Rajasthan Discoms
Shri B.L. Sharma, AVVNL

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission charges for 80 MVAR Bus reactor at Kotputli Sub-station, (hereinafter referred to as "transmission asset") under Northern Region System Strengthening Scheme XV in Northern Region, from the date of commercial operation to 31.3.2019 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

2. This order has been issued after considering petitioner's affidavits dated 14.1.2015, 16.2.2015, 7.5.2015, 29.6.2015 and 15.12.2015.

3. The petitioner has been entrusted with the implementation of Transmission System associated with Northern Region System strengthening-XV (NRSS-XV) in Northern Region. The scope of the scheme was discussed and agreed in the 23rd Standing Committee meeting and 8th NRPC meeting held on 16.2.2008 and 25.4.2008 respectively. The Investment Approval (IA) for the project was accorded by the Board of Directors of the petitioner vide Memorandum No C/CP/NRSS-XV dated 20.2.2009 at an estimated cost of ₹52048 lakh including an IDC of ₹3445 lakh (based on 4th Qtr 2008 price level). The transmission system was scheduled to be commissioned within 33 months from the date of IA. Therefore, the scheduled date of commissioning (SCOD) of the transmission system was 19.11.2011. The scope of work covered under the scheme is broadly as follows:-

Transmission Lines:

1)	Manesar-Neemrana 400 kV D/C	:	90 km
2)	Bhiwadi-Neemrana 400 kV D/C	:	60 km
3)	LILO of Bhiwadi-Bassi (Jaipur) 400 kV S/C line at new 400/220 kV Kotputli Sub-station	:	15 km

Sub-stations:

1) New 2x315 MVA, 400/220 kV Neemrana Sub-station;
2) New 2x315 MVA, 400/220 kV Kotputli Sub-station;
3) Extension of 400/220 kV Bhiwadi Sub-station;
4) Extension of 400/220 kV Manesar Gas Insulated Sub-station;

5) Extension of 400/220 kV Bassi (Jaipur) Sub-station;

Reactive Compensation:

Particulars	Approximate line length	Line reactor from bus	Line reactor to bus
1. LILO of Bhiwadi-Bassi (Jaipur) 400 kV S/C line at new 400/220 kV Kotputli Sub-station			
-Bhiwadi-Kotputli section	70	Nil	Nil
-Kotputli-Jaipur section	160	Nil	50 MVAR existing line reactor to be made switchable
2. 80 MVAR bus reactor at Kotputli			
3. 80 MVAR bus reactor at Neemrana			

4. Annual Fixed Cost for the transmission asset was allowed vide order dated 15.4.2015 under Regulation 7(7) of the 2014 Tariff Regulations, subject to adjustment as per the said Regulation.

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

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	27.03	57.54	61.67	61.67	61.67
Interest on Loan	37.92	74.52	74.06	68.18	62.30
Return on Equity	33.54	70.24	74.84	74.84	74.84
Interest on Working Capital	4.13	8.10	8.40	8.39	8.37
O & M Expenses	33.67	62.30	64.37	66.51	68.71
Total	**136.29**	**272.70**	**283.34**	**279.59**	**275.89**

6. The details submitted by the petitioner in support of its claim for interest on working capital are as follows:-

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	40.68	45.45	47.22	46.60	45.98
Total	**54.76**	**59.99**	**62.24**	**62.12**	**62.02**
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	**7.39**	**8.10**	**8.40**	**8.39**	**8.37**

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.

8. Having heard the representatives of the parties and perused the material available on record we proceed to dispose of the petition.

Capital cost

9. 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;"

(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."

10. The petitioner submitted Auditors' Certificate dated 8.10.2015 vide affidavit dated 15.12.2015 alongwith revised tariff forms, the details of the apportioned approved capital cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the transmission asset. The details submitted by the petitioner are as under:-

(₹ in lakh)

Apportioned approved cost	**Cost as on COD**	**Additional capital expenditure Incurred/Projected**		**Total estimated completion cost**
		2014-15*	**2015-16**	
1384.10	926.12	189.74	156.19	1272.05

*The capital cost has been verified from the audited statements of account of the petitioner by the Auditors upto 31.3.2015.

<u>Cost over-run</u>

11. The estimated completion cost of the instant asset is ₹1272.05 lakh against the approved apportioned cost of ₹1384.10 lakh. Thus, there is no cost over-run in the case of instant asset.

12. However, it is noted that there is cost variation in certain heads. The petitioner was directed to submit the reasons for cost variations under certain heads and to explain the difference alongwith documentary evidence for the following:-

Items	% Variation
Site preparation	83.10
Switchgear (CT,PT, Circuit breakers, SVCs etc)	72.90
Compensatory equipments (Reactor SVCs etc)	31.90
Control panel & protection panel	40.23
Bus Bars, conductors , insulators	74.60
Structure for switchyard	56.10

13. The petitioner vide affidavit dated 7.5.2015, has submitted as under:-

i. The price variation from the FR (i.e., 4th quarter of 2008) upto March 2014 (i.e., the period of major supplies) is attributable to inflationary trends prevalent during the execution of project and also market forces prevailing at the time of bidding process of various packages.

ii. For the purpose of working out the estimated cost of the project i.e., the FR cost, the unit rates considered for preparation of cost estimates are generally taken from Schedule of Rates (SOR). As regard to the variation of FR cost vis-à-vis the actual cost, it is submitted that as per its policy, the procurement is carried out under open competitive route by providing equal opportunity to all the eligible firms. The bid prices are invited for the complete scope of work on overall basis and the contracts are awarded to the qualified bidder, whose bid is determined as the lowest evaluated, techno-commercially responsive and, who is considered to have the capacity and capability to perform the Contract based on the assessment carried out. Thus, the variation of awarded/actual cost may be because of various market forces and the pricing strategies followed by bidder(s).

14. We have considered the submissions of the petitioner and as the estimated completion cost is within the approved apportioned cost, the cost variation is allowed.

Time over-run

15. The project was scheduled to be commissioned within 33 months from the date of investment approval of 20.2.2009. Accordingly, the scheduled COD works out to 19.11.2011 against which the instant asset was commissioned on 10.9.2014. Thus, there is time over-run of 33 months and 21 days.

16. It is observed that the ICT and 220 kV bays at Kotputli Sub-station were commissioned on 1.4.2014 but the instant reactor was commissioned on 1.9.2014. The petitioner was directed to submit the reasons for delay alongwith documentary evidence and chronology of the activities as per the format and RLDC certificate for trial operation etc. of the instant asset.

17. In response, the petitioner vide affidavit dated 7.5.2015, has submitted the documentary evidence and the reasons for time over-run as follows:-

(i) Land acquisition:-July 2009 to November 2011 (29 months)-The delay in commissioning is mainly due to delay in land acquisition process. As per L2 network the land was to be handed over by December, 2009, however, land was handed over in November, 2011 due to delay in land acquisition for Kotputli

Sub-station. The land acquisition process was started in June, 2009, immediately after Investment Approval however land owners were not ready to handover the land and the matter was taken up in the Hon'ble High Court. No settlement could be reached up to November, 2011. Thereafter, the Government of Rajasthan was approached for intervention and after discussion and persistent follow up alternate land was identified and finally physical possession of land was handed over in December, 2011. Thus, it took almost 29 months for possession of land.

(ii) Approval for Approach Road:- (November, 2011 to December, 2012) (12 months)-Subsequent to allotment and possession of the sub-station land in November, 2011, the government was approached for providing the approach road and it took considerable time due to approval of cutting of tree falling under the approach road corridor. Supporting documents for the approval for tree cutting submitted in the original petition.

(iii) Revision and Amendment in original contract:- In the meantime, LOA of turnkey contractor M/s EMCO expired on 7.9.2011 and the agency refused to start the work. After lot of persuasion the original contract was revived and amendment issued on 25.3.2013, which caused a delay of 4 months. As per revised L2 network, best efforts were made to complete the work within 12 months instead of 24 months (as per original L2 network).

(iv) The specific reason for delay in commissioning of reactor from 1.4.2014 to 1.9.2014 was due to late supply of reactor by BHEL. However, due to delay in supply there is reduction in IDC which is based on the expenditure incurred as compared to apportioned approved IDC. The IDC as per FR is ₹91.61 lakh and as per actual is ₹79.43 lakh and any LD recovered from the supplier will be adjusted in the capital cost of the asset.

18. The IDC and IEDC during the period of time over-run are to be treated as provided under Regulation 12 of the 2014 Tariff Regulations. Regulation 12 of the 2014 Tariff Regulations provides as follows:-

"12…..Controllable and Uncontrollable factors:
The following shall be considered as controllable and uncontrollable factors leading to cost escalation impacting Contract Prices, IDC and IEDC of the project:

(1) The **"controllable factors"** shall include but shall not be limited to the following:

a) Variations in capital expenditure on account of time and/or cost overruns on account of land acquisition issues;

b) Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or force majeure events; and

c) Delay in execution of the project on account of contractor, supplier or agency of the generating company or transmission licensee.

(2) The **"uncontrollable factors"** shall include but shall not be limited to the following:

i. Force Majeure events.; and
ii. Change in law.

Provided that no additional impact of time overrun or cost over-run shall be allowed on account of non-commissioning of the generating station or associated transmission system by SCOD, as the same should be recovered through Implementation Agreement between the generating company and the transmission licensee:

Provided further that if the generating station is not commissioned on the SCOD of the associated transmission system, the generating company shall bear the IDC and IEDC or transmission charges if the transmission system is declared under commercial operation by the Commission in accordance with second proviso of Clause 3 of Regulation 4 of these regulations till the generating station is commissioned:

Provided also that if the transmission system is not commissioned on SCOD of the generating station, the transmission licensee shall arrange the evacuation from the generating station at its own arrangement and cost till the associated transmission system is commissioned."

19. We have considered the submission of the petitioner and we first summarize the delay as under:-

S. No.	Date of activity	Activity	Time taken	Remarks
1	20.2.2009	Investment Approval	-	-
2	July, 2009	Process of land acquisition started	-	-
3	November, 2011	Possession of land	29 months	Time taken in providing land
4	1.12.2011	Scheduled commissioning	-	33 months from the date of IA.
5	December, 2012	Permission for approach road	12 months	Permission to provide approach road and cutting of trees for approach road to sub-station
6	25.3.2013	Contract revived	4 months	The contract expired on 7.9.2011, EMCO refused to take up the work. The contract was revived
7	10.9.2014	Asset commissioned	Delay of 33 months and 21 days	Due to land acquisition, approval of approach road, late supply of asset & revival of contract

20. It is observed that out of a total delay of 33 months and 21 days there was a stay granted by Hon'ble Rajasthan High Court on 28.2.2011 on possession of land during land acquisition period. The land acquisition was finally allowed vide order issued by the Collector, Jaipur on 11.11.2011. Thus, the delay in land acquisition during the period from March, 2011 to November, 2011 (9 months) due to stay granted by High Court. We

are of the view that this delay was beyond the control of petitioner. Therefore, delay of these 9 months is condoned. Further, the Government of Rajasthan took 12 months to provide the approach road to the sub-station and grant of permission for cutting of the trees coming in the way of the approach road (November, 2011 to December, 2012), which was also beyond the control of the petitioner. Therefore, this delay of 12 months is also condoned. Thus, out of the total delay of 33 months and 21 days, delay of 21 months is condoned.

21. The delay of 4 months to revive the contract with EMCO, which expired on 7.9.2011 was started on 25.3.2013, after the land acquisition in December, 2012. After negotiation, the petitioner has revived the contract which has resulted in a delay of 4 months. In our view, this delay is attributable to the contractor and cannot be condoned. Further, the delay of 5 months on account of late supply of reactor by BHEL from 1.4.2014 to 1.9.2014 is also considered to be a bilateral issue between the petitioner and its supplier. Thus, this delay is not condoned. The remaining delay of 3 months and 21 days on account of other reasons is also not condoned. Thus, a total delay of 12 months and 21 days is not condoned.

<u>Treatment of IDC and IEDC</u>

22. The IDC and IEDC during the period of time over-run are to be treated as provided under Regulation 11 of the 2014 Tariff Regulations. Regulation 11 of the 2014 Tariff Regulations provides as follows:-

> **"11…..Interest during construction (IDC), Incidental Expenditure during Construction (IEDC)**
>
> (A) Interest during Construction (IDC):

(1) Interest during construction shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) In case of additional costs on account of IDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds:

Provided that if the delay is not attributable to the generating company or the transmission licensee as the case may be, and is due to uncontrollable factors as specified in Regulation 12 of these regulations, IDC may be allowed after due prudence check:

Provided further that only IDC on actual loan may be allowed beyond the SCOD to the extent, the delay is found beyond the control of generating company or the transmission licensee, as the case may be, after due prudence and taking into account prudent phasing of funds."

"**(B)…… Incidental Expenditure during Construction (IEDC)**:

(1) Incidental expenditure during construction shall be computed from the zero date and after taking into account pre-operative expenses upto SCOD:

Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts may be taken into account for reduction in incidental expenditure during construction.

(2) In case of additional costs on account of IEDC due to delay in achieving the SCOD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justification with supporting documents for such delay including the details of incidental expenditure during the period of delay and liquidated damages recovered or recoverable corresponding to the delay:

Provided that if the delay is not attributable to the generating company or the transmission licensee, as the case may be, and is due to uncontrollable factors as specified in regulation 12, IEDC may be allowed after due prudence check:

Provided further that where the delay is attributable to an agency or contractor or supplier engaged by the generating company or the transmission licensee, the liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost.

(3) In case the time over-run beyond SCOD is not admissible after due prudence, the increase of capital cost on account of cost variation corresponding to the period of time

over run may be excluded from capitalization irrespective of price variation provisions in the contracts with supplier or contractor of the generating company or the transmission licensee."

23. The petitioner has claimed Interest During Construction (IDC) of ₹79.43 lakh. The petitioner vide affidavit dated 15.12.2015 has submitted the details of IDC discharged upto COD and after COD in 2014-15 and 2015-16. However, IDC on cash basis has been worked out based on the loans deployed for the instant asset as per Form-9C assuming that the petitioner has not made any default in the payment of interest. Further, as the delay of 12 months and 21 days in the commissioning of instant asset has not been condoned, IDC for the delayed period has been disallowed. Thus, IDC on cash basis allowed in respect of the instant asset has been considered as follows:-

(₹ in lakh)

Claimed as on COD as per Auditors' Certificate Dated: 8.10.2015	**Discharged up to COD (as per claim)**	**Allowed/ Worked out on cash basis as on COD**	**Accrued IDC discharged during 2014-15 (as per claim)**	**Accrued IDC discharged during 2015-16 (as per claim)**
79.43	73.92	**54.91**	1.96	3.55

24. The petitioner has submitted that the accrued IDC of amount ₹1.96 lakh and ₹3.55 lakh has been discharged in 2014-15 and 2015-16 respectively. The balance IDC of respective years is being treated as un-discharged liability and would be considered in tariff, subject to submission of adequate information at the time of truing up. Therefore, the petitioner is directed to submit details of undischarged liability pertaining to IDC at the time of truing-up.

24. The petitioner has claimed ₹30.39 lakh for the instant asset as Incidental expenditure During Construction (IEDC). With reference to the Abstract Cost Estimate, 5.00% on Hard Cost is being considered as IEDC limit. The IEDC claim of ₹30.39 lakh is lower than 5.00% of the hard cost as on COD. Hence, the claimed IEDC is being allowed subject to further analysis of time over-run. The petitioner has submitted the year wise break-up of IEDC incurred as per Form-12A, which is as under:-

(₹ in lakh)

IEDC claimed as per the petition			
	Year 1**	**Year 2****	**Total**
IEDC	8.69	21.70	**30.39**

**Read alongwith the Management Certificate dated 10.10.2014, it is inferred that year-1 is the period upto 31.3.2014 and year-2 is the period from 1.4.2014 to 10.9.2014

25. As discussed at para-21, the time over-run of 12 months and 21 days is not condoned. Exact IEDC figures corresponding to this delay period are not available, therefore, the IEDC claimed by the petitioner has been reduced by deducting ₹21.70 lakh (5 months and 10 days) and further pro-rata (7 months and 11 days) from first year's IEDC claimed. Hence, the allowable IEDC in tariff calculations is ₹7.64 lakh, which would be reviewed at the time of truing-up, on submission of period wise (from Investment Approval to actual COD) description/calculation of the IEDC by the petitioner.

Initial Spares

26. Regulation 13 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) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:

(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 break up of head wise IDC & IEDC in its tariff application.

27. The petitioner has claimed initial spares amounting to ₹3.12 lakh upto cut-off date for the instant asset. However, the petitioner vide affidavit dated 15.12.2015 has indicated the year wise payment made against the initial spares for the instant asset and has submitted that no liability for the initial spares has been discharged up to COD (10.9.2014) as well as till 30.9.2015. It has also submitted that 'balance liability' in

respect of initial spares as on 1.10.2015 is ₹3.12 lakh. This 'balance liability' in respect of initial spares needs to be considered as un-discharged liability in the instant calculation and would be considered for the final tariff calculations once it is submitted that the initial spares liability has been paid, subject to prudence check on the submissions, at the time of truing up. Hence, the amount of 'balance liability' of initial spares is reduced from the additional capitalisation of 2015-16 and would be reviewed after the submission of the adequate information by the petitioner.

28. Therefore, the allowable capital cost as on COD after deducting IDC and IEDC and taking cognizance of initial spares is to be worked out as per proviso (iv) of Regulation 13 of the 2014 Tariff Regulations as follows:-

(₹ in lakh)

Capital cost as on COD as per Auditors' Certificate Dated: 8.10.2015	**Less: IDC & IEDC claimed**	**Add: allowed**		**Initial spares**		**Capital cost considered as on COD**
		IDC on cash basis	**IEDC**	**Less: claimed**	**Add: allowed**	
926.12	109.82	54.91	7.64	-	-	878.85

29. However, the petitioner is directed to submit the breakup of IDC and IEDC amongst different heads of the instant asset for the purpose of calculation of initial spares at the time of truing-up.

<u>Additional Capitalisation</u>

30. 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.

31. 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".

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;"

32. The cut-off date in the case of instant transmission asset is 31.3.2017.

33. The additional capital expenditure claimed by the petitioner during 2014-15 and 2015-16 amounting to ₹189.74 lakh and ₹153.07 lakh respectively for the instant asset is within the cut-off date and is on account of balance payments. Based on additional capital expenditure allowed, the gross block has been considered for the purpose of tariff computation is as under:-

(₹ in lakh)

Capital cost allowed as on COD	Additional capitalisation for 2014-15	Projected additional capitalisation		Total estimated completion cost
		for 2015-16	for 2016-19	
878.85	189.74	153.07	-	1221.66

<u>Debt- Equity ratio</u>

34. 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."

35. The capital cost on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the normative debt-equity ratio

of 70:30. The details of debt-equity as on date of commercial operation and 31.3.2019 considered on normative basis are as under:-

Particulars	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	**% age**	**Amount (₹ in lakh)**	**% age**
Debt	615.20	70.00	855.17	70.00
Equity	263.66	30.00	366.50	30.00
Total	**878.85**	**100.00**	**1221.66**	**100.00**

Return on equity

36. Clause (1) and (2) of Regulation 24 and Clause (1) and (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."

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

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

38. 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.

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

(₹ in lakh)

Particulars	**2014-15 (pro-rata)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Equity	263.66	320.58	366.50	366.50	366.50
Addition due to Additional Capitalization	56.92	45.92	-	-	-
Closing Equity	320.58	366.50	366.50	366.50	366.50

Average Equity	292.12	343.54	366.50	366.50	366.50
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	**31.86**	**67.37**	**71.87**	**71.87**	**71.87**

Interest on loan

40. Regulation 26 of the 2014 Tariff Regulations with regard to Interest on Loan specifies 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 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 decapitalisation 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 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."

41. In keeping with the provisions of Regulation 26 of the 2014 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated on the following basis:-

(a) Gross amount of loan, repayment of instalments, rate of interest and weighted average rate of interest on actual loan have been considered as per the petition;

(b) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period;

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

42. 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 block 2014-19. We would like to clarify that the interest on loan has been calculated on the basis of rate prevailing as on the date of commercial operation and any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up. The petitioner is also directed to submit the Loan Agreement and Repayment Schedule for SBI loan (2014-15), which was not attached in the instant petition and hence weighted average rate of interest also would be reviewed at the time of truing-up.

43. Detailed calculations in support of interest on loan have been given at Annexure.

44. The details of Interest on Loan calculated are as under:-

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	615.20	748.02	855.17	855.17	855.17
Cumulative Repayment upto Previous Year	-	25.61	80.70	139.83	198.96
Net Loan-Opening	615.20	722.41	774.47	715.33	656.20
Addition due to Additional Capitalisation	132.82	107.15	-	-	-
Repayment during the year	25.61	55.94	59.13	59.13	59.13
Net Loan-Closing	722.41	774.47	715.33	656.20	597.07
Average Loan	668.80	748.44	744.90	685.77	626.64
Weighted Average Rate of Interest on Loan	9.6853%	9.5546%	9.5553%	9.5573%	9.5594%
Interest on Loan	**36.03**	**71.51**	**71.18**	**65.54**	**59.90**

Depreciation

45. 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."

46. In our calculations, depreciation has been calculated in accordance with Regulation 27 extracted above.

47. The transmission assets were put under commercial operation during 2014-15. 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.

48. The details of the depreciation worked out are as under:-

(₹ in lakh)

Particulars	**2014-15 (pro-rata)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Block as on COD	878.85	1068.59	1221.66	1221.66	1221.66
Addition during 2014-19 due to Projected Additional Capitalisation	189.74	153.07	-	-	-
Gross Block as on 31st March	1068.59	1221.66	1221.66	1221.66	1221.66
Average Gross Block	973.72	1145.13	1221.66	1221.66	1221.66
Rate of Depreciation	4.7284%	4.8109%	4.8403%	4.8403%	4.8403%
Depreciable Value	821.33	975.60	1044.48	1044.48	1044.48
Remaining Depreciable Value	821.33	949.99	963.78	904.65	845.52
Depreciation	**25.61**	**55.09**	**59.13**	**59.13**	**59.13**

Operation & Maintenance Expenses (O&M Expenses)

49. Regulation 29 (4) (a) of the 2014 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as follows:-

Elements	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV bays (₹ lakh per bay)	60.30	62.30	64.37	66.51	68.71

50. The petitioner has claimed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

(₹ in lakh)

1 no. 400 kV 80 MVAR Bus Reactor at Kotputli Sub-station (COD 10.9.2014)					
Particulars	**2014-15 (pro-rata)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1 no. 400 kV bay	33.53	62.30	64.37	66.51	68.71

51. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

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

Interest on working capital

53. Clause 1 (c) and 3 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 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;"

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

(₹ in lakh)

Particulars	**2014-15 (pro-rata)**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Maintenance Spares	9.04	9.35	9.66	9.98	10.31
O & M expenses	5.02	5.19	5.36	5.54	5.73
Receivables	39.26	44.03	45.79	45.21	44.63

Total	53.33	58.57	60.81	60.73	60.67
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	**4.00**	**7.91**	**8.21**	**8.20**	**8.19**

Transmission charges

55. The transmission charges allowed for the transmission assets are summarized as follows:-

(₹ in lakh)

Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	25.61	55.09	59.13	59.13	59.13
Interest on Loan	36.03	71.51	71.18	65.54	59.90
Return on Equity	31.86	67.37	71.87	71.87	71.87
Interest on Working Capital	4.00	7.91	8.21	8.20	8.19
O & M Expenses	33.53	62.30	64.37	66.51	68.71
Total	**131.03**	**264.18**	**274.76**	**271.25**	**267.81**

Filing Fee and the Publication Expenses

56. 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

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

Service Tax

58. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. The petitioner has further prayed that if any taxes and duties including cess etc. are imposed by any statutory/Government/municipal authorities, it shall be allowed to be recovered from the beneficiaries. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Deferred Tax Liability

59. The petitioner has sought recovery of deferred tax liability accrued before 1.4.2009 from the beneficiaries or long term consumers/DICs as and when materialized under Regulation 49 of the 2014 Tariff Regulations. However, as the instant asset was commissioned on 10.9.2014, the petitioner's prayer is infructuous.

Sharing of Transmission Charges

60. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.

61. This order disposes of Petition No. 477/TT/2014.

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

Annexure

(₹ in lakh)

	CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
	Details of Loan	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1	**Bond XXXV**					
	Gross loan opening	110.00	110.00	110.00	110.00	110.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	9.17	18.33	27.50
	Net Loan-Opening	110.00	110.00	100.83	91.67	82.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	9.17	9.17	9.17	9.17
	Net Loan-Closing	110.00	100.83	91.67	82.50	73.33
	Average Loan	110.00	105.42	96.25	87.08	77.92
	Rate of Interest	9.64%	9.64%	9.64%	9.64%	9.64%
	Interest	10.60	10.16	9.28	8.39	7.51
	Rep Schedule	12 annual instalments from 31.05.2015.				
2	**Bond XXXVI**					
	Gross loan opening	72.23	72.23	72.23	72.23	72.23
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	4.82	9.63
	Net Loan-Opening	72.23	72.23	72.23	67.41	62.60
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	4.82	4.82	4.82
	Net Loan-Closing	72.23	72.23	67.41	62.60	57.78
	Average Loan	72.23	72.23	69.82	65.01	60.19
	Rate of Interest	9.35%	9.35%	9.35%	9.35%	9.35%
	Interest	6.75	6.75	6.53	6.08	5.63
	Rep Schedule	15 annual instalments from 29.08.2016.				
3	**Bond XXXVII**					
	Gross loan opening	17.36	17.36	17.36	17.36	17.36
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1.45	2.89	4.34
	Net Loan-Opening	17.36	17.36	15.91	14.47	13.02
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1.45	1.45	1.45	1.45
	Net Loan-Closing	17.36	15.91	14.47	13.02	11.57
	Average Loan	17.36	16.64	15.19	13.74	12.30
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	1.61	1.54	1.41	1.27	1.14
	Rep Schedule	12 annual instalments from 26.12.2015				
4	**Bond XL**					
	Gross loan opening	39.00	39.00	39.00	39.00	39.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	3.25	6.50
	Net Loan-Opening	39.00	39.00	39.00	35.75	32.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00

	Repayment during the year	0.00	0.00	3.25	3.25	3.25
	Net Loan-Closing	39.00	39.00	35.75	32.50	29.25
	Average Loan	39.00	39.00	37.38	34.13	30.88
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	3.63	3.63	3.48	3.17	2.87
	Rep Schedule	12 annual instalments from 28.06.2016				
5	**Bond XLVI**					
	Gross loan opening	81.69	81.69	81.69	81.69	81.69
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	81.69	81.69	81.69	81.69	81.69
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	81.69	81.69	81.69	81.69	81.69
	Average Loan	81.69	81.69	81.69	81.69	81.69
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	7.60	7.60	7.60	7.60	7.60
	Rep Schedule	Repayment in 3 equal instalments on 04.09.2019, 04.09.2024 & 04.09.2029				
6	**SBI (2014-15) DOCO Loan**					
	Gross loan opening	328.00	**328.00**	**328.00**	**328.00**	**328.00**
	Cumulative Repayment upto DOCO/previous year	0.00	**0.00**	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	328.00	328.00	328.00	328.00	328.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	328.00	328.00	328.00	328.00	328.00
	Average Loan	328.00	328.00	328.00	328.00	328.00
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	33.62	33.62	33.62	33.62	33.62
	Rep Schedule	20 half yearly equal instalments from 15.06.2019				
7	**Bond XLIX - Add. Cap. (2014-15)**					
	Gross loan opening	0.00	**132.82**	**132.82**	**132.82**	**132.82**
	Cumulative Repayment upto DOCO/previous year	0.00	**0.00**	**0.00**	**0.00**	**0.00**
	Net Loan-Opening	0.00	132.82	132.82	132.82	132.82
	Additions during the year	132.82	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	132.82	132.82	132.82	132.82	132.82
	Average Loan	66.41	132.82	132.82	132.82	132.82
	Rate of Interest	8.15%	8.15%	8.15%	8.15%	8.15%
	Interest	5.41	10.82	10.82	10.82	10.82
	Rep Schedule	Repayment in 3 equal instalments on 09.03.2020, 09.03.2025 & 09.03.2030				

	Total Loan					
	Gross loan opening	648.28	781.10	781.10	781.10	781.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	10.61	29.29	47.97
	Net Loan-Opening	648.28	781.10	770.49	751.81	733.13
	Additions during the year	132.82	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	10.61	18.68	18.68	18.68
	Net Loan-Closing	781.10	770.49	751.81	733.13	714.45
	Average Loan	714.69	775.79	761.15	742.47	723.79
	Rate of Interest	9.6853%	9.5546%	9.5553%	9.5573%	9.5594%
	Interest	**69.22**	**74.12**	**72.73**	**70.96**	**69.19**