

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 148/TT/2017

Coram:

**Shri P. K. Pujari, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order: 23.07.2018

In the matter of:

Determination of transmission tariff from COD to 31.3.2019 for Asset-I (A): LILO of Agra-Bharatpur 220 kV S/C Line at Agra (PGCIL) Sub-station alongwith line bays, Asset-I (B): 1X315 MVA 400/220 kV ICT (Shifted from Ballabgarh Sub-station) alongwith ICT bays at Agra (PGCIL) Sub-station, Asset-II: LILO of 400 kV Amritsar-Hamirpur Line at Jalandhar (One circuit of Parbati Pooling station-Amritsar Line) along with bays, Asset-III: 1X 315 MVA, 400/220 kV ICT along with associated bays at Kaithal Substation (Spare ICT from Ballabgarh), Asset-IV: 2 nos. 220 kV bays at Kaithal Sub-station, Asset-V: 2 nos. of 220 kV Line bays at Bhinmal Sub-station, under Northern Region System Strengthening Scheme XXXIV in Northern Region 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 Electricity Board
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.
UrjaBhawan, Kanwali Road,
Dehradun.
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002.

.....Respondents

For Petitioner: Shri Vivek Kumar Singh, PGCIL
Shri S. S. Raju, PGCIL
Shri B. Dash, PGCIL
Shri Rakesh Prasad, PGCIL

For Respondents : Shri R.B. Sharma, Advocate, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), for determination of tariff of Asset-I (A): LILO of Agra-Bharatpur 220 kV S/C Line at Agra (PGCIL) Sub-station alongwith line bays, Asset-I (B): 1X315 MVA 400/220 kV ICT (Shifted from Ballabgarh Sub-station) alongwith ICT bays at Agra (PGCIL) Sub-station, Asset-II: LILO of 400 kV Amritsar-Hamirpur Line at Jalandhar (One circuit of Parbati Pooling station-Amritsar Line) along with bays, Asset-III: 1X 315 MVA, 400/220 kV ICT along with associated bays at Kaithal Sub-station (Spare ICT from Ballabgarh), Asset-IV: 2 nos. 220 kV bays at Kaithal Sub-station, Asset-V: 2 nos. of 220 kV Line bays at Bhinmal Sub-station (hereinafter referred as “transmission assets”), under Northern Region System Strengthening Scheme XXXIV, in Northern Region in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).



2. The petitioner has made the following prayers:-

"1) Approve the Transmission Tariff for the tariff block 2014-19 block for the asset covered under this petition, as per para –8.2 above.

2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization projected to be incurred.

3) Allow the Petitioner to approach Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.

4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff regulations 2014.

5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.

6) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

7) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.

8) Allow the Petitioner if GST is imposed on transmission charges under the proposed GST, the same may be allowed to be recovered from the beneficiaries.

9) Allow the initial spares as procured in the current project in full as given in Para-7.2 under Power to relax as provided in Regulation 44 of CERC tariff regulation, 2009.

10) Allow the Petitioner to bill and recover 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. Further, any taxes and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

11) Allow tariff as 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.

12) Allow the petitioner to bill Tariff from actual DOCO and also the petitioner may be allowed to submit revised Certificate and tariff Forms (as per the Relevant Regulation) based on actual DOCO.

13) Approve the DOCO as claimed by the Petitioner, in accordance with clause 4(3)(ii) of



Tariff Regulation'2014 and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice”

3. The Investment Approval (IA) and expenditure sanction for the transmission system was accorded by the Board of Directors of the petitioner vide letter dated 9.3.2015 with an estimated cost of ₹148.76 crore including IDC of ₹9.24 crore based on December, 2014 price level. Subsequently, the Petitioner, vide affidavit dated 30.3.2017, has submitted the Revised Cost Estimate (RCE) of the project as ₹153.32 crore including an IDC of ₹5.78 crore based on April, 2017 price level.

4. The change of scope of the scheme was discussed and agreed in 32nd Standing Committee Meetings dated 31.8.2013, 26th TCC & 29th NRPC meetings dated 6.11.2013. The scope of work as per Investment Approval covered under “Northern Region Strengthening Scheme XXXIV” is as follows:-

Transmission Lines

- (i) LILO of Agra – Bharatpur 220 kV S/C line at Agra (POWERGRID) Sub-station.
- (ii) LILO of Sarna – Hiranagar 220 kV S/C line at 400/220 kV Samba (POWERGRID) Sub-station (the lines are to be terminated at existing 220 kV line bays at Samba Sub-station).
- (iii) LILO of one circuit of Parbati Pooling Station – Amritsar 400kV D/C line at Jalandhar (POWERGRID) Sub-station.

Sub-station

(i) Agra 400/220 kV Sub-station

400 kV

- a. 1X315 MVA, 400/220 kV ICT : 1 no
(ICT shall be provided from the spared ICT's available after replacement of ICTs at Ballabgarh / Mandaula sub-station and shall be refurbished before installation)
- b. ICT bays : 1 no.



- 220 kV
a. ICT bays : 1 no.
b. Line bays : 2 no.

(ii) Kaithal 400/220 kV Sub-station

- 400 kV
a. 1X315 MVA, 400/220 kV ICT : 1.no.
(ICT shall be provided from the spared ICT's available after replacement of ICTs at Ballabgarh / Mandaula sub-station and shall be refurbished before installation)
b. ICT bays : 1 no.

- 220 kV
a. ICT bays : 1 no.
b. Line bays : 2 no

(iii) Bhinmal 400/220 kV Sub-station

- 220 kV
a. Line bays : 2 no

(iv) Jalandhar 400/220 kV Sub-station

- 400 kV
a. Line bays : 2 no

5. The Petitioner initially claimed tariff for the following five assets:-

Srl. No.	Name of Asset	COD	Remarks
1.	LILO of Gladni-Hiranagar 220 kV S/C line at 400/220 kV Samba (POWERGRID) Sub-station (the lines are to be terminated at existing 220 kV line Bays at Samba Sub-station)	4.6.2016 (Actual)	Covered in P. No. 92/TT/2016
2.	Asset I: LILO of Agra-Bharatpur 220 kV S/C Line at Agra (POWERGRID) Sub-station alongwith line bays and 1X315 MVA 400/220 kV ICT (Shifted from Ballabgarh Sub-station) alongwith ICT bays at Agra (POWERGRID) Sub-station	1.7.2017 (Anticipated)	Covered under instant petition be filed later
3.	Asset-II: LILO of 400 kV Amritsar-Hamirpur Line at Jalandhar (One circuit of Parbati Pooling station-Amritsar Line) along with bays	14.2.2017 (Actual)	
4.	Asset-III: 01X 315 MVA, 400/220 kV ICT along with associated bays at Kaithal sub-station (Spare ICT from Ballabgarh)	1.5.2017 (Anticipated)	
5.	Asset-IV: 02 nos. 220 kV line bays at Kaithal Sub-station	1.5.2017 (Anticipated)	
6.	Asset-V: 02 nos. of 220 kV Line bays at Bhinmal S/S	8.7.2017 (Anticipated)	



6. Annual Fixed Charges was allowed only for Asset-II in order dated 10.10.2017 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC computation.

Date of Commercial Operation:

7. The Petitioner vide affidavit dated 20.9.2017 has submitted that Asset-I was split into two parts namely Asset-I(A):LILO of Agra-Bharatpur 220 kV S/C line at Agra (Powergrid) Sub-station alongwith line bays and Asset-I(B): 1X315 MVA 400/220 kV ICT (shifted from Ballabgarh Sub-station) alongwith ICT bays at Agra (POWERGRID) Sub-station and that the revised anticipated COD of Asset-I(A) was 1.1.2018 and Asset I(B) was put into commercial operation on 26.6.2017. It is observed that tariff for Asset-1(B) and III was already allowed in Petition No.133/TT/2015 and hence the petitioner is directed to decapitalise these assets in Petition No.133/TT/2015 and capitalise them in the instant transmission system at their written down value and accordingly file fresh petition claiming tariff for Assets-I(B) and III. The Commission in order dated 10.10.2017 has already directed the petitioner to file a fresh petition claiming tariff for Asset-I(A). The petitioner has submitted that Asset-IV could not be put into commercial operation as the downstream assets under the scope of HVPNL are not ready and sought approval of COD of Asset-IV under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. It is observed that HVPNL has not been made a party to the present proceedings. We are of the view that HVPNL should be given an opportunity to make its submissions before approving the COD of Asset-IV under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. As HVPNL is not arrayed as a respondent in the matter, we are not inclined to approve tariff for Asset-IV. Accordingly, tariff for Assets-I(A), I(B), III and IV is not allowed in this order. Tariff is determined only for Assets-II and V in the instant order. The petitioner is directed to file a



fresh a petition claiming tariff for Assets-I(A), I(B), III and IV taking into cognizance the observations made above.

8. UPPCL has submitted that the Petitioner has shown completion cost of the Assets up to 2019-20 and the anticipated COD is in 2017 except in case of Assets-II where the actual date of commercial operation is 14.2.2017. As against this, the expenditure upto the said date is only 67.3%. The situation is anomalous since no asset can be declared on commercial operation till it is atleast 95% ready leaving apart minor works which do not affect the safety and current carrying capacity of the assets. Therefore, UPPCL has requested to direct the Petitioner to submit the date of commercial operation of the assets as certified by NRLDC.

9. BRPL, vide its reply dated 25.9.2017 has submitted that the Petitioner may be asked to file the Transmission service Agreement as per provisions of Regulation 3(63) of the Tariff Regulations, 2014. Further, the Petitioner is required to submit CMD certificate after approval of the Board.

10. The Petitioner in its rejoinder has submitted that the details with regard to revised COD, auditor certificate, CMD Certificate for Asset-I(B), II, III and V has already been submitted vide affidavit dated 14.2.2018. The Petitioner has further submitted that as per Regulation 13(5) of the 2010 Sharing Regulations signing of TSA is not mandatory. However, in this case, it is submitted that BRPL has already signed TSA on 19.8.2011.

11. Status of downstream networks associated with Asset V are as under:-

Sub-station	Name of Downstream 200 kV T/L	Remarks
Kaithal Sub-station	220 kV D/C T/L Kaithal (PG)-Neemwala (HVPNL)	Downstream line was anticipated to be put into commercial operation by December, 2017.



12. The Petitioner has submitted that Assets-II and V were put into commercial operation on 14.2.2017 and 25.4.2017 respectively. In support of the COD of Asset-II and V, the petitioner has submitted the RLDC certificate dated 8.3.2017 and 3.5.2017 respectively in accordance with Regulation 6.3(A) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code), 2010 certifying the successful completion of trial operation, CEA energisation certificate and the CMD certificate. Taking into consideration the CEA energisation certificate, the RLDC certificate and the CMD certificate, the COD of Assets II and V is approved as 14.2.2017 and 25.4.2017 respectively.

13. The transmission charges claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	Asset-II		
	2016-17	2017-18	2018-19
Depreciation	18.65	163.38	185.01
Interest on Loan	19.97	167.35	176.10
Return on Equity	20.77	181.63	205.23
Interest on Working Capital	2.28	19.16	20.60
O & M Expenses	18.91	152.69	157.75
Total	80.58	684.21	744.69

(₹ in lakh)

Asset- V		
Particulars	2017-18	2018-19
Depreciation	28.11	44.67
Interest on Loan	27.36	41.93
Return on Equity	32.22	51.95
Interest on Working Capital	6.46	8.05
O & M Expenses	86.89	96.20
Total	181.04	242.80

14. The details submitted by the Petitioner in support of its claim for Interest on Working Capital (IWC) are as under:-



(₹ in lakh)

Particulars	Asset-II		
	2016-17	2017-18	2018-19
Maintenance Spares	22.16	22.90	23.66
O & M expenses	12.31	12.72	13.15
Receivables	104.94	114.03	124.12
Total	139.42	149.66	160.92
Interest	2.28	19.16	20.60
Rate of Interest	12.80%	12.80%	12.80%

(₹ in lakh)

Particulars	Asset- V	
	2017-18	2018-19
Maintenance Spares	13.96	14.43
O & M expenses	7.76	8.02
Receivables	32.33	40.47
Total	54.05	62.91
Interest	6.46	8.05
Rate of Interest	12.80%	12.80%

15. The Petitioner has submitted that notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as “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. Uttar Pradesh Power Corporation Ltd. (hereinafter referred to as “UPPCL”), Respondent No.9 and BSES Rajdhani Power Ltd., Respondent No. 12, (hereinafter referred to as “BRPL”) have filed their replies vide affidavit dated 8.8.2017 and 25.9.2017 respectively. The Petitioner has filed its rejoinder to the replies vide affidavit dated 16.3.2018. The submissions made by UPPCL, BRPL and the Petitioner are dealt in relevant paragraphs of this order.

Capital Cost:

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



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

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

- (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Increase in cost in contract packages as approved by the Commission;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

17. The Petitioner vide affidavit dated 14.3.2018 and 20.4.2018 has submitted Auditor's Certificates in support of the capital cost of all the assets, with their revised approved apportioned costs and revised tariff forms. The details of the revised approved apportioned costs, costs as on COD and estimated/projected additional capitalization to be incurred for the Assets, as per Auditor's Certificates dated 18.8.2017 and 28.12.2017 submitted by Petitioner vide affidavit dated 14.3.2018, for Assets-II and V are as follows:-



(₹ in lakh)

Assets	Approved apportioned cost	Revised approved apportioned cost	Cost as on COD	Estimated additional capital expenditure			Total estimated completion cost
				2016-17	2017-18	2018-19	
Asset II	5097.82	3869.55	2711.12	161.42	461.95	307.97	3642.46
Asset V	614.76	1002.00	324.78	0.00	528.65	59.23	912.66

The total completion costs of all the three assets are within the respective revised approved apportioned costs. Hence, there is no cost over-run in case of the three assets.

Time Over-run

18. As per the investment approval dated 9.3.2015, the scheduled COD of the project was 8.7.2017. Assets-II and V were put into commercial operation on 14.2.2017 and 25.4.2017 respectively. Thus, there is no time over-run in case of Assets-II and V.

19. The Petitioner, vide affidavit dated 14.3.2018 has, submitted the information with regard to IDC i.e. "IDC discharged upto COD", "IDC discharged after COD" and "IDC to be discharged after COD" in 2016-17 and 2017-18. The IDC on cash basis up to COD has been worked out based on the available information, i.e. loan details in Form-9C, as per the revised tariff forms submitted vide affidavit dated 14.3.2018 and the date of drawl and interest rate as per IDC computation statement. The "Balance IDC" which is undischarged as on COD, has not been considered as part of capital cost as on COD in the calculations and the same has been considered as Additional Capital Expenditure during the year of discharge. The IDC allowed shall be reviewed at the time of truing up, subject to submission of information regarding IDCs' actual disbursement/ payment made against the concerned assets. The details of the IDC claimed by the Petitioner, the allowable and worked out IDC as on COD on cash basis are given below:-



(₹ in lakh)

Interest During Construction (IDC)							
Assets	Claimed as on COD as per the respective Auditor's Certificate#	Discharged up to COD (as claimed)	Allowed/ Worked out on Cash Basis as on COD	Balance IDC discharged during 2016-17 (as claimed)	Balance IDC discharged during 2016-17 for calculation purpose	Balance IDC discharged during 2017-18 (as claimed)	Balance IDC discharged during 2017-18 for calculation purpose
Asset II	101.49	66.66	66.62	2.54	2.54	32.29	32.29
Asset V	8.24	3.78	3.78	0.00	0.00	4.46	4.38

20. The Petitioner has submitted that the entire IEDC claimed for the assets has been discharged as on COD. The "IEDC limit" has been considered as indicated in the 'Abstract Cost Estimate', which is 10.75% of the Hard Cost. As the IEDC claimed as on COD is lower than 10.75% of the hard cost in case of Asset-II, the IEDC claimed has been allowed to be capitalized. The petitioner has not claimed any IEDC for Asset-V. The details of the IEDC claimed and allowed are given below:-

(₹ in lakh)

Assets	IEDC	
	Claimed	Allowed
Asset II	48.30	48.30
Asset V	Not claimed	

Initial Spares

21. 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 breakup of head wise IDC & IEDC in its tariff application.”

22. BRPL, vide affidavit dated 25.9.2017 and UPPCL, vide affidavit dated 8.8.2017 has submitted that the initial spares for shifting of spare ICTs may not be allowed and in respect of other assets the initial spares may be kept within the ceiling norms prescribed under Regulation 13 of the Tariff Regulations, 2014. However, the Petitioner vide rejoinder dated 16.3.2018 has submitted that initial spare claimed are essential spare for smooth operation of the Grid and it requested to allow the initial spares as claimed in the petition. The initial spares claimed in case of Assets II and V are more than the limits specified in the regulations. The details of the initial spares claimed and allowed for Asset II and V are as follows:-



(₹ in lakh)

Computation of Initial Spares					
(Asset-II)	Total Capital Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to actual Cut-off date	Initial Spares Claimed against Capital Cost	Ceiling Limit as per Regulation, 2014	Initial Spares worked out	Excess Initial Spares claimed
Transmission Line	2643.63	27.00	1.00%	26.43	0.57
Sub-station	753.87	53.73	6.00%	44.69	9.04

(₹ in lakh)

Computation of Initial Spares					
(Asset-V)	Total Capital Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to actual Cut-off date	Initial Spares Claimed against Capital Cost	Ceiling Limit as per Regulation, 2014	Initial Spares worked out	Excess Initial Spares claimed
Substation	769.78	66.59	6.00%	44.88	21.71

23. The excess Initial Spares have been reduced from the additional capital expenditure of the respective assets. The Initial Spares allowed would be reviewed at the time of truing-up on the submission of the Audited capital costs. Following are the details of excess Initial Spares and the financial year against which it is deducted, in case of Assets-II:-

(₹ in lakh)

Assets	Financial Year from which the excess Initial Spares is deducted		Excess Initial Spares deducted from the Additional Capitalization	
	T/L	S/S	T/L	S/S
Asset II	2017-18	2018-19	0.57	9.04
Asset V	NIL	2018-19	0.00	21.71

Capital Cost allowed as on “COD”

24. Based on the above, the capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulations after making the necessary adjustment in respect of capital expenditure and additional capital expenditure is as under:-



(₹ 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
Asset II	2711.12	149.79	66.62	48.30	0.00	2676.25
Asset V	324.78	8.24	3.78	0.00	0.00	320.32

Additional Capital Expenditure

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

“(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Undischarged liabilities recognized to be payable at a future date;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 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.”

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

“cut-off date” means 31stMarch 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 31stMarch 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 cutoff date for reasons beyond the control of the project developer;”

27. The cut-off date in the case of Assets-II is 31.3.2019 and Asset-V is 31.3.2020.



28. The additional capital expenditure being allowed in our calculations, for both the assets, as per Regulation 14 of Tariff Regulations, 2014 are mentioned below:-

(₹ in lakh)

Assets	2016-17			2017-18			2018-19			Capital cost as on 31.3.2019
	Claimed Add cap	Add: Allowed IDC on cash basis	Add cap Allowed	Claimed Add cap	Less: Excess Initial Spares/ Add: Allowed IDC	Add cap Allowed	Claimed Add cap	Less: Excess Initial Spares	Add cap Allowed	
II	161.42	2.54	163.96	461.95	31.72	493.67	307.97	9.04	298.93	3632.81
V	0.00	0.00	0.00	528.65	4.38#	533.03	59.23	21.71	37.52	890.88

#Add: Allowed IDC

Debt- Equity Ratio

29. Clauses 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as under:

“(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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”



30. The Petitioner has claimed debt-equity ratio of 70:30 as on the date of commercial operation of the instant assets and for Additional Capitalization during the 2014-19 period. The details of debt-equity in respect of the assets-II and V are as under:-

(₹ in lakh)

Asset-II	As on COD		As on 31.3.2019	
	Capital Cost	%	Capital Cost	%
Debt	1,873.37	70.00	2542.97	70.00
Equity	802.87	30.00	1089.84	30.00
Total	2676.25	100.00	3632.81	100.00

(₹ in lakh)

Asset-V	As on COD		As on 31.3.2019	
	Capital Cost	%	Capital Cost	%
Debt	224.22	70.00	623.61	70.00
Equity	96.10	30.00	267.26	30.00
Total	320.32	100.00	890.88	100.00

Return on Equity (RoE)

31. 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.”

32. The Petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. According to the Petitioner, 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 2014-15 to 2018-19 on actual gross income of any financial year. The Petitioner has submitted that



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 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.

33. 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 RoE. 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 ROE. 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 RoE, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the details of RoE calculated are as under:-

(₹ in lakh)

Asset-II			
Particulars	2016-17	2017-18	2018-19
Opening Equity	802.87	852.06	1000.16
Addition due to Additional Capitalization	49.19	148.10	89.68
Closing Equity	852.06	1000.16	1089.84
Average Equity	827.47	926.11	1045.00
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	20.45	181.61	204.93

(₹ in lakh)

Asset-V		
Particulars	2017-18	2018-19
Opening Equity	96.10	256.01
Addition due to Additional Capitalization	159.91	11.26

Closing Equity	256.01	267.26
Average Equity	176.05	261.63
Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	32.25	51.31

Interest on Loan (IOL)

34. Regulation 26 of the 2014 Tariff Regulations with regard to IOL 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.”

35. In these calculations, IOL has been worked out as under:-



(a) The Gross Normative loan has been considered as per the Loan amount determined based on the debt equity ratio applied on the allowed capital cost.

(b) The depreciation of every year has been considered as normative repayment of loan of concerned year;

(c) The weighted average rate of interest on actual loan portfolio has been worked out by considering the Gross amount of loan, repayment & rate of interest as mentioned in the petition (Form 9C), which has been applied on the Normative average loan as determined in (i) above, during the year to arrive at the interest on loan.

36. The Petitioner has submitted that the tariff calculation of IOL for the 2014-19 period has been calculated on the basis of rate prevailing as on 1.4.2014. The change in interest rate due to floating rate of interest applicable, if any, during 2014-19 period for the project needs to be claimed/ adjusted over the tariff block of five (5) years directly from the beneficiaries. Repayment schedule of bonds LX and LXI have not been submitted by the petitioner and the petitioner is directed to submit the same at the time of true-up.

37. Detailed calculations in support of IOL have been given in the **Annexure** to this order.

38. The details of IOL calculated are as under:-

(₹ in lakh)

Asset-II			
Particulars	2016-17	2017-18	2018-19
Gross Normative Loan	1873.37	1988.15	2333.72
Cumulative Repayment upto previous Year	0.00	18.37	181.73
Net Loan-Opening	1873.37	1969.78	2151.99



Addition due to Additional Capitalization	114.77	345.57	209.25
Repayment during the year	18.37	163.36	184.74
Net Loan-Closing	1969.78	2151.99	2176.50
Average Loan	1921.58	2060.89	2164.25
Weighted Average Rate of Interest on Loan	8.1226%	8.1207%	8.1251%
Interest on Loan	19.67	167.36	175.85

(₹ in lakh)

Asset-V		
Particulars	2017-18	2018-19
Gross Normative Loan	224.22	597.35
Cumulative Repayment upto previous Year	0.00	28.13
Net Loan-Opening	224.22	569.21
Addition due to Additional Capitalization	373.12	26.27
Repayment during the year	28.13	44.09
Net Loan-Closing	569.21	551.39
Average Loan	396.72	560.30
Weighted Average Rate of Interest on Loan	7.3886%	7.3858%
Interest on Loan	27.38	41.38

Depreciation

39. 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.

(2) 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.

(3) 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.”

40. The depreciation for all the assets have been calculated as per regulation 27 of Tariff Regulations, 2014, where SLM method was considered till first 12 years and after that the remaining depreciable value of the assets would be spread over the remaining useful life of the asset. Therefore, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

41. Based on the above, the depreciation has been considered as under:-



(₹ in lakh)

Asset-II			
Particulars	2016-17	2017-18	2018-19
Gross Block as on COD	2676.25	2840.21	3333.88
Addition during 2014-19	163.96	493.67	298.93
Gross Block	2840.21	3333.88	3632.81
Average Gross Block	2758.23	3087.05	3483.35
Rate of Depreciation	5.2833%	5.2918%	5.3035%
Depreciable Value	2482.40	2778.34	3135.01
Remaining Depreciable Value	2482.40	2759.98	2953.29
Depreciation	18.37	163.36	184.74

(₹ in lakh)

Asset-V		
Particulars	2017-18	2018-19
Gross Block as on COD	320.32	853.35
Addition during 2014-19	533.03	37.52
Gross Block	853.35	890.88
Average Gross Block	586.83	872.11
Rate of Depreciation	5.1310%	5.0558%
Depreciable Value	519.15	766.90
Remaining Depreciable Value	519.15	738.77
Depreciation	28.13	44.09

Operation and Maintenance Expenses (O&M Expenses)

42. The Petitioner has claimed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. According to the Petitioner, O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the periods 2008-09 to 2012-13. The Petitioner has 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 period 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.

43. 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.

44. As per Regulation 29(4) of 2014 Tariff Regulations, the allowable O&M Expenses for the assets covered in the instant petition are as under:

(₹ in lakh)

Assets	O&M Expenses allowed		
	2016-17	2017-18	2018-19
Asset-II	18.62	152.69	157.75
Asset-V	-	86.98	96.20

Interest on Working Capital (IWC)

45. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as under:

“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;

(i) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(ii) 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;”



46. The Petitioner is entitled to claim IWC 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 of annual 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.

(iv) Rate of interest on working capital:

As per Proviso 3 of regulation 28 of Tariff Regulations, 2014, in case of Asset-II SBI Base rate as on 1.4.2016 (i.e. 9.30%) plus 350 Bps i.e. 12.80% and in case of Asset-IV & V, SBI Base rate as on 1.4.2017 (i.e. 9.10%) plus 350 Bps i.e. 12.60% has been considered as the rate of interest on working capital.

47. The interest on working capital as determined is as under:-



(₹ in lakh)

Asset-II			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	22.17	22.90	23.66
O & M expenses	12.31	12.72	13.15
Receivables	104.95	114.03	123.97
Total	139.43	149.66	160.78
Interest	2.25	19.16	20.58

(₹ in lakh)

Asset-V		
Particulars	2017-18	2018-19
Maintenance Spares	13.97	14.43
O & M expenses	7.76	8.02
Receivables	32.31	40.14
Total	54.03	62.59
Interest	6.36	7.89

Annual Transmission charges

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

(₹ in lakh)

Asset-II			
Particulars	2016-17	2017-18	2018-19
Depreciation	18.37	163.36	184.74
Interest on loan	19.67	167.36	175.85
Return on Equity	20.45	181.61	204.93
Interest on Working Capital	2.25	19.16	20.58
O&M Expenses	18.62	152.69	157.75
Total	79.36	684.18	743.84

(₹ in lakh)

Asset-V		
Particulars	2017-18	2018-19
Depreciation	28.13	44.09
Interest on loan	27.38	41.38
Return on Equity	32.25	51.31
Interest on Working Capital	6.36	7.89
O&M Expenses	86.98	96.20
Total	181.11	240.87



49. 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 and charges or any other kind of impositions, etc. The same if imposed shall be borne and additionally paid by the Respondents. The Petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the Petitioner can make other claims as per the 2014 Tariff Regulations.

Filing Fee and the Publication Expenses

50. 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, publication expenses and licence fee 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

51. The Petitioner has requested to allow the Petitioner to bill and recover licence 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) of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

52. The Petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. Service tax is not levied on transmission. Since, service tax is subsumed by GST, Petitioner's prayer has become infructuous.



Goods and Services Tax

53. The Petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. Since, GST is not levied on transmission at present, the Petitioner's prayer is premature.

Sharing of Transmission Charges

54. The transmission charges allowed in this order shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers in terms of the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended time to time.

55. This order disposes of Petition No. 148/TT/2017.

sd/-
(Dr. M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(P.K. Pujari)
Chairperson



ANNEXURE**Asset-II****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2014-19**

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
(₹ in lakh)				
	Details of Loan	2016-17	2017-18	2018-19
1	Bond LIII			
	Gross loan opening	70.90	70.90	70.90
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	70.90	70.90	70.90
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	70.90	70.90	70.90
	Average Loan	70.90	70.90	70.90
	Rate of Interest	8.13%	8.13%	8.13%
	Interest	5.76	5.76	5.76
	Rep Schedule	12 annual equal installments from 25.04.2020		
2	Bond LVIII			
	Gross loan opening	0.00	112.99	112.99
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	112.99	112.99
	Additions during the year	112.99	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	112.99	112.99	112.99
	Average Loan	56.50	112.99	112.99
	Rate of Interest	7.89%	7.89%	7.89%
	Interest	4.46	8.91	8.91
	Rep Schedule	Redeemable at par on 09.03.2027		
3	Bond LIV			
	Gross loan opening	461.00	461.00	461.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	461.00	461.00	461.00
	Additions during the year	0.00	0.00	0.00



	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	461.00	461.00	461.00
	Average Loan	461.00	461.00	461.00
	Rate of Interest	7.97%	7.97%	7.97%
	Interest	36.74	36.74	36.74
	Rep Schedule	Redeemable at par in 3 equal installments on 15.07.2021, 15.07.2026 & 15.07.2031		
4	Bond LVII			
	Gross loan opening	565.12	565.12	565.12
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	565.12	565.12	565.12
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	565.12	565.12	565.12
	Average Loan	565.12	565.12	565.12
	Rate of Interest	7.20%	7.20%	7.20%
	Interest	40.69	40.69	40.69
	Rep Schedule	Redeemable at par on 21.12.2021		
5	SBI (2016-2017) (Q4)			
	Gross loan opening	776.38	778.16	800.76
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	776.38	778.16	800.76
	Additions during the year	1.78	22.60	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	778.16	800.76	800.76
	Average Loan	777.27	789.46	800.76
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	69.18	70.26	71.27
	Rep Schedule	20 half yearly equal installments from 15.06.2019		
	Total Loan			
	Gross loan opening	1873.40	1988.17	2010.77
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1873.40	1988.17	2010.77
	Additions during the year	114.77	22.60	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1988.17	2010.77	2010.77
	Average Loan	1930.79	1999.47	2010.77
	Rate of Interest	8.1226%	8.1207%	8.1251%
	Interest	156.83	162.37	163.38



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
(₹ in lakh)			
	Details of Loan	2017-18	2018-19
1	Bond LIII		
	Gross loan opening	46.47	46.47
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	46.47	46.47
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	46.47	46.47
	Average Loan	46.47	46.47
	Rate of Interest	8.13%	8.13%
	Interest	3.78	3.78
	Rep Schedule	12 annual equal installments from 25.04.2020	
2	Bond LVII		
	Gross loan opening	177.75	180.87
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	177.75	180.87
	Additions during the year	3.12	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	180.87	180.87
	Average Loan	179.31	180.87
	Rate of Interest	7.20%	7.20%
	Interest	12.91	13.02
	Rep Schedule	Redeemable at par on 21.12.2021	
3	SBI (2017-2018) (Q4)		
	Gross loan opening	0.00	13.22
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	13.22
	Additions during the year	13.22	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	13.22	13.22
	Average Loan	6.61	13.22
	Rate of Interest	7.95%	7.95%
	Interest	0.53	1.05
	Rep Schedule	20 half yearly equal installments from	

		15.06.2019	
4	Bond LIX		
	Gross loan opening	0.00	98.20
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	98.20
	Additions during the year	98.20	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	98.20	98.20
	Average Loan	49.10	98.20
	Rate of Interest	7.30%	7.30%
	Interest	3.58	7.17
	Rep Schedule	Bullet Payment on 19.6.2027	
	Total Loan		
	Gross loan opening	224.22	338.76
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	224.22	338.76
	Additions during the year	114.54	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	338.76	338.76
	Average Loan	281.49	338.76
	Rate of Interest	7.3886%	7.3858%
	Interest	20.80	25.02

