

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 107/TT/2014

Coram:

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

**Date of Hearing : 06.04.2016
Date of Order : 25.04.2016**

In the matter of:

Determination of transmission tariff for **(A)** 765 kV S/C Bareilly-Lucknow TL at 400 kV level, **(B)** one circuit of 400 kV D/C Bareilly (New)- Bareilly (Existing) TL under "Northern Region System Strengthening Scheme XXI" in Northern Region for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

Versus

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-171004
6. Punjab State Power Corporation Limited.
Thermal Shed T1 A, 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.
Shakti Bhawan, 14, Ashok Marg
Lucknow- 226001
10. Delhi Transco Limited.
Shakti Sadan, Kotla Road
New Delhi- 110002
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
Pitampura, New Delhi-110034
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-110002

.....**Respondents**

The following were present:-

For Petitioner: Smt. Sangeeta Edwards, PGCIL
Shri V. P. Rastogi, PGCIL
Shri M.M. Mondal, PGCIL
Shri S. K. Ventatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S.S. Raju, PGCIL
Shri S. C. Taneja, PGCIL
Shri Pankaj Sharma, PGCIL

For Respondent: None

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for 765 kV S/C Bareilly-Lucknow TL at 400 kV level (referred as "**Asset-A**"), one circuit of 400 kV D/C Bareilly (New)-Bareilly (Existing) (referred as "**Asset-B**") TL under "Northern Region System Strengthening Scheme XXI" in Northern Region for 2014-19 tariff period (hereinafter referred as "transmission asset") under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period starting from 1.4.2014 to 31.3.2019.



2. The respondents are distribution licensees or electricity departments or power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Northern Region.

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

(a) The investment approval for the project was accorded by Board of Directors of the petitioner company vide Memorandum No. C/CP/NRSS-XXI dated 26.8.2010 at an estimated cost of ₹167757 lakh, which included IDC of ₹12198 lakh.

(b) The scope of the instant project is as under:-

Transmission Line

- Lucknow-Bareilly 765 kV S/C line.
- Bareilly 765/400 kV (New)-Bareilly (400 kV Existing) 400 kV D/C line (Quad)
- Bareilly-Kashipur 400 kV D/C line (Quad)
- Kashipur-Roorkee 400 kV D/C line (Quad)
- Roorkee-Saharanpur 400 kV D/C line (Quad)

Sub-station

- New 2 x 1500 MVA, 765/400 kV Sub-station at Bareilly
- Extension of 765/400 kV Sub-station at Lucknow
- Extension of 400 kV Sub-station at Bareilly
- Extension of 400 kV Sub-station at Kashipur
- Extension of 400 kV Sub-station at Roorkee
- Extension of 400 kV Sub-station at Saharanpur



Reactive Compensation

	Approx length	line	Line Reactor from bus	Line Reactor-To bus
Line Reactors (i) Lucknow-Bareilly 765 kV S/C line	270 km		1 x 240 MVAR (switchable)	1 x 240 MVAR
Bus Reactors (i) Bareilly 765 kV: 1 x 240 MVAR (ii) Roorkee-1 x 125 MVAR				

(c) The petitioner has claimed the revised transmission charges on account of change in interest rate as under:-

(₹ in lakh)

Particulars (Asset-A)	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	2028.94	2179.44	2202.02	2202.02	2202.02
Interest on Loan	1976.45	1964.3	1809.33	1625.54	1442.12
Return on Equity	2260.65	2440.11	2465.38	2465.38	2465.38
Interest on Working Capital	152.65	160.26	158.07	154.15	150.23
O&M Expenses	152.48	157.76	162.79	168.33	173.86
Total	6571.17	6901.87	6797.59	6615.42	6433.61

(₹ in lakh)

Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	29.15	31.84	32.25	32.25	32.25
Interest on Loan	28.55	28.9	26.7	24	21.31
Return on Equity	32.48	35.65	36.1	36.1	36.1
Interest on Working Capital	2.13	2.27	2.24	2.18	2.12
O&M Expenses	0.93	0.96	0.99	1.02	1.06
Total	93.24	99.62	98.28	95.55	92.84

(d) The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-



(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	22.87	23.66	24.42	25.25	26.08
O & M Expenses	12.71	13.15	13.57	14.03	14.49
Receivables	1095.2	1150.31	1132.93	1102.57	1072.27
Total	1130.78	1187.12	1170.92	1141.85	1112.84
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	152.65	160.26	158.07	154.15	150.23

(₹ in lakh)					
Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.14	0.14	0.15	0.15	0.16
O & M Expenses	0.08	0.08	0.08	0.09	0.09
Receivables	15.54	16.6	16.38	15.93	15.47
Total	15.76	16.82	16.61	16.17	15.72
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	2.13	2.27	2.24	2.18	2.12

4. The annual transmission charges for the instant asset was allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges vide order dated 23.6.2014. The petitioner has submitted revised tariff forms vide affidavit dated 10.4.2015, 12.3.2015 and 1.4.2016. The petitioner has revised the interest rate on loan in its revised submission.

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 6.4.2016. None of the respondents have filed their reply. Having heard the representatives of the



petitioner and perused the material on record, we proceed to dispose of the petition.

Commercial Operation Date (“COD”)

6. The petitioner has claimed the date of the commercial operation as 1.4.2014 for both Asset-A (765 kV S/C Bareilly-Lucknow transmission line at 400 kV level) and Asset-B (one circuit of 400 kV D/C Bareilly (New)-Bareilly (Existing) transmission line). Regulation 4(3) of the 2014 Tariff Regulations provides as follows:-

“4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

xxx

xxx”

7. The Commission, vide its order dated 23.6.2014, has approved provisional COD for both the assets considering the fact that the certificate regarding date of commercial operation of the 765 kV Lucknow-Bareilly transmission line has not been issued by RLDC in accordance with Regulation 4(3) read with Regulation 5 of the 2014 Tariff Regulations and has directed the petitioner to file detailed affidavit separately for each of these assets clearly delineating the deliberation at different Forums and the discussion with the developers of the downstream transmission lines. In response, the petitioner, vide affidavit dated 12.3.2015



submitted that the 2014 Tariff Regulations are made applicable w.e.f 1.4.2014 and accordingly all the relevant procedures/practices as per these Regulations are also made effective on or after 1.4.2014. Accordingly, the procedures/event of Trial Operation as defined in the 2014 Tariff Regulations is also effective on or after 1.4.2014. The petitioner also submitted that for assets were put under commercial operation on 1.4.2014 (Test charged in March, 2014), if procedures of 2014 Tariff Regulations are to be made applicable (such as Trial operation) then petitioner should have been allowed to declare COD immediately in March, 2014 but that is not admissible since these Regulation are made applicable only w.e.f. 1.4.2014. In view of above, the petitioner submitted that the procedure/event of trial operation as defined in the 2014 Tariff Regulations is only possibly for assets put under COD on or after 2.4.2014. For the assets under COD on 1.4.2014, the activity (charging etc.) prior to COD was accomplished as per then existed Regulation.

8. We have considered the submissions of the petitioner. We are not convinced with the contention of the petitioner that submission of RLDC Certificate as provided under Regulation 5(2) of the 2014 Tariff Regulations is not applicable in case of the assets commissioned on 1.4.2014. The 2014 Tariff Regulations are applicable for all the assets commissioned during 1.4.2014 and 31.3.2019. The petitioner has claimed the date of commercial operation of the instant assets as 1.4.2014 and hence the 2014 Tariff Regulations are applicable in case of the instant assets. As such, it is mandatory for the petitioner to submit a certificate from the Regional Load Despatch Centre as provided under



Regulation 5(2) of the 2014 Tariff Regulations. The date of commercial operation of the instant assets is provisionally approved as 1.4.2014 and the petitioner is directed to submit the same at the time of truing up.

9. Further, with regard to charging of 765 kV S/C Bareilly-Lucknow transmission line at 400 kV Level (temporary measure) due to delay in completion of 765 kV Bareilly Sub-station, the representative petitioner submitted that it has claimed tariff only for the transmission line portion and the same shall continue even after commissioning/upgradation to 765 kV level. Further, vide affidavit dated 10.4.2015 the petitioner has submitted that 765 kV Bareilly-Lucknow transmission line (earlier charged at 400 kV level under contingency scheme) at rated voltage level has been put under commercial operation w.e.f. 1.4.2015 and in support has submitted the self declared COD certificate.

10. The relevant extract of the provisional tariff order dated 23.6.2014 with respect to 765 kV Bareilly- Lucknow transmission line charged at 400 kV is stated below:-

“He further submitted that CEA in its letter dated 27.1.2014 has conveyed it's no objection for the in principle approval of the interim reorientation arrangement proposed by CTU as it would provide additional corridor towards Uttarakhand/Western UP and would relieve the overloading of Meerut-Muzaffarpur 400 kV line. The representative of the petitioner requested that the transmission tariff in respect of these lines may be granted for inclusion in the PoC charges.”

11. From the above extract it is evident that the line was initially charged at 400 kV and put under commercial operation w.e.f. 1.4.2014 would provide benefit to the system operation and the same has been in principally approved by CEA.



The petitioner, vide affidavit dated 12.3.2015, has also submitted that the asset is under operation since its commissioning. The second COD of 1.4.2015 for 765 kV Bareilly-Lucknow transmission line is just with respect to up gradation of the transmission line to 765 kV and is just for informative purpose. The petitioner has submitted self declared COD certificate for both the Assets as 1.4.2014. We have considered the submissions of the petitioner and accordingly, the commercial operation date of the transmission asset has been provisionally allowed as 1.4.2014, as stated in para 8, for both Asset-A and Asset-B. The tariff is worked out from 1.4.2014 to 31.3.2019 for both the assets.

Capital Cost

12. The petitioner has claimed capital cost of ₹36003.97 lakh and ₹508.83 lakh for Asset-A and Asset-B respectively as on COD. The capital cost as on COD also includes the cost of IDC, IEDC and initial spares. The petitioner has claimed additional capitalization of ₹4845.76 lakh and ₹855.13 lakh for the year 2014-15 and 2015-16 respectively pertaining to Asset-A and ₹86.61 lakh and ₹15.28 lakh for the year 2014-15 and 2015-16 respectively pertaining to Asset-B.

13. Regulation 9 (1) and (2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-

“9. Capital Cost: (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. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

14. The capital cost as on COD of the instant assets and the additional capitalization after COD has been worked out as discussed in the subsequent paragraphs.

Time over-run

15. As per the investment approval, the commissioning schedule of the project is 32 months from the date of investment approval. The investment approval was accorded on 26.8.2010 and the schedule date of commercial operation was



26.4.2013 against which both Asset-A and Asset-B was commissioned on 1.4.2014. Hence, there is a time over-run of 11 months and 4 days in commissioning of Asset-A and Asset-B. The petitioner has submitted following reasons for the delay:-

Asset-A

Delay in land acquisition for Bareilly Sub-station:

16. The petitioner had applied for the land acquisition on 12.4.2010, however due to non-acceptance of the land at the proposed location, the petitioner had to change the location. The UP Government issued Gazette notification dated 25.3.2011 for land acquisition after the petitioner approached UP Government on 2.12.2010 for issuance of Notification under Section 4 Land Acquisition Act, 1894. As per the L2 network, the land was to be handed over to the agency by February, 2012, however the possession of total land was received in piecemeal basis from 5.9.2012 to 30.12.2013. After part possession of land, the soil investigation work was started and it was found that all foundation should be of PILE type instead of normal foundation due to geographical surprises i.e. the type of soil. For this, the award for pile foundation was placed on October, 2013 to separate agency since this work was not in the scope of main contractor.

Asset-B

Charging of 765 kV S/C Bareilly-Lucknow transmission line at 400 kV level:

17. As per IA, the 765 kV S/C Bareilly-Lucknow transmission line was to be operated at 765 kV. However, due to delay in completion of 765 kV Bareilly Sub-



station, the same has been charged at 400 kV level. In this regard the petitioner vide letter dated 22.1.2014 requested CEA for charging of 765 kV S/C Bareilly-Lucknow transmission line at 400 kV by terminating at existing 400 kV reactor bay at 765/400 kV Lucknow and at 400 kV bus reactor bay at Bareilly (existing) using section of one ckt of Bareilly 765/400 (new)-Bareilly (existing) line as commissioning of Bareilly Sub-station was delayed due to delay in land acquisition. CEA gave clearance for the same on 27.1.2014.

18. From the above submissions it is observed that the application for acquisition of land was submitted to Special Land Acquisition Officer (SLAO) on 12.4.2010. The proposed land was not accepted and accordingly the petitioner approached UP Government vide letter dated 2.12.2010 for issuance of Notification under Section 4 for land acquisition. The possession of total land (changed) was received in piecemeal basis from 5.9.2012 to 30.12.2013. Therefore, the total time involved in getting possession of land was 29 months to 45 months from the date of filing of first application. Hence, the time over-run is mainly on account on delay in handing over the land for 765 kV Bareilly Sub-station which is uncontrollable and cannot be attributable to the petitioner. The delay in land acquisition has lead to time over-run in both Asset-A and Asset-B. In view of the above, we condone the time over-run of 11 months 4 days in case of both the assets.

Cost Variation



19. The details of apportioned approved cost, capital cost as on date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the instant asset covered in the petition are as under:-

Asset	Approved apportioned cost as per FR	Capital cost as on COD	Additional capitalization		Total estimated completion cost
			2014-15	2015-16	
Asset-A	43782.10	36003.97	4845.75	855.13	41704.85
Asset-B	6830.48	508.83	86.61	15.28	610.72

20. The petitioner has also submitted the reason for cost variation as below:-

Asset-A: At the time of preparation of the FR, delta configuration towers were envisaged for the entire line. However at the stage of award of Tower package, it was decided to install horizontal configuration towers at most of the locations where sufficient ROW is available. Therefore, the cost of the tower has been reduced due to reduction on material use in the tower.

Asset-B: The location of Sub-station site was changed (original site was allotted for construction of jail by UP govt) causing reduction in line length from 40 km to 1.5 km due to this reason the cost of this line reduced drastically. Further, for procurement, open competitive bidding route was followed and contracts are awarded on the basis of lowest evaluated eligible bidder.



Treatment of Initial spares:

21. Regulation 13(d) of the 2014 Tariff Regulations provides that initial spares shall be capitalised as a percentage of plant and machinery cost upto cut-off date, subject to following ceiling norms:-

- “(a) Coal-based/lignite-fired thermal generating stations - 4.0%
- (b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%
- (c) Hydro generating stations including pumped storage hydro generating station. - 4.0%
- (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%”

22. The petitioner has claimed initial spares of 0.73% and 0.69% for Asset-A and Asset-B respectively which are within the ceiling limit specified in the 2014 Tariff Regulations.

IDC & IEDC:

23. The petitioner vide affidavit dated 1.4.2016 has submitted that entire IDC and IEDC has been discharged upto COD and submitted the Auditor Certificate dated 6.5.2014 in this regard. As discussed in Para 17 of this order, the time over run in the commissioning of the assets has been condoned. Accordingly, the IDC and IEDC as submitted through the Auditor Certificate has been capitalized as on COD.



Particulars	(₹ in lakh)	
	Asset-A	Asset-B
Capital cost (Hard cost) as on COD	32801.20	466.07
IDC	2446.06	32.52
IEDC	756.71	10.24
Capital Cost as on COD	36003.97	508.83

Additional Capital Expenditure

24. The petitioner has proposed additional capitalization of ₹4845.76 lakh and ₹855.13 lakh for the year 2014-15 and 2015-16 respectively pertaining to Asset-A and it is towards balance and retention payment under Regulation 14(1)(i) of 2014 Tariff Regulations. Further, the petitioner has proposed additional capitalization of ₹86.61 lakh and ₹15.28 lakh for the year 2014-15 and 2015-16 respectively pertaining to for Asset-B and it is towards balance and retention payment under Regulation 14(1)(i) of 2014 Tariff Regulations. It is observed that total estimated completion cost including additional capitalization for 2014-15 and 2015-16 is within the approved apportioned cost for both Asset-A and Asset-B. The additional capitalization is towards the balance and retention payment for the work within the original scope of work.

25. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” as follows:-

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



26. The cut-off date for both the assets works out to be 31.3.2017. The additional capitalization claimed by the petitioner is within the cut-off date. The additional capitalization for 2014-15 and 2015-16 is allowed under Regulation 14(1)(i) of 2014 Tariff Regulations for both Asset-A and Asset-B. The details of additional capitalization allowed is as follows:-

Cost as per Investment Approval for Asset-A is ₹43782.10 lakh							
Capital cost as on 1.4.2014 (COD)	Additional capitalisation projected					Total additional capitalisation	Total capital cost including additional capitalisation as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19		
36003.97	4845.75	855.13	0.00	0.00	0.00	5700.88	41704.85

Cost as per Investment Approval for Asset-B is ₹6830.48 lakh							
Capital cost as on 1.4.2014 (COD)	Additional capitalisation projected					Total additional capitalisation	Total capital cost including additional capitalisation as on 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19		
508.83	86.61	15.28	0.00	0.00	0.00	101.89	610.72

Debt:Equity Ratio

27. Regulation 19 (1) of the 2014 Tariff Regulations specifies as under:-

“19. Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

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.”



28. The petitioner has considered debt:equity ratio as 70:30 as on COD. We have considered debt:equity ratio of 70:30 as on COD and for additional capitalization during 2014-15. The details of the debt:equity as on the date of COD and 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Asset-A	As on 1.4.2014		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	25202.78	70.00	3990.62	70.00	29193.40	70.00
Equity	10801.19	30.00	1710.26	30.00	12511.46	30.00
Total	36003.97	100.00	5700.88	100.00	41704.85	100.00

(₹ in lakh)

Asset-B	As on 1.4.2014		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	356.18	70.00	71.32	70.00	427.50	70.00
Equity	152.65	30.00	30.57	30.00	183.22	30.00
Total	508.83	100.00	101.89	100.00	610.72	100.00

Interest on Loan ("IOL")

29. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides as under:-

“(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.”

30. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. Further, the petitioner has prayed to allow it 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. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner’s prayer to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The details of weighted average rate of interest are placed at **Annexure** and the IOL for Asset-A and Asset-B has been worked out as follows:-

(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	25202.78	28594.80	29193.40	29193.40	29193.40
Cumulative Repayment upto previous year	0.00	2028.94	4208.38	6410.39	8612.41
Net Loan-Opening	25202.78	26565.87	24985.02	22783.00	20580.98
Additions during the year	3392.03	598.59	0.00	0.00	0.00
Repayment during the year	2028.94	2179.44	2202.02	2202.02	2202.02
Net Loan-Closing	26565.87	24985.02	22783.00	20580.98	18378.97
Average Loan	25884.32	25775.44	23884.01	21681.99	19479.98
Rate of Interest (%)	7.6357	7.6209	7.5755	7.4972	7.4032
Interest	1976.44	1964.31	1809.33	1625.54	1442.13



(₹ in lakh)					
Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	356.18	416.81	427.50	427.50	427.50
Cumulative Repayment upto previous year	0.00	29.15	61.00	93.24	125.49
Net Loan-Opening	356.18	387.66	366.51	334.26	302.02
Additions during the year	60.63	10.70	0.00	0.00	0.00
Repayment during the year	29.15	31.84	32.25	32.25	32.25
Net Loan-Closing	387.66	366.51	334.26	302.02	269.77
Average Loan	371.92	377.08	350.39	318.14	285.89
Rate of Interest (%)	7.6760	7.6621	7.6215	7.5456	7.4533
Interest	28.55	28.89	26.70	24.01	21.31

Return on Equity("ROE")

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

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

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

“25. Tax on Return on Equity:

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”



32. The petitioner has computed ROE at the rate of 19.610% for 2014-15 and at the rate of 19.705% from 2015-16 onwards after grossing up the ROE with MAT rate as per the above Regulation for both Asset-A and Asset-B. The Petitioner has considered the MAT Rate of 20.96% for 2014-15 and MAT Rate of 21.34% from 2015-16 onwards. 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.

33. 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.

34. 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 petitioner has submitted that 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. The ROE allowed for Asset-A and Asset-B is given below:-

(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	10801.19	12254.92	12511.46	12511.46	12511.46
Additional Capitalization	1453.73	256.54	0.00	0.00	0.00
Closing Equity	12254.92	12511.46	12511.46	12511.46	12511.46
Average Equity	11528.05	12383.19	12511.46	12511.46	12511.46
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax rate for the year (%)	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)	2260.65	2428.34	2453.50	2453.50	2453.50

(₹ in lakh)					
Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	152.65	178.63	183.22	183.22	183.22
Additional Capitalization	25.98	4.58	0.00	0.00	0.00
Closing Equity	178.63	183.22	183.22	183.22	183.22
Average Equity	165.64	180.92	183.22	183.22	183.22
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax rate for the year (%)	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)	32.48	35.48	35.93	35.93	35.93

Depreciation

35. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the



generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis”

“(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

36. Clause (67) of Regulation 3 of the 2014 Tariff Regulations defines useful life as follows:-

“(67) **‘Useful life’** in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- (a) Coal/Lignite based thermal generating station 25 years
- (b) Gas/Liquid fuel based thermal generating station 25 years
- (c) AC and DC sub-station 25 years
- (d) Gas Insulated Substation (GIS) 25 years
- (d) Hydro generating station including pumped Storage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years”

37. The petitioner has claimed depreciation considering capital expenditure of ₹36003.97 lakh as on 1.4.2014 with additional capitalization of ₹4845.75 lakh and ₹855.13 lakh for 2014-15 and 2015-16 respectively for Asset-A. With respect to Asset-B the petitioner has claimed depreciation considering capital expenditure of ₹508.83 lakh as on 1.4.2014 with additional capitalization of ₹86.61 lakh and ₹15.28 lakh for 2014-15 and 2015-16 respectively.



38. We have considered the submissions of the petitioner and have computed depreciation considering capital expenditure as on 1.4.2014 and additional capitalization for 2014-15 and 2015-16 for Asset-A and Asset-B. The weighted average useful life of the asset has been considered as 35 years for Asset-A and Asset-B in accordance with the above regulation. The details of the depreciation allowed for Asset-A and Asset-B are given hereunder:-

(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	36003.97	40849.72	41704.85	41704.85	41704.85
Additional Capitalization	4845.75	855.13	0.00	0.00	0.00
Closing Gross block	40849.72	41704.85	41704.85	41704.85	41704.85
Average Gross block	38426.85	41277.29	41704.85	41704.85	41704.85
Rate of Depreciation (%)	5.280%	5.280%	5.280%	5.280%	5.280%
Depreciable Value	34584.16	37149.56	37534.37	37534.37	37534.37
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31
Remaining Depreciable Value	34584.16	35120.62	33325.99	31123.97	28921.95
Depreciation	2028.94	2179.44	2202.02	2202.02	2202.02

(₹ in lakh)					
Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	508.83	595.44	610.72	610.72	610.72
Additional Capitalization	86.61	15.28	0.00	0.00	0.00
Closing Gross block	595.44	610.72	610.72	610.72	610.72
Average Gross block	552.14	603.08	610.72	610.72	610.72
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	496.92	542.77	549.65	549.65	549.65
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31
Remaining Depreciable Value	496.92	513.62	488.65	456.41	424.16



Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	29.15	31.84	32.25	32.25	32.25

Operation & Maintenance Expenses (“O&M Expenses”)

39. The petitioner has computed normative O&M Expenses as per Regulation 29(4)(a) of the 2014 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M expenses for Asset-A and Asset-B have been worked out as given hereunder:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A					
Norm (₹ lakh/km)					
Single Circuit (Bundled Conductor with four sub conductors)	0.606	0.627	0.647	0.669	0.691
Line (km)					
765 kV S/C Bareilly Lucknow TL at 400 kV	251.61	251.61	251.61	251.61	251.61
Total O&M Expenses (Line) (₹ lakh)	152.48	157.76	162.79	168.33	173.86
Asset-B					
Norm (₹ lakh/km)					
Single Circuit (Bundled Conductor with four sub conductors)	0.606	0.627	0.647	0.669	0.691
Line (km)					
765 kV D/C Indore-Vadodara TL	1.53	1.53	1.53	1.53	1.53
Total O&M Expense (line) (₹ in lakh)	0.93	0.96	0.99	1.02	1.06

40. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future



date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

41. 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 (“IWC”)

42. As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

(i) Receivables

As per Regulation 28(1) (c) (i) of the 2014 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance Spares

Regulation 28 (1) (c) (ii) of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from



1.4.2014. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(iii) O & M Expenses

Regulation 28 (1) (c) (iii) of the 2014 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M Expenses for the instant asset and value of O & M Expenses has accordingly been worked out by considering 1 month O&M Expenses.

(iv) Rate of interest on working capital

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 transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later. Further, the 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. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

43. The interest on working capital allowed for Asset-A and Asset-B is shown in the table below:-



(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	22.87	23.66	24.42	25.25	26.08
O & M expenses	12.71	13.15	13.57	14.03	14.49
Receivables	1095.19	1148.31	1130.91	1100.54	1070.24
Total	1130.77	1185.12	1168.89	1139.82	1110.81
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	152.65	159.99	157.80	153.88	149.96

(₹ in lakh)					
Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.14	0.14	0.15	0.15	0.16
O & M expenses	0.08	0.08	0.08	0.09	0.09
Receivables	15.54	16.57	16.35	15.90	15.44
Total	15.76	16.80	16.58	16.14	15.69
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	2.13	2.27	2.24	2.18	2.12

Annual Transmission Charges

44. The detailed computation of the various components of the annual fixed charges for Asset-A and Asset-B for the tariff period 2014-19 is summarised below:-

(₹ in lakh)					
Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	36003.97	40849.72	41704.85	41704.85	41704.85
Additional Capitalization	4845.75	855.13	0.00	0.00	0.00
Closing Gross Block	40849.72	41704.85	41704.85	41704.85	41704.85
Average Gross Block	38426.85	41277.29	41704.85	41704.85	41704.85
Depreciation					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	34584.16	37149.56	37534.37	37534.37	37534.37
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31



Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Remaining Depreciable Value	34584.16	35120.62	33325.99	31123.97	28921.95
Depreciation	2028.94	2179.44	2202.02	2202.02	2202.02
Interest on Loan					
Gross Normative Loan	25202.78	28594.80	29193.40	29193.40	29193.40
Cumulative Repayment upto Previous Year	0.00	2028.94	4208.38	6410.39	8612.41
Net Loan-Opening	25202.78	26565.87	24985.02	22783.00	20580.98
Additions	3392.03	598.59	0.00	0.00	0.00
Repayment during the year	2028.94	2179.44	2202.02	2202.02	2202.02
Net Loan-Closing	26565.87	24985.02	22783.00	20580.98	18378.97
Average Loan	25884.32	25775.44	23884.01	21681.99	19479.98
Weighted Average Rate of Interest on Loan (%)	7.6357	7.6209	7.5755	7.4972	7.4032
Interest	1976.44	1964.31	1809.33	1625.54	1442.13
Return on Equity					
Opening Equity	10801.19	12254.92	12511.46	12511.46	12511.46
Additions	1453.73	256.54	0.00	0.00	0.00
Closing Equity	12254.92	12511.46	12511.46	12511.46	12511.46
Average Equity	11528.05	12383.19	12511.46	12511.46	12511.46
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14(%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	2260.65	2428.34	2453.50	2453.50	2453.50
Interest on Working Capital					
Maintenance Spares	22.87	23.66	24.42	25.25	26.08
O & M expenses	12.71	13.15	13.57	14.03	14.49
Receivables	1095.19	1148.31	1130.91	1100.54	1070.24
Total	1130.77	1185.12	1168.89	1139.82	1110.81
Interest	152.65	159.99	157.80	153.88	149.96
Annual Transmission Charges					
Depreciation	2028.94	2179.44	2202.02	2202.02	2202.02
Interest on Loan	1976.44	1964.31	1809.33	1625.54	1442.13
Return on Equity	2260.65	2428.34	2453.50	2453.50	2453.50
Interest on Working Capital	152.65	159.99	157.80	153.88	149.96
O & M Expenses	152.48	157.76	162.79	168.33	173.86
Total	6571.16	6889.84	6785.44	6603.26	6421.47



(₹ in lakh)

Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	508.83	595.44	610.72	610.72	610.72
Additional Capitalization	86.61	15.28	0.00	0.00	0.00
Closing Gross Block	595.44	610.72	610.72	610.72	610.72
Average Gross Block	552.14	603.08	610.72	610.72	610.72
Depreciation					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	496.92	542.77	549.65	549.65	549.65
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31
Remaining Depreciable Value	496.92	513.62	488.65	456.41	424.16
Depreciation	29.15	31.84	32.25	32.25	32.25
Interest on Loan					
Gross Normative Loan	356.18	416.81	427.50	427.50	427.50
Cumulative Repayment upto Previous Year	0.00	29.15	61.00	93.24	125.49
Net Loan-Opening	356.18	387.66	366.51	334.26	302.02
Additions	60.63	10.70	0.00	0.00	0.00
Repayment during the year	29.15	31.84	32.25	32.25	32.25
Net Loan-Closing	387.66	366.51	334.26	302.02	269.77
Average Loan	371.92	377.08	350.39	318.14	285.89
Weighted Average Rate of Interest on Loan (%)	7.6760%	7.6621	7.6215	7.5456	7.4533
Interest	28.55	28.89	26.70	24.01	21.31
Return on Equity					
Opening Equity	152.65	178.63	183.22	183.22	183.22
Additions	25.98	4.58	0.00	0.00	0.00
Closing Equity	178.63	183.22	183.22	183.22	183.22
Average Equity	165.64	180.92	183.22	183.22	183.22
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14(%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	32.48	35.48	35.93	35.93	35.93
Interest on Working Capital					
Maintenance Spares	0.14	0.14	0.15	0.15	0.16



Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses	0.08	0.08	0.08	0.09	0.09
Receivables	15.54	16.57	16.35	15.90	15.44
Total	15.76	16.80	16.58	16.14	15.69
Interest	2.13	2.27	2.24	2.18	2.12
Annual Transmission Charges					
Depreciation	29.15	31.84	32.25	32.25	32.25
Interest on Loan	28.55	28.89	26.70	24.01	21.31
Return on Equity	32.48	35.48	35.93	35.93	35.93
Interest on Working Capital	2.13	2.27	2.24	2.18	2.12
O & M Expenses	0.93	0.96	0.99	1.02	1.06
Total	93.24	99.44	98.11	95.38	92.66

Filing Fee and Publication Expenses

45. 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

46. 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.



Foreign Exchange Rate Variation

47. The petitioner has sought recovery of FERV on foreign loans deployed as provided in Clause 50 of the 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers/DICs as the case may be, in accordance with Clause 1 of Regulation 51 of the 2014 Tariff Regulations.

Service Tax

48. 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 are of the view that the petitioner's prayer of service tax is premature.

Sharing of Transmission Charges

49. 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.

50. This order disposes of Petition No. 107/TT/2014.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

Particulars (Asset-A)	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXIII-Loan-1-	8.64%	36	0	36.00
BOND XXXIV-Loan-2-	8.84%	1577	0	1577.00
BOND XXXV-Loan-3-	9.64%	327	0	327.00
BOND XXXVI-Loan-4-	9.35%	778	0	778.00
BOND XXXVII-Loan-5-	9.25%	2678	0	2678.00
BOND XXXVIII-Loan-6-	9.25%	726	0	726.00
BOND XXXIX-Loan-7-	9.40%	2236	0	2236.00
SBI (21.3.2012)-Loan 8	10.25%	1582.78	0	1582.78
BOND XXXL-Loan-9-	9.30%	4039	0	4039.00
FC-BOND (17.01.2013) Loan 13-60.61	4.10%	7833	0	7833.00
BOND XXXLIII-Loan-11-	7.93%	1890	0	1890.00
BOND XXXLV-Loan-12-	9.65%	1500	0	1500.00
Total		25202.78	0.00	25202.78

Particulars (Asset-B)	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXIII-Loan-1-	8.64%	0.5	0	0.50
BOND XXXIV-Loan-2-	8.84%	21.47	0	21.47
BOND XXXV-Loan-3-	9.64%	4.46	0	4.46
BOND XXXVI-Loan-4-	9.35%	10.59	0	10.59
BOND XXXVII-Loan-5-	9.25%	36.48	0	36.48
BOND XXXVIII-Loan-6-	9.25%	9.89	0	9.89
BOND XXXIX-Loan-7-	9.40%	30.44	0	30.44
SBI (21.3.2012)-Loan 13	10.25%	2.34	0	2.34
SBI (21.3.2012)-Loan 8	10.25%	19.74	0	19.74
BOND XL-Loan-9-	9.30%	55	0	55.00
FC-BOND (17.01.2013) Loan 10-60.61	4.10%	106.67	0	106.67
BOND XXXLIII-Loan-11-	7.93%	32.64	0	32.64
BOND XXXLV-Loan-12-	9.65%	25.96	0.00	330.22
Total		356.18	0.00	660.44



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

(₹ in lakh)

Particulars (Asset-A)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	25202.78	25202.78	25202.78	25202.78	25202.78
Cumulative Repayment of loan upto previous year	0	134.42	519.26	1436.44	2636.12
Net Loan Opening	25202.78	25068.36	24683.52	23766.34	22566.66
Additions during the year	0	0	0	0	0
Repayment during the year	134.42	384.84	917.18	1199.68	1199.68
Net Loan Closing	25068.36	24683.52	23766.34	22566.66	21366.98
Average Loan	25135.57	24875.94	24224.93	23166.5	21966.82
Rate of Interest (%)	7.6357%	7.6209%	7.5755%	7.4972%	7.4032%
Interest	1919.27	1895.76	1835.16	1736.84	1626.24

Particulars (Asset-B)	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	356.18	356.18	356.18	356.18	356.18
Cumulative Repayment of loan upto previous year	0	1.83	7.07	19.6	37.01
Net Loan Opening	356.18	354.35	349.11	336.58	319.17
Additions during the year	0	0	0	0	0
Repayment during the year	1.83	5.24	12.53	17.41	17.41
Net Loan Closing	354.35	349.11	336.58	319.17	301.76
Average Loan	355.265	351.73	342.845	327.875	310.465
Rate of Interest (%)	7.6760%	7.6621%	7.6215%	7.5456%	7.4533%
Interest	27.27	26.95	26.13	24.74	23.14

