

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 213/TT/2015**

**Coram:**

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

**Date of Order : 16.8.2016**

**In the matter of:**

Determination of transmission tariff for Asset I : 400 kV D/C Palatana-Silchar Twin Moose Conductor Transmission Line-247.39 km, Asset II: 400 kV D/C Silchar-Byrnihat (one circuit on D/C towers) Twin Moose Conductor Transmission Line-214.41 km, Asset III: 400 kV D/C Byrnihat-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line- 201 km, Asset IV: 400 kV D/C Silchar-Azara (one circuit on D/C towers) Twin Moose Conductor Transmission Line-256.41 km and Asset V: 400 kV D/C Azara-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line-159 km 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**

North East Transmission Company Limited,  
House No. 051358, Road No. 3,  
P.O- Dhaleswar, Agartala,  
West Tripura-799007

....Petitioner

Vs

1. Tripura State Electricity Corporation Limited,  
Bidyut Bhawan, North Banamaliupr,  
Agartala-799001



2. Assam Electricity Grid Corporation Limited,  
Bijulee Bhawan, Paltan Bazar, Guwahati-781001
  3. Meghalaya State Electricity Board.  
Lumjingshai, Short Round Road, Shilong-1
  4. Department of Power, Government of Nagaland,  
Kohima-797001
  5. Power & Electricity Department, Government of Mizoram,  
Aizwal-796001
  6. Electricity Department, Government of Manipur,  
Keishampat, Imphal-795001
  7. Department of Power, Government of Arunachal Pradesh,  
Itanagar-791111
  8. ONGC Tripura Power company Limited,  
ONGC Tripura Assets, Baarghat Complex,  
Agartala, Tripura-799014.
  9. North Eastern Regional Power Committee,  
Nongrim Hills, Shillong- 793003
- ...Respondents

For Petitioner : Shri Vishal Gupta, Advocate, NETCL  
Shri Rajesh Kumar, NETCL

For Respondents : None

**ORDER**

The instant petition has been filed by North East Transmission Company Limited (NETCL) for determination of transmission tariff for Asset I : 400 kV D/C Palatana-Silchar Twin Moose Conductor Transmission Line-247.39 km, Asset II: 400 kV D/C Silchar-Byrnihat (one circuit on D/C towers) Twin Moose Conductor Transmission Line- 214.41 km, Asset III: 400 kV D/C Byrnihat-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line- 201 km, Asset IV:



400 kV D/C Silchar-Azara (one circuit on D/C towers) Twin Moose Conductor Transmission Line- 256.41 km and Asset V: 400kV D/C Azara-Bongaigaon (one circuit on D/C towers) Twin Moose Conductor Transmission Line- 159 km for tariff block 2014-19 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. Investment Approval (IA) for the implementation of 400 kV D/C Pallatana-Bongaigaon Transmission Line project was accorded by the Board of Directors of North East Transmission Company Ltd. vide Board meetings dated 29.6.2009 at an estimated completion cost of ₹177010 lakh including IDC of ₹18380 lakh. The petitioner's Board of Directors revised the capital cost of the project thrice. The capital cost of the project was approved for the third time on 23.6.2015 at an estimated cost of ₹225500 lakh (RCE -3).

3. The petitioner was granted transmission license for the instant project vide order dated 16.6.2009 in Petition No. 16/2009. The petitioner initially filed Petition No. 224/TT/2012 seeking transmission tariff for 2009-14 tariff period for the following assets:- (a) Asset-I: 400 kV D/C Palatana-Silchar Twin Moose Conductor Transmission Line-247 km; (b) Asset-II: 400 kV D/C Silchar-Byrnihat Twin Moose Conductor Transmission Line-210 km; (c) Asset-III: 400 kV D/C Byrnihat-Bongaigaon Twin Moose Conductor Transmission Line-204 km associated with 726.6 MW (2\*363.3 MW) Gas Based Combined Cycle Power Project (GBCCPP) at Tripura of OPTCL. The petitioner had also prayed for grant of provisional tariff for



the three assets under 2009 Tariff Regulations. Provisional tariff for the said transmission assets was allowed vide order dated 26.9.2012.

4. NETCL later split the three assets into five assets as detailed below:-

Srl. No.	Name of the asset	COD
1.	Asset-I: 400 kV D/C Palatana-Silchar	1.9.2012
2.	Asset-II: 400 kV D/C Silchar-Byrnihat*	1.3.2013
3.	Asset-III: 400 kV D/C Byrnihat-Bongaigaon*	22.2.2015
4.	Asset-IV: 400 kV D/C Silchar-Azara*	27.7.2014
5.	Asset-V: 400 kV D/C Azara-Bongaigaon*	16.1.2015

\* One circuit on D/C towers.

5. As there was substantial change in the capital cost of the assets due to splitting of assets, Petition No.224/TT/2012 was disposed with a direction to the petitioner to file a revised petition as per the actual date of commercial operation and the relevant tariff regulations. However, the provisional tariff allowed vide order dated 26.9.2012 in Petition No.224/TT/2012 was allowed to continue in order to protect the commercial interest of NETCL. The relevant portion of the order is extracted hereunder:-

"18. The Commission has already granted provisional tariff for Asset I. The provisional tariff was also granted for two circuits of 400 kV Silchar-Byrnihat Twin Moose Conductor line. However, on account of non-commissioning of the second circuit of Silchar-Byrnihat line, the second circuit was removed from PoC charges. The petitioner has prayed for grant of modified provisional tariff after taking into account the split assets of Byrnihat-Azara and Azara-Bongaigaon. We find that the two assets namely, 400 kV D/C Palatana-Silchar transmission line and 400 kV S/C Silchar-Byrnihat transmission line have been commissioned during the tariff period 2009-14. Out of the remaining three assets, 400 kV S/C Silchar-Azara transmission line has been commissioned during 2014-19 tariff period and the other two assets are yet to be commissioned. Therefore, the assets are covered under two tariff periods. In respect of the assets commissioned during 2009-14 period, the petitioner has filed the claims on projection basis and has been granted provisional tariff. If the final tariff is granted now on the basis of projected information i.e. after the 2009-14 tariff period is over, the petitioner will be required to file true-up petition. This will prolong the process of determination of tariff of the assets. Similarly, in respect of the assets



which have been commissioned or are likely to be commissioned during 2014-19 period, the petitioner should be required to file the petition in accordance with the 2014 Tariff Regulations. In our view, it would be appropriate, if the present petition is disposed of with directions to the petitioner to file separate petitions for the assets commissioned during 2009-14 and 2014-19 periods in accordance with the applicable tariff regulations.

19. In view of the above, we direct the petitioner to file fresh petitions in accordance with the applicable regulations in respect of the assets of the project within one month from the date of issue of this order. Till the tariff is determined in accordance with the petitions to be filed by the petitioner, the provisional tariff granted vide order dated 26.9.2012 shall continue to be applicable in order to protect the commercial interests of the petitioner. "

6. Accordingly, the petitioner has filed Petition No. 213/TT/2015 claiming tariff for all the five assets for the 2014-19 tariff period under 2014 Tariff Regulations. The petitioner also filed Petition No. 233/TT/2015 on 11.9.2015 claiming tariff for Assets I and II as per the provisions of 2009 Tariff Regulations, seeking tariff for 2009-14 tariff period. The petitioner filed I.A. No. 25/IA/2016 seeking direction to refund the excess transmission charges received from the beneficiaries. The I.A. was disposed on 15.7.2016 directing the petitioner to refund the excess tariff collected from CTU and the CTU was directed to adjust the refunded amount in accordance with the Central Electricity Regulatory Commission Regulations (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. The transmission tariff for Assets I and II for the 2009-14 tariff period was allowed vide order dated 29.7.2016 in Petition No.233/TT/2015.

7. The petitioner has claimed the following transmission charges for the instant assets:-



(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2978.14	2985.41	2985.41	2985.41	2985.41
Interest on Loan	5724.26	6126.08	5825.05	5449.24	5086.95
Return on equity	2473.70	2485.69	2989.97	2989.97	2989.97
Interest on Working Capital	285.07	295.77	301.11	292.24	283.71
O & M Expenses	174.90	180.84	186.78	192.96	199.40
Total	11636.07	12073.79	12288.32	11909.82	11545.44
ASSET II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1571.23	1660.38	1660.38	1660.38	1660.38
Interest on Loan	3008.24	3219.41	3061.21	2863.71	2673.32
Return on equity	1300.04	1428.14	1717.88	1717.88	1717.88
Interest on Working Capital	153.48	164.32	167.85	163.32	158.96
O & M Expenses	151.59	156.73	161.88	167.24	172.81
Total	6184.58	6628.98	6769.20	6572.53	6383.35
ASSET III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	218.43	1974.49	1974.49	1974.49	1974.49
Interest on Loan	3641.38	3897.00	3705.50	3466.44	3235.97
Return on equity	1530.63	1581.31	1902.12	1902.12	1902.12
Interest on Working Capital	140.90	191.88	195.35	189.77	184.41
O & M Expenses	142.11	146.93	151.76	156.78	162.01
Total	5673.45	7791.61	7929.22	7689.60	7459.00
ASSET IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1602.57	2185.55	2185.55	2185.55	2185.55
Interest on Loan	4093.43	4380.78	4165.51	3896.77	3637.69
Return on equity	1561.00	1561.00	1869.00	1869.00	1869.00
Interest on Working Capital	189.10	210.86	213.50	207.27	201.29
O & M Expenses	181.28	187.44	193.59	200.00	206.67
Total	7627.38	8525.63	8627.15	8358.59	8100.20
ASSET V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	336.12	1610.85	1610.85	1610.85	1610.85
Interest on Loan	2843.36	3042.96	2893.43	2706.76	2526.80
Return on equity	1191.36	1815.11	2183.36	2183.36	2183.36
Interest on Working Capital	114.08	165.89	171.49	167.13	162.95
O & M Expenses	112.41	116.23	120.05	124.02	128.15
Total	4597.33	6751.04	6979.18	6792.12	6612.11



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

(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	26.24	27.13	28.02	28.94	29.91
O & M expenses	14.58	15.07	15.56	16.08	16.62
Receivables	1891.83	1963.00	1997.87	1936.26	1876.95
Total	1932.65	2005.20	2041.45	1981.28	1923.48
Interest	285.07	289.75	294.99	286.29	277.94
Rate of Interest	14.75%	14.45%	14.45%	14.45%	14.45%
ASSET II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	22.74	23.51	24.28	25.09	25.92
O & M expenses	12.63	13.06	13.49	13.94	14.40
Receivables	1005.19	1077.44	1100.22	1068.20	1037.40
Total	1040.56	1114.01	1137.99	1107.23	1077.72
Interest	153.48	164.32	167.35	163.32	158.96
Rate of Interest	14.45%	14.45%	14.45%	14.45%	14.45%
ASSET III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	21.32	22.04	22.76	23.52	24.30
O & M expenses	11.84	12.24	12.65	13.07	13.50
Receivables	922.09	1266.62	1288.98	1249.97	1212.43
Total	<b>955.25</b>	<b>1300.90</b>	<b>1324.39</b>	<b>1286.56</b>	<b>1250.23</b>
Interest	138.03	187.98	191.37	185.91	180.66
Rate of Interest	14.45%	14.45%	14.45%	14.45%	14.45%
ASSET IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	27.19	28.12	29.04	30.00	31.00
O & M expenses	15.11	15.62	16.13	16.67	17.22
Receivables	1239.71	1385.79	1402.28	1358.55	1316.49
Total	1282.01	1429.53	1447.45	1405.22	1364.71
Interest	189.10	206.57	209.16	203.05	197.20
Rate of Interest	14.75%	14.45%	14.45%	14.45%	14.45%
ASSET V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	16.86	17.43	18.01	18.60	19.22
O & M expenses	9.37	9.69	10.00	10.34	10.68
Receivables	747.21	1097.52	1134.61	1104.16	1074.86
Total	773.44	1124.64	1162.62	1133.10	1104.76
Interest	0.00	162.51	168.00	163.73	159.64
Rate of Interest	0.00%	14.45%	14.45%	14.45%	14.45%



9. The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper.

10. Having heard the representatives of the petitioner present at the hearing and perused the material on record, we proceed to dispose of the petition.

### **Capital cost**

11. Regulation 9(2) and (3) of the 2014 Tariff Regulations provides as follows:-

"(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 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.

(3) The Capital cost of an existing project shall include the following:

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."





12. Capital cost has been considered as per Regulation 9(2) and (3) of the 2014 Tariff Regulations. The petitioner has submitted Auditor's Certificate dated 28.7.2015 vide affidavit dated 31.7.2015 which shows the capital cost claimed by the petitioner as on actual COD and estimated additional capitalization projected to be incurred for instant assets. The details of the revised apportioned capital cost and the estimated completion cost claimed by the petitioner is as follows:-

(₹ in lakh)

	Approved apportioned cost As per RCE-3	Expenditure incurred up to COD	Add Cap / Projected Add-Cap				Total estimated completion cost
			2012-13	2013-14	2014-15	2015-18	
Asset I	63070.00	59756.00	185.27	1220.56	1755.30	153.00	63070.13
Asset II	34941.00	30973.00	880.53	586.00	625.00	1876.00	34941.53
Asset III	41851.00	39690.00	-	-	334.00	1827.00	41851.00
Asset IV	45992.00	44381.00	-	-	611.00	1000.00	45992.00
Asset V	34198.00	30934.00	-	-	318.00	2946.00	34198.00

The capital cost has been verified from the audited statements of accounts of NETCL, by the Auditor, up to 31.3.2015.

#### Cost increase

13. The estimated completion cost of the project as per the Investment Approval dated 29.6.2009 was ₹177010 lakh and it has been revised by the Board of Directors of the petitioner on 23.6.2015 vide RCE-3 to ₹225500 lakh.

14. In response to a query during the hearing on 28.1.2016 regarding the reasons for increase in the cost of instant assets, the representative of the petitioner submitted that the increase in costs was on account of various reasons such as hilly terrain, reserve forests and unavoidable diversions, low lying/water logging areas and increase in number of angle towers etc. The petitioner was



directed to submit the detailed break-up of approved costs under various heads/sub-heads and the completed cost of the instant assets.

15. The petitioner, vide affidavit dated 5.3.2016, has submitted the following reasons for variation in cost of the various elements of the project:-

(₹ in lakh)

Description	IA dated 29.6.2009	RCE dated 23.6.2015	Variation	Remarks
Compensation towards crop, tree and PTCC	850	11245	10395	As per FR, the compensation of ₹850 lakh towards tree, hut and crop was estimated on normative basis @ ₹1 lakh/km for 201 km in Palatana-Silchar section and 318 km in Silchar-Bongaigaon sections. The actual compensation certified by Revenue Authorities for the particular districts was paid ₹11245 lakh.
Colony and corporate office/Regional Office for transmission Line	620	1200	580	As against provision of ₹600 lakh, the amount has been revised to ₹1200 lakh in REC since the land cost in Agartala, Silchar and Guwahati have increased considerably since 2008 when FR was prepared and Silchar and Guwahati land is yet to be purchased. The land purchased in Agartala is for ₹247 lakh
Transmission Line	126760	137641	10881	Low lying/water logging area, hilly terrains and reserve forest in Tripura. Diversion due to mobile towers, increase in number of angle towers, power line crossings. Diversion due to severe RoW problems. Route diversion to keep line away from Shillong Airport. To avoid terminal area of inland Water Authority of India near Brahmaputra. Alignment diverted to avoid house, market area and Misa-Byrnihat 220 kV transmission line. No. of towers have increased from 1756 to 1836. All these factors resulted in increase of T/L cost of ₹126776 lakh in



				Investment Approval to ₹137641 lakh i.e. an increase of ₹10881 lakh (8.58%)
ERS	430	1147	771	Cost of ERS as per the lowest offer in International Competitive Bidding and actual custom duty paid.
Project management Consultancy	13140	17176	4036	Since the cost of T/L and tree, hut and crop compensation has been increased, the consultancy fee and POWERGRID also increased from ₹13140 lakh to ₹17176 lakh.

16. We have considered the submissions of the petitioner. As per RCE-3, there is no cost over-run in case of instant assets. It is observed that the project cost increased due to increase in compensation towards crop, tree and PTCC, transmission line cost, ERS and project management consultancy cost. We are of the view that the aforementioned reasons are beyond the control of the petitioner and therefore, the cost variation is allowed.

#### Time Over-run

17. As per IA dated 29.6.2009, the project was scheduled to be commissioned within 32 months from the date of IA. Accordingly, the schedule date of commissioning works out 29.2.2012, i.e. 1.3.2012. The details of commissioning of the assets is as under:-

Srl. No.	Asset	Schedule COD as per Investment Approval (IA)	COD	Delay
1	Asset-I	1.3.2012	1.9.2012	6 months
2	Asset-II	1.3.2012	1.3.2013	1 year
3	Asset-III	1.3.2012	22.2.2015	35 months & 21 days
4	Asset-IV	1.3.2012	27.7.2014	28 months & 26 days
5	Asset-V	1.3.2012	16.1.2015	34 months & 15 days



18. The time over-run of 6 months and one year in case of Assets I and II respectively was already considered in Petition No.233/TT/2015 and condoned. Hence, the same is not dealt in this order. The reasons for time over-run in case of Assets III, IV and V are considered below.

**Asset-III**

a) There was delay in construction of loop out arrangement at Byrnihat by Meghalaya State Electricity Board. It was completed by them in February, 2015. NERLDC, vide letter dated 17.2.2015, has approved charging and trial run of 400 kV D/C Byrnihat-Bongaigaon by MeSEB.

b) Delay in forest clearance

Forest clearance (1st and 2nd stage) was pending for a stretch of 1.174 km (2 tower locations) in Goalpara Division of Assam for which the case was submitted in August, 2012 and clarifications were submitted on 29.11.2012. This stretch of forest was earlier declared by Assam Forest Department as non-forest area during the processing of original proposal but subsequently it was indicated that it is forest and therefore fresh forest clearance was required. Permission for cutting of about 44 nos. of trees was received only on 5.7.2014 after the 2nd stage forest clearance in Aie-valley division in Assam and the permission for working in the forest was finally received on 3.11.2014 from Assam Forest Department. This asset was finally commissioned on 22.2.2015 on completion of loop out arrangement at Byrnihat by Meghalaya State Electricity Board in February, 2015. Therefore, the delay is not attributable to NETCL.



#### **Asset- IV**

- A. This section Silchar-Azara (second ckt. of 400 kV D/C) could not be commissioned in tandem with asset II Silchar – Byrnihat (first ckt. of 400 kV D/C), commissioned on 1.3.2013, since the LILO arrangement was not made ready by AEGCL. Further, Regional Institute of Science and Technology Meghalaya (RIST) did not allow the transmission line passing over the RIST campus inspite of NETCL having authorisation under Section 164 of Electricity Act, 2003. RIST filed petition in this regard in April, 2013 where the petitioner was directed to approach appropriate Electricity Regulatory Commission vide order dated 9.4.2013. RIST erroneously approached Meghalaya State Electricity Commission who directed vide order dated 6.5.2013 to approach the Central Commission. However, RIST failed to approach Central Commission and therefore NETCL filed petition in Central Commission on 29.5.2013. The Commission vide order 10.3.2014 allowed NETCL to resume work. However, RIST filed appeal an APTEL on 25.3.2014 where Commission's order for allowing construction by NETCL was stayed.
- B. The section Silchar- Azara (second ckt. of 400 kV D/C) was finally commissioned on 27.7.2014 subsequent to vacationing of stay by APTEL on 3.6.2014 and upon LILO having been made ready by AEGCL in June, 2014. Therefore, delay is not attributable to NETC.



## **Asset- V**

Azara-Bongaigaon (second ckt of 400 kV D/C) section could not be commissioned due to delay in LILO at Azara by AEGCL and delay in forest clearance. The details are as follows:-

- A. Forest clearance (1st and 2nd stage) was pending for a stretch of 1.174 km (2 tower locations) in Goalpara division of Assam for which the case was submitted in August, 2012 and clarifications were submitted on 29.11.2012. This particular stretch of forest was earlier declared by Assam Forest Department as non-forest area during the processing of original proposal but subsequently it was indicated that it was forest and therefore the need for fresh forest clearance was required. The permission for working in the forest was finally received on 3.11.2014 from Assam Forest Department.
- B. Permission for felling of about 44 nos. of trees after the 2nd stage forest clearance in Aie-valley division in Assam was received on 5.7.2014. This stretch of forest was earlier declared by Assam Forest Department as non-forest area during the processing of original proposal but subsequently it was indicated that it is forest and therefore fresh forest clearance was required. Azara-Bongaigaon could be finally commissioned on 16.1.2015 after forest clearance and making ready the LILO at Azara by AEGCL in June, 2014. Therefore, delay is not attributable to NETC.

19. We have considered the submissions of the petitioner. In respect of Asset-III, the petitioner has submitted that the time over-run of 35 months and 21 days is due



to delay in construction of loop out arrangement and in forest clearance. On perusal of the documents submitted by the petitioner, it is observed that delay was on account of the loop out arrangement at Byrnihat by MeSEB and the forest clearance (1st and 2nd stage) for stretch of 1.174 km. (2 tower locations) in Goalpara Division of Assam. The case was submitted in August, 2012 and clarifications were submitted on 29.11.2012. The permission for working in the forest was finally received on 3.11.2015 from Assam Forest Department. The petitioner commissioned the Asset-III on 22.2.2015 after the completion of loop out arrangement at Byrnihat by MeSEB and forest clearance by Assam Forest Department. We are of the view that these factors were beyond the control of the petitioner, therefore, the complete time over-run of 35 months and 21 days in respect of Asset-III is condoned.

20. As regards Asset-IV, the petitioner has submitted that there is time over-run of 28 months and 26 days as LILO arrangement was not made by AEGCL and the stay was granted by APTEL. On perusal of the submissions made by the petitioner in respect of time over-run, it is observed that the loop out arrangement at Azara was made ready by AEGCL in June, 2014 and stay was vacated by APTEL on 3.6.2014. The Asset IV Silchar-Azara (second ckt. of 400 kV D/C) was finally commissioned on 27.7.2014 after the stay was vacated by APTEL and LILO was made ready by AEGCL. We are of the view that these factors were beyond the control of the petitioner therefore, the complete time over-run of 28 months and 26 days in respect of Asset-IV is condoned.



21. As regards Asset-V, the petitioner has submitted that the time over-run of 34 months and 15 days is on account of LILO arrangement at Azara not made by AEGCL and delay in forest clearance. On perusal of the documents submitted by the petitioner in respect of delay, it is noted that the loop out arrangement at Azara was made ready by AEGCL in June, 2014 and the permission for working in the forest was finally received on 3.11.2014 from Assam Forest Department. The Asset-V Azara-Bongaigaon was finally commissioned on 16.1.2015 after the above forest clearance and making ready the LILO at Azara by AEGCL. We are of the view that these factors were beyond the control of the petitioner, therefore, the complete time over-run of 34 months and 15 days in respect of Asset-V is condoned.

#### Treatment of IDC

22. The petitioner has submitted the tariff forms (in the original petition) for all the assets vide affidavit dated 31.7.2015. The petitioner was directed, vide ROP dated 4.12.2015, to submit the Form-4A for all the assets, besides other information. In response, the petitioner (NETCL) vide affidavit dated 8.1.2016, submitted the Form-4A and other information including IDC of all the assets. The document submitted (Form-4A) do not show the 'Amount of Liabilities' in the Gross Block of capital cost as on COD, for any asset. Therefore, the details of actual IDC (cash basis) discharged up to COD and the IDC to be discharged after COD, were not available for Assets-III, IV and V , while for Assets-I and II the information was submitted vide affidavit dated 15.7.2016. In the absence of sufficient information regarding the IDC discharged as on COD and IDC to be discharged after COD, provisionally, it is





being assumed that the total IDC claimed has been discharged as on COD for the Assets-III, IV and V (For assets – I and II, IDC has already been dealt in Petition No. 233/TT/2015). The information submitted by the petitioner is insufficient to work out the IDC as on COD for the assets i.e. individual schedule of date of drawl of PFC Loan for each asset and the schedule of interest rates being charged by the lender from the first date of drawl to the last date of drawl of the loan. Therefore, in the instant petition, the claimed IDC for Assets-III, IV and V, are being allowed to be capitalised as on COD provisionally and would be reviewed at the time of truing-up, on submission of the IDC calculations separately for each asset.

23. The details of IDC claimed by the petitioner and allowed as on COD is given hereunder:-

(₹ in lakh)

IDC		
	Claimed	Allowed
Asset I	In Petition no. 233/TT/2015	
Asset II		
Asset III	9973.00	9973.00
Asset IV	9953.00	9953.00
Asset V	7596.00	7596.00

### **Treatment of IEDC**

24. The petitioner has submitted the brief of the disbursement of IEDC in case of all the assets vide affidavit dated 8.1.2016. In the absence of the detailed computation of IEDC and estimated IEDC limit (%) ( which is assigned at the time of project approval), 5.00 % of the hard cost is considered as the allowable limit of IEDC, which is the IEDC limit applied in most of the transmission petitions received. Therefore, in the current petition, 5.00% of the hard cost is being taken as IEDC



limit and the claimed IEDC in Assets–III, IV and V are within the limits and hence being allowed as under:-

(₹ in lakh)

IEDC		
	Claimed	Allowed
<b>Asset I</b>	In Petition no. 233/TT/2015	
<b>Asset II</b>		
<b>Asset III</b>	437.00	437.00
<b>Asset IV</b>	507.00	507.00
<b>Asset V</b>	344.00	344.00

25. The petitioner has not claimed any initial spares for the instant assets.

26. The capital cost, as on COD, considering the IDC and IEDC on cash basis, considered for the purpose of tariff computation is as follows:-

(₹ in lakh)

Assets	Capital cost as on COD	Less: IDC and IEDC claimed	Add: IDC on cash basis allowed	Add: IEDC allowed	Capital cost as on COD considered for tariff
Asset I	<b>Covered in Petition No. 233/TT/2015</b>				
Asset II	<b>Covered in Petition No. 233/TT/2015</b>				
Asset III	39690.00	10410.00	9973.00	437.00	39690.00
Asset IV	44381.00	10460.00	9953.00	507.00	44381.00
Asset V	30934.00	7940.00	7596.00	344.00	30934.00

### **Additional capital expenditure**

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

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

- (i) Undischarged liabilities recognised to be payable at a future date;
- (ii) Works deferred for execution;



- (iii) Procurement of initial capital spares within the original scope of work, in
- (iv) accordance with the provisions of Regulation 13;
- (v) Liabilities to meet award of arbitration or for compliance of the order or
- (vi) decree of a court; and
- (vii) 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.”

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

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

29. The cut-off date in case of Assets-III, IV and V are 31.3.2018, 31.3.2017 and 31.3.2018 respectively.

30. The instant additional capitalization incurred/ projected to be incurred in the instant asset is on account of Balance/ Retention payments as per Regulation 14 of the 2014 Tariff Regulations. The additional capitalization in case of Assets I, II, III, IV and V as claimed by the petitioner is given as under:-

(₹ in lakh)

Assets	Actual Capital Expenditure			
	COD to 1.3.2013	2013-14	2014-15	2015-16
Asset-1	185.27	1220.56	1755.30	153.00
Asset-II	881.00	586.00	625.00	1876.00



Assets	Actual Capital Expenditure	
	COD to 31.3.15	1.4.15 to 31.3.18
Asset-III	334.00	1827.00
Asset-IV	611.00	1000.00
Asst-V	318.00	2946.00

31. The cut-off date for the Asset-I and Asset-II is 31.3.2015 and 31.3.2016. The add-cap for 2015-16 in case of Asset-I is not being allowed as per Clause 3 of Regulation 14 of 2014 Tariff Regulations, as it is beyond the cut-off date of the asset and no proper justification for the same has been submitted by the petitioner. It may be allowed at the time of truing-up, subject to submission of proper justification for the same under the mentioned Regulation. Further, the petitioner was directed to submit funding of add-cap after COD. The petitioner has submitted the draw down and equity infusion details. This document, however, has no details of funding of additional capital expenditure from 2015-16 to 2018-19 for all the assets. In the absence of funding details, additional capital expenditure for 2015-16, 2016-17 and 2017-18 is not being allowed.

(₹ in lakh)

	Admitted capital cost as on 31.3.2014/ capital cost as on COD*	Add Cap / Projected Add Cap				Total estimated capital cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	
Asset I	61161.83	1755.30	0.00	0.00	0.00	62917.13
Asset II	32440.00	625.00	0.00	0.00	0.00	33065.00
Asset III	39690.00	334.00	0.00	0.00	0.00	40024.00
Asset IV	44381.00	611.00	0.00	0.00	0.00	44992.00
Asset V	30934.00	318.00	0.00	0.00	0.00	31252.00

\*Admitted capital cost as on 31.3.2014 for Assets-I and II and capital cost as on COD for Asset-III, IV and V.



32. The petitioner is directed to submit the funding details for additional capital expenditure for all the assets at the time of true-up.

**Debt- equity ratio**

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

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

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

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

(2) The generating company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt:equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending



31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

34. As per clause 3 of Regulation 19 of the 2014 Tariff Regulations, the Debt : Equity ratio considered as on 31.3.2014 for Assets-I and II in Petition No. 233/TT/2015 is being considered as on 1.4.2014. For subsequent years, the Debt: Equity ratio has been considered as per Clause 1 of Regulation 19 of Tariff Regulation' 2014. In case of Assets-III, IV and V, the Debt: Equity ratio is considered as per Clause 1 of Regulation 19 of 2014 Tariff Regulations. The Debt: Equity ratio in case of instant assets is given below:-

(₹ in lakh)

Asset I				
Particulars	%	As on 1.4.2014	%	As on 31.3.2019
Debt	80.00	48930.87	79.89	50264.90
Equity	20.00	12230.96	20.11	12652.23
Total	100.00	61161.83	100.00	62917.13
Asset II				
Particulars	%	As on 1.4.2014	%	As on 31.3.2019
Debt	80.00	25952.75	79.23	26427.75
Equity	20.00	6487.25	20.07	6637.25
Total	100.00	32440.00	100.00	33065
Asset III				
Particulars	%	As on COD	%	As on 31.3.2019
Debt	80.00	31752.00	79.97	32009.18
Equity	20.00	7938.00	20.03	8014.82
Total	100.00	39690.00	100.00	40024.00
Asset IV				
Particulars	%	As on COD	%	As on 31.3.2019
Debt	80.00	35504.80	79.98	35985.72
Equity	20.00	8876.20	20.02	9006.28
Total	100.00	44381.00	100.00	44992.00
Asset V				
Particulars	%	As on COD	%	As on 31.3.2019
Debt	80.00	24747.20	80.00	25001.60
Equity	20.00	6186.80	20.00	6250.40



Total	100.00	30934.00	100.00	31252.00
-------	--------	----------	--------	----------

The petitioner has claimed add-cap for 2014-15 in the debt-equity ratio of 76:24, 76:24, 77:23, 78.71:21.29 and 80:20 for Assets I, II, III, IV and V respectively. The same has been allowed.

### **Return on Equity (ROE)**

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

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

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

Provided that:

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
- (v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- (vi) additionalRoE 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.”

36. Return on Equity has been worked out for all the assets as per Regulation 24 of 2014 Tariff Regulations. The MAT rate used for the whole period 2014-19 in our calculation, was based on the MAT rate of 2013-14, which would be updated at the time of truing-up.

37. The details of RoE calculated are as follows:-

(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	12230.96	12652.23	12652.23	12652.23	12652.23
Addition due to Additional Capitalization	421.27	0.00	0.00	0.00	0.00
Closing Equity	12652.23	12652.23	12652.23	12652.23	12652.23
Average Equity	12441.59	12652.23	12652.23	12652.23	12652.23
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%





Return on Equity (Pre Tax)	2439.80	2481.10	2481.10	2481.10	2481.10
<b>ASSET II</b>					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	6487.25	6637.25	6637.25	6637.25	6637.25
Addition due to Additional Capitalization	150.00	0.00	0.00	0.00	0.00
Closing Equity	6637.25	6637.25	6637.25	6637.25	6637.25
Average Equity	6562.25	6637.25	6637.25	6637.25	6637.25
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	1286.86	1301.57	1301.57	1301.57	1301.57
<b>ASSET III</b>					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	7938.00	8014.82	8014.82	8014.82	8014.82
Addition due to Additional Capitalization	76.82	0.00	0.00	0.00	0.00
Closing Equity	8014.82	8014.82	8014.82	8014.82	8014.82
Average Equity	7976.41	8014.82	8014.82	8014.82	8014.82
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	162.85	1571.71	1571.71	1571.71	1571.71
<b>ASSET IV</b>					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	8876.20	9006.28	9006.28	9006.28	9006.28
Addition due to Additional Capitalization	130.08	0.00	0.00	0.00	0.00
Closing Equity	9006.28	9006.28	9006.28	9006.28	9006.28
Average Equity	8941.24	9006.28	9006.28	9006.28	9006.28
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	1191.34	1766.13	1766.13	1766.13	1766.13



ASSET V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	6186.80	6250.40	6250.40	6250.40	6250.40
Addition due to Additional Capitalization	63.60	0.00	0.00	0.00	0.00
Closing Equity	6250.40	6250.40	6250.40	6250.40	6250.40
Average Equity	6218.60	6250.40	6250.40	6250.40	6250.40
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	250.58	1225.70	1225.70	1225.70	1225.70

### **Interest on Loan (IOL)**

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

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

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting 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.”



39. The interest on loan has been worked out as detailed below:-

- i. Gross amount of loan, repayment of installments, rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.
- ii. The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.
- iii. Weighted average rate of interest on actual average loan worked out as per (i) above, is applied on the notional average loan during the year to arrive at the interest on loan.

40. Accordingly, the interest on loan has been calculated considering the PFC loan submitted in Form-9C for each asset and the Interest of the loan has been considered as 12.25 % for all the assets for whole period 2014-19, as per the claim. Differences in calculation in petitioner's 'claims' and the 'worked out' interest on loan component of the Annual Fixed Charges would be reviewed at the time of truing-up and submission of the documentary proof of the same by the petitioner.

41. Detailed calculations in support of the weighted average rates of interest have been given in Annexure to this order.

42. Based on the above, interest on loan has been calculated as given below:-

(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	48930.87	50264.90	50264.90	50264.90	50264.90
Cumulative Repayment upto Previous Year	5028.93	8298.11	11607.13	14916.15	18225.17
Net Loan-Opening	43901.95	41966.79	38657.77	35348.75	32039.74
Addition due to Additional capitalisation	1334.03	0.00	0.00	0.00	0.00
Repayment during the year	3269.18	3309.02	3309.02	3309.02	3309.02



Net Loan-Closing	41966.79	38657.77	35348.75	32039.74	28730.72
Average Loan	42934.37	40312.28	37003.26	33694.24	30385.23
Weighted Average Rate of Interest on Loan	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	5259.46	4938.25	4532.90	4127.55	3722.19
<b>ASSET II</b>					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	25952.75	26427.75	26427.75	26427.75	26427.75
Cumulative Repayment upto Previous Year	1824.38	3553.72	5299.55	7045.38	8791.21
Net Loan-Opening	24128.36	22874.03	21128.20	19382.37	17636.54
Addition due to Additional capitalisation	475.00	0.00	0.00	0.00	0.00
Repayment during the year	1729.33	1745.83	1745.83	1745.83	1745.83
Net Loan-Closing	22874.03	21128.20	19382.37	17636.54	15890.70
Average Loan	23501.20	22001.12	20255.28	18509.45	16763.62
Weighted Average Rate of Interest on Loan	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	2878.90	2695.14	2481.27	2267.41	2053.54
<b>ASSET III</b>					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	31752.00	32009.18	32009.18	32009.18	32009.18
Cumulative Repayment upto Previous Year	0.00	219.09	2332.36	4445.63	6558.89
Net Loan-Opening	31752.00	31790.09	29676.82	27563.55	25450.29
Addition due to Additional capitalisation	257.18	0.00	0.00	0.00	0.00
Repayment during the year	219.09	2113.27	2113.27	2113.27	2113.27
Net Loan-Closing	31790.09	29676.82	27563.55	25450.29	23337.02
Average Loan	31771.04	30733.45	28620.19	26506.92	24393.65
Weighted Average Rate of Interest on Loan	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	405.19	3764.85	3505.97	3247.10	2988.22
<b>ASSET IV</b>					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	35504.80	35985.72	35985.72	35985.72	35985.72
Cumulative Repayment upto Previous Year	0.00	1603.13	3978.71	6354.29	8729.86
Net Loan-Opening	35504.80	34382.59	32007.01	29631.43	27255.85
Addition due to Additional capitalisation	480.92	0.00	0.00	0.00	0.00
Repayment during the year	1603.13	2375.58	2375.58	2375.58	2375.58
Net Loan-Closing	34382.59	32007.01	29631.43	27255.85	24880.28
Average Loan	34943.69	33194.80	30819.22	28443.64	26068.07
Weighted Average Rate of Interest on Loan	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	2908.46	4066.36	3775.35	3484.35	3193.34
<b>ASSET V</b>					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	24747.20	25001.60	25001.60	25001.60	25001.60
Cumulative Repayment upto Previous Year	0.00	337.34	1987.44	3637.55	5287.65
Net Loan-Opening	24747.20	24664.26	23014.16	21364.05	19713.95
Addition due to Additional capitalisation	254.40	0.00	0.00	0.00	0.00
Repayment during the year	337.34	1650.11	1650.11	1650.11	1650.11
Net Loan-Closing	24664.26	23014.16	21364.05	19713.95	18063.84



Average Loan	24705.73	23839.21	22189.10	20539.00	18888.89
Weighted Average Rate of Interest on Loan	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	621.87	2920.30	2718.17	2516.03	2313.89

### **Depreciation**

43. Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

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

(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."

44. The petitioner vide affidavit dated: 31.7.2015, had submitted the tariff forms for all the assets for 2014-19 period. The petitioner has claimed depreciation on the 'Depreciable Value' each year (for all assets), instead of calculating it on 'Average



Gross Block' of the capital cost each year. Therefore, there are differences in the 'claims' and the 'worked out' of the Depreciation component of the Annual Fixed Charges. The depreciation for all the assets have been calculated as per Regulation 27 of 2014 Tariff Regulations, where Straight Line Method (SLM) is being considered up to first 12 years and after that the remaining depreciable value of the assets would be spread over the remaining useful life of the asset. Based on the above, the depreciation has been considered are as follows:-

(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	61161.83	62917.13	62917.13	62917.13	62917.13
Addition during 2014-19 due to projected additional capitalization	1755.30	0.00	0.00	0.00	0.00
Closing Gross Block	62917.13	62917.13	62917.13	62917.13	62917.13
Average Gross Block	62039.48	62917.13	62917.13	62917.13	62917.13
Rate of Depreciation	5.2695%	5.2593%	5.2593%	5.2593%	5.2593%
Depreciable Value	55724.70	56403.75	56403.75	56403.75	56403.75
Remaining Depreciable Value	50695.77	48105.64	44796.62	41487.60	38178.58
Depreciation	3269.18	3309.02	3309.02	3309.02	3309.02
ASSET II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	32440.00	33065.00	33065.00	33065.00	33065.00
Addition during 2014-19 due to Projected Additional Capitalization	625.00	0.00	0.00	0.00	0.00
Closing Gross Block	33065.00	33065.00	33065.00	33065.00	33065.00
Average Gross Block	32752.50	33065.00	33065.00	33065.00	33065.00
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	29477.25	29758.50	29758.50	29758.50	29758.50
Remaining Depreciable Value	27652.87	26204.78	24458.95	22713.12	20967.29
Depreciation	1729.33	1745.83	1745.83	1745.83	1745.83
ASSET III					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	39690.00	40024.00	40024.00	40024.00	40024.00
Addition during 2014-19 due to Projected Additional Capitalization	334.00	0.00	0.00	0.00	0.00
Closing Gross Block	40024.00	40024.00	40024.00	40024.00	40024.00
Average Gross Block	39857.00	40024.00	40024.00	40024.00	40024.00



Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	35871.30	36021.60	36021.60	36021.60	36021.60
Remaining Depreciable Value	35871.30	35802.51	33689.24	31575.97	29462.71
Depreciation	219.09	2113.27	2113.27	2113.27	2113.27
<b>ASSET IV</b>					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	44381.00	44992.00	44992.00	44992.00	44992.00
Addition during 2014-19 due to Projected Additional Capitalization	611.00	0.00	0.00	0.00	0.00
Closing Gross Block	44992.00	44992.00	44992.00	44992.00	44992.00
Average Gross Block	44686.50	44992.00	44992.00	44992.00	44992.00
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	40217.85	40492.80	40492.80	40492.80	40492.80
Remaining Depreciable Value	40217.85	38889.67	36514.09	34138.51	31762.94
Depreciation	1603.13	2375.58	2375.58	2375.58	2375.58
<b>ASSET V</b>					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	30934.00	31252.00	31252.00	31252.00	31252.00
Addition during 2014-19 due to Projected Additional Capitalization	318.00	0.00	0.00	0.00	0.00
Closing Gross Block	31252.00	31252.00	31252.00	31252.00	31252.00
Average Gross Block	31093.00	31252.00	31252.00	31252.00	31252.00
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	27983.70	28126.80	28126.80	28126.80	28126.80
Remaining Depreciable Value	27983.70	27789.46	26139.36	24489.25	22839.15
Depreciation	337.34	1650.11	1650.11	1650.11	1650.11

### **Operation & Maintenance Expenses (O&M Expenses)**

45. Regulation 29 of 2014 Tariff Regulations specifies the following O&M Expenses for the assets covered in the instant petition :-

Element/ Year	2014-15	2015-16	2016-17	2017-18	2018-19
Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.780	0.806

46. The O&M Expenses claimed by the petitioner is as under:





(₹ in lakh)

Sl. No	Asset	O&M expenses claimed by the petitioner					
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Asset-I	193.71	174.90	180.84	186.78	192.96	199.40
2	Asset-II	167.88	151.59	156.73	161.88	167.24	172.81

Sl. No	Asset	O&M expenses claimed by the petitioner				
		2014-15	2015-16	2016-17	2017-18	2018-19
3	Asset-III	142.11	146.93	151.76	156.78	162.01
4	Asset-IV	181.28	187.44	193.59	200.00	206.67
5	Asset-V	112.41	116.23	120.05	124.02	128.15

47. The details of the O&M Expenses allowed are given in below:-

(₹ in lakh)

Assets	Description	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Asset- I	247.39 km	193.71	174.9	180.84	186.78	192.96	199.4
Asset- II	214.41 km	83.94	75.795	78.365	80.94	83.62	86.405

Assets	Description	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-III	201 km	7.11	73.465	75.88	78.39	81.005
Asset-IV	256.41km	61.86	93.72	96.795	100	103.335
Asset-V	159 km	11.55	58.115	60.025	62.01	64.075

### **Interest on working capital**

48. Sub-clause (i) of Clause (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

#### **“28. Interest on Working Capital**

- (c)(i) Receivables equivalent to two months of fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
- (iii) Operation and maintenance expenses for one month”

“3(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;”





49. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

**(i) Receivables**

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

**(ii) Maintenance spares**

Maintenance spares have been worked out based @ 15% of Operation and Maintenance Expenses.

**(iii) O & M Expenses**

One month O&M Expenses have been considered for working out the Interest on Working Capital.

**(iv) Interest on working capital**

The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

50. Necessary computations in support of interest on working capital are as follows:-



(₹ in lakh)

ASSET I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	26.24	27.13	28.02	28.94	29.91
O & M expenses	14.58	15.07	15.57	16.08	16.62
Receivables	1900.91	1861.03	1792.96	1724.93	1656.95
Total	1,941.72	1,903.22	1,836.54	1,769.95	1,703.47
Interest	262.13	256.93	247.93	238.94	229.97
ASSET II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	11.37	11.75	12.14	12.54	12.96
O & M expenses	6.32	6.53	6.75	6.97	7.20
Receivables	1018.46	992.90	956.89	920.90	884.92
Total	1036.14	1011.18	975.78	940.41	905.08
Interest	139.88	136.51	131.73	126.96	122.19
ASSET III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	10.24	11.02	11.38	11.76	12.15
O & M expenses	5.69	6.12	6.32	6.53	6.75
Receivables	1301.10	1283.14	1239.42	1195.73	1152.05
Total	1,317.03	1,300.28	1,257.13	1,214.02	1,170.95
Interest	18.51	175.54	169.71	163.89	158.08
ASSET IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	13.66	14.06	14.52	15.00	15.50
O & M expenses	7.59	7.81	8.07	8.33	8.61
Receivables	1447.12	1415.98	1366.91	1317.85	1268.82
Total	1,468.36	1,437.85	1,389.49	1,341.19	1,292.93
Interest	134.69	194.11	187.58	181.06	174.55
ASSET V					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	8.43	8.72	9.00	9.30	9.61
O & M expenses	4.68	4.84	5.00	5.17	5.34
Receivables	1013.74	998.47	964.35	930.23	896.13
Total	1,026.86	1,012.03	978.35	944.70	911.08
Interest	28.48	136.62	132.08	127.53	123.00

**Transmission charges**

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

(₹ in lakh)

ASSET I					
Annual Transmission Charges	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3269.18	3309.02	3309.02	3309.02	3309.02

Page 34 of 41



Interest on Loan	5259.46	4938.25	4532.90	4127.55	3722.19
Return on Equity	2439.80	2481.10	2481.10	2481.10	2481.10
Interest on Working Capital	262.13	256.93	247.93	238.94	229.97
O & M Expenses	174.90	180.84	186.78	192.96	199.40
Total	11405.47	11166.15	10757.73	10349.57	9941.68
<b>ASSET II</b>					
<b>Annual Transmission Charges</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1729.33	1745.83	1745.83	1745.83	1745.83
Interest on Loan	2878.90	2695.14	2481.27	2267.41	2053.54
Return on Equity	1286.86	1301.57	1301.57	1301.57	1301.57
Interest on Working Capital	139.88	136.51	131.73	126.96	122.19
O & M Expenses	75.79	78.36	80.94	83.62	86.40
Total	6110.76	5957.40	5741.34	5525.38	5309.53
<b>ASSET III</b>					
<b>Annual Transmission Charges</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	219.09	2113.27	2113.27	2113.27	2113.27
Interest on Loan	405.19	3764.85	3505.97	3247.10	2988.22
Return on Equity	162.85	1571.71	1571.71	1571.71	1571.71
Interest on Working Capital	18.51	175.54	169.71	163.89	158.08
O & M Expenses	7.11	73.46	75.88	78.39	81.00
Total	812.74	7698.82	7436.54	7174.35	6912.27
<b>ASSET IV</b>					
<b>Annual Transmission Charges</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1603.13	2375.58	2375.58	2375.58	2375.58
Interest on Loan	2908.46	4066.36	3775.35	3484.35	3193.34
Return on Equity	1191.34	1766.13	1766.13	1766.13	1766.13
Interest on Working Capital	134.69	194.11	187.58	181.06	174.55
O & M Expenses	61.86	93.72	96.79	100.00	103.33
Total	5899.48	8495.90	8201.44	7907.12	7612.92
<b>ASSET V</b>					
<b>Annual Transmission Charges</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	337.34	1650.11	1650.11	1650.11	1650.11
Interest on Loan	621.87	2920.30	2718.17	2516.03	2313.89
Return on Equity	250.58	1225.70	1225.70	1225.70	1225.70
Interest on Working Capital	28.48	136.62	132.08	127.53	123.00
O & M Expenses	11.55	58.11	60.02	62.01	64.07
Total	1249.82	5990.85	5786.07	5581.38	5376.76

### **Filing fee and the publication expenses**

52. 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.

**Sharing of Transmission Charges**

53. 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.

54. This order disposes of Petition No. 213/TT/2015.

**(Dr. M. K. Iyer)**  
**Member**

**(A.S. Bakshi)**  
**Member**

**(A.K. Singhal)**  
**Member**

**(Gireesh B. Pradhan)**  
**Chairperson**



## Annexure

### CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN – ASSET I

(₹ in lakh)

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
<b>1</b>	<b>PFC Domestic Loan</b>					
	Gross loan opening	48929.46	50263.26	50263.26	50263.26	50263.26
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1675.44	5026.33	8377.21
	Net Loan-Opening	48929.46	50263.26	48587.82	45236.93	41886.05
	Additions during the year	1333.80	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1675.44	3350.88	3350.88	3350.88
	Net Loan-Closing	50263.26	48587.82	45236.93	41886.05	38535.17
	Average Loan	49596.36	49425.54	46912.38	43561.49	40210.61
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	6075.55	6054.63	5746.77	5336.28	4925.80
	Rep Schedule	60 Quarterly instalments from 15.10.2015				
	<b>Total Loan</b>					
	Gross loan opening	48929.46	50263.26	50263.26	50263.26	50263.26
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1675.44	5026.33	8377.21
	Net Loan-Opening	48929.46	50263.26	48587.82	45236.93	41886.05
	Additions during the year	1333.80	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1675.44	3350.88	3350.88	3350.88
	Net Loan-Closing	50263.26	48587.82	45236.93	41886.05	38535.17
	Average Loan	49596.36	49425.54	46912.38	43561.49	40210.61
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	<b>Interest</b>	6075.55	6054.63	5746.77	5336.28	4925.80



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN – ASSET II**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>PFC Domestic Loan</b>					
	Gross loan opening	25951.62	26426.62	26426.62	26426.62	26426.62
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	880.89	2642.66	4404.44
	Net Loan-Opening	25951.62	26426.62	25545.73	23783.96	22022.18
	Additions during the year	475.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	880.89	1761.77	1761.77	1761.77
	Net Loan-Closing	26426.62	25545.73	23783.96	22022.18	20260.41
	Average Loan	26189.12	25986.18	24664.85	22903.07	21141.30
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	3208.17	3183.31	3021.44	2805.63	2589.81
	Rep Schedule	60 Quarterly instalments from 15.10.2015				
	<b>Total Loan</b>					
	Gross loan opening	25951.62	26426.62	26426.62	26426.62	26426.62
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	880.89	2642.66	4404.44
	Net Loan-Opening	25951.62	26426.62	25545.73	23783.96	22022.18
	Additions during the year	475.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	880.89	1761.77	1761.77	1761.77
	Net Loan-Closing	26426.62	25545.73	23783.96	22022.18	20260.41
	Average Loan	26189.12	25986.18	24664.85	22903.07	21141.30
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	<b>Interest</b>	3208.17	3183.31	3021.44	2805.63	2589.81



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN – ASSET III**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>PFC Domestic Loan</b>					
	Gross loan opening	31752.00	32009.18	32009.18	32009.18	32009.18
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1066.97	3200.92	5334.86
	Net Loan-Opening	31752.00	32009.18	30942.21	28808.26	26674.32
	Additions during the year	257.18	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1066.97	2133.95	2133.95	2133.95
	Net Loan-Closing	32009.18	30942.21	28808.26	26674.32	24540.37
	Average Loan	31880.59	31475.69	29875.23	27741.29	25607.34
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	3905.37	3855.77	3659.72	3398.31	3136.90
	Rep Schedule	60 Quarterly instalments from 15.10.2015				
	<b>Total Loan</b>					
	Gross loan opening	31752.00	32009.18	32009.18	32009.18	32009.18
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1066.97	3200.92	5334.86
	Net Loan-Opening	31752.00	32009.18	30942.21	28808.26	26674.32
	Additions during the year	257.18	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1066.97	2133.95	2133.95	2133.95
	Net Loan-Closing	32009.18	30942.21	28808.26	26674.32	24540.37
	Average Loan	31880.59	31475.69	29875.23	27741.29	25607.34
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	<b>Interest</b>	<b>3905.37</b>	<b>3855.77</b>	<b>3659.72</b>	<b>3398.31</b>	<b>3136.90</b>



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN – ASSET IV**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>PFC Domestic Loan</b>					
	Gross loan opening	35504.80	35985.71	35985.71	35985.71	35985.71
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1199.52	3598.57	5997.62
	Net Loan-Opening	35504.80	35985.71	34786.19	32387.14	29988.09
	Additions during the year	480.91	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1199.52	2399.05	2399.05	2399.05
	Net Loan-Closing	35985.71	34786.19	32387.14	29988.09	27589.04
	Average Loan	35745.26	35385.95	33586.66	31187.62	28788.57
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	4378.79	4334.78	4114.37	3820.48	3526.60
	Rep Schedule	60 Quarterly instalments from 15.10.2015				
	<b>Total Loan</b>					
	Gross loan opening	35504.80	35985.71	35985.71	35985.71	35985.71
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	1199.52	3598.57	5997.62
	Net Loan-Opening	35504.80	35985.71	34786.19	32387.14	29988.09
	Additions during the year	480.91	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	1199.52	2399.05	2399.05	2399.05
	Net Loan-Closing	35985.71	34786.19	32387.14	29988.09	27589.04
	Average Loan	35745.26	35385.95	33586.66	31187.62	28788.57
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	<b>Interest</b>	4378.79	4334.78	4114.37	3820.48	3526.60





**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN – ASSET V**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>PFC Domestic Loan</b>					
	Gross loan opening	24747.20	25001.60	25001.60	25001.60	25001.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	833.39	2500.16	4166.93
	Net Loan-Opening	24747.20	25001.60	24168.21	22501.44	20834.67
	Additions during the year	254.40	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	833.39	1666.77	1666.77	1666.77
	Net Loan-Closing	25001.60	24168.21	22501.44	20834.67	19167.89
	Average Loan	24874.40	24584.91	23334.83	21668.05	20001.28
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	Interest	3047.11	3011.65	2858.52	2654.34	2450.16
	Rep Schedule	60 Quarterly instalments from 15.10.2015				
	<b>Total Loan</b>					
	Gross loan opening	24747.20	25001.60	25001.60	25001.60	25001.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	833.39	2500.16	4166.93
	Net Loan-Opening	24747.20	25001.60	24168.21	22501.44	20834.67
	Additions during the year	254.40	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	833.39	1666.77	1666.77	1666.77
	Net Loan-Closing	25001.60	24168.21	22501.44	20834.67	19167.89
	Average Loan	24874.40	24584.91	23334.83	21668.05	20001.28
	Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
	<b>Interest</b>	<b>3047.11</b>	<b>3011.65</b>	<b>2858.52</b>	<b>2654.34</b>	<b>2450.16</b>

