

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 274/TT/2015

Coram:

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

Date of Hearing : 29.04.2016

Date of Order : 31.05.2016

In the matter of:

Determination of transmission tariff of **Asset-I:** 765kV D/C Varanasi-Kanpur (new) line and associated bays including 240 MVAR Switchable L/R in both Ckt. at Varanasi GIS S/S and 330 MVAR non-switchable L/R in both Ckt. at Kanpur GIS S/S, **Asset- II:** 765 kV S/C Kanpur (new) GIS – Jhatikra line & associated bays including 330 MVAR switchable L/R at Kanpur GIS S/S and 330 MVAR non-switchable L/R at Jhatikara S/S, **Asset- III:** 400kV D/C (Quad) Kanpur (New) GIS-Kanpur (old) line & Associated bays, **Asset- IV:** LILO of one Ckt of 400kV D/C Sasaram-Allahabad line & Associated bays at Varanasi GIS S/S, **Asset- V:** 2*1500 MVA 765/400 kV ICT-I&II Associated bays at 765/400 kV Kanpur (new) GIS S/S, **Asset- VI:** 240 MVAR, 765kV Bus Reactor-1 & associated bay at Kanpur(new) GIS S/S, **Asset- VII:** 240 MVAR, 765kV Bus Reactor-2 & associated bay at Kanpur(new) GIS S/S, **Asset- VIII:** 125 MVAR, 400 kV Bus Reactor & associated bay at Kanpur(new) GIS S/S, **Asset- IX:** 240 MVAR, 765 kV Bus Reactor & associated bay at Jhatikara S/S, **Asset- X:** 125 MVAR, 400 kV Bus Reactor & associated bay at Varanasi GIS S/S under “**Transmission System for Phase-I Generation Projects in Jharkhand and West Bengal Part-B**” in Northern Region for 2014-19 Tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 under 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

Northern Region



1. Himachal Pradesh State Electricity Board,
Vidyut Bhawan,
Shimla-171004
 2. Punjab State Power Corporation Limited
Thermal Shed TI A, Near 22 Phatak,
Patiala-147001
 3. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) 134 109
 4. Power Development Deptt.
Janipura Grid station, Jammu (Tawi)- 180 007
 5. Power Purchase Agreement Directorate
Uttar Pradesh Power Corporation Limited
10th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow- 226 001
 6. Delhi Transco Limited
Shakti Sadan, Kotla Road (near ITO),
New Delhi
 7. Chandigarh Administration
Sector-9, Chandigarh
 8. Uttarakhand Power Corporation Ltd.
Urja Bhawan, Kanwali Road
Dehradun
 9. Rajasthan Power Procurement Centre
Vidyut Bhawan, Janpath, Jaipur
 10. Ajmer Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
 11. Jodhpur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
 12. Jaipur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
-



Heerapura, Jaipur

13. North Central Railway
Allahabad
14. BSES Yamuna Power Ltd.
Shakti Kiran Building, Karkardooma
Delhi-110092
15. BSES Rajdhani Power Ltd.
BSES Bhawan, Nehru Place
New Delhi
16. Tata Power Delhi distribution
33 kV Sub-station, Building Hudson Lane,
Kingsway Camp, North Dehi- 110002
17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi- 110002

.....Respondents

The following were present:

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

For Respondent: Shri Manoj Kumar Sharma, Rajasthan Discoms

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for **Asset-I**: 765kV D/C Varanasi-Kanpur (new) line and associated bays including 240 MVAR Switchable L/R in



both Ckt. at Varanasi GIS S/S and 330 MVAR non-switchable L/R in both Ckt. at Kanpur GIS S/S, **Asset- II:** 765 kV S/C Kanpur (new) GIS – Jhatikra line & associated bays including 330 MVAR switchable L/R at Kanpur GIS S/S and 330 MVAR non-switchable L/R at Jhatikara S/S, **Asset- III:** 400kV D/C (Quad) Kanpur (New) GIS-Kanpur (old) line & Associated bays, **Asset- IV:** LILO of one Ckt of 400kV D/C Sasaram-Allahabad line & Associated bays at Varanasi GIS S/S, **Asset- V:** 2*1500 MVA 765/400 kV ICT-I&II Associated bays at 765/400 kV Kanpur (new) GIS S/S, **Asset- VI:** 240 MVAR, 765kV Bus Reactor-1 & associated bay at Kanpur(new) GIS S/S, **Asset- VII:** 240 MVAR, 765kV Bus Reactor-2 & associated bay at Kanpur(new) GIS S/S, **Asset- VIII:** 125 MVAR, 400 kV Bus Reactor & associated bay at Kanpur(new) GIS S/S, **Asset- IX:** 240 MVAR, 765 kV Bus Reactor & associated bay at Jhatikara S/S, **Asset- X:** 125 MVAR, 400 kV Bus Reactor & associated bay at Varanasi GIS S/S under **“Transmission System for Phase-I Generation Projects in Jharkhand and West Bengal Part-B”** in Northern Region for the 2015-19 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 from COD of respective assets to 31.3.2019.

2. The respondents are distribution licensees, electricity departments, transmission licensees and centralised power procurement companies of States who are procuring transmission service from the petitioner, mainly beneficiaries of the 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's company vide Memorandum No. C/CP/Jharkhand & West Bengal Projects (Ph-1)- Part-B, dated 9.2.2012 with an estimated cost of ₹320144 lakh including IDC of ₹20719 lakh based on 4th Quarter 2011 price level. The petitioner has submitted the Revised Cost Estimate (RCE) of the project is under approval and shall be submitted shortly.

(b) The scope of work covered under the project is as follows:-

1. Transmission Lines:

- (i) Varanasi-Kanpur 765 kV D/C line.
- (ii) Kanpur-Jhatikara 765 kV S/C line.
- (iii) Kanpur (765/400kV)-Kanpur (Existing) 400kV D/C (Quad) line.
- (iv) 400kV connectivity for new 765/400 kV substation at Varanasi
 - Varanasi-Sarnath (UPPCL) 400kV D/C (Quad) line
 - LILO of Sasaram-Allahabad 400kV line at Varanasi
 - Opening of LILO at one circuit of Sasaram- Allahabad 400 kV D/C line at Sarnath.

2. Sub-station Works:

- (i) Establishment of new 2*1500 MVA, 765/400 kV GIS substation at Kanpur.

(c) The petitioner in its original petition dated 4.11.2015 had submitted the tariff forms for all the assets based on anticipated COD. The petitioner was directed vide letter dated 28.12.2015 to submit the Auditor's Certificate for capital cost incurred as on actual COD for the assets that have achieved COD. In response the petitioner vide affidavit dated



27.5.2016 submitted the revised tariff forms and Auditor's Certificate for Combined Assets- I, II, III, V, VI, VII, VIII which are still anticipated to be commissioned on 15.6.2016. The petitioner however has submitted revised tariff forms and claimed tariff for Asset-X separately on anticipated COD based on Auditor Certificate. Further, the petitioner submitted revised tariff forms for Asset-IV and Asset-IX on actual COD based on Auditor Certificate.

(d) The petitioner has submitted the actual/anticipated COD and approved apportioned FR cost for the assets as follows:

Particulars	Scheduled COD	Approved Apportioned FR Cost (₹ in lakh)	Actual/Anticipated COD
Combined Assets- I, II, III, V, VI, VII, VIII	8-10-14	284360.97	15-6-16 (Anticipated)
Asset-IV	8-10-14	3398.01	1-4-16 (Actual)
Asset-IX	8-10-14	4201.25	28-11-15 (Actual)
Asset-X	8-10-14	1973.61	15-06-16 (Anticipated)

4. The petitioner in the instant petition has claimed the transmission charges as under:-

	(₹ in lakh)		
Combined Assets- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation	15390.34	20689.66	20854.30
Interest on Loan	15849.52	19887.20	18365.28
Return on equity	17389.37	23382.29	23568.98
Interest on Working Capital	1213.72	1594.96	1572.09
O & M Expenses	1708.40	2222.16	2295.87
Total	51551.35	67776.27	66656.52



(₹ in lakh)

Asset-IV	2016-17	2017-18	2018-19
Depreciation	234.03	269.50	279.82
Interest on Loan	266.32	285.41	272.43
Return on equity	261.17	301.12	312.75
Interest on Working Capital	24.12	26.51	26.94
O & M Expenses	119.29	123.23	127.33
Total	904.93	1005.77	1019.27

(₹ in lakh)

Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	67.20	215.70	240.34	247.73
Interest on Loan	78.99	241.88	251.53	238.55
Return on equity	75.23	242.12	270.59	279.12
Interest on Working Capital	6.74	21.08	22.69	22.93
O & M Expenses	29.80	90.12	93.11	96.20
Total	257.96	810.90	878.26	884.53

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation	58.98	84.65	85.96
Interest on Loan	69.63	93.87	87.61
Return on equity	66.36	95.44	96.92
Interest on Working Capital	6.90	9.45	9.47
O & M Expenses	43.71	56.84	58.73
Total	245.58	340.25	338.69

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

(₹ in lakh)

Combined Assets- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	322.57	333.32	344.48
O & M Expenses	179.20	185.18	191.32
Receivables	10815.00	11296.05	11109.42
Total	11316.77	11814.55	11645.12
Rate of Interest	13.50	13.50	13.50
Interest	1213.72	1594.96	1572.09



(₹ in lakh)			
Asset-IV	2016-17	2017-18	2018-19
Maintenance Spares	17.89	18.48	19.10
O & M Expenses	9.94	10.27	10.61
Receivables	150.82	167.63	169.88
Total	178.65	196.38	199.59
Rate of Interest	13.50	13.50	13.50
Interest	24.12	26.51	26.94

(₹ in lakh)				
Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	13.08	13.52	13.97	14.43
O & M Expenses	7.27	7.51	7.76	8.02
Receivables	125.84	135.15	146.38	147.42
Total	146.19	156.18	168.11	169.87
Rate of Interest	13.50	13.50	13.50	13.50
Interest	6.74	21.08	22.69	22.93

(₹ in lakh)			
Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	8.25	8.53	8.81
O & M Expenses	4.59	4.74	4.89
Receivables	51.52	56.71	56.45
Total	64.36	69.98	70.15
Rate of Interest	13.50	13.50	13.50
Interest	6.90	9.45	9.47

6. The petitioner was directed vide ROP (Record of Proceedings) dated 9.5.2016 to file a separate petition for all the assets except Asset-IV and Asset-IX, since the said assets have not been commissioned. In response the petitioner vide affidavit dated 27.5.2016 submitted that, except Asset-IV (COD: 1.4.2016) and Asset-IX (COD: 28.11.2015), no other assets have been commissioned and the anticipated COD for the assets is 15.6.2016, which is within 6 months from 17.12.2015. Therefore, the petitioner prayed to allow tariff for the said assets.



7. In view of the submissions of the petitioner, the tariff for the assets with anticipated COD is allowed in this instant order in accordance with Regulation 6 (1) (ii) of the 2014 Tariff regulations. However, in this instant order entire (time over run) delay period has not been considered for the assets with anticipated COD (i.e. Combined Asset-I, II, III, V, VI, VII, VIII and Asset-X) as the COD of these assets are yet to be achieved and the period of delay is not known and therefore view on actual time overrun cannot be taken. The same shall be considered at the time of truing up of the assets, after actual COD is achieved.

8. It is observed that the petitioner has claimed combined tariff for Assets- I, II, III, V, VI, VII and VIII for the 2016-19 tariff period. However, for Asset-X the petitioner has filed separate tariff forms even though the anticipated COD is same for these assets (i.e. 15.6.2016).

9. The petitioner has served the petition on the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of 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. In response to the instant petition. Rajasthan Discoms, Respondent No. 10, 11 and 12, filed its reply vide affidavit dated 27.4.2016. In response the petitioner has submitted rejoinder vide affidavit dated 5.5.2016. The hearing in this matter was held on 29.4.2016. The petitioner was directed vide letter dated 28.12.2015 and ROP (Record of Proceedings) dated 9.5.2016 to file certain information. The petitioner submitted the replies vide affidavit dated



27.5.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

Date of Commercial Operation (“COD”)

10. The petitioner has claimed the date of the commercial operation of the Assets-IV and Asset-IX as 1.4.2016 and 25.11.2015 respectively. For rest of the assets the anticipated COD submitted by the petitioner is 15.6.2016. 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:

(i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations :

(ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”

11. The petitioner has submitted RLDC certificate issued by NRLDC, POSOCO for Asset-IV and Asset-IX dated 18.4.2016 and 11.12.2015 respectively in support of the claim of commercial operation in accordance with



Regulation 5(2) of the 2014 Tariff Regulations indicating completion of successful trial operation.

12. The petitioner is directed to submit the RLDC certificate for the assets with anticipated COD at the time of truing up. Accordingly, the the tariff is worked out from COD to 31.3.2019 for the assets.

Capital Cost

13. The petitioner vide affidavit dated 27.5.2016 has submitted the Auditor's Certificate and revised tariff forms for the assets.

14. The details of capital cost as on date of commercial operation incurred or projected to be incurred for the instant assets as submitted by the petitioner vide affidavit dated 27.5.2016 based on the Auditor's Certificate are as under:-

(₹ in lakh)

Asset	Approved apportioned cost as per FR	Capital cost claimed as on COD as per Auditor's Certificate
Combined Asset- I, II, III, V, VI, VII, VIII	284360.97	348168.58
Asset-IV	3398.01	3978.60
Asset- IX	4201.25	3691.18
Asset-X	1973.61	1236.96
Total	293933.84	357075.32

15. Regulations 9 and 10 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.

...

(6) The following shall be excluded or removed from the capital cost of the existing and new project:

- a) The assets forming part of the project, but not in use;
- b) Decapitalisation of Asset;
- c) In case of hydro generating station any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State government by following a two stage transparent process of bidding; and
- d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:
Provided that any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;

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.”



16. The petitioner has also submitted capital cost as on COD for all the assets considering cash basis IDC and IEDC vide affidavit dated 27.5.2016 as given below:-

(₹ in lakh)

Asset	Approved apportioned cost as per FR	Capital cost claimed as on COD as per Auditor's Certificate	Deduction of IDC as on cash basis (as submitted by petitioner)	Capital Cost Claimed
Combined Asset- I, II, III, V, VI, VII, VIII	284360.97	348168.58	0.00	348168.58
Asset-IV	3398.01	3978.60	39.61	3938.99
Asset- IX	4201.25	3691.18	0.00	3691.18
Asset-X	1973.61	1236.96	0.00	1236.96
Total	293933.84	357075.32	39.61	357035.71

Cost Over-run

17. The petitioner has submitted that procurement is carried out under open competitive bidding route by providing equal opportunity to all the eligible firms. The bid prices are invited for the complete scope of work on overall basis and contracts awarded to the qualified bidders whose bid is determined as the lowest evaluated and techno-commercially responsive. Thus, variation of awarded/ actual cost may be because of various market forces and pricing strategies followed by the bidders.

18. Rajasthan Discoms submitted that there is a cost variation of ₹74730.19 lakh. Further, the reasons for variation in cost and increase in cost as submitted by the petitioner are vague. Hence, cost variation should not be allowed.

19. In response, the petitioner vide its affidavit dated 5.5.2016 submitted that procurement is carried out under open competitive bidding route by providing



equal opportunity to all eligible firms. The bid prices are invited for the complete scope of work on overall basis and contracts awarded to the qualified bidders whose bid is determined as the lowest evaluated and techno-commercially responsive. Thus, variation of awarded/ actual cost may be because of various market forces and pricing strategies followed by the bidders.

20. We have considered the submissions of the petitioner and the respondents. It is observed that the completion cost as submitted by the petitioner for the assets except Asset-X is exceeding the approved apportioned cost. Hence, we have restricted the cost of the assets to the approved apportioned FR cost. The details of estimated completion cost as submitted by the petitioner are as given below:-

(₹ in lakh)

Asset	Approved apportioned FR cost	Capital Cost as on COD	Additional Capitalization Claimed			Total Additional Capitalization	Estimated Completion Cost
			2015-16	2016-17	2017-18		
Combined Asset- I, II, III, V, VI, VII, VIII	284360.97	348168.58	0.00	44212.47	6316.07	50528.54	398697.12
Asset-IV	3398.01	3938.99	0.00	958.02	393.61	1351.63	5290.62
Asset- IX	4201.25	3691.18	67.54	674.10	288.91	1030.55	4721.73
Asset-X	1973.61	1236.96	0.00	352.27	50.32	402.59	1639.55
Total	293933.84	357035.71	67.54	46196.86	7048.91	53313.31	410349.02

Time over-run

21. As discussed in paragraphs 7& 8 above, we have considered time over-run for only Asset-IV and Asset-IX in the instant order.



22. As per the investment approval dated 9.2.2012, the scheme was scheduled to be commissioned within 32 months from the date of investment approval i.e. by 8.10.2014. However, the actual commissioning of the subject assets is as follows:-

Particulars	Actual/Anticipated COD	Delay in days	Delay
Asset- IV	1.4.2016	542	17 months 24 days
Asset- IX	28.11.2015	617	13 month 20 days

23. The petitioner has submitted the following reasons for delay for Asset-IV and Asset-IX as follows:-

Asset- IV

24. The petitioner submitted that, delay in commissioning of Asset-IV is mainly due to the delay in acquisition of land for Varanasi sub-station. The first letter for request of acquisition of land was forwarded to DM-Chandauli on 10.9.2010. A huge agitation was created by the land owners against acquisition of land. The matter then turned into a political issue and local MP supported the villagers against land acquisition. The letter to Chief Minister (Uttar Pradesh) and Ministry of Power was submitted by the petitioner on 22.9.2010. . The matter was taken up by DM- Varanasi. After various efforts by the petitioner, idea of land acquisition was dropped and direct purchase through negotiation was opted due to delay in land acquisition. After various correspondences with administration and concerned authorities the proposal was made to purchase land in lots for which Gazette Notification was published under Section-4 and Section-6 of Land



Acquisition Act on 26.11.2013 and 22.4.2014 respectively. The whole procedure took more than two years. The petitioner has submitted the detailed chronology of events as follows:

SI No	Description	Date
1	Letter from PGCIL to DM-Chandauli	10.9.2010
2	MP letter to CM, UP not to acquire land	22.9.2010
3	MP letter to Power Minister, Govt of India	22.9.2010
4	Letter to section officer (MOP) to CMD, PGCIL	30.9.2010
5	Letter of special secretary to MP, Chandauli	29.10.2010
6	Letter to Dy Secretary to CMD PPCL	3.2.2011
7	Letter of Chief Engineer UPPCL to DGM, PGCIL	24.2.2011
8	PGCIL letter to DM, Varanasi containing proposal for Varanasi sub-station	25.7.2011
9	Fresh proposal submitted by PGCIL letter towards land acquisition for 765/400 kV GIS sub-station	9.1.2012
10	Idea for land acquisition dropped and direct purchase through negotiation was opted due to delay in land acquiring	15.2.2012
11	Site visit by High power committee for rate negotiation with land owners for purchase of land	26.6.2012
12	Intimation cum assistance sought from DM, Varanasi towards starting of purchase of land	8.12.2012
13	Request for Govt land submitted to district administration	23.3.2013
14	Gazette Notification published for Section-4	26.11.2013
15	Gazette Notification published for Section-6	22.4.2014
16	Deposit of money to purchase Govt. land	29.1.2014
17	Request letter to register Govt. land in name of PGCIL submitted to Commissioner Varanasi	30.1.2014
18	Award of Land	20.8.2014
19	Letter to DM Varanasi, for providing physical possession of land	30.9.2014
20	Physical possession of balance land	12.12.2014



Asset- IX

25. With regard to Asset-IX, the petitioner was directed to submit the reasons for time overrun. However, the petitioner has not submitted any justification for delay of 417 days for Asset-IX.

26. Rajasthan discoms, vide letter dated 27.4.2016 submitted that, reasons for time over-run for all the assets covered in the instant petition given by the petitioner are vague and are controllable in accordance with Regulation 12 of the 2014 Tariff Regulations. In response, the petitioner vide affidavit dated 5.5.2016 submitted that, delay reasons are uncontrollable and it is prayed to the Commission to condone the same.

27. We have considered the submissions of the petitioner and the respondents. The main reasons for time over-run for the assets is as follows:

- **Asset- IV:** It is observed that the main reason for time over run for Asset-IV is on account of delay in land acquisition for Varanasi sub-station which was majorly due to agitation created by land owners. It is observed that the petitioner has been pursuing for acquisition of land from 10.9.2010 to 9.1.2012. Later, the decision had to be dropped and thereafter negotiation with land owners was taken up. The land was finally acquired on 12.12.2014. The petitioner has submitted the necessary documentary evidence in support of the delay. On perusal of these documents, it is observed that the delay in the commissioning of the assets is due to the reasons beyond the control of the petitioner. The Hon'ble Appellate



Tribunal for Electricity in its judgement dated 27.4.2011 in Appeal No.72/2010 has held that the additional cost due to time over-run due to factors beyond the control of project developer shall be capitalised. Accordingly, we condone the entire delay for Asset-IV.

28. The petitioner has however, not submitted any delay justification for Asset-IX. Hence, the entire delay period for the said asset is disallowed.

IDC and IEDC

29. The petitioner submitted Auditor's Certificate for all the assets in support of capital cost claimed by it. The petitioner has also submitted the details of IDC and IEDC claimed on cash basis as given below:-

Particulars	(₹ in lakh)	
	Asset-IV	Asset- IX
IDC as per Certificate	383.07	318.73
IDC discharged upto COD	343.46	318.73
IDC discharged in 2015-16	0.00	0.00
IDC to be discharged in 2016-17	39.61	-

30. As discussed above, we have condoned the entire time over-run in case of Asset-IV. For Asset-IX, the entire delay is disallowed in absence of any justification and documentary evidence. For Combined Asset-I, II, III, V, VI, VII, VIII and Asset-X, we have not taken a view on the same as actual delay period is not known and we shall look in the merits of the case at the time of truing up once the actual COD is achieved and delay period known.



Initial Spares

31. 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:-

“(d) Transmission System	
Transmission line:	1.00%
Transmission sub-station (Green Field):	4.00%
Transmission sub-station (Brown Field):	6.00%”

32. The petitioner has claimed initial spares for the assets as given in table below. The initial spares for transmission line and sub-station (green-field) claimed by the petitioner is as given below:

(₹ in lakh)

Description	Plant & Machinery Cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out as per Regulations	Excess initial spares claimed	Initial Spares Allowed
Sub-station (including PLCC)	(a)	(b)	(c)	$(d) = ((a-b)*c)/(100-c)\%$	$(e) = (d) - (b)$	Min(b,d)
Transmission Line						
Combined Asset- I, II, III, V, VI, VII, VIII	270684.93	1181.02	1.00%	2722.26	0.00	1181.02
Sub-station (Greenfield)						
Combined Asset- I, II, III, V, VI, VII, VIII	82289.34	2033.63	4.00%	3343.99	0.00	2033.63
Asset-IX (As claimed)	4230.02	198.22	4.00%	167.99	30.23	167.99
Asset-IX (As worked out proportionate basis)	4201.25	196.87	4.00%	166.85	30.02	149.47*
Asset-X	1414.38	21.48	4.00%	58.04	0.00	21.48

Note: *Initial spares allowed after adjustment of cost over run



33. The capital cost for the assets as on COD has been worked out by deducting excess initial spares and after restricting the cost within approved apportioned FR cost as given below:-

(₹ in lakh)				
Asset	Capital Cost Claimed	Deduction due to delay	Excess initial Spares	Capital Cost as on COD approved
Combined Asset- I, II, III, V, VI, VII, VIII	348168.58	-	-	284360.97
Asset-IV	3938.99	-	-	3398.01
Asset- IX	3691.18	-	30.02	3661.16
Asset-X	1236.96	57.09	-	1179.87
Total	357035.71	57.09	30.02	292600.01

34. Accordingly, capital cost as worked out as on COD has been considered for the purpose of tariff computation for 2015-19 tariff period, which shall be trued up at the time of truing up of tariff for 2015-19 period.

Additional Capital Expenditure

35. The petitioner has claimed additional capital expenditure for the assets during tariff period 2015-19, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations.

36. Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations provides as follows:

“(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(i) Un-discharged liabilities recognized to be payable at a future date;



37. Further, Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

“cut-off Date” 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:”

38. The cut-off date for the assets is 31.3.2019. The additional capitalization claimed by the petitioner is within the cut-off date.

39. It is observed that total estimated completion cost including additional capitalization for 2015-16, 2016-17 and 2017-18 is exceeding the approved apportioned FR cost for all the assets except Asset-X.

40. The additional capitalization for 2015-16, 2016-17 and 2017-18 is allowed under Regulation 14(1)(i) of 2014 Tariff Regulations for all the assets subject to ceiling of approved apportioned cost. The details of additional capitalization allowed is as follows:-

Asset	Approved apportioned cost	Capital Cost as on COD	Additional Capitalization Claimed			Total Additional Capitalization	Estimated Completion Cost
			2015-16	2016-17	2017-18		
Combined Asset- I, II, III, V, VI, VII, VIII (As claimed)	284360.97	348168.58	0.00	44212.47	6316.07	50528.54	398697.12
Combined Asset- I, II, III, V, VI, VII, VIII (Approved in this order)		284360.97	0.00	0.00	0.00	0.00	284360.97
Asset-IV (As claimed)	3398.01	3938.99	0.00	958.02	393.61	1351.63	5290.62

(₹ in lakh)



Asset	Approved apportioned cost	Capital Cost as on COD	Additional Capitalization Claimed			Total Additional Capitalization	Estimated Completion Cost
			2015-16	2016-17	2017-18		
Asset-IV (Approved in this order)		3398.01	0.00	0.00	0.00	0.00	3398.01
Asset- IX (As Claimed)	4201.25	3691.18	67.54	674.10	288.91	1030.55	4721.73
Asset-IX (Approved in this order)		3661.16	67.54	472.55	0.00	540.09	4201.25
Asset-X (As Claimed)	1973.61	1236.96	0.00	352.27	50.32	402.59	1639.55
Asset-X (Approved in this order)		1179.87	0.00	352.27	50.32	402.59	1582.46
Total Claimed		357035.71	67.54	46196.86	7048.91	53313.31	410349.02
Total Approved in this order	293933.84	292600.01	67.54	824.82	50.32	942.68	293542.69

Debt: Equity Ratio

41. Clause 3 of Regulation 19 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.”

42. The petitioner has considered debt:equity ratio as 70:30 as on COD for all the assets. We have considered the petitioner’s submission. The details of the debt :equity as on COD and for the additional capital expenditure considered for the purpose of tariff for the 2014-19 tariff period is as follows:-



(₹ in lakh)

Particulars	As on COD		Additional capitalization during 2015-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Combined Asset- I, II, III, V, VI, VII, VIII						
Debt	199052.68	70.00	0.00	70.00	199052.68	70.00
Equity	85308.29	30.00	0.00	30.00	85308.29	30.00
Total	284360.97	100.00	0.00	100.00	284360.97	100.00
Asset-IV						
Debt	2378.63	70.00	0.00	70.00	2378.63	70.00
Equity	1019.38	30.00	0.00	30.00	1019.38	30.00
Total	3398.01	100.00	0.00	100.00	3398.01	100.00
Asset-IX						
Debt	2562.81	70.00	378.06	70.00	2940.88	70.00
Equity	1098.35	30.00	162.03	30.00	1260.38	30.00
Total	3661.16	100.00	540.09	100.00	4201.25	100.00
Asset-X						
Debt	825.91	70.00	281.81	70.00	1107.72	70.00
Equity	353.96	30.00	120.78	30.00	474.74	30.00
Total	1179.87	100.00	402.59	100.00	1582.46	100.00

Interest on Loan (“IOL”)

43. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations are reproduced 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.”



44. The weighted average rate of IOL has been considered on the basis of rate prevailing as on COD. The petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2015-19 tariff period will be adjusted at the time of truing up.

45. We have considered the petitioner's submissions. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. Further, with regard to floating rate of interest, variation in interest rate if any shall be considered at the time of true up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out and allowed as follows:-

(₹ in lakh)			
Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	199052.68	199052.68	199052.68
Cumulative Repayment up to DOCO/previous year	0.00	11823.18	26704.09
Net Loan-Opening	199052.68	187229.50	172348.59
Additions during the year	0.00	0.00	0.00
Repayment during the year	11823.18	14880.90	14880.90
Net Loan-Closing	187229.50	172348.59	157467.69
Average Loan	193141.09	179789.04	164908.14
Rate of Interest (%)	7.9328	7.9188	7.8964
Interest	12173.18	14237.08	13021.82

(₹ in lakh)			
Asset-IV	2016-17	2017-18	2018-19
Gross loan opening	2378.63	2378.63	2378.63
Cumulative Repayment upto DOCO/previous year	0.00	180.20	360.40
Net Loan-Opening	2378.63	2198.43	2018.23
Additions during the year	0.00	0.00	0.00



Asset-IV	2016-17	2017-18	2018-19
Repayment during the year	180.20	180.20	180.20
Net Loan-Closing	2198.43	2018.23	1838.03
Average Loan	2288.53	2108.33	1928.13
Rate of Interest (%)	8.9501	8.9276	8.9031
Interest	204.83	188.22	171.66

(₹ in lakh)

Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross loan opening	2562.81	2610.09	2940.88	2940.88
Cumulative Repayment upto DOCO/previous year	0.00	66.63	275.59	496.64
Net Loan-Opening	2562.81	2543.46	2665.28	2444.23
Additions during the year	47.28	330.79	0.00	0.00
Repayment during the year	66.63	208.96	221.05	221.05
Net Loan-Closing	2543.46	2665.28	2444.23	2223.18
Average Loan	2553.13	2604.37	2554.76	2333.71
Rate of Interest (%)	8.9823	8.9850	8.9799	8.9744
Interest	78.32	234.00	229.42	209.44

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	825.91	1072.50	1107.72
Cumulative Repayment upto DOCO/previous year	0.00	56.59	138.24
Net Loan-Opening	825.91	1015.91	969.48
Additions during the year	246.59	35.22	0.00
Repayment during the year	56.59	81.65	82.96
Net Loan-Closing	1015.91	969.48	886.52
Average Loan	920.91	992.69	928.00
Rate of Interest (%)	9.1323	9.1241	9.1157
Interest	84.10	90.57	84.59

Return on Equity ("ROE")

46. 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...

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.”

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.”

47. The petitioner has computed ROE at the rate of 19.705% for all the assets for tariff period 2015-19 after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to trueing 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.

48. 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.

49. We have computed ROE at the rate of 19.610% for tariff period 2014-19 after grossing up the ROE with MAT rate as per the above Regulation. 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. Accordingly, the ROE allowed is given below:-

(₹ in lakh)

Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Opening Equity	85308.29	85308.29	85308.29
Addition due to Additional Capitalisation	0.00	0.00	0.00
Closing Equity	85308.29	85308.29	85308.29
Average Equity	85308.29	85308.29	85308.29
Return on Equity (Base Rate) (%)	15.50	15.50	15.50



Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
MAT rate for the year (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	13291.50	16728.96	16728.96

(₹ in lakh)

Asset-IV	2016-17	2017-18	2018-19
Opening Equity	1019.38	1019.38	1019.38
Addition due to Additional Capitalisation	0.00	0.00	0.00
Closing Equity	1019.38	1019.38	1019.38
Average Equity	1019.38	1019.38	1019.38
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	199.90	199.90	199.90

(₹ in lakh)

Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	1098.35	1118.61	1260.38	1260.38
Addition due to Additional Capitalisation	20.26	141.77	0.00	0.00
Closing Equity	1118.61	1260.38	1260.38	1260.38
Average Equity	1108.48	1189.49	1260.38	1260.38
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	74.24	233.26	247.16	247.16

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Opening Equity	353.96	459.64	474.74
Addition due to Additional Capitalisation	105.68	15.10	0.00
Closing Equity	459.64	474.74	474.74
Average Equity	406.80	467.19	474.74
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	63.38	91.62	93.10



Depreciation

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

“**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

.....

- (c) AC and DC Sub-station: 25 years
- (d) Gas Insulated Sub-station: 25 years
- (e) Transmission line (including HVAC & HVDC): 35 years”

51. 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.”

52. The petitioner in its petition has computed depreciation considering capital cost as on COD of the assets.

53. As per Clause 67 of Regulation 3 of the 2014 Tariff Regulations, weighted average value of asset as on COD has been considered to work out the weighted



average life of the transmission system as 33, 30, 25 and 25 years for Combined Asset-I, II, III, V, VI, VII, VIII, Asset-IV, Asset-IX and Asset-X respectively.

54. We have computed depreciation considering approved capital cost as on COD and allowed additional capitalization of the assets. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)			
Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Opening Gross Block	284360.97	284360.97	284360.97
Additional Capitalization	0.00	0.00	0.00
Closing Gross block	284360.97	284360.97	284360.97
Average Gross block	284360.97	284360.97	284360.97
Rate of Depreciation (%)	5.233	5.233	5.233
Depreciable Value	254730.80	254730.80	254730.80
Elapsed Life of the asset at beginning of the year	0	1	2
Weighted Balance Useful life of the asset	33	32	31
Remaining Depreciable Value	254730.80	242907.61	228026.71
Depreciation	11823.18	14880.90	14880.90

(₹ in lakh)			
Asset-IV	2016-17	2017-18	2018-19
Opening Gross Block	3398.01	3398.01	3398.01
Additional Capitalization	0.00	0.00	0.00
Closing Gross block	3398.01	3398.01	3398.01
Average Gross block	3398.01	3398.01	3398.01
Rate of Depreciation (%)	5.303	5.303	5.303
Depreciable Value	3058.21	3058.21	3058.21
Elapsed Life of the asset at beginning of the year	0	1	2



Asset-IV	2016-17	2017-18	2018-19
Weighted Balance Useful life of the asset	30	29	28
Remaining Depreciable Value	3058.21	2878.01	2697.81
Depreciation	180.20	180.20	180.20

(₹ in lakh)

Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross Block	3661.16	3728.70	4201.25	4201.25
Additional Capitalization	67.54	472.55	0.00	0.00
Closing Gross block	3728.70	4201.25	4201.25	4201.25
Average Gross block	3694.93	3964.97	4201.25	4201.25
Rate of Depreciation (%)	5.280	5.270	5.262	5.262
Depreciable Value	3325.43	3568.48	3781.13	3781.13
Elapsed Life of the asset at beginning of the year	0	1	2	3
Weighted Balance Useful life of the asset	25	24	23	22
Remaining Depreciable Value	3325.43	3501.85	3505.53	3284.48
Depreciation	66.63	208.96	221.05	221.05

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Opening Gross Block	1179.87	1532.14	1582.46
Additional Capitalization	352.27	50.32	0.00
Closing Gross block	1532.14	1582.46	1582.46
Average Gross block	1356.01	1557.30	1582.46
Rate of Depreciation (%)	5.253	5.243	5.242
Depreciable Value	1220.41	1401.57	1424.22
Elapsed Life of the asset at beginning of the year	0	1	2
Weighted Balance Useful life of the asset	25	24	23
Remaining Depreciable Value	1220.41	1344.98	1285.97
Depreciation	56.59	81.65	82.96



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

55. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations.

56. We have considered the petitioner’s submission. The petitioner’s entitlement of O&M Expenses has been worked out as given hereunder:-

(₹ in lakh)

Particulars	Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Norms as per Regulation	Double Circuit (Bundled Conductor) (₹ in lakh/km)	1.133	1.171	1.210
	Single circuit (Bundled Conductor) (₹ in lakh/km)	0.647	0.669	0.691
	765 kV Bays (in lakh/bay)	90.12	93.11	96.2
	400 kV GIS Bays (in lakh/bay)	55.02	56.84	58.73
	400 KV Bay (in lakh/bay)	64.37	66.51	68.71
Actual	Double Circuit (Bundled Conductor) (kms)	347.326	347.326	347.326
	Single circuit (Bundled Conductor) (kms)	465.09	465.09	465.09
	765 kV Bays (Nos)	13	13	13
	400 kV GIS Bays (Nos)	4	4	4
	400 kV Bay (Nos)	1	1	1
Total O&M Expenses (₹ in lakh)		1708.57	2222.16	2295.87

(₹ in lakh)

Particulars	Asset-IV	2016-17	2017-18	2018-19
Norms as per Regulation	Double Circuit (Double Conductor) (₹ in lakh/km)	0.755	0.78	0.806
	400 kV GIS Bays (in lakh/bay)	55.02	56.84	58.73
Actual	Double Circuit (Double Conductor) (₹ in lakh/km)	12.245	12.245	12.245



Particulars	Asset-IV	2016-17	2017-18	2018-19
	400 kV GIS Bays (₹ in lakh/bay)	2	2	2
Total O&M Expenses (₹ in lakh)		119.28	123.23	127.33

(₹ in lakh)

Particulars	Asset- IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Norms as per Regulation	765 kV Bays (₹ in lakh/bay)	87.22	90.12	93.11	96.2
Actual	765 kV Bays (₹ in lakh/bay)	1	1	1	1
Total O&M Expenses (₹ in lakh)		69.30	90.12	93.11	96.20

(₹ in lakh)

Particulars	Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Norms as per Regulation	400 GIS kV Bays (₹ in lakh/bay)	55.02	56.84	58.73
Actual	400 GIS kV Bays (₹ in lakh/bay)	1	1	1
Total O&M Expenses (in lakh)		43.71	56.84	58.73

57. 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.



58. 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.

59. The details of O&M Expenses allowed are given hereunder:-

Particulars	(₹ in lakh)			
	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Combined Asset- I, II, III, V, VI, VII, VIII	0.00	1708.57	2222.16	2295.87
Asset-IV	0.00	119.28	123.23	127.33
Asset- IX	69.30	90.12	93.11	96.20
Asset-X	0.00	43.71	56.84	58.73
Total	69.30	1961.69	2495.35	2578.13

Interest on Working Capital (“IWC”)

60. 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) for Asset- IX. For all the other assets, rate of interest on working capital is considered as 12.80% (SBI base rate 9.30% as on 1.4.2016 plus 350 basis points).

61. The interest on working capital allowed is shown in the table below:-

(₹ in lakh)

Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	256.29	333.32	344.38
O & M Expenses	142.38	185.18	191.32
Receivables	6649.77	8197.46	8003.43
Total	7048.44	8715.96	8539.13
Rate of Interest	12.80	12.80	12.80
Interest	902.20	1115.64	1093.01

(₹ in lakh)

Asset-IV	2016-17	2017-18	2018-19
Maintenance Spares	17.89	18.48	19.10
O & M Expenses	9.94	10.27	10.61
Receivables	120.53	118.40	116.30
Total	148.37	147.15	146.01
Rate of Interest	12.80	12.80	12.80
Interest	18.99	18.84	18.69

(₹ in lakh)

Asset-IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	10.39	13.52	13.97	14.43
O & M Expenses	5.77	7.51	7.76	8.02
Receivables	49.56	131.15	135.32	132.46
Total	65.73	152.18	157.05	154.91
Rate of Interest	13.50	13.50	13.50	13.50
Interest	8.87	20.54	21.20	20.91

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	6.56	8.53	8.81
O & M Expenses	3.64	4.74	4.89
Receivables	42.42	54.90	54.69
Total	52.62	68.16	68.39



Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Rate of Interest	12.80	12.80	12.80
Interest	6.74	8.72	8.75

Annual Transmission Charges

62. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2015-19 is summarised below:-

(₹ in lakh)			
Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Gross Block			
Opening Gross Block	284360.97	284360.97	284360.97
Additional Capitalisation	0.00	0.00	0.00
Closing Gross Block	284360.97	284360.97	284360.97
Average Gross Block	284360.97	284360.97	284360.97
Rate of Depreciation(%)	5.233	5.233	5.233
Depreciable Value	254730.80	254730.80	254730.80
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	33	32	31
Remaining Depreciable Value	254730.80	242907.61	228026.71
Depreciation	11823.18	14880.90	14880.90
Interest on Loan			
Gross Normative Loan	199052.68	199052.68	199052.68
Cumulative Repayment upto Previous Year	0.00	11823.18	26704.09
Net Loan-Opening	199052.68	187229.50	172348.59
Additions	0.00	0.00	0.00
Repayment during the year	11823.18	14880.90	14880.90
Net Loan-Closing	187229.50	172348.59	157467.69



Combined Asset- I, II, III, V, VI, VII, VIII	2016-17 (Pro-rata)	2017-18	2018-19
Average Loan	193141.09	179789.04	164908.14
Weighted Average Rate of Interest on Loan (%)	7.9328	7.9188	7.8964
Interest	12173.18	14237.08	13021.82
Return on Equity			
Opening Equity	85308.29	85308.29	85308.29
Additions	0.00	0.00	0.00
Closing Equity	85308.29	85308.29	85308.29
Average Equity	85308.29	85308.29	85308.29
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	13291.50	16728.96	16728.96
Interest on Working Capital			
Maintenance Spares	256.29	333.32	344.38
O & M expenses	142.38	185.18	191.32
Receivables	6649.77	8197.46	8003.43
Total	7048.44	8715.96	8539.13
Interest	902.20	1115.64	1093.01
Annual Transmission Charges			
Depreciation	11823.18	14880.90	14880.90
Interest on Loan	12173.18	14237.08	13021.82
Return on Equity	13291.50	16728.96	16728.96
Interest on Working Capital	902.20	1115.64	1093.01
O & M Expenses	1708.57	2222.16	2295.87
Total	39898.63	49184.74	48020.56

(₹ in lakh)



Asset-IV	2016-17	2017-18	2018-19
Gross Block			
Opening Gross Block	3398.01	3398.01	3398.01
Additional Capitalisation	0.00	0.00	0.00
Closing Gross Block	3398.01	3398.01	3398.01
Average Gross Block	3398.01	3398.01	3398.01
Rate of Depreciation (%)	5.303	5.303	5.303
Depreciable Value	3058.21	3058.21	3058.21
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	30	29	28
Remaining Depreciable Value	3058.21	2878.01	2697.81
Depreciation	180.20	180.20	180.20
Interest on Loan			
Gross Normative Loan	2378.63	2378.63	2378.63
Cumulative Repayment upto Previous Year	0.00	180.20	360.40
Net Loan-Opening	2378.63	2198.43	2018.23
Additions	0.00	0.00	0.00
Repayment during the year	180.20	180.20	180.20
Net Loan-Closing	2198.43	2018.23	1838.03
Average Loan	2288.53	2108.33	1928.13
Weighted Average Rate of Interest on Loan (%)	8.9501	8.9276	8.9031
Interest	204.83	188.22	171.66
Return on Equity			
Opening Equity	1019.38	1019.38	1019.38
Additions	0.00	0.00	0.00
Closing Equity	1019.38	1019.38	1019.38
Average Equity	1019.38	1019.38	1019.38
Return on Equity (Base Rate) (%)	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961



Asset-IV	2016-17	2017-18	2018-19
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	199.90	199.90	199.90
Interest on Working Capital			
Maintenance Spares	17.89	18.48	19.10
O & M expenses	9.94	10.27	10.61
Receivables	120.53	118.40	116.30
Total	148.37	147.15	146.01
Interest	18.99	18.84	18.69
Annual Transmission Charges			
Depreciation	180.20	180.20	180.20
Interest on Loan	204.83	188.22	171.66
Return on Equity	199.90	199.90	199.90
Interest on Working Capital	18.99	18.84	18.69
O & M Expenses	119.28	123.23	127.33
Total	723.20	710.39	697.78

(₹ in lakh)

Asset- IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Block				
Opening Gross Block	3661.16	3728.70	4201.25	4201.25
Additional Capitalisation	67.54	472.55	0.00	0.00
Closing Gross Block	3728.70	4201.25	4201.25	4201.25
Average Gross Block	3694.93	3964.97	4201.25	4201.25
Rate of Depreciation (%)	5.280	5.270	5.262	5.262
Depreciable Value	3325.43	3568.48	3781.13	3781.13
Elapsed Life of the assets at beginning of the year	0	1	2	3
Weighted Balance Useful life of the assets	25	24	23	22
Remaining Depreciable Value	3325.43	3501.85	3505.53	3284.48



Asset- IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	66.63	208.96	221.05	221.05
Interest on Loan				
Gross Normative Loan	2562.81	2610.09	2940.88	2940.88
Cumulative Repayment upto Previous Year	0.00	66.63	275.59	496.64
Net Loan-Opening	2562.81	2543.46	2665.28	2444.23
Additions	47.28	330.79	0.00	0.00
Repayment during the year	66.63	208.96	221.05	221.05
Net Loan-Closing	2543.46	2665.28	2444.23	2223.18
Average Loan	2553.13	2604.37	2554.76	2333.71
Weighted Average Rate of Interest on Loan (%)	8.9823	8.9850	8.9799	8.9744
Interest	78.32	234.00	229.42	209.44
Return on Equity				
Opening Equity	1098.35	1118.61	1260.38	1260.38
Additions	20.26	141.77	0.00	0.00
Closing Equity	1118.61	1260.38	1260.38	1260.38
Average Equity	1108.48	1189.49	1260.38	1260.38
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	74.24	233.26	247.16	247.16
Interest on Working Capital				
Maintenance Spares	10.39	13.52	13.97	14.43
O & M expenses	5.77	7.51	7.76	8.02
Receivables	49.56	131.15	135.32	132.46
Total	65.73	152.18	157.05	154.91
Interest	8.87	20.54	21.20	20.91



Asset- IX	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Annual Transmission Charges				
Depreciation	66.63	208.96	221.05	221.05
Interest on Loan	78.32	234.00	229.42	209.44
Return on Equity	74.24	233.26	247.16	247.16
Interest on Working Capital	8.87	20.54	21.20	20.91
O & M Expenses	69.30	90.12	93.11	96.20
Total	297.36	786.89	811.94	794.76

(₹ in lakh)

Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Gross Block			
Opening Gross Block	1179.87	1532.14	1582.46
Additional Capitalisation	352.27	50.32	0.00
Closing Gross Block	1532.14	1582.46	1582.46
Average Gross Block	1356.01	1557.30	1582.46
Rate of Depreciation (%)	5.253	5.243	5.242
Depreciable Value	1220.41	1401.57	1424.22
Elapsed Life of the assets at beginning of the year	0	1	2
Weighted Balance Useful life of the assets	25	24	23
Remaining Depreciable Value	1220.41	1344.98	1285.97
Depreciation	56.59	81.65	82.96
Interest on Loan			
Gross Normative Loan	825.91	1072.50	1107.72
Cumulative Repayment upto Previous Year	0.00	56.59	138.24
Net Loan-Opening	825.91	1015.91	969.48
Additions	246.59	35.22	0.00
Repayment during the year	56.59	81.65	82.96
Net Loan-Closing	1015.91	969.48	886.52
Average Loan	920.91	992.69	928.00



Asset-X	2016-17 (Pro-rata)	2017-18	2018-19
Weighted Average Rate of Interest on Loan (%)	9.1323	9.1241	9.1157
Interest	84.10	90.57	84.59
Return on Equity			
Opening Equity	353.96	459.64	474.74
Additions	105.68	15.10	0.00
Closing Equity	459.64	474.74	474.74
Average Equity	406.80	467.19	474.74
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610
Return on Equity (Pre Tax)	63.38	91.62	93.10
Interest on Working Capital			
Maintenance Spares	6.56	8.53	8.81
O & M expenses	3.64	4.74	4.89
Receivables	42.42	54.90	54.69
Total	52.62	68.16	68.39
Interest	6.74	8.72	8.75
Annual Transmission Charges			
Depreciation	56.59	81.65	82.96
Interest on Loan	84.10	90.57	84.59
Return on Equity	63.38	91.62	93.10
Interest on Working Capital	6.74	8.72	8.75
O & M Expenses	43.71	56.84	58.73
Total	254.52	329.41	328.13



Filing Fee and the Publication Expenses

63. 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

64. 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

65. 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

66. 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 is premature.

Sharing of Transmission Charges

67. 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.

68. This order disposes of Petition No. 274/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO

(₹ in lakh)

Combined Asset- I, II, III, V, VI, VII, VIII	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
SBI (21.03.2012)-DOCO-	9.55	9806.00	0.00	9806.00
BOND XL-DOCO-	9.30	3681.00	0.00	3681.00
BOND - XLI-DOCO-	8.85	7908.60	0.00	7908.60
BOND - XLII-DOCO-	8.80	5154.53	0.00	5154.53
FC - BOND (17.01.2013)-DOCO-67.06	4.10	43636.08	0.00	43636.08
BOND - XLIII-DOCO-	7.93	31684.00	0.00	31684.00
BOND - XLV-DOCO-	9.65	12335.00	0.00	12335.00
SBI (2014-15)-DOCO-	9.55	3673.72	0.00	3673.72
SBI (2014-15)-DOCO.-	9.55	3992.00	0.00	3992.00
SBI (2014-15)-DOCO..-	9.55	5000.00	0.00	5000.00
SBI (2014-15)-DOCO...-	9.55	8500.00	0.00	8500.00
SBI (2014-15)-DOCO....-	9.55	10323.00	0.00	10323.00
Bond XLVI-DOCO-	9.30	14999.00	0.00	14999.00
Bond XLVII-DOCO-	8.93	21419.14	0.00	21419.14
Bond XLVIII-DOCO-	8.20	6438.00	0.00	6438.00
BOND -XLIX-DOCO-	8.15	3525.08	0.00	3525.08
BOND LII-DOCO-	8.32	22811.04	0.00	22811.04
BOND L-DOCO-	8.40	14872.00	0.00	14872.00
BOND LI-DOCO-	8.40	4019.09	0.00	4019.09
PROPOSED LOAN 2016-17 INTT 8.13%-DOCO-	8.13	9940.73	0.00	9940.73
Total		243718.01	0.00	243718.01

(₹ in lakh)

Asset-IV	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
SBI (21.03.2012)-DOCO-	9.55	1076.77	0.00	1076.77
BOND XLVII-DOCO-	8.93	580.86	0.00	580.86
BOND Li-DOCO-	8.40	1099.66	0.00	1099.66
Total		2757.29	0.00	2757.29



(₹ in lakh)

Asset- IX	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
SBI (21.03.2012)-DOCO-	9.55	400.00	0.00	400.00
BOND - XLI-DOCO-	8.85	700.00	0.00	700.00
SBI (2014-15)-ADDCAP 2015-2016 Add Cap-	9.55	0.00	47.28	47.28
BOND XLVI-DOCO-	9.30	800.00	0.00	800.00
BOND XLIX-DOCO-	8.15	15.31	0.00	15.31
BOND LI-DOCO-	8.40	668.52	0.00	668.52
Total		2583.83	47.28	2631.11

(₹ in lakh)

Asset-X	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
SBI (21.03.2012)-DOCO-	9.55	180.00	0.00	180.00
BOND XLVI -DOCO-	9.30	520.00	0.00	520.00
BOND XLIX-DOCO-	8.15	53.61	0.00	53.61
BOND-LII-DOCO-	8.32	32.53	0.00	32.53
BOND LIII-DOCO-	8.13	79.73	0.00	79.73
Total		865.87	0.00	865.87



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

(₹ in lakh)

Combined Asset- I, II, III, V, VI, VII, VIII	2016-17	2017-18	2018-19
Gross Opening Loan	243718.01	243718.01	243718.01
Cumulative Repayments of Loans upto Previous Year	0.00	1857.25	7382.75
Net Loans Opening	243718.01	241860.76	236335.26
Add: Drawl(s) during the year	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	1857.25	5525.50	7310.43
Net Closing Loan	241860.76	236335.26	229024.83
Average Net Loan	242789.39	239098.01	232680.05
Rate of Interest on Loan (%)	7.9328	7.9188	7.8964
Interest on Loan	19259.89	18933.62	18373.36

(₹ in lakh)

Asset-IV	2016-17	2017-18	2018-19
Gross Opening Loan	2757.29	2757.29	2757.29
Cumulative Repayments of Loans upto Previous Year	0.00	97.89	195.78
Net Loans Opening	2757.29	2659.40	2561.51
Add: Drawl(s) during the year	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	97.89	97.89	146.30
Net Closing Loan	2659.40	2561.51	2415.21
Average Net Loan	2708.35	2610.46	2488.36
Rate of Interest on Loan (%)	8.9501	8.9276	8.9031
Interest on Loan	242.40	233.05	221.54

(₹ in lakh)

Asset- IX	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	2583.83	2583.83	2631.11	2631.11
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	94.69	189.38
Net Loans Opening	2583.83	2583.83	2536.42	2441.73
Add: Drawl(s) during the year	47.28	47.28	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	0.00	94.69	94.69



Asset- IX	2015-16	2016-17	2017-18	2018-19
Net Closing Loan	2631.11	2631.11	2441.73	2347.04
Average Net Loan	2607.47	2607.47	2489.08	2394.39
Rate of Interest on Loan (%)	8.9823	8.9823	8.9799	8.9744
Interest on Loan	234.21	234.21	223.52	214.88

Asset-X	(₹ in lakh)		
	2016-17	2017-18	2018-19
Gross Opening Loan	865.87	865.87	865.87
Cumulative Repayments of Loans upto Previous Year	0.00	16.36	32.72
Net Loans Opening	865.87	849.51	833.15
Add: Drawl(s) during the year	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	16.36	16.36	16.36
Net Closing Loan	849.51	833.15	816.79
Average Net Loan	857.69	841.33	824.97
Rate of Interest on Loan (%)	9.13	9.12	9.12
Interest on Loan	78.33	76.76	75.20

