

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 418/TT/2014

Coram:

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

Date of Hearing : 06.04.2016

Date of Order : 31.05.2016

In the matter of:

Determination of transmission tariff of **Asset I:** 765 kV S/C Solapur-Pune transmission line and LILO of 400 kV D/C Pune-Parli at Pune GIS Sub-station with associated bays and equipments, 2x1500 MVA, 765/400 kV ICT 1&2 at Pune (GIS) and 240 MVAR, 765 kV bus reactor and 765 kV, 240 MVAR switchable line reactor at Pune (GIS) Sub-station with associated bays and, **Asset-II:** LILO of 400 kV D/C Aurangabad-Pune transmission line at Pune GIS Sub-station with associated bays and 400 kV, 50 MVAR line reactor under "Transmission system associated with Krishnapatnam UMPP-Part B" in Western Region for the 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

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Rampur, Jabalpur-482008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor, Bandra (East), Mumbai-400052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road



Vadodara- 390007

4. Electricity Department
Govt. of Goa,
Vidyut Bhawan, Panaji- 403001
5. Electricity Department
Administration of Daman & Diu,
Daman- 396210
6. Electricity Department
Administration of Dadra Nagar Haveli,
U.T., Silvassa- 396230
7. Chhattisgarh State Electricity Board
P.O Sunder Nagar, Dangania, Raipur
Chhattisgarh-492013
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road
Indore-452008

.....**Respondents**

The following were present:

For Petitioner: Shri A. M. Pavgi, PGCIL
 Shri Mohd. Mohsin, PGCIL
 Shri Piyush Awasthi, PGCIL
 Shri M.M. Mondal, PGCIL
 Shri S.K. Venkatesan, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri S.S. Raju, PGCIL
 Shri Subhash C Taneja, PGCIL
 Shri Pankaj Sharma, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for 765 kV S/C Solapur-Pune



transmission line and LILO of 400 kV D/C Pune-Parli at Pune GIS Sub-station with associated bays and equipments, 2x1500 MVA, 765/400 kV ICT 1&2 at Pune (GIS) and 240 MVAR, 765 kV bus reactor and 765 kV, 240 MVAR switchable line reactor at Pune (GIS) Sub-station with associated bays (referred as “**Asset-I**”) and LILO of 400 kV D/C Aurangabad-Pune transmission line at Pune GIS Sub-station with associated bays and 400 kV, 50 MVAR line reactor (referred as “**Asset-II**”) under “Transmission system associated with Krishnapatnam UMPP-Part B” in Western Region (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 and centralised companies who are procuring transmission service from the petitioner, mainly beneficiaries of the Western Region.

3. 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. None of the respondents have filed any reply to the petition. The hearing in this matter was held on 6.4.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.



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

(a) Investment approval was accorded by Board of Directors of the petitioner, vide the Memorandum No. C/CP/KUMPP-B dtd. 9.2.2012 at an estimated cost of ₹192716 lakh, which included IDC of ₹8813 lakh (based on 4th quarter 2011 price level). Subsequently, Revised Cost Estimate (RCE) was approved by Board of Directors of the petitioner, vide Memorandum No. C/CP/RCE- KUMPP- B dated 11.3.2016 at an estimated cost of ₹194058 lakh, which included IDC of ₹4701 lakh (based on August 2015 price level).

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

Transmission Lines:

1. Raichur-Sholapur 765 kV line.
2. Sholapur-Pune 765 kV S/C line
3. LILO of Parli-Pune 400 kV D/C and Pune-Aurangabad 400 kV D/C line at Pune (GIS) Sub-station (including multi circuit).
4. LILO of existing Raichur-Gooty 400 kV Quad D/C line at Raichur (New) Sub-station

Sub-station:

1. Establishment of new 765/400 kV Sub-station at Raichur with 2 x 1500 MVA ICTs.
2. Establishment of new 765/400 kV Sub-station at Sholapur with 2 x 1500 MVA ICTs.



3. Establishment of new 765/400 kV Sub-station at Pune with 2 x 1500 MVA ICTs.

Line Reactors:

1. 1 x 240 MVAR switchable line reactors at each end of Raichur-Sholapur 765 kV S/C and Sholapur-Pune 765 kV S/C lines.
2. 4 x 50 MVAR line reactors at Pune (GIS) Sub-station for LILO of Parli-Pune and Pune Aurangabad 400 kV D/C line at Pune (GIS) Sub-station.

Bus Reactors:

1. 1 x 240 MVAR Bus reactor each at Raichur, Sholapur and Pune Sub-station

(c) The transmission asset was scheduled to be commissioned within 32 months from the date of investment approval i.e. 9.2.2012. Therefore, the scheduled date of commissioning (SCOD) of the transmission system works out to 9.10.2014 against which the Assets-I and II have been commissioned on 6.3.2015 and 5.4.2016, respectively. Hence, there is time over-run of 4 months and 24 days in case of Asset-I and 17 months and 27 days in case of Asset-II.

(d) The petitioner in the original petition had submitted the tariff forms for the Assets on the basis of management certificate. Accordingly, the petitioner was directed to submit actual COD, Auditor's Certificate and revised tariff forms for the Asset-I and II. Further, the petitioner was directed to submit



the RLDC certificates in support of trial operation or commercial operation date for the assets. In response, the petitioner submitted the actual COD along with RLDC certificates, Auditor's Certificate and revised tariff forms for the assets.

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

6. The petitioner has claimed the transmission charges as under:-

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	283.68	4230.49	4578.76	4839.98	4895.25
Interest on Loan	98.25	1572.54	1746.10	1749.40	1626.00
Return on equity	325.28	4887.09	5339.72	5684.02	5752.40
Interest on Working Capital	19.78	297.89	322.03	337.82	339.66
O & M Expenses	63.44	938.08	969.04	1001.30	1034.50
Total	790.43	11926.09	12955.65	13612.52	13647.81

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation	586.25	639.82	650.60
Interest on Loan	352.22	362.58	344.32
Return on equity	667.96	729.73	742.30
Interest on Working Capital	50.11	53.58	54.16
O & M Expenses	237.63	248.25	256.50
Total	1894.17	2033.96	2047.88

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



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	136.15	140.71	145.36	150.20	155.18
O & M Expenses	75.64	78.17	80.75	83.44	86.21
Receivables	1884.90	1987.68	2159.28	2268.75	2274.64
Total	2096.69	2206.57	2385.39	2502.39	2516.03
Rate of Interest	13.50	13.50	13.50	13.50	13.50
Interest	283.05	297.89	322.03	337.82	339.66
Pro-rata Interest	19.78	297.89	322.03	337.82	339.66

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	36.05	37.24	38.48
O & M Expenses	20.03	20.69	21.38
Receivables	319.24	338.99	341.31
Total	50.67	53.58	54.16
Rate of Interest	13.50	13.50	13.50
Interest	50.11	53.58	54.16

Date of Commercial Operation (COD)

8. The petitioner has claimed the date of the commercial operation of the Asset-I and II as 6.3.2015 and 5.4.2016, respectively, and has prayed for determination of transmission tariff from COD to 31.3.2019 based on the 2014 Tariff Regulations. 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.”

9. The petitioner has submitted RLDC certificate issued by WRLDC, POSOCO for Assets-I and II 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.

10. Accordingly, the commercial operation date of the Asset-I and II has been considered as 6.3.2015 and 5.4.2016, respectively and the tariff is worked out from their COD to 31.3.2019.

Capital Cost

11. The details of apportioned approved cost, capital cost as on actual date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the instant assets as submitted by the petitioner are as under:-



(₹ in lakh)

Asset	Approved apporportioned cost as per FR	Approved apporportioned cost as per RCE	Capital cost as on COD	Additional capitalization				Total estimated completion cost
				2014-15	2015-16	2016-17	2017-18	
Asset-I	109652.28	98467.68	78539.34	1142.09	5978.88	9334.90	2313.47	97308.68
Asset-II	4839.67	13683.17	10720.72	0.00	0.00	1411.03	425.05	12556.80

12. 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.”

13. The petitioner has submitted Auditor’s Certificates for both the assets in support of capital cost incurred up to actual COD. As per the Auditor’s Certificates, the capital cost as on COD of the assets is as given below:-

(₹ in lakh)

Asset	Revised Apportioned Cost as per RCE	Capital cost as on COD	Additional capitalization				Total estimated completion cost
			2014-15	2015-16	2016-17	2017-18	
Asset-I	98467.68	79050.82	973.74	5635.75	9334.90	2313.47	97308.68
Asset-II	13683.17	10883.74	0.00	0.00	1248.01	425.05	12556.80

Time Over-run

16. As per the investment approval dated 9.2.2012, the project was scheduled to be commissioned within 32 months from the date of investment approval. Hence, the assets were to be commissioned progressively upto 9.10.2014. The petitioner has submitted actual date of commercial operation of Asset-I and II as below:-

Assets name	SCOD as per IA dtd 9.2.2012	Actual date of commercial operation	Delay in months
Asset-I	9.10.2014	6.3.2015	4 months and 24 days
Asset-II		5.4.2016	17 months and 27 days



17. With regard to delay for Asset-I and II, the petitioner has submitted that there was a delay in land acquisition of Pune (GIS) Sub-station due to ROW problems encountered at site. There were severe ROW problems in the construction of 765 kV S/C Solapur-Pune transmission line, LILO of 400 kV D/C Pune-Parli transmission line and LILO of 400 kV Aurangabad-Pune transmission line at Pune (GIS) Sub-station. In this regard, the petitioner has submitted that the application to the Collector, Pune for land acquisition was submitted on 14.1.2011. There was continuous resistance by the villagers (mostly landowners) due to ROW issues. Accordingly, first and second tripartite meeting was held between the State, Powergrid and landowners on 5.3.2012 and 27.3.2012, respectively, and, thereafter, representative of landowners submitted their written consent for the land acquisition on 9.5.2012. After a series of bureaucratic process and continuous efforts, land was handed over to the petitioner on 23.8.2013 for the construction of 765/400 kV GIS, Pune Sub-station. In this regard, the petitioner has submitted the following details in support of the claim of the time over-run due to delay in land acquisition:-

- Detailed chronology of events for land acquisition;
- Copy of application Ref. No. WRTS-1/Pune/TL765/F-109/11/3060 dated 14.1.2011 submitted to the Collector, Pune regarding acquisition of land for establishment of 765 kV sub-station of POWERGRID at village Shikrapur, Pune;
- Copy of letter Ref. No. WRTS-1/Engg./1213/2011 dated 7.12.2011 submitted to the Collector, Pune to expedite the land acquisition;



- Copy of application Ref. No. WRTS-1/Pune/TL765/F-109/11/325 dated 6.11.2012 submitted to the Collector, Pune regarding calculation of nazaraana amount of ₹70 lakh per hectare for land acquisition;
- Copy of letter dated 24.8.2013 by the DGM, Pune (Shikrapur) regarding information of handing over of land to POWERGRID on 23.8.2013.

18. With regard to delay for Asset-I, the petitioner has submitted that there was a delay due to ROW problems encountered at site. There were severe ROW problems in the construction of 765 kV S/C Solapur-Pune transmission line and LILO of 400 kV D/C Pune-Parli transmission line at Pune (GIS) Sub-station. There was continuous resistance by the villagers (mostly landowners) for finalization of compensation amount. The petitioner has submitted that the application to the Collector, Pune for obstruction in construction work at various location nos. was submitted on 7.12.2013. Since then, various meetings have been held between petitioner and land owners and there have been continuous efforts by petitioner for resolving the RoW issues with the land owners. In this regard, the petitioner has submitted various letters dated from 19.5.2014 to 10.2.2015 submitted by the petitioner to the District Collector, tehsildars and police stations stations of Pune requesting for assistance regarding the same.

19. Further, with regard to delay for Asset-II, the petitioner has submitted that there was a delay due to ROW problems encountered at site. In this regard, the petitioner has submitted the following documents:



- Copy of letter dated 5.6.2015 to the SDO, Pune regarding application to resolve Right of Way problems
- Copy of letter dated 15.6.2015 to the District Collector, Pune providing for support for construction activity
- Copy of various letters from 10.9.2015 to 30.3.2016 for police stations of Pune (Rural), Ranjangaon, Shikrapur requesting for police protection to field staff for completing the work at site.

Apart from above, there were several ROW cases which were resolved through negotiation by committee members of the petitioner and line could be charged on 3.4.2016.

20. We have considered the submissions of the petitioner. The time over-run of 4 months and 24 days in case of Asset-I and 17 months and 27 days in case of Asset-II has been attributed to delay in land acquisition of Pune (GIS) Sub-station and various ROW issues with land owners. The petitioner had approached the Collector, Pune for land acquisition on 14.1.2011 and the final possession for land was acquired on 23.8.2013. Therefore, the total time involved in getting possession of land was 31 months from the date of filing of application. Further, the petitioner had to face serious ROW problems on account of finalization of compensation with land owners and petitioner did all possible efforts to resolve the same. Hence, the time over-run is mainly on account on delay in handing over the land for 765 kV Pune (GIS) Sub-station and serious ROW issues, which is uncontrollable, and cannot be attributable to the petitioner. The delay in land acquisition and serious ROW issues has led to time over-run in both Asset-I and Asset-II. In view of the above, we condone the time



over-run of 4 months and 24 days in case of Asset-I and 17 months and 27 days in case of Asset-II.

21. Accordingly, the entire time over-run in all the assets is condoned and accordingly IDC and IEDC for the delay are allowed to be capitalised.

Assets name	SCOD as per IA dtd 9.2.2012	Actual Date of commercial operation	Delay in months	Delay condoned by the Commission
Asset-I	9.10.2014	6.3.2015	4 months and 24 days	4 months and 24 days
Asset-II		5.4.2016	17 months and 27 days	17 months and 27 days

IDC and IEDC

22. The petitioner in its auditor's certificates for the assets has submitted the breakup of IDC and IEDC as follows:-

(₹ in lakh)

Statement showing IDC and IEDC	Asset-I	
	IDC	IEDC
Total IDC/IEDC as per certificate	1653.70	2203.31
Total IDC/IEDC from date of infusion of debt fund to 31.3.2014	496.71	1057.46
Total IDC/IEDC from 1.4.2014 to COD	1156.99	1145.85

(₹ in lakh)

Statement showing IDC and IEDC	Asset-II	
	IDC	IEDC
Total IDC/IEDC as per certificate	340.54	989.28
Total IDC/IEDC date of infusion of debt fund to 31.3.2014	36.79	74.91
Total IDC/IEDC from 1.4.2014 to 31.3.2015	105.42	104.40
Total IDC/IEDC from 1.4.2015 to 31.8.2016	198.33	809.97
Total IDC/IEDC from from 1.4.2016 to COD	0.00	0.00

23. Further, the petitioner has also submitted the details of IDC claimed on cash basis is as given below:-



(₹ in lakh)		
Particulars	Asset-I	Asset-II
IDC as per Certificate	1653.70	340.54
IDC discharged upto COD	1142.20	177.52
IDC discharged in 2014-15	168.36	0.00
IDC discharged in 2015-16	343.13	0.00
IDC to be discharged in 2016-17	0.00	163.02

24. Further, the petitioner has submitted that entire IEDC is on cash basis and is discharged upto COD. As discussed above, we have condoned the entire time over-run in case of all the assets.

Initial Spares

25. 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%”

26. 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 are within the specified ceiling limits except in case of Assets-I as given below:-

(₹ in lakh)						
Description Sub-station (including PLCC)	Cut-off date	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
		(a)	(b)	(c)	(d)= ((a- b)*c)/(100-c)%	(e)=(d)-(b)
Transmission Line						
Asset-I	31.3.2018	43669.61	427.98	1.00%	436.78	0.00



Description Sub-station (including PLCC)	Cut-off date	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
		(a)	(b)	(c)	(d)= ((a- b)*c)/(100-c)%	(e)=(d)-(b)
Asset-II	31.3.2019	5943.47	45.51	1.00%	59.58	0.00
Sub-station (Greenfield)						
Asset-I	31.3.2018	40442.51	1992.01	4.00%	1602.10	389.91
Asset-II	31.3.2019	4380.81	0.00	4.00%	182.53	0.00

27. The capital cost for the assets has been worked out by adjusting IDC/IEDC and excess initial spares as given below:-

Particulars	(₹ in lakh)	
	Asset-I	Asset-II
Capital Cost as on COD as per Management Certificate/Auditor's Certificate	79050.82	10883.74
Total IDC/IEDC disallowed by the Commission	0.00	0.00
Accrued IDC and EDC discharged in 2014-15	168.36	0.00
Accrued IDC and EDC to be discharged in 2015-16	343.13	0.00
Accrued IDC and EDC to be discharged in 2016-17	0.00	163.02
Capital Cost as on COD (after deducting accrual IDC discharged)	78539.32	10720.72
Excess Initial Spares (for transmission line)	0.00	0.00
Excess Initial Spares (for sub-station)	389.91	0.00
Capital Cost as on COD (after deducting accrual IDC/IEDC and excess initial spares)	78149.41	10720.72

28. The capital cost as on COD for the assets, as worked out above is within the approved apportioned cost. Accordingly, capital cost as worked out as on COD is allowed and considered for the purpose of tariff computation for 2014-19 tariff period on provisional basis, which shall be tried up at the time of trying up of tariff for 2014-19 period.



Additional Capital Expenditure

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

30. 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) Undischarged liabilities recognized to be payable at a future date;

31. It is observed that total estimated completion cost including additional capitalization for 2014-15, 2015-16, 2016-17 and 2017-18 is within the approved apportioned cost for both Asset-I and II.

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

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

33. The cut-off date for Asset-I and II works out to be 31.3.2018 and 31.3.2019. The additional capitalization claimed by the petitioner is within the cut-off date and the capital cost including additional capitalization is within the apportioned cost. Therefore, the additional capitalization for 2014-15, 2015-16



and 2016-17 is allowed on provisional basis under Regulation 14(1)(i) of 2014 Tariff Regulations for both Asset-I and Asset-II.

34. The details of additional capitalization provisionally allowed is as follows:-

(₹ in lakh)

Name of the element	Particulars	Approved Apportioned Cost	Expenditure upto COD	Additional Capital Expenditure					Total estimated completion cost
				2014-15	2015-16	2016-17	2017-18	Total	
Asset-I	Petitioner's Claim	98467.68	78539.34	1142.09	5978.88	9334.90	2313.47	18769.34	97308.68
	Approved in this order	98467.68	78149.41	1142.10	5978.88	9334.90	2313.47	18769.35	96918.76
Asset-II	Petitioner's Claim	13683.17	10720.72	0.00	0.00	1411.03	425.05	1836.08	12556.80
	Approved in this order	13683.17	10720.72	0.00	0.00	1411.03	425.05	1836.08	12556.80

Debt: Equity Ratio

35. 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.”

36. The petitioner has considered debt:equity ratio as 70:30 as on COD as well as for additional capitalisation. We have considered debt:equity ratio of 70:30 as on COD and for additional capitalization during tariff period 2014-19.



The details of the debt:equity as on the date of COD and 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Asset-I				
Particulars	Capital cost as on COD		Estimated completion cost including additional capitalization	
	Amount	(%)	Amount	(%)
Debt	54704.59	70.00	67843.13	70.00
Equity	23444.82	30.00	29075.63	30.00
Total	78149.41	100.00	96918.76	100.00

(₹ in lakh)

Asset-II				
Particulars	Capital cost as on COD		Estimated completion cost including additional capitalization	
	Amount	(%)	Amount	(%)
Debt	7504.50	70.00	8789.77	70.00
Equity	3216.22	30.00	3767.04	30.00
Total	10720.72	100.00	12556.80	100.00

Interest on Loan (“IOL”)

37. 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.”

38. 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 2014-19 tariff period will be adjusted at the time of true up.

39. 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)

Asset-I					
Details of Loan	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross loan opening	54704.59	55504.06	59689.28	66223.71	67843.13
Cumulative Repayment upto DOCO/previous year	0.00	287.68	4497.74	9055.91	13875.30
Net Loan-Opening	54704.59	55216.38	55191.54	57167.80	53967.84
Additions during the year	799.47	4185.22	6534.43	1619.43	0.00
Repayment during the year	287.68	4210.05	4558.17	4819.39	4874.66
Net Loan-Closing	55216.38	55191.54	57167.80	53967.84	49093.18
Average Loan	54960.48	55203.96	56179.67	55567.82	51530.51
Rate of Interest (%)	2.5449	2.8349	3.0945	3.1355	3.1429
Interest	99.63	1564.97	1738.45	1742.33	1619.55

(₹ in lakh)

Asset-II			
Details of Loan	2016-17 (Pro-rata)	2017-18	2018-19
Gross loan opening	7504.50	8492.23	8789.77
Cumulative Repayment upto DOCO/previous year	0.00	586.34	1226.16
Net Loan-Opening	7504.50	7905.89	7563.61
Additions during the year	987.72	297.54	0.00
Repayment during the year	586.34	639.82	650.60
Net Loan-Closing	7905.89	7563.61	6913.01



Asset-II			
Details of Loan	2016-17 (Pro-rata)	2017-18	2018-19
Average Loan	7705.20	7734.75	7238.31
Rate of Interest (%)	4.6225	4.6876	4.7568
Interest	352.27	362.57	344.31

Return on Equity("ROE")

40. 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."



41. The petitioner has computed ROE at the rate of 19.610% for 2014-15 and 19.705% for 2015-16 to 2018-19 in case of Asset-I and 19.705% in case of Asset-II for tariff period 2016-19 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 truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

42. 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.

43. 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)

Asset-I					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	23444.82	23787.45	25581.12	28381.59	29075.63
Addition due to Additional Capitalisation	342.63	1793.66	2800.47	694.04	0.00
Closing Equity	23787.45	25581.12	28381.59	29075.63	29075.63
Average Equity	23616.14	24684.29	26981.35	28728.61	29075.63
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)(%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	329.89	4840.59	5291.04	5633.68	5701.73

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Opening Equity	3216.22	3639.53	3767.04
Addition due to Additional Capitalisation	423.31	127.51	0.00
Closing Equity	3639.53	3767.04	3767.04
Average Equity	3427.87	3703.28	3767.04
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)	664.84	726.21	738.72

Depreciation

44. 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”

45. 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.”

46. The petitioner in its petition has computed depreciation considering capital cost as on COD of ₹78539.34 lakh and ₹10720.72 lakh for Asset-I and Asset-II, respectively.

47. 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 30 years for Assets- I and II.

48. We have computed depreciation considering approved capital cost as on COD and allowed additional capitalisation. Depreciation is allowed as provided



under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	78149.41	79291.51	85270.39	94605.29	96918.76
Additional Capitalization	1142.10	5978.88	9334.90	2313.47	0.00
Closing Gross block	79291.51	85270.39	94605.29	96918.76	96918.76
Average Gross block	78720.46	82280.95	89937.84	95762.03	96918.76
Rate of Depreciation (%)	5.130	5.117	5.068	5.033	5.030
Depreciable Value	69584.59	72784.92	79238.12	84044.65	85085.72
Elapsed Life of the asset at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the asset	30	29	28	27	26
Remaining Depreciable Value	69584.59	72497.23	74740.39	74988.75	71210.42
Depreciation	287.68	4210.05	4558.17	4819.39	4874.66

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Opening Gross Block	10720.72	12131.75	12556.80
Additional Capitalization	1411.03	425.05	0.00
Closing Gross block	12131.75	12556.80	12556.80
Average Gross block	11426.24	12344.28	12556.80
Rate of Depreciation (%)	5.188	5.183	5.181
Depreciable Value	10283.61	11109.85	11301.12
Elapsed Life of the asset at beginning of the year	0	1	2
Weighted Balance Useful life of the asset	30	29	28
Remaining Depreciable Value	10283.61	10523.51	10074.96
Depreciation	586.34	639.82	650.60



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

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

50. 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		Asset-I				
		2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Actual (No. of bays)	765 kV	5	5	5	5	5
	400 kV Gas Insulated Substation	6	6	6	6	6
Actual line length (km)	Single Circuit (Bundled Conductor with four sub- conductors)	268.051	268.051	268.051	268.051	268.051
	Double Circuit (Bundled conductor with four or more sub-conductors)	1.476	1.476	1.476	1.476	1.476
	Double Circuit (Twin & Triple Conductor)	2.600	2.600	2.600	2.600	2.600
	Multi Circuit (Twin & Triple Conductor)	8.500	8.500	8.500	8.500	8.500
Norms as per Regulation	765 kV (₹lakh/bay)	84.42	87.22	90.12	93.11	96.20
	400 kV Gas Insulated Substation (₹lakh/bay)	51.54	53.25	55.02	56.84	58.73
	Single Circuit (Bundled Conductor with four sub- conductors) (₹lakh/km)	0.606	0.627	0.647	0.669	0.691
	Double Circuit (Bundled conductor with four or more sub-conductors) (₹lakh/km)	1.062	1.097	1.133	1.171	1.21
	Double Circuit (Twin & Triple Conductor) (₹lakh/km)	0.707	0.731	0.755	0.780	0.806



Asset-I						
Particulars		2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
	Multi Circuit (Twin & Triple Conductor) (₹lakh/km)	1.240	1.282	1.324	1.368	1.413
Total		64.66	938.08	969.04	1001.30	1034.50

(₹ in lakh)

Asset-II				
Particulars		2016-17 (Pro-rata)	2017-18	2018-19
Actual (No. of bays)	400 kV Gas Insulated Substation	4	4	4
Actual line length (km)	Double Circuit (Twin & Triple Conductor)	13.083	13.083	13.083
	Multi Circuit (Twin & Triple Conductor)	7.811	7.811	7.811
Norms as per Regulation	400 kV Gas Insulated Substation (₹lakh/bay)	55.02	56.84	58.73
	Double Circuit (Twin & Triple Conductor) (₹lakh/km)	0.755	0.780	0.806
	Multi Circuit (Twin & Triple Conductor) (₹lakh/km)	1.324	1.368	1.413
Total		237.67	248.25	256.50

51. 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.



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

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

(₹ in lakh)					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Asset-I	64.66	938.08	969.04	1001.30	1034.50
Asset-II	0.00	0.00	237.67	248.25	256.50

Interest on Working Capital (“IWC”)

54. 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) in case of Asset-I and 12.80% (SBI Base Rate of 9.30% plus 350 basis points).

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



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.70	140.71	145.36	150.20	155.17
O & M expenses	5.39	78.17	80.75	83.44	86.21
Receivables	133.66	1974.98	2146.16	2255.45	2261.39
Total	148.74	2193.86	2372.27	2489.09	2502.77
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	20.08	296.17	320.26	336.03	337.87

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Maintenance Spares	35.65	37.24	38.48
O & M expenses	19.81	20.69	21.38
Receivables	314.75	337.92	340.22
Total	370.20	395.85	400.07
Rate of Interest (%)	12.80	12.80	12.80
Interest	47.39	50.67	51.21

Annual Transmission Charges

56. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	78149.41	79291.51	85270.39	94605.29	96918.76
Additional Capitalisation	1142.10	5978.88	9334.90	2313.47	0.00
Closing Gross Block	79291.51	85270.39	94605.29	96918.76	96918.76
Average Gross Block	78720.46	82280.95	89937.84	95762.03	96918.76
Rate of Depreciation	5.130	5.117	5.068	5.033	5.030
Depreciable Value	69584.59	72784.92	79238.12	84044.65	85085.72
Elapsed Life of the assets at beginning of the year	0	1	2	3	4



Particulars	Asset-I				
	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Weighted Balance Useful life of the assets	30	29	28	27	26
Remaining Depreciable Value	69584.59	72497.23	74740.39	74988.75	71210.42
Depreciation	287.68	4210.05	4558.17	4819.39	4874.66
Interest on Loan					
Gross Normative Loan	54704.59	55504.06	59689.28	66223.71	67843.13
Cumulative Repayment upto Previous Year	0.00	287.68	4497.74	9055.91	13875.30
Net Loan-Opening	54704.59	55216.38	55191.54	57167.80	53967.84
Additions	799.47	4185.22	6534.43	1619.43	0.00
Repayment during the year	287.68	4210.05	4558.17	4819.39	4874.66
Net Loan-Closing	55216.38	55191.54	57167.80	53967.84	49093.18
Average Loan	54960.48	55203.96	56179.67	55567.82	51530.51
Weighted Average Rate of Interest on Loan (%)	2.5449	2.8349	3.0945	3.1355	3.1429
Interest	99.63	1564.97	1738.45	1742.33	1619.55
Return on Equity					
Opening Equity	23444.82	23787.45	25581.12	28381.59	29075.63
Additions	342.63	1793.66	2800.47	694.04	0.00
Closing Equity	23787.45	25581.12	28381.59	29075.63	29075.63
Average Equity	23616.14	24684.29	26981.35	28728.61	29075.63
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	329.89	4840.59	5291.04	5633.68	5701.73
Interest on Working Capital					
Maintenance Spares	9.70	140.71	145.36	150.20	155.17
O & M expenses	5.39	78.17	80.75	83.44	86.21
Receivables	133.66	1974.98	2146.16	2255.45	2261.39
Total	148.74	2193.86	2372.27	2489.09	2502.77
Interest	20.08	296.17	320.26	336.03	337.87
Annual Transmission Charges					
Depreciation	287.68	4210.05	4558.17	4819.39	4874.66
Interest on Loan	99.63	1564.97	1738.45	1742.33	1619.55
Return on Equity	329.89	4840.59	5291.04	5633.68	5701.73
Interest on Working Capital	20.08	296.17	320.26	336.03	337.87
O & M Expenses	64.66	938.08	969.04	1001.30	1034.50
Total	801.95	11849.86	12876.96	13532.72	13568.31



(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata)	2017-18	2018-19
Gross Block			
Opening Gross Block	10720.72	12131.75	12556.80
Additional Capitalisation	1411.03	425.05	0.00
Closing Gross Block	12131.75	12556.80	12556.80
Average Gross Block	11426.24	12344.28	12556.80
Rate of Depreciation	5.188	5.183	5.181
Depreciable Value	10283.61	11109.85	11301.12
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	10283.61	10523.51	10074.96
Depreciation	586.34	639.82	650.60
Interest on Loan			
Gross Normative Loan	7504.50	8492.23	8789.77
Cumulative Repayment upto Previous Year	0.00	586.34	1226.16
Net Loan-Opening	7504.50	7905.89	7563.61
Additions	987.72	297.54	0.00
Repayment during the year	586.34	639.82	650.60
Net Loan-Closing	7905.89	7563.61	6913.01
Average Loan	7705.20	7734.75	7238.31
Weighted Average Rate of Interest on Loan (%)	4.6225	4.6876	4.7568
Interest	352.27	362.57	344.31
Return on Equity			
Opening Equity	3216.22	3639.53	3767.04
Additions	423.31	127.51	0.00
Closing Equity	3639.53	3767.04	3767.04
Average Equity	3427.87	3703.28	3767.04
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)	664.84	726.21	738.72
Interest on Working Capital			
Maintenance Spares	35.65	37.24	38.48
O & M expenses	19.81	20.69	21.38
Receivables	314.75	337.92	340.22
Total	370.20	395.85	400.07
Interest	47.39	50.67	51.21
Annual Transmission Charges			



Particulars	Asset-II		
	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation	586.34	639.82	650.60
Interest on Loan	352.27	362.57	344.31
Return on Equity	664.84	726.21	738.72
Interest on Working Capital	47.39	50.67	51.21
O & M Expenses	237.67	248.25	256.50
Total	1888.50	2027.52	2041.34

Filing Fee and the Publication Expenses

57. 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.

Foreign Exchange Rate Variation

14. 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 Regulation 51(1) of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

58. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and



charges in accordance with Clause (2)(b) and (2)(a) respectively of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

59. 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

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

61. This order disposes of Petition No. 418/TT/2014.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO

(₹ in lakh)

Particulars	ASSET-I			
	2014-19			
	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
IBRD V- Loan 1- 62.83	1.69	48630.42	0.00	48630.42
BOND - XLII-Loan 2-	8.80	1950.63	0.00	1950.63
BOND - XLIII-Loan 3-	7.93	1466.16	0.00	1466.16
BOND - XLIV-Loan 4-	8.70	1256.04	0.00	1256.04
SBI (2014-15)-ADDCAP FOR 2015-16 Add Cap 3-	10.25	0.00	962.03	962.03
Bond XLVII-ADDCAP FOR 2014-2015 Add Cap 2-	8.93	0.00	117.85	117.85
Bond XLVII-ADDCAP FOR 2015-2016 Add Cap 5-	8.93	0.00	240.19	240.19
Bond-XLVII-Loan 5-	8.93	1674.28	0.00	1674.28
Bond XLVIII-ADDCAP FOR Add Cap 1-	8.20	0.00	681.62	681.62
BOND LI-ADDCAP FOR 2015-2016 Add Cap 4-	8.40	0.00	2983.00	2983.00
Total		54977.53	4984.69	59962.22

(₹ in lakh)

Particulars	ASSET-II			
	2014-19			
	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
IBRD V- Loan 2- 66.73	2.23	5090.83	0.00	5090.83
BOND XLVI -Loan 1-	9.30	2413.67	0.00	2413.67
Total		7504.50	0.00	7504.50



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

(₹ in lakh)

Particulars	ASSET-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	54977.53	55777.00	59962.22	59962.22	59962.22
Cumulative Repayments of Loans upto Previous Year	880.21	880.21	2655.22	4449.68	6385.77
Net Loans Opening	54097.32	54896.79	57307.00	55512.54	53576.45
Add: Drawl(s) during the year	799.47	4185.22	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	1775.01	1794.46	1936.09	2533.86
Net Closing Loan	54896.79	57307.00	55512.54	53576.45	51042.59
Average Net Loan	54497.06	56101.90	56409.77	54544.50	52309.52
Interest on Loan	1386.90	1590.42	1745.57	1710.24	1644.04
Rate of Interest on Loan (%)	2.5449	2.8349	3.0945	3.1355	3.1429

(₹ in lakh)

Particulars	ASSET-II		
	2016-17	2017-18	2018-19
Gross Opening Loan	7504.50	7504.50	7504.50
Cumulative Repayments of Loans upto Previous Year	277.96	465.81	655.70
Net Loans Opening	7226.54	7038.69	6848.80
Add: Drawl(s) during the year	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	187.85	189.89	190.91
Net Closing Loan	7038.69	6848.80	6657.89
Average Net Loan	7132.62	6943.75	6753.35
Interest on Loan	329.70	325.49	321.25
Rate of Interest on Loan (%)	4.6225	4.6876	4.7568

