

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 20/TT/2015

Coram:

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

**Date of Hearing : 08.02.2016
Date of Order :26.05.2016**

In the matter of:

Truing up of transmission tariff for the 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and determination of transmission tariff for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for assets covered in the following Orders of Central Electricity Regulatory Commission:

A.Order dtd 2.5.013 in Petition No. 105/TT/2011

B.Order dtd 6.2.2014 in Petition No. 104/TT2012

C.Order dtd 3.7.2014 in Petition No. 64/TT/2012 under ATS for Mundra UMPP under Western Region 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 Trading Company Limited
Shakti Bhawan, Rampur
Jabalpur –482 008
2. Maharashtra State Electricity Distribution Co. Limited
5th Floor, Prakashgad, Plot no. 9,
Anant Kanekar Marg, Bandra (East),
Mumbai – 400 051



3. Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara – 390 007
4. Electricity Department
Govt. of Goa
Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa – 403 001
5. Electricity Department
Administration of Daman & Diu
Daman – 396 210
6. Electricity Department
Administration of Dadra Nagar Haveli,
U.T., Silvassa – 396 230
7. Chhattisgarh State Electricity Board
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh – 492 013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore – 452 008
9. Punjab State Electricity Board
220 kV Sub-station, Ablowal, Patiala- 147001
10. Haryana Power Purchase Centre,
2nd Floor, Shakti Bhawan, Sector-6,
Panchkula- 134 109
11. Rajasthan Power Procurement Centre, Vidyut Bhawan,
Janpath, Jaipur
12. Ajmer Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
13. Jodhpur Vidyut Vitran Nigam Ltd.
400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur
14. Jaipur Vidyut Vitran Nigam Ltd.



400 kV GSS Building (Ground Floor), Ajmer Road
Heerapura, Jaipur

15. Costal Gujarat Power Limited
TataPower Backbay Receiving Station
148, LT, Gen J Bhonsle Marg,
Nariman Point, Mumbai- 400 021

.....**Respondents**

The following were present:-

For Petitioner: Shri Mohd. Mohsin, PGCIL
 Shri S. K. Venkatesan, PGCIL
 Shri M. M. Mondal, PGCIL
 Smt. Sonam Gangwar, PGCIL
 Shri A. M. Pagvi, PGCIL
 Shri Pankaj Sharma, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri S. S. Raju, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri Subhash C. Taneja, PGCIL

For Respondent: None

ORDER

2. The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff for assets covered in the following CERC (Central Electricity Regulatory Commission) orders:

A. Order dtd 2.5.2013 in Petition No. 105/TT/2011

B. Order dtd 6.2.2014 in Petition No. 104/TT/2012

C. Order dtd 3.7.2014 in Petition No. 64/TT/2012 under ATS for Mundra UMPP under Western Region (hereinafter referred as “transmission asset”).

The petitioner has filed this petition under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual capital



expenditure for the period from COD of respective assets to 31.3.2014 and for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from 1.4.2014 to 31.3.2019 for Combined Assets.

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

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

(a) The investment approval for the Associated Transmission System (ATS) for Mundra (4000 MW) UMPP was accorded by Board of Directors of POWERGRID vide their letter dated 15.10.2008 at an estimated cost of ₹482412 lakh including IDC of ₹44686 lakh, based on 1st Quarter 2008 Price Level. Subsequently, Revised Cost Estimate (RCE) was approved by Board of Directors of the petitioner company vide Memorandum No. C/CP/RCE/Mundra Ultra Mega Power Project, dated 11.3.2016, at an estimated expenditure of ₹507194 lakh including an IDC of ₹43189 lakh, based on October, 2015 price level.

(b) The assets are renamed in the instant order for proper identification. The details of the assets along with COD and approved apportioned cost along with the renamed assets are as under:-



Asset Names	Asset as in Previous Orders	Assets renamed in the instant order for identification
A. Order dtd 2.5.2013 in Petition No. 105/TT/2011		
400 kV D/C Mundra-Bachchau (Triple Snowbird) transmission line along with associated bays at Bachchau sub-station (extension),	Asset-I	Asset-1*
New 400/220 kV Bachchau sub-station (Gujarat) and 1x63 MVAR Bus Reactor at Bachchau sub-station (New) along with associated bays	Asset-II	Asset-5
400/220 kV ICT-I at Bachchau sub-station along with associated 400 kV and 220 kV lines bays;	Asset-III #	
Asset-IV: Combined Asset of 400/220 kV ICT-I at Bachchau sub-station along with associated 400 kV and 220 kV bays and 400/220 kV ICT-II at Bachchau sub-station	Asset-IV	Asset-6A & 6B (Asset-6)
B. Order dtd 6.2.2014 in Petition No. 104/TT/2012		
400kV D/C Mundra- Bachchau TL(date of commercial operation 1.10.2011) along with associated bays	Asset-1	Asset-1*
400 kV D/C Bachchau – Ranchoddpura TL	Asset-2	Asset-2
Part of 400 kV D/C Mundra – Limbdi (from tapping point at Surajbadi to Limbdi) line along with associated bays	Asset-3	Asset-3
400 kV D/C Mundra – Surajbari (balance portion) TL	Asset-4	Asset-4
C. Order dtd 3.7.2014 in Petition No. 64/TT/2012		
400 kV D/C Surajbari-Jetpur TL (Part of 400 kV D/C Mundra-Jetpur) (Triple snowbird) with associated bays at Jetpur (GETCO)	Asset-1 (Part-A)	Asset-7A



Asset Names	Asset as in Previous Orders	Assets renamed in the instant order for identification
400 kV D/C Mundra – Surajbari TL (Part of 400 kV D/C Mundra-Jetpur) (Triple snowbird)	Asset-1 (Part-B)	Asset-7B
400 kV Gandhar (NTPC) – Navsari TL ckt-II associated bays at Gandhar (NTPC) – Navsari (GIS) S/S, Navsari GIS S/S (new) and Bus reactor at Navsari GIS	Asset-2 (Part-A)	Asset-8A
400 kV Gandhar (NTPC) – Navsari TL ckt-I associated bays at Gandhar (NTPC) & Navsari (GIS) S/S, Navsari GIS S/S (new)	Asset-2 (Part-B)	Asset-8B
LILO of 220 kV D/C Kawas – Navsari T/L at Navsari GIS S/S & 400/220 kV ICT-II alongwith associated bays at GIS S/S at Navsari	Asset-3 (Part-A)	Asset-9A
400/220 kV ICT-I along with associated bays at Navsari GIS S/S	Asset-3 (Part-B)	Asset-9B

Note:*For Asset-I, tariff superseded vide order dated 6.2.2014 in Petition No. 104/TT/2012
Combined with Asset-IV. Tariff is given only for Asset-I, II and IV in Petition No. 105/TT/2011

Asset Names as in Previous Orders	Assets renamed in the instant order for identification	Actual COD	Approved AppORTIONED FR Cost (₹ in lakh)	Approved AppORTIONED Cost as per RCE(₹ in lakh)
A. Order dtd 2.5.2013 in Petition No. 105/TT/2011				
Asset-I	Tariff superseded vide order dated 6.2.2014 in Petition No. 104/TT/2012(as Asset-1 in this order)			
Asset-II	Asset-5	1.10.2011	4579.73	5424.90
Asset-III (Combined with Asset-IV)		1.10.2011		
Asset-IV	Asset-6A & 6B (Asset-6)	1.10.2011	7043.86	7427.62
B. Order dtd 6.2.2014 in Petition No. 104/TT2012				
Asset-1	Asset-1	1.10.2011	17860.68	17772.72
Asset-2	Asset-2	1.10.2011	103375.6	45571.66
Asset-3	Asset-3	1.12.2011		36573.10



Asset Names as in Previous Orders	Assets renamed in the instant order for identification	Actual COD	Approved Apportioned FR Cost (₹ in lakh)	Approved Apportioned Cost as per RCE(₹ in lakh)
Asset-4	Asset-4	1.3.2011		21196.90
C. Order dtd 3.7.2014 in Petition No. 64/TT/2012				
Asset-1 (Part-A)	Asset-7A	1.9.2012	30523.74	32937.61
Asset-1 (Part-B)	Asset-7B	1.1.2013	31427.16	34111.03
Asset-2 (Part-A)	Asset-8A	1.8.2012	18052.07	17341.00
Asset-2 (Part-B)	Asset-8B	1.11.2012	6094.87	6291.46
Asset-3 (Part-A)	Asset-9A	1.8.2012	9520.44	9871.89
Asset-3 (Part-B)	Asset-9B	1.9.2012	1767.69	1791.01

(c) The tariff from respective COD to 31.3.2014 was determined vide order dated 2.5.2013 in Petition No. 105/TT/2011 for Assets-5, Asset-6A and Asset-6B, order dated 6.2.2014 in Petition No. 104/TT/2012 for Asset-1, 2, 3 and 4, order dated 3.7.2014 in Petition No. 64/TT/2012 for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9A and Asset-9B in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-

(₹ in lakh)

Particulars	Approved in Order dtd 06.02.2014 in Petition No. 104/TT/2012 Asset-1,2,3 and 4					
	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata-1.10.2011-30.11.2011)	2011-12 (Pro-rata-1.10.2011-30.11.2011)	2011-12 (Pro-rata-1.12.2011-29.2.2012)	2011-12 (Pro-rata-1.3.2012-31.3.2012)	2012-13	2013-14
Depreciation	137.33	347.95	1173.43	477.01	5892.59	6064.50
Interest on Loan	155.12	399.73	1355.84	551.40	6532.44	6199.93
Return on equity	136.26	345.59	1165.23	473.70	5850.84	6020.51
Interest on Working Capital	10.06	25.29	84.24	33.83	413.59	416.54
O & M Expenses	31.14	72.09	217.82	79.82	1012.60	1070.23



Total	469.91	1190.66	3996.56	1615.76	19702.05	19771.71
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(₹ in lakh)

Asset-5	Approved in Order dated 02.05.2013 in Petition No. 105-TT-2014 Asset-II/ (Asset 5)		
	2011-12	2012-13	2013-14
Depreciation	71.07	157.79	174.44
Interest on Loan	122.29	257.74	270.32
Return on equity	105.13	229.58	252.71
Interest on Working Capital	7.37	15.85	17.07
O & M Expenses	29.29	61.92	65.46
Total	335.15	722.88	780.00

(₹ in lakh)

Particulars	Approved in Order dated 02.05.2013 in Petition No. 105-TT-2014 Asset-IV/ (Asset 6 i.e. Asset-6A & 6B)		
	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	129.58	321.56	341.97
Interest on Loan	153.00	361.64	355.88
Return on equity	128.70	319.32	339.42
Interest on Working Capital	16.92	38.43	40.17
O & M Expenses	181.57	383.88	405.84
Total	609.78	1424.83	1483.29

(₹ in lakh)

Particulars	Asset-7A: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-1 (Part-A)		Asset-7B: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-1 (Part-B)	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	904.11	1592.21	414.84	1659.35
Interest on Loan	1080.06	1787.37	237.51	922.38
Return on equity	898.00	1581.29	412.03	1648.13
Interest on Working Capital	74.35	128.70	26.22	104.65
O & M Expenses	144.96	262.65	31.21	131.94



Total	3101.49	5352.22	1121.82	4466.46
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(₹ in lakh)

Particulars	Asset-8A: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-2 (Part-A)		Asset-8B: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-2 (Part-B)	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	526.07	837.34	118.60	298.83
Interest on Loan	670.56	1014.65	143.53	342.41
Return on equity	560.87	900.18	117.59	296.23
Interest on Working Capital	50.08	78.62	11.59	28.81
O & M Expenses	174.30	276.37	51.60	130.92
Total	1981.88	3107.16	442.91	1097.21

(₹ in lakh)

Particulars	Asset-9A: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-3 (Part-A)		Asset-9B: Approved in Order dated 03.07.2014 in Petition No. 64-TT-2015 for Asset-3 (Part-B)	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	280.56	452.23	48.64	86.83
Interest on Loan	334.95	506.35	58.12	97.61
Return on equity	278.51	448.86	48.31	86.24
Interest on Working Capital	31.31	49.42	6.96	12.38
O & M Expenses	194.33	308.16	61.40	111.28
Total	1119.67	1765.01	223.43	394.34

(d) The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 8.2.2016. None of the respondents have filed any reply to the petition. The petitioner was directed to submit certain information vide ROP



(Record of Proceedings) dated 8.2.2016, which has been submitted by the petitioner vide affidavit dated 29.2.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

(e) The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity for the tariff period 2009-14, which is required to be adjusted as per the actual MAT rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

TRUING UP OF ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2009-14

5. The truing up of tariff for the 2009-14 tariff period for the assets has been carried out as discussed below.

Capital Cost

6. The petitioner has claimed the capital cost as on COD for assets in Petition No. 104/TT/2012, as ₹15383.28 lakh, ₹38972.17 lakh, ₹32102.72 lakh and ₹17967.11 lakh for Asset-1, Asset-2, Asset-3 and Asset-4 respectively. For assets in Petition No. 105/TT/2011 as ₹3837.06 lakh, ₹2845.63 lakh and ₹1154.76 lakh for Asset-5, Asset-6A and Asset-6B respectively. For assets in Petition No. 64/TT/2012 as ₹28855.63 lakh, ₹32137.04 lakh, ₹15546.20 lakh, ₹5454.11 lakh, ₹7851.59 lakh and ₹1567.74 lakh for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9A and Asset-9B respectively. The assets are in accordance to Auditor's Certificate dated 24.12.2014.



7. Clause (1) of Regulation 7 of the 2009 Tariff Regulations provides that:-

“(1) Capital cost for a project shall include:

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (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, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”

8. The tariff for the assets covered in order dated 6.2.2014 in Petition No. 104/TT/2012, was approved based on Management Certificate dated 29.6.2012. Assets covered in Petition No. 105/TT/2011 was approved as per Management Certificate dated 12.5.2012 and assets covered in Petition No. 64/TT/2012 was in accordance to Management Certificate dated 3.8.2013.

9. In order dated 6.2.2014 in Petition No 104/TT/2012, the Commission had stated that,

“ ...Combined Asset-I for which tariff is being granted in this order includes, Asset-1 covered in Petition No. 105/TT/2011 for which tariff was granted from 1.10.2011 to 31.3.2014. Accordingly, the tariff being awarded through this order in respect of Combined Asset-I will supersede the tariff approved for Asset-1 covered in Petition No. 105/TT/2011 for the 2009-14 tariff period with effect from 1.12.2011.”

10. Further as stated in order dated 6.2.2014 in Petition No.104/TT/2014:



- Tariff for Asset-1 and Asset-2 was applicable from date of COD i.e. 1.10.2011 to 30.11.2011.
- Tariff for Combined Asset-1,2 and 3 (notional date of COD: 1.12.2011) has been computed for the year 2011-12 (pro-rata) which was applicable for 3 months (.1.12.2011 to February, 2012)
- Tariff for Combined Asset-1,2,3 and 4 (Notional date of COD: 1.3.2012) has been computed for the 2009-14 tariff period, which was applicable from 1.3.2012 to 31.3.2014.

11. The petitioner has submitted the actual capital expenditure incurred upto COD and submitted Auditor's Certificate in support of its claim of the capital cost as on COD and additional capitalization claimed from COD to 31.3.2014. In accordance with Regulation 7(1) read with Regulation 6 of the 2009 Tariff Regulations, the actual capital cost incurred for the subject assets has been considered as below:-

(₹ in lakh)			
Name of Asset	Capital Cost as per Auditor's Certificate	Deduction of excess initial spares by petitioner	Capital cost claimed
Asset-1	15383.28	0.00	15383.28
Asset-2	38972.17	151.03	38821.14
Asset-3	32102.72	0.00	32102.72
Combined Asset 1,2 &3			86623.47
Asset-4	17967.11	0.00	17967.11
Combined Asset 1,2,3 &4			107362.07
Asset-5	3837.05	0.00	3837.05
Asset-6A	2845.63	0.00	2845.63
Asset-6B	1154.76	0.00	1154.76
Asset-6			4000.38
Asset-7A	28855.62	56.85	28798.77



Name of Asset	Capital Cost as per Auditor's Certificate	Deduction of excess initial spares by petitioner	Capital cost claimed
Asset- 7B	32137.04	0.00	32137.04
Asset-8A	15546.20	0.00	15546.20
Asset-8B	5454.11	82.58	5371.53
Asset-9A	7851.59	91.26	7760.33
Asset-9B	1567.74	0.00	1567.74

Time over-run

12. As per the investment approval dated 15.10.2008, the instant assets were scheduled to be commissioned within 48 months from the date of investment approval. Accordingly, the schedule completion date works out to 1.11.2012. The actual commissioning of assets with delay are as given below:-

Assets name	SCOD as per IA dated 15.10.2008	Date of commercial operation	Delay in months	
Asset-1	1.11.2012	1.10.2011	No Delay	
Asset-2		1.10.2011		
Asset-3		1.12.2011		
Asset-4		1.3.2011		
Asset-5		1.10.2011		
Asset-6A		1.10.2011		
Asset-6B		1.10.2011		
Asset-7A		1.9.2012		
Asset- 7B		1.1.2013		2 months
Asset-8A		1.8.2012		No Delay
Asset-8B		1.11.2012		
Asset-9A		1.8.2012		
Asset-9B		1.9.2012		

13. As observed from the table above, there is time over-run in commissioning of the Asset-7B. The Commission vide its order dated 3.7.2014 in Petition No. 64/TT/2012 has observed that the petitioner had approached the authorities to



resolve the ROW /compensation issue on 4.9.2010 which was resolved on 7.2.2011. Hence, the delay of 2 months was condoned for the said asset.

14. There is no time over-run for rest of the assets.

Cost Over-run

15. There was cost over-run for Asset-5, covered in order dated 2.5.2013 in Petition No. 105/TT/2011 as compared to approved apportioned (FR) cost of the asset. However, it was approved after deduction of excess initial spares since the additional capitalization claimed was within the cut-off date.

16. There was cost over-run for Asset-7B as compared to FR cost. The capital cost as on COD was restricted to the FR cost in order dated 6.2.2014 in Petition No. 64/TT/2012, in accordance with judgment dated 28.11.2013 of Hon'ble APTEL in Appeal No. 165 of 2012.

17. The petitioner in RCE dated 11.3.2016, has submitted the revised approved apportioned cost for the assets. It is observed that, the completion cost of the assets as on COD is within the approved apportioned cost of the assets.

Initial Spares

12. The petitioner has claimed initial spares of ₹301.30 lakh, ₹180.51 lakh, ₹115.40 lakh, ₹100.74 lakh, ₹100.74 lakh, ₹43.82 lakh, ₹43.82 lakh and ₹3.99 lakh for Asset-2, Asset-3, Asset-4, Asset-7A, Asset-7B, Asset-8A, Asset-8B and Asset-9A respectively, pertaining to transmission line and ₹46.29 lakh, ₹197.15 lakh, ₹146.20 lakh, ₹57.36 lakh, ₹158.32 lakh, ₹39.32 lakh, ₹134.75 lakh, ₹99.00



lakh, ₹169.19 lakh, ₹291.23 lakh and ₹44.00 lakh for Asset-1, Asset-2, asset-3, Asset-4 Asset-5, Asset-6A, Asset-6B, Asset-7A, Asset-8A, Asset-8B, Asset-9A and Asset-9B respectively pertaining to sub-station.

13. The petitioner has submitted actual capital expenditure for true up of tariff during the 2009-14 tariff period as per the 2009 Tariff Regulations and also submitted the estimated capital expenditure for determination of tariff during 2014-19 tariff period in accordance with the 2014 Tariff Regulations. The initial spares have been worked out by considering the additional capital expenditure upto cut-off date.

14. Regulation 8 of the 2009 tariff Regulations provides that:-

“Initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:

(iv)Transmission system

(a)Transmission line - 0.75%

(b) Transmission Sub-station - 2.5%

(c) Series Compensation devices and HVDC Station - 3.5%.....”

15. The Commission in its order dated 6.2.2014 in Petition No. 104/TT/2012, had deducted excess initial spares of ₹30.01 lakh, ₹133.40 lakh and ₹86.11 lakh for Asset-1, Asset-2 and Asset-3. In order dated 2.5.2013 in Petition No. 105/TT/2011, excess initial spares of ₹32.31 lakh was deducted for Asset-6. In order dated 3.7.2014 in Petition No.64/TT/2012, excess initial spares of ₹79.68 lakh, ₹107.42 lakh, ₹167.11 lakh and ₹1.58 lakh was deducted for Asset-7A, Asset-8B, Asset-9A and Asset-9B.



16. The details of the initial spares claimed and allowed for the assets covered in the instant petition are in the table given below:-

(₹ in lakh)						
Description	Project cost pertaining to transmission line/Sub-station as on cut-off date	Apportioned initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulations	Ceiling limit of Initial spares	Excess initial spares claimed	Initial Spares allowed
Transmission line						
Asset-1	15612.63	0.00	0.75%	117.98	0.00	0.00
Asset-2	39357.47	301.30	0.75%	295.13	6.17	295.13
Asset-3	33648.08	180.51	0.75%	252.90	0.00	180.51
Asset-4	20859.93	115.40	0.75%	156.76	0.00	115.40
Asset-7A	28234.11	100.74	0.75%	212.59	0.00	100.74
Asset-7B	33908.11	100.74	0.75%	255.47	0.00	100.74
Asset-8A	11543.68	43.82	0.75%	86.90	0.00	43.82
Asset-8B	2409.13	43.82	0.75%	17.87	25.95	17.87
Asset-9A	4467.25	3.99	0.75%	33.73	0.00	3.99
Sub-station						
Asset-1	596.95	46.29	2.50%	14.12	32.17	14.12
Asset-2	1975.04	197.15	2.50%	45.59	151.56	45.59
Asset-3	2353.80	146.20	2.50%	56.61	89.59	56.61
Asset-5	5315.19	57.36	2.50%	134.82	0.00	57.36
Asset-6A	4221.99	158.32	2.50%	104.20	54.12	104.20
Asset-6B	2653.07	39.32	2.50%	67.02	0.00	39.32
Asset-7A	2518.58	134.75	2.50%	61.12	73.63	61.12
Asset-8A	5797.32	99.00	2.50%	146.11	0.00	99.00
Asset-8B	3543.87	169.19	2.50%	86.53	82.66	86.53
Asset-9A	5130.12	291.23	2.50%	124.07	167.16	124.07
Asset-9B	1724.86	44.00	2.50%	43.10	0.90	43.10

17. The capital cost as on COD has been worked out after adjusting excess initial spares as under:-

(₹ in lakh)



Name of Asset	Capital Cost as per Auditor's Certificate	Deduction of excess initial spares by petitioner	Capital cost claimed	Deduction of excess initial spares	Capital cost as on COD
Asset-1	15383.28	0.00	15383.28	32.17	15351.11
Asset-2	38972.17	151.03	38821.14	157.73	38814.44
Asset-3	32102.72	0.00	32102.72	89.59	32013.13
Combined Asset 1,2 &3			86623.48		86584.60
Asset-4	17967.11	0.00	17967.11	0.00	17967.11
Combined Asset 1,2,3 &4			107362.07		107323.20
Asset-5	3837.05	0.00	3837.05	0.00	3837.06
Asset-6A	2845.63	0.00	2845.63	54.12	2791.51
Asset-6B	1154.76	0.00	1154.76	0.00	1154.76
Asset-6			4000.38		3946.27
Asset-7A	28855.62	56.85	28798.77	73.63	28781.99
Asset- 7B	32137.04	0.00	32137.04	0.00	32137.04
Asset-8A	15546.20	0.00	15546.20	0.00	15546.20
Asset-8B	5454.11	82.58	5371.53	108.61	5345.50
Asset-9A	7851.59	91.26	7760.33	167.16	7684.43
Asset-9B	1567.74	0.00	1567.74	0.90	1566.84

Additional Capital Expenditure

18. The petitioner has claimed additional capitalization for tariff period from COD to 31.3.2014 for all the assets on account of balance and retention payment within cut-off date under Regulation 9(1)(i) of the 2009 Tariff Regulations.

19. Clause (1), sub-clause(i) of Regulation 9 of the 2009 Tariff Regulations provides that:-

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

(i) Undischarged liabilities...;”



18. The total capital cost (including actual additional capitalization) is within the overall approved cost of the assets except Asset-8A. Hence, the estimated completion cost as on 31.3.2014 is restricted to the approved apportioned cost for the said asset. The claim of additional capitalization falls within the meaning of Regulation 9(1) of the 2009 Tariff Regulations and hence, we have allowed additional capitalization under Regulation 9(1)(i) of the 2009 Tariff Regulations as shown in the table below:-



A. Assets covered in Petition 104/TT/2012

(₹ in lakh)

Asset	Particulars	Approved Apportioned Cost	Cost as on COD	Additional Capital Expenditure (2009-14)					Total Additional capitalization	Capital Cost as on 31.3.2014	
				2011-12			2012-13	2013-14			
				1.10.2011 to 31.11.2011	1.12.2011 to 28.2.2012	1.3.2012 to 31.3.2012					
Asset-1	Approved in order dated 6.2.2014	17860.68	15353.96	97.77	161.46	212.04	605.88	0.00	1077.15	16431.11	
	Actual incurred as per Auditor's certificate	17772.72	15383.28	97.77	161.46	212.04	296.96	58.06	471.27*	15854.55	
	Approved in this order	17772.72**	15351.11	97.77	161.46	212.04	296.96	58.06	471.27*	15822.38	
Asset-2	Approved in order dated 6.2.2014	103375.60	38841.53	308.15	377.54	708.71	1559.91	1547.76	4502.07	43343.60	
Asset-3			32029.29			2232.49	798.80	1270.76	333.28	4635.33*	36664.62
Asset-4			17973.85			312.64	879.44	273.69	1465.77*	19439.62	
Asset-2	Actual incurred as per Auditor's certificate	45571.66	38821.14	308.15	377.54	708.71	700.86	265.09	1394.40	40215.54	
Asset-3			32102.72			2232.49	798.80	309.28	558.59	3031.29*	35134.01
Asset-4			17967.11			312.64	542.92	2037.26	312.64*	18279.75	
Asset-2	Approved in this order	45571.66**	38814.44	308.15	377.54	708.71	700.86	265.09	1394.40*	40208.84	
Asset-3			32013.13			2232.49	798.80	309.28	558.59	3031.29*	35044.42
Asset-4			17967.11			312.64	542.92	2037.26	312.64*	18279.75	
Comb Asset-I (Asset 1, 2 & 3) (1.12.2011)	Approved in order dated 6.2.2014	121236.28		86630.70	2771.49	1719.55	3436.55	1881.04	9808.63	96439.33	
	Actual incurred as per Auditor's certificate	103341.66		86623.48	2771.49	1719.55	1307.11	881.75	6679.90	93303.38	
	Approved in this order	103341.66	86584.60		2771.49	1719.55	1307.10	881.74	4491.04	91075.64	



Asset	Particulars	Approved Apportioned Cost	Cost as on COD	Additional Capital Expenditure (2009-14)					Total Additional capitalization	Capital Cost as on 31.3.2014
				2011-12			2012-13	2013-14		
				1.10.2011 to 31.11.2011	1.12.2011 to 28.2.2012	1.3.2012 to 31.3.2012				
Comb Asset-II (Asset 1, 2, 3 & 4) (1.3.2012)	Approved in order dated 6.2.2014	121236.28		107376.04	2032.19	4315.99	2154.73	8502.91	115878.95	
	Actual incurred as per Auditor's certificate	121114.38		107362.07	2032.19	1850.02	2919.00	6801.21	114163.28	
	Approved in this order	121114.38		107323.20	2032.19	1850.02	2919.00	6801.21	114124.41	

*Additional capitalization considered up to 2011-12, **As per RCE



B. Asset covered in Petition No. 105/TT/2011

(₹ in lakh)

Asset	Particulars	Approved Apportioned Cost	Cost as on COD	Additional Capital Expenditure (2009-14)			Total Additional Capitalization	Capital Cost as on 31.3.2014
				2011-12	2012-13	2013-14		
Asset-5	Approved in order dated 2.5.2013	4579.73	3837.75	343.11	393.67	488.51	1225.29	5063.04
	Actual incurred as per Auditor's certificate	4579.73	3837.05	343.11	510.13	453.05	1306.29	5143.34
	Approved in this order	5424.90**	3837.06	343.12	510.13	453.05	1306.30	5143.36
Asset-6A	Actual incurred as per Auditor's certificate		2845.63	1031.34	49.38	295.64	1376.36	4221.99
	Approved in this order		2791.51	1031.34	49.38	295.64	1376.36	4167.87
Asset-6B	Actual incurred as per Auditor's certificate		1154.76	845.31	3.07	649.93	1498.31	2653.07
	Approved in this order		1154.76	845.31	3.07	649.93	1498.31	2653.07
Asset-6 (6A & 6B)	Approved in order dated 2.5.2013	7043.86	3970.03	1876.65	484.52	282.09	2643.26	6613.29
	Actual incurred as per Auditor's certificate	7043.86	4000.38	1876.65	52.45	945.57	2874.67	6875.05
	Approved in this order	7427.62**	3946.27	1876.65	52.45	945.57	2874.67	6820.94

**As per RCE



C. Assets covered in Petition No. 64/TT/2012

(₹ in lakh)

Asset	Particulars	Approved Apportioned Cost	Additional Capital Expenditure (2009-14)		Total Additional capitalization	Capital Cost as on 31.3.2014
			2012-13	2013-14		
Asset-7A	Approved in order dated 3.7.2014	30523.74	1156.75	439.75	1596.50	30372.45
	Actual incurred as per Auditor's certificate	30523.74	1156.75	648.68	1805.43	30604.20
	Approved in this order	32937.61**	1156.75	648.67	1805.42	30587.41
Asset-7B	Approved in order dated 3.7.2014	31427.16	0.00	0.00	0.00	31427.16
	Actual incurred as per Auditor's certificate	31427.16	1281.76	486.30	1768.06	33905.10
	Approved in this order	34111.03**	1281.76	486.30	1768.06	33905.10
Asset-8A	Approved in order dated 3.7.2014	18052.07	992.22	1253.04	2245.26	17791.47
	Actual incurred as per Auditor's certificate	18052.07	992.22	1643.06	2635.28	18181.48
	Approved in this order	17341.00	992.22	802.58	1794.80	17341.00
Asset-8B	Approved in order dated 3.7.2014	6094.87**	69.29	465.21	534.50	5881.18
	Actual incurred as per Auditor's certificate	6094.87	69.29	429.61	498.90	5870.43
	Approved in this order	6291.46	69.29	429.60	498.89	5844.39
Asset-9A	Approved in order dated 3.7.2014	9520.44**	563.40	622.36	1185.76	8870.23
	Actual incurred as per Auditor's certificate	9520.44	563.40	1023.33	1586.73	9347.06
	Approved in this order	9871.89**	563.40	1023.33	1586.73	9271.16
Asset-9B	Approved in order dated 3.7.2014	1767.69	26.15	104.42	130.57	1696.72
	Actual incurred as per Auditor's certificate	1767.69	26.15	130.97	157.12	1724.85
	Approved in this order	1791.01**	26.15	130.97	157.12	1723.95

** As per RCE



Debt: Equity

20. Clause 1 & 3 of Regulation 12 of the 2009 Tariff Regulations provide as follows:-

“(1) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

.....

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

21. With respect to additional capitalization during 2009-14 tariff period, the petitioner has claimed the debt:equity ratio of 70:30 as on COD for the instant assets. The petitioner was directed to confirm that the actual equity infused for additional capitalization during the 2009-14 tariff period is not less than 30%. In response, the petitioner vide affidavit dated 29.2.2016, has submitted that debt to equity ratio for all the assets for the tariff period 2009-14 is 70:30.

22. The petitioner has claimed true up Annual Fixed Charge based on debt-equity ratio of 70:30 for the assets. The debt:equity ratio of 70:30 as on COD and as on 31.3.2014 for the instant assets is in accordance with the 2009 Tariff Regulations and is considered for the purpose of true up of the approved tariff of tariff period 2009-14, as given under:-



(₹ in lakh)

Particulars	As on COD		Additional capitalization during 2009-14		As on 31.3.2014	
	Amount	(%)	Amount	(%)	Amount	(%)
Asset-1						
Debt	10746.27	70.00	329.90	70.00	-	70.00
Equity	4604.84	30.00	141.38	30.00	-	30.00
Total	15351.11	100.00	471.28	100.00	-	100.00
Asset-2						
Debt	27171.31	70.00	976.08	70.00	-	70.00
Equity	11643.13	30.00	418.31	30.00	-	30.00
Total	38814.44	100.00	1394.39	100.00	-	100.00
Combined Asset-1,2 &3						
Debt	60611.70	70.00	3143.74	70.00	-	70.00
Equity	25972.90	30.00	1347.32	30.00	-	30.00
Total	86584.60	100.00	4491.05	100.00	-	100.00
Combined Asset-1,2,3 &4						
Debt	75128.96	70.00	4760.85	70.00	79889.81	70.00
Equity	32194.23	30.00	2040.36	30.00	34234.60	30.00
Total	107323.20	100.00	6801.21	100.00	114124.41	100.00
Asset-5						
Debt	2686.01	70.00	914.41	70.00	3600.42	70.00
Equity	1151.05	30.00	391.89	30.00	1542.94	30.00
Total	3837.06	100.00	1306.30	100.00	5143.36	100.00
Asset-6						
Debt	2762.42	70.00	2012.27	70.00	4774.69	70.00
Equity	1183.85	30.00	862.40	30.00	2046.24	30.00
Total	3946.27	100.00	2874.67	100.00	6820.93	100.00
Asset-7A						
Debt	20147.40	70.00	1263.79	70.00	21411.19	70.00
Equity	8634.60	30.00	541.63	30.00	9176.22	30.00
Total	28781.99	100.00	1805.42	100.00	30587.41	100.00
Asset-7B						
Debt	22495.93	70.00	1237.64	70.00	23733.57	70.00
Equity	9641.11	30.00	530.42	30.00	10171.53	30.00
Total	32137.04	100.00	1768.06	100.00	33905.10	100.00
Asset-8A						
Debt	10882.35	70.00	1256.36	70.00	12138.72	70.00
Equity	4663.85	30.00	538.44	30.00	5202.28	30.00
Total	15546.20	100.00	1794.80	100.00	17341.00	100.00



Particulars	As on COD		Additional capitalization during 2009-14		As on 31.3.2014	
	Amount	(%)	Amount	(%)	Amount	(%)
Asset-8B						
Debt	3741.85	70.00	349.22	70.00	4091.07	70.00
Equity	1603.65	30.00	149.67	30.00	1753.32	30.00
Total	5345.50	100.00	498.89	100.00	5844.39	100.00
Asset-9A						
Debt	5379.10	70.00	1110.71	70.00	6489.81	70.00
Equity	2305.33	30.00	476.02	30.00	2781.35	30.00
Total	7684.43	100.00	1586.73	100.00	9271.16	100.00
Asset-9B						
Debt	1096.79	70.00	109.98	70.00	1206.77	70.00
Equity	470.05	30.00	47.14	30.00	517.18	30.00
Total	1566.84	100.00	157.12	100.00	1723.95	100.00

Interest on Loan (“IOL”)

23. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest. We have considered the submissions of the petitioner. IOL is worked out on the basis of the actual interest rate submitted by the petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. 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)

Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Approved vide order dated 6.2.2014	155.12	399.73	1355.84	551.40	6532.44	6199.93
As claimed by the petitioner	157.41	404.57	1359.96	551.30	6459.18	6074.29
Allowed after tried up	157.09	404.50	1359.36	551.11	6456.93	6072.20

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.5.2013	122.29	257.74	270.32	153.00	361.64	355.88
As claimed by the petitioner	122.27	262.02	276.33	153.95	350.21	349.10
Allowed after tried up	122.27	262.02	276.33	152.26	347.02	346.20

(₹ in lakh)

Particulars	Asset-7A		Asset-7B		Asset-8A	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	1080.06	1787.37	237.51	922.38	670.56	1014.65
As claimed by the petitioner	1080.88	1793.06	239.92	953.47	670.56	1024.13
Allowed after tried up	1080.27	1792.08	240.03	952.79	670.56	998.10

(₹ in lakh)

Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	143.53	342.41	334.95	506.35	58.12	97.61
As claimed by the petitioner	144.19	341.96	338.12	521.47	58.18	98.37
Allowed after tried up	143.50	340.39	334.93	517.01	58.15	98.31



24. The variation in interest on loan is due to variation in capital cost as on COD and variation in actual additional capitalization during the 2011-14 tariff period.

Return on Equity (“ROE”)

25. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provides that:-

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

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

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be true up in accordance with Regulation 6 of these regulations.”

26. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 21.2.2014 in order dated 6.2.2014 in Petition No 104/TT/2012 for Asset-1 to 4, in Petition No. 105/TT/2011 for Assets-



5 and 6 and in Petition No. 64/TT/2012 for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9A and Asset-9B. However, for truing up purpose, the computation of ROE for the tariff period 2009-14 has been done on the basis of actual MAT rate applicable during 2009-14. The petitioner has submitted the variation in the MAT rate during 2009-14 as per the Finance Act of the relevant year for the purpose of grossing up of ROE, as below:-

Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

27. We have considered the submissions of the petitioner and have approved ROE in accordance with the provisions of the 2009-14 Tariff Regulations. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Approved vide order dated 6.2.2014	136.26	345.59	1165.23	473.70	5850.84	6020.51
As claimed by the petitioner	151.31	382.83	1291.39	524.97	6412.44	6629.83
Allowed after trued up	151.00	382.77	1290.83	524.78	6410.18	6627.54



(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.5.2013	105.13	229.58	252.71	128.70	319.32	339.42
As claimed by the petitioner	116.51	257.81	289.24	143.54	343.16	376.64
Allowed after trued up	116.51	257.81	289.24	141.97	340.01	373.45

(₹ in lakh)

Particulars	Asset-7A		Asset-7B		Asset-8A	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	898.00	1581.29	412.03	1648.13	560.87	900.18
As claimed by the petitioner	996.17	1781.36	476.35	1980.33	621.70	1021.28
Allowed after trued up	995.60	1780.38	476.35	1980.33	621.70	996.56

(₹ in lakh)

Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	117.59	296.23	278.51	448.86	48.31	86.24
As claimed by the petitioner	130.94	332.72	311.66	519.79	53.60	97.62
Allowed after trued up	130.31	331.19	308.72	515.32	53.57	97.57

28. The variation in return on equity is on account of increase in the applicable MAT rate for the purpose of grossing up of base rate of return on equity, variation in capital cost and actual additional capitalization.



Depreciation

29. Clause (42) of Regulation 3 of the 2009 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) Hydro generating station	35 years
(e) Transmission line	35 years”

30. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"17. Depreciation:

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 yearclosing after a period of 12 years from date of commercial operation shall bespread over the balance useful life of the assets.”

31. Depreciation was worked out in order dated 6.2.2014 in Petition No. 104/TT/2012 for Asset-1 to 4, in order dated 2.5.2013 in Petition No. 105/TT/2011 for Asset-5 to 6 and 3.7.2014 in Petition No. 64/TT/2012 for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9Aand Asset-9Bin accordance with Regulation 17 of the 2009 Tariff Regulations.

32. Theweighted average useful life of the transmission asset has been considered as per Regulations 3(42) and 17(4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset as on COD has been considered as 35years for Asset-1 to 4, 25 years for Asset-5 and



6and 34, 35, 32, 29, 29 and 25 years for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9A and Asset-9B respectively. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under.

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Approved vide order dated 6.2.2014	137.33	347.95	1173.43	477.01	5892.59	6064.50
As claimed by the petitioner	137.60	347.78	1173.33	476.95	5825.89	5951.79
Allowed after trued up	137.31	347.71	1172.82	476.78	5823.84	5949.74

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.5.2013	71.07	157.79	174.44	129.58	321.56	341.97
As claimed by the petitioner	71.05	159.08	177.08	130.38	311.69	338.04
Allowed after trued up	71.06	159.08	177.09	128.95	308.83	335.18

(₹ in lakh)

Particulars	Asset-7A		Asset-7B		Asset-8A	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	904.11	1592.21	414.84	1659.35	526.07	837.34
As claimed by the petitioner	904.81	1598.78	432.67	1777.35	526.07	848.55
Allowed after trued up	904.30	1597.89	432.67	1777.35	526.07	829.65



Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	118.60	298.83	280.56	452.23	48.64	86.83
As claimed by the petitioner	119.14	299.28	283.23	466.94	48.69	87.61
Allowed after trued up	118.57	297.91	280.56	462.93	48.66	87.57

33. The variation in depreciation is on account of variation in capital cost as on COD and variation in additional capitalization vis-à-vis that approved in the Order.

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

34. The petitioner has computed O&M Expenses for the assets mentioned in the petition and in accordance with the O&M norms for lines and bays specified in Regulation 19(g) of the 2009 Tariff Regulations. The O&M Expenses claimed by the petitioner for tariff period 2009-14 are same as that approved in order dated 6.2.2014 in Petition No. 104/TT/2012 for Asset-1 to 4, in order dated 2.5.2013 in Petition No. 105/TT/2011 for Asset-5 to 6 and 3.7.2014 in Petition No. 64/TT/2012 for Asset-7A, Asset-7B, Asset-8A, Asset-8B, Asset-9A and Asset-9B.

35. The O&M Expenses claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)



Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Approved vide order dated 6.2.2014	31.14	72.09	217.82	79.82	1012.60	1070.23
As claimed by the petitioner	31.14	72.09	217.82	79.82	1012.60	1070.23
Allowed after trued up	31.14	72.09	217.82	79.82	1012.60	1070.23

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.5.2013	29.29	61.92	65.46	181.57	383.88	405.84
As claimed by the petitioner	29.29	61.92	65.46	181.57	383.88	405.84
Allowed after trued up	29.29	61.92	65.46	181.57	383.88	405.84

(₹ in lakh)

Particulars	Asset-7A		Asset-7B		Asset-8A	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	144.96	262.65	31.21	131.94	174.30	276.37
As claimed by the petitioner	144.96	262.65	31.21	131.94	174.30	276.37
Allowed after trued up	144.96	262.65	31.21	131.94	174.30	276.37

(₹ in lakh)

Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	51.60	130.92	194.33	308.16	61.40	111.28
As claimed by the petitioner	51.60	130.92	194.33	308.16	61.40	111.28
Allowed after trued up	51.60	130.92	194.33	308.16	61.40	111.28



Interest on working capital(“IWC”)

36. Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

37. The petitioner submitted the rate of interest on working capital as 11.75% for Assets-1to 6 and 13.50% for Assets-7A, 7B, 8A, 8B, 9A and 9B for the period from COD to 31.3.2014 as per Clause (3) of Regulation 18 of the 2009 Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of clause (1) of Regulation 18 of the 2009 Tariff Regulations.

38. Rate of interest in working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations. It is calculated equal to State Bank of India Base Rate as applicable as on 1.4.2011 and 1.4.2012 plus 350 basis points. State Bank of India Base Rate on 1.4.2011 was 8.25% and as on 1.4.2012 was 10.00%. Therefore, interest rate of 11.75% (8.25% plus 350 basis points) for Assets-1 to 6 and 13.50% for Assets-7A, 7B, 8A, 8B, 9A and 9B for the period from COD to 31.3.2014 has been considered to work out the interest on working capital in the instant case.

39. The IWC trued up is as under:-

(₹ in lakh)



Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Maintenance Spares	4.67	10.81	32.67	11.97	151.89	160.54
O & M expenses	2.60	6.01	18.15	6.65	84.38	89.19
Receivables	81.15	205.53	687.94	277.89	3354.24	3357.26
Total	88.42	222.36	738.76	296.51	3590.51	3606.98
Rate of Interest	11.75	11.75	11.75	11.75	11.75	11.75
Interest	10.39	26.13	86.80	34.84	421.89	423.82

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14
Maintenance Spares	4.39	9.29	9.82	27.24	57.58	60.88
O & M expenses	2.44	5.16	5.46	15.13	31.99	33.82
Receivables	57.79	126.23	137.68	103.65	236.34	250.20
Total	64.62	140.67	152.96	146.02	325.91	344.90
Rate of Interest (%)	11.75	11.75	11.75	11.75	11.75	11.75
Interest	7.59	16.53	17.97	17.16	38.29	40.53

(₹ in lakh)

Particulars	Asset-7A		Asset-7B		Asset-8A	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Maintenance Spares	21.74	39.40	4.68	19.79	26.15	41.45
O & M expenses	12.08	21.89	2.60	10.99	14.53	23.03
Receivables	533.62	927.75	201.41	826.35	340.69	530.16
Total	567.45	989.04	208.69	857.14	381.36	594.64
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50	13.50
Interest	76.61	133.52	28.17	115.71	51.48	80.28

(₹ in lakh)

Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14



Maintenance Spares	7.74	19.64	29.15	46.22	9.21	16.69
O & M expenses	4.30	10.91	16.19	25.68	5.12	9.27
Receivables	75.98	188.33	191.76	309.15	38.14	67.90
Total	88.02	218.87	237.10	381.05	52.47	93.87
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50	13.50
Interest	11.88	29.55	32.01	51.44	7.08	12.67

40. The IWC claimed by the petitioner, allowed and trued up are the same, and are as follows:-

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12 (Pro-rata- 1.3.2012- 31.3.2012)	2012-13	2013-14
Approved vide order dated 6.2.2014	10.06	25.29	84.24	33.83	413.59	416.54
As claimed by the petitioner	10.41	26.13	86.84	34.85	422.02	423.95
Allowed after trued up	10.39	26.13	86.80	34.84	421.89	423.82

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Approved vide order dated 2.5.2013	7.37	15.85	17.07	16.92	38.43	40.17
As claimed by the petitioner	7.60	16.53	17.97	17.25	38.48	40.70
Allowed after trued up	7.59	16.53	17.97	17.16	38.29	40.53

(₹ in lakh)

Particulars	Asset-7A	Asset-7B	Asset-8A
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	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	74.35	128.70	26.22	104.65	50.08	78.62
As claimed by the petitioner	76.64	133.59	28.17	115.73	51.49	81.88
Allowed after trued up	76.61	133.52	28.17	115.71	51.48	80.28

(₹ in lakh)

Particulars	Asset-8B		Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Approved vide order dated 3.7.2014	11.59	28.81	31.31	49.42	6.96	12.38
As claimed by the petitioner	11.93	29.65	32.21	51.74	7.09	12.67
Allowed after trued up	11.88	29.55	32.01	51.44	7.08	12.67

41. The variation in IWC is on account of variation in IOL, depreciation and ROE due to variation in capital cost, actual additional capitalization and further increase in ROE on account of applicable MAT rate during 2009-14 tariff period.

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

42. The detailed computation of the various components of the trued up annual fixed charges for the Assets for the tariff period 2009-14 is summarised below:-

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12	2012-13	2013-14
Gross Block						
Opening Gross Block	15351.11	38814.44	86584.60	107323.20	109355.39	111205.41
Additional Capitalization	471.28	1394.39	4491.05	2032.19	1850.02	2919.00
Closing Gross block	15822.39	40208.83	91075.65	109355.39	111205.41	114124.41
Average Gross block	15586.75	39511.64	88830.12	108339.29	110280.40	112664.91



Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12	2012-13	2013-14
Depreciation						
Rate of Depreciation (%)	5.286	5.280	5.281	5.281	5.281	5.281
Depreciable Value	14028.07	35560.47	79947.11	97505.36	99252.36	101398.42
Elapsed Life of the assets at beginning of the year	0	0	0	0	1	2
Weighted Balance Useful life of the assets	35	35	35	35	34	33
Remaining Depreciable Value	14028.07	35423.17	79809.80	97157.65	97117.74	93439.96
Depreciation	137.31	347.71	1172.82	476.78	5823.84	5949.74
Interest on Loan						
Gross Normative Loan	10746.27	27171.31	60611.70	75128.96	76551.50	77846.52
Cumulative Repayment upto Previous Year	0.00	0.00	485.02	1657.84	2134.62	7958.46
Net Loan-Opening	10746.27	27171.31	60126.68	73471.13	74416.89	69888.06
Additions	329.90	976.08	3143.74	1422.54	1295.01	2043.29
Repayment during the year	137.31	347.71	1172.82	476.78	5823.84	5949.74
Net Loan-Closing	10938.86	27799.68	62097.60	74416.89	69888.06	65981.61
Average Loan	10842.56	27485.50	61112.14	73944.01	72152.47	67934.83
Weighted Average Rate of Interest on Loan (%)	8.6928	8.8301	8.8975	8.9436	8.9490	8.9383
Interest	157.09	404.50	1359.36	551.11	6456.93	6072.20
Return on Equity						
Opening Equity	4604.84	11643.13	25972.90	32194.23	32803.88	33358.89
Additions	141.38	418.31	1347.32	609.65	555.01	875.71
Closing Equity	4746.23	12061.44	27320.21	32803.88	33358.89	34234.60
Average Equity	4675.53	11852.28	26646.55	32499.06	33081.39	33796.74
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.008	20.008	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.377	19.377	19.377	19.610
Return on Equity (Pre Tax)	151.00	382.77	1290.83	524.78	6410.18	6627.54



Particulars	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.10.2011- 30.11.2011)	2011-12 (Pro-rata- 1.12.2011- 29.2.2012)	2011-12	2012-13	2013-14
Interest on Working Capital						
Maintenance Spares	4.67	10.81	32.67	11.97	151.89	160.54
O & M Expenses	2.60	6.01	18.15	6.65	84.38	89.19
Receivables	81.15	205.53	687.94	277.89	3354.24	3357.26
Total	88.42	222.36	738.76	296.51	3590.51	3606.98
Interest	10.39	26.13	86.80	34.84	421.89	423.82
Annual Transmission Charges						
Depreciation	137.31	347.71	1172.82	476.78	5823.84	5949.74
Interest on Loan	157.09	404.50	1359.36	551.11	6456.93	6072.20
Return on Equity	151.00	382.77	1290.83	524.78	6410.18	6627.54
Interest on Working Capital	10.39	26.13	86.80	34.84	421.89	423.82
O & M Expenses	31.14	72.09	217.82	79.82	1012.60	1070.23
Total	486.92	1233.20	4127.63	1667.33	20125.44	20143.54

(₹ in lakh)

Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Gross Block						
Opening Gross Block	3837.06	4180.18	4690.31	3946.27	5822.92	5875.37
Additional Capitalization	343.12	510.13	453.05	1876.65	52.45	945.57
Closing Gross block	4180.18	4690.31	5143.36	5822.92	5875.37	6820.94
Average Gross block	4008.62	4435.25	4916.84	4884.59	5849.14	6348.15
Depreciation						
Rate of Depreciation (%)	3.545	3.587	3.602	5.280	5.280	5.280
Depreciable Value	2620.62	3004.58	3438.01	4396.13	5264.23	5713.34
Elapsed Life of the assets at beginning of the year	0	1	2	0	0	1
Weighted Balance Useful life of the assets	25	24	23	0	25	24



Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Remaining Depreciable Value	2620.62	2933.53	3207.88	4396.13	5135.27	5275.55
Depreciation	71.06	159.08	177.09	128.95	308.83	335.18
Interest on Loan						
Gross Normative Loan	2686.01	2926.19	3283.28	2762.42	4076.08	4112.79
Cumulative Repayment upto Previous Year	0.00	71.06	230.13	0.00	128.95	437.79
Net Loan-Opening	2686.01	2855.13	3053.15	2762.42	3947.12	3675.00
Additions	240.18	357.09	317.14	1313.66	36.72	661.90
Repayment during the year	71.06	159.08	177.09	128.95	308.83	335.18
Net Loan-Closing	2855.13	3053.15	3193.20	3947.12	3675.00	4001.72
Average Loan	2770.57	2954.14	3123.18	3354.77	3811.06	3838.36
Weighted Average Rate of Interest on Loan (%)	8.8265	8.8697	8.8478	9.0772	9.1055	9.0195
Interest	122.27	262.02	276.33	152.26	347.02	346.20
Return on Equity						
Opening Equity	1151.05	1253.99	1407.03	1183.85	1746.84	1762.57
Additions	102.94	153.04	135.91	562.99	15.73	283.67
Closing Equity	1253.99	1407.03	1542.94	1746.84	1762.57	2046.24
Average Equity	1202.52	1330.51	1474.98	1465.34	1754.70	1904.40
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	15.50
MAT rate for the respective year (%)	20.008	20.008	20.961	20.008	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610	19.377	19.377	19.610
Return on Equity (Pre Tax)	116.51	257.81	289.24	141.97	340.01	373.45
Interest on Working Capital						
Maintenance Spares	4.39	9.29	9.82	27.24	57.58	60.88
O & M Expenses	2.44	5.16	5.46	15.13	31.99	33.82



Particulars	Asset-5			Asset-6		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Receivables	57.79	126.23	137.68	103.65	236.34	250.20
Total	64.62	140.67	152.96	146.02	325.91	344.90
Interest	7.59	16.53	17.97	17.16	38.29	40.53
Annual Transmission Charges						
Depreciation	71.06	159.08	177.09	128.95	308.83	335.18
Interest on Loan	122.27	262.02	276.33	152.26	347.02	346.20
Return on Equity	116.51	257.81	289.24	141.97	340.01	373.45
Interest on Working Capital	7.59	16.53	17.97	17.16	38.29	40.53
O & M Expenses	29.29	61.92	65.46	181.57	383.88	405.84
Total	346.71	757.36	826.10	621.91	1418.04	1501.20

(₹ in lakh)

Particulars	Asset-7A		Asset-7B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Gross Block				
Opening Gross Block	28781.99	29938.74	32137.04	33418.80
Additional Capitalization	1156.75	648.67	1281.76	486.30
Closing Gross block	29938.74	30587.41	33418.80	33905.10
Average Gross block	29360.37	30263.08	32777.92	33661.95
Depreciation				
Rate of Depreciation (%)	5.280	5.280	5.280	5.280
Depreciable Value	26424.33	27236.77	29500.13	30295.76
Elapsed Life of the assets at beginning of the year	0	0	0	1
Weighted Balance Useful life of the assets	34	34	35	34
Remaining Depreciable Value	26424.33	26332.47	29500.13	29863.09
Depreciation	904.30	1597.89	432.67	1777.35
Interest on Loan				



Particulars	Asset-7A		Asset-7B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Gross Normative Loan	20147.40	20957.12	22495.93	23393.16
Cumulative Repayment upto Previous Year	0.00	904.30	0.00	432.67
Net Loan-Opening	20147.40	20052.82	22495.93	22960.49
Additions	809.73	454.07	897.23	340.41
Repayment during the year	904.30	1597.89	432.67	1777.35
Net Loan-Closing	20052.82	18909.00	22960.49	21523.55
Average Loan	20100.11	19480.91	22728.21	22242.02
Weighted Average Rate of Interest on Loan (%)	9.2133	9.1991	4.2243	4.2837
Interest	1080.27	1792.08	240.03	952.79
Return on Equity				
Opening Equity	8634.60	8981.62	9641.11	10025.64
Additions	347.03	194.60	384.53	145.89
Closing Equity	8981.62	9176.22	10025.64	10171.53
Average Equity	8808.11	9078.92	9833.38	10098.59
Return on Equity (Base Rate) (%)	15.50	15.50	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax)(%)	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	995.60	1780.38	476.35	1980.33
Interest on Working Capital				
Maintenance Spares	21.74	39.40	4.68	19.79
O & M Expenses	12.08	21.89	2.60	10.99
Receivables	533.62	927.75	201.41	826.35
Total	567.45	989.04	208.69	857.14
Interest	76.61	133.52	28.17	115.71
Annual Transmission Charges				
Depreciation	904.30	1597.89	432.67	1777.35
Interest on Loan	1080.27	1792.08	240.03	952.79
Return on Equity	995.60	1780.38	476.35	1980.33
Interest on Working Capital	76.61	133.52	28.17	115.71
O & M Expenses	144.96	262.65	31.21	131.94
Total	3201.74	5566.52	1208.44	4958.12



(₹ in lakh)

Particulars	Asset-8A		Asset-8B	
	2012-13	2013-14	2012-13	2013-14
Gross Block				
Opening Gross Block	15546.20	16538.42	5345.50	5414.79
Additional Capitalization	992.22	802.58	69.29	429.60
Closing Gross block	16538.42	17341.00	5414.79	5844.39
Average Gross block	16042.31	16939.71	5380.15	5629.59
Depreciation				
Rate of Depreciation (%)	4.919	4.898	5.289	5.292
Depreciable Value	13704.80	14512.46	4842.13	5066.63
Elapsed Life of the assets at beginning of the year	0	1	0	1
Weighted Balance Useful life of the assets	32	31	29	28
Remaining Depreciable Value	13704.80	13986.39	4842.13	4948.06
Depreciation	526.07	829.65	118.57	297.91
Interest on Loan				
Gross Normative Loan	10882.35	11576.91	3741.85	3790.35
Cumulative Repayment upto Previous Year	0.00	526.07	0.00	118.57
Net Loan-Opening	10882.35	11050.84	3741.85	3671.78
Additions	694.56	561.81	48.50	300.72
Repayment during the year	526.07	829.65	118.57	297.91
Net Loan-Closing	11050.84	10783.00	3671.78	3674.59
Average Loan	10966.60	10916.92	3706.82	3673.19
Weighted Average Rate of Interest on Loan (%)	9.1719	9.1427	9.2909	9.2669
Interest	670.56	998.10	143.50	340.39
Return on Equity				
Opening Equity	4663.85	4961.51	1603.65	1624.44
Additions	297.66	240.77	20.79	128.88
Closing Equity	4961.51	5202.28	1624.44	1753.32
Average Equity	4812.68	5081.90	1614.05	1688.88
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax)(%)	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	621.70	996.56	130.31	331.19



Particulars	Asset-8A		Asset-8B	
	2012-13	2013-14	2012-13	2013-14
Interest on Working Capital				
Maintenance Spares	26.15	41.45	7.74	19.64
O & M Expenses	14.53	23.03	4.30	10.91
Receivables	340.69	530.16	75.98	188.33
Total	381.36	594.64	88.02	218.87
Interest	51.48	80.28	11.88	29.55
Annual Transmission Charges				
Depreciation	526.07	829.65	118.57	297.91
Interest on Loan	670.56	998.10	143.50	340.39
Return on Equity	621.70	996.56	130.31	331.19
Interest on Working Capital	51.48	80.28	11.88	29.55
O & M Expenses	174.30	276.37	51.60	130.92
Total	2044.12	3180.95	455.87	1129.96

(₹ in lakh)

Particulars	Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Gross Block				
Opening Gross Block	7684.43	8247.83	1566.84	1592.99
Additional Capitalization	563.40	1023.33	26.15	130.97
Closing Gross block	8247.83	9271.16	1592.99	1723.96
Average Gross block	7966.13	8759.50	1579.91	1658.47
Depreciation				
Rate of Depreciation (%)	5.283	5.285	5.280	5.280
Depreciable Value	7169.52	7883.55	1421.92	1492.63
Elapsed Life of the assets at beginning of the year	0	1	0	1
Weighted Balance Useful life of the assets	29	28	25	24
Remaining Depreciable Value	7169.52	7602.99	1421.92	1443.97
Depreciation	280.56	462.93	48.66	87.57
Interest on Loan				
Gross Normative Loan	5379.10	5773.48	1096.79	1115.09



Particulars	Asset-9A		Asset-9B	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Cumulative Repayment upto Previous Year	0.00	280.56	0.00	48.66
Net Loan-Opening	5379.10	5492.93	1096.79	1066.43
Additions	394.38	716.33	18.31	91.68
Repayment during the year	280.56	462.93	48.66	87.57
Net Loan-Closing	5492.93	5746.32	1066.43	1070.54
Average Loan	5436.01	5619.62	1081.61	1068.49
Weighted Average Rate of Interest on Loan (%)	9.2420	9.2001	9.2159	9.2012
Interest	334.93	517.01	58.15	98.31
Return on Equity				
Opening Equity	2305.33	2474.35	470.05	477.89
Additions	169.02	307.00	7.84	39.29
Closing Equity	2474.35	2781.35	477.89	517.18
Average Equity	2389.84	2627.85	473.97	497.54
Return on Equity (Base Rate) (%)	15.50	15.50	15.500	15.500
MAT rate for the respective year(%)	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax)(%)	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	308.72	515.32	53.57	97.57
Interest on Working Capital				
Maintenance Spares	29.15	46.22	9.21	16.69
O & M Expenses	16.19	25.68	5.12	9.27
Receivables	191.76	309.15	38.14	67.90
Total	237.10	381.05	52.47	93.87
Interest	32.01	51.44	7.08	12.67
Annual Transmission Charges				
Depreciation	280.56	462.93	48.66	87.57
Interest on Loan	334.93	517.01	58.15	98.31
Return on Equity	308.72	515.32	53.57	97.57
Interest on Working Capital	32.01	51.44	7.08	12.67
O & M Expenses	194.33	308.16	61.40	111.28
Total	1150.55	1854.87	228.87	407.40



DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

43. The petitioner has claimed the transmission charges for Combined Asset for the 2014-19 tariff period as under:-

	(₹ in lakh)				
Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11788.79	11811.90	11811.90	11811.90	11811.90
Interest on Loan	10763.38	9804.35	8801.39	7790.02	6779.65
Return on equity	13315.78	13347.42	13347.42	13347.42	13347.42
Interest on Working Capital	965.29	949.14	930.84	912.50	894.37
O & M Expenses	2528.59	2613.08	2699.61	2789.12	2881.77
Total	39361.83	38525.89	37591.16	36650.96	35715.11

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	379.29	391.96	404.94	418.37	432.27
O & M expenses	210.72	217.76	224.97	232.43	240.15
Receivables	6560.31	6420.98	6265.19	6108.49	5952.52
Total	7150.32	7030.70	6895.10	6759.29	6624.94
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	965.29	949.14	930.84	912.50	894.37

Capital Cost

45. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

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

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

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;



(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

46. The petitioner has claimed capital cost as on 1.4.2014 of ₹225814.80 lakh for combined assets,for the 2014-19 tariff period.

47. The trued up capital cost as on 31.3.2014 to work out tariff for 2014-19 tariff period is considered as shown below:

(₹ in lakh)		
Asset Name	Capital Cost Claimed	Trued up Capital cost as on 31.3.2014
Combined Asset 1,2,3 and 4	114163.28	114124.41
Asset-5	5143.34	5143.36
Asset-6	6875.05	6820.93
Asset-7A	30604.20	30587.41
Asset-7B	33905.10	33905.10
Asset-8A	18181.48	17341.00
Asset-8B	5870.43	5844.39
Asset-9A	9347.06	9271.16
Asset-9B	1724.85	1723.95
Capital Cost for Combined Assets as on 1.4.2014	225814.79	224761.72

Additional Capital Expenditure

48. The petitioner has proposed additional capital expenditure of ₹1075.97 lakh, in 2014-15, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations.

49. 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;

50. The petitioner was directed, vide ROP dated 8.2.2016, to submit the amount of balance and retention payment yet to be made along with the details of contract for which the payment has been retained. In response, the petitioner, vide affidavit dated 29.2.2016, has submitted the details of balance and retention payments yet to be made.

51. The total capital cost of the transmission asset including additional capitalization incurred during the 2014-19 tariff period is within the approved apportioned cost of the asset except for Asset-8A. Hence, the proposed additional capitalization of ₹440.10 lakh for 2014-15 for the said asset has not been considered. It is observed that the additional capitalization proposed is mainly towards balance and retention payments due to un-discharged liabilities for works executed within cut-off date. Accordingly, the capital cost claimed by the petitioner is allowed in accordance with Clause 1, sub-clause (i) of Regulation 14 of the 2014 Tariff Regulations. The additional capitalisation for tariff period 2014-19 shall be finally approved after the detailed scrutiny of additional capitalisation while carrying out the true up for the 2014-19 tariff period.

52. The total capital cost of the transmission asset including additional capitalization projected to be incurred during the 2014-19 tariff period is as shown below:-



(₹ in lakh)

Particulars	Approved Apportioned Cost	Admitted capital cost as on 31.3.2014	Additional capital Expenditure	Total capital cost including additional capitalization
			2014-15	
Combined Asset 1,2,3 and 4	121114.38	114124.41	120.33	114244.74
Asset-5	5424.90	5143.36	171.83	5315.19
Asset-6	7427.62	6820.93	90.00	6910.93
Asset-7A	32937.61	30587.41	91.65	30679.06
Asset-7B	34111.03	33905.10	3.01	33908.11
Asset-8A	17341.00	17341.00	0.00	17341.00
Asset-8B	6291.46	5844.39	0.00	5844.39
Asset-9A	9871.89	9271.16	159.05	9430.21
Asset-9B	1791.01	1723.95	0.00	1723.95
Total	236310.90	224761.72	635.87	225397.59

Debt:EquityRatio

53. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-

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

54. The petitioner has considered debt:equity ratio as 70:30 as on 31.3.2014. The admitted debt:equity ratio of 70:30 after true-up for the tariff period ending 31.3.2014 has been considered as opening debt:equity ratio as on 1.4.2014. The details of the debt:equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-



(₹ in lakh)

Particulars	As on 31.3.2014		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Combined Assets						
Debt	157336.06	70.00	445.11	70.00	157781.17	70.00
Equity	67425.66	30.00	190.76	30.00	67616.43	30.00
Total	224761.73	100.00	635.87	100.00	225397.60	100.00

Interest on Loan (“IOL”)

55. 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.”

56. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed at **Annexure-II** and the IOL has been worked out and allowed as follows:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	157336.06	157781.16	157781.16	157781.16	157781.16
Cumulative Repayment up to previous year	22452.52	34184.59	45932.10	57679.60	69427.11
Net Loan-Opening	134883.54	123596.58	111849.07	100101.56	88354.05
Additions during the year	445.11	0.00	0.00	0.00	0.00
Repayment during the year	11732.07	11747.51	11747.51	11747.51	11747.51
Net Loan-Closing	123596.58	111849.07	100101.56	88354.05	76606.55
Average Loan	129240.06	117722.82	105975.31	94227.81	82480.30
Rate of Interest (%)	8.2756	8.2641	8.2390	8.1988	8.1484
Interest	10695.43	9728.71	8731.30	7725.56	6720.84

Return on Equity("ROE")

57. 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”

“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:

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

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

58. The petitioner has submitted ROE at the rate of 19.610% after grossing up the ROE of 15.50% 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.

59. 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.

60. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of 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)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	67425.66	67616.43	67616.43	67616.43	67616.43
Additional Capitalization	190.76	0.00	0.00	0.00	0.00
Closing Equity	67616.43	67616.43	67616.43	67616.43	67616.43
Average Equity	67521.05	67616.43	67616.43	67616.43	67616.43
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
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)	13240.88	13259.58	13259.58	13259.58	13259.58

Depreciation

61. 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."

62. The petitioner has computed depreciation considering capital expenditure of ₹225814.79lakh as on 31.3.2014 with additional capital expenditure of



₹1075.97 lakh in 2014-15 during the 2014-19 tariff period. The effective date of commercial operation (April, 2012) and weighted average useful life of 34 years has been considered in accordance to Regulation 26 of the 2014 Tariff Regulations considering actual COD and capital cost of all the elements of the transmission system for working out the depreciation for Combined Asset.

63. We have considered the submissions of the petitioner. The depreciation is allowed considering capital expenditure of ₹224761.73 lakh as on 31.3.2014 and additional capital expenditure of ₹635.87 lakh in 2014-15 under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	224761.73	225397.60	225397.60	225397.60	225397.60
Additional Capitalization	635.87	0.00	0.00	0.00	0.00
Gross block at the end of the year	225397.60	225397.60	225397.60	225397.60	225397.60
Average gross block	225079.67	225397.60	225397.60	225397.60	225397.60
Rate of Depreciation (%)	5.212	5.212	5.212	5.212	5.212
Depreciable Value	200851.28	201137.42	201137.42	201137.42	201137.42
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	32	31	30	29	28
Remaining Depreciable Value	178398.76	166952.83	155205.33	143457.82	131710.31
Depreciation	11732.07	11747.51	11747.51	11747.51	11747.51

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

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



petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Actual	Double Circuit (Single Conductor) (kms)	40.49	40.49	40.49	40.49	40.49
	Double Circuit (Twin & Triple Conductor) (kms)	1136.92	1136.92	1136.92	1136.92	1136.92
	400 kV bay (nos)	20	20	20	20	20
	220 kV bay (nos)	12	12	12	12	12
Norms as per Regulation	Double Circuit (Single Conductor) (₹lakh/ km)	0.303	0.313	0.324	0.334	0.346
	Double Circuit (Twin & Triple Conductor) (₹lakh/ km)	0.707	0.731	0.755	0.78	0.806
	400 kV bay (₹lakh/bay)	60.30	62.30	64.37	66.51	68.71
	220 kV bay (₹lakh/bay)	42.21	43.61	45.06	46.55	48.10
Total O&M Expenses (₹ in lakh)		2528.59	2613.08	2699.61	2789.12	2881.77

65. 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.

66. We have considered the submissions made by the petitioner. 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, we would like to



clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

67. The details of O&M Expenses allowed for the instant assets are given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	2528.59	2613.08	2699.61	2789.12	2881.77

Interest on Working Capital (“IWC”)

68. 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).

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

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	379.29	391.96	404.94	418.37	432.27
O & M Expenses	210.72	217.76	224.97	232.43	240.15



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Receivables	6526.28	6382.13	6227.29	6071.55	5916.53
Total	7116.28	6991.85	6857.20	6722.34	6588.95
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	960.70	943.90	925.72	907.52	889.51

Annual Transmission Charges

70. 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	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	224761.73	225397.60	225397.60	225397.60	225397.60
Additional Capitalization	635.87	0.00	0.00	0.00	0.00
Closing Gross Block	225397.60	225397.60	225397.60	225397.60	225397.60
Average Gross Block	225079.67	225397.60	225397.60	225397.60	225397.60
Depreciation					
Rate of Depreciation	5.212	5.212	5.212	5.212	5.212
Depreciable Value	200851.28	201137.42	201137.42	201137.42	201137.42
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	32	31	30	29	28
Remaining Depreciable Value	178398.76	166952.83	155205.33	143457.82	131710.31
Depreciation	11732.07	11747.51	11747.51	11747.51	11747.51
Interest on Loan					
Gross Normative Loan	157336.05	157781.16	157781.16	157781.16	157781.16
Cumulative Repayment upto Previous Year	22452.52	34184.59	45932.10	57679.60	69427.11
Net Loan-Opening	134883.54	123596.58	111849.07	100101.56	88354.05
Additions	445.11	0.00	0.00	0.00	0.00
Repayment during the year	11732.07	11747.51	11747.51	11747.51	11747.51
Net Loan-Closing	123596.58	111849.07	100101.56	88354.05	76606.55



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Average Loan	129240.06	117722.82	105975.31	94227.81	82480.30
Weighted Average Rate of Interest on Loan (%)	8.2756	8.2641	8.2390	8.1988	8.1484
Interest	10695.43	9728.71	8731.30	7725.56	6720.84
Return on Equity					
Opening Equity	67425.66	67616.43	67616.43	67616.43	67616.43
Additions	190.76	0.00	0.00	0.00	0.00
Closing Equity	67616.43	67616.43	67616.43	67616.43	67616.43
Average Equity	67521.05	67616.43	67616.43	67616.43	67616.43
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
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)	13240.88	13259.58	13259.58	13259.58	13259.58
Interest on Working Capital					
Maintenance Spares	379.29	391.96	404.94	418.37	432.27
O & M expenses	210.72	217.76	224.97	232.43	240.15
Receivables	6526.28	6382.13	6227.29	6071.55	5916.53
Total	7116.28	6991.85	6857.20	6722.34	6588.95
Interest	960.70	943.90	925.72	907.52	889.51
Annual Transmission Charges					
Depreciation	11732.07	11747.51	11747.51	11747.51	11747.51
Interest on Loan	10695.43	9728.71	8731.30	7725.56	6720.84
Return on Equity	13240.88	13259.58	13259.58	13259.58	13259.58
Interest on Working Capital	960.70	943.90	925.72	907.52	889.51
O & M Expenses	2528.59	2613.08	2699.61	2789.12	2881.77
Total	39157.67	38292.78	37363.72	36429.29	35499.21

Filing Fee and Publication Expenses

71. 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 is 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

72. 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

73. 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

74. 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

75. 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.

76. This order disposes of Petition No. 20/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2009-14**

(₹ in lakh)

2009-14	Asset-1 (1.10.2011 to 1.12.2011)				Asset-2 (1.10.2011 to 1.12.2011)			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions from 1.10.2011 to 1.12.2011	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions from 1.10.2011 to 1.12.2011	Total
BOND XXIX-DOCO-	9.20	100.00	0.00	100.00	9.20	1500.00	0.00	1500.00
BOND XXX-DOCO-	8.80	100.00	0.00	100.00	8.80	1500.00	0.00	1500.00
BOND XXXI-DOCO-	8.90	100.00	0.00	100.00	8.90	1500.00	0.00	1500.00
BOND XXXIII-DOCO-	8.64	9823.00	0.00	9823.00	8.64	10200.00	0.00	10200.00
BOND XXXII-DOCO-	8.84	100.00	0.00	100.00	8.84	1500.00	0.00	1500.00
BOND-XXXIV-DOCO-	8.84	170.00	0.00	170.00	8.84	9591.00	0.00	9591.00
BOND-XXXV-DOCO-	9.64	200.00	0.00	200.00	9.64	1000.00	0.00	1000.00
BOND XXXVI-DOCO1-	9.35	175.78	0.00	175.78	9.35	385.00	0.00	385.00
BOND XXXVII-DOCO-	9.25	0.00	329.89	329.89	9.25	0.00	976.08	976.08
Total		10768.78	329.89	11098.67		27176.00	976.08	28152.08



(₹ in lakh)

2009-14	Combined Asset- 1, 2,and 3 (1.12.2011 to 1.3.2012)				Combined Asset -1, 2, 3 and 4 (1.3.2011 to 31.3.2012)			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.12.2011)	Additions from 1.12.2011 to 1.3.2012	Total	Interest Rate (%)	Loan deployed as on COD (1.3.2012)	Additions from 1.3.2011 to 31.3.2012	Total
BOND XXIX-DOCO-	9.20	2600.00	0.00	2600.00	9.20	3100.00	0.00	3100.00
BOND XXX-DOCO-	8.80	2600.00	0.00	2600.00	8.80	3100.00	0.00	3100.00
BOND XXXI-DOCO-	8.90	2600.00	0.00	2600.00	8.90	3100.00	0.00	3100.00
BOND XXXIII-DOCO-	8.64	25223.00	0.00	25223.00	8.64	29623.00	0.00	29623.00
BOND XXXII-DOCO-	8.84	3100.00	0.00	3100.00	8.84	3185.23	0.00	3185.23
BOND-XXXIV-DOCO-	8.84	14396.00	0.00	14396.00	8.84	14493.00	0.00	14493.00
BOND-XXXV-DOCO-	9.64	6200.00	0.00	6200.00	9.64	10200.00	0.00	10200.00
BOND XXXVI-DOCO1-	9.35	3635.78	0.00	3635.78	9.35	7308.88	0.00	7308.88
BOND XXXVII-ADDCAP FOR 2011-2012 Addcap-	9.25	0.00	1965.63	1965.63	9.25	0.00	1422.54	1422.54
BOND XXXVII-DOCO-	9.25	284.14	0.00	284.14	9.25	1046.08	0.00	1046.08
BOND XL-ADDCAP FOR 2012-2013 Addcap-	9.30	0.00	0.00	0.00	9.30	0.00	1295.01	1295.01
BOND - XLIII-ADDCAP FOR 2013-2014 DOCO--	7.93	0.00	0.00	0.00	7.93	0.00	2043.29	2043.29
Total		60638.92	3143.73	63782.65		75156.19	4760.84	79917.03

(₹ in lakh)



2009-14	Asset-5				Asset-6				Asset-7A			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2011)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.9.2012)	Additions during the tariff period	Total
BOND XXIX-DOCO-	9.20	100.00	0.00	100.00	9.20	125.00	0.00	125.00	9.20	2220.00	0.00	2220.00
BOND XXX-DOCO-	8.80	100.00	0.00	100.00	8.80	125.00	0.00	125.00	8.80	2330.00	0.00	2330.00
BOND XXXI-DOCO-	8.90	100.00	0.00	100.00	8.90	125.00	0.00	125.00	8.90	2400.00	0.00	2400.00
BOND XXXIII-DOCO-	8.64	1874.00	0.00	1874.00	8.64	1377.00	0.00	1377.00	8.64	1000.00	0.00	1000.00
BOND XXXII-DOCO-	8.84	100.00	0.00	100.00	8.84	75.00	0.00	75.00	8.84	290.00	0.00	290.00
BOND-XXXIV-DOCO-	8.84	36.00	0.00	36.00	8.84	0.00	0.00	0.00	8.84	60.00	0.00	60.00
BOND-XXXV-DOCO-	9.64	200.00	0.00	200.00	9.64	973.30	0.00	973.30	9.64	3400.00	0.00	3400.00
BOND XXXVI-DOCO1-	9.35	176.00	0.00	176.00	9.35	0.00	0.00	0.00	9.35	8202.72	0.00	8202.72
BOND XXXVII-DOCO-	9.25	0.00	240.18	240.18	9.25	0.00	1313.66	1313.66	9.25	0.00	0.00	0.00
BOND XL-DOCO1-	9.30	0.00	357.09	357.09	9.30	0.00	36.72	36.72	9.30	255.00	0.00	255.00
BOND - XLI-DOCO1-	8.85	0.00	0.00	0.00	8.85	0.00	0.00	0.00	8.85	0.00	809.73	809.73
BOND - XLIII-ADDCAP FOR 2013-2014 DOCO--	7.93	0.00	317.14	317.14	7.93	0.00	661.90	661.90	7.93	0.00	280.65	280.65
BOND - XLIV-ADDCAP FOR 2013-2014 DOCO1-	8.70	0.00	0.00	0.00	8.70	0.00	0.00	0.00	8.70	0.00	173.43	173.43
Total		2686.00	914.41	3600.41		2800.30	2012.28	4812.58		20157.72	1263.81	21421.53



(₹ in lakh)

2009-14	Asset-7B				Asset-8A				Asset-8B			
	Particulars	Interest Rate (%)	Loan deployed as on COD (1.1.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.8.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.11.2012)	Additions during the tariff period
BOND XXIX-DOCO-	9.20	0.00	0.00	0.00	9.20	1320.00	0.00	1320.00	9.20	140.00	0.00	140.00
BOND XXX-DOCO-	8.80	100.00	0.00	100.00	8.80	1380.00	0.00	1380.00	8.80	160.00	0.00	160.00
BOND XXXI-DOCO-	8.90	100.00	0.00	100.00	8.90	1430.00	0.00	1430.00	8.90	140.00	0.00	140.00
BOND XXXIII-DOCO-	8.64	100.00	0.00	100.00	8.64	620.00	0.00	620.00	8.64	350.00	0.00	350.00
BOND-XXXIV-DOCO-	8.84	17.00	0.00	17.00	8.84	40.00	0.00	40.00	8.84	25.00	0.00	25.00
BOND-XXXV-DOCO-	9.64	1075.36	0.00	1075.36	9.64	1145.00	0.00	1145.00	9.64	800.00	0.00	800.00
BOND XXXVI-DOCO1-	9.35	1402.80	0.00	1402.80	9.35	4402.50	0.00	4402.50	9.35	1950.00	0.00	1950.00
BOND XXXVII-ADDCAP FOR 2011-2012 Addcap-	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
BOND XXXVII-DOCO-	9.25	235.44	0.00	235.44	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
IBRD V-DOCO-55.34	1.80	15535.60	0.00	15535.60	8.90	0.00	0.00	0.00	8.90	0.00	0.00	0.00
BOND XL-DOCO1-	9.30	3929.53	0.00	3929.53	9.30	395.08	0.00	395.08	9.30	195.00	0.00	195.00
BOND - XLI-DOCO1-	8.85	0.00	897.23	897.23	8.85	0.00	694.56	694.56	8.85	0.00	0.00	0.00
BOND - XLII-DOCO--	8.80	0.00	0.00	0.00	8.80	0.00	0.00	0.00	8.80	0.00	48.50	48.50
BOND - XLIV-ADDCAP FOR 2013-2014 DOCO1-	8.70	0.00	340.41	340.41	8.70	0.00	1150.15	1150.15	8.70	0.00	300.72	300.72
Total		22495.73	1237.64	23733.37		10882.35	1844.71	12727.06		3760.00	349.22	4109.22



(₹ in lakh)

2009-14	Asset-9A				Asset-9B				
	Particulars	Interest Rate (%)	Loan deployed as on COD (1.8.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.9.2012)	Additions during the tariff period	Total
	BOND XXIX-DOCO-	9.20	400.00	0.00	400.00	9.20	100.00	0.00	100.00
	BOND XXX-DOCO-	8.80	410.00	0.00	410.00	8.80	100.00	0.00	100.00
	BOND XXXI-DOCO-	8.90	440.00	0.00	440.00	8.90	100.00	0.00	100.00
	BOND XXXIII-DOCO-	8.64	200.00	0.00	200.00	8.64	30.00	0.00	30.00
	BOND XXXII-DOCO-	8.84	50.00	0.00	50.00	8.84	10.00	0.00	10.00
	BOND-XXXIV-DOCO-	8.84	10.00	0.00	10.00	8.84	0.00	0.00	0.00
	BOND-XXXV-DOCO-	9.64	600.00	0.00	600.00	9.64	0.00	0.00	0.00
	BOND XXXVI-DOCO1-	9.35	2757.96	0.00	2757.96	9.35	708.27	0.00	708.27
	BOND XL-DOCO1-	9.30	564.00	0.00	564.00	9.30	49.14	0.00	49.14
	BOND - XLI-DOCO1-	8.85	0.00	394.38	394.38	8.85	0.00	18.31	18.31
	BOND -XLI-ADDCAP FOR 2013-2014 Addcap-	8.85	0.00	0.00	0.00	8.85	0.00	91.68	91.68
	BOND - XLIV-ADDCAP FOR 2013-2014 DOCO1-	8.70	0.00	716.33	716.33	8.70	0.00	0.00	0.00
	Total		5431.96	1110.71	6542.67		1097.41	109.99	1207.40



CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2009-14

(₹ in lakh)

2009-14	Asset-1	Asset-2	Asset-1, 2 & 3	Asset-1, 2, 3 & 4		
	2011-12	2011-12	2011-12	2011-12	2012-13	2013-14
Gross Opening Loan	10768.78	27176.00	60638.92	75156.19	76578.73	77873.74
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	0.00	0.00	258.33
Net Loans Opening	10768.78	27176.00	60638.92	75156.19	76578.73	77615.41
Add: Drawl(s) during the year	329.89	976.08	3143.73	1422.54	1295.01	2043.29
Less: Repayment(s) of Loan during the year	0.00	0.00	0.00	0.00	258.33	1040.43
Net Closing Loan	11098.67	28152.08	63782.65	76578.73	77615.41	78618.27
Average Net Loan	10933.73	27664.04	62210.79	75867.46	77097.07	78116.84
Rate of Interest on Loan (%)	8.6928%	8.8301%	8.8975%	8.9436%	8.9490%	8.9383%
Interest on Loan	950.45	2442.77	5535.21	6785.30	6899.43	6982.30

(₹ in lakh)

2009-14	Asset-5			Asset 6			Asset 7A		Asset 7 B	
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Opening Loan	2686.00	2926.18	3283.27	2800.30	4113.96	4150.68	20157.72	20967.45	22495.73	23392.96
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	8.33	0.00	0.00	10.42	0.00	185.00	0.00	0.00
Net Loans Opening	2686.00	2926.18	3274.94	2800.30	4113.96	4140.26	20157.72	20782.45	22495.73	23392.96
Add: Drawl(s) during the year	240.18	357.09	317.14	1313.66	36.72	661.90	809.73	454.08	897.23	340.41
Less: Repayment(s) of Loan during the year	0.00	8.33	33.32	0.00	10.42	37.51	185.00	603.34	0.00	16.66



Net Closing Loan	2926.18	3274.94	3558.76	4113.96	4140.26	4764.65	20782.45	20633.19	23392.96	23716.71
Average Net Loan	2806.09	3100.56	3416.85	3457.13	4127.11	4452.46	20470.09	20707.82	22944.35	23554.84
Rate of Interest on Loan (%)	8.8265%	8.8697%	8.8478%	9.0772%	9.1055%	9.0195%	9.2133%	9.1991%	4.2243%	4.2837%
Interest on Loan	247.68	275.01	302.32	313.81	375.80	401.59	1885.97	1904.94	969.24	1009.03

(₹ in lakh)

2009-14	Asset 8A		Asset 8 B		Asset 9 A		Asset 9 B	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Opening Loan	10882.35	11576.91	3760.00	3808.50	5431.96	5826.34	1097.41	1115.72
Cumulative Repayments of Loans upto Previous Year	0.00	110.00	0.00	11.67	0.00	33.33	0.00	8.33
Net Loans Opening	10882.35	11466.91	3760.00	3796.83	5431.96	5793.01	1097.41	1107.39
Add: Drawl(s) during the year	694.56	1150.15	48.50	300.72	394.38	716.33	18.31	91.68
Less: Repayment(s) of Loan during the year	110.00	356.65	11.67	36.67	33.33	108.34	8.33	25.82
Net Closing Loan	11466.91	12260.41	3796.83	4060.88	5793.01	6401.00	1107.39	1173.25
Average Net Loan	11174.63	11863.66	3778.42	3928.86	5612.49	6097.01	1102.40	1140.32
Rate of Interest on Loan (%)	9.1719%	9.1427%	9.2909%	9.2669%	9.2420%	9.2001%	9.2159%	9.2012%
Interest on Loan	1024.92	1084.65	351.05	364.08	518.70	560.93	101.60	104.92



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2014-19)**(₹ in lakh)**

2014-19	Combined Asset			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXIX-DOCO-	9.20	7505.00	0.00	7505.00
BOND XXX-DOCO-	8.80	7805.00	0.00	7805.00
BOND XXXI-DOCO-	8.90	7935.00	0.00	7935.00
BOND XXXIII-DOCO-	8.64	35174.00	0.00	35174.00
BOND XXXII-DOCO-	8.84	3860.00	0.00	3860.00
BOND-XXXIV-DOCO-	8.84	14681.00	0.00	14681.00
BOND-XXXV-DOCO-	9.64	18393.66	0.00	18393.66
BOND XXXVI-DOCO1-	9.35	26909.13	0.00	26909.13
BOND XXXVII-ADDCAP FOR 2011-2012 Addcap-	9.25	235.44	0.00	235.44
BOND XXXVII-DOCO-	9.25	4022.46	0.00	4022.46
IBRD V-DOCO-55.34	1.61	15535.60	0.00	15535.60
BOND XL-DOCO1-	9.30	7076.57	0.00	7076.57
BOND - XLI-DOCO1-	8.85	2814.21	0.00	2814.21
Total		158071.27	0.00	158071.27



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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	158071.27	158071.27	158071.27	158071.27	158071.27
Cumulative Repayments of Loans upto Previous Year	2884.15	9578.68	18446.71	29939.12	41713.00
Net Loans Opening	155187.12	148492.59	139624.56	128132.15	116358.27
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	6694.53	8868.03	11492.41	11773.88	12701.23
Net Closing Loan	148492.59	139624.56	128132.15	116358.27	103657.04
Average Net Loan	151839.86	144058.58	133878.36	122245.21	110007.66
Interest on Loan	8.2756%	8.2641%	8.2390%	8.1988%	8.1484%
Rate of Interest on Loan (%)	12565.71	11905.12	11030.23	10022.65	8963.89

