

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 70/TT/2015

Coram:

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

**Date of Hearing : 20.01.2016
Date of Order : 18.04.2016**

In the matter of:

Truing up of transmission tariff for 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 **Asset-I:** 125 MVAR Bus Reactor-I (Asset-IA) & 125 MVAR Bus Reactor-II (Asset-IB) at Fatehpur Sub-station along with associated bay, **Asset-II:** 125 MVAR Bus Reactor-II at Balia Sub-station, **Asset-III:** Combined Asset of 1500 MVA ICT-I at Agra Sub-station along with associated bays (**Asset-IIIA**), 125 MVAR 765/400 kV Bus Reactor-I at Sasaram along with associated bays (**Asset-IIIB**) and Associated line bays of 765 kV S/C Fatehpur-Agra T/L at Fatehpur and Agra Sub-station (**Asset-IIIC**), **Asset-IV:** 1500 MVA ICT-2 at Agra Sub-station along with associated bays, **Asset-V:** 125 MVAR Bus Reactor along with associated bays at Lucknow, **Asset-VI:** 125 MVAR 400 kV Bus Reactor-II at Sasaram along with associated bays (**Asset-VI A**) and 2 no. 50 MVAR Bus Reactor at 400 kV Maithon Sub-station and associated bays (Maithon-Gaya Line) (**Asset-VI B**), **Asset-VII:** 2 nos. of 400 kV bays at Maithon Sub-station for 400 kV D/C Maithon-Mejia Transmission Line, **Asset-VIII:** LILO of Barh-Balia 400 kV D/C Transmission Line at Patna 400 kV Sub-station along with associated bays, **Asset-IX:** 1500 MVA 765/400 kV ICT-I at Sasaram Sub-station along with associated bays under common scheme for 765 kV pooling station and network for NR, Import by NR from ER and common scheme for network for WR and import by WR from ER and from NER/SR/WR via ER in Northern Region & Eastern 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. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Vidyut Marg,
Jaipur – 302 005
2. Ajmer Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur
4. Jodhpur Vidyut Vitran Nigam Limited
400 KV GSS Building (Ground floor), Ajmer Road,
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board
Vidyut Bhawan, Kumar House Complex Building II
Shimla – 171 004
6. Punjab State Electricity Board
Thermal Shed TIA, Near 22 Phatak,
Patiala – 147 001
7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6
Panchkula (Haryana) – 134 109
8. Power Development Department
Govt. of Jammu & Kashmir,
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226 001



10. Delhi Transco Limited
Shakti Sadan, Kotla Road,
New Delhi – 110 002
 11. BSES Yamuna Power Limited
BSES Bhawan, Nehru Place,
New Delhi
 12. BSES Rajdhani Power Limited
BSES Bhawan, Nehru Place,
New Delhi
 13. North Delhi Power Limited
Power Trading & Load Dispatch group
Cennet Building, Adjacent to 66/11 KV Pitampura-3
Grid Building, Near PP Jewellers,
Pitampura, New Delhi – 110 034
 14. Chandigarh Administration
Sector-9, Chandigarh
 15. Uttarakhand Power Corporation Limited
Urja Bhawan, Kanwali Road,
Dehradun
 16. North Central Railway
Allahabad
 17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi – 110 002
 18. West Bengal State Electricity Distribution Co. Ltd.,
Bidyut Bhawan, Salt Lake City,
Calcutta – 700 091
 19. Damodar Valley Corporation,
DVC Tower, Calcutta- 700 054
 20. Bihar State Electricity Board,
Bidyut Bhawan, Patna- 800 001
 21. Grid Corporation of Orissa Ltd.
Bhubaneshwar- 751 007
 22. Power Dept, Govt. of Sikkim,
-



Gangtok – 727 102

23. Jharkhand State Electricity Board,
Dhurwa, Ranchi – 834 004

.....Respondents

The following were present:-

For Petitioner: Shri M. M. Mondal, PGCIL
 Shri S. K. Venkatesan, PGCIL
 Smt. Sangeeta Edwards, PGCIL
 Shri S. C. Taneja, PGCIL
 Shri Y. K. Sehgal, PGCIL
 Shri Nitish Kumar, PGCIL
 Shri G. C. Dhal, PGCIL
 Shri Amit Yadav, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri S. S. Raju, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri Anshul Garg, PGCIL

For Respondent: Shri Vinod Kumar Yadav, Rajasthan Discoms

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for truing up of capital expenditure and tariff for 125 MVAR Bus Reactor-I (short as “Asset-IA”) & 125 MVAR Bus Reactor-II (short as “Asset-IB”) at Fatehpur Sub-station along with associated bay (collectively referred as Asset-I), 125 MVAR Bus Reactor-II at Balia Sub-station (short as “Asset-II”), 1500 MVA ICT-I at Agra Sub-station along with associated bays (short as “Asset-III A’), 125 MVAR 765/400 kV Bus Reactor-I at Sasaram along with associated bays (short as “Asset-IIIB”) and Associated line bays of 765 kV S/C Fatehpur-Agra T/L at



Fatehpur and Agra Sub-station (short as “Asset-IIIC”) (collectively Asset-IIIA, IIIB and IIIC referred as Asset III), 1500 MVA ICT-2 at Agra Sub-station along with associated bays (short as Asset-IV), 125 MVAR Bus Reactor along with associated bays at Lucknow (short as Asset-V), 125 MVAR 400 kV Bus Reactor-II at Sasaram along with associated bays (short as ‘Asset-VI A’) and 2 no. 50 MVAR Bus Reactor at 400 kV Maithon Sub-station and associated bays (Maithon-Gaya Line) (short as “Asset-VI B”)(collectively Asset VIA and VIB referred as Asset VI), 2 nos. of 400 kV bays at Maithon Sub-station for 400 kV D/C Maithon-Mejia Transmission Line(short as “Asset-VII”), LILO of Barh-Balia 400 kV D/C Transmission Line at Patna 400 kV Sub-station along with associated bays (short as “Asset-VIII”), 1500 MVA 765/400 kV ICT-I at Sasaram Sub-station along with associated bays (short as “Asset-IX”) under common scheme for 765 kV pooling station and network for NR, Import by NR from ER and common scheme for network for WR and import by WR from ER and from NER/SR/WR via ER in Northern Region & Eastern Region (hereinafter referred as “transmission asset”). It is pertinent to note that combined Asset I, Asset III and Asset VI filed in original petition have been segregated for the purpose of capital cost purpose only. Asset I is segregated into Asset IA & Asset IB, Asset III is segregated into Asset IIIA, Asset IIIB and Asset IIIC and Asset VI is segregated into Asset VIA and Asset VIB. However, the tariff of the assets is determined collectively as Asset I, Asset III and Asset VI. 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.

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

3. 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 20.1.2016. None of the respondents have filed any reply to the petition. The petitioner was directed to file additional information which has been submitted by the petitioner vide affidavit dated 18.2.2016 and 11.3.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

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

(a) The investment approval for the Common Scheme for 765 kV Pooling Stations and Network for NR, Import by NR from ER and from



NER/SR/WR via ER and Common Scheme for network for WR and Import by WR from ER and from NER/SR/WR via ER in Eastern Region was accorded by Board of Directors of the Petitioner Company vide Memorandum No. C/CP/DVC and Maithon RB Project, dated 29.8.2008, at estimated expenditure of ₹707533 lakh including an IDC of ₹71360 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- DVC and Maithon RB project, dated 11.3.2016, at an estimated expenditure of ₹657054 lakh including an IDC of ₹67714 lakh, based on December, 2015 price level. The details of the assets along with COD and approved appportioned cost are as under:-

	Assets name	Date of commercial operation	Approved appportioned cost (₹ in lakh)
Asset-I	125 MVAR Bus Reactor-I at Fatehpur Sub-station along with associated bay(Asset-IA)	1.1.2012	1725.25
	125 MVAR Bus Reactor-II at Fatehpur Sub-station along with associated bay (Asset-IB)	1.1.2012	1725.25
Asset-II	125 MVAR Bus Reactor-II at Balia Sub-station	1.2.2012	1545.52
	Combined Asset of 1500 MVA ICT-I at Agra Sub-station along with associated bays (Asset-IIIA)	1.6.2012	15485.92



	Assets name	Date of commercial operation	Approved apportioned cost (₹ in lakh)
	125 MVAR 765/400 kV Bus Reactor-I at Sasaram along with associated bays (Asset-IIIB)	1.6.2012	1441.18
	Associated line bays of 765 kV S/C Fatehpur-Agra T/L at Fatehpur and Agra Sub-station (Asset-IIIC)	1.6.2012	12094.74
Asset-IV	1500 MVA ICT-2 at Agra Sub-station along with associated bays	1.9.2012	15485.92
Asset-V	125 MVAR Bus Reactor along with associated bays at Lucknow	1.3.2012	1754.54
Asset-VI	125 MVAR 400 kV Bus Reactor-II at Sasaram along with associated bays (Asset-VIA)	1.4.2012	1441.18
	2 no. 50 MVAR Bus Reactor at 400 kV Maithon Sub-station and associated bays (Maithon-Gaya Line)(Asset-VIB)	1.4.2012	2159.09
Asset-VII	2 nos. of 400 kV bays at Maithon Sub-station for 400 kV D/C Maithon-Meja Transmission Line	1.12.2011	760.55
Asset-VIII	LILO of Barh-Balia 400 kV D/C Transmission Line at Patna 400 kV Sub-station along with associated bays	1.12.2012	5978.32
Asset-IX	1500 MVA 765/400 kV ICT-I at Sasaram Sub-station along with associated bays	1.3.2013	15235.37
	Total		76832.83

(b) The tariff from respective COD to 31.3.2014 was determined vide order dated 21.2.2014 in Petition No. 90/TT/2012 for Assets-IA, IB, II, IIIA and IV, order dated 7.8.2014 in Petition No. 198/TT/2012 for Assets-IIIB, VIA, and VIB, order dated 13.5.2014 in Petition No. 194/TT/2012 for Asset-IIIC,



order dated 17.7.2014 in Petition No. 38/TT/2013 for Asset-V, order dated 21.10.2011 in Petition No. 99/TT/2011 for Asset-VII and order dated 28.2.2014 in Petition No. 101/TT/2012 for Asset-VIII and IX in accordance with the 2009 Tariff Regulations. The tariff allowed for the 2009-14 tariff period is as under:-

(₹ in lakh)

Particulars	Asset-IA: Approved as Petition 90/TT/2012 dtd 21.2.2014 (Asset-1)			Asset-IB: Approved as Petition 90/TT/2012 dtd 21.2.2014 (Asset-2)			Combined of Asset-IA & IB		
	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14	2011-12 (Pro-rata)	2012-13	2013-14
Depreciation	16.03	84.70	94.98	17.04	88.50	98.56	33.07	173.20	193.54
Interest on Loan	20.39	102.91	107.66	21.63	107.38	111.51	42.02	210.29	219.17
Return on equity	16.74	88.09	98.66	17.74	91.86	102.20	34.48	179.95	200.86
Interest on Working Capital	1.76	8.48	9.16	1.83	8.72	9.38	3.59	17.20	18.54
O & M Expenses	14.64	61.92	65.46	14.64	61.92	65.46	29.28	123.84	130.92
Total	69.56	346.09	375.92	72.88	58.38	387.10	142.44	404.47	763.02

(₹ in lakh)

Particulars	Asset-II: Approved as Petition 90/TT/2012 dtd 21.2.2014 (Asset-3)		
	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	7.26	59.26	71.82
Interest on Loan	8.92	70.49	80.53
Return on Equity	7.35	60.51	73.64
Interest on WC	0.94	6.77	7.65
O&M Expenses	9.76	61.92	65.46
Total	34.23	258.94	299.09

(₹ in lakh)

Particulars	Asset-III A: Approved as Petition 90/TT/2012 dtd 21.2.2014 (Asset-4)		Asset-III B: Approved as Petition 198/TT/2012 dtd 7.8.2014 (Asset-I)		Asset-III C: Approved as Petition 194/TT/2012 dtd 13.5.2014		Asset-III: Combined of Asset-III A, III B & III C	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Depreciation	542.35	650.82	44.91	70.54	424.97	537.47	1012.23	1258.83
Interest on	666.52	748.77	54.78	81.22	523.89	618.11	1245.19	1448.10



Particulars	Asset-III A: Approved as Petition 90/TT/2012 dtd 21.2.2014 (Asset-4)		Asset-III B: Approved as Petition 198/TT/2012 dtd 7.8.2014 (Asset-I)		Asset-III C: Approved as Petition 194/TT/2012 dtd 13.5.2014		Asset-III: Combined of Asset-III A, III B & III C	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Loan								
Return on equity	572.78	687.34	44.61	70.07	441.03	556.53	1058.42	1313.94
Interest on Working Capital	47.85	56.72	6.17	8.72	43.96	54.60	97.98	120.04
O & M Expenses	123.83	157.10	51.60	65.46	216.70	274.92	392.13	497.48
Total	1953.34	2300.75	202.08	296.01	1650.55	2041.62	3805.97	4638.38

(₹ in lakh)

Particulars	Asset-IV: Approved as Petition 90/TT/2012 dtd 21.2.2014		Asset-V: Approved as Petition 38/TT/2013 dtd 17.7.2014		
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14
Depreciation	380.07	651.55	5.81	83.01	93.66
Interest on Loan	471.14	761.28	7.79	106.73	112.59
Return on Equity	400.95	687.34	6.38	90.82	102.20
Interest on WC	33.61	57.02	0.63	8.57	9.30
O&M Expenses	86.68	157.10	4.88	61.92	65.46
Total	1372.46	2314.29	25.49	351.06	383.21

(₹ in lakh)

Particulars	Asset-VIA: Approved as Petition 198/TT/2012 dtd 7.8.2014 (Asset-II)		Asset-VIB: Approved as Petition 198/TT/2012 dtd 7.8.2014 (Asset-III)		Asset-VI: Combined of Asset-VIA & VIB	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Depreciation	57.36	70.92	101.82	107.03	159.18	177.95
Interest on Loan	69.39	80.36	115.99	112.79	185.38	193.15
Return on equity	56.97	70.44	100.47	105.64	157.44	176.08
Interest on Working Capital	7.65	8.72	21.01	21.96	28.66	30.68
O & M Expenses	61.92	65.46	247.68	261.84	309.60	327.30
Total	253.28	295.90	586.97	609.26	840.25	905.16

(₹ in lakh)

	Asset-VII: Approved as Petition 99/TT/2011 dtd 21.10.2011			Asset-VIII: Approved as Petition 101/TT/2012 dtd 28.2.2014 (Asset-I)		Asset-IX: Approved as Petition 101/TT/2012 dtd 28.2.2014 (Asset-IV)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Depreciation	16.66	34.76	34.76	82.07	270.20	51.73	684.15
Interest on Loan	19.08	37.54	34.43	101.26	316.89	63.25	802.80



	Asset-VII: Approved as Petition 99/TT/2011 dtd 21.10.2011			Asset-VIII: Approved as Petition 101/TT/2012 dtd 28.2.2014 (Asset-I)		Asset-IX: Approved as Petition 101/TT/2012 dtd 28.2.2014 (Asset-IV)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Return on Equity	16.42	34.26	34.26	81.23	267.26	51.38	679.52
Interest on WC	3.85	8.07	8.34	10.83	34.70	4.51	58.55
O&M Expenses	58.57	123.84	130.92	85.79	272.08	12.38	157.10
Total	114.59	238.46	242.70	361.17	1161.13	183.26	2382.11

(c) The capital cost of ₹1074.96 lakh and ₹1151.29 lakh for Asset-IA and IB, ₹778.39 lakh for Asset-II, ₹13106.42 lakh, ₹833.25 lakh and ₹9571.41 lakh for Asset-III A, IIIB and IIIC, ₹13106.42 lakh for Asset-IV, ₹1407.16 lakh for Asset-V, ₹957.18 lakh and ₹1817.38 lakh for Asset-VIA and VIB, ₹599.18 lakh for Asset-VII, ₹4418.65 lakh for Asset-VIII and ₹11665.78 lakh for Asset-IX was considered as on COD for determination of tariff in order dated 21.2.2014 in Petition No. 90/TT/2012, order dated 7.8.2014 in Petition No. 198/TT/2012, order dated 13.5.2014 in Petition No. 194/TT/2012, order dated 17.7.2014 in Petition No. 38/TT/2013, order dated 21.10.2011 in Petition No. 99/TT/2011 and order dated 28.2.2014 in Petition No. 101/TT/2012.

(d) 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 determined as discussed below.



Capital Cost

6. The petitioner has claimed the capital cost as on COD of ₹1006.77 lakh and ₹1006.77 lakh for Asset-IA and IB, ₹850.81 lakh for Asset-II, ₹13186.87 lakh, ₹833.25 lakh and ₹9288.44 lakh for Asset-IIIA, Asset-IIIB and Asset-IIIC, ₹13677.52 lakh for Asset-IV, ₹1326.77 lakh for Asset-V, ₹957.18 lakh and ₹1824.15 lakh for Asset-VIA and VIB, ₹610.53 lakh for Asset-VII, ₹4483.91 lakh for Asset-VIII, and ₹12054.29 lakh for Asset-IX, respectively.

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. With regard to Asset-VII, the petitioner in its affidavit dated 18.2.2016 has submitted that entire IEDC for the asset was discharged upto COD. As regards IDC, upto COD ₹48.54 lakh out of ₹55.13 lakh was discharged. Further, IDC discharged during 2011-12 was ₹6.59 lakh.

9. The petitioner has submitted the actual capital expenditure incurred upto COD and submitted Auditor's Certificate in support of 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:-

- i) The capital cost as on COD (including IDC, IEDC and excess initial spares) has been considered as ₹1006.77 lakh and ₹1006.77 lakh for Asset-IA and Asset-IB, respectively;
- ii) The capital cost of ₹850.81 lakh as on COD has been considered for Asset-II;
- iii) The capital cost of ₹13186.87 lakh, ₹833.25 lakh and ₹9288.44 lakh as on COD has been considered for Asset-IIIA, Asset-IIIB and Asset-IIIC, respectively;
- iv) The capital cost capitalized upto COD as ₹13677.52 lakh for Asset-IV, and ₹1326.77 lakh for Asset-V has been considered as on COD;
- v) The capital cost of ₹957.18 lakh and ₹1824.15 lakh as on COD has been considered for Asset-VIA and VIB, respectively;
- vi) The capital cost for Asset-VII, Asset-VIII and Asset-IX has been considered as ₹603.94 lakh (i.e. = ₹610.53 – IDC of ₹6.59 lakh discharged in 2011-12), ₹4483.91 lakh, and ₹12054.29 lakh, respectively.

Time over-run



12. As per the investment approval dated 29.8.2008, 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 1.9.2012. However, the actual commissioning of assets with delay are as given below:-

Assets name	SCOD as per IA dated 29.8.2008	Date of commercial operation	Delay in months
Asset-IA	1.9.2012	1.1.2012	Within approved timeline
Asset-IB		1.1.2012	
Asset-II		1.2.2012	
Asset-IIIA		1.6.2012	
Asset-IIIB		1.6.2012	
Asset-IIIC		1.6.2012	
Asset-IV		1.9.2012	
Asset-V		1.3.2012	
Asset-VIA		1.4.2012	
Asset-VIB		1.4.2012	
Asset-VII		1.12.2011	
Asset-VIII		1.12.2012	3 months
Asset-IX		1.3.2013	6 months

13. As regards time over-run in commissioning of the Asset-VIII and Asset-IX, the Commission vide its order dated 28.2.2014 in Petition No. 101/TT/2012 has observed as under:-

“Time over-run

10. As per investment approval dated 29.8.2008, the assets were scheduled to be commissioned progressively within 48 months from the date of investment approval, i.e. by 1.9.2012. Asset-I and Asset-IV were commissioned on 1.12.2012 and 1.3.2013 respectively. Accordingly, there is a delay of 3 months in case of Asset-I and 6 months in case of Asset-IV.

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14. We now examine the reasons for delay explained by the petitioner. Main reasons for delay in the commissioning are heavy rains, fog and non-availability of shut-down for transportation of ICT at Sasaram sub-station which hampered



the movement of huge consignments like reactors and transformers through a very busy railway route/crossing. Heavy rains and fog are normal seasonal variations. There is nothing abnormal in these events and must have been foreseen at the planning stage. The petitioner has not submitted any evidence to suggest that there was any extraordinary rain or fog causing disruption in construction activities. In case of Asset-I, two additional reasons, which are said to have contributed to the delay in commissioning, have been given. These are unavailability of shut down at tapping point and dead end tower of 400 kV Patna-Barh and Patna- Balia transmission line and change of route alignment. No documentary evidence has been provided by the petitioner. Whatever documents the petitioner has submitted only reveal that the petitioner has claimed liquidated damages amounting to ₹12.83 lakh from the vendor for delay in commissioning of the asset by five months. Thus delay is on account of the contractor hired by the petitioner. The beneficiaries cannot be saddled with cost as result of the default of the contractor. Similarly, the petitioner has not placed on record a shred of evidence that there was any delay in obtaining shut-down on railway crossing/route needed for transportation of ICT at the sub-station site or abnormally long time was taken in getting the permission for tree-cutting in case of Asset-IV. Therefore, delay of three months in case of Asset-I and of six months in case of Asset-IV is not being condoned.”

14. The Commission, vide its order dated 28.2.2014 in Petition No. 101/TT/2012, had disallowed the IDC and IEDC of ₹35.39 and ₹ 29.88 for Asset-VIII and ₹296.80 and ₹91.71 for Asset-IX, however, the same was on the basis of Management Certificates. The petitioner has submitted actual IDC and IEDC incurred duly certified by Auditor Certificate. Accordingly, the IDC and IEDC disallowed will undergo change based on actual IDC and IEDC. It is worked out based on the Auditor Certificates as given below:-

(₹ in lakh)

Asset-VIII: Details of IEDC and IDC as per CA certificate dated 5.12.2014			
Particulars	IEDC	IDC	Total
From IA 29.8.2008 upto 30.11.2012 (51 months)	362.25	137.34	499.59
Total IDC and IEDC claimed (51 months)	362.25	137.34	499.59
Details of IEDC and IDC disallowed for 3 months			
From September 2012 to November 2012 (3 months)	21.31	8.08	29.39
Total disallowed IEDC and IDC (3 months)	21.31	8.08	29.39

(₹ in lakh)



Asset-IX-Details of IEDC and IDC as per CA certificate dated 5.12.2014			
Particulars	IEDC	IDC	Total
From IA 29.8.2008 upto 29.2.2012 (54 months)	1245.80	348.32	1594.12
Total IDC and IEDC claimed (54 months)	1245.80	348.32	1594.12
Details of IEDC and IDC disallowed for 6 months			
From September 2012 to February 2012 (6 months)	138.42	38.70	177.12
Total disallowed IEDC and IDC (6 months)	138.42	38.70	177.12

Initial Spares

10. The petitioner has claimed initial spares of ₹21.21 lakh, ₹21.21 lakh, ₹19.82 lakh, ₹270.59 lakh, ₹35.00 lakh, ₹179.18 lakh, ₹270.59 lakh, ₹44.21 lakh, ₹35.00 lakh, ₹57.13 lakh, ₹44.85 lakh, ₹27.36 lakh and ₹355.00 lakh for Assets- Asset-IA, Asset-IB, Asset-II, Asset-IIIA, Asset-IIIB, Asset-IIIC, Asset-IV, Asset-V, Asset-VIA, Asset- VIB, Asset- VII, Asset-VIII and Asset-IX, respectively, pertaining to sub-station and ₹20.96 lakh for Asset-VIII pertaining to transmission line. In this regard, the petitioner has submitted that the initial spares are within the ceiling limit specified in the 2009 Tariff Regulations.

11. The petitioner has submitted actual capital expenditure for true up of tariff during 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 by considering the additional capitalization beyond 31.3.2014. The petitioner has claimed the additional capitalization for 2014-19 tariff period in the instant petition and as the cut-off date falls beyond the 31.3.2014, we have



considered the additional capitalization as considered in subsequent Paragraph to work out the capital cost upto cut-off date.

12. 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%.....”

13. 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	Cut-off date	Capital cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
		(a)	(b)	(c)	(d)=*((a-b)*c)/(100-c)%	(e)=(d)-(b)
Sub-station (including PLCC)						
Asset-IA	31.3.2015	1524.89	21.21	2.50%	38.56	0.00
Asset-IB	31.3.2015	1524.89	21.21	2.50%	38.56	0.00
Asset-II	31.3.2015	1281.75	19.82	2.50%	32.36	0.00
Asset-IIIA	31.3.2015	15018.21	270.59	2.50%	378.14	0.00
Asset-IIIB	31.3.2015	1221.75	35.00	2.50%	30.43	4.57
Asset-IIIC	31.3.2015	11461.71	179.18	2.50%	289.30	0.00
Asset-IV	31.3.2015	15018.21	270.59	2.50%	378.14	0.00
Asset-V	31.3.2015	1644.12	44.21	2.50%	41.02	3.19
Asset-VIA	31.3.2015	1248.99	35.00	2.50%	31.13	3.87



Description	Cut-off date	Capital cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
		(a)	(b)	(c)	$(d)=*((a-b)*c)/(100-c)\%$	$(e)=(d)-(b)$
Asset-VIB	31.3.2015	2042.21	57.13	2.50%	50.90	6.23
Asset-VII	31.3.2014	747.46	44.85	2.50%	18.02	26.83
Asset-VIII	31.3.2015	1452.60	27.36	2.50%	36.54	0.00
Asset-IX	31.3.2015	14608.02	355.00	2.50%	365.46	0.00
Transmission Line						
Asset-VIII	31.3.2016	3993.22	20.96	0.75%	30.02	0.00

The capital cost upto cut off date has been worked out by considering the additional capital expenditure for 2014-15 beyond the 31.3.2014 as the same has been admitted by the Commission in this order as set forth in subsequent paragraph.

14. The capital cost as on COD has been worked out after adjusting disallowed IDC, IEDC and excess initial spares as under:-

(₹ in lakh)

Assets	Capital cost claimed as on COD	IDC & IEDC disallowed	Capital cost after adjusting disallowed IDC and IDC	Excess initial spares	Capital cost of individual assets considered as on COD
	(a)	(b)	$(c)=(a)-(b)$	(d)	$(e)=(c)-(d)$
Asset-IA	1006.78	0.00	1006.78	0.00	1006.78
Asset-IB	1006.78	0.00	1006.78	0.00	1006.78
Asset-II	850.81	0.00	850.81	0.00	850.81
Asset-III A	13186.87	0.00	13186.87	0.00	13186.87
Asset-III B	833.25	0.00	833.25	4.57	828.68
Asset-III C	9288.44	0.00	9288.44	0.00	9288.44
Asset-IV	13677.52	0.00	13677.52	0.00	13677.52
Asset-V	1326.77	0.00	1326.77	3.19	1323.58
Asset-VIA	957.18	0.00	957.18	3.87	953.31



Assets	Capital cost claimed as on COD	IDC & IEDC disallowed	Capital cost after adjusting disallowed IDC and IDC	Excess initial spares	Capital cost of individual assets considered as on COD
	(a)	(b)	(c)=(a)-(b)	(d)	(e)=(c)-(d)
Asset-VIB	1824.15	0.00	1824.15	6.23	1817.92
Asset-VII	603.94	0.00	603.94	26.83	577.11
Asset-VIII	4483.91	29.39	4454.52	0.00	4454.52
Asset-IX	12054.29	177.12	11877.17	0.00	11877.17

Additional Capital Expenditure

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

16. 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...;”

17. The total capital cost (including actual additional capitalization) is within the overall approved cost of the assets. 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:-

(₹ in lakh)					
Name of	Particulars	Appor-	Capital	Additional Capital Expenditure (2009-14)	Capital



the asset		tioned approved cost	cost as on COD	2011-12	2012-13	2013-14	Total	cost as on 31.3.2014
Asset-IA	Approved in order dated 21.2.2014 Pet No. 90/TT/2012	1948.81	1074.96	403.22	403.22	0.00	806.44	1881.40
	Allowed in this order	1725.25	1006.78	205.89	115.98	135.40	457.27	1464.05
Asset-IB	Approved in order dated 21.2.2014 Pet No. 90/TT/2012	1948.81	1151.30	403.22	394.29* (403.22-8.93)	0.00	797.51	1948.79
	Allowed in this order	1725.25	1006.78	205.89	115.98	135.40	457.27	1464.05
Asset-II	Approved in order dated 21.2.2014 Pet No. 90/TT/2012	1645.00	778.39	125.17	500.69	0.00	625.86	1404.25
	Allowed in this order	1545.52	850.81	247.66	168.17	9.54	425.37	1276.18
Asset-III A	Approved in order dated 21.2.2014 Pet No. 90/TT/2012	13106.42	1306.42* (13186.87-80.45)	0.00	0.00* (1137.37-1137.37)	0.00* (1132.32-1132.32)	0.00	13106.42
	Allowed in this order	15485.92	13186.87	0.00	614.37	969.88	1584.25	14771.12
Asset-III B	Approved in order dated 7.8.2014 Pet No. 198/TT/2012	1499.02	833.25	0.00	375.07	255.45	630.52	1463.77
	Allowed in this order	1441.18	828.68	0.00	226.81	109.69	336.50	1165.18
Asset-III C	Approved in order dated 13.5.2014 Pet No. 194/TT/2012	12052.77	9571.40	0.00	1040.61	0.00	1040.61	10612.01
	Allowed in this order	12094.74	9288.44	0.00	1056.94	892.35	1949.29	11237.72
Asset-IV	Approved in order dated 21.2.2014 Pet No. 90/TT/2012	13106.42	13106.42* (13425.01-318.59)	0.00	0.00* (1348.67-1348.67)	0.00* (617.44-617.44)	0.00	13106.42
	Allowed in this order	15485.92	13677.52	0.00	123.72	969.88	1093.60	14771.12



Name of the asset	Particulars	Appor-tioned approved cost	Capital cost as on COD	Additional Capital Expenditure (2009-14)				Capital cost as on 31.3.2014
				2011-12	2012-13	2013-14	Total	
Asset-V	Approved in order dated 17.7.2014 Pet No. 38/TT/2013	2316.29	1407.16	107.73	433.97	0.00	541.70	1948.86
	Allowed in this order	1754.54	1323.58	108.56	56.01	57.36	221.93	1545.51
Asset-VIA	Approved in order dated 7.8.2014 Pet No. 198/TT/2012	1499.02	957.18	0.00	258.33	255.45	513.78	1470.96
	Allowed in this order	1441.18	953.31	0.00	162.23	77.58	239.81	1193.12
Asset-VIB	Approved in order dated 7.8.2014 Pet No. 198/TT/2012	3025.99	1817.38** (1824.15-6.77)	0.00	197.00	0.00	197.00	2014.38
	Allowed in this order	2159.09	1817.92	0.00	36.23	181.83	218.06	2035.98
Asset-VII	Approved in order dated 21.10.2011 Pet No. 99/TT/2011	769.00	599.18** (628.33-29.15)	54.02	0.00	0.00	54.02	653.20
	Allowed in this order	760.55	577.11	15.20 (=8.61+IDC of 6.59 discharged in 2011-12)	37.39	84.34	136.93	714.04
Asset-VIII	Approved in order dated 28.2.2014 Pet No. 101/TT/2012	5771.48	4418.65# (4483.91-65.27)	456.68	441.59	0.00	898.27	5316.92
	Allowed in this order	5978.32	4454.52	0.00	452.03	297.86	749.89	5204.41
Asset-IX	Approved in order dated 28.2.2014 Pet No. 101/TT/2012	14056.58	11665.78# (12054.29-388.51)	183.24	2216.56	0.00	2399.80	14065.58
	Allowed in this order	15235.37	11877.17	0.00	290.54	1747.27	2037.81	13914.98

* deducted cost over-run

** deducted excess initial spares

deducted IDC/IEDC



Debt: Equity

18. 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.”

19. 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 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	Asset-I		Asset-II		Asset-III	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	1409.48	70.00	595.57	70.00	16312.79	70.00
Equity	604.06	30.00	255.24	30.00	6991.20	30.00
Total	2013.54	100.00	850.81	100.00	23303.99	100.00

(₹ in lakh)

Particulars	Asset-IV		Asset-V		Asset-VI	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	9574.26	70.00	926.51	70.00	1939.86	70.00
Equity	4103.26	30.00	397.08	30.00	831.37	30.00
Total	13677.52	100.00	1323.58	100.00	2771.23	100.00

(₹ in lakh)



Particulars	Asset-VII		Asset-VIII		Asset-IX	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	403.97	70.00	3118.17	70.00	8314.02	70.00
Equity	173.13	30.00	1336.36	30.00	3563.15	30.00
Total	577.11	100.00	4454.52	100.00	11877.17	100.00

20. 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 18.2.2016, has submitted that debt to equity ratio for Asset-I to Asset-IX for the tariff period 2009-14 is 70:30.

21. The overall debt equity ratio as on 31.3.2014 for the Asset including additional capitalization is as under:-

(₹ in lakh)

Particulars	Asset-I		Asset-II		Asset-III	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	2049.66	70.00	893.33	70.00	19021.83	70.00
Equity	878.42	30.00	382.85	30.00	8152.20	30.00
Total	2928.08	100.00	1276.19	100.00	27174.03	100.00

(₹ in lakh)

Particulars	Asset-IV		Asset-V		Asset-VI	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	10339.78	70.00	1081.85	70.00	2260.37	70.00
Equity	4431.34	30.00	463.65	30.00	968.73	30.00
Total	14771.12	100.00	1545.50	100.00	3229.10	100.00

(₹ in lakh)

Particulars	Asset-VII		Asset-VIII		Asset-IX	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	499.82	70.00	3643.09	70.00	9740.48	70.00
Equity	214.21	30.00	1561.32	30.00	4174.49	30.00
Total	714.04	100.00	5204.41	100.00	13914.98	100.00

Interest on Loan ("IOL")



22. 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-I			Asset-II			Asset-III	
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.8.2014 and 13.5.2014	42.02	210.29	219.17	8.92	70.49	80.53	1245.19	1448.10
As claimed by the petitioner	35.45	155.29	157.77	10.39	72.38	72.01	1247.69	1508.51
Allowed after trued up	35.45	155.29	157.77	10.39	72.38	72.01	1247.46	1508.26

(₹ in lakh)

	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.7.2014 and 7.8.2014	471.14	761.28	7.79	106.73	112.59	185.38	193.15
As claimed by the petitioner	494.16	828.08	7.36	90.11	86.95	177.54	176.55
Allowed after trued up	494.16	828.08	7.34	89.92	86.77	176.92	175.98



(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.10.2011 and 28.2.2014	19.08	37.54	34.43	101.26	316.89	63.25	802.80
As claimed by the petitioner	12.56	37.20	37.60	100.88	307.86	63.60	786.89
Allowed after trued up	11.95	35.64	36.17	101.67	310.05	64.74	799.84

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

Return on Equity (“ROE”)

23. 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 maybe, 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 trued up in accordance with Regulation 6 of these regulations.”

24. The petitioner has submitted that MAT rate of 11.330% applicable for 2008-09 was considered in the order dated 21.2.2014 in Petition No. 90/TT/2012 for Assets-IA, IB, II, IIIA and IV, order dated 7.8.2014 in Petition No. 198/TT/2012 for Assets-IIIB, VIA, and VIB, order dated 13.5.2014 in Petition No. 194/TT/2012 for Asset-IIIC, order dated 17.7.2014 in Petition No. 38/TT/2013 for Asset-V, order dated 21.10.2011 in Petition No. 99/TT/2011 for Asset-VII and order dated 28.2.2014 in Petition No. 101/TT/2012 for Asset-VIII and IX. 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

25. 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:-

Particulars	(₹ in lakh)		
	Asset-I	Asset-II	Asset-III



	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.8.2014 and 13.5.2014	34.48	179.95	200.86	7.35	60.51	73.64	1058.42	1313.94
As claimed by the petitioner	32.25	147.73	164.29	9.44	68.74	74.80	1175.10	1540.91
Allowed after trued up	32.25	147.73	164.29	9.44	68.74	74.80	1174.88	1540.64

(₹ in lakh)

	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.7.2014 and 7.8.2014	400.95	687.34	6.38	90.82	102.20	157.44	176.08
As claimed by the petitioner	465.90	840.46	6.69	85.06	89.42	167.45	182.93
Allowed after trued up	465.90	840.46	6.67	84.88	89.23	166.86	182.34

(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.10.2011 and 28.2.2014	16.42	34.26	34.26	81.23	267.26	51.38	679.52
As claimed by the petitioner	11.91	37.08	41.10	90.00	295.30	57.22	754.78
Allowed after trued up	11.33	35.52	39.53	90.69	297.41	58.24	767.22

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



26. 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”

27. 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 year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.”

28. Depreciation was worked out in order dated 10.10.2013 in Petition No. 92/TT/2012 for Asset-1 to 3, 22.2.2014 in Petition No. 213/TT/2012 for Asset-4 to 7 and 21.2.2014 in Petition No. 202/TT/2012 for Asset-8 to 10 in accordance with Regulation 17 of the 2009 Tariff Regulations.

29. The weighted 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 25 years for Asset-I to VII, 32 years for Asset-VIII and 25 years for Asset-IX. 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-I			Asset-II			Asset-III	
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.8.2014 and 13.5.2014	33.07	173.20	193.54	7.26	59.26	71.82	1012.23	1258.83
As claimed by the petitioner	27.81	128.13	141.33	8.45	61.65	66.28	1013.60	1317.83
Allowed after trued up	27.81	128.13	141.33	8.45	61.65	66.29	1013.40	1317.59

(₹ in lakh)

	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.7.2014 and 7.8.2014	380.07	651.55	5.81	83.01	93.66	159.18	177.95
As claimed by the petitioner	399.00	712.54	5.49	69.96	72.84	152.76	164.84
Allowed after trued up	399.00	712.54	5.47	69.79	72.67	152.22	164.31

(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.10.2011 and 28.2.2014	16.66	34.76	34.76	82.07	270.20	51.73	684.15
As claimed by the petitioner	10.91	33.95	37.16	82.03	265.88	51.97	677.42
Allowed after trued up	10.38	32.53	35.74	82.66	267.77	52.90	688.58

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”)

30. 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 the orders dated 21.2.2014 in Petition No. 90/TT/2012 for Assets-IA, IB, II, IIIA and IV, dated 7.8.2014 in Petition No. 198/TT/2012 for Assets-IIIB, VIA, and VIB, dated 13.5.2014 in Petition No. 194/TT/2012 for Asset-IIIC, dated 17.7.2014 in Petition No. 38/TT/2013 for Asset-V, dated 21.10.2011 in Petition No. 99/TT/2011 for Asset-VII and dated 28.2.2014 in Petition No. 101/TT/2012 for Asset- IX. For Asset-VIII, the petitioner has claimed O&M Expenses for 8.72 km S/C transmission line with 4 sub-conductors and 4 no. of 400 kV bays. However, as approved in order dated 28.2.2014 in Petition No. 101/TT/2012, it is observed that 8.72 km LILO of Barh-Balia 400 kV transmission line is D/C with 4 sub-conductors. Accordingly, O&M Expenses for Asset-VIII has been worked out by considering length of 8.72 km LILO of Barh-Balia 400 kV D/C transmission line with 4 sub-conductors and 4 no. of 400 kV bays.

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

Particulars	Asset-I			Asset-II			Asset-III	
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.8.2014 and	29.28	123.84	130.92	9.76	61.92	65.46	392.13	497.48



13.5.2014								
As claimed by the petitioner	29.29	123.84	130.92	9.76	61.92	65.46	392.13	497.48
Allowed after trued up	29.29	123.84	130.92	9.76	61.92	65.46	392.13	497.48

(₹ in lakh)

	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.7.2014 and 7.8.2014	86.68	157.10	4.88	61.92	65.46	309.60	327.30
As claimed by the petitioner	86.68	157.10	4.88	61.92	65.46	309.60	327.30
Allowed after trued up	86.68	157.10	4.88	61.92	65.46	309.60	327.30

(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.10.2011 and 28.2.2014	58.57	123.84	130.92	85.79	272.08	12.38	157.10
As claimed by the petitioner	39.05	123.84	130.92	84.41	267.69	12.38	157.10
Allowed after trued up	39.05	123.84	130.92	85.79	272.08	12.38	157.10

Interest on working capital("IWC")

32. 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.



33. The petitioner submitted the rate of interest on working capital as 13.50% for 11.75% for Assets-I, II, V and VII and 13.50% for Assets-III, IV, VI, VIII and IX 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.

34. 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-I, II, V and VII and 13.50% (10.00% plus 350 basis points) for Assets-III, IV, VI, VIII and IX has been considered to work out the interest on working capital in the instant case.

35. The IWC trued up is as under:-

Particulars	Asset-I			Asset-II			Asset-III	
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Maintenance Spares	4.39	18.58	19.64	1.46	9.29	9.82	58.82	74.62
O & M expenses	2.44	10.32	10.91	0.81	5.16	5.46	32.68	41.46
Receivables	21.35	94.92	101.64	6.51	45.29	47.66	654.77	831.99
Total	28.19	123.82	132.19	8.79	59.73	62.93	746.27	948.07
Rate of Interest (%)	11.75	11.75	11.75	11.75	11.75	11.75	13.50	13.50%
Interest	3.31	14.55	15.53	1.03	7.02	7.39	100.75	127.99

(₹ in lakh)			
	Asset-IV	Asset-V	Asset-VI



	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Maintenance Spares	13.00	23.57	0.73	9.29	9.82	46.44	49.10
O & M expenses	7.22	13.09	0.41	5.16	5.46	25.80	27.28
Receivables	246.97	433.61	4.17	52.39	53.71	139.02	146.67
Total	267.19	470.27	5.30	66.84	68.98	211.26	223.04
Rate of Interest (%)	13.50	13.50	11.75	11.75	11.75	13.50	13.50
Interest	36.07	63.49	0.62	7.85	8.11	28.52	30.11

(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Maintenance Spares	5.86	18.58	19.64	12.87	40.81	1.86	23.57
O & M expenses	3.25	10.32	10.91	7.15	22.67	1.03	13.09
Receivables	12.54	39.26	41.81	61.98	197.08	32.17	412.22
Total	21.65	68.15	72.36	82.00	260.57	35.05	448.88
Rate of Interest (%)	11.75	11.75	11.75	13.50	13.50	13.50	13.50
Interest	2.54	8.01	8.50	11.07	35.18	4.73	60.60

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

(₹ in lakh)

Particulars	Asset-I			Asset-II			Asset-III	
	2011-12 (pro-rata)	2012-13	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.2.2014, 7.8.2014 and 13.5.2014	3.59	17.20	18.54	0.94	6.77	7.65	97.98	120.04
As claimed by the petitioner	3.31	14.55	15.53	1.03	7.02	7.40	100.76	128.01
Allowed after trued up	3.31	14.55	15.53	1.03	7.02	7.39	100.75	127.99

(₹ in lakh)

	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated	33.61	57.02	0.63	8.57	9.30	28.66	30.68



	Asset-IV		Asset-V			Asset-VI	
	2012-13 (pro-rata)	2013-14	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14
21.2.2014, 7.7.2014 and 7.8.2014							
As claimed by the petitioner	36.07	63.49	0.62	7.86	8.12	28.56	30.15
Allowed after trued up	36.07	63.49	0.62	7.85	8.11	28.52	30.11

(₹ in lakh)

	Asset-VII (Asset of order dtd 21.10.2011)			Asset-VIII (Asset-I of order dtd 28.2.2014)		Asset-IX (Asset-IV of order dtd 28.2.2014)	
	2011-12 (pro-rata)	2012-13	2013-14	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)	2013-14
Approved vide order dated 21.10.2011 and 28.2.2014	3.85	8.07	8.34	10.83	34.70	4.51	58.55
As claimed by the petitioner	2.58	8.10	8.59	10.94	34.79	4.66	59.76
Allowed after trued up	2.54	8.01	8.50	11.07	35.18	4.73	60.60

37. 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

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

(₹ in lakh)

Particulars	Asset-I			Asset-II			Asset-III	
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Gross Block								
Opening Gross Block	2013.54	2425.32	2657.28	850.81	1098.47	1266.64	23303.99	25202.11
Additional	411.78	231.96	270.80	247.66	168.17	9.54	1898.12	1971.92



Particulars	Asset-I			Asset-II			Asset-III	
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Capitalization								
Closing Gross block	2425.32	2657.28	2928.08	1098.47	1266.64	1276.18	25202.11	27174.03
Average Gross block	2219.43	2541.30	2792.68	974.64	1182.56	1271.41	24253.05	26188.07
Depreciation								
Rate of Depreciation (%)	5.012	5.042	5.061	5.202	5.214	5.214	5.014	5.031
Depreciable Value	1915.32	2205.00	2431.24	877.18	1064.30	1144.27	20729.96	22463.19
Elapsed Life of the assets at beginning of the year	0	1	2	0	1	2	0	1
Weighted Balance Useful life of the assets	25	24	23	25	24	23	25	24
Remaining Depreciable Value	1915.32	2177.19	2275.30	877.18	1055.85	1074.16	20729.96	21449.79
Depreciation	27.81	128.13	141.33	8.45	61.65	66.29	1013.40	1317.59
Interest on Loan								
Gross Normative Loan	1409.48	1697.72	1860.10	595.57	768.93	886.65	16312.79	17641.48
Cumulative Repayment upto Previous Year	0.00	27.81	155.94	0.00	8.45	70.10	0.00	1013.40
Net Loan-Opening	1409.48	1669.91	1704.15	595.57	760.48	816.54	16312.79	16628.08
Additions	288.25	162.37	189.56	173.36	117.72	6.68	1328.69	1380.35
Repayment during the year	27.81	128.13	141.33	8.45	61.65	66.29	1013.40	1317.59
Net Loan-Closing	1669.91	1704.15	1752.38	760.48	816.54	756.94	16628.08	16690.85
Average Loan	1539.70	1687.03	1728.27	678.02	788.51	786.74	16470.44	16659.47
Weighted Average Rate of Interest on Loan (%)	9.2102	9.2047	9.1285	9.1965	9.1788	9.1529	9.0887	9.0535
Interest	35.45	155.29	157.77	10.39	72.38	72.01	1247.46	1508.26
Return on Equity								
Opening Equity	604.06	727.60	797.18	255.24	329.54	379.99	6991.20	7560.63
Additions	123.53	69.58	81.24	74.30	50.45	2.86	569.43	591.57
Closing Equity	727.60	797.18	878.42	329.54	379.99	382.85	7560.63	8152.20
Average Equity	665.83	762.39	837.80	292.39	354.77	381.42	7275.91	7856.41
Return on Equity (Base Rate) (%)	15.50	15.50	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	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610	19.377	19.377	19.610	19.377	19.610



Particulars	Asset-I			Asset-II			Asset-III	
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Return on Equity (Pre Tax)	32.25	147.73	164.29	9.44	68.74	74.80	1174.88	1540.64
Interest on Working Capital								
Maintenance Spares	4.39	18.58	19.64	1.46	9.29	9.82	58.82	74.62
O & M Expenses	2.44	10.32	10.91	0.81	5.16	5.46	32.68	41.46
Receivables	21.35	94.92	101.64	6.51	45.29	47.66	654.77	831.99
Total	28.19	123.82	132.19	8.79	59.73	62.93	746.27	948.07
Interest	3.31	14.55	15.53	1.03	7.02	7.39	100.75	127.99
Annual Transmission Charges								
Depreciation	27.81	128.13	141.33	8.45	61.65	66.29	1013.40	1317.59
Interest on Loan	35.45	155.29	157.77	10.39	72.38	72.01	1247.46	1508.26
Return on Equity	32.25	147.73	164.29	9.44	68.74	74.80	1174.88	1540.64
Interest on Working Capital	3.31	14.55	15.53	1.03	7.02	7.39	100.75	127.99
O & M Expenses	29.29	123.84	130.92	9.76	61.92	65.46	392.13	497.48
Total	128.11	569.54	609.84	39.08	271.71	285.95	3928.62	4991.96

(₹ in lakh)

Particulars	Asset-IV		Asset-V			Asset-VI	
	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Gross Block							
Opening Gross Block	13677.52	13801.24	1323.58	1432.13	1488.14	2771.23	2969.69
Additional Capitalization	123.72	969.88	108.55	56.01	57.36	198.46	259.41
Closing Gross block	13801.24	14771.12	1432.13	1488.14	1545.50	2969.69	3229.10
Average Gross block	13739.38	14286.18	1377.86	1460.14	1516.82	2870.46	3099.39
Depreciation							
Rate of Depreciation (%)	4.978	4.988	4.766	4.779	4.791	5.303	5.301
Depreciable Value	11660.98	12147.57	1166.94	1239.73	1290.75	2583.41	2789.45
Elapsed Life of the assets at beginning of the year	0	0	0	1	2	0	1
Weighted Balance Useful life of the assets	25	25	25	24	23	25	24
Remaining Depreciable Value	11660.98	11748.57	1166.94	1234.26	1215.49	2583.41	2637.23
Depreciation	399.00	712.54	5.47	69.79	72.67	152.22	164.31



Particulars	Asset-IV		Asset-V			Asset-VI	
	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Interest on Loan							
Gross Normative Loan	9574.26	9660.87	926.51	1002.49	1041.70	1939.86	2078.78
Cumulative Repayment upto Previous Year	0.00	399.00	0.00	5.47	75.26	0.00	152.22
Net Loan-Opening	9574.26	9261.87	926.51	997.02	966.44	1939.86	1926.56
Additions	86.60	678.92	75.99	39.21	40.15	138.92	181.59
Repayment during the year	399.00	712.54	5.47	69.79	72.67	152.22	164.31
Net Loan-Closing	9261.87	9228.24	997.02	966.44	933.92	1926.56	1943.83
Average Loan	9418.07	9245.06	961.76	981.73	950.18	1933.21	1935.19
Weighted Average Rate of Interest on Loan (%)	8.9947	8.9570	9.1581	9.1588	9.1319	9.1514	9.0936
Interest	494.16	828.08	7.34	89.92	86.77	176.92	175.98
Return on Equity							
Opening Equity	4103.26	4140.37	397.08	429.64	446.44	831.37	890.91
Additions	37.12	290.96	32.56	16.80	17.21	59.54	77.82
Closing Equity	4140.37	4431.34	429.64	446.44	463.65	890.91	968.73
Average Equity	4121.81	4285.85	413.36	438.04	455.04	861.14	929.82
Return on Equity (Base Rate) (%)	15.50	15.50	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.961	20.008	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.610	19.377	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	465.90	840.46	6.67	84.88	89.23	166.86	182.34
Interest on Working Capital							
Maintenance Spares	13.00	23.57	0.73	9.29	9.82	46.44	49.10
O & M Expenses	7.22	13.09	0.41	5.16	5.46	25.80	27.28
Receivables	246.97	433.61	4.17	52.39	53.71	139.02	146.67
Total	267.19	470.27	5.30	66.84	68.98	211.26	223.04
Interest	36.07	63.49	0.62	7.85	8.11	28.52	30.11
Annual Transmission Charges							
Depreciation	399.00	712.54	5.47	69.79	72.67	152.22	164.31
Interest on Loan	494.16	828.08	7.34	89.92	86.77	176.92	175.98
Return on Equity	465.90	840.46	6.67	84.88	89.23	166.86	182.34
Interest on Working Capital	36.07	63.49	0.62	7.85	8.11	28.52	30.11



Particulars	Asset-IV		Asset-V			Asset-VI	
	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
O & M Expenses	86.68	157.10	4.88	61.92	65.46	309.60	327.30
Total	1481.81	2601.66	24.99	314.35	322.24	834.12	880.04

(₹ in lakh)

Particulars	Asset-VII			Asset-VIII		Asset-IX	
	2011-12	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Block							
Opening Gross Block	577.11	592.31	629.70	4454.52	4906.55	11877.17	12167.71
Additional Capitalization	15.20	37.39	84.34	452.03	297.86	290.54	1747.27
Closing Gross block	592.31	629.70	714.04	4906.55	5204.41	12167.71	13914.98
Average Gross block	584.71	611.00	671.87	4680.54	5055.48	12022.44	13041.34
Depreciation							
Rate of Depreciation (%)	5.325	5.324	5.320	5.298	5.297	5.280	5.280
Depreciable Value	526.24	549.90	604.68	4212.48	4549.93	10820.19	11737.21
Elapsed Life of the assets at beginning of the year	0	1	2	0	1	0	1
Weighted Balance Useful life of the assets	25	24	23	32	31	25	24
Remaining Depreciable Value	526.24	539.52	561.77	4212.48	4467.28	10820.19	11684.31
Depreciation	10.38	32.53	35.74	82.66	267.77	52.90	688.58
Interest on Loan							
Gross Normative Loan	403.97	414.61	440.79	3118.17	3434.59	8314.02	8517.39
Cumulative Repayment upto Previous Year	0.00	10.38	42.91	0.00	82.66	0.00	52.90
Net Loan-Opening	403.97	404.23	397.88	3118.17	3351.93	8314.02	8464.50
Additions	10.64	26.17	59.04	316.42	208.50	203.38	1223.09
Repayment during the year	10.38	32.53	35.74	82.66	267.77	52.90	688.58
Net Loan-Closing	404.23	397.88	421.18	3351.93	3292.66	8464.50	8999.00
Average Loan	404.10	401.06	409.53	3235.05	3322.29	8389.26	8731.75
Weighted Average Rate of Interest on Loan (%)	8.8708	8.8858	8.8333	9.4282	9.3326	9.2600	9.1602
Interest	11.95	35.64	36.17	101.67	310.05	64.74	799.84
Return on Equity							
Opening Equity	173.13	177.69	188.91	3563.15	3650.31	3563.15	3650.31
Additions	4.56	11.22	25.30	87.16	524.18	87.16	524.18



Particulars	Asset-VII			Asset-VIII		Asset-IX	
	2011-12	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Closing Equity	177.69	188.91	214.21	3650.31	4174.49	3650.31	4174.49
Average Equity	175.41	183.30	201.56	3606.73	3912.40	3606.73	3912.40
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	20.008	20.008	20.961	20.008	20.961	20.008	20.961
Rate of Return on Equity (Pre Tax) (%)	19.377	19.377	19.610	19.377	19.610	19.377	19.610
Return on Equity (Pre Tax)	11.33	35.52	39.53	58.24	767.22	58.24	767.22
Interest on Working Capital							
Maintenance Spares	5.86	18.58	19.64	12.87	40.81	1.86	23.57
O & M Expenses	3.25	10.32	10.91	7.15	22.67	1.03	13.09
Receivables	12.54	39.26	41.81	61.98	197.08	32.17	412.22
Total	21.65	68.15	72.36	82.00	260.57	35.05	448.88
Interest	2.54	8.01	8.50	11.07	35.18	4.73	60.60
Annual Transmission Charges							
Depreciation	10.38	32.53	35.74	82.66	267.77	52.90	688.58
Interest on Loan	11.95	35.64	36.17	101.67	310.05	64.74	799.84
Return on Equity	11.33	35.52	39.53	90.69	297.41	58.24	767.22
Interest on Working Capital	2.54	8.01	8.50	11.07	35.18	4.73	60.60
O & M Expenses	39.05	123.84	130.92	85.79	272.08	12.38	157.10
Total	75.25	235.53	250.86	371.88	1182.49	192.99	2473.35

DETERMINATION OF ANNUAL TRANSMISSION CHARGES FOR 2014-19

39. 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	3651.84	3698.83	3698.83	3698.83	3698.83
Interest on Loan	3857.27	3583.09	3247.88	2912.67	2578.95
Return on equity	4202.89	4255.04	4255.04	4255.04	4255.04



Combined Assets	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	361.15	360.16	355.59	351.12	346.78
O & M Expenses	1657.50	1712.49	1769.39	1828.18	1888.72
Total	13730.65	13609.61	13326.73	13045.84	12768.32

40. 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	248.63	256.87	265.41	274.23	283.31
O & M expenses	138.13	142.71	147.45	152.35	157.39
Receivables	2288.44	2268.27	2221.12	2174.31	2128.05
Total	2675.20	2667.85	2633.98	2600.89	2568.75
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	361.15	360.16	355.59	351.12	346.78

Capital Cost

41. 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.”

42. The petitioner has claimed capital cost as on 1.4.2014 of ₹1464.05 lakh, ₹1464.05 lakh, ₹1276.18 lakh, ₹14771.12 lakh, ₹1169.75 lakh, ₹11237.72 lakh,



₹14771.12 lakh, ₹1548.70 lakh, ₹1196.99 lakh, ₹2042.21 lakh, ₹740.87 lakh, ₹5168.54 lakh and ₹13703.59 lakh for Assets- IA, IB, II, IIIA, IIIB, IIIC, IV, V, VIA, VIB, VII, VIII and IX, respectively, totalling to ₹70554.91 lakh for combined assets, for the 2014-19 tariff period.

43. The trued up capital cost of ₹1464.05 lakh, ₹1464.05 lakh, ₹1276.18 lakh, ₹14771.12 lakh, ₹1165.18 lakh, ₹11237.72 lakh, ₹14771.12 lakh, ₹1545.51 lakh, ₹1193.12 lakh, ₹2035.98 lakh, ₹714.04 lakh, ₹5204.41 lakh and ₹13914.98 lakh for Assets- IA, IB, II, IIIA, IIIB, IIIC, IV, V, VIA, VIB, VII, VIII and IX, respectively, totalling to ₹70757.44 lakh for combined assets, as on 31.3.2014 is considered to work out tariff for 2014-19 tariff period.

Additional Capital Expenditure

44. The petitioner has proposed additional capital expenditure of ₹60.85 lakh, ₹60.85 lakh, ₹5.56 lakh, ₹247.09 lakh, ₹52.00 lakh, ₹223.98 lakh, ₹247.09 lakh, ₹95.43 lakh, ₹52.00 lakh, ₹212.02 lakh and ₹515.92 lakh for Assets- IA, IB, II, IIIA, IIIB, IIIC, IV, V, VIA, VIII and IX, respectively, in 2014-15, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations. Further, no additional capital expenditure has been proposed for Asset-VIB and VII. Thus, the petitioner has proposed additional capital expenditure of ₹1772.79 lakh for combined assets-I to IX, during tariff period 2014-15, towards balance and retention payments under Clause 1 of Regulation 14 of the 2014 Tariff Regulations.



45. 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;

46. The petitioner was directed, vide letter dated 19.1.2016, 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 18.2.2016, has submitted that the contractor wise details of additional capital expenditure.

47. 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. It is observed that the additional capitalization proposed is mainly towards balance and retention payments due to undischarged 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 2014-19 tariff period.

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

(₹ in lakh)

Particulars	Approved	Admitted	Additional capital Expenditure	Total capital cost
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	Apportioned Cost	capital cost as on 31.3.2014	2014-15	2015-16 to 2018-19	Total	including additional capitalization
Asset-IA	1725.25	1464.05	60.85	0.00	60.85	1524.90
Asset-IB	1725.25	1464.05	60.85	0.00	60.85	1524.90
Asset-II	1545.52	1276.18	5.56	0.00	5.56	1281.74
Asset-IIIA	15485.92	14771.12	247.09	0.00	247.09	15018.21
Asset-IIIB	1441.18	1165.18	52.00	0.00	52.00	1217.18
Asset-IIIC	12094.74	11237.72	223.98	0.00	223.98	11461.70
Asset-IV	15485.92	14771.12	247.09	0.00	247.09	15018.21
Asset-V	1754.54	1545.51	95.43	0.00	95.43	1640.94
Asset-VIA	1441.18	1193.12	52.00	0.00	52.00	1245.12
Asset-VIB	2159.09	2035.98	0.00	0.00	0.00	2035.98
Asset-VII	760.55	714.04	0.00	0.00	0.00	714.04
Asset-VIII	5978.32	5204.41	212.02	0.00	212.02	5416.43
Asset-IX	15235.37	13914.98	515.92	0.00	515.92	14430.90
Combined Asset	76832.83	70757.44	1772.79	0.00	1772.79	72530.23

Debt:Equity Ratio

49. 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.”

50. 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	Amount	(%)
Debt	49530.21	70.00



Equity	21227.23	30.00
Total	70757.44	100.00

51. For additional capitalization, the petitioner has proposed normative debt:equity ratio of 70:30 and the same has been considered. The details of the debt:equity including additional capitalization as on 31.3.2019 is as follows:-

(₹ in lakh)		
Funding	Amount	(%)
Debt	50771.16	70.00
Equity	21759.07	30.00
Total	72530.23	100.00

Interest on Loan (“IOL”)

52. 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.”

53. 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	49530.22	50771.17	50771.17	50771.17	50771.17
Cumulative Repayment up to previous year	5511.22	9173.74	12883.26	16592.78	20302.30
Net Loan-Opening	44019.00	41597.43	37887.91	34178.38	30468.86
Additions during the year	1240.95	0.00	0.00	0.00	0.00
Repayment during the year	3662.53	3709.52	3709.52	3709.52	3709.52
Net Loan-Closing	41597.43	37887.91	34178.38	30468.86	26759.34
Average Loan	42808.21	39742.67	36033.15	32323.62	28614.10
Rate of Interest (%)	9.0375	9.0422	9.0402	9.0376	9.0396
Interest	3868.80	3593.63	3257.48	2921.27	2586.59

Return on Equity("ROE")

54. 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:

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

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

55. 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.

56. 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.

57. 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	21227.21	21759.04	21759.04	21759.04	21759.04
Additional Capitalization	531.84	0.00	0.00	0.00	0.00
Closing Equity	21759.04	21759.04	21759.04	21759.04	21759.04
Average Equity	21493.12	21759.04	21759.04	21759.04	21759.04
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)	4214.80	4266.95	4266.95	4266.95	4266.95

Depreciation

58. 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."

59. The petitioner has computed depreciation considering capital expenditure of ₹70554.91 lakh as on 31.3.2014 with additional capital expenditure of ₹1772.79 lakh in 2014-15 during the 2014-19 tariff period. The effective date of



commercial operation (August, 2012) and weighted average useful life of 26 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.

60. We have considered the submissions of the petitioner. The depreciation is allowed considering capital expenditure of ₹70757.44 lakh as on 31.3.2014 and additional capital expenditure of ₹1772.79 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	70757.44	72530.24	72530.24	72530.24	72530.24
Additional Capitalization	1772.79	0.00	0.00	0.00	0.00
Gross block at the end of the year	72530.23	72530.23	72530.23	72530.23	72530.23
Average gross block	71643.84	72530.23	72530.23	72530.23	72530.23
Rate of Depreciation (%)	5.112	5.114	5.114	5.114	5.114
Depreciable Value	62492.99	63290.75	63290.75	63290.75	63290.75
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	56981.78	54117.00	50407.48	46697.96	42988.44
Depreciation	3662.53	3709.52	3709.52	3709.52	3709.52

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

61. 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 (Bundled conductor with four or more sub-conductors)	8.72	8.72	8.72	8.72	8.72
	400 kV Bays (Nos.)	6	6	6	6	6
	220 kV Bays (Nos.)	19	19	19	19	19
Norms as per Regulation	Double Circuit (Bundled conductor with four or more sub-conductors) (₹lakh/km)	1.062	1.097	1.133	1.171	1.21
	765 kV Bays (₹lakh/bay)	84.42	87.22	90.12	93.11	96.20
	400 kV Bays (₹lakh/bay)	60.30	62.30	64.37	66.51	68.71
Total (₹ in lakh)		1661.48	1716.59	1773.63	1832.56	1893.24

62. 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.

63. 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.

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

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	1661.48	1716.59	1773.63	1832.56	1893.24

Interest on Working Capital (“IWC”)

65. 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).

66. 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	249.22	257.49	266.04	274.88	283.99
O & M Expenses	138.46	143.05	147.80	152.71	157.77



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Receivables	2294.96	2274.64	2227.36	2180.40	2134.01
Total	2682.64	2675.18	2641.20	2607.99	2575.76
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	362.16	361.15	356.56	352.08	347.73

Annual Transmission Charges

67. 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	70757.44	72530.23	72530.23	72530.23	72530.23
Additional Capitalisation	1772.79	0.00	0.00	0.00	0.00
Closing Gross Block	72530.23	72530.23	72530.23	72530.23	72530.23
Average Gross Block	71643.84	72530.23	72530.23	72530.23	72530.23
Depreciation					
Rate of Depreciation	5.112	5.114	5.114	5.114	5.114
Depreciable Value	62492.99	63290.75	63290.75	63290.75	63290.75
Elapsed Life of the assets at beginning of the year	2	3	4	5	6
Weighted Balance Useful life of the assets	24	23	22	21	20
Remaining Depreciable Value	56981.78	54117.00	50407.48	46697.96	42988.44
Depreciation	3662.53	3709.52	3709.52	3709.52	3709.52
Interest on Loan					
Gross Normative Loan	49530.22	50771.17	50771.17	50771.17	50771.17
Cumulative Repayment upto Previous Year	5511.22	9173.74	12883.26	16592.78	20302.30
Net Loan-Opening	44019.00	41597.43	37887.91	34178.38	30468.86
Additions	1240.95	0.00	0.00	0.00	0.00
Repayment during the year	3662.53	3709.52	3709.52	3709.52	3709.52
Net Loan-Closing	41597.43	37887.91	34178.38	30468.86	26759.34
Average Loan	42808.21	39742.67	36033.15	32323.62	28614.10
Weighted Average Rate of Interest on Loan (%)	9.0375	9.0422	9.0402	9.0376	9.0396
Interest	3868.80	3593.63	3257.48	2921.27	2586.59



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity					
Opening Equity	21227.21	21759.04	21759.04	21759.04	21759.04
Additions	531.84	0.00	0.00	0.00	0.00
Closing Equity	21759.04	21759.04	21759.04	21759.04	21759.04
Average Equity	21493.12	21759.04	21759.04	21759.04	21759.04
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)	4214.80	4266.95	4266.95	4266.95	4266.95
Interest on Working Capital					
Maintenance Spares	249.22	257.49	266.04	274.88	283.99
O & M expenses	138.46	143.05	147.80	152.71	157.77
Receivables	2294.96	2274.64	2227.36	2180.40	2134.01
Total	2682.64	2675.18	2641.20	2607.99	2575.76
Interest	362.16	361.15	356.56	352.08	347.73
Annual Transmission Charges					
Depreciation	3662.53	3709.52	3709.52	3709.52	3709.52
Interest on Loan	3868.80	3593.63	3257.48	2921.27	2586.59
Return on Equity	4214.80	4266.95	4266.95	4266.95	4266.95
Interest on Working Capital	362.16	361.15	356.56	352.08	347.73
O & M Expenses	1661.48	1716.59	1773.63	1832.56	1893.24
Total	13769.77	13647.83	13364.14	13082.38	12804.03

Filing Fee and Publication Expenses

68. 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



69. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

70. 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

71. 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.

72. This order disposes of Petition No. 70/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 Particulars	Asset-I				Asset-II				Asset-III			
	Interest Rate (%)	Loan deployed as on COD (1.9.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.10.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.11.2012)	Additions during the tariff period	Total
BOND XXVIII-DOCO Drawl	9.33	140.00	0.00	140.00	9.33	50.00	0.00	50.00	9.33	628.50	0.00	628.50
BOND XXIX - DOCO Drawl	9.20	10.00	0.00	10.00	9.20	0.00	0.00	0.00	9.20	300.00	0.00	300.00
BOND XXX-DOCO Drawl	8.80	150.00	0.00	150.00	8.80	50.00	0.00	50.00	8.80	1700.00	0.00	1700.00
BOND XXXI-DOCO Drawl	8.90	130.00	0.00	130.00	8.90	50.00	0.00	50.00	8.90	2000.00	0.00	2000.00
BOND XXXIII-DOCO Drawl	8.64	180.00	0.00	180.00	8.64	50.00	0.00	50.00	8.64	1515.00	0.00	1515.00
BOND XXXII-DOCO Drawl	8.84	30.00	0.00	30.00	8.84	0.00	0.00	0.00	8.84	0.00	0.00	0.00
BOND XXXIV-DOCO Drawl	8.84	190.00	0.00	190.00	8.84	50.00	0.00	50.00	8.84	3654.00	0.00	3654.00
BOND XXXV-DOCO Drawl	9.64	579.40	0.00	579.40	9.64	50.00	0.00	50.00	9.64	1700.00	0.00	1700.00
BOND XXXVI-DOCO Drawl	9.35	0.00	286.57	286.57	9.35	0.00	28.46	28.46	9.35	2557.91	0.00	2557.91
BOND XXXVI-DOCO Drawl	9.35	0.00	0.00	0.00	9.35	295.57	0.00	295.57	9.35	1133.10	0.00	1133.10
BOND XXXVII-DOCO Drawl	9.25	0.00	0.00	0.00	9.25	0.00	144.90	144.90	9.25	0.00	0.00	0.00
BOND XXXIX-DOCO Drawl	9.40	0.00	1.67	1.67	9.40	0.00	0.00	0.00	9.40	0.00	0.00	0.00
BOND XL - DOCO Drawl	9.30	0.00	0.00	0.00	9.30	0.00	0.00	0.00	9.30	1126.81	1328.69	2455.50
BOND XLI - DOCO Drawl	8.85	0.00	162.38	162.38	8.85	0.00	117.72	117.72	8.85	0.00	0.00	0.00
BOND XLIII - DOCO Drawl	7.93	0.00	189.56	189.56	7.93	0.00	6.68	6.68	7.93	0.00	1380.35	1380.35
Total		1409.40	640.18	2049.58		595.57	297.76	893.33		16315.32	2709.04	19024.36



(₹ in lakh)

2009-14	Asset-IV				Asset-V				Asset-VI			
	Particulars	Interest Rate (%)	Loan deployed as on COD (1.2.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.2.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.3.2013)	Additions during the tariff period
BOND XXVIII-DOCO Drawl	9.33	500.00	0.00	500.00	9.33	50.00	0.00	50.00	9.33	28.50	0.00	28.50
BOND XXIX - DOCO Drawl	9.20	200.00	0.00	200.00	9.20	50.00	0.00	50.00	9.20	100.00	0.00	100.00
BOND XXX-DOCO Drawl	8.80	1200.00	0.00	1200.00	8.80	100.00	0.00	100.00	8.80	100.00	0.00	100.00
BOND XXXI-DOCO Drawl	8.90	1500.00	0.00	1500.00	8.90	200.00	0.00	200.00	8.90	100.00	0.00	100.00
BOND XXXIII-DOCO Drawl	8.64	1300.00	0.00	1300.00	8.64	55.00	0.00	55.00	8.64	100.00	0.00	100.00
BOND XXXIV-DOCO Drawl	8.84	2125.00	0.00	2125.00	8.84	100.00	0.00	100.00	8.84	600.00	0.00	600.00
BOND XXXV-DOCO Drawl	9.64	400.00	0.00	400.00	9.64	200.00	0.00	200.00	9.64	400.00	0.00	400.00
BOND XXXVI-DOCO Drawl	9.35	400.00	0.00	400.00	9.35	0.00	75.99	75.99	9.35	101.00	0.00	101.00
BOND XXXVI-DOCO Drawl	9.35	0.00	0.00	0.00	9.35	173.70	0.00	173.70	9.35	307.23	0.00	307.23
BOND XXXVII-DOCO Drawl	9.25	468.00	0.00	468.00	9.25	0.00	0.00	0.00	9.25	0.00	0.00	0.00
BOND XXXIX-DOCO Drawl	9.40	0.00	0.00	0.00	9.40	0.00	0.00	0.00	9.40	110.20	0.00	110.20
BOND XL - DOCO Drawl	9.30	1481.26	0.00	1481.26	9.30	0.00	0.00	0.00	9.30	0.00	25.36	25.36
BOND XLI - DOCO Drawl	8.85	0.00	86.60	86.60	8.85	0.00	39.21	39.21	8.85	0.00	113.56	113.56
BOND XLIII - DOCO Drawl	7.93	0.00	678.92	678.92	7.93	0.00	40.15	40.15	7.93	0.00	181.59	181.59
Total		9574.26	765.52	10339.78		928.70	155.35	1084.05		1946.93	320.51	2267.44



(₹ in lakh)

2009-14	Asset-VII				Asset-VIII				Asset-IX			
	Particulars	Interest Rate (%)	Loan deployed as on COD (1.12.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.1.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.2.2013)	Additions during the tariff period
BOND XXVIII-DOCO Drawl	9.33	67.00	0.00	67.00	9.33	50.00	0.00	50.00	9.33	50.00	0.00	50.00
BOND XXIX - DOCO Drawl	9.20	0.00	0.00	0.00	9.20	50.00	0.00	50.00	9.20	50.00	0.00	50.00
BOND XXX-DOCO Drawl	8.80	50.00	0.00	50.00	8.80	50.00	0.00	50.00	8.80	100.00	0.00	100.00
BOND XXXI-DOCO Drawl	8.90	0.00	0.00	0.00	8.90	50.00	0.00	50.00	8.90	500.00	0.00	500.00
BOND XXXIII-DOCO Drawl	8.64	100.00	0.00	100.00	8.64	100.00	0.00	100.00	8.64	550.00	0.00	550.00
BOND XXXII-DOCO Drawl	8.84	50.00	0.00	50.00	8.84	0.00	0.00	0.00	8.84	0.00	0.00	0.00
BOND XXXIV-DOCO Drawl	8.84	160.37	0.00	160.37	8.84	135.00	0.00	135.00	8.84	555.00	0.00	555.00
BOND XXXV-DOCO Drawl	9.64	0.00	6.03	6.03	9.64	250.00	0.00	250.00	9.64	800.00	0.00	800.00
BOND XXXVI-DOCO Drawl	9.35	0.00	0.00	0.00	9.35	320.00	0.00	320.00	9.35	2655.00	0.00	2655.00
BOND XXXVIII-DOCO Drawl	9.25	0.00	0.00	0.00	9.25	180.00	0.00	180.00	9.25	0.00	0.00	0.00
BOND XXXIX-DOCO Drawl	9.40	0.00	0.00	0.00	9.40	150.00	0.00	150.00	9.40	200.00	0.00	200.00
SBI (21.3.2012)-DOCO Drawl	8.90	0.00	0.00	0.00	10.48 for 2012-13 & 10.29 for 2013-14	470.00	0.00	470.00	10.45 for 2012-13 & 10.29 for 2013-14	300.00	0.00	300.00
BOND XL - DOCO Drawl	9.30	0.00	26.17	26.17	9.30	1288.05	0.00	1288.05	9.30	2000.00	0.00	2000.00
BOND XLI - DOCO Drawl	8.85	0.00	0.00	0.00	8.85	0.00	316.42	316.42	8.85	406.05	203.38	609.43
BOND XLIII - DOCO Drawl	7.93	0.00	59.04	59.04	7.93	0.00	208.50	208.50	7.93	0.00	1223.09	1223.09
Total		427.37	91.24	518.61		3093.05	524.92	3617.9		8166.05	1426.47	9592.52



2009-14	Asset-VII				Asset-VIII				Asset-IX			
Particulars	Interest Rate (%)	Loan deployed as on COD (1.12.2012)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.1.2013)	Additions during the tariff period	Total	Interest Rate (%)	Loan deployed as on COD (1.2.2013)	Additions during the tariff period	Total
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CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2009-14

(₹ in lakh)

2009-14	Asset-I			Asset-II			Asset-III	
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Gross Opening Loan	1409.40	1697.64	1860.02	595.57	768.93	886.65	16315.32	17644.01
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	12.50	0.00	0.00	4.17	0.00	77.38
Net Loans Opening	1409.40	1697.64	1847.52	595.57	768.93	882.48	16315.32	17566.63
Add: Drawl(s) during the year	288.24	162.38	189.56	173.36	117.72	6.68	1328.69	1380.35
Less: Repayment(s) of Loan during the year	0.00	12.50	38.34	0.00	4.17	12.51	77.38	360.72
Net Closing Loan	1697.64	1847.52	1998.74	768.93	882.48	876.65	17566.63	18586.26
Average Net Loan	1553.52	1772.58	1923.13	682.25	825.71	879.57	16940.98	18076.45
Interest on Loan	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	143.08	163.16	175.55	62.74	75.79	80.51	1539.72	1636.55

(₹ in lakh)

2009-14	Asset-IV	Asset-V	Asset-VI
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	2012-13	2013-14	2011-12	2012-13	2013-14	2012-13	2013-14
Gross Opening Loan	9574.26	9660.86	928.70	1004.69	1043.90	1946.93	2085.85
Cumulative Repayments of Loans upto Previous Year	0.00	58.34	0.00	0.00	8.34	0.00	10.71
Net Loans Opening	9574.26	9602.52	928.70	1004.69	1035.56	1946.93	2075.14
Add: Drawl(s) during the year	86.60	678.92	75.99	39.21	40.15	138.92	181.59
Less: Repayment(s) of Loan during the year	58.34	283.34	0.00	8.34	33.34	10.71	27.37
Net Closing Loan	9602.52	9998.10	1004.69	1035.56	1042.37	2075.14	2229.36
Average Net Loan	9588.39	9800.31	966.70	1020.13	1038.97	2011.04	2152.25
Interest on Loan	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	862.45	877.82	88.53	93.43	94.88	184.04	195.72

(₹ in lakh)

2009-14	Asset-VII			Asset-VIII		Asset-IX	
	2011-12	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Opening Loan	427.37	433.40	459.57	3093.05	3409.47	8166.05	8369.43
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	5.58	0.00	8.34	4.17	8.34
Net Loans Opening	427.37	433.40	453.99	3093.05	3401.13	8161.88	8361.09
Add: Drawl(s) during the year	6.03	26.17	59.04	316.42	208.50	203.38	1223.09
Less: Repayment(s) of Loan during the year	0.00	5.58	13.92	8.34	16.68	4.17	58.34
Net Closing Loan	433.40	453.99	499.11	3401.13	3592.95	8361.09	9525.84
Average Net Loan	430.39	443.70	476.55	3247.09	3497.04	8261.49	8943.47
Interest on Loan	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	38.18	39.43	42.10	306.14	326.36	765.01	819.24



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

2014-19	Combined Assets-I to IX			
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXVIII-DOCO Drawl	9.33	1564.00	0.00	1564.00
BOND XXIX - DOCO Drawl	9.20	760.00	0.00	760.00
BOND XXX-DOCO Drawl	8.80	3500.00	0.00	3500.00
BOND XXXI-DOCO Drawl	8.90	4530.00	0.00	4530.00
BOND XXXIII-DOCO Drawl	8.64	3950.00	0.00	3950.00
BOND XXXII-DOCO Drawl	8.84	80.00	0.00	80.00
BOND XXXIV-DOCO Drawl	8.84	7569.37	0.00	7569.37
BOND XXXV-DOCO Drawl	9.64	4385.43	0.00	4385.43
BOND XXXVI-DOCO Drawl	9.35	8334.53	0.00	8334.53
BOND XXXVI-DOCO Drawl	9.35	0.00	0.00	0.00
BOND XXXVII-DOCO Drawl	9.25	612.90	0.00	612.90
BOND XXXVIII-DOCO Drawl	9.25	180.00	0.00	180.00
BOND XXXIX-DOCO Drawl	9.40	461.87	0.00	461.87
SBI (21.3.2012)-DOCO Drawl	10.25	770.00	0.00	770.00
BOND XL - DOCO Drawl	9.30	7276.34	0.00	7276.34
BOND XLI - DOCO Drawl	8.85	1445.32	0.00	1445.32
BOND XLIII - DOCO Drawl	7.93	3967.88	0.00	3967.88
Total		49387.64	0.00	49387.64



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

(₹ in lakh)

2014-19	Combined Assets- I to IX				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	49387.64	49387.64	49387.64	49387.64	49387.64
Cumulative Repayments of Loans upto Previous Year	1038.26	2867.75	5113.77	8712.27	12641.43
Net Loans Opening	48349.38	46519.89	44273.87	40675.37	36746.21
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	1829.49	2246.02	3598.50	3929.16	3929.16
Net Closing Loan	46519.89	44273.87	40675.37	36746.21	32817.05
Average Net Loan	47434.64	45396.88	42474.62	38710.79	34781.63
Interest on Loan	0.09	0.09	0.09	0.09	0.09
Rate of Interest on Loan (%)	4286.92	4104.90	3839.81	3498.51	3144.11

