

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 1/TT/2019

Coram :

Shri P.K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I.S. Jha, Member

Date of Order: 04 February, 2020

## In the matter of

Approval under Regulation-86 of CERC (Conduct of Business) Regulations, 1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of,

(i) Truing up Transmission tariff for 2009-14 tariff block &

(ii) Transmission tariff for 2014-19 tariff block, for

Asset-1: 765 kV, 240 MVAR Bus Reactor at Balia Sub-station;

Asset-2: 765 kV Line bays at Sasaram Sub-station (for 765 kV Sasaram-Fatehpur Transmission Line under Sasan Project);

Asset-3: 765 kV, 3x110 MVAR Bus Reactor along with associated bays at Sasaram Sub-station;

Asset-4: 400 kV D/C (Quad) Ranchi (New)-Ranchi (Old)-I Ckt. 1 Transmission Line and associated 400 kV line bays at Ranchi (New) Sub-station and Ranchi (old) Sub-station;

Asset-5: 765/400 kV, 3x500 MVA ICT-II at Ranchi along with associated bays at 765 kV Ranchi (New) Sub-station;

Asset-6: Combined Asset of Asset 6 (a): 765 kV 3x80 MVAR Bus Reactor-II along with associated bays at Ranchi 765 kV Sub-station; Asset 6 (b): 400 kV 125 MVAR Bus Reactor-I along with associated bays at Ranchi 765 kV Sub-station and Asset 6 (c): 400 kV 125 MVAR Bus Reactor-II along with associated bays at Ranchi 765 kV Sub-station;

Asset-7: 240 MVAR Switchable Line Reactor along with associated bays at Bilaspur Pooling Station; and,



Asset-8: 240 MVAR Bus Reactor at Agra Sub-station  
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 Eastern, Northern and Western Region.

**And in the matter of**

Power Grid Corporation of India Limited  
"Saudamini", Plot No.2,  
Sector-29, Gurgaon -122 001

**....Petitioner**

**Versus**

1. Bihar State Power (Holding) Company Ltd.  
Vidyut Bhavan, Bailey Road,  
Patna – 800 001
2. West Bengal State Electricity Distribution Company Limited  
Bidyut Bhawan, Bidhan Nagar Block DJ, Sector-II,  
Salt Lake City, Kolkata - 700 091
3. Grid Corporation of Orissa Ltd.  
Shahid Nagar, Bhubaneswar - 751 007
4. Damodar Valley Corporation  
DVC Tower, Maniktala Civic Centre,  
VIP Road, Kolkata - 700 054
5. Power Department,  
Government of Sikkim, Gangtok - 737 101
6. Jharkhand Urja Vikash Nigam Limited (JUVNL)  
Engineering Building, H.E.C., Dhurwa,  
Ranchi-834004 (Jharkhand)
7. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.  
Vidyut Bhawan, Vidyut Marg,  
Jaipur-302005
8. Ajmer Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
9. Jaipur Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017



10. Jodhpur Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
11. Himachal Pradesh State Electricity Board  
Vidyut Bhawan, Kumar House Complex Building II  
Shimla-171 004
12. Punjab State Power Corporation Ltd.  
Thermal Shed TIA, Near 22 Phatak,  
Patiala - 147 001
13. Haryana Power Purchase Centre  
2<sup>nd</sup> Floor, Shakti Bhawan, Sector-6  
Panchkula-134 109
14. Power Development Deptt., J&K  
Janipura Grid Station,  
Jammu (Tawi)-180 007
15. Uttar Pradesh Power Corporation Ltd.  
10th Floor, Shakti Bhawan Extn,  
14, Ashok Marg, Lucknow - 226 001
16. Delhi Transco Ltd.  
Shakti Sadan, Kotla Road (Near ITO),  
New Delhi-110 002
17. BSES Yamuna Power Ltd. (BYPL),  
Shakti Kiran Building, Karkardooma,  
Delhi-110 092.
18. BSES Rajdhani Power Ltd. (BRPL) ,  
BSES Bhawan, Nehru Place,  
New Delhi
19. Tata Power Delhi Distribution Limited (TPDDL),  
33 kV Substation Bldg., Hudson Lane, Kingsway Camp  
Delhi – 110009
20. Chandigarh Administration  
Sector-9, Chandigarh.
21. Uttarakhand Power Corporation Ltd.  
Urja Bhawan, Kanwali Road,  
Dehradun.



22. North Central Railway  
Allahabad.
23. New Delhi Municipal Council  
Palika Kendra, Sansad Marg,  
New Delhi-110002
24. Madhya Pradesh Power Management Company Ltd.  
Shakti Bhawan, Rampur  
Jabalpur - 482 008
25. Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, 4th Floor  
Andheri (East), Mumbai - 400 052
26. Gujarat Urja Vikas Nigam Ltd.  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara - 390 007
27. Electricity Department,  
Government of Goa,  
Vidyut Bhawan,  
Panaji, Near Mandvi Hotel,  
Goa - 403 001
28. Electricity Department  
Administration of Daman & Diu  
Daman - 396 210
29. Electricity Department  
Administration of Dadra Nagar Haveli  
U.T., Silvassa - 396 230
30. Chhattisgarh State Electricity Board  
P.O.Sunder Nagar, Dangania,  
Raipur, Chhatisgaarh-492013
31. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd.  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452 008

...Respondents

**Parties present:**

**For Petitioner:** Shri Ved Prakash Rastogi, PGCIL  
Shri B. Dash, PGCIL  
Shri A.K. Verma, PGCIL  
Shri S.S.Raju, PGCIL



**For Respondent:** Shri R.B. Sharma, Advocate, BRPL & BYPL  
Shri Mohit Mudgal, Advocate, BRPL & BYPL

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. (“the Petitioner”) seeking approval of trueing up of transmission tariff for 2009-14 block and determination of transmission tariff for 2014-19 block for the **Asset-1:** 765 kV, 240 MVAR Bus Reactor at Balia Sub-station; **Asset-2:** 765 kV Line bays at Sasaram Sub-station (for 765 kV Sasaram-Fatehpur Transmission Line under Sasan Project); **Asset-3:** 765 kV, 3x110 MVAR Bus Reactor along with associated bays at Sasaram Sub-station; **Asset-4:** 400 kV D/C (Quad) Ranchi (New)-Ranchi (Old)-I Ckt. 1 Transmission Line and associated 400 kV line bays at Ranchi (New) Sub-station and Ranchi (old) Sub-station; **Asset-5:** 765/400 kV, 3x500 MVA ICT-II at Ranchi along with associated bays at 765 kV Ranchi (New) Sub-station; **Asset-6:** Combined Asset of Asset 6 (a): 765 kV 3x80 MVAR Bus Reactor-II alongwith associated bays at Ranchi 765 kV Sub-station; Asset 6 (b): 400 kV 125 MVAR Bus Reactor-I alongwith associated bays at Ranchi 765 kV Sub-station and Asset 6 (c): 400 kV 125 MVAR Bus Reactor-II along with associated bays at Ranchi 765 kV Sub-station; **Asset-7:** 240 MVAR Switchable Line Reactor along with associated bays at Bilaspur Pooling Station; and **Asset-8:** 240 MVAR Bus Reactor at Agra Sub-station 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 Eastern, Northern and Western Region (hereinafter referred as “transmission asset”) under provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) and Central Electricity



Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The Petitioner has made the following prayers:

- (i) Approve the Trued up Transmission Tariff for the tariff block 2009-14 for the assets covered under this petition. The adjustment billing shall be raised;
- (ii) Admit the capital cost as on 31.3.2014 as claimed in the petition and approve the additional capitalization incurred during 2009-14 period and projected to be incurred during the tariff block 2014-19 as claimed in the petition;
- (iii) Approve the Transmission Tariff for the tariff block 2014-19 for the assets covered under this petition;
- (iv) Approve the initial spares for the project as a whole;
- (v) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, 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 as provided under clause 25 of the Tariff regulations 2014;
- (vi) Allow the Petitioner to recover the deferred tax liability before 01.04.2009 from the beneficiaries or the long term customers /DICs as and when the same gets materialized
- (vii) Allow the Petitioner if GST is imposed on transmission charges under the proposed GST the same may be allowed to be recovered from the beneficiaries
- (viii) Allow the Petitioner to approach Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, from 1.7.2017 onwards;
- (ix) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents;
- (x) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and



Conditions of Tariff) Regulations, 2014, and other expenditure ( if any) in relation to the filing of petition;

- (xi) Allow the Petitioner to recover FERV on the foreign loans deployed as provided under clause 50 of the Tariff Regulations, 2014
- (xii) Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014;
- (xiii) Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. Further, any taxes and duties including cess etc. imposed by any statutory/Govt/municipal authorities shall be allowed to be recovered from the beneficiaries;

and pass such other relief as the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

### **Background**

3. The Investment Approval (hereinafter referred to as "IA") for implementation of "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 Eastern, Northern and Western Region was accorded by the Board of Directors of the Petitioner for ₹707533 lakh including an IDC of ₹71360 lakh based on 1<sup>st</sup> Quarter, 2008 price level (communicated vide Memorandum no. C/CP/DVC and Maithon RB project dated 29.8.2008).

4. Further, the administrative approval and expenditure sanction of Revised Cost Estimate (RCE) of the transmission project was accorded by the Board of Directors of Petitioner in its 326<sup>th</sup> meeting held on 9.3.2016 for ₹657054 lakh including an IDC of ₹67714 lakh based on December, 2015 price level



(communicated vide Memorandum no. C/CP/RCE-DVC and Maithon RB project dated 11.3.2016).

5. The scope of work covered under the project “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 Eastern, Northern and Western Region are as follows:-

**Transmission Lines:**

- (i) Maithon-Gaya 400kV Quad D/C line
- (ii) Gaya-Sasaram 765 kV S/C line
- (iii) Gaya-Balia 765 kV S/C line
- (iv) Balia-Lucknow 765 kV S/C line
- (v) Ranchi-WR Pooling Station 765 kV S/C line
- (vi) Lucknow 765/400 kV new sub-station-Lucknow 400/220 kV existing Sub-station 400 kV quad D/C line
- (vii) Ranchi 765/400 kV new sub-station-Ranchi 400/220 kV existing substation 400 kV Quad 2xD/C line
- (viii) LILO of both circuits of Allahabad-Mainpuri 400 kV D/C line at Fatehpur 765/400 kV sub-station of PGCIL
- (ix) LILO of Barh-Balia 400 kV Quad D/C line at Patna

**Sub-stations:**

- (i) Augmentation of Maithon 400/220 kV sub-station
  - a) 2 nos. of 400 kV line bays (for terminating Maithon-Gaya D/C line)
  - b) 2 nos. of 400 kV line bays (for terminating Mejia-Maithon D/C line)
- (ii) New 765/400 kV sub-station at Gaya
  - a) 3x1500 MVA, 765/400 kV Transformer along with associated bays
  - b) 2 nos. of 765 kV line bays (for Gaya-Sasaram & Gaya-Balia 765 kV lines)
  - c) 4 nos. of 400 kV line bays (for Maithon-Gaya line & Kodarma-Gaya line)
- (iii) New 765/400 kV sub-station at Sasaram





- a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
  - b) 2 nos. of 765 kV line bays (for Gaya-Sasaram 765 kV S/C and Sasaram-Fatehpur 765 kV S/C)
  - c) 2 nos. of 400 kV bays (for Biharshariff-Sasaram 400 kV quad D/C line)
- (iv) Augmentation of Biharshariff 400/220 kV sub-station
- a) 2 nos. of 400 kV bays (for Biharshariff-Sasaram 400 kV Quad D/C line)
- (v) New 765/400 kV sub-station at Fatehpur
- a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
  - b) 2 nos. of 765 kV line bays (for Sasaram-Fatehpur & Fatehpur-Agra 765 kV lines)
  - c) 4 nos. of 400 kV line bays (for LILO of Allahabad-Mainpuri 400 kV D/C line)
- (vi) Augmentation of 400 kV Agra sub-station to 765 kV
- a) 2x1500 MVA, 765/400 kV Transformer along with associated bays
  - b) 1 nos. of 765 kV line bay (for Fatehpur-Agra 765 kV line)
- (vii) Augmentation of 400 kV Balia sub-station to 765 kV
- a) 2x1500 MVA, 765/400 kV transformer along with associated bays
  - b) 2 nos. of 765 kV line bay (for Gaya-Balia&Balialucknow 765 kV line)
- (viii) New 765/400 kV sub-station at Lucknow
- a) 2x1500 MVA, 765/400 kV transformer along with associated bays
  - b) 1 nos of 765 kV line bays (for Balialucknow 765 kV line)
  - c) 2 nos. of 400 kV bays (for Lucknow 765/400 kV new sub-station Lucknow 400/220 kV existing sub-station 400 kV quad D/C line)
- (ix) Augmentation of existing Lucknow 400/220kV sub-station
- a) 2 nos. of 400 kV bays (for Lucknow 765/400 kV new sub-stationLucknow 400/220 kV existing sub-station 400 kV quad D/C line)
- (x) New 2x1500 MVA, 765/400 kV sub-station at Ranchi



- a) 1 no. of 765 kV line bay (for Ranchi-WR Pooling 765 kV S/C line)
- b) 4 nos. of 400 kV bays (for Ranchi 400 kV new sub-station-Ranchi 400/220 kV existing sub-station 400 kV quad 2xD/C line)
- (xi) Augmentation of Ranchi 400/220 kV sub-station
- a) 6 nos. of 400 kV bays (4 nos. for Ranchi 765/400 kV new substation-Ranchi 400/220 kV existing sub-station 400 kV quad 2xD/C line and 2 nos. for Raghunathpur TPS-Ranchi line)
- (xii) 765/400 kV WR Pooling sub-station
- a) 1 no. of 765 kV line bay (or Ranchi-WR Pooling 765kV S/C line)
- (xiii) Augmentation of Patna 400/220 kV sub-station
- a) 4 nos. of 400 kV line bay (for LILO of Barh-Balia 400 kV Quad line).

6. The Details of the assets covered under the instant petition are as follows:

S.N.	Asset	COD (Actual)	Petition No.	True up Pet. No.
1	765 kV, 240 MVAR Bus Reactor at Balia S/S (herein referred as " <b>Asset 1</b> ")	1.10.2012	Covered under 41/TT/2013 for period 2009-14. Final order issued on 9.11.2015.	<b>Current Petition</b>
2	765 kV Line bays at Sasaram S/S (for 765 kV Sasaram-Fatehpur TL under SASAN Project) (herein referred as " <b>Asset 2</b> ")	1.3.2013/ Shifted to 1.6.2013 by the Commission		
3	765 KV, 3X110MVAR Bus Reactor along with associated bays at Sasaram Sub-station (herein referred as " <b>Asset 3</b> ")	1.3.2013	Covered under 248/TT/2013 for period 2009-14. Final order issued on 18.12.15. Review order vide 15/RP/2016 issued on 30.5.2016	
4	400 kV D/C (Quad) Ranchi (New) - Ranchi (Old) - I CKT I Transmission line and associated 400 kV line bays at Ranchi (New) S/S & Ranchi (Old) Sub-station. (herein referred as " <b>Asset 4</b> ")	1.2.2014	Covered under 106/TT/2014 for period 2009-14. Final order issued on 21.12.2015. Review order dt 29.6.2016 in Pet.no. 22/RP/2016.	
5	765 / 415 kV, 3x500 MVA ICT-II at Ranchi along with associated bays at 765 kV Ranchi (New) SS (herein referred as " <b>Asset 5</b> ")	1.2.2014		
6	Combined Asset of Asset 6 (a): 765 KV 3x80 MVAR Bus Reactor II along with associated bays at Ranchi 765 kV S/s , Asset 6 (b): 400KV 125 MVAR Bus Reactor I along with associated bays at Ranchi 765 kV S/s & Asset 6 (c): 400KV 125 MVAR Bus Reactor II along with associated bays at Ranchi 765 kV S/s (herein referred as " <b>Asset 6</b> ")	1.2.2014	Covered in petn.no. 46/TT/2014 for period 2009-14. Final order issued on 29.7.2016. Review order vide 2/RP/2017 issued on 5.10.2017. APTEL Judgement awaited.	



S.N.	Asset	COD (Actual)	Petition No.	True up Pet. No.
7	240 MVAR Switchable line Reactor along with associated bays at Bilaspur Pooling Station. (herein referred as “Asset 7”)	1.11.2012	Covered under 120/TT/2013 for period 2009-14. Final order issued on 18.6.2015.	Current Petition
8	240 MVAR Bus Reactor at Agra S/s (herein referred as “Asset 8”)	1.1.2013	Covered under 109/TT/2013 for period 2009-14. Final order issued on 20.5.2015. Review petition against land cost deduction and IDC deduction at Agra S/s was filed and review order issued on 22.8.2016 in 16/RP/2015. Appeal filed vide no. 80 of 2017. Order awaited. Further, changes in the cost/ tariff shall be done based on the outcome of the Appeal Order.	

7. Details of remaining assets under the instant project for which true up petition were already filed are as follows:

S.N.	Name of the Asset	Actual COD	Final tariff order
1	Asset A : 765/400 kV, 1500 MVA ICT-I at Gaya S/S along with associated Bays	1.6.2012	Tariff approved vide order No. 87/TT/2012 dated 3.2.2015 & 11.5.2015.
2	Asset B : 765/400 kV, 1500 MVA ICT-II at Gaya S/S along with associated Bays	1.4.2012	
3	Asset C : 765/400 kV, 1500 MVA ICT-III at Gaya S/S along with associated Bays	1.4.2012	
4	Asset D(i) : 400 kV S/C Biharsharif – Gaya(part of Gaya Balia TL charged under contingency arrangement) including Koderma I bay at Gaya	1.2.2012	True up petition filed vide petition no.185/TT/2016. Trued up tariff approved vide order dated 6.12.2017.
5	Asset D(ii): 400 kV S/C Sasaram - Balia (part of Gaya Balia TL charged under contingency arrangement)	1.3.2012	
6	Asset D(iii): 1 No of 765 kV Line bay for 765 kV Gaya-Balia Line along with 240 MVAR switchable line reactor (Charged as Bus reactor) at Balia S/S *	1.10.2012	
7	Asset E : 765 kV S/C Gaya-Sasaram TL along with associated bays at Gaya S/S	1.4.2012	
8	Asset- F (i): 400 kV D/C Quad Maithon- Gaya TL and associated bays at both ends (Part Of Maithon-Koderma)	1.2.2013	
9	Asset-F (ii):400 kV 2X50 MVAR Bus Reactor along with associated bays at Gaya S/s	1.10.2012	
10	Asset G : 765 kV, 3x80 MVAR Bus Reactor-I along with associated bays at Gaya S/S	1.6.2012	
11	Asset H : 765 kV, 3x80 MVAR Bus Reactor-II along with associated bays at Gaya S/S	1.4.2012	
12	Asset I : 400 kV, 1x125 MVAR Bus Reactor-I along with associated bays at Gaya S/S	1.3.2012	
13	Asset J : 400 kV, 1x125 MVAR Bus Reactor-II along with associated bays at Gaya S/S	1.2.2012	



S.N.	Name of the Asset	Actual COD	Final tariff order
14	Asset-K: 400 kV D/C Lucknow (New)- Lucknow (Old) line with associated bays at both ends	1.3.2012	Tariff approved vide order in Petn. No. 187/TT/2011 dated 16.3.2015  True up petition filed vide petition. no.185/TT/2016. Trued up tariff approved vide order dated 6.12.2017
15	Asset-L: 765 kV S/C Ballia- Lucknow line along with associated bays at both ends	1.3.2012	
16	Asset-M: 765/400 kV 1500 MVA ICT-I at Ballia Substation along with associated bays	1.3.2012	
17	Asset-N: 765/400 kV 1500 MVA ICT-I at Lucknow Substation along with associated bays	1.3.2012	
18	Asset-O: One no. 400 kV line bay at Biharshariff Substation with 50 MVAR reactor and one no. 400 kV line bay at Sasaram with 400 kV Biharshariff- Sasaram Ckt-III	1.2.2012	
19	Asset-P: One no. 400 kV line bay at Biharshariff Substation with 50 MVAR reactor associated with 400 kV S/C Biharshariff- Gaya transmission line	1.2.2012	
20	Asset-Q: One no. 400 kV bay at Sasaram Subststion associated with 400 kV S/C Sasaram- Ballia transmission line	1.3.2012	
21	Asset-R: 2x50 MVAR Bus reactor at Sasaram	1.4.2012	Tariff approved vide order dt 31.10.2014 in Pet.no 68/TT/2012  Trued up tariff approved vide order dated 30.5.2016 in Pet.no.119/TT/2015
22	Asset-I: 125 MVAR Bus Reactor at Lucknow (Existing) 400/220 kV S/S	1.10.2011	
23	Asset-II: 125 MVAR Bus Reactor at Ballia	1.11.2011	
24	Asset-III: Combined Asset of 765/400 kV, 1500 MVA ICT II at Lucknow S/S alongwith associated bays (Asset: III-a) & 765/400 kV, 1500 MVA ICT II at Ballia S/S along with associated bays (Asset: III-b)	1.3.2012	
25	Asset-IV: Combined asset of 765/400 kV, 1500 MVA ICT I at Fatehpur S/S alongwith associated bays (Asset: IV-a), 1500 MVA ICT II at Fatehpur S/S alongwith associated Bays (Asset: IV-b) & 765 kV Sasaram -Fatehpur S/C TL bays at Fatehpur S/S (Asset: IV-C)	1.4.2012	
26	V: LILO of 400 kV Allahabad- Mainpuri TL alongwith associated bays at Fatehpur	1.8.2012	
27	Asset-I: 765 kV, 240 (3*80) MVAR Bus reactor II along with associated bays at 765/400 kV Balia Sub-station	1.4.2012	
28	Asset-II: 765 kV 330 MVAR (3*110) Bus reactor along with associated bays at 765/400/220 kV Fatehpur Sub-station	1.4.2012	
29	Asset-III: 765 kV 3*80 MVAR Bus Reactor at Lucknow along with associated bays	1.6.2012	
30	Asset-IV: 400 kV 125 MVAR Bus Reactor III along with associated bays at 765/400 kV Agra (Augmentation) Sub-Station	1.6.2012	
31	Asset-V: 400 kV 125 MVAR Bus Reactor II along with associated bays at 765/400 kV Agra (Augmentation) Sub-station	1.6.2012	
32	Asset-VI: 400 kV 125 MVAR Bus reactor III at Ballia Sub-station along with associated bays (Augmentation of 400 kV to 765 kV)	1. 6.2012	
33	Asset-I: 125 MVAR Bus Reactor-I (Asset-I A) & 125 MVAR Bus Reactor-II (Asset-I B) at Fatehpur Sub-station along with associated bay	1.1.2012	Tariff approved vide order dt 21.2.2014, 13.5.2014, 17.7.2014, 7.8.2014, 21.10.2012 & 28.2.2014, respectively In Petition nos. 90/TT/2012,194/TT/2012, 38/TT/2012,198/TT/2012, 99/TT/2011 and 101/TT/2012.
34	Asset-II: 125 MVAR Bus Reactor-II at Balia Sub-station	1.2.2012	
35	Asset-III: Combined Asset of 1500 MVA ICT-1 at Agra Sub-station along with associated bays (Asset-III A), 125 MVAR 765/400kV Bus Reactor-I at Sasaram along-with associated Bays(Asset-III B) & Associated Line bays of 765 kV S/C Fatehpur-Agra T/L at Fatehpur and Agra Substation(Asset-III C)	1.6.2012	
36	Asset-IV: 1500 MVA ICT-2 at Agra Sub-station along with associated bays	1.9.2012	
37	Asset-V: 125 MVAR Bus Reactor along with associated bays at Lucknow	1.3.2012	



S.N.	Name of the Asset	Actual COD	Final tariff order
38	Asset-VI: 125 MVAR 400kV Bus Reactor-II at Sasaram along-with associated (Asset-VI A) & 2 no 50 MVAR Bus Reactor at 400kV Maithan S/S and associated bays (Maithan-Gaya line) (Asset-VI B)	1.4.2012	True up of 2009-14 approved vide order dt 18.4.2016 in Pet.no. 70/TT/2015.
39	Asset-VII: 2 nos. of 400 kV Bays at Maithon Substation for 400 kV D/C Maithon-Mejia Transmission Line	1.12.2011	
40	Asset-VIII: LILO of Barh-Balia 400kV D/C Tr. Line at Patna 400kV S/s along-with associated bays	1.12.2012	
41	Asset-IX: 1500 MVA, 765/400kV ICT-I at Sasaram S/s along with associated bays	1.3.2013	

8. The details of the Annual Transmission Charges approved vide Commission's orders as indicated in para 6 of this order, vis-à-vis claimed by the Petitioner on account of Truing up of the additional capitalization and MAT adjustment as per 2009 Tariff Regulations are as under:

(₹ in lakh)			
Asset	Particulars	2012-13	2013-14
Asset-1	Approved Annual Fixed Cost (AFC)	354.84	777.54
	Revised AFC based on truing up	379.98	887.00
Asset-2	Approved Annual Fixed Cost (AFC)	-	833.89
	Revised AFC based on truing up	-	842.40
Asset-3	Approved Annual Fixed Cost (AFC)	54.37	794.25
	Revised AFC based on truing up	65.12	851.11
Asset-4	Approved Annual Fixed Cost (AFC)	-	422.07
	Revised AFC based on truing up	-	552.80
Asset-5	Approved Annual Fixed Cost (AFC)	-	229.43
	Revised AFC based on truing up	-	217.93
Asset-6	Approved Annual Fixed Cost (AFC)	-	227.94
	Revised AFC based on truing up	-	223.63
Asset-7	Approved Annual Fixed Cost (AFC)	349.21	895.18
	Revised AFC based on truing up	362.05	946.26
Asset-8	Approved Annual Fixed Cost (AFC)	231.70	970.62
	Revised AFC based on truing up	257.92*	1065.78*

\*Tariff calculated after deducting total land compensation from the land cost of Agra SIs.

9. The details of the interest on working capital claimed by the Petitioner are as under:-



(₹ in lakh)			
Asset	Particulars	2012-13	2013-14
Asset-1	Approved Interest on Working Capital (IWC)	9.35	20.38
	Revised IWC based on truing up	9.91	22.84
Asset-2	Approved Interest on Working Capital (IWC)	-	23.05
	Revised IWC based on truing up		23.23
Asset-3	Approved Interest on Working Capital (IWC)	1.45	20.76
	Revised IWC based on truing up	1.69	22.04
Asset-4	Approved Interest on Working Capital (IWC)	-	10.22
	Revised IWC based on truing up	-	13.10
Asset-5	Approved Interest on Working Capital (IWC)	-	5.85
	Revised IWC based on truing up	-	5.60
Asset-6	Approved Interest on Working Capital (IWC)	-	6.16
	Revised IWC based on truing up	-	6.06
Asset-7	Approved Interest on Working Capital (IWC)	10.13	25.91
	Revised IWC based on truing up	10.42	27.06
Asset-8	Approved Interest on Working Capital (IWC)	5.90	24.73
	Revised IWC based on truing up	6.49	26.87

10. The Petitioner has served the copy of the petition upon the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act, 2003. Reply to the petition has been filed by MPPMCL, UPPCL, BRPL and BSP(H)CL vide their affidavits dated 30.1.2019, 28.2.2019, 30.4.2019 & 12.6.2019, respectively and the Petitioner vide its affidavits dated 30.7.2019 and 11.9.2019 filed its rejoinder to the reply of BRPL and MPPMCL, UPPCL & BSP(H)CL respectively, in the matter.

11. The Petition was heard on 12.9.2019 and the Commission reserved the order in the Petition.

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





13. This order has been issued after considering the main petition dated 16.11.2018, Petitioner's affidavits dated 30.7.2019, 11.9.2019 (3 nos.), 18.10.2019, replies dated 30.1.2019, 28.2.2019, 30.4.2019 & 12.6.2019 of the respondents, MPPMCL, UPPCL, BRPL and BSP(H)CL, respectively.

### **Analysis and Decision**

#### **Date of Commercial Operation (COD)**

14. The dates of commercial operation admitted by Commission vide orders dated 9.11.2015 (for Asset-1 & 2), 18.12.2015 (for Asset-3), 21.12.2015 (for Asset-4 & 5), 29.7.2016 (for Asset-6), 18.6.2015 (for Asset-7) and 20.5.2015 (for Asset-8) in Petition Nos. 41/TT/2013, 248/TT/2013, 106/TT/2014, 46/TT/2014, 120/TT/2013 and 109/TT/2013, respectively are as under:

<b>Asset</b>	<b>Admitted COD</b>
Asset-1	1.10.2012
Asset-2	1.6.2013
Asset-3	1.3.2013
Asset-4	1.2.2014
Asset-5	1.2.2014
Asset-6	1.2.2014
Asset-7	1.11.2012
Asset-8	1.1.2013

#### **Truing-up of Annual Fixed Charges of 2009-14 tariff period**

##### **Capital Cost**

15. The Commission has approved the capital cost as on COD and additional capitalization during 2012-13 & 2013-14 vide orders dated 9.11.2015 (for Asset-1 & 2), 18.12.2015 (for Asset-3), 21.12.2015 (for Asset-4 & 5), 29.7.2016 (for Asset-6), 18.6.2015 (for Asset-7) and 20.5.2015 (for Asset-8) in Petition Nos. 41/TT/2013,



248/TT/2013, 106/TT/2014, 46/TT/2014, 120/TT/2013 and 109/TT/2013, respectively as per following details:-

(₹ in lakh)

Asset	Apportioned Approved Cost FR	Admitted Cost as on COD	Allowed Add Cap for FY		Total Cost as on 31.3.2014
			2012-13	2013-14	
Asset-1	4289.82	3264.34	760.51	141.27	4166.12
Asset-2	11134.74	4967.73	0.00	1137.63	6105.37
Asset-3	5943.31	4117.03	159.05	637.41	4913.49
Asset-4	12426.67	12426.67*	0.00	0.00	12426.67
Asset-5	14188.70	6690.10	0.00	149.04	6839.13
Asset-6	9851.12	6658.61	0.00	22.56	6681.17
Asset-7	6971.71	3559.01**	531.18	177.19	4267.38
Asset-8	5532.51	4897.86***	185.72	433.37	5516.96
<b>Total</b>	<b>70338.58</b>	<b>46581.35</b>	<b>1636.46</b>	<b>2698.47</b>	<b>50916.29</b>

(\*) 17659.38-108.35 (IDC/IEDC due to time overrun and undischarged on COD)-5124.36 (Restriction as per FR apportioned cost in absence of RCE)

(\*\*) 3845.53-286.52 (IDC/IEDC due to time overrun and undischarged on COD)

(\*\*\*) 5533.52-564.99-70.67 (IDC/IEDC due to time overrun and undischarged on COD)

16. The Petitioner has submitted Revised Cost Estimate (RCE) approved by the Board of Directors of the Petitioner in its 326<sup>th</sup> meeting held on 9.3.2016 and has submitted asset wise apportioned approved cost as per RCE along with the petition. The Petitioner has submitted Auditor certificates dated 31.5.2018, 20.3.2018, 20.3.2018, 28.6.2018, 20.3.2018, 20.3.2018, 22.6.2018 and 20.3.2018 for Asset-1 to Asset-8, respectively, in the petition. The details of apportioned approved cost (FR), revised apportioned approved cost (RCE) and actual additional capitalization claimed up to 31.3.2014 by the Petitioner for instant assets are as under:-

(₹ in lakh)

Asset	Apportioned Approved Cost (FR)	Apportioned Approved Cost (RCE)	Capital Cost as on COD	Add Cap for 2012-13	Add Cap for 2013-14	Total cost as on 31.3.2014
Asset-1	4289.82	4974.12	3431.62	760.51	686.36	4878.49
Asset-2	11134.74	6387.04	4900.62	-	851.01	5751.63
Asset-3	5943.31	5564.06	4190.21	140.02	583.26	4913.49
Asset-4	12426.67	19226.63	17659.38	-	105.87	17765.25
Asset-5	14188.70	8371.63	6290.09	-	149.04	6439.13
Asset-6	9851.12	10011.86	6918.92	-	22.56	6941.48





Asset-7	6971.71	5216.26	3845.53	461.40	218.01	4524.94
Asset-8	5532.51	6152.63	5142.14 (5533.51- 391.37*)	77.31	361.85 (367.99- 6.14*)	5581.30
<b>Total</b>	<b>70338.58</b>	<b>65904.23</b>	<b>52378.11</b>	<b>1439.24</b>	<b>2977.96</b>	<b>56795.71</b>

(\*)Total land cost of ₹397.51 lakh deducted as per tariff order dated 20.5.2015 in petition no. 109/TT/2013. All other assets utilizing Agra Land has already been trued up and true up tariff orders already approved by the Commission.

### Cost overrun

17. The Commission vide its order dated 21.12.2015 in petition no. 106/TT/2014 has made the following observation regarding instant Asset-4 (therein Asset-1 i.e. 400 kV D/C (Quad) Ranchi (New) – Ranchi (Old) – I CKT I Transmission line and associated 400 kV line bays at Ranchi (New) S/S & Ranchi (Old) Sub-station:-

“---Liberty is given to the petitioner to submit the detailed justification for cost over-run in case of Asset 1 for consideration of the Commission at the time of truing.”

18. In response, the Petitioner has made detailed submissions w.r.t cost variation and it is observed that, such cost variation has occurred mainly due to increase in price of land and compensation and because of prevailing market condition which were beyond the control of the Petitioner. Further, it is seen that the overall estimated completion cost of the instant assets is ₹56795.31 lakh which is within the Apportioned Approved Cost as per RCE of Rs.65904.23 lakh. The individual cost of each asset is also within the respective RCE apportioned cost. Thus, both overall and individual asset-wise cost, there is no cost over-run and therefore, the cost as claimed by the Petitioner for instant assets is considered for tariff purpose.

### Time Overrun

19. As decided in order dated 18.12.2015 in petition no. 248/TT/2013, order dated 18.06.2015 in petition no. 120/TT/2013 and order dated 20.5.2015 in petition no. 109/TT/2013, the time overrun which has not been condoned have been considered in tariff calculations in the instant petition in respect of Asset-3, 7 & 8.



## Interest During Construction (IDC)

20. The Petitioner has claimed Interest During Construction (IDC) for the instant assets and has submitted Auditor Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

21. The allowable IDC has been worked out considering the information submitted by the Petitioner and has been worked out for the individual assets separately on cash basis after considering the time over-run period which has not been condoned by the Commission. The loan details submitted in Form-13 for period 2009-14 and the IDC computation were also considered for the purpose of IDC calculation on cash and accrual basis. The un- discharged IDC as on COD has been considered as ACE during the year in which it has been discharged.

22. Accordingly, The IDC claimed and considered as on COD and summary of discharge of IDC liability upto COD and thereafter, for the purpose of tariff determination, is summarized as under:-

(₹ in lakh)

Asset	IDC as per Auditor Certificate	IDC as worked out	IDC disallowed due to time over-run & computational difference	IDC allowed as on COD	IDC un-discharged as on COD	IDC discharged in 2012-13	IDC discharged in 2013-14
A	B	C	D=B-C	E	F=C-E	G	H
Asset-1	494.90	494.90	0.00	478.36	16.54	16.54	0.00
Asset-2	345.23	345.23	0.00	261.80	83.43	0.00	83.43
Asset-3	431.54	385.70	45.84	281.56	104.14	16.82	87.32
Asset-4	3379.69	3379.69	0.00	3291.38	88.31	0.00	88.31
Asset-5	707.52	707.52	0.00	707.52	0.00	0.00	0.00
Asset-6*	708.68	708.68	0.00	497.40	211.28	0.00	62.80
Asset-7	557.82	386.18	171.64	325.72	60.47	0.00	60.47
Asset-8	1054.21	984.51	69.70	790.42	194.09	194.09	0.00
	<b>7679.59</b>	<b>7392.41</b>	<b>287.18</b>	<b>6634.16</b>	<b>758.26</b>	<b>227.45</b>	<b>382.33</b>



\* For Asset-6 the Petitioner has claimed discharge of IDC amounting ₹148.48 Lakh during 2014-15.

### **Incidental Expenditure During Construction (IEDC)**

23. The Petitioner has claimed IEDC of the assets covered in the petition and submitted Auditor certificate in support of the same. We observe that all the assets of the transmission system “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” have been put under commercial operation, either during 2009-14 period or during 2014-19 period.

24. The Appellate Tribunal for Electricity (APTEL), vide its judgment dated 2<sup>nd</sup> December 2019 in Appeal Nos. 95 of 2018 and 140 of 2018 on the issue of “IEDC to be considered in tariff” has held that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations. Further, vide para 7.12 of the judgment, ATE has, *inter alia*, observed that “.....without prejudice to the contention that hard costs should not be considered, even if hard cost is to be seen then, at least ‘IEDC’ including contingencies should be applied”.

25. As per the APTEL judgment, computation of IEDC of the Project is to be made on actual basis after applying due prudence. The Petitioner files tariff petitions for individual assets and Commission decides tariff for these assets, which are subsequently combined when all the assets of the Project are brought under commercial operation. Thus, prudence can only be applied with reference to the combined IEDC as per FR Cost /RCE on completion of the Project. The present petition is a true up (2009-14) petition, and as mentioned in para 23, all the assets of the Project have been commissioned and their tariff determined on individual basis.

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As a part of prudence exercise, the IEDC allowed as per respective tariff orders for all the assets of the Project has been compared with the IEDC (including contingencies) for the Project as per RCE. We observe that the IEDC allowed for the Project, except that for the eight assets of the present petition, is Rs 7424.85 lakh which is well within the IEDC limit of Rs 13959.00 lakh as per RCE. The actual IEDC (as claimed) against the eight assets of the present petition is Rs 2604.12 lakh. After disallowing an amount of ₹4.50 lakh, ₹3.13 lakh and ₹33.03 lakh, in case of Asset-3, Asset-7 and Asset- 8 respectively due to time over run, ₹2563.56 lakh is being allowed as IEDC.

26. We reiterate that Commission has applied prudence in the above manner in the present case as all the assets of the Project have been commissioned. For asset wise tariff determination, Commission intends to continue with the existing practice of IEDC and prudence shall be applied on the IEDC, once the Project is fully commissioned.

27. The IEDC claimed by the Petitioner for instant assets is allowed as per following details:-

(₹ in lakh)			
Asset	IEDC claimed as per Auditor Certificate	IEDC disallowed (On account of Excess Claim / Time Overrun not condoned, if any)	IEDC allowed
Asset-1	100.54	0.00	100.54
Asset-2	173.09	0.00	173.09
Asset-3	121.38	4.50	116.88
Asset-4	861.61	0.00	861.61
Asset-5	296.31	0.00	296.31
Asset-6	543.64	0.00	543.64
Asset-7	78.15	3.13	75.02
Asset-8	429.40	33.03	396.37
<b>Total</b>	<b>2604.12</b>	<b>40.66</b>	<b>2563.46</b>

## Initial Spares

28. The Petitioner has claimed initial spares of the Assets covered in the petition and submitted Auditor certificate in support of the same. The details of initial spares claimed by the Petitioner is as follows:-

(₹ in lakh)			
Asset	Element	Capital Cost Claimed as on Cut-off date	Initial spares claimed
Asset-1	Substation	4900.72	84.96
Asset-2	Substation	5926.66	153.10
Asset-3	Substation	5125.07	134.31
Asset-4	Substation	2063.01	43.26
	Transmission line	16344.23	125.02
Asset-5	Substation	8053.09	192.54
Asset-6	Substation	9238.56	205.95
Asset-7	Substation	4556.02	103.48
Asset-8	Substation	6042.67	149.65

29. The Respondent, MPPMCL vide affidavit dated 30.1.2019 has submitted that for calculation of initial spares, the Commission may consider each asset separately and the excess cost if any should be disallowed. In response, the Petitioner vide affidavit dated 11.9.2019 submitted that initial spares are claimed as per 2009 Tariff Regulation and the Commission may allow initial spares accordingly.

30. We have considered the submissions made by the Petitioner. The details of initial spares allowed are subject to ceiling limit as per 2009 Tariff Regulation and same are as under:-

(₹ in lakh)						
Asset	Element	Capital Cost Claimed as on Cut-off Date	Initial Spares Claimed	Ceiling Limit As per 2009 Regulations	Allowable Initial Spares	Excess Initial Spares Claimed
Asset-1	Substation	4927.38	84.96	2.50%	84.96	0.00
Asset-2	Substation	5926.66	153.10	2.50%	148.04	5.06
Asset-3	Substation	5125.07	134.31	2.50%	127.97	6.34
Asset-4	Substation	2078.14	43.26	2.50%	43.26	0.00
	Transmission line	16677.89	125.02	0.75%	122.56	2.46
Asset-5	Substation	8053.09	192.54	2.50%	192.54	0.00



Asset	Element	Capital Cost Claimed as on Cut-off Date	Initial Spares Claimed	Ceiling Limit As per 2009 Regulations	Allowable Initial Spares	Excess Initial Spares Claimed
Asset-6	Substation	9353.48	205.95	2.50%	205.95	0.00
Asset-7	Substation	4556.02	103.48	2.50%	103.48	0.00
Asset-8	Substation	6042.67	149.65	2.50%	149.65	0.00

### Capital cost as on COD

31. Accordingly, the capital cost allowed as on COD is summarized as under:-

(₹ in lakh)

Assets	Capital cost as on COD as per Auditor Certificate	Less: IDC Disallowed as on COD	Less: IEDC Disallowed as on COD	Less: Excess Initial Spares disallowed as on COD	Capital cost considered as on COD
	1	2	3	4	5=1-2-3-4
Asset-1	3431.62	16.54	0.00	0.00	3415.08
Asset-2	4900.62	83.43	0.00	5.06	4812.13
Asset-3	4190.21	149.98	4.50	6.34	4029.40
Asset-4	17659.38	88.31	0.00	2.46	17568.61
Asset-5	6290.09	0.00	0.00	0.00	6290.09
Asset-6	6918.92	211.28	0.00	0.00	6707.64
Asset-7	3845.53	232.10	3.13	0.00	3610.30
Asset-8	5349.92	263.79	33.03	0.00	5053.10

### Additional Capital Expenditure (ACE)

32. The Petitioner has claimed the following ACE on actuals in respect of the instant assets and submitted the Auditor Certificates in support of the same:-

(₹ in lakh)

Asset	Additional Capital Expenditure		Total ACE claimed by Petitioner as on 31.3.2014
	2012-13	2013-14	
Asset-1	777.05	686.36	1463.41
Asset-2	-	934.44	934.44
Asset-3	140.02	583.26	723.28
Asset-4	-	194.18	194.18
Asset-5	-	149.04	149.04
Asset-6	-	85.36	85.36
Asset-7	461.40	218.01	679.41
Asset-8	77.31	367.99	445.30
<b>Total</b>	<b>1472.6</b>	<b>3409.12</b>	<b>4881.72</b>



33. We have considered the submission made by the Petitioner. The un-discharged IDC as on COD has been allowed as ACE during the year of discharge. Accordingly, the ACE allowed has been summarized as under:-

(₹ in lakh)

Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
ACE to the extent of Balance & Retention Payments and work deferred for execution other than IDC	760.51	686.36	851.01	140.02	583.26	105.87
Add: IDC Discharged	16.54	0.00	83.43	16.82	87.32	88.31
<b>Total Add Cap allowed</b>	<b>777.05</b>	<b>686.36</b>	<b>934.44</b>	<b>156.84</b>	<b>670.58</b>	<b>194.18</b>

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
ACE to the extent of Balance & Retention Payments and work deferred for execution other than IDC	149.04	22.56	461.40	218.01	77.31	361.85
Add: IDC Discharged	0.00	62.80	0.00	60.47	194.09	0.00
<b>Total Add Cap allowed</b>	<b>149.04</b>	<b>85.36</b>	<b>461.40</b>	<b>278.48</b>	<b>271.40</b>	<b>361.85</b>

### Capital cost for the tariff period 2009-14

34. Accordingly, the capital cost considered for the tariff period 2009-14 is as follows:-

(₹ in lakh)

Asset	Capital Cost Allowed as on COD	Additional Capitalisation for FY		Admitted Capital Cost as on 31.3.2014
		2012-13	2013-14	
Asset-1	3415.08	777.05	686.36	4878.49
Asset-2	4812.13	0.00	934.44	5746.57
Asset-3	4029.40	156.84	670.58	4856.81
Asset-4	17568.61	0.00	194.18	17762.79
Asset-5	6290.09	0.00	149.04	6439.13
Asset-6	6707.64	0.00	85.36	6793.00
Asset-7	3610.30	461.40	278.48	4350.18
Asset-8	5053.10	271.40	361.85	5686.35

## Debt-Equity Ratio

35. The admitted debt-equity ratio of 70:30 as on the date of commercial operation vide order dated 26.2.2016 in petition no. 32/TT/2013 and order dated 29.2.2016 in petition no.110/TT/2013 has been considered. Further, for the purpose of ACE, debt-equity ratio of 70:30 has been considered for instant assets. The details of debt and equity considered are as under:-

(₹ in lakh)

Asset-1	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	2390.56	70.00	3414.95	70.00
Equity	1024.52	30.00	1463.54	30.00
<b>Total</b>	<b>3415.08</b>	<b>100.00</b>	<b>4878.49</b>	<b>100.00</b>

Asset-2	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	3368.49	70.00	4022.60	70.00
Equity	1443.64	30.00	1723.97	30.00
<b>Total</b>	<b>4812.13</b>	<b>100.00</b>	<b>5746.57</b>	<b>100.00</b>

Asset-3	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	2820.58	70.00	3399.77	70.00
Equity	1208.82	30.00	1457.04	30.00
<b>Total</b>	<b>4029.40</b>	<b>100.00</b>	<b>4856.81</b>	<b>100.00</b>

(₹ in lakh)

Asset-4	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	12298.04	70.00	12433.97	70.00
Equity	5270.56	30.00	5328.82	30.00
<b>Total</b>	<b>17568.61</b>	<b>100.00</b>	<b>17762.79</b>	<b>100.00</b>

Asset-5	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	4403.06	70.00	4507.39	70.00
Equity	1887.03	30.00	1931.74	30.00
<b>Total</b>	<b>6290.09</b>	<b>100.00</b>	<b>6439.13</b>	<b>100.00</b>

Asset-6	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	4695.35	70.00	4755.10	70.00
Equity	2012.29	30.00	2037.90	30.00
<b>Total</b>	<b>6707.64</b>	<b>100.00</b>	<b>6793.00</b>	<b>100.00</b>





Asset-7	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	2527.21	70.00	3045.13	70.00
Equity	1083.09	30.00	1305.05	30.00
<b>Total</b>	<b>3610.30</b>	<b>100.00</b>	<b>4350.18</b>	<b>100.00</b>

Asset-8	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	3537.17	70.00	3980.45	70.00
Equity	1515.93	30.00	1705.90	30.00
<b>Total</b>	<b>5053.10</b>	<b>100.00</b>	<b>5686.35</b>	<b>100.00</b>

### Return on Equity (ROE)

36. Return on equity is allowed for the instant asset in terms of Regulation 15 of the 2009 Tariff Regulations. The Petitioner has submitted the MAT rate applicable during various years. Return on equity has been worked out by considering year wise MAT rate submitted by the Petitioner. The variation in the tax rate during the 2009-14 tariff block applicable to the Petitioner as per the Finance Act of the relevant year for the purpose of grossing up of ROE has been furnished as under:-

Year	MAT Rate (in %)	Gross up ROE (Base rate/(1-t) (in %))
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

37. We have considered the submissions of the Petitioner. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

Particulars	(₹ in lakh)					
	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Opening Equity	1024.52	1257.64	1443.64	1208.82	1255.87	5270.56
Addition due to Additional Capitalization	233.12	205.91	280.33	47.05	201.17	58.25
Closing Equity	1257.64	1463.54	1723.97	1255.87	1457.04	5328.82
Average Equity	1141.08	1360.59	1583.81	1232.34	1356.45	5299.69



Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.008%	20.961%	20.961%	20.008%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.377%	19.610%	19.610%	19.377%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>110.55</b>	<b>266.81</b>	<b>258.82</b>	<b>19.90</b>	<b>266.00</b>	<b>173.21</b>

(₹ in lakh)

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
Opening Equity	1887.03	2012.29	1083.09	1221.51	1515.93	1597.35
Addition due to Additional Capitalization	44.71	25.61	138.42	83.54	81.42	108.55
Closing Equity	1931.74	2037.90	1221.51	1305.05	1597.35	1705.90
Average Equity	1909.38	2025.10	1152.30	1263.28	1556.64	1651.63
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.008%	20.961%	20.008%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.377%	19.610%	19.377%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>62.41</b>	<b>66.19</b>	<b>93.03</b>	<b>247.73</b>	<b>75.41</b>	<b>323.88</b>

### Interest on Loan (IOL)

38. The Petitioner has claimed the IOL based on actual interest rates for each year during the 2009-14 period. We have considered the submissions of the Petitioner and accordingly calculated the IOL based on actual interest rate, in accordance with Regulation 16 of the 2009 Tariff Regulations.

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

(i) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;

(ii) The repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period.

40. The details of IOL calculated are as follows:-



(₹ in lakh)

Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Gross Normative Loan	2390.56	2934.50	3368.49	2820.58	2912.30	12298.04
Cumulative Repayment upto previous Year	0.00	100.37	0.00	0.00	18.07	0.00
Net Loan-Opening	2390.56	2834.12	3368.49	2820.58	2894.22	12298.04
Addition due to Additional Capitalization	543.94	480.45	654.11	109.79	469.40	135.93
Repayment during the year	100.37	239.33	232.29	18.07	238.74	153.04
Net Loan-Closing	2834.12	3075.25	3790.31	2912.30	3124.89	12280.93
Average Loan	2612.34	2954.69	3579.40	2866.44	3009.55	12289.49
Weighted Average Rate of Interest on Loan	8.8659%	9.0150%	5.8548%	7.1784%	7.3044%	9.0830%
<b>Interest on Loan</b>	<b>115.80</b>	<b>266.37</b>	<b>174.64</b>	<b>17.15</b>	<b>219.83</b>	<b>186.04</b>

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	4403.06	4695.35	2527.21	2850.19	3537.17	3661.42
Cumulative Repayment upto previous Year	0.00	0.00	0.00	83.42	0.00	65.74
Net Loan-Opening	4403.06	4695.35	2527.21	2766.77	3537.17	3595.68
Addition due to Additional Capitalization	104.33	59.75	322.98	194.93	189.98	253.29
Repayment during the year	53.52	51.94	83.42	219.46	65.74	279.66
Net Loan-Closing	4453.87	4703.16	2766.77	2742.25	3661.42	3569.32
Average Loan	4428.47	4699.25	2646.99	2754.51	3599.29	3582.50
Weighted Average Rate of Interest on Loan	9.5144%	8.8841%	8.9987%	9.0538%	9.23%	9.26%
<b>Interest on Loan</b>	<b>70.22</b>	<b>69.58</b>	<b>99.25</b>	<b>249.39</b>	<b>83.03</b>	<b>331.67</b>

## Depreciation

41. Depreciation is allowed for the instant assets in terms of Clause (4) of Regulation 17 of the 2009 Tariff Regulations. Assets as admitted by the Commission have been put under Commercial Operation during 2009-14, thus, the instant assets would be completing 12 years beyond 2009-14 period. Accordingly, depreciation has been calculated annually based on Straight Line Method as per Regulations. Details of the depreciation allowed are as under:-

(₹ in lakh)

Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Opening Gross Block	3415.08	4192.13	4812.13	4029.40	4186.24	17568.61
Additional Capital expenditure	777.05	686.36	934.44	156.84	670.58	194.18
Closing Gross Block	4192.13	4878.49	5746.57	4186.24	4856.81	17762.79



Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Average Gross Block	3803.61	4535.31	5279.35	4107.82	4521.53	17665.70
Rate of Depreciation	5.2778%	5.2770%	5.2800%	5.2800%	5.2800%	5.1979%
Depreciable Value	3423.24	4081.78	4751.42	3697.03	4069.37	15646.19
Remaining Depreciable Value	3423.24	3981.41	4751.42	3697.03	4051.30	15646.19
<b>Depreciation</b>	<b>100.37</b>	<b>239.33</b>	<b>232.29</b>	<b>18.07</b>	<b>238.74</b>	<b>153.04</b>

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	6290.09	6707.64	3610.30	4071.70	5053.10	5324.50
Additional Capital expenditure	149.04	85.36	461.40	278.48	271.40	361.85
Closing Gross Block	6439.13	6793.00	4071.70	4350.18	5324.50	5686.35
Average Gross Block	6364.61	6750.32	3841.00	4210.94	5188.80	5505.43
Rate of Depreciation	5.0457%	4.6170%	5.2125%	5.2116%	5.0675%	5.0797%
Depreciable Value	5475.21	5316.48	3456.90	3789.84	4482.93	4767.89
Remaining Depreciable Value	5475.21	5316.48	3456.90	3706.42	4482.93	4702.15
<b>Depreciation</b>	<b>53.52</b>	<b>51.94</b>	<b>83.42</b>	<b>219.46</b>	<b>65.74</b>	<b>279.66</b>

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

42. The allowable O&M expenses for the instant assets have been worked out based on norms of O&M Expenses and the details are as follows:-

(₹ in lakh)			
Asset	Particulars	2012-13	2013-14
Asset-1	O&M Expenses	9.91	22.84
Asset-2		-	152.73
Asset-3		7.22	91.64
Asset-4		-	30.47
Asset-5		-	26.18
Asset-6		-	37.09
Asset-7		72.23	183.28
Asset-8		21.67	91.64

### Interest on Working Capital (IWC)

43. 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 as below:-

(i) **Maintenance spares:**



Maintenance spares have been worked out based on 15% of Operation and Maintenance expenses specified in Regulation 19.

(ii) **O & M expenses:**

O&M expenses have been considered for one month of the allowed O&M expenses.

(iii) **Receivables:**

The receivables have been worked out on the basis of 2 months' of annual transmission charges as worked out above.

(iv) **Rate of interest on working capital:**

Rate of interest in working capital is considered on normative basis in accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations.

44. Accordingly, the Interest on Working Capital (IWC) tried up is as under:-

(₹ in lakh)

Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Maintenance Spares	13.00	13.75	27.49	13.00	13.75	27.42
O&M expenses	7.22	7.64	15.27	7.22	7.64	15.24
Receivables	126.66	147.83	168.34	128.02	139.66	555.93
<b>Total</b>	<b>146.89</b>	<b>169.21</b>	<b>211.10</b>	<b>148.25</b>	<b>161.04</b>	<b>598.59</b>
Rate of Interest on Working Capital	13.50%	13.50%	13.20%	13.50%	13.50%	13.20%
<b>Interest on Working Capital</b>	<b>9.915</b>	<b>22.84</b>	<b>23.22</b>	<b>1.668</b>	<b>21.74</b>	<b>13.17</b>

(₹ in lakh)

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	23.56	33.38	26.00	27.49	13.00	13.75
O&M expenses	13.09	18.55	14.45	15.27	7.22	7.64
Receivables	217.93	231.03	143.31	154.41	168.13	175.57
<b>Total</b>	<b>254.58</b>	<b>282.95</b>	<b>183.76</b>	<b>197.18</b>	<b>188.36</b>	<b>196.96</b>
Rate of Interest on Working Capital	13.20%	13.20%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>5.60</b>	<b>6.22</b>	<b>10.34</b>	<b>26.62</b>	<b>6.36</b>	<b>26.59</b>

**Annual Transmission Charges for 2009-14 Tariff Period**



45. Accordingly, the annual transmission charges being allowed for the instant assets are as under:-

(₹ in lakh)

Particulars	Asset-1		Asset-2	Asset-3		Asset-4
	2012-13	2013-14	2013-14	2012-13	2013-14	2013-14
Depreciation	100.37	239.33	232.29	18.07	238.74	153.04
Interest on Loan	115.80	266.37	174.64	17.15	219.83	186.04
Return on Equity	110.55	266.81	258.82	19.90	266.00	173.21
Interest on Working Capital	9.91	22.84	23.22	1.67	21.74	13.17
O&M Expenses	43.34	91.64	152.73	7.22	91.64	30.47
<b>Total</b>	<b>379.98</b>	<b>886.99</b>	<b>841.70</b>	<b>64.01</b>	<b>837.95</b>	<b>555.93</b>

Particulars	Asset-5	Asset-6	Asset-7		Asset-8	
	2013-14	2013-14	2012-13	2013-14	2012-13	2013-14
Depreciation	53.52	51.94	83.42	219.46	65.74	279.66
Interest on Loan	70.22	69.58	99.25	249.39	83.03	331.67
Return on Equity	62.41	66.19	93.03	247.73	75.41	323.88
Interest on Working Capital	5.60	6.22	10.34	26.62	6.36	26.59
O&M Expenses	26.18	37.09	72.23	183.28	21.67	91.64
<b>Total</b>	<b>217.93</b>	<b>231.03</b>	<b>358.27</b>	<b>926.47</b>	<b>252.19</b>	<b>1053.44</b>

#### DETERMINATION OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

46. The Petitioner has submitted the tariff forms combining the Assets-1 to 8, wherein the COD has been achieved prior to 1.4.2014, as a single asset. Accordingly, as per proviso (i) of Regulation 6(1) of 2014 Tariff Regulations, single tariff for the combined asset has been worked out for the 2014-19 tariff period.

47. The Petitioner has claimed the transmission charges for combined asset for the 2014-19 tariff period as under:-

(₹ in lakh)

Combined Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2966.92	3064.03	3126.32	3173.12	3186.47
Interest on Loan	3247.79	3108.29	2899.42	2670.18	2411.73
Return on Equity	3407.59	3521.00	3592.91	3647.17	3662.05
Interest on Working Capital	282.70	286.37	286.75	285.97	282.91
O&M Expenses	1108.13	1144.95	1182.95	1222.26	1262.77
<b>Total</b>	<b>11013.13</b>	<b>11124.64</b>	<b>11088.35</b>	<b>10998.70</b>	<b>10846.67</b>



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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	166.22	171.74	177.44	183.34	189.42
O&M expenses	92.34	95.41	98.58	101.86	105.23
Receivables	1835.52	1854.11	1848.06	1833.12	1800.99
<b>Total</b>	<b>2094.08</b>	<b>2121.26</b>	<b>2124.08</b>	<b>2118.32</b>	<b>2095.64</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>282.70</b>	<b>286.37</b>	<b>286.75</b>	<b>285.97</b>	<b>282.91</b>

### Effective Date of Commercial Operation (E-COD)

49. The E-COD shall be used to determine the lapsed life of the project as a whole. The Petitioner has submitted that E-COD of the combined assets works out to 1.6.2013. However, based on the trued up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as 13.8.2013 as shown below:-

(₹ in lakh)						
Computation of Effective COD						
Asset No.	Actual COD	Admitted Capital Cost as on 31.03.2014	Weight of the cost	No. of Days from Last COD	Weighted days	Effective COD (Latest COD - Total weighted days)
Asset-1	1.10.2012	4878.49	8.67%	488	42.32	<b>13.8.2013</b>
Asset-2	1.6.2013	5746.57	10.22%	245	25.03	
Asset-3	1.3.2013	4856.81	8.63%	337	29.10	
Asset-4	1.2.2014	17762.79	31.58%	0	0.00	
Asset-5	1.2.2014	6439.13	11.45%	0	0.00	
Asset-6	1.2.2014	6793.00	11.61%	0	0.00	
Asset-7	1.11.2012	4350.18	7.73%	457	35.34	
Asset-8	1.1.2013	5686.35	10.11%	396	40.03	
<b>Total</b>		<b>56513.32</b>	100.00%		171.82	

### Weighted Average Life (WAL)

50. The life as defined in Regulation 27 of the 2014 Tariff Regulations has been considered for determination of Weighted Average Life.



51. The combined asset may have multiple elements (i.e. Land, Building, Transmission line, Sub-station and PLCC) and each element may have different span of life. Therefore, in 2014 Tariff Regulations, the concept of Weighted Average Life (WAL) has been introduced which has been used as the useful life of the project as whole.

52. The Weighted Average Life (WAL) has been determined based on the admitted capital cost of individual elements as on 31.3.2014 and their respective life as stipulated in 2014-19 Tariff Regulations. The element wise life as it was defined in Tariff Regulations prevailed at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in 2014 Tariff Regulations has been considered for determination of WAL. Accordingly, the Weighted Average Life (WAL) of the combined asset (commissioned during 2009-14 tariff period) has been worked out as 27 years as shown below:-

(₹ in lakh)

<b>Admitted Capital Cost as on 31-03-2014</b>			
<b>Particulars</b>	<b>Combined Cost (₹ in lakh) (a)</b>	<b>Life as per 2014 Regulation (Years) (b)</b>	<b>Weight (a) x (b)</b>
Freehold Land	1612.97	-	-
Leasehold Land	0.00	25	-
Building & Other Civil Works	189.71	25	4742.79
Transmission Line	16175.11	35	566128.97
Sub-Station Equipment	38496.44	25	962410.96
PLCC	39.08	15	586.27
<b>Total</b>	<b>56513.32</b>	<b>27</b>	<b>1533868.99</b>
<b>WAL = Total Weight/ Capital cost of the project</b>		<b>27 Years</b>	

53. It is assumed that, the Weighted Average Life as on 1.4.2014 as determined above is applicable prospectively (i.e. for 2014-19 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be



done. Accordingly, the WAL has been used to determine the remaining useful life as on 31.3.2014 to be 27 years.

## Capital Cost

54. The Petitioner vide Auditor Certificate has claimed the capital cost of the individual assets which has been added to arrive at the capital cost claimed during 2014-19 period for consolidated assets as per following details:-

(₹ in lakh)

Assets	Apportioned Cost (RCE)	Capital Cost as on 31.3.2014	2014-15	2015-16	2016-17	2017-18	2018-19	Total Cost
Asset-1	4974.12	4878.49	22.22	26.66	-	-	-	4927.37
Asset-2	6387.04	5746.57	105.35	69.68	25.50	-	-	5947.10
Asset-3	5564.06	4856.81	190.55	57.17	21.03	-	-	5125.56
Asset-4	19226.63	17762.79	191.64	234.18	216.07	97.10	251.79	18753.57
Asset-5	8371.63	6439.13	1175.09	108.70	330.17	13.12	29.09	8095.30
Asset-6	10011.86	6793.00	1250.59	296.01	898.98	114.92	-	9353.50
Asset-7	5216.26	4350.18	31.08	33.06	-	-	-	4414.32
Asset-8	6152.63	5686.35	35.18	28.66	98.75	-	-	5848.94
<b>Total</b>	<b>65904.23</b>	<b>56513.32</b>	<b>3001.70</b>	<b>854.12</b>	<b>1590.50</b>	<b>225.14</b>	<b>280.88</b>	<b>62465.66</b>

## Cost overrun

55. Against the overall apportioned approved cost (as per RCE) of ₹65904.23 lakh, the estimated completion cost including additional capital expenditure is ₹62465.66 lakh. The individual cost of each asset is also within the respective RCE apportioned cost. Therefore, there is no cost overrun as per RCE. We have already deliberated on the time over-run justification in the relevant para pertaining to 2009-14 period.

56. The Capital cost has been dealt in line with clause (2) of Regulation 9 of the 2014 Tariff Regulations. The element wise capital cost (i.e. Land, Building, Transmission Line, Substation and PLCC) as admitted by the Commission as on



31.3.2014 for instant assets are clubbed together and the combined capital cost has been considered as capital cost for combined asset as on 1.4.2014, as per following details:-

(₹ in lakh)

Element	Asset-1	Asset-2	Asset-3	Asset-4
Free hold Land	-	-	-	281.04
Leasehold Land	-	-	-	-
Building & Other Civil Works	9.81	-	-	3.94
Transmission Line	-	-	-	16,175.11
Sub-Station Equipment	4,868.68	5,746.57	4,856.81	1,263.61
PLCC	-	-	-	39.08
<b>Total</b>	<b>4,878.49</b>	<b>5,746.57</b>	<b>4,856.81</b>	<b>17,762.79</b>

(₹ in lakh)

Element	Asset-5	Asset-6	Asset-7	Asset-8
Free hold land	281.04	843.12	-	207.77
Leasehold Land	-	-	-	-
Building & Other Civil Works	3.93	12.22	156.65	3.16
Transmission Line	-	-	-	-
Sub-Station Equipment	6,154.16	5,937.66	4,193.52	5,475.42
PLCC	-	-	-	-
<b>Total</b>	<b>6,439.13</b>	<b>6,793.00</b>	<b>4,350.18</b>	<b>5,686.35</b>

(₹ in lakh)

Particulars	Combined Cost as on 1.4.2014
Freehold Land	1,612.97
Leasehold Land	-
Building & Other Civil Works	189.71
Transmission Line	16,175.11
Sub-Station Equipment	38,496.44
PLCC	39.08
<b>TOTAL</b>	<b>56,513.32</b>

57. The trued up capital cost of ₹56513.32 lakh for combined asset is considered as admitted capital cost as on 1.4.2014 for working out tariff for 2014-19 tariff period.

#### **Additional Capital Expenditure (ACE)**

58. The Petitioner has claimed projected additional expenditure for 2014-19 period and submitted Auditor certificates in support of the same. As per Clause (13)



of Regulation 3 of the 2014 Tariff Regulations, the cut-off date for instant Asset-1, 3 & 7 is 31.3.2015, for Asset-2, 3 & 8 is 31.3.2016 and that of Asset-4, 5 & 6 is 31.3.2017. In addition, the Petitioner has also claimed the discharge of IDC liability as ACE. The Petitioner vide form 7 has claimed both these costs as ACE under Regulation 14(1)(i) & 14(1)(ii) for liability within “cut-off” date and under Regulation 14(3)(v) for liabilities after “cut-off” date of 2014 Tariff Regulations, which has been summarized as under:-

(₹ in lakh)					
<b>Asset</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	22.22	26.66	-	-	-
Asset-2	105.35	69.68	25.50	-	-
Asset-3	190.55	57.17	21.03	-	-
Asset-4	191.64	234.18	216.07	97.10	251.79
Asset-5	1175.09	108.70	330.17	13.12	29.09
Asset-6	1250.59	296.01	898.98	114.92	-
Asset-7	31.08	33.06	-	-	-
Asset-8	35.18	28.66	98.75	-	-
<b>TOTAL</b>	<b>3001.70</b>	<b>854.12</b>	<b>1590.50</b>	<b>225.14</b>	<b>280.88</b>

59. Clause (1) & (3) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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

- (i) Un-discharged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in Law or compliance of any existing law:*

*Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.”*

xxxxxxxx

*“(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) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
  - (ii) Change in law or compliance of any existing law
  - (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies or statutory authorities responsible for national security/internal security
  - (iv) Deferred works relating to ash pond or ash handling system in the original scope of work
  - (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- xxxxxx

60. We have considered the submissions of the Petitioner and Respondents. The Petitioner has claimed additional capital expenditure towards Balance and Retention payments. The admissible un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. The allowed Additional Capital expenditure are summarized below which is subject to true up:-

Particulars	Regulation	Combined Asset				
		2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments & work deferred for execution before cut-off date	14(1)(i) & 14(1)(ii)	2853.22	821.06	1445.22	0.00	0.00
Add: IDC Discharged before cut-off date	14(1)(i)	148.48*	0.00	0.00	0.00	0.00
Add: Discharge of undischarged liability on hard cost after cut-off date	14(3)(v)	0.00	33.06	145.28	225.14	280.88
<b>Total Add Cap allowed for tariff</b>		<b>3001.70</b>	<b>854.12</b>	<b>1590.50</b>	<b>225.14</b>	<b>280.88</b>

(\*) IDC discharged during FY 2014-15 for Asset-6

### Capital cost for the tariff period 2014-19

61. Accordingly, the capital cost of the combined asset, considered for the tariff period 2014-19, subject to truing up, is as follows:-

(₹ in lakh)



Combined Asset						
Capital Cost allowed as on 1.4.2014	Additional Capitalisation allowed for FY					Total Estimated Completion Cost up to 31.3.2019
	2014-15	2015-16	2016-17	2017-18	2018-19	
56513.32	3001.70	854.12	1590.50	225.14	280.88	62465.66

### Debt-Equity Ratio

62. Debt-equity ratio is allowed for the instant asset in terms of Regulation 19 of the 2014 Tariff Regulations.

63. The debt-equity ratio for the tariff period ending 31.3.2014 was determined as 70:30 for all the assets separately on truing up of tariff for 2009-14 period. Hence, the same debt-equity ratio of combined asset as on 1.4.2014 has been considered. Further, the debt-equity ratio as 70:30 has been considered for projected additional capitalization during 2014-19. The details of the debt: equity as on 1.4.2014 including additional capitalization as on 31.3.2019 considered for the purpose of tariff for 2014-19 period is as follows:-

(₹ in lakh)

Combined Asset				
Particular	Capital cost as on 1.4.2014		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	39559.35	70.00	43725.99	70.00
Equity	16953.97	30.00	18739.67	30.00
<b>Total</b>	<b>56513.32</b>	<b>100.00</b>	<b>62465.66</b>	<b>100.00</b>

### Return on Equity (ROE)

64. The Petitioner has submitted that ROE has been calculated at the rate of 19.61% after grossing up the ROE with MAT rate of 20.961% as per the above Regulations. The Petitioner has further submitted that the grossed up ROE is subject to truing up based on the effective tax rate of respective financial year applicable to the Petitioner Company.

65. We have considered the submissions made by the Petitioner and 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. 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.

66. Accordingly, the ROE allowed for combined asset is as follows:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	16953.97	17854.48	18110.72	18587.87	18655.41
Addition due to Additional Capitalization	900.51	256.24	477.15	67.54	84.26
Closing Equity	17854.48	18110.72	18587.87	18655.41	18739.67
Average Equity	17404.23	17982.60	18349.29	18621.64	18697.54
Return on Equity (Base Rate )	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>	<b>15.50%</b>
MAT rate for the Financial year 2013-14	20.96%	20.96%	20.96%	20.96%	20.96%
Rate of Return on Equity (Pre-tax)	19.611%	19.611%	19.611%	19.611%	19.611%
Return on Equity (Pre-tax)	<b>3413.14</b>	<b>3526.57</b>	<b>3598.48</b>	<b>3651.89</b>	<b>3666.77</b>

### Interest on Loan (IOL)

67. The IOL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-

- a) The Gross Normative loan has been considered as per the Loan amount determined based on the debt equity ratio applied on the allowed capital cost.
- b) The depreciation of every year has been considered as Normative repayment of loan of concerned year.

- c) The weighted average rate of interest on actual loan portfolio has been worked out by considering the Gross amount of loan, repayment & rate of interest as mentioned in the petition, which has been applied on the normative average loan during the year to arrive at the interest on loan.

68. The Petitioner has submitted that the IOL has been claimed on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the tariff block 2014-19. We have calculated IOL on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up. The IOL is allowed considering all the loans submitted in Form-9C. The Petitioner is directed to reconcile the total Gross Loan for the calculation of weighted average Rate of Interest and for the calculation of IDC, which would be reviewed at the time of truing-up.

69. Accordingly, the IOL allowed for combined asset is as follows:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	39559.35	41660.54	42258.42	43371.77	43529.37
Cumulative Repayment upto previous Year	1735.17	4706.78	7775.50	10906.51	14083.53
Net Loan-Opening	37824.18	36953.76	34482.93	32465.27	29445.84
Addition due to Additional Capitalization	2101.19	597.88	1113.35	157.60	196.62
Repayment during the year	2971.61	3068.72	3131.01	3177.02	3190.38
Net Loan-Closing	36953.76	34482.93	32465.27	29445.84	26452.07
Average Loan	37388.97	35718.34	33474.10	30955.55	27948.96
Weighted Average Rate of Interest on Loan	8.704%	8.719%	8.678%	8.640%	8.643%
Interest on Loan	<b>3254.23</b>	<b>3114.32</b>	<b>2905.03</b>	<b>2674.51</b>	<b>2415.72</b>

## Depreciation

70. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant assets were put under commercial operation during 2012-13 & 2013-14. Accordingly, it will complete 12 years beyond the tariff period 2014-19. As such, depreciation has been calculated annually based on Straight Line



Method at the rates specified in Appendix-II to the 2014 Tariff Regulations. Details of the depreciation allowed for combined asset are as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	56513.32	59515.02	60369.14	61959.64	62184.78
Additional Capital expenditure	3001.70	854.12	1590.50	225.14	280.88
Closing Gross Block	59515.02	60369.14	61959.64	62184.78	62465.66
Average Gross Block	58014.17	59942.08	61164.39	62072.21	62325.22
Rate of Depreciation	5.122%	5.119%	5.119%	5.118%	5.119%
Depreciable Value	50643.43	101728.10	102828.17	106644.60	103872.92
Remaining Depreciable Value	48908.26	97021.32	95052.68	95738.09	89789.39
<b>Depreciation</b>	<b>2971.61</b>	<b>3068.72</b>	<b>3131.01</b>	<b>3177.02</b>	<b>3190.38</b>

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

71. The O&M Expenses claimed by the petitioner for combined asset are as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	1108.13	1144.95	1182.95	1222.26	1262.77

72. The petitioner has submitted that O&M Expenses for the 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 Company is due during the period 2014-19 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.





73. The Respondent, MPPMCL in affidavit dated 29.1.2019 has submitted that any increase in the employee cost due to wage revision must be taken care by increasing the productivity levels of the petitioner company and the beneficiaries should not be burdened over and above the provisions in the 2014 Tariff Regulations. In response, the Petitioner vide affidavit dated 11.9.2019 has submitted that wage revision of the employees of the petitioner company is due w.e.f. 1.1.2017 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014- 19. The scheme of wage revision applicable to CPSUs being binding on the petitioner, the petitioner reserves the right to approach the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 01.01.2017 onwards

74. We have considered the submissions made by the Petitioner and Respondents. 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.

75. The details of O&M Expenses allowed as per Regulation 29(4) of the 2014 Tariff Regulation for combined asset is given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	1108.13	1144.95	1182.95	1222.21	1262.72

#### **Interest on Working Capital (IWC)**



76. As per the 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

**a) Maintenance spares:**

Maintenance spares @ 15% Operation and maintenance expenses specified in Regulation 28.

**b) O & M expenses:**

Operation and maintenance expenses have been considered for one month of the O&M expenses.

**c) Receivables:**

The receivables have been worked out on the basis of 2 months' of annual fixed cost as worked out above.

**d) Rate of interest on working capital:**

As per Clause 28 (3) of the 2014 Tariff Regulations, SBI Base Rate (10.00%) as on 01.04.2014 Plus 350 Bps i.e. 13.50% have been considered as the rate of interest on working capital for the Assets.

77. Accordingly, the interest on working capital is summarized as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	166.22	171.74	177.44	183.33	189.41
O&M expenses	92.34	95.41	98.58	101.85	105.23
Receivables	1838.37	1856.88	1850.76	1835.32	1803.13
<b>Total</b>	2096.93	2124.04	2126.78	2120.50	2097.77
Rate of Interest on working capital	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	<b>283.09</b>	<b>286.75</b>	<b>287.12</b>	<b>286.27</b>	<b>283.20</b>

**Annual Transmission Charges**



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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2971.61	3068.72	3131.01	3177.02	3190.38
Interest on Loan	3254.23	3114.32	2905.03	2674.51	2415.72
Return on Equity	3413.14	3526.57	3598.48	3651.89	3666.77
Interest on Working Capital	283.09	286.75	287.12	286.27	283.20
O&M Expenses	1108.13	1144.95	1182.95	1222.21	1262.72
<b>Total</b>	<b>11030.20</b>	<b>11141.30</b>	<b>11104.58</b>	<b>11011.90</b>	<b>10818.80</b>

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

79. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

### **License fee and RLDC Fees and Charges**

80. The Petitioner has prayed to allow the Petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We are of the view that the Petitioner shall be entitled for reimbursement of license fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a) of Regulation 52 in the 2014 Tariff Regulations.

### **Goods and Services Tax**



81. The Petitioner has prayed for reimbursement of tax, if any, on account of implementation of GST. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

### **Sharing of Transmission Charges**

82. Tariff for Transmission of Electricity (Annual Fixed Cost) shall be recovered on monthly basis in accordance with Regulation 43 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 dated 15.6.2010 and amendment to these Regulations issued vide order dated 30.11.2012 or as amended from to time.

83. However, the transmission charges for 2009-14 period upto 30.6.2011 shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of CERC (Terms and Conditions of Tariff) Regulations, 2009.

84. This order disposes of Petition No. 1/TT/2019.

Sd/-

**(I. S. Jha)**  
**Member**

Sd/-

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

Sd/-

**(P. K. Pujari)**  
**Chairperson**

