

**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**Petition No.194/TT/2018**

**Coram:**

**Shri P.K. Pujari, Chairperson**  
**Dr. M. K. Iyer, Member**  
**Shri I.S. Jha, Member**

**Date of Order: 2.12.2019**

**In the matter of**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Regulation 6 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for truing up of transmission tariff for 2009-14 tariff period and determination of transmission tariff for 2014-19 tariff period for the assets of "Transmission System associated with Mundra Ultra Mega Power Project (UMPP)" (a) Covered in order dated 1.12.2014 in Petition No. 72/TT/2012; (b) Covered in order dated 15.10.2015 in Petition No. 296/TT/2013; (c) Covered in order dated 31.12.2015 in Petition No. 101/TT/2014; and (d) Covered in order dated 15.3.2016 in Petition No. 57/TT/2013.

**And in the matter of**

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

**...Petitioner**

**Vs**

1. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Rampur,  
Jabalpur-482008.
2. Maharashtra State Electricity Distribution Company Limited,  
Prakashgad, 4<sup>th</sup>Floor,  
Andheri (East),  
Mumbai-400001.
3. Gujarat UrjaVikas Nigam Limited,  
Sardar Patel VidyutBhawan, Race Course Road,  
Vadodara-390007.



4. Electricity Department, Government of Goa, VidyutBhawan, Panaji, Near Mandvi Hotel, Goa-403001.
5. Electricity Department, Administration of Daman and Diu, Daman-396210.
6. Electricity Department, Administration of Dadra Nagar Haveli, U.T. Silvassa-396230.
7. Chhattisgarh State Electricity Board, P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh-492013.
8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd. 3/54, Press Complex, Agra-Bombay Road, Indore-452008.
9. Rajasthan RajyaVidyutPrasaran Nigam Ltd. VidyutBhawan, VidyutMarg, Jaipur-302005.
10. Ajmer VidyutVitran Nigam Ltd. 400 kV, GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur.
11. Jaipur VidyutVitran Nigam Ltd. 400 kV, GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur.
12. Jodhpur VidyutVitran Nigam Ltd. 400 kV, GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur.
13. Himachal Pradesh State Electricity Board, VidyutBhawan, Kumar House Complex Building II, Shimla-171004 (HP).
14. Punjab State Electricity Board The Mall, Patiala-147001.
15. Haryana Power Purchase Centre, Shakti Bhawan, Sector-6, Panchkula-134 109 (Haryana).
16. Power Development Deptt. Govt. of Jammu & Kashmir, Mini Secretariat, Jammu



17. Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan,14, Ashok Marg,  
Lucknow-226001(UP).
18. Delhi Transco Ltd,  
Shakti Sadan, Kotla Road (Near ITO),  
New Delhi-110002.
19. BSES Yamuna Power Ltd,  
BSES Bawan, Nehru Place,  
New Delhi.
20. BSES Rajdhani Power Ltd,  
BSES Bhawan, Nehru Place,  
New Delhi.
21. North Delhi Power Ltd.  
Power Trading & Load Dispatch Group  
Cennet Building,  
Adjacent to 66/11 kV Pitampura-3  
Grid Building, Near PP Jewellers,  
Pitampura, New Delhi-110034.
22. Chandigarh Administration.  
Sector-9, Chandigarh.
23. Uttarakhand Power Corporation Ltd.  
UrjaBhawan, Kanwali Road, Dehradun.
24. North Central Railway,  
Allahabad.
25. New Delhi Municipal Council.  
Palika Kendra, SansadMarg, New Delhi-110002.
26. Coastal Gujarat Power Ltd.  
Tata Power Backbay Receiving Station  
148, Lt. Gen. J. BhonsleMarg,  
Nariman Point, Mumbai-400021.

.... Respondents

**For Petitioner** : ShriPankaj Sharma, PGCIL  
ShriZafrulHasan, PGCIL  
ShriS.S.Raju, PGCIL

**For Respondents** : Shri R.B. Sharma, Advocate, BRPL  
ShriMohitMudgal, Advocate BYPL  
Ms.SanyaSud, Advocate BYPL



## ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the Petitioner") for trueing up of capital expenditure of the 2009-14 tariff period under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") and for determination of tariff for 2014-19 tariff period for the assets of "Transmission System associated with Mundra Ultra Mega Power Project (UMPP) (hereinafter referred as "transmission asset") from 1.4.2014 to 31.3.2019 under 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:

- "a) Approve the trueed up transmission tariff for tariff block 2009-14 for the assets covered under this petition. The adjustment billing shall be raised.
- a) 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.
- b) Approve the transmission tariff for the tariff block 2014-19 for the assets covered under this petition.
- c) 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.
- d) Allow the petitioner to approach Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.
- e) Allow the petitioner to recover FERV on the foreign loans deployed as provided under clause 50 of the Tariff Regulations, 2014.
- f) 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.



- g) 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.
- h) 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.
- i) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on transmission of electricity is withdrawn from the exempted (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.
- j) 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
- k) Pass such other relief as Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.”

### **Background**

3. The Petitioner has implemented transmission assets under "Transmission System associated with Mundra Ultra Mega Power Project. The Investment Approval of the project was accorded by Board of Directors of Powergrid vide the Memorandum No. C/CP/Mundra dated 15.10.2008 at an estimated cost of ₹482412 lakh including an IDC of ₹44686 lakh (based on 1<sup>st</sup> Quarter2008 price level). Subsequently, RCE was approved by Board of Directors of Powergrid vide Memorandum no. C/CP/RCE/Mundra UMPP dated 11.3.2016 at an estimated cost of ₹507194 lakh including IDC of ₹43189 lakh.

4. The scope of work includes construction of following transmission lines and sub-stations:-

Part (A): Transmission System of Mundra (4000 MW) UMPP:-

#### **Transmission Lines:**

- (i) Mundra-Limdi 400 kV D/C (Triple snowbird): 301km



- (ii) Mundra-Bachchau-Ranchodpura 400 kV D/C(Triple snowbird):388 km
- (iii) Mundra-Jetpur 400 kV (Triple snowbird) : 328 km

Part (B): Regional System Strengthening in WR for Mundra UMPP:-

**Transmission Lines:**

- (i) Gandhar-Navsari 400 kV D/C : 134 km
- (ii) Navsari-Mumbai (New location) 400 kV D/C : 204 km
- (iii) LILO of both circuits of Kawas-Navsari 220 kV at Navsari : 50 km
- (iv) Wardha-Aurangabad 400 kV D/C (Quad) along with : 400 km 40% Fixed Series Compensation with provision to upgrade the line to 1200 kV S/C at later date
- (v) Aurangabad-Aurangabad (MSETCL) 400 kV D/C (Quad) line : 30 km

**Sub-stations:-**

- (i) Establishment of new 400/220 kV, 2x315 MVA Sub-stations at Bachchau.
- (ii) Establishment of new 400/220 kV, 2x315 MVA GIS Sub-stations at Navsari.
- (iii) Establishment of new 400 kV GIS switching station at Mumbai (New Location).
- (iv) Establishment of new 765/400 kV, 3x1500 MVA sub-station at Wardha.
- (v) 765kV line bays for operation of Seoni-Wardha 2xS/C lines at 765kV level.
- (vi) Establishment of 400/220 kV, 2x315 MVA, Sub-station at Aurangabad.

5. The annual transmission charges for 2009-14 tariff period for the instant transmission assets was determined by the Commission in orders dated 1.12.2014 in Petition No. 72/TT/2012, 15.10.2015 in Petition No.296/TT/2013, 31.12.2015 in Petition No. 101/TT/2014 and 15.3.2016 in Petition No.57/TT/2013. The details of assets covered in the instant petition and the date of commercial operations are given hereunder:-

Name of Asset	COD	Petition No.	Order Date
<b>Assets put into commercial operation</b>			



<b>during 2009-14 Period (covered in the instant petition)</b>			
Establishment of 765/400 kV Wardha Sub-station with 1500 MVA ICT1, 240 MVAR Bus Reactor and 240 MVAR line Reactor at Seoni, Bays for Seoni-Wardha Ckt-2 at Wardha Sub-station and Seoni Sub-station.	1.3.2012	72/TT/2012	1.12.2014
765/400 kV 1500 MVA ICT 3 at Wardha Sub-station with bays	1.3.2012		
Bay Extension at 765 kV Seoni Sub-station & Wardha Sub-station for 765 Seoni-Wardha Ckt-1 alongwith Line Reactor at Seoni.	1.6.2012		
765/400 kV 1500 MVA ICT 2 at Wardha Sub-station with bays.	1.4.2012		
Aurangabad (MSETCL)-Aurangabad (PG) D/C Line and Shifting of Akola-Aurangabad (MSETCL) line to Aurangabad (PG) (twin) (LILo of 400 kV Akola-Aurangabad TL Ckt-II at Aurangabad (PG) with associated bays at both ends.	1.2.2014	296/TT/2013	15.10.2015
400/220 kV 315 MVA ICT-I at Aurangabad with bays.	1.2.2014		
400/220 kV 315 MVA ICT-II at Aurangabad with bays.	1.2.2014		
2 Nos. 80 MVAR Line Reactor for 400 kV D/C Wardha- Aurangabad TL Ckt#1&2 charged as Bus reactor 1 & 2 at 400/220 kV Aurangabad Sub-Station under Mundra UMPP.	1.2.2014	101/TT/204	31.12.2015
400kV D/C Navsari- New Mumbai (Boisar) {cut off point of WRTS-II Portion only} {Part of 400 kV Navsari-Boisar transmission line} along with respective bays at Navsari GIS Sub-station.	1.4.2013	57/TT/2013	15.3.2016
<b>Assets put into commercial operation during 2014-19 Period</b>			
Asset 1: Aurangabad (MSETCL)-Aurangabad (PG) 400kV D/C (Quad) Line (Ckt-#1) and shifting of 400 kV D/C Akola-Aurangabad (MSETCL) line to Aurangabad (PG) along with associated bays at both ends.	30.4.2014	185/TT/2014	29.4.2016
Asset 2: Aurangabad (MSETCL)-Aurangabad (PG) 400kV D/C (Quad) Line (Ckt-#2) and shifting of 400 kV D/C Akola-Aurangabad (MSETCL) line to Aurangabad (PG) along with associated bays at both ends.	29.4.2014		
Asset 3: 240 MVAR Switchable Line Reactor for 765 kV Seoni-Wardha Ckt # 1 at Seoni Sub-station, re-filed under	2.5.2014	185/TT/2014	29.4.2016



Petition 207/TT/2017.			
Asset 4: 240 MVAR Switchable Line Reactor for 765 kV Seoni-Wardha Ckt # 2 at Seoni Sub-station, re-filed under petition 207/TT/2017.	1.4.2014		
Asset 5: 400kV D/C Vapi -Kala TL WR1 portion from AP 38-AP44 and AP44-AP45A/0 (part of 400kV D/C Navsari-Boisar transmission line)	1.4.2014		
Asset 6: 80 MVAR Line Reactor for 400kV D/C Wardha- Aurangabad TL Ckt#1 to be charged as Bus Reactor 1 at 400/220kV WardhaSub-station to be re-filed upon actual commissioning.	Yet to be put into commercial operation		
Asset 7: 80 MVAR Line Reactor for 400kV D/C Wardha- Aurangabad transmission lineCkt#2 to be charged as Bus Reactor 1 at 400/220 kV WardhaSub-station to be re-filed upon actual commissioning.	Yet to be put into commercial operation		
Part of 400 kV D/C Navsari-Boisar transmission linefrom 45A/0 to 69/0 (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus), part of 400 kV D/C Navsari-Boisar transmission linefrom 69/0 to 313/0 and part of 400 kV D/C Navsari-Boisar from 313/0 to 332/0 (D/C portion strung on M/C Twin-Quad portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Aurangabad - Boisar).	31.12.2016	207/TT/207	6.3.2018
240 MVAR Switchable Line Reactor for 765 kV Seoni-Wardha Ckt.#1 at SeoniSub-station.	2.5.2014		
240 MVAR Switchable Line Reactor for 765 kV Seoni-Wardha Ckt.#2 at Seoni Sub-station.	1.4.2014		
Part of 400 kV D/C Vapi-Kudus transmission linefrom location 44- 45A/0 (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus)-{400 kV D/C Navsari-Boisar portion from location 44 to 45A/0 already commissioned on 1.4.2014}.	1.3.2015		
Part of 400 kV D/C Vapi-Kudus transmission linefrom 45A/0 to 69/0 (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus), Part of 400 kV D/C Vapi -Kudus transmission line from 69/0-104/0 and	31.12.2017 (anticipated)		





Part of 400 kV D/C Aurangabad-Boisar from 313/0 to 332/0 (D/C portion strung on M/C Twin-Quad portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Aurangabad-Boisar).			
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6. The details of assets covered in the instant petition and their COD are as under:-

Asset	Description	Asset in current Petition	COD	Petition No.
Asset-1	Establishment of 765/400 kV Wardha Sub-station with 1500 MVA ICT1, 240 MVAR Bus Reactor and Switchable 240 MVAR Line Reactor at Seoni, bays for Seoni-Wardha Ckt-2 at Wardha Sub-station & Seoni Sub-station.	Asset-A1	1.3.2012	Order dated 1.12.2014 in Petition No. 72/TT/2012.
Asset-2	765/400 kV 1500 MVA ICT 3 at Wardha Sub-station with bays.	Asset-A2	1.3.2012	
Asset-3	Bay Extension at 765 kV Seoni Sub-station & Wardha Sub-station for 765 Seoni-Wardha Ckt-1 alongwith switchable Line Reactor at Seoni.	Asset-A3	1.6.2012	
Asset-4	765/400 kV 1500 MVA ICT 2 at Wardha Sub-station with bays.	Asset-A4	1.4.2012	
Asset-1	Aurangabad (MSETCL)-Aurangabad (PG) D/C Line and Shifting of Akola - Aurangabad (MSETCL) line to Aurangabad (PG) (twin) (LILO of 400 kV Akola-Aurangabad TL Ckt-II at Aurangabad (PG) with associated bays at both ends.	Asset-B1	1.2.2014	Order dated 15.10.2015 in Petition No.296/TT/2013.
Asset-2	400/220 kV 315 MVA ICT-I at Aurangabad with bays.	Asset-B2	1.2.2014	
Asset-3	400/220 kV 315 MVA ICT-II at Aurangabad with bays.	Asset-B3	1.2.2014	
Asset-I	2 Nos. 80 MVAR Line reactor for 400 kV D/C Wardha- Aurangabad TL Ckt#1&2 charged as Bus reactor 1 & 2 at 400/220kV Aurangabad S/S under Mundra UMPP	Asset-C	1.2.2014	Order dated 31.12.2015 in Petition No. 101/TT/2014.
Asset-1	400 kV D/C Navsari-New Mumbai (Boisar) {cut-off point of WRTS-II portion only} {Part of 400 kV Navsari-Boisar transmission line} alongwith respective bays at Navsari GIS Sub-station associated with Regional System of Mundra UMPP (Interconnection with Vapi-Navi Mumbai line alongwith associated bays at Vapi Sub-station) under interim contingency arrangement.	Asset-D	1.4.2013	Order dated 15.3.2016 in Petition No. 57/TT/2013.

7. 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 (“the Act”). The Petitioner has served the petition on the respondents. The respondents, Uttar Pradesh Power Corporation Limited (UPPCL), Madhya Pradesh Power Management Company Limited, (MPPMCL) and BSES Rajdhani Power Limited (BRPL) have filed their reply vide affidavits dated 14.6.2018, 23.7.2018 and 22.11.2018 respectively. UPPCL has raised the issues relating to cost over-run, time over-run, additional capitalization, initial spares, rate of interest on loan. MPPMCL has raised the issues relating to initial spares, additional capitalization and cost over-run and wage revision of employees which are dealt in the relevant paragraphs of this order.

8. The Petitioner has also filed rejoinders to the replies of MPPMCL and BRPL vide affidavits dated 22.1.2019 and 22.5.2019.

9. Based on the above documents available on record and after considering the submissions of the Petitioner and the respondents, we dispose of the claim of the Petitioner in the instant petition in terms of the provisions of the 2009 and 2014 Tariff Regulations.

### **Time over-run**

10. There is no time over-run in case of the assets covered in Petition No.72/TT/2012 and there is time over-run of 15 days in case of all the other assets. The decision taken by Commission with regard to time over-run in case of the instant assets are as under:-

<b>Assets</b>	<b>Petition No.</b>	<b>Time over-run</b>
Asset-A-1, A-2, A-3 and A-4	72/TT/2012	No time over-run
Asset-B1, B2 and B3	296/TT/2013	Total time over-run of 15 months was condoned.
Asset-C	101/TT/2014	Total time over-run of 15 months was not condoned.
Asset-D	57/TT/2013	Total time over-run of 5 months was condoned.



11. The transmission tariff for Asset-C, i.e. 2 Nos. 80 MVAR line reactor for 400 kV D/C Wardha-Aurangabad TL Ckt Nos. 1 and 2 charged as bus reactor at 400/220 kV Aurangabad Sub-station in Mundra UMPP in Western Region for the 2009-14 tariff period was allowed by the Commission in order dated 31.12.2015 in Petition No. 101/TT/2014. The time over-run of 15 months in case of the said reactors was not condoned. However, the Commission gave the liberty to the Petitioner to raise the issue at the time of truing up.

12. Accordingly, in terms of the order dated 31.12.2015 in Petition No. 101/TT/2014, the Petitioner has made the following submissions regarding time over-run in case of Asset-C and they are as under:-

- a) The construction of 400 kV D/C Wardha-Aurangabad transmission line (upgradable to 1200 kV S/C) was executed in 2 parts, namely, (i) Pkg D1-400kV D/C Wardha-Aurangabad T/L (upgradable to 1200 kV S/C): Part 1: MCPL and Aster and (ii) Pkg D2-400 kV D/C Wardha-Aurangabad transmission line (upgradable to 1200 kV S/C), Part 2- MCPL and S Transcom.
- b) As per the Investment Approval (IA) dated 15.10.2008, the assets were scheduled to be put into commercial operation within 48 months from the date of IA and as such the assets were to be put into commercial operation on 14.10.2012. However, the subject asset was put into under commercial operation on 1.2.2014 with delay of 15 months.



- c) The progress of work of 400 kV D/C Wardha-Aurangabad transmission Line(upgradable to 1200 kV S/C) was delayed mainly due to the following reasons:-
- (i) Change in ownership of executing agency from SPIC-SMO to Mirador Commercial Pvt. Ltd.
  - (ii) Erection of 1200 kV tower was very difficult and highly time consuming.
  - (iii) The performance of Aster for construction of 400 kV D/C Wardha-Aurangabad transmission line (upgradable to 1200 kV S/C)-Part-1 (Pkg D1) was very poor. Numerous letters were written to MCPL and Aster for their poor performance. However, nosatisfactory response was received from them. Notice of default was issued to MCPL and Aster vide letter dated 6.5.2014. Subsequently, caveat was filed against Aster in the District Court at Wardha.
  - (iv) The performance of BS Transcomm for construction of 400 kV D/C Wardha-Aurangabad transmission line (upgradable to 1200 kV S/C), Part-2 (Pkg D2) was also very poor. Notice of default was also issued to MCPL and BS Transcomm vide letter dated 7.5.2012.
  - (v) The contracts for 400 kV D/C Wardha-Aurangabad (upgradable to 1200 kV S/C) transmission line tower packages were awarded through International Competitive Bidding to Joint Venture of SPIC-SMO during 2010. After due diligence and analysis of their past credentials/experiences, their financial credibility, the contract was awarded to SPIC-SMO.



- (vi) Subsequent to award of contract, SPIC-SMO, a Division of SPIC was acquired by Mirador Commercial Pvt. Ltd. ("MCPL") with effect from September, 2011. However, after the said acquisition, the progress of the work of the contracts slowed down considerably. As the execution of work by MCPL was getting affected, the Petitioner requested the other JV partners to take up the execution of work. However, the progress of the work did not improve despite several reminders and follow ups. After considerable delay, the Petitioner was forced to cancel the contract.
- (vii) The Petitioner awarded the contract(s) to the Joint Ventures led by SPIC-SMO which was at the relevant time considered to be one of the best suited agencies for execution of the contracts. The Petitioner diligently pursued the progress of the work with the contractor so as to get the work completed within the stipulate time. There was no imprudence on the part of the Petitioner either in the selection of the contractor or in execution of the contractual agreement or any deficiency in the monitoring of the progress of the implementation of the contract. Due to change in ownership, the Petitioner's business became non-performing. The above circumstances were beyond the reasonable control of the Petitioner. The delay in the execution of the contract was due to various extraneous reasons which were not within the control of the Petitioner.
- (viii) Further, high voltages were being observed at 400 kV D/C Wardha-Aurganbad. The proposal of the Petitioner to put into commercial



operation the 2x80 MVAR line reactors as bus reactors for voltage compensation due to system constraint was agreed by the CEA subject to restoration when the associated lines are put into commercial operation.

(ix) There was drought in in Aurangabad from January, 2013 to May, 2013. During this period there was acute paucity of potable water due to which the District Authorities imposed ban on usage of water for construction works. Subsequent to drought, there was resistance from the farmers which obstructed the construction activities.

d) In view of the above facts and circumstances, the delay of 15 months in execution of the asset was unforeseen and beyond the control of the Petitioner and the same be condoned.

13. MPPMCL vide its reply affidavit dated 23.7.2018 refuted the submissions made by the Petitioner regarding time over-run and submitted as under:-

a) SPIC-SMO Division of SPIC was acquired by MCPL in September, 2011. The Petitioner did not disclose that at the time of acquisition how much work was completed and the month-wise progress of work pending. No information regarding acquisition was given to the beneficiaries/LTTCs and no documents were placed on record. No chronological details are given and no PERT chart is there which suggests that the delay was beyond the control of the Petitioner.

b) As regards erection of 1200 kV tower, the Petitioner was well aware right from the stage of Investment Approval that all the work covered in scope of



work were required to be completed within 48 months and as such the question of time and difficulty does not arise.

- c) As regards the performance of ASTER being very poor, the Petitioner could have taken resort to the provisions of termination of contract and/or imposition of penalty for non-performance/under-performance. The notice of the default was issued to defaulting firm in May, 2014 i.e. nearly 18 months after the scheduled commercial operation date which shows inaction on the part of Petitioner. It is open for the Petitioner to recover any losses suffered due to laxity of firm executing the work under the provisions of contract entered into between them and as such the delay is attributable to the Petitioner.
- d) With regard to severe drought and heavy rains, the period mentioned for the drought and rains is beyond the period of putting the assets into commercial operation as per Investment Approval. The newspaper clippings do not show the name, place and date of publication of newspaper. Further, reasons given by the Petitioner regarding stoppage of work as published in the newspaper are only speculation and no official order is there on record to show restraining the use of water for construction purposes. No metrological data is on record to show that incessant rains occurred due to which erection and stringing process was hampered. Moreover, the period claimed by the Petitioner for severe drought and rain is beyond the timeline fixed in the Investment Approval.

14. In response, the Petitioner has reiterated the submissions made by in the petition and submitted that the delay in execution of the assets under instant petition



was mainly due to change in ownership of executing agency, severe drought and rain which were beyond the control of the Petitioner.

15. BRPL, in its reply has submitted that the use of the line reactors as bus reactors on the recommendations of CEA on the ground of over-voltage conditions cannot be entertained as the Hon'ble Appellate Tribunal for Electricity in Appeal Nos. 198 of 2015 and 6 of 2016 vide judgment dated 18.1.2018 concluded that bays and line reactors cannot be considered to be put into commercial operation without the commercial operation of the associated transmission lines. BRPL has further submitted that the tariff of Asset-C cannot be tried up as the same has not been put into regular service by the Petitioner. The determination of tariff of Asset-C is required to be undertaken only when same is put into regular service on completion of successful charging and trial operation. Thus, the tariff of this asset included in the PoC charges may be excluded being opposed to the 2009 Tariff Regulations as the incorrect decisions cannot be allowed in perpetuity in terms of the judgment dated 12.5.2015 of Appellate Tribunal for Electricity in Appeal Nos. 129 of 2012 and batch.

16. In response, the Petitioner has submitted that in the instant petition, Wardha-Aurangabad transmission line is not covered as the same has not yet been put into commercial operation. Only the line reactors of Wardha-Aurangabad transmission have been charged as bus reactors as discussed and agreed in 24<sup>th</sup> WRPC meeting on 9.10.2013 and the same was also approved by CEA.

17. UPPCL has submitted that the Petitioner should clarify whether it has charged liquidated damages from the vendors and accordingly corresponding credit may be passed on in capital cost by way of reduction of IDC and IEDC.





18. No response to the reply of UPPCL has been filed by the Petitioner.

19. The Petitioner vide affidavit dated 24.6.2019 has submitted that the 400 kV D/C Wardha-Arangabad Transmission Line is facing severe ROW issues and other constraints in the construction. The said line is anticipated to be put into commercial operation by December, 2019. The tariff petition for the same shall be filed after actual COD of the said line.

20. During the hearing, learned counsel for the Petitioner contended that the progress of 400 kV D/C Wardha-Aurangabad transmission line(upgradable to 1200 kV S/C) was delayed mainly due to change in ownership of executing agency from SPIC-SMO to Mirador Commercial Pvt. Ltd. He contended that erection of 1200 kV tower was difficult and time consuming. He contended that performance of Aster and B.S. Transcomm for construction of 400 kV D/C Wardha-Aurangabad transmission line was very poor. The contracts 400 kV D/C Wardha-Aurangabad (upgradable to 1200 kV S/C) transmission line tower packages were awarded through International Competitive Bidding to Joint Venture of SPIC-SMO in 2010 based on their past credentials/experience, financial credibility. However, after award of the contract, SPC-SMO, a division of SPIC was acquired by MCPL in September, 2011 which slowed down the works under contracts considerably and forced the Petitioner to cancel the work contracts. He contended that despite adopting the best practices in awarding the contracts, imprudence in selection of contractor cannot be imposed on the Petitioner. He submitted that the Petitioner monitored the contracts to the best of its ability and took all reasonable steps timely including issuance of notice of default and as such these circumstances were beyond the reasonable control of the Petitioner. He submitted that due to high



voltages observed at 400 kV D/C Wardha-Aurangabad transmission line, 2x80 MVAR line reactors were used as bus reactors for voltage compensation due to system constraint on the approval of CEA subject to restoration of the same as and when associated lines are put into commercial operation. He submitted that there was drought in Aurangabad from January, 2013 to May, 2013 due to which there was acute paucity of potable water and the District Authorities imposed ban on usage of water for construction works. He submitted that subsequent to drought, there was resistance from the farmers which hampered the construction works. In view of the above, he requested to condone the time over-run of 15 months.

21. We have considered the submissions of the Petitioner and the Respondents regarding time over-run in case of the Asset-C, i.e. two 80 MVAR Line Reactors at Aurangabad Sub-station for 400 kV D/C Wardha-Aurangabad Transmission Line. As per the Investment Approval, the scheduled date of commercial operation of the assets covered in the instant transmission system, including Asset-C was 14.10.2012. The Petitioner claimed the COD of Asset-C as 1.2.2014. As the use of line reactors as bus reactors was discussed and agreed in 24<sup>th</sup> WRPC meeting held on 9.10.2013 and the same also had the approval of CEA, the COD of the Asset-C was approved as 1.2.2014 in order dated 31.12.2015 in Petition No.101/TT/2014. However, the time over-run of 15 months was not condoned and the Petitioner was given the liberty to raise the same at the time of truing up of the tariff of the 2014-19 tariff period. The Commission further directed the Petitioner to file a petition of revision of tariff of line reactors alongwith the associated transmission line as and when the bus reactors are restored back as line reactors. The relevant portion of the Commission's order dated 31.12.2015 is extracted hereunder:-



“20. We have considered the submissions made by the petitioner regarding the time over-run on account of delay in execution of some other assets, which is not a subject matter of the instant petition and therefore, the merits of the same have not been looked into. We are therefore, in the instant order, not inclined to condone the delay of 15 months. However, liberty is granted to the petitioner to place the matter for final view at the time of truing up. In view of above, IDC and IEDC corresponding to delay of 15 months is adjusted in the capital cost.

21. The petitioner may file for revision of the tariff of line reactors in context with the time overrun alongwith the associated transmission line as and when bus reactors are restored back as line reactors so as to facilitate revision of capital cost and consequent revision of tariff. The respondents shall have a liberty to file their objections in that petition.”

22. The Petitioner has submitted that the time over-run in case of the instant reactors was due to the delay in execution of the associated transmission line, i.e. 400 kV D/C Wardha-Aurangabad Transmission Line. The Petitioner has submitted that the delay in execution of the transmission line was due to contractual issues, drought, floods and issues with the local farmers. As regards the contractual issues, the Petitioner has submitted that the change in ownership of executing agency from SPIC-SMO to MCPL and poor performance of Aster and BS Transcommin construction of 400 kV D/W Wardha-Aurangabad transmission line (upgradable to 1200 kV S/C) led to the time over-run. The Petitioner has submitted that there was a thorough analysis of the credentials of the executing agencies and it was diligent in selecting them and there was no laxity on their part in selection of the executing agencies. The Petitioner has submitted that non-performance of the contractor and delay in execution of the transmission line, drought, floods and RoW issues cannot be attributable to the Petitioner and therefore the time over-run of 15 months in case of Asset-C should be condoned. The Respondents have submitted that the time over-run is attributable to the Petitioner and hence it should not be condoned.

23. The Petitioner has attributed the entire time over-run in case of Asset-C to the delay in execution of the 400 kV D/C Wardha-Aurangabad transmission line and the



Petitioner has not submitted any other reason for the time over-run in case of Asset-C. The line reactors at Aurangabad have been put into commercial operation as bus reactors without the associated Wardha-Aurangabad Transmission Line, taking into consideration the requirements at Aurangabad Sub-station. As the line reactors have been put into commercial operation as bus reactors at Aurangabad Sub-station without the associated Wardha-Aurangabad Transmission Line, we are unable to agree to the reasons given by the Petitioner for the time over-run. The Petitioner has simply submitted that the time over-run in case of the line reactors, which have been put into commercial operation in the year 2014, was due to the time over-run of the associated transmission line. In the absence of specific reasons for the time over-run of the reactors at Aurangabad Sub-station, we are not inclined to condone the time over-run in case of Asset-C. Accordingly, the IDC and IEDC for the period of time over-run are not capitalised.

24. BRPL in its reply has submitted that tariff of Asset D, i.e. 400 kV D/C Navsari-New Mumbai (Boisar) line cannot be trued up as the whole arrangement is merely an interim arrangement. BRPL has submitted that no information was given by the Petitioner as in terms of para 11 of the order dated 15.3.2016 in Petition No. 57/TT/2013 whereby the issue of determination of tariff was required to be looked into at the time of truing-up. BRPL has submitted that in view of APTEL's judgment dated 12.5.2015 in Appeal No. 129 of 2012 and batch, an incorrect decision cannot be allowed to be continued as the Petitioner has not furnished the relevant details sought by the Commission, in the present petition. BRPL has further submitted that the tariff of this asset may be excluded from the PoC retrospectively.



25. In response, the Petitioner has submitted that the Petitioner implemented the contingency arrangement to facilitate pre-commissioning evacuation requirements. The Petitioner has submitted that the contingency arrangement was agreed in 34<sup>th</sup> Standing Committee Meeting (“SCM”) held on 9.5.2012. The Petitioner has further submitted that vide order dated 15.3.2016 in Petition No. 57/TT/2013, the Commission approved the COD and tariff for 2009-14 tariff block for Asset-D.

26. We have considered the submissions of the parties with respect to truing up of the tariff of Asset-D. We are of the view that Navsari-Boisar line has been completed in different sections due of ROW issues and part of the line was put into commercial operation on 1.4.2013. The inter-connection of Navsari 400 kV (GIS) line and Vapi 400 kV sub-station as an interim arrangement was discussed and agreed in 34<sup>th</sup> SCM on Power System Planning in Western Region held on 9.5.2015 and minutes of meetings is also placed on record. Accordingly, tariff for Navsari-Boisar line was granted in different petitions for 2009-14 tariff period. As regards the BRPL’s contention that the Petitioner has not submitted the information sought in Petition No. 57/TT/2013, it is observed that the Petitioner has submitted all the information required for truing up the tariff of Asset-D in the instant petition and therefore the tariff for the said asset is trued up.

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

#### **Capital Cost and Additional Capital Expenditure**

27. The Petitioner has claimed the capital cost approved by the Commission as on 31.3.2014. The details of the capital cost allowed in orders dated 1.12.2014, 15.10.2015, 31.12.2015 and 15.3.2016 in Petition Nos.72/TT/2012, 296/TT/2013, 101/TT/2014 and 57/TT/2013 respectively are as follows:-



Asset	AppORTIONED Approved Cost		Admitted Cost as on COD	Allowed Add Cap for FY			IDC and IEDC disallowed	Total Cost as on 31.3.2014
	FR	RCE		2011-12	2012-13	2013-14		
A1	40133.00	37416.36	20309.66	758.97	4099.09	4967.92	-	30135.64
A2	13058.00	11653.39	8630.57	328.75	2196.90	0.00	-	11156.22
A3	12963.00	10477.26	3327.65	0.00	2585.02	0.00	-	5912.67
A4	12920.00	10768.34	8772.28	0.00	1408.93	0.00	-	10181.21
B1	13067.00	23033.38	13067.00	0.00	0.00	0.00	-	13067.00
B2	3521.82	2530.71	2054.41	0.00	0.00	51.97	-	2106.38
B3	2321.27	1802.92	1494.93	0.00	0.00	37.16	-	1532.09
C	2397.61	1438.50	1102.83	0.00	0.00	102.99	17.66	1205.82
D	14457.96	19222.45	13949.27	0.00	0.00	608.69	-	14557.96
<b>Total</b>	<b>114839.66</b>	<b>118343.31</b>	<b>72708.6</b>	<b>1087.72</b>	<b>10289.94</b>	<b>5768.73</b>	<b>17.66</b>	<b>89854.99</b>

28. The details of apportioned approved cost and actual additional capitalization claimed by the Petitioner up to 31.3.2014 for Asset-A1 to D are as under:-

(₹ in lakh)

Asset	Apportioned Approved Cost (RCE)	Capital Cost as on COD	Add Cap for 2011-12	Add Cap for 2012-13	Add Cap for 2013-14	Total cost as on 31.3.2014
A1	37416.36	25520.79	821.18	2274.88	399.02	29015.87
A2	11653.39	9614.76	124.09	982.51	131.49	10852.85
A3	10477.26	4980.2	0.00	433.46	98.58	5512.24
A4	10768.34	9215.43	0.00	736.05	104.22	10055.7
B1	23033.38	18164.48	0.00	0.00	586.07	18750.55
B2	2530.71	2055.49	0.00	0.00	51.97	2107.46
B3	1802.92	1495.72	0.00	0.00	37.16	1532.88
C	1438.50	1124.86	0.00	0.00	102.99	1227.85
D	19222.45	14496.44	0.00	0.00	3734.65	18231.09
<b>Total</b>	<b>118343.31</b>	<b>86668.17</b>	<b>945.27</b>	<b>4426.9</b>	<b>5246.15</b>	<b>97286.49</b>

29. Against the revised apportioned approved cost (RCE) of ₹118343.31 lakh, the total cost as on COD is ₹86668.17 lakh and capital cost including additional capitalization is ₹97286.49 lakh. Further, the individual cost of each asset is also within the RCE of their respective apportioned approved cost. Therefore, both the overall and individual asset-wise cost is within the RCE apportioned approved cost and as such there is no cost over-run.

30. The Petitioner has claimed additional capitalization as on 31.3.2014 on account of balance/retention payment under Regulation 9(1)(i) and 9(1)(ii) of the 2009 Tariff Regulations. MPPMCL and UPPCL have contended that the Petitioner has claimed



additional capitalization as on 31.3.2014 on account of balance/retention payment. However, no proper details and justification of the claim have been furnished by the Petitioner and as such the claim of the Petitioner may be allowed subject to prudence check.

31. The additional capitalization claimed by Petitioner as on 31.3.2014 has been on account of balance/retention payment under Regulation 9(1)(i) and 9(1)(ii) of the 2009 Tariff Regulations and the same is within the cut-off date. Accordingly, additional capitalization as on 31.3.2014 is allowed.

**Treatment of Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)**

32. The Petitioner has claimed IDC for instant assets and has submitted the Auditor’s certificate in support of the same. The Petitioner has submitted IDC computation statement which also shows the discharge details of IDC as given below:-

(₹ in lakh)						
Asset	IDC As per Auditor’s certificate	IDC Discharged upto COD	IDC Discharged in 2011-12	IDC Discharged in 2012-13	IDC Discharged in 2013-14	IDC Discharged in 2014-15
A-1	2087.69	995.16	21.93	1070.60	-	-
A-2	1070.75	347.65	137.49	585.61	-	-
A-3	328.17	200.67	-	127.50	-	-
A-4	1060.32	781.83	-	278.49	-	-
B-1	830.77	717.12	-	-	25.71	87.94
B-2	102.92	102.66	-	-	0.26	-
B-3	73.59	73.40	-	-	0.19	-
C	42.12	38.63	-	-	0.14	3.35
D	1463.28	930.33	-	-	532.95	-

33. BRPL has contended that the Petitioner in the instant petition has submitted that the accrued IDC will be claimed as additional capitalization. On this issue, it has submitted that the additional capitalization under Regulation 9(1) of the Tariff Regulations, 2009 is in respect of works within the original scope after the COD and



upto the cut-off date. As the IDC is neither covered under the category of works nor there is any stipulation under Regulation 9(1) of 2009 Tariff Regulations for accrued IDC and, therefore, the claim of the Petitioner is unjustified. Accordingly, the claim of the Petitioner was rejected by the Commission.

34. We have considered the submissions of the Petitioner and BRPL. In order dated 15.10.2015 in Petition No. 296/TT/2014, the Commission observed that the information submitted in support of IDC computation was inadequate to determine the amount of interest capitalized in respect of foreign loans and the Petitioner was directed to submit the information along with the true-up petition.

35. The Petitioner has submitted that they are not in a position to submit drawl and disbursement of foreign loans in case of instant assets. The Petitioner has furnished the details of the loan drawn under IBRD-V allocated to the project including the instant transmission assets. It is observed that the Commission had earlier allowed the IDC claimed by the Petitioner against the IBRD-V loan in Petition Nos. 186/TT/2015, 199/TT/2016 and 69/TT/2017 vide orders dated 30.3.2016, 28.4.2016 and 6.12.2017 respectively. Accordingly, based on the information and clarification provided by the Petitioner, the IDC claimed by the Petitioner, which is duly certified by the Auditor, has been allowed taking into consideration the Accounting Policy of the Petitioner.

<b>Assets</b>	<b>B-1</b>	<b>B-2</b>	<b>B-3</b>	<b>C</b>	<b>D</b>
<b>COD</b>	<b>1.2.2014</b>	<b>1.2.2014</b>	<b>1.2.2014</b>	<b>1.2.2014</b>	<b>1.4.2013</b>
<b>Capital Cost claimed</b>	<b>18164.48</b>	<b>2055.49</b>	<b>1495.72</b>	<b>1124.86</b>	<b>14496.44</b>
Less: IDC disallowed	0.00	0.00	0.00	12.04	20.16
Less: IEDC disallowed	0.00	0.00	0.00	5.62	0.00
Less: Initial spares excess claimed	0.00	0.00	0.00	0.00	11.11
<b>Capital Cost allowed as on COD</b>	<b>18164.48</b>	<b>2055.49</b>	<b>1495.72</b>	<b>1107.20</b>	<b>14465.17</b>
Less: Un-discharged IDC	113.65	0.26	0.19	3.49	532.96
<b>Capital Cost allowed as on</b>	<b>18050.83</b>	<b>2055.23</b>	<b>1495.53</b>	<b>1103.71</b>	<b>13932.21</b>





<b>COD for tariff</b>					
Add Cap during 2013-14	586.07	51.97	37.16	102.99	3734.65
IDC Discharged during 2013-14	25.71	0.26	0.19	0.14	532.96
<b>Capital Cost as on 31-03-2014</b>	<b>18662.61</b>	<b>2107.46</b>	<b>1532.88</b>	<b>1206.84</b>	<b>18199.82</b>

36. In the instant petition, the Petitioner has submitted Auditor's certificate showing total IDC. Further, the statement showing IDC discharged upto COD has also been submitted. Though the Petitioner has not specified the interest rate for SBI loan, but mentioned the same as floating rate. It is observed that there are certain discrepancies in loan portfolio as mentioned in IDC statement and that of in Form 9C. The Petitioner, for the purpose of calculation of IDC, has considered normative loan (i.e. 70% of capital cost claimed). However, the position of actual loan as furnished in Form-13 by the Petitioner has been considered for the purpose of calculation of IDC. Accordingly, we allow the IDC as claimed by the Petitioner and the same is shown below:-

(₹ in lakh)									
Asset	IDC As per Auditor's certificate	IDC disallowed due to time over-run	IDC disallowed as on COD due to computation difference	IDC allowed	IDC Discharged upto COD	IDC Discharged in 2011-12	IDC Discharged in 2012-13	IDC Discharged in 2013-14	IDC Discharged in 2014-15
A-1	2087.69	0.00	39.58	2048.11	995.16	21.93	1031.02	0.00	0.00
A-2	1070.75	0.00	22.59	1048.16	347.65	137.49	563.02	0.00	0.00
A-3	328.17	0.00	0.00	328.17	200.67	-	127.50	0.00	0.00
A-4	1060.32	0.00	9.30	1051.02	781.83	-	269.19	0.00	0.00
B-1	830.77	0.00	0.00	830.77	717.12	-	-	25.71	87.94
B-2	102.92	0.00	0.00	102.92	102.66	-	-	0.26	0.00
B-3	73.59	0.00	0.00	73.59	73.40	-	-	0.19	0.00
C	42.12	12.04	0.00	30.04	26.59	-	-	0.14	3.35
D	1463.28	0.00	20.16	1443.12	910.16	-	-	532.96	0.00

37. In the instant petition, 5% of hard cost is indicated as IEDC in the abstract cost estimate. The IEDC claimed as on COD is within the percentage on hard cost as



indicated in the abstract cost estimate for all the assets. In order dated 31.12.2015 in Petition No. 101/TT/2014, the time over-run of 15 months was disallowed in respect of the Asset-C, herein. Accordingly, the IEDC amount of ₹5.62 lakh which was deducted from the capital cost in para 23 of order dated 31.12.2015 in Petition No. 101/TT/2014, has been disallowed in the capital cost for tariff calculation.

### **Initial Spares**

38. The initial spares claimed by Petitioner are as follows:-

(₹ in lakh)			
Asset	Element	Estimated completion cost	Initial spares claimed
A1	Sub-station	29404.87	665.85
A2	Sub-station	10874.29	236.40
A3	Sub-station	5631.68	129.52
A4	Sub-station	10072.81	216.72
B1	Sub-station	11035.3	138.32
B2	Sub-station	2502.08	20.37
B3	Sub-station	1801.36	-
C	Sub-station	1537.93	22.95
D	TL	16684.68	51.69
	Sub-station	1622.42	67.05

39. The Petitioner has claimed initial spares on the basis that net excess in transmission line and sub-stations, separately is zero. On the other hand, MPPMCL and BRPL has submitted that initial spares are acquired asset wise and not in total. Therefore, 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 submitted that the initial spares are claimed as per Regulation 8 of 2009 Tariff Regulations and requested to allow initial spares accordingly.

40. We have considered the submissions made by MPPMCL, BRPL and the Petitioner. The initial spares allowed are subject to ceiling limit specified in the 2009 Tariff Regulations and same are as under:-



(₹ in lakh)

Asset	Element	Completion Cost (A)	Initial Spares Claimed (B)	Ceiling Limit (C)	Initial Spares Worked out $D = [(A-B)*C / (100-C)]$	Excess [B-D] If B>D	Initial spares allowed
A1	SS	28976.29	665.85	2.50%	725.91	0.00	665.85
A2	SS	10830.26	236.40	2.50%	271.64	0.00	236.40
A3	SS	5512.24	129.52	2.50%	138.02	0.00	129.52
A4	SS	10046.40	216.72	2.50%	252.04	0.00	216.72
B1	SS	18662.61	138.32	2.50%	474.98	0.00	138.32
B2	SS	2107.46	20.37	2.50%	53.52	0.00	20.37
B3	SS	1532.88	0.00	2.50%	39.30	0.00	0.00
C	SS	1224.50	22.95	2.50%	30.81	0.00	22.95
D	TL	16590.38	51.69	0.75%	124.98	0.00	51.69
	SS	1609.44	67.05	3.50%	55.94	11.11	55.94

**Capital Cost for tariff purpose**

41. Asset-wise capital cost for tariff purpose and total completion cost allowed as on 31.3.2014 are as under:-

(₹ in lakh)

Assets	A-1	A-2	A-3	A-4
COD	1.3.2012	1.3.2012	1.6.2012	1.4.2012
<b>Capital Cost claimed</b>	<b>25520.79</b>	<b>9614.76</b>	<b>4980.20</b>	<b>9215.43</b>
Less: IDC disallowed	39.58	22.59	0.00	9.30
Less: Initial spares excess claimed	0.00	0.00	0.00	0.00
<b>Capital Cost allowed as on COD</b>	<b>25481.21</b>	<b>9592.17</b>	<b>4980.20</b>	<b>9206.13</b>
Less: Un-discharged IDC	1052.95	700.51	127.50	269.19
<b>Capital Cost allowed as on COD for tariff</b>	<b>24428.26</b>	<b>8891.66</b>	<b>4852.70</b>	<b>8936.94</b>
Add Cap during 2011-12	821.18	124.09	0.00	0.00
IDC Discharged during 2011-12	21.93	137.49	0.00	0.00
<b>Capital Cost as on 31.3.2012</b>	<b>25271.37</b>	<b>9153.24</b>	<b>4852.70</b>	<b>8936.94</b>
Add Cap during 2012-13	2274.88	982.51	433.46	736.05
IDC Discharged during 2012-13	1031.02	563.02	127.50	269.19
<b>Capital Cost as on 31.3.2013</b>	<b>28577.27</b>	<b>10698.77</b>	<b>5413.66</b>	<b>9942.18</b>
Add Cap during 2013-14	399.02	131.49	98.58	104.22
IDC Discharged during 2013-14	0.00	0.00	0.00	0.00
<b>Capital Cost as on 31.3.2014</b>	<b>28976.29</b>	<b>10830.26</b>	<b>5512.24</b>	<b>10046.40</b>

(₹ in lakh)

Assets	B-1	B-2	B-3	C	D
COD	1.2.2014	1.2.2014	1.2.2014	1.2.2014	1.4.2013
<b>Capital Cost claimed</b>	<b>18164.48</b>	<b>2055.49</b>	<b>1495.72</b>	<b>1124.86</b>	<b>14496.44</b>
Less: IDC disallowed	0.00	0.00	0.00	12.04	20.16
Less: IEDC disallowed	0.00	0.00	0.00	5.62	0.00
Less: Initial spares excess claimed	0.00	0.00	0.00	0.00	11.11
<b>Capital Cost allowed as on COD</b>	<b>18164.48</b>	<b>2055.49</b>	<b>1495.72</b>	<b>1107.20</b>	<b>14465.17</b>
Less: Un-discharged IDC	113.65	0.26	0.19	3.49	532.96
<b>Capital Cost allowed as on COD for tariff</b>	<b>18050.83</b>	<b>2055.23</b>	<b>1495.53</b>	<b>1103.71</b>	<b>13932.21</b>
Add Cap during 2013-14	586.07	51.97	37.16	102.99	3734.65



IDC Discharged during 2013-14	25.71	0.26	0.19	0.14	532.96
<b>Capital Cost as on 31.3.2014</b>	<b>18662.61</b>	<b>2107.46</b>	<b>1532.88</b>	<b>1206.84</b>	<b>18199.82</b>

### Debt-Equity Ratio

42. The Petitioner has claimed true up of Annual Fixed Charge based on debt equity ratio of 70:30 admitted as on COD in order dated 1.12.2014 in Petition No. 72/TT/2012, dated 15.10.2015 in Petition No. 296/TT/2013, dated 31.12.2015 in Petition No. 101/TT/2014 and dated 15.3.2016 in Petition No. 57/TT/2013. The debt: equity ratio of 70:30 as on COD of the assets is in accordance with 2009 Tariff Regulations and the same is considered for the purpose of trueing up of the approved tariff for tariff period 2009- 14, as given under:-

(₹ in lakh)

	Asset-A1		Asset-A2		Asset-A3		Asset-A4	
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
<b>Debt</b>	17099.78	70.00	6224.16	70.00	3396.89	70.00	6255.86	70.00
<b>Equity</b>	7328.48	30.00	2667.50	30.00	1455.81	30.00	2681.08	30.00
<b>Total</b>	<b>24428.26</b>	<b>100.00</b>	<b>8891.66</b>	<b>100.00</b>	<b>4852.70</b>	<b>100.00</b>	<b>8936.94</b>	<b>100.00</b>

(₹ in lakh)

Particulars	Asset-B1		Asset-B2		Asset-B3		Asset-C		Asset-D	
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
<b>Debt</b>	12635.58	70.00	1438.66	70.00	1046.87	70.00	772.60	70.00	9752.55	70.00
<b>Equity</b>	5415.25	30.00	616.57	30.00	448.66	30.00	331.11	30.00	4179.66	30.00
<b>Total</b>	<b>18050.83</b>	<b>100.00</b>	<b>2055.23</b>	<b>100.00</b>	<b>1495.53</b>	<b>100.00</b>	<b>1103.71</b>	<b>100.00</b>	<b>13932.21</b>	<b>100.00</b>

43. The overall debt-equity ratio as on 31.3.2014 for the instant assets including additional capitalization is as under:-

(₹ in lakh)

	Asset-A1		Asset-A2		Asset-A3		Asset-A4	
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
<b>Debt</b>	20283.40	70.00	7581.18	70.00	3858.57	70.00	7032.48	70.00
<b>Equity</b>	8692.89	30.00	3249.08	30.00	1653.67	30.00	3013.92	30.00
<b>Total</b>	<b>28976.29</b>	<b>100.00</b>	<b>10830.26</b>	<b>100.00</b>	<b>5512.24</b>	<b>100.00</b>	<b>10046.40</b>	<b>100.00</b>

(₹ in lakh)

	Asset-B1		Asset-B2		Asset-B3		Asset-C		Asset-D	
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
<b>Debt</b>	13063.83	70.00	1475.22	70.00	1073.02	70.00	844.79	70.00	12739.88	70.00
<b>Equity</b>	5598.78	30.00	632.24	30.00	459.86	30.00	362.05	30.00	5459.95	30.00



<b>Total</b>	<b>18662.61</b>	<b>100.00</b>	<b>2107.46</b>	<b>100.00</b>	<b>1532.88</b>	<b>100.00</b>	<b>1206.84</b>	<b>100.00</b>	<b>18199.82</b>	<b>100.00</b>
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### **Interest on Loan (IOL)**

44. The Petitioner has submitted that at the time of filing tariff petition for 2009-14 period, the Petitioner had prayed for allowing the floating rate of IOL adjustments. In order dated 8.6.2011 in Petition No. 238/TT/2010, it was observed that IOL was calculated on basis of prevailing rates as on 1.4.2009 and any change in the rates of interest subsequent to 1.4.2009 will be considered at the time of truing up. Accordingly, in the instant petition, the truing up on account of impact due to change in MAT rate, floating rate of interest, as well as consequential IWC is being carried out.

45. IOL is allowed for the instant asset in terms of Regulation 16 of the 2009 Tariff Regulations. The Petitioner has claimed the IOL based on actual interest rates for each year during the 2009-14 tariff period.

46. We have considered the submissions of the Petitioner and accordingly calculated the IOL based on gross amount of normative loan and normative repayment of installments and rate of interest as submitted by the Petitioner, in accordance with Regulation 16 of the 2009 Tariff Regulations. The IOL has been worked out and allowed as provided under Regulation 16 of 2009 Tariff Regulations which are as under:-

(₹ in lakh)

Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
Gross Normative Loan	17099.78	17689.96	20004.09	6224.16	6407.27	7489.14
Cumulative Repayment upto previous Year	0.00	106.10	1480.98	0.00	39.38	557.06
Net Loan-Opening	17099.78	17583.86	18523.11	6224.16	6367.88	6932.08
Addition due to Additional Capitalization	590.18	2314.13	279.31	183.11	1081.87	92.04
Repayment during the year	106.10	1374.88	1463.41	39.38	517.67	558.95



Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
Gross Normative Loan	17099.78	17689.96	20004.09	6224.16	6407.27	7489.14
Net Loan-Closing	17583.86	18523.11	17339.01	6367.88	6932.08	6465.18
Average Loan	17341.82	18053.49	17931.06	6296.02	6649.98	6698.63
Weighted Average Rate of Interest on Loan	9.115%	9.115%	9.109%	8.882%	8.897%	8.900%
<b>Interest on Loan</b>	<b>131.73</b>	<b>1645.51</b>	<b>1633.28</b>	<b>46.60</b>	<b>591.63</b>	<b>596.20</b>

(₹ in lakh)

Particulars	Asset-A3		Asset-A4	
	2012-13	2013-14	2012-13	2013-14
Gross Normative Loan	3396.89	3789.56	6255.86	6959.53
Cumulative Repayment upto previous Year	0.00	219.93	0.00	491.91
Net Loan-Opening	3396.89	3569.63	6255.86	6467.62
Addition due to Additional Capitalization	392.67	69.01	703.67	72.95
Repayment during the year	219.93	279.95	491.91	518.25
Net Loan-Closing	3569.63	3358.69	6467.62	6022.32
Average Loan	3483.26	3464.16	6361.74	6244.97
Weighted Average Rate of Interest on Loan	9.069%	9.052%	9.153%	9.143%
<b>Interest on Loan</b>	<b>263.26</b>	<b>313.59</b>	<b>582.30</b>	<b>570.98</b>

(₹ in lakh)

Particulars	Asset-B1	Asset-B2	Asset-B3	Asset-C	Asset-D
	2013-14	2013-14	2013-14	2013-14	2013-14
Gross Normative Loan	12635.58	1438.66	1046.87	772.60	9752.55
Cumulative Repayment upto previous Year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	12635.58	1438.66	1046.87	772.60	9752.55
Addition due to Additional Capitalization	428.25	36.56	26.15	72.19	2987.33
Repayment during the year	113.50	17.97	12.98	9.69	849.17
Net Loan-Closing	12950.33	1457.25	1060.03	835.10	11890.70
Average Loan	12792.96	1447.96	1053.45	803.85	10821.63
Weighted Average Rate of Interest on Loan	2.914%	1.699%	1.697%	2.509%	9.075%
<b>Interest on Loan</b>	<b>62.14</b>	<b>4.10</b>	<b>2.98</b>	<b>3.36</b>	<b>982.05</b>

### Return on Equity (ROE)

52. Return on Equity is allowed for the instant asset in terms of Regulation 15 of the 2009 Tariff Regulations. Accordingly, the ROE as trued up in accordance with the 2009 Tariff Regulations is shown in the table below:-

(₹ in lakh)

Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14



Opening Equity	7328.48	7581.41	8573.18	2667.50	2745.97	3209.63
Addition due to Additional Capitalization	252.93	991.77	119.71	78.47	463.66	39.45
Closing Equity	7581.41	8573.18	8692.89	2745.97	3209.63	3249.08
Average Equity	7454.94	8077.30	8633.03	2706.73	2977.80	3229.35
Return on Equity (Base Rate )	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate	20.008%	20.008%	20.961%	20.008%	20.008%	20.961%
Rate of Return on Equity (Pre-tax)	19.377%	19.377%	19.610%	19.377%	19.377%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>120.38</b>	<b>1565.14</b>	<b>1692.94</b>	<b>43.71</b>	<b>577.01</b>	<b>633.28</b>

Particulars	Asset-A3		Asset-A4	
	2012-13	2013-14	2012-13	2013-14
Opening Equity	1455.81	1624.10	2681.08	2982.65
Addition due to Additional Capitalization	168.29	29.57	301.57	31.27
Closing Equity	1624.10	1653.67	2982.65	3013.92
Average Equity	1539.95	1638.89	2831.86	2998.28
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%
Tax rate	20.008%	20.961%	20.008%	20.961%
Rate of Return on Equity (Pre-tax)	19.377%	19.610%	19.377%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>248.66</b>	<b>321.39</b>	<b>548.73</b>	<b>587.96</b>

Particulars	Asset-B1	Asset-B2	Asset-B3	Asset-C	Asset-D
	2013-14	2013-14	2013-14	2013-14	2013-14
Opening Equity	5415.25	616.57	448.66	331.11	4179.66
Addition due to Additional Capitalization	183.53	15.67	11.21	30.94	1280.28
Closing Equity	5598.78	632.24	459.86	362.05	5459.95
Average Equity	5507.01	624.40	454.26	346.58	4819.81
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.50%	15.500%
Tax rate	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%
<b>Return on Equity (Pre-tax)</b>	<b>179.99</b>	<b>20.41</b>	<b>14.85</b>	<b>11.33</b>	<b>945.16</b>

### Depreciation

47. Depreciation is allowed for the instant assets in terms of Regulation 17 of the 2009 Tariff Regulations. Depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2014 Tariff Regulations.

48. Based on the above, the depreciation has been considered as follows:-



(₹ in lakh)

Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
Opening Gross Block	24428.26	25271.37	28577.27	8891.66	9153.24	10698.77
Additional Capital expenditure	843.11	3305.90	399.02	261.58	1545.53	131.49
Closing Gross Block	25271.37	28577.27	28976.29	9153.24	10698.77	10830.26
Average Gross Block	24849.82	26924.32	28776.78	9022.45	9926.00	10764.51
Rate of Depreciation	5.123%	5.106%	5.085%	5.238%	5.215%	5.193%
Depreciable Value	22364.83	24231.89	25899.10	8120.21	8933.40	9688.06
Remaining Depreciable Value	22364.83	24125.79	24418.12	8120.21	8894.02	9131.00
<b>Depreciation</b>	<b>106.10</b>	<b>1374.88</b>	<b>1463.41</b>	<b>39.38</b>	<b>517.67</b>	<b>558.95</b>

(₹ in lakh)

Particulars	Asset-A3		Asset-A4	
	2012-13	2013-14	2012-13	2013-14
Opening Gross Block	4852.70	5413.66	8936.94	9942.18
Additional Capital expenditure	560.96	98.58	1005.24	104.22
Closing Gross Block	5413.66	5512.24	9942.18	10046.40
Average Gross Block	5133.18	5462.95	9439.56	9994.29
Rate of Depreciation	5.141%	5.125%	5.211%	5.185%
Depreciable Value	4619.86	4916.66	8495.60	8994.86
Remaining Depreciable Value	4619.86	4696.73	8495.60	8502.95
<b>Depreciation</b>	<b>219.93</b>	<b>279.95</b>	<b>491.91</b>	<b>518.25</b>

(₹ in lakh)

Particulars	Asset-B1	Asset-B2	Asset-B3	Asset-C	Asset-D
	2013-14	2013-14	2013-14	2013-14	2013-14
Opening Gross Block	18050.83	2055.23	1495.53	1103.71	13932.22
Additional Capital expenditure	611.78	52.23	37.35	103.13	4267.61
Closing Gross Block	18662.61	2107.46	1532.88	1206.84	18199.82
Average Gross Block	18356.72	2081.35	1514.21	1155.28	16066.02
Rate of Depreciation	3.710%	5.181%	5.1437%	5.0341%	5.2855%
Depreciable Value	11809.06	1873.21	1362.78	1039.75	14459.42
Remaining Depreciable Value	11809.06	1873.21	1362.78	1039.75	14459.42
<b>Depreciation</b>	<b>113.50</b>	<b>17.97</b>	<b>12.98</b>	<b>9.69</b>	<b>849.17</b>

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

49. The O&M Expenses allowed by Commission vide orders dated 1.12.2014 in Petition No. 72/TT/2012, dated 15.10.2015 in Petition No. 296/TT/2013, dated 31.12.2015 in Petition No. 101/TT/2014 and dated 15.3.2016 in Petition No. 57/TT/2013 is as follows:-

(₹ in lakh)

Asset	Particulars	2011-12	2012-13	2013-14
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A1	O&M Expenses	39.04	495.32	523.66
A2		11.71	148.60	157.10
A3		–	216.70	274.92
A4		–	86.68	91.64
B1		–	–	28.50
B2		–	–	33.82
B3		–	–	33.82
C		–	–	21.82
D		–	–	213.67

50. The O&M Expenses claimed by the Petitioner in the instant petition for the 2009-14 period is as follows:-

		(₹ in lakh)		
Asset	Particulars	2011-12	2012-13	2013-14
A1	O&M Expenses	32.21	408.64	432.02
A2		11.71	148.60	157.10
A3		–	144.47	183.28
A4		–	86.68	91.64
B1		–	–	28.50
B2		–	–	33.82
B3		–	–	18.55
C		–	–	21.82
D		–	–	213.67

58. The Petitioner has submitted that O&M Expenses claimed in Petition No. 72/TT/2012 consist of 765 kV line bays along with switchable line reactors. The discrepancy is rectified here in the instant true-up petition and O&M charges for two nos. 765 kV reactor bays are taken out from 2009-14 tariff period. The Petitioner has submitted that the cost of these switchable line reactors is not included in the cost of 765 kV line bays at Seoni in Petition No. 72/TT/2012. These reactors were put into commercial operation during 2014-19 tariff period on 2.5.2014 (Switchable Line Reactor for Ckt.#1) and 1.4.2014 (Switchable Line Reactor for Ckt.#2) respectively and same were filed alongwith other assets in Petition No. 185/TT/2014. However,



the assets were excluded from the final tariff order dated 29.4.2016 of the Petition No.185/TT/2014 and are re-filed in Petition No. 207/TT/2017.

51. We have perused Form-2 and the submissions made by the Petitioner on not claiming the O&M Expenses for two nos. 765 kV reactor bays for 2009-14 period in the instant petition. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. Accordingly, the total allowable O&M Expenses for the instant assets have been worked out based on the norms. The O&M Expenses allowed for the instant assets are as under:-

(₹ in lakh)			
Asset	2011-12	2012-13	2013-14
A1	32.21	408.64	432.02
A2	11.71	148.60	157.10
A3	-	144.47	183.28
A4	-	86.68	91.64
B1	-	-	28.50
B2	-	-	33.82
B3	-	-	18.55
C	-	-	21.82
D	-	-	213.67

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

52. 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.

53. The components of the working capital and interest thereon have been worked out as per methodology provided in the Regulation 18 of the 2009 Tariff Regulations).Accordingly, the interest on working capital allowed is as under:-

#### **(i) Maintenance spares:**



Maintenance spares have been worked out based on 15% of O&M 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.

54. Accordingly, the IWC tried up is as under:-

Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
O&M expenses	57.98	61.30	64.80	21.08	22.29	23.57
Maintenance Spares	32.21	34.05	36.00	11.71	12.38	13.09
Receivables	798.23	850.89	889.67	289.10	312.62	331.46
<b>Total</b>	<b>888.42</b>	<b>946.24</b>	<b>990.48</b>	<b>321.89</b>	<b>347.29</b>	<b>368.12</b>
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
<b>Interest on working Capital</b>	<b>8.70</b>	<b>111.18</b>	<b>116.38</b>	<b>3.15</b>	<b>40.81</b>	<b>43.25</b>

Particulars	Asset-A3		Asset-A4	
	2012-13	2013-14	2012-13	2013-14
O&M expenses	26.00	27.49	13.00	13.75
Maintenance Spares	14.45	15.27	7.22	7.64
Receivables	180.23	188.23	291.96	302.08
<b>Total</b>	<b>220.68</b>	<b>231.00</b>	<b>312.19</b>	<b>323.47</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%
<b>Interest on working Capital</b>	<b>24.83</b>	<b>31.18</b>	<b>42.15</b>	<b>43.67</b>

Particulars	Asset-B1	Asset-B2	Asset-B3	Asset-C	Asset-D
	2013-14	2013-14	2013-14	2013-14	2013-14



Maintenance Spares	14.25	16.91	9.28	10.91	17.81
O&M expenses	25.65	30.44	16.70	19.64	32.05
Receivables	393.66	79.08	51.05	47.93	510.67
<b>Total</b>	<b>433.56</b>	<b>126.43</b>	<b>77.02</b>	<b>78.48</b>	<b>560.53</b>
Rate of Interest	13.20%	13.20%	13.20%	13.20%	13.20%
<b>Interest on working Capital</b>	<b>9.54</b>	<b>2.78</b>	<b>1.69</b>	<b>1.73</b>	<b>73.99</b>

### Annual Transmission Charges

55. The detailed computation of the various components of the trued up annual transmission charges of the instant assets for the tariff period 2009-14 is summarized below:-

(₹ in lakh)

Particulars	Asset-A1			Asset-A2		
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14
Depreciation	106.10	1374.88	1463.41	39.38	517.67	558.95
Interest on Loan	131.73	1645.51	1633.28	46.60	591.63	596.20
Return on Equity	120.38	1565.14	1692.94	43.71	577.01	633.28
Interest on Working Capital	8.70	111.18	116.38	3.15	40.81	43.25
O&M Expenses	32.21	408.64	432.02	11.71	148.60	157.10
<b>Total</b>	<b>399.12</b>	<b>5105.36</b>	<b>5338.03</b>	<b>144.55</b>	<b>1875.72</b>	<b>1988.78</b>

(₹ in lakh)

Particulars	Asset-A3		Asset-A4	
	2012-13	2013-14	2012-13	2013-14
Depreciation	219.93	279.95	491.91	518.25
Interest on Loan	263.26	313.59	582.30	570.98
Return on Equity	248.66	321.39	548.73	587.96
Interest on Working Capital	24.83	31.18	42.15	43.67
O&M Expenses	144.47	183.28	86.68	91.64
<b>Total</b>	<b>901.15</b>	<b>1129.39</b>	<b>1751.76</b>	<b>1812.51</b>

(₹ in lakh)

Particulars	Asset-B1	Asset-B2	Asset-B3	Asset-C	Asset-D
	2013-14	2013-14	2013-14	2013-14	2013-14
Depreciation	113.50	17.97	12.98	9.69	849.17
Interest on Loan	62.14	4.10	2.98	3.36	982.05
Return on Equity	179.99	20.41	14.85	11.33	945.16
Interest on Working Capital	9.54	2.78	1.69	1.73	73.99
O&M Expenses	28.50	33.82	18.55	21.82	213.67
<b>Total</b>	<b>393.66</b>	<b>79.08</b>	<b>51.05</b>	<b>47.93</b>	<b>3064.05</b>

### Determination of Annual Transmission Charges for 2014-19 Tariff Period



56. The true-up of tariff for the instant transmission system up to 2009-14 tariff period has been granted based on the actual COD of individual elements irrespective of the fact whether the project as whole is completed or not. This leads to granting of multiple tariffs for the assets covered under the single project/transmission system. To avoid this, the Commission in Regulation 6 of the 2014 Tariff Regulations provided for submission a single consolidated petition for all the elements of a transmission system which have been put into commercial operation prior to 1.4.2014. In such a case, a single tariff can be granted for all the assets covered under a single project/transmission system. In order to determine a single transmission tariff for different assets after combining them, as per 2014 Tariff Regulations, the concept of effective date of commercial operation and weighted average life has also been introduced under Regulation 27 of 2014 the Tariff Regulations.

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

57. The Petitioner has stated that E-COD of the combined assets is considered as 1.11.2012. However, based on the trued up capital cost and actual COD of all the assets, the E-COD has been considered as 8.11.2012 on the basis of the following computation:-

(₹ in lakh)						
Asset	Actual COD	Trued up capital cost as on 31.3.2014 (in the instant petition)	Weight of the cost	No. of days from assets COD to project COD	Weighted Days	Effective COD of Project (Project COD- Weighted days)
A1	1.3.2012	28976.29	29.85%	702	209.54	<b>8.11.2012</b>
A2	1.3.2012	10830.26	11.16%	702	78.32	
A3	1.6.2012	5512.24	5.68%	610	34.64	
A4	1.4.2012	10046.40	10.35%	671	69.44	
B1	1.2.2014	18662.61	19.22%	0	0.00	
B2	1.2.2014	2107.46	2.17%	0	0.00	
B3	1.2.2014	1532.88	1.58%	0	0.00	
C	1.2.2014	1206.84	1.24%	0	0.00	
D	1.4.2013	18199.82	18.75%	306	57.37	



Asset	Actual COD	Trued up capital cost as on 31.3.2014 (in the instant petition)	Weight of the cost	No. of days from assets COD to project COD	Weighted Days	Effective COD of Project (Project COD- Weighted days)
A1	1.3.2012	28976.29	29.85%	702	209.54	<b>8.11.2012</b>
<b>TOTAL</b>	<b>1.2.2014</b>	<b>97074.80</b>	<b>100.00%</b>		<b>449.31</b>	

58. The E-COD has been used to determine the lapsed life (i.e. the number of completed years) of all the assets as on 8.11.2012.

### **Weighted Average Life (WAL)**

59. The asset as whole, have multiple elements (i.e. transmission line, sub-station and communication system etc.) and each elements are having different span of life. Therefore, to determine the useful life of the project as a whole, the concept of WAL has been incorporated in 2014 Tariff Regulations. The life as defined in Regulation 27 of 2014 Tariff Regulations has been considered for determination of WAL.

60. The 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 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 WAL of the all the assets commissioned during 2009-14 tariff period have been considered as 26 years as detailed below:-

Particulars	Combined Cost (a)	Life (b)	(₹ in lakh)
			Weight (a) x (b)
Freehold Land	5239.27	0	0.00
Leasehold Land	1145.19	25	28629.78
Building & Other Civil Works	4529.07	25	113226.87
Transmission Line	26310.85	35	920879.61
Sub-Station Equipment	59432.22	25	1485805.51
PLCC	418.20	15	6272.99
<b>TOTAL</b>	<b>97074.80</b>	<b>26</b>	<b>2554814.75</b>



61. It is assumed that WAL 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, WAL has been used to determine the remaining useful life as on 31.3.2014 as 25 years.

62. The Petitioner has claimed the following transmission charges for combined asset for the 2014-19 tariff period:-

	(₹ in lakh)				
<b>Combined Assets</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	4833.04	4931.81	4958.31	4997.93	5024.91
Interest on Loan	4546.16	4305.23	3948.08	3594.91	3220.42
Return on Equity	5818.75	5937.78	5970.86	6027.60	6069.51
Interest on Working Capital	435.90	438.23	434.33	431.47	427.58
O&M Expenses	1558.08	1609.85	1663.31	1718.51	1775.51
<b>Total</b>	<b>17191.93</b>	<b>17222.90</b>	<b>16974.89</b>	<b>16770.42</b>	<b>16517.93</b>

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

	(₹ in lakh)				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O&M expenses	129.84	134.15	138.61	143.21	147.96
Maintenance Spares	233.71	241.48	249.50	257.78	266.33
Receivables	2865.32	2870.48	2829.15	2795.07	2752.99
<b>Total</b>	<b>3228.87</b>	<b>3246.11</b>	<b>3217.26</b>	<b>3196.06</b>	<b>3167.28</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on WC</b>	<b>435.90</b>	<b>438.23</b>	<b>434.33</b>	<b>431.47</b>	<b>427.58</b>

64. BRPL has submitted that for determination of tariff, the Petitioner has filed tariff forms for combined assets instead of filing tariff forms for (Transmission & Communication System) for 2014-19 tariff period separately. It has further submitted that the determination of tariff during 2009-14 tariff period was done asset-wise, therefore, the tariff 2014-19 may be done asset-wise. No details are there regarding Communication System in relation to use of Optical Ground Wire (OPGW)



in place of earth wire for all the transmission assets. The Petitioner is sharing only ₹3000 per year per km for right of way utilized which is low.

65. MMPCL has submitted that record shows that the apportioned approved cost was ₹114839.66 lakh and the total estimated cost is more than this and as such there is cost over-run which has not been supported by proper justification by the Petitioner. The capital cost as on 31.3.2014 was ₹97286.49 lakh and the RCE was approved on 11.3.2016 i.e. nearly two years after closing the 2009-14 period which shows that the Petitioner revised the cost estimate at its own in order to adjust the amount exceeding the approved apportioned cost and to justify that there is no cost over-run.

66. With respect to cost over-run, the Petitioner has submitted that against the apportioned approved cost as per RCE of ₹118343.31 lakh, the estimated completion cost is ₹103170.39 lakh. Therefore, there is no cost over-run as per RCE.

67. We have considered the submissions of the Petitioner and BRPL and MMPCL. The tariff for the 2014-19 is allowed as per the 2014 Tariff Regulations.

### **Capital Cost**

68. The capital cost is dealt in line with clause (2) of Regulation 9 of 2014 Tariff Regulations. The trued up capital cost of ₹97092.46 lakh as on 31.3.2014 is considered for determination of tariff for 2014-19 period.

### **Additional Capital Expenditure**

69. As per Auditor's certificates submitted by the Petitioner, the proposed combined additional capitalization are ₹3334.11 lakh, ₹621.02 lakh, ₹503.78 lakh and ₹1424.99 lakh for the years 2014-15, 2015-16, 2016-17 and 2017-18 respectively. The





additional capital expenditure has been dealt with in line with clause (3) of Regulation 14 of the 2014 Tariff Regulations.

70. The “cut-off date” in case of the instant assets is given below in the table.

Petition No.	Asset	Admitted COD	Cut-off date
72/TT/2012	Asset-A1	1.3.2012	1.3.2015
	Asset-A2	1.3.2012	1.3.2015
	Asset-A3	1.6.2012	31.3.2015
	Asset-44	1.4.2012	31.3.2015
296/TT/2013	Asset-B1	1.2.2014	31.3.2017
	Asset-B2	1.2.2014	
	Asset-B3	1.2.2014	
101/TT/2014	Asset-C	1.2.2014	
57/TT/2013	Asset-D	1.4.2013	

71. The trued up capital cost of ₹97074.80 lakh as on 31.3.2014 is considered to work out tariff for 2014-19 tariff period. The total capital cost of the transmission asset including additional capitalization projected to be incurred during 2014-19 is shown below:-

(₹ in lakh)	
Particulars	Amount
<b>Capital Cost as on 01-04-2014</b>	<b>97074.80</b>
Add Cap during 2014-15	3330.76
IDC Discharged during 2014-15	91.29
<b>Capital Cost as on 31-03-2015</b>	<b>100496.85</b>
Add Cap during 2015-16	621.02
<b>Capital Cost as on 31-03-2016</b>	<b>101117.87</b>
Add Cap during 2016-17	503.78
<b>Capital Cost as on 31-03-2017</b>	<b>101621.65</b>
Add Cap during 2017-18	1424.99
<b>Capital Cost as on 31-03-2018</b>	<b>103046.64</b>
Add Cap during 2018-19	0.00
<b>Capital Cost as on 31-03-2019</b>	<b>103046.64</b>

\*IDC discharged during 2014-15 - ₹87.94 lakh for Asset B-1 and ₹3.35 lakh for Asset C.

### **Debt: Equity Ratio**

72. Debt-equity ratio is allowed for the instant asset in terms of Regulation 19 of 2014 Tariff Regulations. The debt-equity ratio for the tariff period ending on 31.3.2014 has been considered as opening debt-equity ratio as on 1.4.2014. The



details of the debt-equity ratio as on 1.4.2014 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Asset	Capital Cost	Debt	Equity	Debt %	Equity %
A1	28976.29	20283.40	8692.89	70.00	30.00
A2	10830.26	7581.18	3249.08	70.00	30.00
A3	5512.24	3858.57	1653.67	70.00	30.00
A4	10046.40	7032.48	3013.92	70.00	30.00
B1	18662.61	13063.83	5598.78	70.00	30.00
B2	2107.46	1475.22	632.24	70.00	30.00
B3	1532.88	1073.02	459.86	70.00	30.00
C	1206.84	844.79	362.05	70.00	30.00
D	18199.82	12739.88	5459.95	70.00	30.00
<b>Total</b>	<b>97074.80</b>	<b>67952.37</b>	<b>29122.43</b>	<b>70.00</b>	<b>30.00</b>

73. For additional capitalization, the Petitioner has proposed debt-equity ratio of 70:30 for the year 2014-15 and normative debt-equity ratio 70:30 for the year 2015-16 to 2018-19. The same has been considered. The details of the debt-equity ratio including additional capitalization as on 31.3.2019 are as follows:-

(₹ in lakh)

Particulars	Amount	(%)
Debt	72132.66	70.00
Equity	30913.98	30.00
<b>Total</b>	<b>103046.64</b>	<b>100.00</b>

### **Interest on Loan (IOL):**

74. UPPLCL has submitted that the as per the details submitted by the Petitioner regarding the financing agencies, all the loans are of the nature of fixed yearly loans and there is no element of floating rate of interest. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. The IOL has been allowed and worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The IOL has been worked out and allowed as follows:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
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Gross Normative Loan	67952.37	70347.81	70782.52	71135.17	72132.66
Cumulative Repayment upto previous Year	6573.76	11401.52	16327.33	21279.65	26271.57
Net Loan-Opening	61378.61	58946.28	54455.18	49855.52	45861.08
Addition due to Additional Capitalization	2395.44	434.71	352.65	997.49	0.00
Repayment during the year	4827.76	4925.81	4952.31	4991.93	5018.93
Net Loan-Closing	58946.28	54455.18	49855.52	45861.08	40842.15
Average Loan	60162.45	56700.73	52155.35	47858.30	43351.62
Weighted Average Rate of Interest on Loan	7.547%	7.583%	7.560%	7.502%	7.419%
<b>Interest on Loan</b>	<b>4540.43</b>	<b>4299.81</b>	<b>3943.10</b>	<b>3590.44</b>	<b>3216.41</b>

### **Return on Equity (ROE)**

75. The Petitioner has submitted that it is liable to pay income tax at MAT rate, the ROE has been calculated @ 19.610 % after grossing up the ROE with MAT rate of 20.961% based on the rate prescribed under Regulation 25(2)(i) of the 2014 Tariff Regulations. Further, as per Regulation 25(3), the grossed up rate of ROE at the end of every financial year shall be trued up based on the actual paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries on year to year basis. 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.

76. We have computed ROE at the rate of 19.610% for tariff period 2014-19 after grossing up the ROE with MAT rate as per the above Regulation. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of ROE with the effective tax rate for the purpose of ROE. 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 ROE, 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	29122.43	30149.05	30335.35	30486.49	30913.98
Addition due to Additional Capitalization	1026.62	186.31	151.13	427.50	0.00
Closing Equity	30149.05	30335.35	30486.49	30913.98	30913.98
Average Equity	29635.74	30242.20	30410.92	30700.24	30913.98
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
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)	19.610%	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>5811.57</b>	<b>5930.50</b>	<b>5963.58</b>	<b>6020.32</b>	<b>6062.23</b>

### Depreciation

77. Depreciation is allowed for the instant asset in terms of Regulation 27 of the 2014 Tariff Regulations. Depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2014 Tariff Regulations.

78. Based on the above, the depreciation has been considered as follows:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	97074.80	100496.85	101117.87	101621.65	103046.64
Additional Capital expenditure	3422.05	621.02	503.78	1424.99	0.00
Closing Gross Block	100496.85	101117.87	101621.65	103046.64	103046.64
Average Gross Block	98785.83	100807.36	101369.76	102334.15	103046.64
Rate of Depreciation	4.887%	4.886%	4.885%	4.878%	4.871%
Depreciable Value	84260.41	168691.78	169197.94	179576.41	170707.13
Remaining Depreciable Value	77686.65	157290.26	152870.61	158296.77	144435.56
<b>Depreciation</b>	<b>4827.76</b>	<b>4925.81</b>	<b>4952.31</b>	<b>4991.93</b>	<b>5018.93</b>



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

79. The O&M Expenses claimed by the Petitioner are as under:-

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset	O&M Expenses	1558.08	1609.85	1663.31	1718.51	1775.51

80. 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 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.

81. MPPMCL and BRPL 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. MPPMCL further submitted that as per office Memorandum dated 26.11.2008, Ministry of Heavy Industries & Public Enterprises has issued instructions relating to affordability in implementation of pay revision and its financial implication. As per the office memorandum, the Petitioner has to bear the financial implications by its own and respondents are not liable to bear the burden under this count. In response, Petitioner filed its rejoinder dated 22.1.2019 and 22.5.2019 and 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 is binding on the Petitioner and would approach the Commission for suitable revision in the norms for O&M Expenses for claiming the impact of wage hike from 1.1.2017 onwards.

82. UPPCLhas also submitted that the Petitioner in the instant petition has submitted that AFC for tariff period for combined assets. While calculating AFC, the Petitioner has taken O&M Expenses at rate specified in the 2014 Tariff Regulations. However, the Petitioner has submitted that it would approach the Commission for revision in O&M Expenses. Therefore, it is submitted that revision in O&M Expensesbe done in isolation because the tariff is a package consisting of various components i.e depreciation, IOL,ROE IWC and O&M. The loss in one component is compensated by gain in other component. Therefore, the full picture of profit and loss in respect of all components of the tariff needs to be submitted by the Petitioner.

83. We have considered the submissions made by the Petitionerand 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, any application filed by the Petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

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

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset	O&M Expenses	1558.08	1609.85	1663.31	1718.51	1775.51



### Interest on Working Capital (“IWC”):

85. The Petitioner has submitted that it has computed IWC for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. Accordingly, the rate of IWC considered is 13.50%.

86. The IWC is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of IWC is considered as 13.50% (SBI Base Rate of 10% plus 350 basis points). The IWC worked out is shown in the table below:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	233.71	241.48	249.50	257.78	266.33
O&M expenses	129.84	134.15	138.61	143.21	147.96
Receivables	2862.22	2867.29	2826.03	2792.04	2750.04
<b>Total</b>	<b>3225.77</b>	<b>3242.93</b>	<b>3214.14</b>	<b>3193.03</b>	<b>3164.33</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>435.48</b>	<b>437.79</b>	<b>433.91</b>	<b>431.06</b>	<b>427.18</b>

### Annual Transmission Charges

87. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarized as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4827.76	4925.81	4952.31	4991.93	5018.93
Interest on Loan	4540.43	4299.81	3943.10	3590.44	3216.41
Return on Equity	5811.57	5930.50	5963.58	6020.32	6062.23
Interest on Working Capital	435.48	437.79	433.91	431.06	427.18
O&M Expenses	1558.08	1609.85	1663.31	1718.51	1775.51
<b>Total</b>	<b>17173.32</b>	<b>17203.76</b>	<b>16956.21</b>	<b>16752.25</b>	<b>16500.27</b>



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

88. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of 2014 Tariff Regulations. On the other hand, BRPL has submitted such reimbursement of fee can only be allowed at the discretion of the Commission. The Commission in its order dated 11.9.2008 in Petition No.129 of 2005 has held that the Central Power Sector Undertakings in furtherance of their business interests are statutorily required to approach the Central Commission for determination and approval of the tariff and has declined the claim of the CPSU for allowing the reimbursement of the application filing fee. Thus, the claim of the Petitioner even in the present petition is liable to be rejected by the Commission.

89. We have considered the submission of the Petitioner and BRPL. 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.

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

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

### **Goods and Services Tax**

91. The Petitioner has prayed for reimbursement of tax, if any, on account of implementation of GST. MPPMCL has submitted that GST is applicable on electricity





sector, so the demand for GST should be disallowed. GST is not levied on transmission services at present and therefore the Petitioner's prayer is premature.

### **Sharing of Transmission Charges**

92. The transmission charges 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 2009 Tariff Regulations. The transmission charges for the 2014-19 tariff shall be recovered on monthly basis 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 as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations.

93. This order disposes of Petition No 194/TT/2018.

**Sd/-  
(I. S. Jha)  
Member**

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

**Sd/-  
(P. K. Pujari)  
Chairperson**

