

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 200/TT/2018

Coram :

Shri P.K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I.S. Jha, Member

Date of Order: 03 December, 2019

## 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 and
- (ii) Transmission tariff for 2014-19 tariff block

For the assets of "Northern Region Transmission Strengthening Scheme" in Northern Region consisting of **Asset-I:** 125 MVAR Bus Reactor at Jaipur South, **Asset-II:** 400 kV Bhiwani Jind TL along with associated bays and 1 No. 500 MVA, 400/220 kV, ICT-I and associated bays at Jind Sub-station, **Asset-III:** 500 MVA, 400/220 kV, ICT-II along with associated 400/220 kV bays at Jind Sub-station and one 220 kV Line bays at Jind Sub-station and **Asset-IV:** 1 no. of 400 kV, 125 MVAR Bus Reactor at Jind Sub-station along with associated bays, covered in

- a) CERC order dated 26.2.2016 in Petition no. 32/TT/2013 &
- b) CERC order dated 29.2.2016 in Petition no. 110/TT/2013

## And in the matter of

Power Grid Corporation of India Limited

"Saudamini", Plot No.2,

Sector-29, Gurgaon -122 001

....Petitioner



## **Versus**

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.  
Vidyut Bhawan, Vidyut Marg,  
Jaipur-302005
2. Ajmer Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
3. Jaipur Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
4. Jodhpur Vidyut Vitran Nigam Ltd.  
132 kV, GSS RVPNL Sub- Station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
5. Himachal Pradesh State Electricity Board  
Vidyut Bhawan, Kumar House Complex Building II  
Shimla-171 004
6. Punjab State Power Corporation Ltd.  
Thermal Shed TIA, Near 22 Phatak,  
Patiala - 147 001
7. Haryana Power Purchase Centre  
2<sup>nd</sup> Floor, Shakti Bhawan, Sector-6  
Panchkula-134 109
8. Power Development Deptt., J&K  
Janipura Grid Station,  
Jammu (Tawi)-180 007
9. Uttar Pradesh Power Corporation Ltd.  
10th Floor, Shakti Bhawan Extn,  
14, Ashok Marg, Lucknow - 226 001
10. Delhi Transco Ltd.  
Shakti Sadan, Kotla Road (Near ITO),  
New Delhi-110 002
11. BSES Yamuna Power Ltd. (BYPL),  
Shakti Kiran Building, Karkardooma,  
Delhi-110 092.



12. BSES Rajdhani Power Ltd. (BRPL) ,  
BSES Bhawan, Nehru Place,  
New Delhi
13. Tata Power Delhi Distribution Limited (TPDDL),  
33 kV Substation Bldg., Hudson Lane, Kingsway Camp  
Delhi – 110009
14. Chandigarh Administration  
Sector-9, Chandigarh.
15. Uttarakhand Power Corporation Ltd.  
Urja Bhawan, Kanwali Road, Dehradun.
16. North Central Railway  
Allahabad.
17. New Delhi Municipal Council  
Palika Kendra, Sansad Marg,  
New Delhi-110002

...Respondents

**Parties present:**

**For Petitioner:** Shri S.S.Raju, PGCIL  
Shri Zafrul Hasan, PGCIL  
Shri S.K. Venkatesan, PGCIL  
Shri Pankaj Sharma, PGCIL  
Shri Vivek Kumar Singh, PGCIL

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

**ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. (“the Petitioner”) seeking approval of transmission tariff for the **Asset-I:** 125 MVAR Bus Reactor at Jaipur South, **Asset-II:** 400 kV Bhiwani-Jind TL along with associated bays and 1 No. 500 MVA, 400/220 kV, ICT-I and associated bays at Jind Sub-station, **Asset-III:** 500 MVA, 400/220 kV, ICT-II along with associated 400/220 kV bays at Jind Sub-station and one 220 kV Line bays at Jind Sub-station and **Asset-IV:** 1 no. of 400 kV,125 MVAR Bus Reactor at Jind Sub-station along with associated bays under “Northern Region Transmission Strengthening Scheme”

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in Northern Region (hereinafter referred as “transmission asset”) for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the asset.

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 31.03.2014 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) *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;*
- (v) *Allow the Petitioner to approach Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19;*
- (vi) *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;*
- (vii) *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;*
- (viii) *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;*



- (ix) *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;*
- (x) *Allow to recover annual lease rent as claimed directly from the beneficiaries on annual basis as allowed in order dated 26.2.2016 in petition no. 32/TT/2013;*

*and pass such other relief as Hon'ble 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 "Northern Region Transmission Strengthening Scheme" in Northern Region was accorded by Board of Directors of the Petitioner in 234<sup>th</sup> meeting held on 16.3.2010 for ₹96568 lakh including an IDC of ₹7003 lakh based on 3<sup>rd</sup> Quarter, 2009 price level (communicated vide Memorandum No.C/CP/NRTSS dated 17.3.2010).

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 31.3.2017 and communicated vide C/CP/NRTSS dated 31.3.2017 for ₹98000 lakh including an IDC of ₹7719 lakh based on August, 2016 price level.

4. The scope of work covered under the project "Northern Region Transmission Strengthening Scheme" are as follows:-

#### **Transmission Lines:**

- (i) Bhiwani-Jind 400kV D/C line
- (ii) LILO of both circuits of 400 kV D/C Balia-Lucknow line at Sohawal
- (iii) LILO of both circuits of 400 kV D/C Dehradun-Bagpat line (Quad) at Saharanpur
- (iv) LILO of both circuits of 400 kV D/C Lucknow-Bareilly (POWERGRID line) at Shahjahanpur
- (v) LILO of both circuits of 400 kV D/C Agra-Jaipur line at Jaipur



**Sub-stations:**

- (i) New 2x315 MVA, 400/220 kV Substation at Sohawal
- (ii) New 2x315 MVA, 400/220 kV Substation at Shahajanpur
- (iii) New 2x315 MVA, 400/220 kV Substation at Saharanpur
- (iv) New 2x315 MVA, 400/220 kV Substation at Jind
- (v) New 2x315 MVA, 400/220 kV Substation at Jaipur (South)
- (vi) Extension of Bhiwani 400/220 kV Substation - 1x315 MVA, 400/220 kV, transformer
- (vii) Extension of Gurgaon 400/220 kV Gas Insulated Substation
- (viii) Extension of Bhiwani 765/400/220 kV Substation
- (ix) Extension of Jaipur (Bassi) 400/220 kV Substation
- (x) Extension of Bareilly 400/220 kV Substation

5. The status and scope of work of the subject project covered under various petitions is as follows:-

S.N.	Asset	COD	Petition No.	True up Pet.No.
1	400/220kV 500MVA ICT-I at Jaipur South S/Stn along with associated bays and 02 nos. 220 KV line bays	1.6.2012 (Actual)	89/TT/2012 (2009 -14 period)	290/TT/2015
2	400/220 KV 500 MVA ICT-II at Jaipur South S/Stn along with associated bays	1.12.2012 (Actual)		
3	400/220kV 2X315 MVA ICTs at Sohawal S/Stn alongwith associated bays	1.7.2012 (Actual)		
4	LILO on One Ckt of 400kV D/C Agra-Jaipur T/L with 50 MVAR Line Reactor at Jaipur South S/S alongwith associated bays.	1.6.2012 (Actual)	89/TT/2012 (2009 -14 period)	290/TT/2015
5	LILO of 2nd Ckt of 400kV D/C Ballia-Lucknow T/L with 50 MVAR Line Reactor at Sohawal S/S	1.7.2012 (Actual)		
6	LILO of 1st Ckt of 400kV D/C Ballia-Lucknow T/L with 50 MVAR Line Reactor at Sohawal S/S	1.2.2013 (Actual)		
7	LILO of Second Ckt of 400kV D/C Agra-Jaipur T/L with 50MVAR Line Reactor at Jaipur South S/S alongwith associated bays	1.9.2012 (Actual)		
8	315MVA, 400/220kV ICT at Bhiwadi S/S	1.4.2012 (Actual)	71/TT/2012 (2009 -14 period)	4/TT/2015
9	15.5 Km Loop in portion of the line section to provide arrangement for evacuating ROJA Power out of the LILO of both Ckts of 400 kV D/C Bareilly-Lucknow Line	1.4.2012 (Actual)	196/TT/2012 (2009 -14 period)	



S.N.	Asset	COD	Petition No.	True up Pet.No.
10	125 MVAR Bus Reactor at Jaipur (South) S/S	1.1.2013 (Actual)	32/TT/2013 (2009 -14 period)	<b>Current Petition</b>
11	400 kV Bhiwani Jind TL along with associated bays plus 01 nos. 500 MVA, 400/220 kV ICT-I and associated bays at Jind S/S	1.4.2013 (Actual)		
12	400/220 kV 500MVA ICT-II along with associated 400/220 kV bays at Jind S/S and 01 no. of 220 kV Line bays	1.10.2013 (Actual)	110/TT/2013 (2009 -14 period)	
13	1 no. of 400 kV,125 MVAR Bus Reactor at Jind S/s along with associated bays	1.10.2013 (Actual)		
14	LIL0 Ckt-II of 400 kV D/C Lucknow-Bareilly TL at Shahjahanpur S/S	13.6.2014 (Actual)	33/TT/2015 (2014 -19 period)	True up petition for 2014-19 period shall be filed after clubbing the remaining assets commissioned during 2009-14 period for which the true up orders are awaited.
15	315 MVA 400/220 kV ICT-I with 02Nos. of 220 kV Line Bays at Shahjahanpur S/S	15.6.2014 (Actual)		
16	315 MVA 400/220 kV ICT-II at Shahjahanpur S/S	26.9.2014 (Actual)		
17	Extn of 400/220 kV GIS Gurgaon S/S	16.1.2015 (Actual)		
18	2x50 MVAR Bus Reactor at 400/220 kV Bareilly S/Stn alongwith ass. bays (Existing Line Reactors retained and used as Bus Reactor)	1.4.2014 (Actual)		
19	125 MVAR Bus Reactor at Shahjahanpur S/S	1.4.2015 (Actual)		
20	315 MVA 400/220 kV ICT-I & associated bays and 03 Nos. 220 kV line bays at Saharanpur S/S	9.5.2016 (Actual)	272/TT/2015 (2014 -19 period)	
21	315 MVA 400/220 kV ICT-II & associated bays and 03 Nos. 220 kV line bays at Saharanpur S/S			
22	50 MVA 400kV Bus Reactor-I at Saharanpur S/S			
23	50 MVA 400kV Bus Reactor-II at Saharanpur S/S			
24	400 kV FSC in Balia-I & II bays at Sohawal S/S of 400 kV D/C Balia-Sohawal Line	12.2.2016 (Actual)	195/TT/2016 (2014 -19 period)	
25	2 Nos. 220 kV Line bays (Feeder-SEZ & Feeder- Dooni) at 400/220 kV Jaipur South S/S	18.10.2014 (Actual)		
26	Bays of 50 MVAR Bus reactor 2 & 3 at 400/220 kV Bassi S/S	11.11.15 (Actual)		
27	1x63MVAR,400kV Bus Reactor-I at 400/220kV Sohawal Sub-station	29.7.2017 (Actual)		
28	1x63MVAR,400kV Bus Reactor-II at 400/220kV Sohawal Sub-station	7.5.18 (Actual)		



S.N.	Asset	COD	Petition No.	True up Pet.No.
29	2 nos. 220kV bays of 220kV(PG)-Sohawal(UP) TL at 400/220kV Sohawal(PG) Substation	5.3.2017 (Actual)	375/TT/2018 (2014-19 period)	
30	2 nos. 220kV bays No. 208 & 209 (Barabanki-I & II of UPPTCL) at 400/220kV Sohawal(PG) Substation	12.2.2017 (Actual)		
31	2 nos. 220 kV Line Bays of Sohawal (PG)-Tanda (UP) TL at 400/220kV Sohawal(PG) Substation	1.11.18 (Anticipated)		
32	2 nos. 220kV bays No. 206 & 207 of Shahjahanpur(PG)-Shahjahanpur(UPPTCL) at 400/220kV Shahjahanpur Sub-Station	3.11.2016 (Actual)		
33	1 Nos, 220kV line bays No. 210 of Shahjahanpur(PG)-Shahjahanpur(UPPTCL) at 400/220kV Shahjahanpur Sub-Station	5.8.2016 (Actual)		
34	1 Nos, 220kV line bays No. 211 of Shahjahanpur(PG)-Shahjahanpur(UPPTCL) at 400/220kV Shahjahanpur Sub-Station	5.8.2016 (Actual)		
35	2 Nos. 220kV Line bays (Vatika-I and Vatika-II) at 400/220kV Jaipur(South) Substation	14.5.2017 (Actual)		
36	2 Nos. 220kV line bays(211 and 212) at 400/220kV Jaipur (South) Substation	28.9.2017 (Actual)		

6. The details of assets covered under the instant petition are as under:-

Asset	Description	Asset-No. in Instant Petition	COD
<b>CERC order dated 26.2.2016 in Petition no. 32/TT/2013</b>			
Asset-I	125 MVAR Bus Reactor at Jaipur (South) S/S.	Asset-I	1.1.2013 (Actual)
Asset-II	400 kV Bhiwani Jind TL along with associated bays plus 01 nos. 500 MVA, 400/220 kV ICT-I and associated bays at Jind S/S	Asset-II	1.4.2013 (Actual)
<b>CERC order dated 29.2.2016 in Petition no. 110/TT/2013</b>			
Asset-I	400/220 kV 500MVA ICT-II along with associated 400/220 kV bays at Jind S/S and 01 no. of 220 kV Line bays	Asset-III	1.10.2013 (Actual)
Asset-II	1 no. of 400 kV,125 MVAR Bus Reactor at Jind S/s along with associated bays	Asset-IV	1.10.2013 (Actual)





7. The details of the Annual Transmission Charges approved vide CERC orders dated 26.2.2016 in petition no. 32/TT/2013 for Asset-I & II and dated 29.2.2016 in petition no. 110/TT/2013 for Asset-III & IV, respectively, 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-I	Approved Annual Fixed Cost (AFC)	46.88	201.05
	Revised AFC claimed during truing up	46.95	201.50
Asset-II	Approved Annual Fixed Cost (AFC)	-	2762.11
	Revised AFC claimed during truing up	-	2757.20
Asset-III	Approved Annual Fixed Cost (AFC)	-	202.59
	Revised AFC claimed during truing up	-	199.26
Asset-IV	Approved Annual Fixed Cost (AFC)	-	102.44
	Revised AFC claimed during truing up	-	104.62

8. The details of the interest on working capital approved in earlier petitions vis-à-vis that claimed by the Petitioner are as under:-

(₹ in lakh)			
Asset	Particulars	2012-13	2013-14
Asset-I	Approved Interest on Working Capital (IWC)	1.54	6.59
	Revised IWC claimed during truing up	1.55	6.60
Asset-II	Approved Interest on Working Capital (IWC)	-	78.48
	Revised IWC claimed during truing up	-	78.37
Asset-III	Approved Interest on Working Capital (IWC)	-	9.31
	Revised IWC claimed during truing up	-	6.81
Asset-IV	Approved Interest on Working Capital (IWC)	-	2.13
	Revised IWC claimed during truing up	-	3.31

9. The Petitioner has served a 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 UPPCL (Respondent no 9) and BRPL (Respondent no 12) vide their affidavits dated 15.10.2018 & 30.11.2018 and the Petitioner vide its affidavits dated 8.1.2019 (in both cases) has filed its rejoinder in the matter, respectively.



10. The Petition was heard on 24.5.2019 and the Commission reserved the order in the Petition.

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

12. This order has been issued after considering the main petition dated 4.5.2018 and Petitioner's affidavits dated 8.1.2019 (2 nos.) & 15.2.2019 and replies dated 15.10.2018 & 30.11.2018 of the respondents, UPPCL & BRPL, respectively.

### **Analysis and Decision**

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

13. The date of commercial operation admitted by Commission vide orders dated 26.2.2016 and 29.2.2016 in Petition Nos. 32/TT/2013 & 110/TT/2013 respectively are as under:-

<b>Asset</b>	<b>Admitted COD</b>
Asset-I	1.1.2013
Asset-II	1.4.2013
Asset-III	1.10.2013
Asset-IV	1.10.2013

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

##### **Capital Cost**

14. The details of allowed capital cost as per orders dated 26.2.2016 and 29.2.2016 in Petition Nos. 32/TT/2013 and 110/TT/2013 respectively are as follows:

(₹ in lakh)

<b>Asset</b>	<b>Apportioned Approved Cost FR</b>	<b>Admitted Cost as on COD</b>	<b>Allowed Add Cap for FY</b>		<b>Total Cost as on 31.3.2014</b>
			<b>2012-13</b>	<b>2013-14</b>	
Asset-I	1208.74	760.60	125.25	24.81	912.48
Asset-II	16643.24	12454.25	0.00	2772.24	15226.49
Asset-III	1989.80	1414.22	208.65	0.00	1622.87
Asset-IV	840.05	778.11	87.16	0.00	878.89

15. The Petitioner has submitted apportioned approved cost as per RCE with the petition. The Petitioner has submitted Auditor certificates dated 24.2.2018, 15.3.2018, 7.9.2016 and 15.3.2018 for Asset-I, II, III and IV, 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-I	1208.74	1328.61	769.99	121.51	20.98	912.48
Asset-II	16643.24	17641.28	12659.32	-	2567.17	15226.49
Asset-III	1989.80	2222.33	1376.44	-	234.74	1611.18
Asset-IV	840.05	1026.62	775.46	-	94.71	870.17

16. The Petitioner vide affidavit dated 15.2.2019 has submitted that RCE apportionment of Asset-I was inadvertently given as ₹1210 lakh in place of ₹1328.61 lakh and accordingly requested to consider the RCE cost of ₹1328.61 lakh. We have considered the submissions made by petitioner.

17. The Commission vide ROP dated 24.1.2019 directed petitioner to clarify as to whether the difference in the cost of 315 MVAR and 500 MVAR is borne by BHEL. In response, petitioner in affidavit dated 15.2.2019 has submitted that due to delay in short circuit test of 315 MVA transformers at KEMA, Netherlands, 500 MVA transformer supplied by BHEL was installed at Jind S/s without any additional financial implication to Petitioner and thus to the beneficiaries.

### Cost overrun

18. The Commission vide ROP dated 24.1.2019 observed that, as per RCE submitted at the time of truing up, there is an increase in capital expenditure of ₹1418.40 lakh from FR cost of ₹20681.83 lakh to RCE cost of ₹22100.23 lakh and directed the Petitioner to submit revised tariff Form-5 on the basis of RCE and also to explain the items on which the amount of ₹1418.40 lakh has been incurred (as per Form-5).

19. In response, the Petitioner vide affidavit dated 15.2.2019 has submitted revised Form-5. The FR/RCE apportionment and estimated completion cost as per the auditor certificate of the assets covered in the present petition is as below:-



Asset	Apportioned Approved Cost as per FR	Apportioned Approved Cost as per RCE	Estimated completion cost
Asset-I	1208.74	1328.61	1111.43
Asset-II	16643.24	17641.28	16648.75
Asset-III	1989.80	2222.33	1717.03
Asset-IV	840.05	1026.62	926.17

20. Petitioner has submitted that, the major reason as given in Form-5 is on account of price received through open competitive bidding, actual site condition, amount paid to the statutory authorities, IEDC as per actual expenditure and IDC as per actual loan deployment. Petitioner has further submitted with regard to the variation of FR cost vis-à-vis the actual cost, that as per Petitioner's policy, the procurement is carried out under open competitive route by providing equal opportunity to all the eligible firms. The bid prices are invited for the complete scope of work on overall basis and the contracts are awarded to the qualified bidder, whose bid is determined as the lowest evaluated, techno-commercially responsive and, who is considered to have the capacity and capability to perform the contract based on the assessment, if carried out. Thus the variation in awarded cost is due to of market forces and the pricing strategies followed by bidder(s).

21. We have considered the submissions made by the Petitioner. The Petitioner has submitted apportioned RCE cost in respect of instant assets. The total capital cost including additional capital expenditure as on 31.3.2014 as per Auditor certificates dated 24.2.2018, 15.3.2018, 7.9.2018 & 15.3.2018 for Asset-I, II, III and IV, respectively, is within the respective asset-wise apportioned RCE cost. Therefore, there is no cost overrun. Further, the price variation is mainly due to inflationary trend prevailing during execution of the project and market forces prevailing at the time of bidding process of various packages which result in increase/decrease in FR cost which was beyond the control of the petitioner and accordingly, cost variation and RCE is considered for tariff purpose.

### **Time over-run**

22. The decision taken by Commission with regard to time overrun in various petitions are as under:-

## **Asset-I & II**

- a) There was a time over-run of 1 month and 4 months in commissioning of Asset-I & II respectively, out of which the Commission, in petition no. 32/TT/2013 vide order dated 26.2.2016, did not condone the time over-run of 1 month in case of Asset-I, while it condoned the time over-run of 4 months in case of Asset-II. The same is being considered in this petition at the time of truing-up also.

## **Asset-III & IV**

- b) The Commission vide order dated 29.2.2016, in petition no. 110/TT/2013, condoned the time over-run of 10 months subject to sustenance of justifications in support of delay at the time of truing up and held as under:-

“19....xxxx

The delay of 10 months is therefore condoned, subject to sustenance of justifications in support of delay in placing the award of work at the time of truing up. The petitioner is directed to quantify the delay in placing of award for supply in terms of the reasons attributable to the land acquisition at the time of truing up. Subject to above, the time over-run of 10 months is condoned.”

23. The Commission vide ROP dated 24.1.2019 directed the Petitioner to submit the justification in support of delay in placing the award of work and quantify the delay in placing of award for supply in terms of the reasons attributable to the land acquisition as directed in order dated 29.2.2016 in Petition No. 110/TT/2013.

24. In response, the Petitioner vide affidavit dated 15.2.2019 has submitted that, as per the Works & Procurement policy of Petitioner, the availability of land is also a condition precedent for award of contracts for Substation packages. Thus, the reason for delay in placing the award is totally attributable to delay in land acquisition as without finalization of land the award can't be placed. The Petitioner has submitted that reason for delay in land acquisition is already condoned by the Commission in order dated 29.2.2016 in Petition No. 110/TT/2013.

25. We have considered the submission of the Petitioner that land is also a condition precedent for award of contracts for substation packages and without



finalization of land, the letter of award can't be placed and the letter of award was held up due to delay in land acquisition which has cascading effect on schedule completion of the Asset-III & IV. We agree to the same and accordingly, time delay on part of land acquisition is beyond the control of the petitioner. Therefore, delay of 10 months is condoned in case of Asset-III & IV.

### **Interest During Construction (IDC)**

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

27. IDC upto allowable date has been worked out based on the loans deployed for the assets as per IDC statement. In case of Asset-I, FC bond is considered as per the IDC statement. IDC claimed by the Petitioner in respect of Asset-II and Asset-IV is slightly lower than that worked out. Therefore, IDC being considered is lower of worked out IDC and claimed IDC. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

28. 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 computational difference	IDC allowed as on COD	IDC un-discharged as on COD	IDC discharged in 2012-13	IDC discharged in 2013-14
Asset-I	32.56	31.90	0.66	25.37	7.19	4.36	2.17
Asset-II	923.97	943.59	0.00	663.56	260.41	0.00	260.41
Asset-III	168.98	113.90	55.08	113.90	0.00	0.00	0.00
Asset-IV	90.64	110.21	0.00	71.40	19.24	0.00	12.50*

\*Rs. 6.74 Lakh IDC is discharged during the year 2014-15

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

29. The Petitioner has claimed IEDC of the Assets covered in the petition and submitted Auditor certificate in support of the same. The allowable IEDC has been determined by considering the percentage of IEDC on Hard Cost as indicated in the Abstract Cost Estimate as per original investment approval, which is 5% for the instant assets. The details of claimed and allowed IEDC is mentioned below:-



(₹ in lakh)

Asset	IEDC claimed as per Auditor Certificate	IEDC allowed	IEDC disallowed due to time over-run	IEDC discharged as on COD
Asset-I	35.16	34.09	1.07	34.09
Asset-II	166.41	166.41	0.00	166.41
Asset-III	90.07	90.07	0.00	90.07
Asset-IV	54.98	54.98	0.00	54.98

### Initial Spares

30. 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	Plant and Machinery Cost excluding IDC, IEDC and Land Expenditure as on cut-off date	Initial spares claimed	Ceiling limit as per Regulation (%)	Initial spares worked out	Excess Initial Spares	Initial Spares Allowed
Asset-I	Sub-Station	1014.82	25.66	2.50%	25.36	0.30	25.36
Asset-II	Sub-Station	5013.80	120.58	2.50%	125.47	0.00	120.58
	Transmission Line	8628.67	62.40	0.75%	64.73	0.00	62.40
Asset-III	Sub-Station	1698.71	10.44	2.50%	43.28	0.00	10.44
Asset-IV	Sub-Station	926.17	35.82	2.50%	22.83	12.99	22.82

31. The Commission vide ROP dated 24.5.2019 directed the Petitioner to submit the year-wise and asset-wise break-up of initial spares discharged during the period 2009-14 and 2014-19. In response, the Petitioner vide affidavit dated 15.2.2019 has submitted discharge details of initial spares as summarized below and has submitted that undischarged portion of initial spares as on COD have been included in Add Cap of respective years.

(₹ in lakh)

Asset	Element	Initial spares claimed	Initial Spares expenditure upto COD	Year wise expenditure of Initial spares incurred/ expected to be incurred			
				2013-14	2014-15	2015-16	2016-17
Asset-I	Sub-Station	25.66	25.66	0.00	0.00	0.00	0.00
Asset-II	Sub-Station	120.58	22.05	58.58	16.60	23.35	0.00
	Transmission Line	62.40	0.00	0.00	0.00	62.40	0.00
Asset-IV	Sub-Station	10.44	10.44	0.00	0.00	0.00	0.00
Asset-V	Sub-Station	35.82	0.00	0.00	0.00	0.00	35.82



32. We have considered the submissions made by the Petitioner. The details of initial spares allowed are as under:-

(₹ in lakh)

Asset	Element	Plant and Machinery Cost excluding IDC, IEDC and Land Expenditure as on cut-off date	Initial spares claimed	Ceiling limit as per Regulations (%)	Initial spares allowed	Excess Initial spares disallowed
Asset-I	S/S	1014.82	25.66	2.50%	25.36	0.30
Asset-II	S/S	5013.80	120.58	2.50%	120.58	0.00
	T/L	8628.67	62.40	0.75%	62.40	0.00
Asset-III	S/S	1698.71	10.44	2.50%	10.44	0.00
Asset-IV	S/S	926.17	35.82	2.50%	22.82	12.99

### Capital cost as on COD

33. Accordingly, the capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulations 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-I	769.99	7.19	1.07	0.30	761.44
Asset-II	12659.32	260.41	0.00	0.00	12398.91
Asset-III	1376.44	55.08	0.00	0.00	1321.36
Asset-IV	775.46	19.24	0.00	12.99	743.23

### Additional Capital Expenditure (ACE)

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

(₹ in lakh)

Asset	Additional Capital Expenditure		Total ACE claimed by Petitioner
	2012-13	2013-14	
Asset-I	121.51	20.98	142.49
Asset-II	-	2567.17	2567.17
Asset-III	-	234.74	234.74
Asset-IV	-	94.71	94.71



35. We have considered the submission made by the Petitioner. The un-discharged IDC and initial spares as on COD has been allowed as ACE during the year of discharge. Accordingly, the ACE allowed has been summarized as under, which shall be reviewed at the time of true up:-

(₹ in lakh)

Particulars	Asset-I		Asset-II
	2012-13	2013-14	2013-14
ACE to the extent of Balance & Retention Payments and work deferred for execution other than IDC	121.51	20.98	2567.17
Add: IDC Discharged	4.36	2.17	260.41
<b>Total Add Cap allowed</b>	<b>125.87</b>	<b>23.15</b>	<b>2827.58</b>

Particulars	Asset-III	Asset-IV
	2013-14	2013-14
ACE to the extent of Balance & Retention Payments and work deferred for execution other than IDC	234.74	94.71
Add: IDC Discharged	0.00	12.50
<b>Total Add Cap allowed</b>	<b>234.74</b>	<b>107.21</b>

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

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

(₹ in lakh)

Asset	Capital Cost allowed as on COD	Add Cap for 2012-13	Add Cap for 2013-14	Total Completion Cost up to 31.3.2014
Asset-I	761.44	125.87	23.15	910.46
Asset-II	12398.91	0.00	2827.58	15226.49
Asset-III	1321.36	0.00	234.74	1556.10
Asset-IV	743.23	0.00	107.21	850.44

#### Debt-Equity Ratio

37. 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)

Particular	Asset-I			
	Capital cost as on COD		Capital cost as on 31.3.2014	
	Amount	%	Amount	%
Debt	533.01	70.00	637.32	70.00
Equity	228.43	30.00	273.14	30.00
<b>Total</b>	<b>761.44</b>	<b>100.00</b>	<b>910.46</b>	<b>100.00</b>



<b>Asset-II</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2014</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	8679.24	70.00	10658.54	70.00
Equity	3719.67	30.00	4567.95	30.00
<b>Total</b>	<b>12398.91</b>	<b>100.00</b>	<b>15226.49</b>	<b>100.00</b>

<b>Asset-III</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2014</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	924.95	70.00	1089.27	70.00
Equity	396.41	30.00	466.83	30.00
<b>Total</b>	<b>1321.36</b>	<b>100.00</b>	<b>1556.10</b>	<b>100.00</b>

<b>Asset-IV</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2014</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	520.26	70.00	595.31	70.00
Equity	222.97	30.00	255.13	30.00
<b>Total</b>	<b>743.23</b>	<b>100.00</b>	<b>850.44</b>	<b>100.00</b>

### Return on Equity (ROE)

38. 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:-

<b>Year</b>	<b>MAT Rate (in %)</b>	<b>Gross up ROE (Base rate/(1-t) (in %)</b>
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.01	19.377
2013-14	20.960	19.610

39. 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:-

<b>Particulars</b>	<b>Asset-I</b>		<b>Asset-II</b>
	<b>2012-13 (Pro-rata)</b>	<b>2013-14</b>	<b>2013-14</b>
Opening Equity	228.43	266.19	3719.67
Addition due to Additional Capitalization	37.76	6.94	848.27
Closing Equity	266.19	273.14	4567.95
Average Equity	247.31	269.66	4143.81



Return on Equity (Base Rate )	15.50%	15.50%	15.50%
MAT rate for the respective FY	20.01%	20.96%	20.96%
Rate of Return on Equity (Pre-tax)	19.377%	19.61%	19.61%
<b>Return on Equity (Pre-tax)</b>	<b>11.98</b>	<b>52.88</b>	<b>810.38</b>

(₹ in lakh)

Particulars	Asset-III	Asset-IV
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Opening Equity	396.41	222.97
Addition due to Additional Capitalization	70.42	32.16
Closing Equity	466.83	255.13
Average Equity	431.62	239.05
Return on Equity (Base Rate )	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.96%	20.96%
Rate of Return on Equity (Pre-tax)	19.61%	19.61%
<b>Return on Equity (Pre-tax)</b>	<b>42.32</b>	<b>23.37</b>

### Interest on Loan (IOL)

40. The Petitioner has claimed the IOL based on actual interest rates for each year during the 2009-14 tariff period. 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 have been worked out as per same methodology as that applied in the order dated 26.2.2016 in petition no. 32/TT/2013. The details of IOL calculated are as follows:-

(₹ in lakh)

Particulars	Asset-I		Asset-II
	2012-13 (Pro-rata)	2013-14	2013-14
Gross Normative Loan	533.01	621.12	8679.24
Cumulative Repayment upto previous Year	0.00	10.11	0.00
Net Loan-Opening	533.01	611.01	8679.24
Addition due to Additional Capitalization	88.11	16.20	1979.31
Repayment during the year	10.11	44.17	610.53
Net Loan-Closing	611.01	583.04	10048.01
Average Loan	572.01	597.02	9363.62
Weighted Average Rate of Interest on Loan	5.4943%	5.4296%	7.2538%
<b>Interest on Loan</b>	<b>7.86</b>	<b>32.42</b>	<b>677.37</b>



Particulars	Asset-III	Asset-IV
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Gross Normative Loan	924.95	520.26
Cumulative Repayment upto previous Year	0.00	0.00
Net Loan-Opening	924.95	520.26
Addition due to Additional Capitalization	164.32	75.05
Repayment during the year	38.07	20.98
Net Loan-Closing	1051.20	574.33
Average Loan	988.07	547.29
Weighted Average Rate of Interest on Loan	6.0899%	8.4084%
<b>Interest on Loan</b>	<b>30.09</b>	<b>22.95</b>

### Depreciation

41. Depreciation is allowed for the instant assets in terms of Regulation 17 of the 2009 Tariff Regulations. Assets as admitted by the Commission have been put under Commercial Operation between 1.1.2013 to 1.10.2013. 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-I		Asset-II
	2012-13 (Pro-rata)	2013-14	2013-14
Opening Gross Block	761.44	887.31	12398.91
Additional Capital expenditure	125.87	23.15	2827.58
Closing Gross Block	887.31	910.46	15226.49
Average Gross Block	824.37	898.88	13812.70
Rate of Depreciation	4.9053%	4.9143%	4.4322%
Depreciable Value	701.53	768.58	10488.78
Remaining Depreciable Value	701.53	758.47	10488.78
<b>Depreciation</b>	<b>10.11</b>	<b>44.17</b>	<b>610.53</b>

Particulars	Asset-III	Asset-IV
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Opening Gross Block	1321.36	743.23
Additional Capital expenditure	234.74	107.21
Closing Gross Block	1556.10	850.44
Average Gross Block	1438.73	796.83
Rate of Depreciation	5.2928%	5.2800%
Depreciable Value	1294.86	717.15
Remaining Depreciable Value	1294.86	717.15
<b>Depreciation</b>	<b>38.07</b>	<b>20.98</b>

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

42. O&M Expenses allowed by Commission in petition no. 32/TT/2013 vide order dated 26.2.2016 ("herein" for Assets-I & II) and in petition no. 110/TT/2013 vide order dated 29.2.2016 ("herein" for Assets-III & IV) has been considered for the purpose of tariff calculation. Accordingly, the O&M Expense claimed by the Petitioner, admitted earlier and tried up is the same, and is summarized as under:-

(₹ in lakh)			
Asset	Particulars	2012-13 (Pro-rata)	2013-14
Asset-I	O&M Expenses	15.48	65.46
Asset	Particulars	2013-14 (Pro-rata)	
Asset-II	O&M Expenses	574.96	
Asset-III		78.55	
Asset-IV		32.73	

## 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) trued up is as under:-

Particulars	Asset-I		Asset-II
	2012-13 (Pro-rata)	2013-14	2013-14
Maintenance Spares	9.29	9.82	86.48
O&M expenses	5.16	5.46	48.04
Receivables	31.31	33.59	459.84
<b>Total</b>	<b>45.76</b>	<b>48.86</b>	<b>594.36</b>
Rate of Interest on Working Capital	13.50%	13.50%	13.20%
<b>Interest on Working Capital</b>	<b>1.54</b>	<b>6.60</b>	<b>78.24</b>

Particulars	Asset-III	Asset-IV
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Maintenance Spares	23.57	9.85
O&M expenses	13.09	5.47
Receivables	65.25	34.53
<b>Total</b>	<b>101.91</b>	<b>49.85</b>
Rate of Interest on Working Capital	13.20	13.20%
<b>Interest on Working Capital</b>	<b>6.73</b>	<b>3.28</b>

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

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

Particulars	Asset-I		Asset-II
	2012-13 (Pro-rata)	2013-14	2013-14
Depreciation	10.11	44.17	610.53
Interest on Loan	7.86	32.42	677.37
Return on Equity	11.98	52.88	810.38
Interest on Working Capital	1.54	6.60	78.24
O&M Expenses	15.48	65.46	574.96
<b>Total</b>	<b>46.97</b>	<b>201.53</b>	<b>2751.48</b>

Particulars	Asset-III	Asset-IV
	2013-14 (Pro-rata)	2013-14 (Pro-rata)
Depreciation	38.07	20.98
Interest on Loan	30.90	22.95
Return on Equity	42.32	23.37
Interest on Working Capital	6.73	3.28
O&M Expenses	78.55	32.73
<b>Total</b>	<b>195.76</b>	<b>103.31</b>



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

46. The Petitioner has submitted the tariff forms combining the Assets-I, II, III & IV, wherein the COD has been achieved prior to 1.4.2014, as a single asset. Accordingly, 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:-

Combined Asset	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	874.62	913.53	940.21	943.50	946.49
Interest on Loan	890.15	870.55	828.35	750.51	672.42
Return on Equity	1113.40	1160.23	1189.86	1192.36	1195.68
Interest on Working Capital	110.10	113.08	114.91	114.80	114.76
O&M Expenses	793.79	820.17	847.40	875.52	904.55
<b>Total</b>	<b>3782.06</b>	<b>3877.56</b>	<b>3920.73</b>	<b>3876.69</b>	<b>3833.90</b>

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	66.15	68.35	70.62	72.96	75.38
O&M expenses	119.07	123.03	127.11	131.33	135.68
Receivables	630.34	646.26	653.46	646.12	638.98
<b>Total</b>	<b>815.56</b>	<b>837.64</b>	<b>851.19</b>	<b>850.41</b>	<b>850.04</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on WC	110.10	113.08	114.91	114.80	114.76

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

49. The Petitioner has submitted that E-COD of the combined assets works out to 1.5.2013. However, based on the trued up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as 20.4.2013 as shown below:-



(₹ in lakh)

Asset	Actual COD	Trued up admitted capital cost as on 31.3.2014 (in the instant petition)	Weight of the cost	No. of days from last COD	Weighted Days	Effective COD of Project (Latest COD - Weighted days)
Asset-I	1.1.2013	910.46	4.91%	273	13.40	<b>20.4.2013</b>
Asset-II	1.4.2013	15226.49	82.11%	183	150.27	
Asset-III	1.10.2013	1556.10	8.39%	0	0.00	
Asset-IV	1.10.2013	850.44	4.59%	0	0.00	
<b>TOTAL</b>		<b>18543.49</b>	<b>100.00%</b>		<b>163.67</b>	

50. The E-COD has been used to determine the lapsed life (i.e. the number of completed years) of all the assets as on 20.4.2013.

### Weighted Average Life (WAL)

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

52. 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.

53. 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 30 years as shown below:-

(₹ in lakh)

Particulars	Combined Cost (a)	Life as per 2014 Regulation (b)	Weight (a) x (b)
Leasehold Land	0.00	25	0.00
Building & Other Civil Works	416.30	25	10407.38
Transmission Line	8202.66	35	287093.10
Sub-Station Equipments	7541.73	25	188543.33
PLCC	179.40	15	2690.95





Particulars	Combined Cost (a)	Life as per 2014 Regulation (b)	Weight (a) x (b)
<b>TOTAL</b>	<b>16340.09</b>	<b>30</b>	<b>488734.76</b>
<b>WAL = Total Weight/ Capital cost of the project</b>		<b>30 Years</b>	

54. 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 30 years.

### Capital Cost

55. 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 Asset-I, II, III and IV 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:-

Particulars	Combined Cost as on 1.4.2014 (₹ in lakh)
Freehold Land	2203.40
Leasehold Land	0.00
Building & Other Civil Works	416.30
Transmission Line	8202.66
Sub-Station Equipment	7541.73
PLCC	179.40
<b>TOTAL</b>	<b>18543.49</b>

56. The trued up capital cost of ₹ 18543.49 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)

57. 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 assets is 31.3.2016. 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) & 14(3)(v), which has been summarized as under:-



(₹ in lakh)					
Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	25.97	53.09	10.89	35.00	74.00
Asset-II	515.25	867.06	35.92	4.03	0.00
Asset-III	80.33 (79.04+1.29)*	26.81	0.00	0.00	0.00
Asset-IV	9.02 (2.28+6.74)*	14.62	39.10	0.00	0.00
<b>TOTAL</b>	630.57	961.58	85.91	39.03	74.00

\*Accrual IDC

58. The Respondent, BRPL, vide affidavit dated 30.11.2018 has submitted that the Petitioner has claimed additional capitalisation without providing proper details and justifications. In response, the Petitioner vide affidavit dated 22.1.2019 has submitted that, the ACE incurred after COD and within cut-off date are claimed under provisions of Regulation 14(1)(i) & 14(1)(ii) of 2014 Tariff Regulations and ACE after cut-off date has been claimed in accordance with provisions of Regulation 14(3)(v) of 2014 Tariff Regulations.

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.”*

xxxxxxxxx

*“(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:-

(₹ in lakh)

Particulars	Regulation	Combined Asset				
		2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments before cut-off date	14(1)(i)	265.46	961.58	75.02	0.00	0.00
ACE to the extent of work deferred for execution before cut-off date	14(1)(ii)	357.08	0.00	53.09	0.00	0.00
Add: IDC Discharged before cut-off date	14(1)(i)	8.03	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	0.00	0.00	39.03	74.00
<b>Total Add Cap allowed for tariff</b>		<b>630.57</b>	<b>961.58</b>	<b>85.91</b>	<b>39.03</b>	<b>74.00</b>

### 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)

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	
Combined Asset	18543.49	630.57	961.58	85.91	39.03	74.00	20334.58

### 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)**

Particular	Combined Asset			
	Capital cost as on 1.4.2014		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	12980.44	70.00	14234.20	70.00
Equity	5563.05	30.00	6100.37	30.00
<b>Total</b>	<b>18543.49</b>	<b>100.00</b>	<b>20334.58</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 is as follows:-

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	5563.05	5752.22	6040.69	6066.46	6078.17
Addition due to Additional Capitalization	189.17	288.47	25.77	11.71	22.20
Closing Equity	5752.22	6040.69	6066.46	6078.17	6100.37
Average Equity	5657.63	5896.45	6053.58	6072.32	6089.27
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)	19.61%	19.61%	19.61%	19.61%	19.61%
Return on Equity (Pre-tax)	1109.52	1156.35	1187.17	1190.84	1194.17

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

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	12980.44	13421.84	14094.94	14155.08	14182.40
Cumulative Repayment upto previous Year	723.87	1594.94	2504.93	3441.59	4381.56
Net Loan-Opening	12256.57	11826.90	11590.02	10713.49	9800.85
Addition due to Additional Capitalization	441.40	673.11	60.14	27.32	51.80
Repayment during the year	871.07	909.99	936.66	939.96	942.95
Net Loan-Closing	11826.90	1159.02	10713.49	9800.85	8909.70
Average Loan	12041.74	11708.46	11151.75	10257.17	9355.27
Weighted Average Rate of Interest on Loan	7.3666%	7.4110%	7.4010%	7.2862%	7.1573%
Interest on Loan	887.07	867.72	825.34	747.36	669.58

### 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 are as under:-

(₹ in lakh)

Combined Asset					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	18543.49	19174.06	20135.64	20221.55	20260.58
Additional Capital expenditure	630.57	961.58	85.91	39.03	74.00
Closing Gross Block	19174.06	20135.64	20221.55	20260.58	20334.58
Average Gross Block	18858.77	19654.85	20178.59	20241.06	20297.58
Rate of Depreciation	4.62%	4.63%	4.64%	4.64%	4.65%
Depreciable Value	14989.83	15706.30	16177.67	18216.95	16824.76
Remaining Depreciable Value	14265.97	14111.36	13672.74	14775.36	11903.20
<b>Depreciation</b>	871.07	909.99	936.66	939.96	942.95

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

71. 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	793.79	820.17	847.40	875.52	904.55



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, BRPL in affidavit dated 30.11.2018 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 8.1.2019 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 is given hereunder:-

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset	O&M Expenses	793.79	820.17	847.40	875.52	904.55



## 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:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	119.07	123.03	127.11	131.33	135.68
O&M expenses	66.15	68.35	70.62	72.96	75.38
Receivables	628.55	644.51	651.88	644.72	637.64
<b>Total</b>	<b>813.77</b>	<b>835.89</b>	<b>849.60</b>	<b>849.00</b>	<b>848.70</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on WC	109.86	112.84	114.70	114.62	114.57

## Annual Transmission Charges

78. The detailed computation of the various components of the annual fixed charges for the 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	871.07	909.99	936.66	939.96	942.95
Interest on Loan	887.07	867.72	825.34	747.36	669.58
Return on Equity	1109.52	1156.35	1187.17	1190.84	1194.17
Interest on Working Capital	109.86	112.84	114.70	114.62	114.57
O&M Expenses	793.79	820.17	847.40	875.52	904.55
<b>Total</b>	<b>3771.31</b>	<b>3867.07</b>	<b>3911.26</b>	<b>3868.30</b>	<b>3825.82</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 licence 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. 200/TT/2018.

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

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

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

