

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 127/TT/2018**

**Coram:**

**Shri P.K.Pujari, Chairperson**

**Dr. M.K. Iyer, Member**

**Shri I.S. Jha, Member**

**Date of Order: 09.05.2019**

**In the matter of:**

Approval under Regulation 86 of CERC (Conduct of Business) Regulations, 1999 and CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission Tariff from COD to 31.3.2019 for **Asset-I:** Combined Asset of 400 kV D/C Orai-Orai (UPPTCL) line and associated bays at both ends; 1000 MVA, 765/400 kV ICT-I along with associated bays at Orai(GIS) Sub-station; 330 MVAR, 765 kV Bus Reactor-I along with bay at Orai Sub-station; **Asset-II:** 330 MVAR, 765 kV Bus Reactor-II along with bay at Orai Sub-station; **Asset-III:** 1000 MVA, 765/400 kV ICT-II along with associated bays at Orai(GIS) Sub-station; **Asset-IV:** 765 kV D/C Orai-Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end; **Asset-V:** Combined Asset of LILO of 765 kV S/C Kanpur-Jhatikara Line at Aligarh with associated bays; 330 MVAR, 765 kV Bus Reactor-I along with bay at Aligarh Sub-station; 330 MVAR switchable L/R in 765 kV S/C Kanpur-Aligarh Line at Aligarh; **Asset-VI:** Combined Asset of 330 MVAR, 765 kV Bus Reactor-II along with bay at Aligarh Sub-station; LILO of 765 kV S/C Agra-Meerut Line at Aligarh with associated bays; **Asset-VII:** Bay extension at Jhatikara end to convert line reactor of 765 kV S/C Kanpur-Jhatikara TL into switchable line reactor; **Asset-VIII:** Conversion of existing line reactor at Gwalior end of Satna-Gwalior Ckt-1 TL (to be LILO at Orai) in to switchable line reactor; **Asset-IX:** 765 kV D/C Jabalpur Pooling station - Orai TL



along with 2x330 MVAR line reactor along with Bay Extension at 765/400 kV Jabalpur Pooling Station and 02 nos. 765 Jabalpur Line bays along with 2x330 MVAR line reactor at Orai S/s; **Asset-X**: LILO of one circuit of 765 kV Satna-Gwalior TL along with 765 kV Satna Line Bay at Orai Sub Station and 240 MVAR Line Reactor at Orai S/s and 765 kV Gwalior bay at Orai S/s under "Inter-Regional System Strengthening Scheme in WR and NR (Part-B) in Northern Region and Western Region".

**And in the matter of:**

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

.....**Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited.  
Vidyut Bhawan, Vidyut Marg, Jaipur-302005
2. Ajmer Vidyut Vitran Nigam Ltd.  
132 KV, Gss RVPNL Sub-Station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-3022017 (Rajasthan)
3. Jaipur Vidyut Vitran Nigam Ltd.  
132 KV, Gss RVPNL Sub-Station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-3022017 (Rajasthan)
4. Jodhpur Vidyut Vitran Nigam Ltd.  
132 KV, Gss RVPNL, Sub-Station Building,  
Calgiri Road, Malviya Nagar,  
Jaipur-302017 (Rajasthan)
5. Himachal Pradesh State Electricity Board  
Vidyut Bhawan,  
Kumar House Complex Building II,  
Shimla-171004
6. Punjab State Electricity Board,  
Thermal Shed TIA,  
Near 22 Phatak,  
Patiala-147001



7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula (Haryana)-134109
8. Power Development Deptt.  
Govt. of Jammu & Kashmir,  
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226001
10. Delhi Transco Ltd.  
Shakti Sadan, Kotla Road,  
New Delhi-110002
11. BSES Yamuna Power Ltd.  
BSES Bhawan, Nehru Place,  
New Delhi
12. BSES Rajdhani Power Ltd.  
BSES Bhawan, Nehru Place,  
New Delhi
13. 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
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
18. Madhya Pradesh Power Management Company Ltd.  
Shakti Bhawan, Rampur,  
Jabalpur-482008



19. Madhya Pradesh Power Transmission Company Ltd.  
Shakti Bhawan, Rampur,  
Jabalpur-482008
20. Madhya Pradesh Audyogik Kendra,  
Vikas Nigam (Indore) Ltd.  
3/54, Press Complex, Agra-Bombay Road,  
Indore-452008
21. Maharashtra State Electricity Distribution Co. Ltd.  
Hongkong Bank Building, 3<sup>rd</sup> Floor,  
M.G. Road, Fort, Mumbai-400001
22. Maharashtra State Electricity Transmission Co. Ltd.  
Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, E-Block,  
BandraKurla Complex, Bandra (East),  
Mumbai-4000051
23. Gujarat UrjaVikas Nigam Ltd.  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390007
24. Gujarat Energy Transmission Corporation Limited  
Sardar Patel Vidyut Bhawan,  
Race Course Road, Vadodara-390007
25. Electricity Department  
Govt. of Goa, Vidyut Bhawan, Panaji,  
Near Mandvi Hotel, Goa-403001
26. Electricity Department,  
Administration of Daman & Diu,  
Daman-396210
27. Electricity Department,  
Administration of Dadra Nagar Haveli,  
U.T., Silvassa-396230
28. Chhattisgarh State Electricity Board  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492013
29. Chhattisgarh State Power Transmission Co. Ltd.  
Office of the Executive Director (C&P),  
State Load Despatch Building,



Dangania, Raipur-492013

30. Chhattisgarh State Power Distribution Co. Ltd.  
P.O. Sunder Nagar, Dangania, Raipur,  
Chhattisgarh-492013

.....Respondents

**Parties present:**

**For Petitioner:** Shri S. K. Niranjana, PGCIL  
Shri S. S. Raju, PGCIL  
Shri Vivek Kumar Singh, PGCIL  
Shri S. K. Venkatesan, PGCIL  
Shri Amit Yadav, PGCIL  
Shri Zafrul Hasan, PGCIL and  
Shri Ved Prakash Rastogi, PGCIL

**For Respondent:** Shri R.B.Sharma, Advocate, BRPL  
Shri Mohit Mudgal, Advocate, BRPL and  
Shri Mukesh Kori, MPPMCL

**ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "The Petitioner") for determination of transmission tariff from COD to 31.3.2019 for **Asset-I:** Combined Asset of 400 kV D/C Orai-Orai (UPPTCL) line and associated bays at both ends; 1000 MVA, 765/400 kV ICT-I along with associated bays at Orai(GIS) Sub-station; 330 MVAR, 765 kV Bus Reactor-I along with bay at Orai Sub-station; **Asset-II:** 330 MVAR, 765 kV Bus Reactor-II along with bay at Orai Sub-station; **Asset-III:** 1000 MVA, 765/400 kV ICT-II along with associated bays at Orai(GIS) Sub-station; **Asset-IV:** 765 kV D/C Orai-Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end; **Asset-V:** Combined Asset of LILO of 765 kV S/C Kanpur-Jhatikara Line at Aligarh



with associated bays; 330 MVAR, 765 kV Bus Reactor-I along with bay at Aligarh Sub-station; 330 MVAR Switchable L/R in 765 kV S/C Kanpur-Aligarh Line at Aligarh; **Asset-VI:** Combined Asset of 330 MVAR, 765 kV Bus Reactor-II along with bay at Aligarh Sub-station; LILO of 765 kV S/C Agra-Meerut Line at Aligarh with associated bays; **Asset-VII:** Bay extension at Jhatikara end to convert line reactor of 765 kV S/C Kanpur-Jhatikara TL into switchable line reactor; **Asset-VIII:** Conversion of existing line reactor at Gwalior end of Satna-Gwalior Ckt-1 TL (to be LILO at Orai) in to switchable line reactor; **Asset-IX:** 765 kV D/C Jabalpur Pooling station - Orai TL along with 2x330 MVAR Line Reactor along with Bay Extension at 765/400 kV Jabalpur Pooling Station and 02 Nos. 765 Jabalpur Line bays along with 2x330 MVAR line reactor at Orai S/s; **Asset-X:** LILO of one circuit of 765 kV Satna-Gwalior TL along with 765 kV Satna Line Bay at Orai Sub Station and 240 MVAR Line Reactor at Orai S/s and 765 kV Gwalior bay at Orai S/s under “Inter-Regional System Strengthening Scheme in WR & NR (Part-B)” in Northern Region and Western Region” for tariff block 2014-19 in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as the "2014 Tariff Regulations").

2. The Petitioner has made the following prayers:-

- i. Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition.
- ii. Admit the capital cost as claimed in the petition and approve the Additional Capitalization incurred/projected to be incurred.
- iii. 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.
- iv. Allow the Petitioner to recover FERV on the foreign loans deployed as provided under clause 50 of the Tariff Regulations, 2014.
- v. Approve the Additional ROE as claimed in the Petition.



- vi. 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.
- vii. 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.
- viii. 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.
- ix. Allow to approach the Hon'ble Commission for suitable revision in the norms for O and M expenditure for claiming the impact of wage hike from 1.1.2017 onwards.
- x. Allow the Petitioner to bill and recover GST on Transmission Charges separately from the Respondents, if at any time GST 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.
- xi. Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.
- xii. Allow the Petitioner to bill Tariff from actual DOCO and also the Petitioner may be allowed to submit revised Auditor Certificate and tariff Forms (as per the Relevant Regulation) based on actual DOCO. and
- xiii. Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

3. The Investment Approval (IA) for implementation of "Inter-Regional System Strengthening Scheme in WR and NR (Part-B)" was accorded by the Board of Directors of the Petitioner on 24.12.2014 communicated vide Memorandum no. C/CP/IA/IRSS.NR-WR (B)/WR/421 dated 29.12.2014 at an estimated cost of



₹6517.36 crore including Interest During Construction of ₹403.93 crore based on October, 2014 price level.

4. The scope of the scheme was discussed and agreed as a system strengthening scheme in the 31<sup>st</sup> Standing Committee meeting on Transmission System Planning of Northern Region held on 2.1.2013. Further, the scheme has also been discussed in the 28<sup>th</sup> meeting of Northern Regional Power Committee (NRPC) held on 26.4.2013.

5. The scope of work covered under “Inter-Regional System Strengthening Scheme in WR and NR (Part-B)” scheme is as follows:-

### **Transmission Lines**

- i. Jabalpur Pooling station - Orai 765 kV D/c line –**419 km**
- ii. Orai – Aligarh 765 kV D/c line – **300 km**
- iii. Orai – Orai(UPPTCL) 400 kV D/c (Quad) line –**38 km**
- iv. LILO of one circuit of Satna-Gwalior 765 kV 2xS/c line at Orai S/s –**80 km**
- v. LILO of Agra-Meerut 765 kV S/c line at Aligarh S/s –**35 km**
- vi. LILO of Kanpur–Jhatikara 765 kV S/c at Aligarh S/s –**35 km**

### **Sub-station**

#### **i. 765/400 kV Jabalpur Pooling Station Extn.**

##### 765 kV

- Line Bay : 2 nos.
- Line reactors -330MVAR : 2 nos.

#### **ii. Establishment of 2x1000MVA, 765/400 kV substation at Orai GIS S/s**

##### 765 kV

- Line Bays : 6 nos.
- Transformer bays : 2 nos.
- 1000 MVA, 765/400 kV transformer : 2 nos.
- Bus Reactor bay : 2 nos.
- Bus reactors -330MVAR : 2 nos.
- Line reactors -330MVAR : 2 nos.
- Line reactors -240MVAR : 3 nos.

##### 400 kV

- Line Bays : 2 nos.
- Transformer bays : 2 nos.

#### **iii. Establishment of 765 kV Switching station (GIS) at Aligarh**





### 765 kV

- Line Bays : 6 nos.
- Bus Reactor bay : 2 nos.
- Bus reactors - 330MVAR : 2 nos.
- Line reactors - 240MVAR : 2 nos.
- Switchable Line reactor - 330MVAR : 1 no.

#### iv. **Extension of 765 kV Jhatikara Sub-station**

Line reactor at Jhatikara end for Kanpur-Jhatikara 765 kV S/c line to be converted into switchable line reactor along with a spare unit.

#### v. **Extension of 400 kV Orai (UPPTCL) Sub-station**

### 400 kV

- Line Bay : 2 nos.

#### vi. **Extension of 765 kV Gwalior Sub-station**

Existing Line reactor at Gwalior end of Satna-Gwalior line, which is to be LILLOed at Orai, to be converted into switchable line reactor.

### **Reactive Compensation**

		<b>Approx Line length</b>	<b>Line Reactor- From bus</b>	<b>Line Reactor- To bus</b>
	<b>Line Reactors</b>			
1.	Jabalpur Pooling station - Orai 765 kV D/c	419 km	330 MVAR	330 MVAR
2.	Orai – Aligarh 765 kV D/c line	300 km	240 MVAR	240 MVAR
3.	Orai – Orai(UPPTCL) 400 kV D/c (Quad)	38 km	-	-
4.	LILO of one circuit of Satna-Gwalior 765 kV D/c at Orai	80 km		
	<b>Existing Satna-Gwalior 765 kV S/c</b>	350 km	240 MVAR (Switchable)	240 MVAR*
	Satna-Orai 765 kV S/c	320 km	240 MVAR (Switchable)-To be retained	240 MVAR(New) NGR – shifted from Gwalior end
	Orai-Gwalior 765 kV S/c	130 km	-	-
5.	LILO of Agra-Meerut 765 kV S/c line at Aligarh	35 km		
	<b>Existing Agra-Meerut 765 kV S/c</b>	270 km		240 MVAR (Switchable)
	Agra-Aligarh 765 kV S/c	130 km	-	-
	Aligarh-Meerut 765 kV S/c	200 km		240 MVAR (Switchable)
6.	LILO of Kanpur – Jhatikara 765 kV S/c at Aligarh S/s	35 km		
	<b>Existing Kanpur-Jhatikara 765 kV S/c</b>	465 km	330 MVAR (Switchable)	330 MVAR (Fixed)



		Approx Line length	Line Reactor- From bus	Line Reactor- To bus
	Kanpur-Aligarh 765 kV S/c	330 km	330 MVAR (Switchable)	330 MVAR (Switchable)
	Aligarh-Jhatikara 765 kV S/c	190 km		330 MVAR (Presently fixed to be made Switchable)
	<b>Bus Reactors</b>			
7.	2x1000 MVA, 765/400 kV Sub-station at Orai GIS S/s	2x330 MVAR bus reactor		
8.	765 kV Switching Station at Aligarh (GIS)	2x330 MVAR bus reactor		

\* Existing non-switchable line reactor at Gwalior end of Satna-Gwalior line which is to be LILoed at Orai shall be converted into switchable line reactor.

6. The details of the assets covered under this petition along with their current status has been submitted by the Petitioner as under:-

Name of the Assets	COD (as filed in Petition)	Current COD Status claimed
<b>Asset-I:</b> Combined Asset of 400 kV D/c Orai-Orai (UPPTCL) line and associated bays at both ends; 1000 MVA, 765/400 kV ICT-I along with associated bays at Orai(GIS) Sub-station; 330 MVAR, 765 kV Bus Reactor-I along with bay at Orai Sub-station	1.3.2018 (Anticipated)	31.3.2018 (Actual)
<b>Asset-II:</b> 330 MVAR, 765 kV Bus Reactor-II along with bay at Orai Sub-station	1.3.2018 (Anticipated)	31.3.2018 (Actual)
<b>Asset-III:</b> 1000 MVA, 765/400 kV ICT-II along with associated bays at Orai(GIS) Sub-station	1.3.2018 (Anticipated)	15.4.2018 (Actual)
<b>Asset-IV:</b> 765 kV D/c Orai-Aligarh line with associated bays including 240 MVAR line reactor in both ckt. At both end	1.3.2018 (Anticipated)	Asset IV split as IV (a) and IV (b)
<b>Asset-IV (part-a):</b> Circuit-II of 765 kV D/c Orai-Aligarh line with associated bays including 240 MVAR line reactor in both ckt. At both end		31.3.2018 (Actual)
<b>Asset-IV (part-b):</b> Circuit-I of 765 kV D/c Orai-Aligarh line with associated bays including 240 MVAR line reactor in both ckt. At both end		15.4.2018 (Actual)
<b>Asset-V:</b> Combined Asset of LILo of 765 kV S/c Kanpur-Jhatikara Line at Aligarh with associated bays; 330 MVAR, 765 kV Bus Reactor-I along with bay at Aligarh Sub-station; 330 MVAR Switchable L/R in 765 kV S/c Kanpur-Aligarh Line at Aligarh	1.3.2018 (Anticipated)	31.3.2018 (Actual)
<b>Asset-VI:</b> Combined Asset of 330 MVAR, 765 kV Bus Reactor-II along with bay at Aligarh Sub-station; LILo of 765 kV S/c Agra-Meerut Line at Aligarh with associated bays	1.3.2018 (Anticipated)	31.3.2018 (Actual)
<b>Asset-VII:</b> Bay extension at Jhatikara end to convert line reactor of 765 kV S/c Kanpur-Jhatikara TL into switchable line reactor	1.3.2018 (Anticipated)	31.3.2018 (Actual)
<b>Asset-VIII:</b> Conversion of existing line reactor at Gwalior end of Satna-Gwalior Ckt-1 TL (to be LILo at Orai) in to switchable line reactor	1.4.2017 (Actual)	01.4.2017 (Actual)
<b>Asset-IX:</b> 765 kV D/c Jabalpur Pooling station - Orai TL	1.3.2018	31.3.2018



along with 2x330 MVAR Line Reactor along with Bay Extension at 765/400 kV Jabalpur Pooling Station and 02 nos. 765 Jabalpur Line bays along with 2x330 MVAR line reactor at Orai S/s	(Anticipated)	(Actual)
<b>Asset-X:</b> LILO of one circuit of 765 kV Satna-Gwalior TL along with 765 kV Satna Line Bay at Orai Sub Station and 240 MVAR Line Reactor at Orai S/s and 765 kV Gwalior bay at Orai S/s	1.3.2018 (Anticipated)	31.3.2018 (Actual)

Note: the Petitioner has made submission that all the Assets of the instant project are covered in the instant petition.

7. The Petitioner has claimed the following transmission charges and COD for the instant assets:-

(₹ in lakh)

Name of the Assets	Actual COD	2017-18 (pro-rata)	2018-19
<b>Asset-A:</b> Asset-I, Asset-II, Asset-IV (part-a), Asset-V, Asset-VI, Asset-VII, Asset-IX and Asset-X	31.3.2018	174.85	67419.66
<b>Asset-B:</b> Asset-VIII	1.4.2017	125.87	139.04
<b>Asset-C:</b> Asset-III and Asset-IV (part-b)	15.4.2018	-	7003.86

Note: As per affidavit dated 5.9.2018 the assets bunching in three groups on the basis of actual COD and terming the asset name as Asset-A, Asset-B and Asset-C.

8. The details of the interest on working capital claimed by the Petitioner for the instant assets are as under:-

(₹ in lakh)

Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (pro-rata)	2018-19	2017-18	2018-19	2018-19 (pro-rata)
Maintenance Spares	431.89	446.12	13.97	14.43	92.23
O andM expenses	239.94	247.84	7.76	8.02	51.24
Receivables	10840.95	11236.61	20.98	23.17	1214.54
<b>Total</b>	<b>11512.78</b>	<b>11930.57</b>	<b>42.70</b>	<b>45.62</b>	<b>1358.01</b>
Rate of Interest	12.60%	12.60%	12.80%	12.80%	12.20%
Interest on working capital	3.90	1503.25	5.47	5.84	159.23

9. The Petitioner has served the petition to the Respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the Petitioner.

10. BSES Rajdhani Power Limited (BRPL), Respondent No.12, has filed replies vide affidavit dated 24.7.2018 and 10.9.2018. BRPL has raised issue of cost variation,



TSA, Additional RoE, initial spare, optical ground wire (OPGW), effective tax rate, wage revision, reimbursement of expenditure towards filing fee, license fee etc. The Petitioner has filed rejoinders dated 5.9.2018 and 10.10.2018 respectively to the replies of BRPL.

11. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No.18, has also filed reply vide affidavit dated 7.5.2018. MPPMCL has raised issue of Additional RoE, excess cost incurred on various items, excess initial spares cost, wage revision and GST and Additional Capitalization etc. The Petitioner has filed rejoinder dated 31.8.2018 to the reply of MPPMCL.

12. After carrying out preliminary prudence check of the AFC claimed by the Petitioner, the Commission had allowed Annual Transmission Charges for Asset-A, B and C in terms of proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the computation of PoC charges vide its order dated 14.9.2018. The details of the tariff claimed by the Petitioner and tariff awarded by the Commission are as under:-

i. Annual Transmission Charges claimed are as follows:-

(₹ in lakh)		
Asset	2017-18 (pro-rata)	2018-19
Asset-A	174.85	67419.66
Asset-B	125.87	139.04
Asset-C	--	7003.86

ii. Annual Transmission Charges allowed are given below:-

(₹ in lakh)		
Asset	2017-18 (pro-rata)	2018-19
Asset-A	157.365	60677.694
Asset-B	113.283	125.136
Asset-C	--	6303.474

## Analysis and Decision

13. The Commission has considered the Petitioner's petition and affidavits dated 31.8.2018, 5.9.2018, 10.10.2018 and 25.3.2019, replies filed by Respondents vide

affidavits dated 7.5.2018, 24.7.2018 and 10.9.2018 and the objections raised by the Respondents and the clarifications given by the Petitioner.

14. Having heard the Petitioner and perused the material on record, we proceed to decide the petition.

**Date of Commercial Operation (“COD”)**

Clause (3) of Regulation 4 of the 2014 Tariff Regulations provides as under:-

"(3) date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end: Provided that:

- i) Where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavor to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:
- ii.) in case a transmission system or an element thereof is prevented from regular service or reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”

15. The Petitioner vide affidavit dated 5.9.2018 has claimed the actual COD of the Asset-A and Asset-C as 31.3.2018 and 15.4.2018. The Petitioner has claimed the actual COD of the Asset-B as 1.4.2017 in the petition. Further, the Petitioner has combined the assets which have been put into commercial operation on the same day, in three groups on the basis of actual COD and has claimed the combined tariff accordingly. Taking into consideration the supporting documents, i.e. RLDC Certificate, CEA Certificate and CMD Certificate for respective assets, the COD of the assets covered in the instant petition is approved as below:-

<b>Name of the Assets</b>	<b>COD Claimed by the petitioner</b>	<b>COD Approved</b>
Asset-A	31.3.2018	31.3.2018
Asset-B	1.4.2017	1.4.2017
Asset-C	15.4.2018	15.4.2018



### **Transmission Service Agreement (TSA)**

16. BRPL in affidavits dated 24.7.2018 and 10.9.2018 has submitted that the Petitioner has not furnished the Transmission Service Agreement (TSA) and as per Regulation 3(63) of the 2014 Tariff Regulations, the Petitioner is required to submit the TSA. The Petitioner vide affidavits dated 5.9.2018 and 10.10.2018 has submitted a copy of the TSA dated 19.8.2011 entered into between the Petitioner and BRPL and clarified the issue in detail.

17. The Commission has already dealt with the issue of TSA raised by BRPL at Para 17 and 18 of its order dated 19.9.2018 in Petition No.206/TT/2017. The relevant portion of Para 18 of the order dated 19.9.2018 is produced below:-

“18.....

The Petitioner has submitted that the DICs are intimated about the COD of the new ISTS and are included in the Scheduled II of the TSA. The Petitioner has submitted that the TSA is posted on the Petitioner’s website and has also submitted a copy of the same. It is observed that the Petitioner has entered into a TSA as required under the provisions of 2010 Sharing Regulations and has complied with the requirement of the TSA by including the new ISTS in Schedule-II of the TSA.”

### **Capital Cost**

18. The Petitioner has claimed capital cost as per Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations.

19. The Petitioner vide affidavit dated 5.9.2018 submitted the Auditor certificates along with tariff forms for Asset A and C. Auditor certificate for Asset-B was filed with petition itself. The details of approved apportioned cost, capital cost as on COD and estimated additional capital expenditure incurred or projected to be incurred during 2017-18, 2018-19, 2019-20 and 2020-21 along with estimated completion cost for the assets covered in the petition are as under:-

(₹ in lakh)

Asset	Approved Cost (Apportioned)	Cost as on COD	Proposed Expenditure for FY				Estimated completion Cost
			2017-18	2018-19	2019-20	2020-21	
Asset-A	596560.75	383250.54	--	29582.23	23744.57	10998.27	447575.62
Asset-B	368.06	126.95	77.43	42.09	10.35	0.00	256.82
Asset-C	54807.19	39999.13	--	3834.78	3969.03	1984.51	49787.46
<b>Total</b>	<b>651736.00</b>	<b>423376.60</b>	<b>77.43</b>	<b>33459.10</b>	<b>27723.95</b>	<b>12982.78</b>	<b>497619.90</b>



### **Cost Over-Run/Variation**

20. As compared with apportioned approved cost of ₹651736.00 lakh, the estimated completion cost of the instant assets is ₹497619.90 lakh. The estimated completion costs of the individual assets are also within the apportioned approved cost of the respective assets.

21. BRPL has filed replies vide affidavits dated 24.7.2018 and 10.9.2018. BRPL has raised issue of cost variation and has made submissions that the intra-element variation within the assets may be disallowed. The Petitioner has filed rejoinders dated 5.9.2018 and 10.10.2018 respectively to the replies of BRPL.

22. MPPMCL has also raised issue of excess cost occurred on various items and Additional Capitalization etc. The Petitioner has filed rejoinder dated 31.8.2018 to the reply of MPPMCL.

23. We have considered the submissions placed on record by the Petitioner, MPPMCL and BRPL. Against the total apportioned approved cost as per FR of ₹651736.00 lakh for the whole project, the capital expenditure as on COD is ₹423376.60 lakh and the estimated completion cost including additional capital expenditure is ₹497619.90 lakh. Hence, individual as well as overall, there is a no cost overrun in instant petition. However, there is a cost under-run of ₹154116.10 lakh (-23.64%). The Petitioner has submitted Form-5 in affidavits dated 23.2.2018 and 5.9.2018 and has made further submissions for the reasons of cost variation/cost under run for the Assets covered in the instant petition. Based on documents placed on records in Form-5, we observe that cost variations in various assets are mainly due to the following reasons:

#### **24. Cost Variation for Asset-A:**

- i. Against the total apportioned approved cost as per FR ₹596560.75 lakh for Asset-A, the estimated completion cost is ₹447575.62 lakh. Hence, there is a cost variation of ₹148985.13 lakh as compared to FR cost which is mainly due to decrease in transmission line equipment cost, due to decrease in line length and decrease of IDC and IEDC cost incurred on actual basis.





- ii. The cost variation occurred mainly due to decrease of line length of Jabalpur-Orai line from 419 km in FR to 360 km (approx.) as per actual; line length of LILO is also reduced from 80 km in FR to 36.14 km as per actual. Further, during execution of the line, UPPTCL changed the allocation of bays for the termination of 400 kV D/C Orai-Orai (UPPTCL) T/L at Orai (UPPTCL) end. Based on final route/alignment, line length of 400 kV D/C Orai-Orai (UPPTCL) line increased from 38 km as estimated in FR to 41.84 km as actual, and line length of LILO of 765 kV S/C Kanpur-Jhatikara at Aligarh S/s got reduced from 35 km as estimated in FR to 10.55 km as actual based on finalisation of Sub-station site at Aligarh. Line length of LILO of 765 kV Agra-Meerut at Aligarh S/s got reduced from 35 km as estimated in FR to 10.87 km as per actual based on finalisation of substation site at Aligarh.
- iii. Decrease of ₹110961.03 lakh in total transmission line cost is mainly due to decrease in line length by 147.3 km which caused less requirements of quantity of various items such as tower material, conductor, insulator, earth wire, hardware fittings etc. At the time of preparation of FR, 607 km line length was proposed. However, in actual 459.4 km line length was used to commission the instant asset.
- **Tower steel (decrease in cost ₹45600.19 lakh)**

Due to decrease in line length, tower steel quantity decreased from 187363 MT to 147663 MT and due to quantity variation there is decrease in cost of approx. ₹32951 lakh. The balance variation is due to decrease in rate of the tower steel from ₹0.83 lakh to ₹0.74 lakh per MT.
  - **Conductor (decrease in cost ₹28705.30 lakh)**

Due to decrease in line length, conductor quantity decreased from 27135 km to 21121 km and resultant cost decreased by ₹19244.8 lakh. The balance variation is due to decrease in rate from ₹ 3.20 lakh to ₹2.75 lakh per km.
  - **Insulators (decrease in cost ₹2989.91 lakh)**

Due to decrease in line length, requirement of insulator quantity decreased from 658696 to 404189. Hence, resultant decrease in cost under this head is



₹2989.91 lakh.

➤ **Hardware fittings (decrease in cost ₹7751.66 lakh)**

Due to decrease in line length, requirement of hardware fittings is less and hence, resultant decrease in cost under this head is ₹7751.66 lakh.

➤ **Erection, stringing and civil works including foundation (decrease in cost ₹26248.73 lakh)**

Due to decrease in line length, requirement of erection, stringing and civil works is less and hence, cost decreased by approx. ₹10300 lakh and balance due to rate variation.

➤ **OPGW (decrease in cost ₹83.75 lakh)**

Due to rate variation, cost decreased by ₹83.75 lakh.

➤ **Earth wire (increase in cost ₹88.46 lakh)**

Due to decrease in line length, requirement of earth wire is less and hence, cost decreased by ₹32.48 lakh. But due to rate variation, cost increased by ₹120.94 lakh.

➤ **Conductor and earth wire accessories (increase in cost ₹330.05 lakh)**

Due to rate variation, cost increased by ₹330.05 lakh.

- iv. **Design and Engineering (increase in cost ₹28.63 lakh):** Initially survey work was done as per normative basis but finally the detail survey was done as per site requirements and accordingly cost was arrived.
- v. **Preliminary investigation, right of way, forest clearance, PTCC, general civil works etc. (increase in cost ₹6651.88 lakh):** Actual compensation was paid as decided by the competent authority.
- vi. **Substation equipment (increase in cost ₹35.68 lakh):** As per estimate, the amount was ₹364.28 lakh. However, the actual amount incurred was ₹399.96 lakh. Thus, there is a cost increase of ₹35.68 lakh due to award cost.

## 25. Cost Variation for Asset-B:

i.) **Switchgear (increase in cost ₹26.46 lakh):** As per estimate, the cost was proposed for 1 no. of switchgear of ₹148.16 lakh. However, due to high price received in bid, it resulted into an increase in award rate and eventually actual cost incurred was ₹174.62 lakh. This resulted into an increase of ₹26.46 lakh.

ii.) **Control, relay and protection panel (increase in cost ₹7.07 lakh):** As per estimate, the cost was proposed for 2 nos. of control, relay and protection panel of ₹18.73 lakh at the rate of ₹9.37 lakh/panel. However, due to high rate of bid at ₹12.90 lakh/panel as compared to estimate ₹9.37 lakh/panel, it resulted into an increase in actual cost by ₹7.07 lakh.

iii.) **Structure for switchyard (decrease in cost ₹47.91 lakh):** As per estimate, the rate for 1 no of structure for switchyard was ₹60.86 lakh. However, low price received in bidding at ₹12.95 lakh/ switchyard resulted into an overall decrease in cost by ₹47.91 lakh.

## 26. Cost Variation for Asset-C:

i.) **Conductor (decrease in cost ₹883.08 lakh), insulators (increase in cost ₹111.08 lakh), hardware fittings (decrease in cost ₹630.40 lakh), erection, stringing and civil works including foundation (increase in cost ₹379.64 lakh):** Cost variation incurred as line length of 765 kV D/C Orai-Aligarh line increased from 300 km as estimated in FR to 331.93 km as per actual based in final route alignment and location of terminal station at Orai and Aligarh. Correspondingly, quantity of various items such as conductor, insulator, H/W fittings etc. got changed.

ii.) **Switchgear (decrease in cost ₹1350.94 lakh), transformers (increase in cost ₹342.22 lakh), compensating equipment (decrease in cost ₹263.99 lakh), control, relay and protection panel (increase in cost ₹35.77 lakh), PLCC (increase in cost ₹115.15 lakh), emergency D.G. Set (increase in cost ₹6.09**



**lakh), power and control cables (increase in cost ₹109.35 lakh):** These variation are due to difference in the estimated cost and award cost.

27. Thus, based on the observations from the Form-5 of various Assets A, B and C as mentioned above, followings is concluded:

- i. **In respect of Asset A**, we observe that there is decrease in estimated completion cost compared to apportioned approved cost primarily due to decrease in line length by 147.3 km and resultant decrease in tower steel cost, conductor cost, insulator cost, hardware fitting cost etc. There is also some cost variation (increase/decrease) due to variation in cost of items received in the bid compared to estimated cost.
- ii. **In respect of Asset-B**, Cost variation occurred due to increase in cost of switchgear, increase in cost of control, relay and protection panel and decrease in cost of structure for switchyard etc. due to variation in price received through competitive bidding.
- iii. **In respect of Asset-C**, Cost variation occurred due to increase in line length of 765 kV D/C Orai-Aligarh line from 300 km as estimated in FR to 331.93 km as per actual based on final route alignment and location of terminal station at Orai and Aligarh. The cost variation occurred also due to decrease in cost of switchgear, increase in cost of control, relay and protection panel, increase in cost of structure for switchyard, decrease in cost of conductor, increase in cost of insulators etc., due to variation in price received through competitive bidding.

28. The overall cost reduction is in tandem with overall reduction in the line length. Further, the completion cost is within the FR cost and there is no cost overrun. Accordingly, cost variation is allowed and considered for tariff purpose.

### **Time over-run**

29. As per the investment approval dated 24.12.2014, the instant assets were scheduled to be commissioned within 40 months from the date of investment approval. Accordingly, the scheduled COD is 23.4.2018 against which, the COD of assets covered in the instant petition are 31.3.2018, 1.4.2017 and 15.4.2018. Hence,



there is no time overrun in commissioning of subject assets.

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

30. The Petitioner has claimed IDC ₹21753.22 lakh, ₹4.86 lakh and ₹2238.93 lakh in respect of Asset-A, Asset-B and Asset-C respectively.

31. The Petitioner has submitted the statement showing discharged of IDC liability as on COD and thereafter. The Petitioner has also submitted the drawl details along with the IDC statements for all the assets vide affidavit dated 25.3.2019. The Petitioner has further submitted foreign loans deployed loan wise/asset which are as follows:-

Loan	Currency	Region	(Foreign Loan Deployed as on COD in lakh)		
			Asset-A	Asset-B	Asset-C
ADB VII	USD	NR-III	633.014	NIL	98.016
	USD	WR-II	15.903	NIL	NIL
ADB VIII	USD	NR-III	348.889	NIL	54.031
	USD	WR-II	4.760	NIL	NIL
<b>Total</b>			<b>1002.566</b>	<b>NIL</b>	<b>152.047</b>

32. The Petitioner has also furnished the drawl details of foreign loans which is matching with the Form 9D submitted along with the respective Forms. The Petitioner has also furnished the details of IDC for domestic loans and foreign loans along with the IDC discharged and Accrued IDC discharged subsequent to COD as per the following:

(₹ in lakh)										
Asset	COD	IDC Domestic loans	IDC Foreign loan (including Guarantee fee)	Total IDC	IDC discharged upto COD (Domestic Loan)	IDC discharged upto COD (Foreign Loan)	Accrued IDC Discharged in FY			
							Domestic	Foreign	Domestic	Foreign
							2017-18	2017-18	2018-19	2018-19
Asset-A	31.03.2018	18887.20	2866.01	21753.21	13148.61	2609.43	--	--	5738.59	256.58
Asset B	01.04.2017	4.86	--	4.86	--	--	4.86	--	--	--
Asset-C	15.04.2018	1806.36	432.57	2238.93	1538.27	383.49	--	--	268.09	49.08
	<b>Total</b>	<b>20698.42</b>	<b>3298.58</b>	<b>23997.00</b>	<b>14686.88</b>	<b>2992.92</b>	<b>4.86</b>	<b>--</b>	<b>6006.68</b>	<b>305.66</b>



**Region wise breakup Asset-A**

(₹ in lakh)

Asset	COD	IDC Domestic loans	IDC Foreign loan (including Guarantee fee)	Total IDC	IDC discharged upto COD (Domestic Loan)	IDC discharged upto COD (Foreign Loan)	Accrued IDC Discharged in FY			
							Domestic	Foreign	Domestic	Foreign
							2017-18	2017-18	2018-19	2018-19
NR-III	31.03.2018	6566.49	2684.73#	9251.22	4359.83	2432.92	--	--	2206.66	251.81
NR-I	31.03.2018	0.62		0.62	0.26	--	--	--	0.36	--
WR-II	31.03.2018	12320.09	181.28	12501.37	8788.52	176.51	--	--	3531.57	4.77
	<b>Total</b>	<b>18887.20</b>	<b>2865.99</b>	<b>21753.21</b>	<b>13148.61</b>	<b>2609.43</b>	<b>--</b>	<b>--</b>	<b>5738.59</b>	<b>256.58</b>

# Total IDC as per IDC discharged statement is ₹10011.99 lakh. However, in the certificate, the IDC has been considered after adjusting (-) ₹760.77 lakh, being FERV

33. The loans other than bonds carry floating rate of interest. However, details furnished are not adequate to check/re-workout effective rate of interest on loan. Therefore, the Petitioner is directed to furnish proper details at the time of truing up. IDC and its discharges as ACE claimed by the Petitioner have been allowed for the purpose of tariff except the following cases where loans against the bonds were drawn prior to Investment Approval on 24.12.2014:-

Asset	Date of drawl	Amount (₹ in lakh)	Remarks
A	4.9.2014	7.00	Period up to Investment Approval disallowed
A	20.10.2014	562.14	
C	20.10.2014	991.86	

34. The IDC considered as on COD for the purpose of tariff determination is as below:-

(₹ in lakh)

Asset	IDC claimed	IDC disallowed (on account of time overrun not condoned)	IDC disallowed (on account of loan drawn prior to Investment approval)	IDC discharged after COD (Un-discharged liability)	IDC allowed (As on COD)
Asset-A	21753.22	--	9.14	5995.17	15748.90
Asset-B	4.86	--	--	4.86	--
Asset-C	2238.93	--	15.77	317.17	1905.99

35. The details of domestic loan provided by Petitioner in "Statement showing IDC discharged up to DOCO" in respect of Asset-A and C do not match with the details



provided in Form-6 and Form-9C. Hence, the Petitioner is directed to submit the reconciliation at the time of truing up. Details of variations observed are as given below:-

(₹ in lakh)			
Name of Assets	Amount of Loan as per Statement showing IDC discharged up to DOCO	Amount of loan as per Form-6	Amount of loan as per Form-9C
Asset-A	202637.37	198440.76	198440.76
Asset-C	17958.34	17760.50	17760.50

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

36. The Petitioner has claimed IEDC of ₹5505.37 lakh, ₹1.82 lakh and ₹902.95 lakh in respect of Asset-A, Asset-B and Asset-C respectively. The Petitioner has claimed IEDC as on COD, which is within the percentage of hard cost as indicated in the abstract cost estimate. Further, the Petitioner vide affidavits dated 23.2.2018 and 5.9.2018 has submitted that entire IEDC claimed in Auditor certificate is on cash basis and is paid up to COD of the assets. Hence, the entire amount of IEDC has been allowed in case of Asset-A, Asset-B and Asset-C.

### **Initial spares**

37. The Petitioner vide affidavits dated 28.2.2018 and 5.9.2018 and Auditor Certificates dated 5.7.2018, 20.12.2017 and 13.8.2018 for Asset-A, Asset-B and Asset-C has claimed the Initial spares for the assets covered in the instant petition which is as follows:

(₹ in lakh)						
Asset	Plant and Machinery Cost excluding IDC, IEDC and Land Exp.		Initial spares claimed		Ceiling limit (TL) as per Regulations (%)	Ceiling limit (SS) as per Regulations (%)
	T/L	S/S	T/L	S/S		
Asset-A	273115.18	122248.56	2724.29 (0.99%)	6094.22 (4.99%)	1.00%	5.00%
Asset-B	0.00	250.15	0.00	37.20 (14.87%)	1.00%	6.00%
Asset-C	20892.75	25479.31	204.81 (0.98%)	1201.74 (4.72%)	1.00%	5.00%



38. MPPMCL in affidavit dated 7.5.2018 has submitted that the Petitioner is claiming initial spares on the total sum of all the assets which is not as per practice in vogue. The Petitioner has not submitted the asset wise details of initial spares. Hence, the same may be restricted asset-wise as per the limit mentioned in 2014 Tariff Regulation by applying prudence check, of admissible completion cost.

39. BRPL has submitted that initial spares may be limited within the prescribed ceiling limit and strictly in accordance with Regulation 13 of the 2014 Tariff Regulations.

40. In response, to the issues raised by MPPMCL and BRPL related to initial spares, the Petitioner vide affidavits dated 31.8.2018 and 5.9.2018 has submitted that claimed initial spares for the subject assets covered under instant petition are within the ceiling limit as the TL (1.00% Ceiling limit) and S/s is Brownfield (6% Ceiling limit) other than Orai S/s, Orai is Greenfield GIS (5% Ceiling limit) as per Regulation 13 chapter 4 of the 2014 Tariff Regulation.

41. We have considered the submission made by the Petitioner, MPPMCL and BRPL. The details of initial spares allowed, based on the asset-wise capital cost, as per Regulation 13, chapter 4 of the 2014 Tariff Regulation are as follows:

**Asset-A**

(₹ in lakh)

Particulars	Total cost (P and M cost excluding IDC, IEDC, Land cost and cost of civil works for the purpose of initial spares)	Initial spares claimed	Ceiling limit (%) as per Regulation 13 of the 2014 Tariff Regulation	Initial spares calculated	Excess initial spares	Initial spares allowed
Transmission line	273115.18	2724.29	1.00%	2731.22	--	2724.29
Sub-station	122248.56	6094.22	5.00%	6113.39	--	6094.22

## Asset-B

(₹ in lakh)

Particulars	Total cost (P&M cost excluding IDC, IEDC, Land cost and cost of civil works for the purpose of initial spares)	Initial spares claimed	Ceiling limit (%) as per Regulation 13 of the 2014 Tariff Regulation	Initial spares calculate	Excess initial spares	Initial spares allowed
Transmission line	--	--	1.00%	--	--	--
Sub-station	250.15	37.20	6.00%	13.59	23.61	13.59

## Asset C

(₹ in lakh)

Particulars	Total cost (P&M cost excluding IDC, IEDC, Land cost and cost of civil works for the purpose of initial spares)	Initial spares claimed	Ceiling limit (%) as per Regulation 13 of the 2014 Tariff Regulation	Initial spares calculated	Excess initial spares	Initial spares allowed
Transmission line	20892.75	204.81	1.00%	208.96	--	204.81
Sub-station	25479.31	1201.74	5.00%	1271.76	--	1201.74

### Optical Ground Wire (OPGW):

42. BRPL in affidavit dated 24.7.2018 has made submissions that:

a) The Petitioner has not filed the details of the Communication System in the Tariff Filing Forms related to Transmission and Communication System. However, it is noted from Form-5, that the Petitioner is using Optical Ground Wire (OPGW) in place of earth wire for this asset. In the context of the OPGW, the Petitioner is required to file information related to the number of fibres and whether all the fibres will be used for the utility's own data and voice communication or some dark fibres (spares) are also available which may be leased or sold out to third parties to serve as high speed fibre interconnection between two points.

b) Further, the provisions of Section 41 of the Electricity Act, 2003 is also required to be complied with requiring separate accounts for this purpose and use a proportion of the revenues derived from Communication business to be utilized for reducing transmission charges in accordance with the provisions of the Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of





Transmission assets for other business) Regulations, 2007. The Petitioner may be asked to file complete details on this issue to the Commission as well as to the Respondents.

c) Further, as per Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of Transmission assets for other business) Regulations, 2007, PGCIL is sharing only ₹3000 per year per km of right of way utilized, which is quite low and the Commission has also addressed the same in Consultation Paper on Terms and Conditions of Tariff for Tariff period 1.4.2019 to 31.3.2024.

43. In response, Petitioner in affidavit dated 5.9.2018 has submitted that no sharing of fibres is being done till now and whenever, fibres is shared with the third parties, supply cost of fibres shall be adjusted in the auditor certificate as per the prescribed norms. Further, it is also submitted that sharing of ₹3000 per year km of right of way utilized is governed by notification as per the prescribed norms.

44. We have considered the submissions made by the Petitioner and BRPL. From the submissions placed on record by the Petitioner, it is understood that, as of now, sharing of fibres is not being done. We direct the Petitioner to submit all such information and details as pointed out by BRPL, once such sharing of fibres is being done, at the time of truing up.

#### **Capital Cost allowed as on COD**

45. Based on above, 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 per CA Certificate as on COD.	Less: Un-discharged IDC as on COD.	Less: IDC disallowed (on account of loan drawn prior to Investment approval)	Less: Un-discharged IEDC as on COD.	Less: Excess Initial spares as on COD.	Capital cost considered as on COD
Asset-A	383250.54	5995.17	9.14	--	--	377246.23
Asset-B	126.95	4.86	--	--	23.61	98.48
Asset-C	39999.13	317.17	15.77	--	--	39666.19

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

46. The cut-off date for the instant assets shall be as follows:

<b>Asset</b>	<b>COD</b>	<b>Cut-off date</b>
Asset-A	31.3.2018	31.3.2021
Asset-B	1.4.2017	31.3.2020
Asset-C	15.4.2018	31.3.2021

47. The Petitioner has claimed ACE as per Clause (1) of Regulation 14 of the 2014 Tariff Regulations based on the cost certified by the Auditors. In addition, the Petitioner has also claimed the ACE towards discharge of IDC liability for 2017-18 and 2018-19. The additional capital expenditure claimed by the Petitioner for the instant assets for the period 2017-18 and 2018-19 is within the cut-off date and is on account of balance and retention payments and accordingly it is allowed under Regulation 14(1) (i) of the 2014 Tariff Regulations. The ACE claimed by the Petitioner is summarized in the table below:-

**(₹ in lakh)**

<b>Asset</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-A	--	35577.40
Asset-B	82.29	42.09
Asset-C	--	4151.95

48. We have considered the submission made by the Petitioner and MPPCL. The admissibility of additional capital expenditure incurred after COD is to be dealt in accordance with provision of Regulation 14(1) of the 2014 Tariff Regulations. The additional capital expenditure incurred and projected to be incurred for the transmission asset claimed by the Petitioner is within the cut-off date, it is within the approved cost and it is on account of balance and retention payment and hence additional capitalization claimed by the Petitioner for period 2018-19 is allowed under Regulation 14(1) of the 2014 Tariff Regulations. However, the additional capitalization for period 2019-20 and 2020-21 is not being considered as the tariff period is ending on 31.3.2019 and same will be considered in tariff period 2019-24 in terms of prevailing regulation at that time.

49. The un-discharged IDC as on COD has been allowed as Additional Capital Expenditure during the year of discharge. Accordingly, the Additional Capital Expenditure allowed has been summarized as under, which shall be reviewed at the time of true up:-

(₹ in lakh)				
Assets	Particular	2017-18	2018-19	Total Add Cap allowed
<b>Asset-A</b>	Additional Capitalization Claimed	--	4099.03	4099.03
	<b>Add : IDC Discharged</b>	--	5995.17	5995.17
	<b>Add : Capital Liabilities Discharged</b>	--	25483.20	25483.20
	<b>Total Add Cap allowed</b>	--	<b>35577.40</b>	<b>35577.40</b>
<b>Asset-B</b>	Additional Capitalization Claimed	--	--	--
	<b>Add : IDC Discharged</b>	4.86	--	4.86
	<b>Add : Capital Liabilities Discharged</b>	77.43	42.09	119.52
	<b>Total Add Cap allowed</b>	<b>82.29</b>	<b>42.09</b>	<b>124.38</b>
<b>Asset-C</b>	Additional Capitalization Claimed	--	--	--
	<b>Add : IDC Discharged</b>	--	317.17	317.17
	<b>Add : Capital Liabilities Discharged</b>	--	3834.78	3834.78
	<b>Total Add Cap allowed</b>	--	<b>4151.95</b>	<b>4151.95</b>

50. The capital cost considered for the purpose of computation of tariff is as follows:-

(₹ in lakh)				
Asset	Capital Cost allowed as on COD	ACE allowed for 2017-18	ACE allowed for 2018-19	Total Estimated Completion Cost up to 31.03.2019
Asset-A	377246.23	--	35577.40	412823.63
Asset-B	98.48	82.29	42.09	222.86
Asset-C	39666.19	--	4151.95	43818.14

### **Debt-Equity Ratio**

51. The Petitioner has claimed Debt:Equity ratio of 70:30 as on the date of commercial operation. Debt:Equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of Debt:Equity ratio in respect of the instant asset as on COD and as on 31.3.2019 are as under:-



**Asset-A****(₹ in lakh)**

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	264072.37	70.00	288976.55	70.00
Equity	113173.86	30.00	123847.08	30.00
<b>Total</b>	<b>377246.23</b>	<b>100.00</b>	<b>412823.63</b>	<b>100.00</b>

**Asset-B****(₹ in lakh)**

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	68.94	70.00	156.01	70.00
Equity	29.54	30.00	66.85	30.00
<b>Total</b>	<b>98.48</b>	<b>100.00</b>	<b>222.86</b>	<b>100.00</b>

**Asset-C****(₹ in lakh)**

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	27766.33	70.00	30672.70	70.00
Equity	11899.86	30.00	13145.44	30.00
<b>Total</b>	<b>39666.19</b>	<b>100.00</b>	<b>43818.14</b>	<b>100.00</b>

**Return on Equity**

52. This has been dealt with in line of Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations.

53. The Petitioner has submitted that it is liable to pay income tax at MAT rate, the RoE has been calculated @ 20.243% after grossing up the RoE of 16.00% with MAT rate of 20.961% as provided under Regulation 25(2)(i) of the 2014 Tariff Regulations. As per Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of RoE at the end of the financial year shall be trued up based on actual tax 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 2014-19 period on actual gross income of any financial year.

54. BRPL submitted that the Petitioner has not mentioned the effective tax rate for each year of tariff period for all the assets. The Petitioner may be directed to furnish details in the working of effective tax rate along with tax audit report for financial year 2014-15 and the reasons for opting MAT. The Petitioner may also be directed to submit the details of deferred tax liability and its treatment in the books of account for the period 2014-19. Since, the Petitioner is entitled for Tax Holiday for new transmission project the Petitioner may be directed to supply the information from the date the Petitioner intends to claim the benefits of section 80IA of the Income Tax Act, 1961.

55. We have considered the submissions made by the Respondent and the Petitioner. 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.

56. 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. Accordingly, the RoE allowed is as follows:-

(₹ in lakh)

Particulars	Asset-A		Asset-B		Asset-C
	2017-18	2018-19	2017-18	2018-19	2018-19
Opening Equity	113173.86	113173.86	29.54	54.23	11899.86
Addition due to Additional Capitalization	--	10673.22	24.69	12.63	1245.59
Closing Equity	113173.86	123847.08	54.23	66.86	13145.44
Average Equity	113173.86	118510.47	41.89	60.54	12522.65
Return on Equity (Base Rate )	16.00%	16.00%	16.00%	16.00%	16.00%
MAT rate for the Financial year 2017-18	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	20.243%	20.243%	20.243%	20.243%	20.243%
<b>Return on Equity (Pre-tax)</b>	<b>62.77</b>	<b>23990.07</b>	<b>8.48</b>	<b>12.26</b>	<b>2437.73</b>

### **Additional Return on Equity**

57. The Petitioner has submitted that the assets covered in the instant petition were put into commercial operation within the timeline specified in the 2014 Tariff Regulations and has prayed for grant of additional RoE of 0.5%.

58. MPPMCL in affidavit dated 7.5.2018 submitted that additional RoE may be allowed on actual basis subject to prudence check of all certificates relating to commissioning of Assets. In response, the Petitioner vide its rejoinder dated 31.8.2018 has submitted that , the assets covered in the instant petition have been put into commercial operation within the time line as specified in Appendix-I of Regulation 24(2)(i) of the 2014 Tariff Regulations and accordingly, claimed an additional RoE of 0.5%.

59. We have considered the submissions made by the Petitioner and MPPMCL. The time line for 765 kV D/C transmission line (plain areas) is 40 months as specified in Appendix-I of the 2014 Tariff Regulations and the assets covered in the instant petition have also been put into commercial operation within the timeline of 40 months. As per Regulation 24(2)(i) of the 2014 Tariff Regulations, in case of projects put into commercial operation on or after 1st April, 2014, an additional return of 0.50 per cent shall be allowed, if such projects are completed within the timeline specified in Appendix-I. Further, the Petitioner has submitted that all the Assets of the subject project have been put into commercial operation within the timeline specified. Accordingly, additional RoE of 0.5 per cent is being allowed.

### **Interest on loan (IOL)**

60. Interest on loan has been dealt with in line of Regulation 26 of the 2014 Tariff Regulations.

61. IOL has been worked out as under:-

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



- (ii) The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year; and
- (iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

62. The Petitioner has submitted that it be allowed to bill and adjust impact on Interest on Loan due to change in interest due to floating rate of interest applicable, if any, from the Respondents. The interest on loan has been calculated 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. Based on above, details of IOL calculated are as follows:-

Particulars	Asset-A		Asset-B		Asset-C
	2017-18	2018-19	2017-18	2018-19	2018-19
Gross Normative Loan	264072.37	264072.37	68.94	126.53	27766.33
Cumulative Repayment upto previous Year	--	52.83	--	7.37	--
Net Loan-Opening	264072.37	264019.54	68.94	119.16	27766.33
Addition due to Additional Capitalization	--	24904.18	57.59	29.46	2906.37
Repayment during the year	52.83	20175.41	7.37	10.66	2108.81
Net Loan-Closing	264019.54	268748.31	119.16	137.97	28563.89
Average Loan	264045.96	266383.93	94.05	128.56	28165.11
Weighted Average Rate of Interest on Loan	7.015%	7.049%	7.968%	7.967%	6.309%
<b>Interest on Loan</b>	<b>50.75</b>	<b>18777.34</b>	<b>7.49</b>	<b>10.24</b>	<b>1708.69</b>

(₹ in lakh)

### Depreciation

63. Depreciation has been dealt with in line of Regulation 27 of the 2014 Tariff Regulations.

64. The instant transmission asset was put under commercial operation during 2017-18 and 2018-19. Accordingly, they will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

65. Details of the depreciation allowed are as under:-



(₹ in lakh)

Particulars	Asset-A		Asset-B		Asset-C
	2017-18	2018-19	2017-18	2018-19	2018-19
Opening Gross Block	377246.23	377246.23	98.48	180.77	39666.19
Additional Capital expenditure	--	35577.40	82.29	42.09	4151.95
Closing Gross Block	377246.23	412823.63	180.77	222.86	43818.14
Average Gross Block	377246.23	395034.93	139.63	201.82	41742.17
Rate of Depreciation	5.11%	5.11%	5.28%	5.28%	5.253%
Depreciable Value	330286.91	346253.46	125.66	181.62	37354.60
Remaining Depreciable Value	330286.91	346200.64	125.66	174.25	37354.60
<b>Depreciation</b>	<b>52.83</b>	<b>20175.41</b>	<b>7.37</b>	<b>10.66</b>	<b>2108.72</b>

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

66. The Petitioner has claimed the O and M Expenses for 2014-19 period, as per Regulation 29(4) (a) of the 2014 Tariff Regulations. The Petitioner has claimed following O and M Expenses in the petition:

(₹ in lakh)

Name of the Assets	2017-18	2018-19
Asset-A	7.74*	2974.11
Asset-B	93.11	96.20
Asset-C	--	590.95*

\*pro-rata basis

67. MPPMCL in affidavit dated 7.5.2018 has submitted that no order for wage revision has been passed by Ministry of Heavy industries and Public Enterprises, Therefore, the said demand for the wage revision is premature and not justified. The Commission has no control over the wage hike allowed by the Petitioner to its employees and hence no blanket approval may be accorded for enhancement in O and M Expenses at a later stage and therefore the Petitioner request for wage revision may be rejected as the Petitioner being CPSE body has to bear the additional financial implication on account of pay revision from their own resource.

68. BRPL in affidavit dated 24.7.2018 has made submissions that, the increase in the employee cost, if any, due to wage revision must be taken care by improvement in their productivity levels by the Petitioner company so that the beneficiaries are not unduly burdened over and above the provisions made in the Tariff Regulations, 2014.





69. In response, the Petitioner has submitted that wage revision of the employees of the Petitioner is due during the tariff period 2014-19 and actual impact of wage hike which will be effective from a future date and has also not been factored in fixation of the normative O and M rates prescribed for the tariff period 2014-19. Further, it is submitted that the scheme of wage revision applicable to CPSUs being binding on the Petitioner, the Petitioner would approach the Commission for suitable revision in the norms for O and M Expenses for claiming the impact of wage hike during 2014-19 onwards. Accordingly, the Petitioner has prayed to approach the Commission for suitable revision in the norms for O and M Expenses for claiming the impact of wage hike, if any, during 2014-19.

70. We have considered the submissions of the Petitioner. The O and M Expenses have been worked out as per the norms of specified in the 2014 Tariff Regulations. The O and M Expenses have been allowed as under:-

<b>(₹ in lakh)</b>		
<b>Assets</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-A	7.71*	2906.40
Asset-B	93.11	96.20
Asset-C	--	527.13*

\*pro-rata basis

**Revision in O and M expenditure for the impact of wage hike (if any), during period 2014-19**

71. The Petitioner has sought that they may be allowed to approach Commission for suitable revision in the norms for O and M expenditure for claiming the impact of wage hike, if any, during period 2014-19. The O and M expenses have been worked out as per the norms of O and 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.

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

72. 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 % of Operation and Maintenance Expenses specified in Regulation 28.

**b) O and M Expenses:**

O and M expenses have been considered for one month of the O and 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 9.10% as on 1.4.2017 Plus 350 Bps i.e. 12.60 % have been considered as the rate of interest on working capital for Asset-A and B and SBI Base Rate 8.70% as on 1.4.2018 Plus 350 Bps i.e.12.20% have been considered as the rate of interest on working capital for Asset-C.

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

(₹ in lakh)

Particulars	Asset-A		Asset-B		Asset-C
	2017-18	2018-19	2017-18	2018-19	2018-19
Maintenance Spares	422.07	436.09	13.97	14.43	82.22
O and M expenses	234.48	242.27	7.76	8.02	45.68
Receivables	10829.45	11224.99	20.29	22.50	1202.53
Total	11486.01	11903.35	42.02	44.95	1330.43
Rate of Interest	12.60%	12.60%	12.60%	12.60%	12.20%
<b>Interest on working capital</b>	<b>3.97</b>	<b>1499.82</b>	<b>5.29</b>	<b>5.66</b>	<b>156.09</b>

### **Annual Transmission charges**

74. In view of the above, the annual transmission charges being allowed for the instant assets are summarized hereunder:-

(₹ in lakh)

Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (pro-rata)	2018-19	2017-18	2018-19	2018-19 (pro-rata)
Depreciation	52.83	20175.41	7.37	10.66	2108.72
Interest on Loan	50.75	18777.34	7.49	10.24	1708.69
Return on Equity	62.77	23990.07	8.48	12.26	2437.73
Interest on Working Capital	3.97	1499.82	5.29	5.66	156.09
O and M Expenses	7.71	2907.26	93.11	96.20	527.12
<b>Total</b>	<b>178.02</b>	<b>67349.90</b>	<b>121.74</b>	<b>135.02</b>	<b>6938.35</b>

### **Filing Fee and Publication Expenses**

75. 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. BRPL has submitted that filing fee and other expenses may not be allowed. 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.

### **Licence Fee and RLDC Fees and Charges**

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

### **Goods and Services Tax**

77. 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 the Petitioner's prayer is premature.

### **Sharing of Transmission Charges**

78. The transmission charges for all the assets allowed in this order shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

79. This order disposes of Petition No. 127/TT/2018.

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

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

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

