

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No.364/TT/2018**

**Coram :**

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

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

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

**Date of Order: 7<sup>th</sup> of January, 2020**

**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 anticipated COD to 31.03.2019 for **Asset-I:** 400 kV D/C Silchar-Melriat transmission line (Charged at 132 kV) alongwith associated bays, **Asset-II:** LILO of 132 kV S/C Aizawl-Zemabawk Transmission Line along with associated bays at Melriat Sub-station (New), **Asset-III:** 132 kV D/C Melriat (New)– Sihhmui Transmission Line alongwith associated bays, **Asset-IV:** 4x5 MVAR (including 01 no hot spare), 132 kV, 1-ph, Bus Reactor at Melriat S/S alongwith Melriat (PG) GIS Sub-station under the transmission system associated with “Transmission system associated with Pallatana GBPP and Bongaigaon TPS” in North Eastern Region.

**And in the matter of:**

Power Grid Corporation of India Limited

"Saudamini", Plot No.2,

Sector-29, Gurgaon -122 001

.....**Petitioner**

**Versus**

1. Assam Electricity Grid Corporation Limited  
(Formerly Assam State Electricity Board)  
Bijulee Bhawan, Paltan Bazar,  
Guwahati-781001,  
Assam



2. Meghalaya Energy Corporation Limited  
(Formerly Meghalaya State Electricity Board)  
Short Round Road, "Lumjingshai"  
Shillong-793001, Meghalaya
3. Government of Arunachal Pradesh  
Vidyut Bhawan, Itanagar-791111,  
Arunachal Pradesh
4. Power and Electricity Department  
Government of Mizoram,  
Aizawl, Mizoram
5. Manipur State Power Distribution Company Limited  
(Formerly Electricity Department, Govt. of Manipur)  
Electricity Complex, Patta No. 1293 Under 87(2),  
Khwai Bazar, Keishampat, District-Imphal West,  
Manipur-795001
6. Department of Power  
Government of Nagaland  
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited  
Vidyut Bhawan, North Banamalipur, Tripura (W)  
Agartala-799001, Tripura
8. ONGC Tripura Power Corporation Limited (OTPC)  
6th Floor, A Wing, IFCI Towers,  
New Delhi - 110019
9. National Thermal Power Corporation Limited (NTPC Limited),  
NTPC Bhawan, SCOPE Complex, Institutional Area,  
Lodhi Road, New Delhi - 110003

**...Respondents**

**Parties present:**

**For Petitioner:** Shri V.K.Singh, PGCIL  
Shri Zafrul Hasan, PGCIL  
Shri S.S.Raju, PGCIL

**For Respondent:** Shri C.Lallawm Sanga, Government of Mizoram



## ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the Petitioner”) for determination of tariff for **Asset-I:** 400 kV D/C Silchar-Melriat transmission line (Charged at 132 kV) alongwith associated bays, **Asset-II:** LILO of 132 kV S/C Aizawl-Zemabawk Transmission Line along with associated bays at Melriat Sub-station (New), **Asset-III:** 132 kV D/C Melriat (New)– Sihhmui Transmission Line alongwith associated bays, **Asset-IV:** 4x5 MVAR (including 01 no hot spare), 132 kV, 1-ph, Bus Reactor at Melriat S/S alongwith Melriat (PG) GIS Sub-station under the transmission system associated with “Transmission system associated with Pallatana GBPP and Bongaigaon TPS” in North Eastern Region 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”).

2. The Petitioner has made the following prayers:

- i. Approve the Transmission Tariff for the tariff block 2014-19 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 approach Hon’ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, from 1.7.2017 onwards.*
- iv. Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the POC charges.*



- v. *Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff Regulations 2014.*
- vi. *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 of 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 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.*
- viii. *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.*
- ix. *Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.*
- x. *Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. Further, any taxes and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*
- xi *Allow the petitioner to bill Tariff from anticipated DOCO and also the*



*petitioner may be allowed to submit revised Certificate and tariff Forms (as per the Relevant Regulation) based on actual DOCO.*

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

### **Background**

3. The Investment Approval (hereinafter referred to as "IA") for implementation of assets under "Transmission system associated with Pallatana GBPP and Bongaigaon TPS" in North Eastern Region was accorded by the Board of Directors of the Petitioner in 233<sup>rd</sup> meeting held on 25.2.2010 for ₹214400 lakh including IDC of ₹17835 lakh based on 3<sup>rd</sup> quarter, 2009 price level (communicated vide Memorandum No. C/CP/ Pallatana-Bongaigaon dated 26.2.2010).

4. The Revised Cost Estimate (RCE) of the transmission project was accorded by the Board of Directors of Petitioner in 324<sup>th</sup> meeting held on 12.1.2016 for ₹293288 lakh including an IDC of ₹38804 lakh based on October, 2015 price level (communicated vide Memorandum No.C/CP/RCE:PB dated 29.1.2016).

5. The scope of the scheme was discussed and agreed upon in 2<sup>nd</sup> Standing Committee Meeting (SCM) of North Eastern Region (NER) held on 25.6.2008 at Guwahati and 6<sup>th</sup> meeting of TCC & NERPC held on 7.8.2008 & 8.8.2008, respectively, at Gurgaon. Prior approval of Government of India, under section 68 of the Electricity Act, 2003 for "Transmission System of Pallatana GBPP and Bongaigaon TPS" was obtained vide Ministry of Power's letter dated 24.11.2008.

6. The scope of work covered under the project "Transmission system



associated with Pallatana GBPP and Bongaigaon TPS” in North Eastern Region is as follows:-

### **Transmission Line**

1. Bongaigaon TPS - Bongaigaon 400kV D/C Line
2. Silchar-Badarpur (PG) Switching Station Interconnecting 132kV D/C line
3. Pallatana-Surajmaninagar (TSECL) 400kV D/C line (charged at 132 kV)
4. Silchar–Purba Kanchanbari (TSECL)400kV D/Cline(charged at 132kV)
5. Silchar-Melriat (New) 400kV D/C Line (charged at 132kV)
6. Silchar-Imphal (New) 400kV D/C Line (charged at 132kV)
7. Melriat (New)- Melriat (Mizoram) interconnecting 132kV D/C Line
8. Silchar-Srikona (AEGCL) 132kV D/C Line
9. Silchar – Hailakandi (AEGCL) 132kV D/C line
10. LILO of Loktak-Imphal (POWERGRID) 132kVS/C Line at Imphal (New)
11. LILO of 400kVS/C Misa–Kathalguri Line at Mariani (New)(charged at 220kV)
12. Mariani (New)–Mokokchung (POWERGRID) 220kV D/C Transmission Line
13. Mokokchung (PG) – Mokokchung (NG)132kVD/C line (with Zebra conductor)
14. Pasighat – Roing 132kVS/C Line (on D/C Tower)
15. Roing – Tezu 132kV S/C Line (on D/C Tower)
16. Tezu - Namsai 132kV S/C Line (on D/C Tower)

### **Substation**

1. 2x200MVA, 400/132kV New SS at Silchar
2. 2x50MVA, 132/33kV New SS at Melriat (New) (upgradable to 400kV)
3. 2x50MVA, 132/33kV New SS at Imphal (New)
4. 220kV New Switching Station at Mariani
5. 2x50MVA, 220/132kV New S/S at Mokokchung
6. 2x15MVA, 132/33kV New S/S at Roing
7. 2x15MVA, 132/33kV New S/S at Tezu
8. 2x15MVA, 132/33kV New S/S at Namsai
9. 400kV Bongaigaon 400 kV S/S Extension



10. 132 kV Badarpur (PG) S/S Extension
11. 132 kV Melriat (Mizoram) S/S Extension
12. 132 kV Mokokchung (NG) S/S Extension
13. 132 kV Ziro (PG) S/S Extension
14. 132 kV Pasighat (Gov of Arunachal) S/S Extension
15. 132 kV Surajmaninagar (TSECL) S/S Extension
16. 132 kV Purba Kanchan Bari (TSECL) S/S Extension
17. 132 kV Hailakandi (AEGCL) S/S Extension
18. 132 kV Srikona Substation Extension

## **Reactive Compensation**

### **Line Reactor**

1. 2x50 MVAR, 420 kV Switchable line reactors along with associated bays at Silchar (For Pallatana-Silchar 400KV D/C line)
2. 2x63 MVAR, 420 kV Switchable line reactors along with associated bays at Silchar (For Byrnihat-Silchar 400KV line & For Azara-Silchar 400KV line)
3. 2x63 MVAR, 420kV (Fixed) Line Reactor at Bongaigaon End ( For Azara-Bongaigaon 400kV line)

### **Bus Reactor**

1. 2x63 MVAR Bus Reactor at Silchar S/S along with associated bays.
2. 80 MVAR, 420 kV Bus Reactor at Bongaigaon along with associated bay.
3. 20 MVAR, 132kV Bus Reactor at Roing along with associated bay.
4. 20 MVAR, 132kV Bus Reactor at Tezu along with associated bay.
5. 20 MVAR, 132kV Bus Reactor at Namsai along with associated bay.
6. 20 MVAR (4x6.67MVAR), 132kV Bus Reactor at Ziro along with associated bay.
7. The Petitioner has submitted that during 8<sup>th</sup> meeting of TCC & NERPC meeting held on 11.1.2010 & 12.1.2010, respectively, 2x50 MVA three phase Transformers at Melriat and Mokokchung substations were replaced by 7x10 MVA



single phase Transformers in view of difficulties in transportation of 50 MVA transformers. The Petitioner has submitted that the scope of the project was further revised in 3<sup>rd</sup> SCM of NER held on 21.12.2011 and 14<sup>th</sup> meeting of NERPC meeting held on 4.9.2013. The Petitioner has submitted the following details of addition / deletion in the aforesaid scope:

a) Following elements have been deleted from the scope:-

- i) Melriat (New) - Melriat (Mizoram) interconnecting 132 kV D/C line;
- ii) 7x10 MVA 132 kV Transformers at Melriat (POWERGRID);
- iii) LILO of Loktak- Imphal (POWERGRID) 132kV S/C line at Imphal (New);

b) Following elements have been added under the scope of the project:-

- i) Melriat (New) - Sihmui (Mizoram) 132 kV D/C line;
- ii) LILO of 132 kV Aizwal- Zemabawk (Mizoram) line at Melriat (New) Substation;
- iii) LILO of Imphal- Ningthoukhong (Manipur) 132 kV SIC line at Imphal (PG).

8. Details of the assets covered in the project scope under various petitions is summarized below:-

S.N.	Asset	Covered under Petition no
1	400kV D/C Bongaigaon TPS-Bongaigaon line along with associated bays	553/TT/2014
2	132 kV D/C Silchar-Badarpur line along with associated bays	
3	132 kV D/C Silchar-Srikona line along with associated bays	
4	200 MVA, 400/132kV ICT- I at Silchar S/S along with associated bays	
5	2x50 MVAR, 420 kV Switchable line reactors along with associated bays	
6	2x63 MVAR Bus Reactor at Silchar S/S along with associated bays	
7	132 kV Silchar – Hailakandi (AEGCL) line along with associated bays	





<b>S.N.</b>	<b>Asset</b>	<b>Covered under Petition no</b>
8	200 MVA, 400/132kV, ICT-II at Silchar along with associated bays	553/TT/2014
9	400 kV D/C Pallatana-Surajmaninagar line (charged at 132 kV) along with associated bays	
10	80 MVAR, 420 kV Bus Reactor at Bongaigaon along with associated bay.	
11	400kV line bays at Silchar SS and Bongaigaon SS for 400kV D/C Silchar-Bongaigaon line of NETC along with 2 nos of switchable line reactors at Silchar and Bongaigaon SS.	
12	LILO of 220kV Misa – Kathalguri Transmission Line at Mariani along with Mariani Switching Station	
13	4x6.67 MVAR, 132kV, 1-Ph Bus Reactor at 132kV Ziro Substation	
14	220/132kV Imphal S/s (New) and LILO of 132kV S/C Ningthoukhong – Yurembam line at Imphal (New) Substation	
15	20MVAR Bus Reactor at 220kV Mariani Switching Station	
17	220kV, D/C Mariani (New) – Mokokchung (POWERGRID) T/L along with associated bays at Mariani and Mokokchung (PG) Substation	398/TT/2014
18	132kV, D/C Mokokchung (PG) - Mokokchung (NG) T/L along with associated bays, 3 X 10 MVA, 220/132 kV ICT- II and 220kV & 132kV GIS bays at Mokokchung (PG) Substation	
19	3 X 10 MVA, 220/132 kV ICT-I and 220kV & 132kV GIS bays at Mokokchung (PG) Substation	
20	400kV D/C Silchar – Imphal Transmission Line (to be charged at 132 kV) along with associated bays at Silchar and Imphal Substation	
21	400kV, D/C Silchar-Purba Kancharbari Transmission Line (to be charged at 132kV) along with its associated bays at Silchar (new) and Purba Kancharbari (TSECL) Substation	



22	(i) 132kV S/C (on D/C Tower) Pasighat–Roing Transmission Line alongwith associated bays at Pasighat and Roing S/s, (ii) 3x5 MVA (132/33kV), 1-ph, ICT-I alongwith associated bays at Roing, (iii) 4x5 MVA (132/33kV), 1-ph, ICT-II alongwith associated bays at Roing, (iv) 4x6.67 MVAR, 1-Ph, 132kV Bus Reactor along with associated bay at Roing Substation	01/TT/2018
23	(i) 132kV S/C (on D/C Tower) Roing–Tezu Transmission Line alongwith associated bays at roing and Tezu S/S, (ii) 4x6.67 MVAR, 1-Ph, 132kV Bus Reactor along with associated bay at Tezu Substation	
24	Balance portion of 132kV Silchar - Hailakandi TL along with bays at Hailakandi Substation	177/TT/2018
25	Asset-I: 3x5 MVA (132/33kV), 1-ph, ICT-I alongwith associated bays at Tezu substation	
26	Asset-II: 4x5 MVA (132/33kV) (01 no spare), 1-ph, ICT-II alongwith associated bays at Tezu substation	337/TT/2018
27	Asset-III: 132kV S/C (on D/C Tower) Tezu-Namsai Transmission Line alongwith associated bays at Tezu and Namsai S/S, 4X6.67MVAR, 145kV, 1-ph Bus Reactor, 3X5MVA, 132/33kV, 1-ph ICT-I and 4X5MVA, 132/33kV 1-ph ICT-II (01 no spare phase) at Namsai S/S	
28	<b>Asset-I:</b> Silchar-Melriat (New) 400kV D/C Line (charged at 132kV) along with associated bays	
29	<b>Asset-II:</b> LILO of 132kV S/C Aizawl-Zemabawk at Melriat T/L along with associated bays at Melriat S/S in place of 132kV D/C Melriat-Melriat Transmission Line	<b>Covered under instant petition</b>
30	<b>Asset-III:</b> 132kV D/C Melriat– Sihmui T/L alongwith associated bays at Melriat (PG) & Sihmui (Mizoram) S/S in place of 132kV D/C Melriat-Melriat Transmission Line	
31	<b>Asset-IV:</b> 4x5MVAR, 132kV, 1-ph, Bus Reactor at Melriat Substation along with Melriat (PG) GIS Substation	

9. The Commission Vide Order dated 24.4.2019 allowed the interim Annual Transmission Charges under the proviso (i) to Regulation 7(7) of the 2014



Tariff Regulations for inclusion in the POC charges in respect of Asset-I, Asset-II and Asset-IV claimed in the petition. Regarding Asset-III the Commission has held in above order dated 24.4.2019 that:

*“8.xxxxxxThe petitioner has claimed COD of Asset III under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the associated Sihmui Switchyard under the State of Mizoram, STU, was not ready. We would like to hear the STU of Mizoram before approving the COD of Asset –III. Hence, AFC is not allowed for Asset-III in this order.”*

10. The details of the annual transmission charges claimed by the Petitioner are as under:-

Particulars	(₹ in lakh)			
	Asset-I 2018-19 (Pro-rata)	Asset-II 2018-19 (Pro-rata)	Asset-III 2018-19 (Pro-rata)	Asset-IV 2018-19 (Pro-rata)
Depreciation	1247.92	26.48	35.78	10.99
Interest on Loan	1180.90	27.94	42.71	12.09
Return on Equity	1411.39	29.46	46.66	12.25
Interest on Working Capital	83.90	2.91	4.91	1.05
O&M Expenses	84.30	23.43	46.52	6.28
<b>Total</b>	<b>4008.41</b>	<b>110.22</b>	<b>176.58</b>	<b>42.66</b>

11. The details of the interest on working capital (IWC) claimed by the Petitioner are as under:-

Particulars	(₹ in lakh)			
	Asset-I 2018-19 (Pro-rata)	Asset-II 2018-19 (Pro-rata)	Asset-III 2018-19 (Pro-rata)	Asset-IV 2018-19 (Pro-rata)
Maintenance Spares	37.94	10.54	20.93	5.15
O&M expenses	21.08	5.86	11.63	2.86
Receivables	2004.21	55.11	88.29	38.90
<b>Total</b>	<b>2063.23</b>	<b>71.51</b>	<b>120.85</b>	<b>46.91</b>
Rate of Interest	12.20%	12.20%	12.20%	12.20%
<b>Interest on Working Capital</b>	<b>83.90</b>	<b>2.91</b>	<b>4.91</b>	<b>1.05</b>

12. The Petitioner has served the copy of the petition upon the respondents and notice of this tariff 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. No reply to the petition has been filed by the respondents, in the matter.

13. The Petition was heard on 11.7.2019 and the Commission reserved the order in the Petition.

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

15. This order has been issued after considering the main petition dated 30.10.2018 and Petitioner's affidavits dated 5.4.2019 (2 nos.), 29.4.2019 and 23.7.2019.

### **Analysis and Decision**

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

16. The Petitioner has claimed the actual COD of the assets covered in the instant petition is as follows:-

<b>S.N.</b>	<b>Asset</b>	<b>Asset Details</b>	<b>COD (Claimed)</b>
1	<b>Asset-I</b>	400kV D/C Silchar- Melriat transmission line (Charged at 132kV) alongwith associated bays at Silchar and Melriat Substation and 132 kV Melriat GIS substation.	1.12.2018
2	<b>Asset-II</b>	LILO of 132 kV S/C Aizawl-Zemabawk Transmission Line along with associated bays at Melriat S/S (New) in place of 132kV D/C Melriat-Melriat Transmission Line	1.12.2018
3	<b>Asset-III</b>	132kV D/C Melriat (New)– Sihhmui Transmission Line alongwith associated bays in place of 132kV D/C Melriat-Melriat Transmission Line	1.12.2018*
4	<b>Asset-IV</b>	4x5 MVAR (including 01 no hot spare), 132 kV 1-ph, Bus	26.1.2019



S.N.	Asset	Asset Details	COD (Claimed)
		Reactor at Melriat S/S	

(\*) Claimed under proviso (ii) of Regulation 4(3) of 2014 Tariff Regulations.

17. In support of the actual COD of the assets covered in the instant petition, the Petitioner has submitted CEA energisation certificates dated 22.10.2018 (Asset-I) & 23.8.2017 (Asset-II) and RLDC charging certificates dated 1.1.2019 (Asset-I) & 14.2.2019 (Asset-II & Asset-IV). The Petitioner has submitted CMD Certificates as required under Grid Code, for all the Assets. However, CEA energisation certificate for Asset-IV has not been submitted.

18. As regards Asset-III, the Petitioner has claimed COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the associated Sihhmui Switch yard under the State of Mizoram, STU, was not ready. In support of the Asset-III, the Petitioner has submitted CEA energisation certificate dated 23.8.2017 and 'Idle charged' RLDC charging certificate dated 14.2.2019 certifying that the element has successfully completed trial operation on 26.10.2017.

19. We have considered the submissions of the Petitioner. Taking into consideration CEA energisation certificate, RLDC charging certificate and CMD certificate as required under Grid Code, the COD of the Asset-I and Asset-II has been approved as 1.12.2018. As regards Asset-IV, taking into consideration RLDC charging certificate and CMD certificate as required under Grid Code, the COD of the Asset-IV has been approved as 26.1.2019. The Petitioner has not submitted valid CEA energisation certificate for Asset-IV. Therefore, the Petitioner is directed to submit valid CEA energisation certificate at the time of truing up.



20. The Petitioner has claimed COD of Asset-III as 1.12.2018 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and Regulation 6.3A (4) (iv) of Indian Electricity Grid Code (Fourth Amendment) Regulations, 2016 as the Petitioner was not able to put the instant asset into regular service due to non-readiness of associated downstream transmission system under the scope of P & E Department of Government of Mizoram is not ready.

21. Regulation 4(3) 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 for 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."*

22. Regulation 6.3A (4)(iv) of Indian Electricity Grid Code Regulations, 2016 is as



follows:-

*“6.3A Commercial operation of Central generating stations and inter-State Generating Stations 4. Date of commercial operation in relation to an inter-State Transmission System or an element thereof 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 the sending end to the receiving end:*

*(iv) In case a transmission system or an element thereof is prevented from regular service on or before the Scheduled COD for 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 of other transmission licensee, 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.”*

23. We have considered the submissions of the Petitioner. The Petitioner has claimed COD of the Asset-III as 1.12.2018 under Proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations due to non-commissioning of the associated downstream transmission system under the scope of P & E Department of Government of Mizoram. In support of COD, the Petitioner has submitted CEA certificate dated 23.8.2017, RLDC Certificate (idle charging certificate) dated 14.2.2019 certifying that the asset has successfully completed trial operation on 26.10.2017 in accordance with Regulation 5 of CERC (Terms & Conditions of Tariff), Regulations, 2014, self-declaration COD letter and CMD Certificate required under Grid Code. Thus, in our opinion, when all the conditions for commercial



operation are being met, the Petitioner cannot be denied the leverage of declaration of COD of instant asset. Accordingly, taking into consideration, CEA Energisation Certificate, RLDC Certificate (idle charging certificate) and CMD Certificate as required under Grid Code, the COD of the instant Asset-III is approved as 1.12.2018 under proviso (ii) of Regulation 4(3) of 2014 Tariff Regulations.

### **Capital Cost**

24. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provide as follows:-

*“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects”*

*(2) The Capital Cost of a new project shall include the following:*

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) Increase in cost in contract packages as approved by the Commission;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;*
- (e) Capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;*
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and*
- (h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD.”*

25. The Petitioner has submitted Audited Cost Certificate dated 5.4.2019 for the instant assets. The capital cost incurred as on COD and additional capitalization projected to be incurred upto 31.3.2019, is as follows:-





(₹ in lakh)

Asset	AppORTIONED Approved Cost (FR)	AppORTIONED Approved Cost (RCE)	Capital Cost as on COD	ACE in FY 2018-19	ACE in FY 2019-20	ACE in FY 2020-21	Estimated Completion Cost
Asset-I	47282.68	57926.44	72345.10	874.81	3497.73	1306.64	78024.28
Asset- II	The Scope has been modified and approved in the 14 <sup>th</sup> NERPC held on 4.9.2013	1201.09	1513.72	0.00	265.68	71.50	1850.90
Asset-III		2164.60	2384.86	25.77	170.08	4.62	2585.33
Asset-IV		4046.93	1157.01	0.00	107.92	0.00	1264.93

### Cost Over-run

26. The Petitioner has submitted the following with respect to cost variation of estimated completion cost as compared with appORTIONED approved cost (FR) and RCE and the same is as follows:-

#### Asset-I:

(a) With respect to Asset-I, the Petitioner has submitted that as compared to FR and RCE cost, there is cost overrun of about ₹276.32 Crore and ₹169.88 Crore, respectively. The Petitioner has submitted that the cost of about ₹42.83 Crore & ₹7.16 Crore w.r.t FR & RCE, respectively has increased on account of compensation against transmission line construction for crop & tree and Forest/ NPV. The actual line length and route changed due to severe ROW issues encountered during the construction of line, which led to increase in the no. of angle & extension towers. This resulted in increase in the cost of Transmission line by about ₹116.73 Crore and ₹25.91 Crore w.r.t FR and RCE, respectively. Due to inflationary trends of indices the cost of the substation equipment material varies,



the variation is also due to the actual site condition, change in type of soil w.r.t considered in FR etc. There is increase of about ₹117.35 Crore and ₹128.23 Crore in the Overheads and IDC w.r.t. the estimated FR Cost and RCE cost, respectively due to cost and time over run.

**Asset-II, Asset-III & IV:**

(b) It was agreed in the 14<sup>th</sup> NERPC meeting held on 4.9.2013 that 132 kV D/C Melriat – Sihhmui line shall be constructed instead of 132 kV D/C Melriat – Melriat line. Also a new line was added namely LILO of Aizawl-Zemabawk Transmission Line at Melriat (PGCIL) during the same meeting. Accordingly, FR apportioned cost of Asset-II to IV is not available. However, there is cost variation of ₹8.44 Crore, ₹8.59 Crore and ₹2.10 Crore w.r.t RCE for the Asset-II, Asset-III and Asset-IV, respectively.

(c) The cost has increased on account of increase in compensation against transmission line construction for crop & tree and Forest/NPV. The variation is due to the actual assessment of crops/trees & huts and forest area encountered in line corridor by concerned Govt. officials Mizoram state, Forest department, quantity & value of which are much greater than the notional estimate. The Compensation further revised as per the Guidelines issued by MoP, Gol dt: 15.10.2015 and as per the Guwahati, High court order dated 3.3.2017 for payment towards damages in regards to Right of Way of transmission line. The cost increase in transmission line materials i.e. in tower steel, hardware fitting, earth wire, insulators etc., due to ROW issues encountered during the construction of line, the actual line length and routing



changed. Increase of cost in the Overheads and IDC w.r.t. RCE cost arrived during preparation of revised cost estimation.

(d) Tariff for the project has been claimed on the Capital Cost as on COD and projected expenditure upto 31.03.2021. The Revised Cost Estimate-II (RCE-II) for the project is under management approval and shall be submitted before the Commission.

27. We have considered the submissions of the Petitioner. As compared to apportioned approved cost (FR) and RCE, the estimated completion cost of Asset-I has varied by about ₹30741.60 lakh and ₹20097.84 lakh, respectively. Further, as compared to RCE cost, the estimated completion cost of Asset-II and Asset-III has varied by about ₹649.81 lakh and ₹420.73 lakh, respectively. However, no cost variation has occurred in case of Asset-IV w.r.t. RCE.

28. The variation of ₹30741.60 lakh in Asset-I w.r.t. FR is mainly due to increase of ₹4283 lakh paid towards transmission line towards tree and crop compensation, increase of ₹11673 lakh due to ROW issues encountered during the construction of line, which increase the no. of angle & extension towers and an amount of ₹11735 lakh increased towards IDC. As compared with RCE cost the estimated completion cost of Asset-I has varied by about ₹20097.84 lakh.

29. As compared with RCE cost, the estimated completion cost of Asset-II and Asset-III has varied about ₹649.81 lakh and ₹420.73 lakh, respectively. The cost of Asset-II and Asset-III has mainly increased due to increase in crop and tree compensation in transmission line, increase in the cost of the over heads and IDC.



The capital cost claimed by the Petitioner for Asset-I, Asset-II and Asset-III is restricted to RCE cost and the allowable capital cost as on COD is as follows:-

Asset	(₹ in lakh)		
	Apportioned Approved Cost (RCE)	Capital Cost Claimed as per Auditor Certificate upto 31.3.2019	Capital Cost Allowed/ restricted as per RCE
Asset-I	57926.44	73219.91	57926.44
Asset-II	1201.09	1513.72	1201.09
Asset-III	2164.60	2410.63	2164.60
Asset-IV	4046.93	1157.01	1157.01

30. The Petitioner has submitted that the Revised Cost Estimate-II (RCE-II) for the project is under management approval and shall be submitted before the Commission. We have considered the submissions of the Petitioner. The Petitioner is given liberty to submit RCE-II at the time of true up of 2014-19 period. Accordingly, the capital cost claimed by the Petitioner as on COD and additional capitalization upto 31.3.2019 has been considered for tariff calculation, subject to capital cost allowed within RCE as per above table and scrutiny of IDC, IEDC and Initial spares, hereinafter.

#### **Time over-run**

31. As per the Investment Approval (IA), the transmission scheme was scheduled to be commissioned within 34 months from the date of investment approval i.e. 25.2.2010. Accordingly, the Commissioning Schedule comes to 25.12.2012. The Petitioner has submitted the details of COD claimed and delay occurred in commissioning of the instant asset as per following:-



<b>Asset</b>	<b>Scheduled COD</b>	<b>Actual COD (claimed)</b>	<b>Delay</b>
Asset-I	25.12.2012	1.12.2018	2167 days
Asset-II	25.12.2012	1.12.2018	2167 days
Asset-III	25.12.2012	1.12.2018	2167 days
Asset-IV	25.12.2012	26.1.2019	2223 days

32. The Petitioner has submitted that the assets covered in the instant petition is delayed mainly due to delay in obtaining forest clearance, severe ROW issues and law and order problems faced during execution of the line, difficult terrain conditions and other construction problem in North Eastern Region. The detailed reasons for delay in commissioning of the assets are as below:-

**Asset-I:**

33. **Statutory Clearance for Silchar-Melriat transmission line:**

(a) The total length of 132 kV Silchar-Melriat transmission line is 143 km out of which 88.43 km of the line passes through reserve forest, dense forest and highly disturbed area, requiring number of clearance to be obtained before starting the work of construction of transmission line in these areas. The forest area involved 4.95 km in Assam State and 83.48 km in Mizoram State. This involves total forest covered area of 406.73 Ha in this line, consisting of 384.03 Ha forest area in Mizoram 22.77 Ha forest area in Assam.

(b) The work in the forest of Mizoram could not be commenced on time due to late receipt of forest clearance. In Mizoram, 235 out of 294 tower locations, are inside Reserve Forest area comprising 83.48 km out of total 143 km line length. Forest clearance proposal for the subject line was submitted to Govt. of Mizoram on



22.7.2010. However, forest clearance of the line was accorded by MoEF (State) only on 12.8.2013 (384.031 Ha). In respect of Assam, Forest clearance proposal for the subject line was submitted to Government of Assam on 30.8.2010. However, forest clearance of the line was accorded by MoEF (State) only on 25.3.2013 (22.494 Ha). Thus, Forest clearance for both Mizoram and Assam, was received only after the completion schedule of the project i.e. after 37 months of submission of proposal which generally takes 10-14 months. For completing the Line within commissioning scheduled as per Investment approval i.e. 1.1.2013, the forest clearance was to be received before September'2011. But, the last Forest clearance was received in the month of August'13, with a delay of around 37 months.

**(c)** Further, extraction of trees in Forest area by the State forest department took additional time due to procedural requirements. Even after clearance for work by forest department, local occupants in forest area resisted construction works on demand of compensation for trees & crops planted by them for their livelihood.

**(d)** The Petitioner has submitted chronology of events and documents in support of time taken between forest proposal submission dated 22.7.2010 to stage-II clearance dated 12.8.2013.

#### **34. Right of Way:**

The work in the forest also got hampered due to compensation demand of dwellers in the forest area. Problem persisted almost till completion of line i.e. June'18. The works of line construction could not be taken up due to compensation demand



beyond the provision of the relevant legislations. Assessment of compensation took a considerable time by District Administration thereby delaying the distribution of compensation amount, which resulted in severe ROW in a few places. There have been instances where the line had to be rerouted as a result of severe resistance from landowners/ dwellers. The Petitioner has submitted the chronology of events pertains to ROW problems from 12.4.2011 to 22.6.2018.

**35. Law & order situation:**

(a) Petitioner has submitted that in order to ensure execution and commissioning of the project within time, PGCIL placed all orders for supply of material and erection works pertaining to towers, substation and other related works of the said project well in time. However, during actual execution of the project there were approximately 290 bandhs, blockades and obstructions in the States of Assam and Mizoram by various organizations which were operational in these areas. The reasons behind these blockades and bandhs had numerous demands ranging from construction and repair of roads and schools to providing drinking water in villages, as also reserving certain percentage of jobs and contracts for different communities. Constant threats by these organizations created difficulties in executing the works. Rampant extortion bids and stoppage of works on non-fulfillment of the demands resulted also loss of valuable working time on and off occasionally causing delay in execution of work. The border area between Assam and Mizoram is disputed and incidents of violence are very frequent in the area which also affects the works adversely.



(b) Frequent bandhs, strikes and blockades called by various organizations on different issues within the State and outside resulted in loss of man days during construction of the transmission line. Moreover, due to remoteness of location and unavailability of skilled labour, laborers from other states were required to be engaged. However, due to issues like ILP (Inter labour Permit) etc there were constraints in bringing such laborers to site. Due to law & order problems, laborers often vacated site. Some incidents like threatening hampered the normal working in adjacent locations and due to prevalent fear-psychosis, gang output were reduced considerably. Due to interior location and difficult terrain, working gangs were also not willing to come for a long period. Further, due to severe insurgency activities of militants, the labour force and contractor left the site quite often and sometimes the main contractors also abandoned the site and were forced to start work again after fresh negotiation and award of work.

(c) Many of the remote locations in Forest area also become inaccessible during rainy season and other locations (in plain areas) can be reached only by small boats. The road condition to the particular site locations which are remotely located in Mizoram is very poor. For most part of the year, there is disruption in road communication due to heavy flood resulting in washing away and collapse of connecting bridges. In rainy season there is heavy landslide at several places across the road and the transportation is blocked for days together. Few paper clippings have been enclosed by the Petitioner. Since the approach road to Mizoram is via lower Assam & upper Assam, disruption of road transport during monsoon due to high flood levels in lower Assam also affect the material supply.





(d) The Commission vide ROP for hearing on 24.4.2019 had directed the Petitioner to submit the details of time over-run and chronology of activities along with documentary evidence as per the prescribed format. In response, the Petitioner vide affidavit dated 29.4.2019 has submitted the following in respect of Asset-I:-

S.N.	Task	Scheduled		Actual		Remarks, if any
		From	To	From	To	
1	LOA	19.5.2010	19.5.2010	22.3.2010		The delay in commissioning of transmission line is mainly due to late receipt of Forest Clearance, severe ROW problems in construction of Transmission lines, difficult terrain conditions, poor road conditions, Law & order situation, special tower design required to be adopted due to change in river course and climate and Soil factors have hampered the progress of work badly, leading to the delay in completion of transmission line. It is also to be appreciated that the different types of problems were encountered by the Petitioner simultaneously, bringing the work to a complete halt on many occasions.
2	Supplies	15.7.2010	17.7.2012	July'10	March'18	
3	Foundation	9.9.2010	27.6.2012	Aug'10	March'18	
4	Tower Erection	10.11.2010	29.08.2012	Jan' 11	Oct' 18	
5	Stringing	10.03.2011	23.11.2012	Nov'12	Nov'18	
6	Testing and COD	26.11.2012	24.12.2012	1.12.2018		

36. We have considered the submissions of the Petitioner with respect to time over run. As per the Investment Approval dated 25.2.2010, the project was



scheduled to be commissioned within 34 months i.e. 25.12.2012 against which Asset-I has been commissioned on 1.12.2018 with a time delay of 2167 days. The main reasons for delay in commissioning of the Asset-I have been claimed as delay in obtaining statutory clearances (forest clearance), ROW Problems and law & order problems faced during the construction of 400 kV D/C Silchar-Melriat transmission line. The Petitioner has stated that it faced ROW problems from 12.4.2011 to 22.6.2018 at various locations of the 400 kV D/C Silchar-Melriat transmission line. The Petitioner has submitted the details of events in chronological order in respect of ROW issues at various locations in its Petition. ROW problems continued till 22.6.2018. The Petitioner has submitted that from 12.4.2011 to 22.6.2018 (2628 days), the Petitioner was compelled to deal with the issues of Right of Way (ROW) and compensation of land owners which were as per the provisions of relevant legislations. The Petitioner has submitted details of correspondences exchanged with various Authorities along with supporting documents. From the submission, ROW issues from 12.4.2011 to 22.6.2018 (2628 days) at various locations affected the commissioning of the instant asset. In our view, the time over run of 2628 days on account of ROW problems is beyond the control of the petitioner and this delay has cascading effect on the scheduled commission of the asset. However the Petitioner has compressed the execution time and commissioned the instant asset with overall delay of 2167 days. Therefore, the overall time over run of 2167 days in commissioning of Asset-I is condoned.

37. The delay due to forest clearance and law & order problems is not dealt herewith as the entire time overrun due to ROW problem has been condoned, and



delay due to forest clearance and law & order problems is subsumed in this period.

38. The petitioner has submitted the following reasons for commissioning of Asset-II to IV and the same is as follows:-

**Asset-II to IV:**

39. **Change in scope (New Scope):** As per original scope of project 132 kV Melriat (new) - Melriat (Mizoram) line has to be constructed as downstream connection from Melriat Substation (new). However, on the request of Power & Electricity Department, Government of Mizoram and advise of Central Electricity Authority (CEA), it was agreed in the 14<sup>th</sup> NERPC meeting held on 4.9.2013 that 132 kV D/C Melriat – Sihhmui line shall be constructed instead of 132 kV D/C Melriat – Melriat line. Also a new line was added namely LILO of Aizawl-Zemabawk Transmission Line at Melriat (POWERGRID) during the same meeting.

40. **Forest Clearance:**

(a) Earlier, line was planned from Melriat (new) – Melriat (Mizoram) and accordingly, forest proposal was submitted in July, 2010. However, as agreed during 14<sup>th</sup> NERPC meeting held on 4.9.2013, forest proposal was initiated again for new lines namely 132 kV D/C Melriat – Sihhmui line. The proposal was recommended by State Advisory Group (SAG) on 28.8.2014 and forwarded to MoEF in September, 2014. Stage-I approval was received on 11.12.2014. Compensatory Afforestation (CA) and NPV was deposited in January, 2015 and payment under dwarf scheme deposited on 10.5.2015. Compliance was submitted to State Forest Department on 11.5.2015 and the same was forwarded to Regional



MoEF on 20.5.2015. Final forest clearance of the line was accorded by MoEF (State) only on 17.7.2017.

(b) The work in the forest area could not be commenced on time due to late receipt of forest clearance. Forest clearance proposal for the main original line was submitted to Government of Mizoram on 22.7.2010 (9.39Ha). However, forest clearance of the line was accorded by MoEF (State) only on 17.7.2017 (9.39 Ha) for Mizoram portion after 84 months of submission of original proposal and 46 months from the revised proposal due to scope change which generally takes 10-14 months.

(c) The Petitioner has submitted chronology of events and documents in support of time taken between forest proposal submission dated 22.7.2010 to stage-II clearance dated 17.7.2017.

41. The Commission vide ROP for hearing on 24.4.2019 had directed the Petitioner to submit the details of time over-run and chronology of activities along with documentary evidence as per the prescribed format. In response, the Petitioner vide affidavit dated 29.4.2019 has submitted the following in respect of Asset-II to Asset-IV:-

S.N.	Task	Scheduled		Actual		Remarks, if any
		From	To	From	To	
1	LOA	19.5.2010	19.5.2010	22.3.2010		<b>Change in scope (New Scope):</b> As per original scope of project 132 kV Melriat (new) -Melriat (Mizoram) line has to



S.N.	Task	Scheduled		Actual		Remarks, if any
		From	To	From	To	
2	Supplies	15.7.2010	17.7.2012	July'10	Nov'15	be constructed as downstream connection from Melriat Substation (new). However, on the request of Power & Electricity Department, Government of Mizoram and advise of Central Electricity Authority (CEA), it was agreed in the 14 <sup>th</sup> NERPC meeting held on 4.9.2013 that 132 kV D/C Melriat – Sihmui line shall be constructed instead of 132 kV D/C Melriat – Melriat line. Also a new line was added namely LILO of Aizawl-Zemabawk Transmission Line at Melriat (PGCIL) during the same meeting.
3	Foundation	9.9.2010	27.6.2012	Aug'10	March'18	
4	Tower Erection	10.11.2010	29.08.2012	Jan' 11	Oct' 18	
5	Stringing	10.03.2011	23.11.2012	Nov'12	Nov'18	
6	Testing and COD	26.11.2012	24.12.2012	1.12.2018		
						Further, the delay in commissioning of the assets is due to late receipt of Forest clearance.

42. We have considered the submissions of the petitioner with respect to the time over run. As per the Investment Approval date 25.2.2010, the project was scheduled to be commissioned within 34 months i.e. 25.12.2012 against which Asset-II & Asset-III has been commissioned on 1.12.2018 and Asset-IV has been commissioned on 26.1.2019 with a time delay of 2167 days and 2223 days, respectively.

43. The Petitioner has submitted that Asset-II, Asset-III and Asset-IV were delayed due to change in the scope of the work wherein it was decided that 132 kV D/C Melriat – Sihmui line shall be constructed instead of 132 kV D/C Melriat – Melriat



line and due to delay in forest clearance for 132 kV DIC Melriat - Sihhmui line.

44. As regards the change in the scope of the work, the Petitioner has submitted that the proposal of change of scope of work discussed in the 3rd SCM of NER held on 21.12.2011 and 14th meeting of TCC & NERPC meeting held on 4.9.2013 due to which Asset-II, Asset-III & Asset-IV got delayed. We have perused the minutes of the 3rd Meeting of Standing Committee on Power System Planning of North Eastern Region held on 21.12.2011 and the following has been recorded:-

*“5.0 Proposal of Mizoram for construction of 6 km, 400 kV D/C line (charged at 132 kV) from Melriat (POWERGRID) to Sihhmui (Mizoram) instead 132 kV D/C line from Melriat (POWERGRID) to Melriat (Mizoram).*

*5.1 Director (SP&PA), CEA stated that the construction of Silchar-Melriat 400 kV D/C line (initially operated at 132 kV) along with Melriat (PG) 2x50 MVA 132/33 kV S/S (up gradable to 400 kV) to be implemented by POWERGRID, was agreed as a part of transmission system associated with Pallatana GBPP and for delivery of share of Mizoram from the project, Melriat (PG)-Melriat (Mizoram) 132 kV D/C was also agreed to be constructed by POWERGRID. Mizoram Government has proposed construction of Melriat (PG)-Sihhmui (Mizoram) 400 kV D/C line (initially charged at 132 kV) instead of Melriat (PG)-Melriat (Mizoram) 132 kV D/C line due to non availability of space at Melriat (Mizoram).The proposal of Mizoram Government to construct another 400 kV S/S at Sihhmui at a distance of about 6 km from Melriat (PG) along with Melriat (PG)-Sihhmui 400 kV D/C line (charged at 132 kV) is not techno-economically desirable considering that the present total load demand of the Mizoram is of the order of 75 MW only.*

*5.2 He further stated that, in view of space constraint at Melriat (Mizoram) for termination of Melriat (PG)-Melriat (Mizoram) 132 kV D/C line, POWERGRID has been advised to construct Melriat (PG)-Sihhmui (Mizoram) 132 kV D/C line for delivery of share of Mizoram from Pallatana GBPP.*

*5.3 After further discussion, the proposal of Mizoram Govt. for the construction of*



Melriat (POWERGRID) to Sihhmui (Mizoram) 400 kV D/C line (initially operated at 132 kV) was not agreed. It was decided that POWERGRID would implement Melriat (PG)- Sihhmui (Mizoram) 132 kV D/C line matching with the commissioning of Sihhmui substation of Mizoram.

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**7.0 Additional arrangement for delivery of Pallatana GBPP share to Mizoram.**

7.1 Director (SP&PA), CEA stated that POWERGRID has informed that the Sihhmui (Mizoram) 132 kV Sub-station proposed by Mizoram Government may not be ready for drawl of Pallatana GBPP share over Melriat-Sihhmui 132 kV D/C line. As an additional arrangement POWERGRID has proposed construction of LILO of one circuit of Aizawl (PG)-Zemabawk (Mizoram) 132 kV D/C line at Melriat (PG) for delivery of share of Mizoram. Two no. 132 kV bays released because of deletion of transformation capacity at Melriat (PG) would be utilized for the above proposed LILO work.”

45. It is observed from above that change in scope of the work has been approved in the 3<sup>rd</sup> SCM held on 21.12.2011 and minutes of the 3<sup>rd</sup> SCM has been issued on 11.1.2012. Therefore the time delay from the date of Investment Approval (25.2.2010) to the approval date of change of work 11.1.2012 (685 days) is beyond the control of the Petitioner and the same has been condoned.

46. As regards the forest clearance, the Petitioner has submitted that they initially applied for forest clearance on 22.7.2010 for Melriat-Melriat line and as per the modification of scope of the work, the Petitioner again initiated the forest clearance



for 132 kV D/C Melriat-Sihhmuli transmission line and the proposal was recommended by State Advisory Group (SAG) on 28.8.2014 . The Stage-I approval was received on 11.12.2014 and final approval of forest clearance (Stage-II) was accorded on 17.7.2017.

47. The revised scope of the work has been approved in the 3<sup>rd</sup> standing committee meeting held on 21.12.2011 and the minutes of the 3<sup>rd</sup> SCM has been issued on 11.1.2012. The Petitioner has submitted that it applied for revised forest clearance on 10.9.2012 and got in principal approval on 21.11.2014. As per the forest conservation act, minimum 300 days is required for getting forest clearance. The Petitioner was aware of change in the scope of work on 11.1.2012 but the Petitioner has not applied immediately for forest clearance. Therefore, the time period from 11.1.2012 to 10.9.2012 is not beyond the control of the Petitioner and the same has been not condoned.

48. The time period from 10.9.2012 to 17.7.2017 (1771 days) was taken for obtaining forest clearance. As per the Forest (Conservation) Amendment Rules, 2004 notified by MoEF dated 3.2.2004, the timeline for forest approval after submission of proposal is 210 days by State Government and 90 days by Forest Advisory Committee of Central Government i.e. total 300 days. Therefore, we are of the view that the 300 days is minimum time for obtaining forest clearance. Hence these 300 days are reduced from the total time over-run of 1771 days. Accordingly, the remaining 1471 days of time over-run cannot be attributed to the Petitioner and thus, condonable.





49. It is seen from the above, that out of the total time delay of about 2167 days for commissioning of Asset-II & Asset-III and that of 2223 days in commissioning of the Asset-IV, the time delay of 685 days due to change in the scope of the work and 1471 days due to forest clearance, totaling to 2156 days, is beyond the control of the Petitioner, thus condoned.

50. In view of the above, the time over-run being condoned/ not condoned and COD of the instant assets is as follows:-

Asset	COD	Scheduled COD	Time Overrun (In days)	Time Overrun Condoned (In days)	Time Overrun Not Condoned (In days)
Asset-I	01.12.2018	25.12.2012	2167	2167	-
Asset-II	01.12.2018		2167	2156	11
Asset-III	01.12.2018		2167	2156	11
Asset-IV	26.01.2019		2223	2156	67

51. The impact of time over run on capital cost, as a consequence of IDC and IEDC, is discussed in the following paragraphs. IDC and IEDC have been worked out keeping in view, the restricted capital cost as per para 29 and para 30.

### Interest During Construction (IDC)

52. 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 IDC computation statement which shows the year-wise discharge details of IDC as under:-

(₹ in lakh)				
Asset	IDC as per Auditor	IDC discharged	IDC undischarged	IDC discharged / to be discharged in FY



	<b>Certificate</b>	<b>upto COD</b>	<b>upto COD</b>	<b>2018-19</b>	<b>Beyond 2018-19</b>
Asset-I	16529.50	15393.95	1135.55	652.19	483.36
Asset-II	439.08	425.75	13.33	4.25	9.08
Asset-III	604.33	586.24	18.09	-	18.09
Asset-IV	308.48	290.17	18.31	-	18.31

53. The allowable IDC as on COD has been worked out considering the information submitted by the Petitioner. IDC, up to the allowable date, has been worked out based on the loans deployed for the assets as per Form-9C of the original petition and statement showing IDC calculations submitted by the Petitioner. The Petitioner has not made any default in the payment of interest. Therefore, for the purpose of determination of allowable IDC, the interest rate as mentioned in Form 9C against these loans has been considered.

54. The statement showing IDC consist of the name of the loan, drawl date, loan amount, interest rate and Interest claimed. While going through these documents certain discrepancies have been observed especially in case of Asset-I such as the Petitioner has not specified the interest rate for SBI loans and HDFC loan instead mentioned as floating rate. The Petitioner has not furnished the computation of floating interest rate. Therefore, for the purpose of work out of IDC, the interest rate as mentioned in Form 9C against these loans have been considered. Further, the loan portfolio as mentioned in IDC statements and as mentioned in Form 9C are not matching. Hence, for the purpose of work out of IDC, the loan amount as mentioned in Form 9C has been considered. The Petitioner is directed to submit the detailed IDC statement by rectifying the above mentioned deviation, at the time of true up of 2014-19.



55. In order to determine allowable IDC, the ratio of allowable total capital cost as per para 29 and total capital cost claimed as on 31.03.2019 has been worked out. This ratio has been applied to work out allowable IDC as on COD as well as discharge of IDC in subsequent years.

56. Accordingly, the IDC allowed on accrual basis, IDC disallowed on account of excess claim / time overrun not condonable, IDC un-discharged as on COD and IDC permissible as additional capitalization have been worked out for the purpose of tariff determination, subject to revision at the time of true up, as below:-

**(₹ in lakh)**

Asset	IDC claimed	Pro-rata IDC claimed	IDC Worked out (On the basis of original claim)	Pro-rata IDC worked out	IDC Allowed on accrual basis	IDC Dis-allowed due to Excess claim & Time overrun not allowed, if any	IDC Dis-charged as on COD (As per claim)	Pro-rata IDC Dis-charged as on COD	Undis-charged IDC liability as on COD	IDC dis-charged/ proposed to be dis-charged in 2018-19
	1	2	3	4	5=(Min. of 2 & 4)	6=(2-5)	7	8	9=(5-8)	10
Asset-I	16529.50	13076.98	16352.34	12936.82	12936.82	140.16	15393.95	12178.61	758.21	652.19
Asset-II	439.08	348.40	453.16	359.57	348.40	0.00	425.75	337.82	10.58	4.25
Asset-III	604.33	542.65	624.43	560.70	542.65	0.00	586.24	526.41	16.24	0.00
Asset-IV	308.48	308.48	309.46	309.46	308.48	0.00	290.17	290.17	18.31	0.00

### Incidental Expenditure During Construction (IEDC)

57. The Petitioner has claimed IEDC of ₹6262.01 lakh, ₹172.91 lakh, ₹234.42 lakh and ₹113.18 lakh for instant Asset-I, II, III & IV, respectively. The Petitioner has claimed IEDC as on COD, duly certified by Auditor. Hence, the IEDC claimed by the Petitioner for instant asset is allowed. It is being assumed that the liability pertaining to IEDC allowed were discharged as on COD.



58. The Commission, vide order dated 20.05.2015 in petition no. 109/TT/2013, has approved the ceiling limit of Incidental Expenditure during Construction (IEDC) as the percentage on Hard Cost as indicated in the Abstract Cost Estimate. In the current petition, 5% of Hard Cost is indicated as IEDC in the Abstract Cost Estimate.

59. Further, in view of the capital cost restriction as per RCE, for determining the allowable IEDC, same ratio as referred in para 55, has been applied here too. To determine allowable IEDC for all the assets, percentage of Abstract Cost Estimate indicated above has been applied to the “pro-rata Hard Cost claimed”. Accordingly, the excess of the “pro-rata IEDC Claimed” over and above the allowable IEDC has been considered as the disallowed IEDC on account of excess claim for all the assets. Further, the pro-rata “IEDC claimed” has been considered as IEDC disallowed for all the assets on account of time overrun not condoned, if any.

60. Accordingly, the amount of IEDC claimed and considered, in the tariff calculations, are as below:-

(₹ in lakh)

Assets	IEDC claimed	Pro-rata IEDC claimed	Hard Cost (On the basis of original claim)	Pro-rata Hard Cost	% of Hard Cost (As per Abstract Cost Estimate)	IEDC Allowable	IEDC Disallowed due to Excess Claim	Pro-rata IEDC Disallowed due to time overrun not condoned, if any
	1	2	3	4	5	6=4*5	7=2-6	8
Asset-I	6262.01	4954.06	50428.40	39895.40	5%	1994.77	2959.29	0.00
Asset-II	172.91	137.20	901.73	715.49	5%	35.77	101.42	0.47
Asset-III	234.42	210.49	1571.88	1411.45	5%	70.57	139.92	0.72
Asset-IV	113.18	113.18	735.35	735.35	5%	36.77	76.41	2.33



61. The IEDC allowed for the instant assets will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal Nos. 95 of 2018 and 140 of 2018 against Commission's orders dated 29.7.2016 and 5.10.2017 in Petition Nos. 46/TT/2014 and 2/RP/2017 respectively, at the time of truing up.

### **Initial Spares**

62. This has been dealt in line with Regulation 13 of the 2014 Tariff Regulations. The Petitioner has claimed Initial Spare of ₹133.33 lakh, ₹17.63 lakh and ₹8.10 lakh for Asset-I, Asset-III and Asset-IV respectively, corresponding to Sub-Station. Similarly, Petitioner has claimed Initial Spare of ₹485.42 lakh, ₹143.01 lakh and ₹9.25 lakh for Asset-I, Asset-II and Asset-III respectively, corresponding to Transmission Line. Also, the Petitioner has claimed Initial Spare of ₹5.02 lakh for Asset-I corresponding to PLCC.

63. All Initial Spares claimed by the Petitioner in respect of Asset-I, Asset-III and Asset-IV are within the ceiling as prescribed by the Commission, hence, no adjustment of initial spares is required as on COD. However, excess Initial Spares claimed by the Petitioner in respect of Asset-II, corresponding to transmission line, is being adjusted as on COD while determining tariff of the Asset-II. In view of the above, detailed calculation of excess Initial spares claimed in respect of Assets-II corresponding to transmission line has been deducted to arrive at the Capital Cost considered for the purpose of tariff in the present petition, are as below:-



(₹ in lakh)

Asset	Total Capital Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to Cut-off date (31.03.2019)	Initial Spares Claimed against Capital Cost Claimed	Pro-rata Total Capital Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to Cut-off date (31.03.2019)	Pro-rata Initial Spares Claimed against deemed Capital Cost Claimed	Ceiling Limit as per 2014 Tariff Regulation	Initial Spares worked out	Excess Initial Spares claimed
	A	B	C	D	E	F	G=D-F
Asset-II (T/L)	985.80	143.01	782.20	113.47	1.00%	6.75	106.72

64. Further, Petitioner has not submitted the details of year-wise discharge of initial spare. Hence, it is being assumed that the liabilities pertaining to Initial Spare allowed were discharged as on COD. The Petitioner is directed to submit the details of discharge of liability pertaining to Initial Spare, if any, at the time of truing up.

65. The initial spares allowed for the purpose of tariff calculation after considering the Plant and Machinery cost excluding IDC, IEDC and Land expenses up to cut off date and after scrutiny of IDC, IEDC and initial spares, subject to true-up are as under:-

(₹ in lakh)

Asset	Plant and Machinery Cost excluding IDC, IEDC and Land & Civil Works	Initial spares claimed	Ceiling limit as per Regulation	Initial spares worked out	Initial spares allowed as on COD	Initial spares disallowed on account of excess claim
Asset-I (T/L)	48545.27	485.42	1%	485.45	485.42	0.00
Asset-I (S/S)	3995.02	133.33	4%	160.90	133.33	0.00
Asset-I (PLCC)	162.80	5.02	3.5%	5.72	5.02	0.00
Asset-III (T/L)	932.40	9.25	1%	9.32	9.25	0.00
Asset-III (S/S)	454.91	17.63	4%	18.95	17.63	0.00
Asset-IV (S/S)	843.27	8.10	4%	34.80	8.10	0.00

For Asset-II (TL), initial spares are as worked out in para 61.



## Capital cost as on COD

66. The capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulations is summarized as under:-

(₹ in lakh)

Asset	Capital Cost considered for the purpose of tariff before adjustment of IEDC/IDC & Initial Spares, if any, as on COD	IDC Dis-allowed due to Excess claim & Time Overrun not allowed, if any	Un-discharged IDC liability as on COD	IEDC dis-allowed on account of Excess Claim	IEDC dis-allowed on account of Time Overrun not allowed, if any	Excess Initial Spares Disallowed as on COD	Capital Cost considered for the purpose of tariff calculation after scrutiny of IEDC, IDC & Initial Spares as on COD
	A	B	C	D	E	F	G=A-(B+C+D+E+F)
Asset-I	57926.44	140.16	758.21	2959.29	0.00	0.00	54068.78
Asset-II	1201.09	0.00	10.58	101.42	0.47	106.72	981.90
Asset-III	2164.60	0.00	16.24	139.92	0.72	0.00	2007.71
Asset-IV	1157.01	0.00	18.31	76.41	2.33	0.00	1059.96

## Additional Capital Expenditure (ACE)

67. As per Clause (13) of Regulation 3 of the 2014 Tariff Regulations, the cut-off date for instant assets is 31.3.2021. The Petitioner has submitted Auditor Certificates in support of the additional capitalisation. The capital cost has been restricted upto RCE due to which the additional expenditure during 2018-19 and beyond has become inadmissible. However, the same shall be considered by the, on submission of RCE-II by the Petitioner, at the time of true up of 2014-19. In addition, the Petitioner has also claimed the discharge of IDC liability as ACE. Accordingly, the un-discharged IDC as on COD in respect of instant assets, claimed to be discharged and allowable during 2018-19 are being considered as the



additional capitalization upto 31.3.2019 as under which is subject to true up:-

		(₹ in lakh)			
Particulars	Regulation	Asset-I	Asset-II	Asset-III	Asset-IV
		2018-19	2018-19	2018-19	2018-19
ACE to the extent of Balance & Retention Payment & Unexecuted work	14 (1)(i) & 14 (1)(ii)	0.00	0.00	0.00	0.00
IDC Discharged	14 (1)(i)	652.19	4.25	0.00	0.00
<b>Total Add-Cap allowed for tariff</b>		<b>652.19</b>	<b>4.25</b>	<b>0.00</b>	<b>0.00</b>

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

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

				(₹ in lakh)
Assets	Expenditure allowed as on COD	Add Cap allowed during 2018-19	Total Estimated Completion Cost up to 31.03.2019	
Asset-I	54068.78	652.19	54720.97	
Asset-II	981.90	4.25	986.15	
Asset-III	2007.71	0.00	2007.71	
Asset-IV	1059.96	0.00	1059.96	

### Debt-Equity Ratio

69. Debt-Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The financial package up to COD as submitted in Form 6 has been considered to determine the debt-equity Ratio. The capital cost allowed as on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the debt-equity ratio of 70:30. The debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-





(₹ in lakh)

<b>Asset-I</b>	<b>As on COD</b>		<b>As on 31.03.2019</b>	
Debt	37848.15	70.00%	38304.68	70.00%
Equity	16220.63	30.00%	16416.29	30.00%
<b>Total</b>	<b>54068.78</b>	<b>100.00%</b>	<b>54720.97</b>	<b>100.00%</b>

<b>Asset-II</b>	<b>As on COD</b>		<b>As on 31.03.2019</b>	
Debt	687.33	70.00%	690.31	70.00%
Equity	294.57	30.00%	295.84	30.00%
<b>Total</b>	<b>981.90</b>	<b>100.00%</b>	<b>986.15</b>	<b>100.00%</b>

<b>Asset-III</b>	<b>As on COD</b>		<b>As on 31.03.2019</b>	
Debt	1405.40	70.00%	1405.40	70.00%
Equity	602.31	30.00%	602.31	30.00%
<b>Total</b>	<b>2007.71</b>	<b>100.00%</b>	<b>2007.71</b>	<b>100.00%</b>

<b>Asset-IV</b>	<b>As on COD</b>		<b>As on 31.03.2019</b>	
Debt	741.97	70.00%	741.97	70.00%
Equity	317.99	30.00%	317.99	30.00%
<b>Total</b>	<b>1059.96</b>	<b>100.00%</b>	<b>1059.96</b>	<b>100.00%</b>

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

70. 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.

71. 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.

72. Accordingly, the ROE allowed is as follows:-

Particulars	(₹ in lakh)			
	Asset-I 2018-19 (Pro-rata)	Asset-II 2018-19 (Pro-rata)	Asset-III 2018-19 (Pro-rata)	Asset-IV 2018-19 (Pro-rata)
Opening Equity	16220.63	294.57	602.31	317.99
Addition due to Additional Capitalization	195.66	1.28	0.00	0.00
Closing Equity	16416.29	295.84	602.31	317.99
Average Equity	16318.46	295.20	602.31	317.99
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>1060.84</b>	<b>19.19</b>	<b>39.16</b>	<b>11.10</b>

### Interest on Loan (IOL)

73. 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.

74. 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.

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

Particulars	(₹ in lakh)			
	Asset-I 2018-19 (Pro-rata)	Asset-II 2018-19 (Pro-rata)	Asset-III 2018-19 (Pro-rata)	Asset-IV 2018-19 (Pro-rata)
Gross Normative Loan	37848.15	687.33	1405.40	741.97
Cumulative Repayment upto previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	37848.15	687.33	1405.40	741.97
Addition due to Additional Capitalization	456.53	2.98	0.00	0.00
Repayment during the year	937.90	17.25	29.64	9.97
Net Loan-Closing	37366.78	673.05	1375.76	732.01
Average Loan	37607.46	680.19	1390.58	736.99
Weighted Average Rate of Interest on Loan	7.1200%	8.0708%	7.7750%	8.3575%
<b>Interest on Loan</b>	<b>887.66</b>	<b>18.20</b>	<b>35.84</b>	<b>10.97</b>

### Depreciation

76. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant assets were put under commercial operation during 2018-19. Accordingly, it will complete 12 years beyond the tariff period 2014-19 and 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)



Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Opening Gross Block	54068.78	981.90	2007.71	1059.96
Additional Capital expenditure	652.19	4.25	0.00	0.00
Closing Gross Block	54720.97	986.15	2007.71	1059.96
Average Gross Block	54394.88	984.02	2007.71	1059.96
Rate of Depreciation	5.2012%	5.2888%	4.4536%	5.2800%
Depreciable Value	48955.39	885.62	1527.10	953.96
Remaining Depreciable Value	48955.39	885.62	1527.10	953.96
<b>Depreciation</b>	<b>937.90</b>	<b>17.25</b>	<b>29.64</b>	<b>9.97</b>

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

77. The Petitioner has claimed the O&M expenses for assets covered in the instant petition as per following details:-

(₹ in lakh)		
Asset	Particulars	2018-19 (Pro-rata)
Asset-I	O&M Expenses	84.30
Asset-II		23.43
Asset-III		46.52
Asset-IV		6.28

78. The Petitioner has submitted that the wage revision of the employees of the Petitioner company is due w.e.f. 1.1.2017. Actual impact of wage hike which will be effective from a future date has not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. The scheme of wage revision applicable to CPSUs is binding on the Petitioner and hence it would approach the Commission for suitable revision in the norms for O&M Expenses for claiming the impact of wage hike from 1.1.2017 onwards.

79. Norms for O&M expenditure for Transmission System have been specified under section 29 (4) of Tariff Regulation are as follows:-



<b>Element</b>	<b>2018-19</b>
Transmission Line: Double circuit (Twin & Triple Conductor) (₹ in lakh per km)	0.806
Transmission Line: Double Circuit (Single Conductor) (₹ in lakh per km)	0.346
Transmission Line: Single Circuit (Single Conductor) (₹ in lakh per km)	0.230
Sub Station: 132 kV bay (₹ in lakh per bay)	34.36

80. We have considered the submissions made by the Petitioner. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. Accordingly, the allowed O&M Expenses for the year 2018-19 is given below:-

(₹ in lakh)	
<b>Details</b>	<b>2018-19 (Pro-rata)</b>
<b><u>Asset-I (COD-1.12.2018)</u></b>	
400 kV Silchar-Melriat D/C line (143.26 KM)	37.96
4 Nos. 132 kV bays	45.19
<b>Total</b>	<b>83.15</b>
<b><u>Asset-II ( COD: 1.12.2018)</u></b>	
LILO of Aizawal- Zemabawak D/C line( 4.56 KM)	0.519
2 Nos. 132 kV bays	22.59
<b>Total</b>	<b>23.11</b>
<b><u>Asset-III ( COD: 1.12.2018)</u></b>	
132 kV Melriat-Sihhmui D/C line (6.12 KM)	0.70
4 Nos. 132 kV bays	45.19
<b>Total</b>	<b>45.88</b>
<b><u>Asset-IV( COD: 26.1.2019)</u></b>	
1 No 132 kV Bus reactor bay	6.02

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

81. 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 as on 01.04.2018 plus 350 Bps i.e. 12.20% have been considered as the rate of interest on working capital.

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

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Maintenance Spares	37.62	10.46	20.76	5.07
O&M expenses	20.90	5.81	11.53	2.82
Receivables	1525.15	40.24	77.92	36.52
<b>Total</b>	<b>1,583.68</b>	<b>56.51</b>	<b>110.21</b>	<b>44.41</b>
Rate of Interest	12.20%	12.20%	12.20%	12.20%
<b>Interest on Working Capital</b>	<b>64.05</b>	<b>2.29</b>	<b>4.46</b>	<b>0.96</b>

**Annual Transmission charges**

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

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Depreciation	937.90	17.25	29.64	9.97
Interest on Loan	887.66	18.20	35.84	10.97



Return on Equity	1060.84	19.19	39.16	11.10
Interest on Working Capital	64.05	2.29	4.46	0.96
O&M Expenses	83.15	23.11	45.88	6.02
<b>Total</b>	<b>3033.59</b>	<b>80.04</b>	<b>154.98</b>	<b>39.02</b>

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

84. 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**

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

### **Goods and Services Tax**

86. 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**

87. We have considered the submissions of the Petitioner. The billing, collection



and disbursement of the transmission charges approved for instant Asset-I, Asset-II and Asset-IV 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 and as provided in Regulation 43 of the 2014 Tariff Regulations.

88. The COD of the Asset-III has been approved as 1.12.2018 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, due to non-commissioning of the downstream assets covered under the scope of P & E Department, State of Mizoram. Hence, the transmission charges for the Asset-III shall be borne by P & E Department, State of Mizoram till commissioning of the downstream transmission system. Thereafter, 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 and as provided in Regulation 43 of the 2014 Tariff Regulations.

89. This order disposes of Petition No.364/TT/2018.

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

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

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

