

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No.175/TT/2018

Coram :

Shri P.K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I.S. Jha, Member

Date of Order: 10th December, 2019

In the matter of

Approval under Regulation-86 of CERC (Conduct of Business) Regulations, 1999 and CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission tariff from COD to 31.3.2019 for 8 nos. of transmission assets for 2014-19 Tariff block period under "North Eastern Region Strengthening Scheme-VII (NERSS-VII)" 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
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

...Respondents

Parties present:

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

For Respondent: None

ORDER

The present petition has been filed by the Petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for 8 nos. of transmission assets of "North Eastern Region Strengthening Scheme-VII (NERSS-VII)" in North Eastern Region (hereinafter referred as "transmission asset") for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

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 Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during tariff period 2014-19.*
- (iv) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff regulations 2014.*
- (v) *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.*
- (vi) *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.*
- (vii) *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.*
- (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 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.*
- (x) *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 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 the project "North Eastern Region Strengthening Scheme-VII (NERSS-VII)" was accorded by Board of Directors of the Petitioner in 330th meeting held on 20.7.2016 for ₹9070 lakh including an IDC of ₹500 lakh based on April, 2016 price level (communicated vide Memorandum No. C/CP/ PA1617-07-01-IA007 dated 26.7.2016).

4. The administrative approval and expenditure sanction of Revised Cost Estimate (RCE) for the subject transmission scheme was accorded by the Board of Directors of Petitioner on 4.10.2017 for ₹9465 lakh including an IDC of ₹459 lakh based on April, 2017 price level (communicated vide Memorandum No.C/CP/PA1718-10-0D-RCE004 dated 18.10.2017).

5. The scope of the scheme was discussed and agreed in the 5th Standing Committee Meetings of Power System Planning in North Eastern Region held on 8th August, 2015. The scheme was approved in the 15th TCC & NERPC meeting held on 20th & 21st August, 2015 at Guwahati. Subsequently, the scheme was also discussed and approved for implementation in 35th Empowered Committee Meeting on Transmission held on 14th September, 2015 at New Delhi. CEA vide letter no. 81/7/2015/PSPA-II/66-67 dated 19.01.2016 had conveyed the prior approval of Government of India under section 68 (1) of the Electricity Act, 2003 for NERSS-VII. The petitioner has been entrusted with the implementation of the said scheme.

6. The scope of work covered under the project "North Eastern Region Strengthening Scheme-VII (NERSS-VII)" is as follows:-



Transmission Line

- (i) Re-conductoring of Imphal (POWERGRID) – Yurembam (Imphal S/s-Manipur) 132kV S/c line with high capacity conductor [HTLS of ampacity equivalent to that of Single ACSR Moose: 798A (for 45°C ambient temperature and 85°C maximum conductor temperature)]: 1km

Sub Station

- (i) Imphal (POWERGRID) S/s
- Upgradation / modification of 132kV line bay equipment for Imphal (POWERGRID) – Yurembam (Imphal S/s-Manipur) 132kV S/c (HTLS) line
- (ii) Silchar S/s
- 400/132kV, 315MVA ICT (3rd) with associated bays in GIS
 - 400/132kV, 200MVA ICT (Spare)
- (iii) Mokokchung (POWERGRID) S/s
- 220kV, 31.5MVA reactor with associated bay
- (iv) Kopili S/s
- 220/132kV, 160MVA ICT (Spare)
- (v) Nirjuli S/s
- 132/33kV, 50MVA ICT (Spare)
- (vi) Bongaigaon S/s
- 420kV, 80MVA reactor (Spare)
 - 420kV, 63MVA reactor (Spare)
- (vii) Misa S/s*
- 400/220kV, 315MVA ICT (Spare) – (*From Narendra S/S)

** Note: One number 315 MVA transformer to be available at Narendra S/S after replacement with 500MVA under SRSS-XX shall be diverted to NER and kept as regional spare at MISA.*

7. Details of the assets covered in the instant petition are summarized below:-

Sl. No.	Name of Asset
1	Asset-1: Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A and Upgradation/ modification of 132kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal S/s- Manipur) 132kV S/c (HTLS) line
2	Asset-2: 315 MVA, 400/132kV, ICT-III alongwith associated bays in GIS bays at 400kV Silchar Substation



Sl. No.	Name of Asset
3	Asset-3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar S/S
4	Asset-4: 31.5MVAR, 220kV, Bus Reactor alongwith associated bay at Mokokchung (POWERGRID) S/S
5	Asset-5: 160MVA, 220/132kV, ICT (Spare) at Kopili S/S
6	Asset-6: 50MVA, 132/33kV, ICT (Spare) at Nirjuli Substation
7	Asset-7: IX80MVA, 420kV Reactor (Spare) and IX63MVA 420kV Reactor (Spare) at Bongaigaon Substation
8	Asset-8: 315MVA, 400/220kV, ICT (Spare) at Misa S/S

8. The Petitioner had filed the instant petition in respect of 8 assets claiming anticipated COD initially. However, vide affidavit dated 22.1.2019, the Petitioner has claimed the combined actual COD for Asset-5 and Asset-6 alongwith the actual COD for all other assets also. The same has been summarized as under:-

Name of Asset	COD claimed at the time of filing of instant petition	Name of Asset	COD claimed (Actual)
Asset-1: Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A and Upgradation/ modification of 132kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c (HTLS) line	31.3.2018 (Anticipated)	Asset-1: Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A and Upgradation/ modification of 132kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c (HTLS) line	18.7.2018 (Actual)
Asset-2: 315 MVA, 400/132kV, ICT-III alongwith associated bays in GIS bays at 400kV Silchar Substation	31.3.2018 (Anticipated)	Asset-2: 315 MVA, 400/132kV, ICT-III alongwith associated bays in GIS bays at 400kV Silchar Substation	18.7.2018 (Actual)



Name of Asset	COD claimed at the time of filing of instant petition	Name of Asset	COD claimed (Actual)
Asset-3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar S/S	24.7.2017 (Actual)	Asset-3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar S/S	24.7.2017 (Actual)
Asset-4: 31.5MVAR, 220kV, Bus Reactor alongwith associated bay at Mokokchung (POWERGRID) S/S	31.3.2018 (Anticipated)	Asset-4: 31.5MVAR, 220kV, Bus Reactor alongwith associated bay at Mokokchung (POWERGRID) S/S	1.12.2018 (Actual)
Asset-5: 160MVA, 220/132kV, ICT (Spare) at Kopili S/S	31.3.2018 (Anticipated)	Asset-5 and 6: 160MVA, 220/132kV, ICT (Spare) at Kopili S/S and 50MVA, 132/33kV, ICT (Spare) at Nirjuli Substation	29.6.2018 (Actual)
Asset-6: 50MVA, 132/33kV, ICT (Spare) at Nirjuli Substation	31.3.2018 (Anticipated)		
Asset-7: IX80MVA, 420kV Reactor (Spare) and IX63MVA, 420kV Reactor (Spare) at Bongaigaon Substation	31.3.2018 (Anticipated)	Asset-7: IX80MVA, 420kV Reactor (Spare) and IX63MVA, 420kV Reactor (Spare) at Bongaigaon Substation	1.4.2018 (Actual)
Asset-8: 315MVA, 400/220kV, ICT (Spare) at Misa S/S	31.3.2018 (Anticipated)	Asset-8: 315MVA, 400/220kV, ICT (Spare) at Misa S/S	31.12.2018 (Actual)

9. The petitioner has submitted that with the commercial operation of the instant assets, the entire scope of the project has been completed.

10. Vide order dated 7.2.2019 Annual Transmission Charges were allowed under the proviso (i) to Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the POC charges in respect of the Asset-1, Asset-2 & Asset-4 and for Asset-3, Asset-5, Asset-6, Asset-7 and Asset-8, which are Spare ICT at Silchar Sub-station, Nirjuli Sub-station and Misa Sub-station respectively, the tariff was not allowed.

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



(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
Depreciation	3.04	82.73	39.65	61.93
Interest on Loan	3.04	80.88	37.37	54.75
Return on Equity	3.39	92.18	44.18	69.00
Interest on Working Capital	0.20	9.06	2.64	4.05
O&M Expenses	0.00	75.24	0.00	0.00
Total	9.67	340.09	123.84	189.73

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Depreciation	21.50	38.72	80.74	5.44
Interest on Loan	21.83	37.01	78.63	5.75
Return on Equity	23.95	43.14	89.96	6.07
Interest on Working Capital	2.19	2.47	5.17	0.36
O&M Expenses	16.03	0.00	0.00	0.00
Total	85.50	121.34	254.50	17.62

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
O&M expenses	0.00	8.90	0.00	0.00
Maintenance Spares	0.00	16.02	0.00	0.00
Receivables	2.29	80.48	29.99	31.62
Total	2.29	105.41	29.99	31.62
Rate of Interest	12.20%	12.20%	12.80%	12.80%
Interest on working Capital	0.20	9.06	2.64	4.05

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
O&M expenses	4.01	0.00	0.00	0.00
Maintenance Spares	7.21	0.00	0.00	0.00
Receivables	42.75	26.77	42.42	11.62
Total	53.97	26.77	42.42	11.62
Rate of Interest	12.20%	12.20%	12.20%	12.20%
Interest on working Capital	2.19	2.47	5.17	0.36



13. 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. None of the Respondents have submitted reply to this petition.

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

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

16. This order has been issued after considering the main petition dated 28.3.2018 and Petitioner's affidavits dated 27.7.2018, 22.1.2019, 21.2.2019 and 20.6.2019.

Analysis and Decision

Date of Commercial Operation (COD)

17. The Petitioner has claimed the actual COD in respect of the assets covered under the instant petition as per the following details:-

Sl. No.	Name of Asset	COD claimed (Actual)
1	Asset-1: Re-conductoring of Imphal (POWERGRID) - Yurembam (Imphal S/s-Manipur) 132kV S/c line with high capacity conductor [HTLS of capacity equivalent to that of Single ACSR Moose: 798 A and Upgradation/ modification of 132kV line bay equipment for Imphal (POWERGRID) - Yurembam (Imphal S/s- Manipur) 132kV S/c (HTLS) line	18.7.2018
2	Asset-2: 315 MVA, 400/132kV, ICT-III alongwith associated bays in GIS bays at 400kV Silchar Substation	18.7.2018
3	Asset-3: 200 MVA, 400/132kV Spare ICT at 400kV Silchar S/S	24.7.2017



Sl. No.	Name of Asset	COD claimed (Actual)
4	Asset-4: 31.5 MVAR, 220kV, Bus Reactor alongwith associated bay at Mokokchung (POWERGRID) S/S	1.12.2018
5	Asset-5: 160MVA, 220/132kV, ICT (Spare) at Kopili S/S	29.6.2018
6	Asset-6: 50MVA, 132/33kV, ICT (Spare) at Nirjuli Substation	29.6..2018
7	Asset-7: IX80MVAr, 420kV Reactor (Spare) and IX63MVAr 420kV Reactor (Spare) at Bongaigaon Substation	1.4.2018
8	Asset-8: 315MVA, 400/220kV, ICT (Spare) at Misa S/S	31.12.2018

18. As per Project Scope, Asset-8 viz. one number 315 MVA transformer to be available at Narendra Sub-station after replacement with 500 MVA under SRSS-XX shall be diverted to NER and kept as regional spare at Misa. However, as per CEA letter dated 19.1.2016, the same would be positioned at MISA Sub-station from Ballabgarh Sub-station. Accordingly, the Commission vide order dated 7.2.2019 directed the Petitioner to submit additional clarification in respect of Asset-8. In response, the Petitioner vide affidavit dated 21.02.2019 submitted that as per the prior approval of project under Section 68(1) of Electricity Act, 2003, dated 19.01.2016, 400/220kV, 315MVA ICT to be positioned at Misa was to be sent from Ballabgarh. The Petitioner vide letter dated 28.04.2016 had intimated to CEA that the said transformer to be positioned at Misa shall be sent from Narendra Sub-station instead of Ballabgarh Sub-station.

19. The Commission vide order dated 07.02.2019 directed the petitioner to submit its reply with regard to the observation whether the transportation from other regions will be economical. In response, the petitioner has submitted that the procurement of 315MVA, 400/220 kV transformer shall cost around Rs. 1467.17 Lakhs and the cost of the transformer from Narendra Sub-station to Misa (now placed at Balipara Sub-station) is around Rs. 373.76 lakhs (including transportation

cost of Rs. 72.45 Lakhs only.) Therefore, the transportation from other region is economical than procurement.

20. The Petitioner was further directed to submit the nature of spares, whether kept as a cold spare or hot spare and If kept as hot spare, the charging/commissioning certificate for the same.

21. In response, the petitioner vide affidavit dated 21.2.2019 has submitted that Asset-3, Asset-5, Asset-6 Asset-7 and Asset-8 are approved as regional spares and kept as cold spares.

22. In support of the actual COD of the Asset-1, Asset-2 and Asset-4, the petitioner has submitted CEA energisation certificates dated 16.7.2018, 29.6.2018 & 19.11.2018 under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010 and RLDC charging certificates dated 28.9.2018, 20.7.2018 & 11.12.2018, respectively and CMD certificate as required under Grid Code. Taking into consideration of the RLDC charging certificate, CEA energisation certificate and CMD certificate as required under Grid Code, the COD of the Asset-1, Asset-2 and Asset-4 has been approved as 18.7.2018, 18.7.2018 and 1.12.2018, respectively.

23. The Asset-3, Asset-5 and 6, Asset-7 & Asset-8 are regional spares and kept as cold spares. The Committee on Regional spares formed by the Commission vide ROP for the hearing dated 18.1.2018 in petition no. 38/TT/2017 has recommended the following:-

“29. As per CEA regulation, there is provision for 1Ø spare transformer/ reactor. However, no such norm exists for 3 phase spares. Most of the 400 KV and below class transformers and reactors installed in POWERGRID station are of 3 phase. Considering this and keeping in view the ageing of equipment and lead time for replacement, requirement of 3Ø spares should be met after approval in RPC for



the same. Any additional requirement of 1Ø cold spare transformers and reactors should also be met after approval in RPC.

30. The Committee is also of the view that the transformer or reactor taken out after its replacement by augmentation/ capacity addition should be considered as the regional spares after approval of the RPC.”

24. In the 5th TCC & 15th NER Power Committee Meetings held at Guwahati, the spares covered in the instant petition have been approved as regional spares. Accordingly, keeping in view the approval of the NERPC, we approved Asset-3, Asset-5, Asset-6, Asset-7 and Asset-8 as regional spares and COD considered for these assets as 24.7.2017, 29.6.2018, 29.6.2018, 1.4.2018 & 31.12.2018, respectively.

Capital Cost

25. 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.”

26. The Petitioner has submitted the apportioned approved cost as per Investment Approval and as per approved Revised Cost Estimate (RCE) in respect of the instant assets. The Petitioner vide Auditor Certificates dated 30.10.2018, 11.8.2018, 25.9.2017, 3.1.2019, 24.7.2018, 24.7.2018 & 10.1.2019 has claimed the following capital cost incurred as on COD as well as additional capitalization projected to be incurred during 2017-18, 2018-19, 2019-20 & 2020-21 in respect of the instant assets:

(₹ in lakh)

Asset	Apportioned Approved Cost (FR) (as per Form-5B submitted vide affidavit dated 20.6.2019)	Apportioned Approved Cost (RCE) (as per Form-5B submitted vide affidavit dated 20.6.2019)	Cost up to COD	Projected Expenditure				Estimated Completion Cost
				2017-18	2018-19	2019-20	2020-21	
Asset-1	195.01	168.85	67.65	0.00	30.36	17.98	0.00	115.99
Asset-2	2823.29	2923.15	1970.29	0.00	574.17	167.69	49.05	2761.20
Asset-3	1499.87	1358.71	1025.93	140.74	17.49	0.00	0.00	1184.16
Asset-4	1311.63	1628.97	1111.57	0.00	247.80	108.65	0.00	1468.02
Asset-5&6	1358.85	1380.49	891.41	0.00	181.61	64.86	12.97	1150.85
Asset-7	1709.57	1809.96	1482.35	0.00	120.26	32.07	8.02	1642.69
Asset-8	172.03	194.69	362.37	-	91.99	15.20	0.00	469.56*

* The cost is inclusive of ₹304.57 lakh (net block of 315 MVA, 400/220 kV ICT-I at Narendra s/s, decapitalised vide CERC order dated 18.8.2018 in Petition No 176/TT/2017) and diverted to Misa S/S. The remaining cost of ₹164.99 lakh (469.56-304.57) pertains to diversion cost of ICT from Narendra to Misa (approved under the subject project-NERSS VII).

Cost Over-run

27. It is observed from the above Table that the estimated completion cost of the assets covered under the instant petition is within apportioned approved cost as per RCE except Asset-8. The Asset-8 has been shifted from Narendra substation and kept as Regional Spare at Misa and this shifting is covered under the Project Scope of the scheme dealt in the instant Petition. The estimated completion cost of ₹ 469.56 lakh of Asset-8 includes ₹304.57 lakh which is net block value of 315MVA, 400/220kV ICT at Narendra substation which was decapitalized by the Commission



in its Order dated 18.8.2018 in Petition 176/TT/2017. Thus, the cost of ₹304.57 lakh has already been approved by the Commission. With regard to the remaining cost of Asset-8 of ₹164.99 lakh which pertains to diversion cost of ICT from Narendra to Misa, the same is within the apportioned approved cost as per RCE. Accordingly, the Petitioner is directed to amend the project scope of “System Strengthening Scheme-XX of Southern Region” in which 315MVA, 400/220kV ICT at Narendra substation was earlier covered and now shifted to Misa as per the project scope of the NERSS-VII and file a copy of amended investment approval at the time of truing up exercise.

28. We have considered the submissions of Petitioner and noted that the estimated completion cost of the instant Assets is within the apportioned approved cost of RCE. Therefore, there is no cost overrun.

Time over-run

29. As per the Investment Approval (IA) dated 20.7.2016, the instant assets was scheduled to be commissioned within 24 months from the date of IA. Accordingly, the Commissioning Schedule comes to 20.7.2018 against which the instant assets have been commissioned as per following details:-

Asset	Scheduled COD	COD (Actual)	Delay
Asset-1	20.7.2018	18.7.2018	No Delay
Asset-2		18.7.2018	No Delay
Asset-3		24.7.2017	No Delay
Asset-4		1.12.2018	134 days
Asset-5 and 6		29.6.2018	No Delay
Asset-7		1.4.2018	No Delay
Asset-8		31.12.2018	164 days

30. As per the above Table, there is no delay in commissioning of the assets covered the instant petition, except Asset-4 and Asset-8. The Petitioner has submitted that the Asset-4 is delayed mainly due to law and order problem, poor

road conditions and restriction on entry of laborers from 17.10.2016 to 17.11.2018. There was a delay from 15.7.2017 to 25.11.2017 in respect of Asset-8 on account of shut down approval. The Petitioner has submitted the following to substantiate its claims:-

Asset-4

Law & order situation

- (i) In order to ensure execution and commissioning of the project well within the time, the Petitioner placed all orders for supply of material and erection works pertaining to substation and other related works of the said project well in time. However, during actual execution of the project there were approximately 41 bandhs, blockades and obstructions in the state Nagaland by the various organizations which were operational in these areas.
- (ii) The reasons behind these blockades and bandhs were 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 had resulted loss of valuable working time on and off occasionally causing delay in execution of work. The border area between Assam and Nagaland is disputed and incidents of violence are very frequent in the area which also affects the works adversely.
- (iii) Annual report issued by Ministry of Home affairs had stated:

The security situation in the North Eastern States has remained complex for quite some time because of diverse demands of ethnic groups and various militant outfits and has been gradually improving in



terms of reduction in violent incidents, lower civilian casualties and increasing number of arrests and surrender of militants. The entire State of Arunachal Pradesh, Manipur, Mizoram, Nagaland and parts of Sikkim are “protected Areas” under Foreigners (Protected Area) Order, 1958 issued under Section 3 of the Foreigners Act, 1946 by the Ministry of Home Affairs. Some areas of Sikkim have also been declared “Restricted Areas” under the Foreigners (Restricted Areas) Order, 1963. In terms of Foreigners (Protected Area) Order, 1958 and Foreigners (Restricted Areas) Order, 1963, no foreigner shall enter into or remain in any protected area/restricted area except under and in accordance with the permit issued by Central Government or any officer authorized by the Central Government in this behalf. For promoting tourism in North Eastern States, guidelines regarding relaxation of PAP/RAP regime have been issued from time to time by the Ministry. The entire area of the States of Manipur, Mizoram and Nagaland continues to be excluded from the Protected Area Regime notified under Foreigners (Protected Area) Order, 1958 subject to certain conditions.

The State has spillover militant activities of Naga insurgents from Nagaland-based UG factions of National Socialist Council of Nagaland (NSCN) [National Socialist Council of Nagaland/ Isak Muivah (NSCN/IM), National Socialist Council of Nagaland/ Khole-Kitovi (NSCN/KK), National Socialist Council of Nagaland/Khaplang (NSCN/K) and NSCN (Reformation)] in Tirap, Changlang and Longding districts, as also activities of Assam based United Liberation Front of Assom (ULFA-I), besides National Democratic Front of Bodoland (NDFB-S). Battle for supremacy between NSCN/ IM and NSCN/K continues in Longding, Tirap and Changlang districts, with cases of extortion. Cadres of NDFB(S) and ULFA (I) frequent the State (for shelter/transit) sharing borders with Assam and Myanmar. These outfits sometimes interfere in the political/economic process of the States, primarily for raising money through extortions. The NSCN factions have also been indulging in forced recruitment to their cadres.

Poor road conditions

- (iv) The road from Mariani to Mokokchung which connects to the above projects gets badly deteriorated during long monsoon period which makes it very difficult to transport men & material through road. There was number of instances when the Truck owners association has gone on agitation along with stoppage of movement of commercial vehicles demanding improvement of the road conditions.



Restriction on entry of laborers

(v) Very limited local laborers are available in the Nagaland area for working on the project sites. Engagement of laborers from out of the State involves long process of obtaining special entry permit from the State authority. Further, various student bodies and other groups resisted entry of these laborers several times. Laborers from outside States have been physically abused because of this most of the time outside laborers are not willing to work in the area causing high labor shortage all through.

The Petitioner has submitted the detailed chronology of events pertaining to aforesaid issues wherein the Petitioner has indicated the period of net hindrances as 67 days which affected the commissioning of the said asset.

Asset-8

Shut down issue

(vi) The spare transformer was to be positioned at Misa Sub-station after replacement of existing 1x315MVA 400/220KV transformer with 1x 500MVA transformers at Narendra Sub-station. The petitioner was ready for above said replacement works the approved date of Shutdown i.e. 25.06.2017. However due to system constraints, the Shutdown was not approved by KPTCL till 25.11.2017. Eventually, the shutdown for replacement of ICT at Narendra could be availed on 25.11.2017 and could be commissioned on 16.04.2018 after the successful trial operation. Further, the replaced 1x315MVA 400/220KV transformer at Narendra Sub-station was transported to Misa Sub-station and got commissioned on 31.12.2018.



31. We have considered the submissions of the petitioner. The delay in Asset-4 is attributable to law and order problems, poor road conditions & restriction on entry of laborers. In support of its claims, the Petitioner has submitted paper clippings and images of rain effected area. From the submissions made by the Petitioner, it is observed that about 67 days is affected due to law and order problems, poor road conditions & restriction on entry of laborers in Nagaland . Factoring the same, out of the total time delay of about 134 days, time delay of about 67 days in commissioning of the Asset 4 was beyond the control of the Petitioner and therefore, the same has been condoned.

32. As regards Asset-8, the Petitioner has claimed that Asset-8 was delayed due to delay in getting shutdown approval from KPTCL. The Petitioner has submitted that the Petitioner was ready for replacement of 315 MVA ICT with 500 MVA ICT by 25.6.2017. However, the Petitioner was not able to get the approval of shut down till 25.11.2017. The Petitioner availed shutdown only on 25.11.2017. Thereafter, the Petitioner was replaced 315 MVA 400/220 kV ICT at Narendra Sub-station with 500 MVA ICT on 14.12.2017. Accordingly, the replaced 315 ICT was made available on 14.12.2017 and got commissioned on 31.12.2018 as claimed in the instant Petition.

33. We have gone through the submissions of the Petitioner and documentary in support of the same. Earlier, the Petitioner has claimed the tariff for 500 MVA ICT at Narendra Sub-station by replacing 315 MVA ICT in petition no. 176/TT/2017 wherein the issue of date of commercial of the said asset had already been dealt with and the COD for 500 MVA ICT was approved as 14.12.2017. From the submissions made by the Petitioner, it is not clear as to why the Petitioner took almost one year for shifting of Asset-8 which was a spare 315 MVA ICT at Narendra Sub-station since 14.12.2017. The Petitioner has not submitted the chronology of the activities in respect of the Asset-8. Therefore, the time delay of 164 days in



commissioning of Asset-8 was not beyond the control of the Petitioner and the same has not been condoned.

Interest During Construction (IDC)

34. The Petitioner has claimed Interest During Construction (IDC) for the instant assets and submitted the Auditor Certificates in support of the same. The Petitioner has submitted computation of IDC alongwith the year-wise details of the IDC discharged in respect of instant assets and the same is summarized as under:-

(₹ in lakh)

Asset	IDC as per Auditor Certificate	Undischarged IDC Liability as on COD	IDC discharged upto COD	Year-wise IDC discharged	
				2018-19	2019-20
	1	2	3=(1-2)	4	5
Asset-1	2.19	2.19	0.00	2.19	0.00
Asset-2	67.63	65.54	2.69	64.77	0.77
Asset-3	5.03	5.03	0.00	5.03	0.00
Asset-4	52.13	27.99	24.14	27.99	0.00
Asset-5&6	41.18	23.23	17.95	23.03	0.20
Asset-7	34.74	26.67	8.07	26.67	0.00
Asset-8	2.98				

35. The allowable IDC as on COD has been worked out considering the information submitted by the Petitioner. The loan portfolio as mentioned in IDC statement and in Form 9C in respect of the instant assets is not matching. Hence, for the purpose of determination of allowable IDC, the amount of loan as mentioned in Form 9C and Form-6 has been considered. Accordingly, the loan details submitted in Form-9C and Form-6 and date of drawl submitted in IDC statement has been perused for the purpose of calculating IDC for the asset. The statement showing IDC consists of name of the loan, drawl date, loan amount, interest rate and Interest claimed. The Petitioner is directed to submit the detailed IDC statement for all assets of the instant petition, by rectifying the above mentioned deviation, at the time of true up of 2014-19.



36. As regards IDC of ₹2.98 lakh in respect of Asset-8, the same is disallowed considering the fact that Asset-8 was shifted from one place to another place and kept as regional spare. However, the same shall be reviewed at the stage of true-up on receipt of detailed justification.

37. Accordingly, the IDC claimed and considered as on COD and summary of discharge of IDC liability upto COD and thereafter, for the purpose of tariff determination, subject to revision at the time of true up is as below:-

Asset	IDC claimed as per Auditor Certificate	IDC disallowed as on COD due to time overrun and computational difference	IDC worked out and allowed on accrual basis	IDC allowed on cash basis as on COD	Un-discharged IDC as on COD	Year-wise IDC discharged	
						2018-19	2019-20
						1	2
Asset-1	2.19	0.07	2.12	0.00	2.12	2.12	0.00
Asset-2	67.63	0.13	67.50	2.69	64.81	64.77	0.04
Asset-3	5.03	0.17	4.86	0.00	4.86	4.86	0.00
Asset-4	52.13	11.25	40.88	16.32	24.57	24.57	0.00
Asset-5&6	41.18	0.00	41.18	17.95	23.23	23.03	0.20
Asset-7	34.74	0.65	34.09	8.07	26.02	26.02	0.00
Asset-8	2.98	2.98	0.00	0.00	0.00	0.00	0.00

Incidental Expenditure During Construction (IEDC)

38. The Petitioner has claimed IEDC for the instant assets and submitted Auditor Certificate in support of the same. The claimed IEDC is within the percentage of hard cost of 10.75% as indicated in the FR abstract cost estimate. Accordingly, the IEDC is allowed as claimed subject to adjustment as per condonation of time over-run. The details of claimed and allowed IEDC is as follows:-

(₹ in lakh)

Asset	IEDC claimed as per Auditor Certificate	IEDC disallowed due to time overrun and computational difference	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-1	8.58	0.00	8.58
Asset-2	203.08	0.00	203.08
Asset-3	46.52	0.00	46.52
Asset-4	63.66	4.94	58.72
Asset-5&6	87.24	0.00	87.24
Asset-7	119.89	0.00	119.89
Asset-8	0.00	0.00	0.00

Initial Spares

39. This has been dealt in line with Regulation 13 of the 2014 Tariff Regulations. The Petitioner has claimed initial spares and submitted Auditors Certificates in support of the same. The details of initial spares claimed by the Petitioner is as follows:-

(₹ in lakh)

Asset	Substation		
	Plant and Machinery Cost excluding IDC, IEDC and Land Expenditure up to cut-off date	Initial spares claimed	Ceiling limit as per Regulations (Brown field) (%)
Asset-1	73.31	1.92	6%
Asset-2	2490.49	109.94	6%
Asset-3	1132.61	0.00	6%
Asset-4	1352.23	190.56	6%
Asset-5&6	1022.43	33.71	6%
Asset-7	1488.06	96.32	6%
Asset-8	466.58	0.00	6%

40. In addition to the above, the Petitioner vide affidavit dated 21.2.2019 has submitted following the discharge details in respect of initial spares for the instant assets:-



(₹ in lakh)

Asset	Initial Spares as per certificate (substation)	Discharges of Initial Spares		
		As on COD	2018-19	2019-20
Asset-1	1.92	1.92	--	--
Asset-2	109.94	83.05	26.89	--
Asset-3	--	--	--	--
Asset-4	190.56	45.04	--	145.52
Asset-5&6	33.71	--	--	33.71
Asset-7	96.32	96.32	--	--
Asset-8	--	--	--	--

41. We have considered the submissions made by the Petitioner. The initial spares allowed for the purpose of tariff calculation after considering the Plant and Machinery cost excluding IDC, IEDC and Land expenses only up to 31.3.2019, subject to true-up, are as under:-

(₹ in lakh)

Asset	Plant and Machinery Cost excluding IDC, IEDC and Land expenditure up to 31.3.2019	Initial spares claimed	Initial spares admissible	Excess Initial spares disallowed	Initial spares Discharged as on COD	Un-discharged as on COD disallowed
Asset-1	61.12	1.92	1.92	0.00	1.92	0.00
Asset-2	2273.75	109.94	109.94	0.00	83.05	26.89
Asset-3	Not Claimed					
Asset-4	1243.58	190.56	55.42	135.14	45.04	10.38
Asset-5&6	944.60	33.71	33.71	0.00	0.00	33.71
Asset-7	1447.97	96.32	86.28	10.04	86.28	0.00
Asset-8	Not Claimed					

De-Capitalization of Asset

42. The Commission vide ROP for the hearing dated 24.5.2019 directed the Petitioner to provide clarification as to whether any asset is being replaced/de-capitalized/not put to use due to execution of the instant assets. In response, the petitioner vide affidavit dated 20.6.2019 has submitted that the old conductor and earth wire accessories and current transformers has been de-capitalized in Asset-I and submitted form-10B in support of the same which is summarized as under:



(₹ in lakh)				
Year of De-capitalization	Work/ equipment proposed to be de-capitalized	Year of Capitalization of Assets/ equipment being de-capitalized	Original Book value of the Assets being de-capitalized	Cumulative depreciation corresponding to De-capitalization
2018-19	172/TT/2014	1.4.1992	0.14	0.14
2018-19	240/TT/2014	1.4.1997	9.43	7.84
Total			9.57	7.98

43. Accordingly, an amount of ₹9.57 has been de-capitalized from the capital cost of Asset-1.

Capital cost as on COD

44. Accordingly, 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 claimed as on COD as per Auditor Certificate	Disallowed IDC due to Computational difference and time over run	Undischarged IDC liability	Disallowed IEDC	Asset being decapitalized	Initial spares Disallowed (Excess + undischarged)	Capital Cost as on COD considered for tariff calculation
	1	2	3	4	5	6	7=(1-2-3-4-5-6)
Asset-1	67.65	0.07	2.12	0.00	9.57	0.00	55.89
Asset-2	1970.29	0.13	64.81	0.00	-	26.89	1878.46
Asset-3	1025.93	0.17	4.86	0.00	-	-	1020.90
Asset-4	1111.57	11.25	24.57	4.94	-	145.52	925.30
Asset-5&6	891.41	0.00	23.23	0.00	-	33.71	834.47
Asset-7	1482.35	0.65	26.02	0.00	-	10.04	1445.64
Asset-8	362.37	2.98	0.00	0.00	-	-	359.39

Additional Capital Expenditure (ACE)

45. The Petitioner has claimed additional capital expenditure and submitted Auditor certificate in support of the same. In addition, the petitioner has also claimed the discharge of IDC liability as ACE. The petitioner vide form 7 has claimed both these cost as ACE under Regulation 14(1)(i). which has been summarized as under:-



(₹ in lakh)

Asset	Year	Work/equipment proposed to be added after COD to cut off date/beyond cut-off date	Amount capitalized and proposed to be capitalized	Regulation under which covered
Asset-1	2018-19	Accrual IDC	2.19	14(1)(i) & 14(1)(ii)
	2018-19	Balance and retention payment	30.36	
	Total		32.55	
	2019-20	Balance and retention payment	17.98	
	Total		17.98	
Asset-2	2018-19	Accrual IDC	64.77	
	2018-19	Balance and retention payment	574.17	
	Total		638.94	
	2019-20	Accrual IDC	0.17	
	2019-20	Balance and retention payment	167.69	
	Total		167.86	
	2020-21	Balance and retention payment	49.05	
Total		49.05		
Asset-3	2017-18	Balance and retention payment and accrual IDC	140.74	
	Total		140.74	
	2018-19	Balance and retention payment and accrual IDC	22.52	
	Total		22.52	
Asset-4	2018-19	Accrual IDC	27.99	
	2018-19	Balance and retention payment	247.80	
	Total		275.79	
	2019-20	Balance and retention payment	108.65	
Total		108.65		
Asset-5&6	2018-19	Accrual IDC	23.03	
	2018-19	Balance and retention payment	181.61	
	Total		204.64	
	2019-20	Accrual IDC	0.20	
	2019-20	Balance and retention payment	64.86	
	Total		65.06	
	2020-21	Balance and retention payment	12.97	
Total		12.97		
Asset-7	2018-19	Accrual IDC	26.67	
	2018-19	Balance and retention payment	120.26	
	Total		146.93	
	2019-20	Balance and retention payment	32.07	
	Total		32.07	
Asset-8	2018-19	Balance and retention payment and accrual IDC	91.99	
	Total		91.99	
	2019-20	Balance and retention payment and accrual IDC	15.20	
	Total		15.20	

46. Since, FY 2019-20 and 2020-21 falls beyond the tariff period 2014-19 and is not covered under the 2014 Tariff Regulation, the projected ACE claimed by the



Petitioner for FY 2019-20 & 2020-21 has not been taken into account for the purpose of tariff and shall be dealt during the next tariff period as per extant tariff Regulations.

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

(₹ in lakh)

Particulars	Regulation	Asset-1	Asset-2	Asset-3	
		2018-19	2018-19	2017-18	2018-19
ACE to the extent of Balance & Retention Payment	14 (1)(i)	30.36	574.17	140.74	17.49
ACE to the extent of unexecuted work	14 (1)(ii)	0.00	0.00	0.00	0.00
IDC Discharged	14 (1)(i)	2.12	64.77	0.00	4.86
Total Add-Cap allowed for tariff		32.48	638.94	140.74	22.35

Particulars	Regulation	Asset-4	Asset-5&6	Asset-7	Asset-8
		2018-19	2018-19	2017-18	2018-19
ACE to the extent of Balance & Retention Payment	14 (1)(i)	247.80	181.61	120.25	91.99
ACE to the extent of unexecuted work	14 (1)(ii)	0.00	0.00	0.00	0.00
IDC Discharged	14 (1)(i)	24.57	23.03	26.02	0.00
Total Add-Cap allowed for tariff		272.37	204.64	146.27	91.99

Capital cost for the tariff period 2014-19

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

(₹ in lakh)

Asset	Capital Cost allowed as on COD	Add Cap for 2017-18	Add Cap for 2018-19	Total Estimated Completion Cost up to 31.3.2019
Asset-1	55.89	0.00	32.48	88.37
Asset-2	1878.46	0.00	638.94	2517.40
Asset-3	1020.90	140.74	22.35	1183.99
Asset-4	925.30	0.00	272.37	1197.67
Asset-5&6	834.47	0.00	204.64	1039.11
Asset-7	1445.64	0.00	146.27	1591.90
Asset-8	359.39	0.00	91.99	451.38

Debt-Equity Ratio

49. 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)

Asset-1

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	39.12	70.00	61.86	70.00
Equity	16.77	30.00	26.51	30.00
Total	55.89	100.00	88.37	100.00

Asset-2

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	1314.92	70.00	1762.18	70.00
Equity	563.54	30.00	755.22	30.00
Total	1878.46	100.00	2517.40	100.00

Asset-3

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	714.63	70.00	828.79	70.00
Equity	306.27	30.00	355.20	30.00
Total	1020.90	100.00	1183.99	100.00

Asset-4

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	647.71	70.00	838.37	70.00
Equity	277.59	30.00	359.30	30.00
Total	925.30	100.00	1197.67	100.00

Asset-5&6

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	584.13	70.00	727.38	70.00
Equity	250.34	30.00	311.73	30.00
Total	834.47	100.00	1039.11	100.00

Asset-7

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	1011.95	70.00	1114.34	70.00
Equity	433.69	30.00	477.57	30.00
Total	1445.64	100.00	1591.90	100.00

Asset-8

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	251.57	70.00	315.97	70.00
Equity	107.82	30.00	135.41	30.00
Total	359.39	100.00	451.38	100.00

Return on Equity (ROE)

50. 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.

51. 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.

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
Opening Equity	16.77	563.54	306.27	348.49
Addition due to Additional Capitalization	9.74	191.68	42.22	6.70
Closing Equity	26.51	755.22	348.49	355.20
Average Equity	21.64	659.38	327.38	351.84
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
MAT rate	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	2.99	91.04	44.15	69.00

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Opening Equity	277.59	250.34	433.69	107.82
Addition due to Additional Capitalization	81.71	61.39	43.88	27.60
Closing Equity	359.30	311.73	477.57	135.41
Average Equity	318.44	281.03	455.63	121.61
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
MAT rate	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	20.70	41.67	89.35	5.95

Interest on Loan (IOL)

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

- 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.
- The depreciation of every year has been considered as Normative repayment of loan of concerned year;
- 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.

54. 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.

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
Gross Normative Loan	39.12	1314.92	714.63	773.53
Cumulative Repayment upto previous Year	0.00	0.00	0.00	0.00
Net Loan-Opening	39.12	1314.92	714.63	773.53
Addition due to Additional Capitalization	22.74	447.26	98.52	15.64
Repayment during the year	2.68	81.71	39.62	61.92
Net Loan-Closing	59.18	1680.47	773.53	727.25
Average Loan	49.15	1497.69	744.08	750.39
Weighted Average Rate of Interest on Loan	7.7400%	7.5564%	7.2980%	7.2961%
Interest on Loan	2.68	79.68	37.34	54.75

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Gross Normative Loan	647.71	584.13	1011.95	251.57
Cumulative Repayment upto previous Year	0.00	0.00	0.00	0.00
Net Loan-Opening	647.71	584.13	1011.95	251.57
Addition due to Additional Capitalization	190.66	143.25	102.39	64.39
Repayment during the year	18.58	37.40	80.19	5.34
Net Loan-Closing	819.79	689.98	1034.15	310.63
Average Loan	733.75	637.05	1023.05	281.10
Weighted Average Rate of Interest on Loan	7.7561%	7.4073%	7.6335%	8.0398%
Interest on Loan	18.87	35.68	78.09	5.63



Depreciation

56. Depreciation has been dealt with in line of Regulation 27 of 2014 Tariff Regulations. The instant assets were put under commercial operation during 2017-18 & 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-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
Opening Gross Block	55.89	1878.46	1020.90	1161.64
Additional Capital expenditure	32.48	638.94	140.74	22.35
Closing Gross Block	88.37	2517.40	1161.64	1183.99
Average Gross Block	72.13	2197.93	1091.27	1172.81
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	64.92	1978.14	982.14	1055.53
Remaining Depreciable Value	56.94	1978.14	982.14	1015.91
Depreciation	2.68	81.71	39.62	61.92

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Opening Gross Block	925.30	834.47	1445.64	359.39
Additional Capital expenditure	272.37	204.64	146.27	91.99
Closing Gross Block	1197.67	1039.11	1591.90	451.38
Average Gross Block	1061.48	936.79	1518.77	405.39
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	955.34	843.11	1366.89	364.85
Remaining Depreciable Value	955.34	843.11	1366.89	364.85
Depreciation	18.58	37.40	80.19	5.34

Operation and Maintenance Expenses (O&M Expenses)

57. The Petitioner has claimed the O&M expenses for only Asset-2 and Asset-4 covered in the instant petition as per following details:-

(₹ in lakh)

Asset	Particulars	2018-19 (Pro-rata)
Asset-2	O&M Expenses	75.24
Asset-4	O&M Expenses	16.03



58. The Petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The Petitioner has further submitted that the wage revision of the employees of the Petitioner is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The Petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

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

Element	2018-19
Sub-Station: 400 kV bay GIS (₹ in lakh per bay)	58.73
Sub-Station: 220 kV bay (₹ in lakh per bay)	48.10

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

		(₹ in lakh)
Asset	Details	2018-19 (Pro-rata)
Asset-2	1 No. 220 kV and 1 No. 400 kV GIS ICT Bays at Silchar	75.24
Asset-4	1 No. 220 kV Bus Bay at Mokokchung substation	16.03

Interest on Working Capital (IWC)

61. 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 9.10 as on 01.04.2017 Plus 350 Bps i.e. 12.60% has been considered as the rate of interest on working capital for the Asset-III and SBI Base Rate 8.70 as on 01.04.2018 Plus 350 Bps i.e. 12.20% has been considered as the rate of interest on working capital for the Asset-1, Asset-2, Asset-4, Asset-5, Asset-6, Asset-7 and Asset-8

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
O&M expenses	0.00	8.90	0.00	0.00
Maintenance Spares	0.00	16.03	0.00	0.00
Receivables	2.02	79.69	29.98	31.61
Total	2.02	104.63	29.98	31.61
Rate of Interest	12.20%	12.20%	12.60%	12.60%
Interest on working Capital	0.17	8.99	2.60	3.98



Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
O&M expenses	4.03	0.00	0.00	0.00
Maintenance Spares	7.25	0.00	0.00	0.00
Receivables	38.30	25.82	42.13	11.54
Total	49.58	25.82	42.13	11.54
Rate of Interest	12.20%	12.20%	12.20%	12.20%
Interest on working Capital	2.01	2.38	5.14	0.35

Annual Transmission charges

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3	
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2017-18 (Pro-rata)	2018-19
Depreciation	2.68	81.71	39.62	61.92
Interest on Loan	2.68	79.68	37.34	54.75
Return on Equity	2.99	91.04	44.15	69.00
Interest on Working Capital	0.17	8.99	2.60	3.98
O&M Expenses	0.00	75.24	0.00	0.00
Total	8.52	336.67	123.71	189.65

(₹ in lakh)

Particulars	Asset-4	Asset-5&6	Asset-7	Asset-8
	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)	2018-19 (Pro-rata)
Depreciation	18.58	37.40	80.19	5.34
Interest on Loan	18.87	35.68	78.09	5.63
Return on Equity	20.70	41.67	89.35	5.95
Interest on Working Capital	2.01	2.38	5.14	0.35
O&M Expenses	16.03	0.00	0.00	0.00
Total	76.18	117.14	252.77	17.27

Filing fee and the publication expenses

64. 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

65. 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

66. 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

67. Transmission Charges for all the assets covered in the instant petition 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.

68. This order disposes of Petition No.175/TT/2018.

Sd/-
(I. S. Jha)
Member

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

Sd/-
(P. K. Pujari)
Chairperson

