पावरग्रिड
POWERGRID

पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref No. C/CTU/NE/10th Conn & LTA **Date:** 24-12-2020

To,
As per list enclosed

Sub: Minutes of 10th Connectivity & LTA Meeting of North-Eastern Region held on 25-09-2020 through video conference

Sir,

Please find enclosed the minutes of 10th Connectivity & LTA Meeting of North-Eastern Region held on 25-09-2020 through video conference. The same is also available at CTU (POWERGRID) website (*www.powergridindia.com -> CTU Open Access -> Meeting of Constituents & IPPs -> Eastern/North-Eastern Region*).

Thanking you.

Yours faithfully,

Ashok Pal.

(Ashok Pal)
Chief General Manager (CTU)

List of Addresses:

	Chief Engineer PSP&A-II Central Electricity Authority Sewa Bhawan, R.K.Puram New Delhi-110 066		**Member Secretary** North Eastern Regional Power Committee(NERPC), Meghalaya State Housing Finance Co-operative Society Ltd. Building Nongrim Hills Shillong (Meghalaya) - 793003
	Managing Director, Manipur State Power Company Ltd. (MSPCL), Electricity Complex, Patta No. 1293 under 87(2), Khwai Bazar, Keishampat, District – Imphal West, Manipur – 795001		**CMD** Tripura State Electricity Corporation Limited Bidyut Bhavan, Banamalipur Agartala, Tripura
	Managing Director Assam Electricity Grid Corporation Limited Bijulee Bhawan, Paltan Bazar Guwahati (Assam) – 781001		**CMD** North Eastern Electric Power Corporation Ltd Brookland Compound, Lower New Colony Shillong (Meghalaya) - 793003
	CMD Meghalaya Energy Corporation Limited Lum Jingshai, Short Round Road Shillonq (Meghalaya) - 793001		**Chief Engineer (T&G),** Department of Power, Electricity House, A.G. Colony, Kohima, Nagaland-797001
	Chief Engineer (Power) Vidyut Bhawan, Department of Power Zero Point Tinali Itanagar (Arunachal Pradesh) - 791111		**Engineer-in-Chief** Power & Electricity Department, Kawlphetha Building, New Secretariat Complex, Khatla, Aizawl, Mizoram- 796001
	Director (Projects) NTPC Ltd. NTPC Bhawan, Core-7, Scope Complex Lodhi Road New Delhi-110003		**Executive Director (T&RE)** NHPC Ltd. NHPC Office Complex, Sector-33 Faridabad – 121003 (Haryana)
	Chairman, Solar Energy Corporation of India Limited, 1st Floor, D-3, A Wing, Prius Platinum Building, District Centre, Saket, New Delhi - 110017.		**Director (SO)** B-9, 1st Floor, Qutab Institutional Area Katwaria Sarai, New Delhi-110016

Minutes of 10th Connectivity and Long Term Access Meeting of North Eastern Region held on 25th Sep 2020 through video conference

The 10th Connectivity & LTA Meeting of North-Eastern Region was held on 25-09-2020 through video conference. The list of participants is enclosed in **Annexure-1.**

CGM (CTU) welcomed Member (PS), CEA and all the participants in the meeting. Considering single application for discussion in this meeting, it was suggested that the meeting may be done along with the 2nd meeting of NERPC-TP. Members agreed for the same.

1.0 Confirmation of minutes of 9th Connectivity and Long Term Access Meeting of North Eastern Region

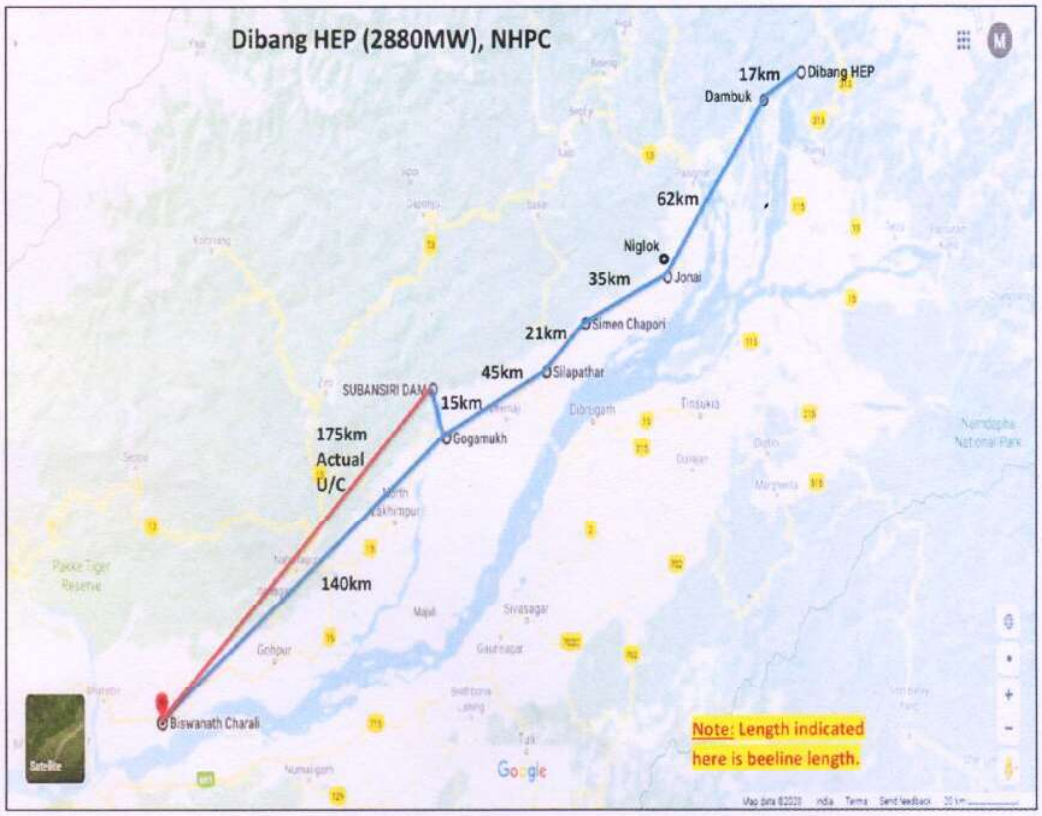
1.1 CTU informed that minutes of 9th Connectivity and LTA meeting of NER was circulated vide letter no. C/CTU-Plg/NE/Conn&LTA dated 28-11-2016. No comments/observations were received on the same. Thus, the minutes of 9th Connectivity and LTA meeting were considered confirmed.

2.0 Connectivity application for Dibang HEP (12x240MW) of NHPC

2.1 CTU representative informed that connectivity application no. 1200002802 for 2880MW Dibang HEP in Arunachal Pradesh by NHPC was received on 10.08.2020 seeking connectivity from 31.05.2029.

2.2 It was informed that presently, there is no 400kV substation in Arunachal Pradesh close to Dibang HEP. Considering envisaged hydro projects in nearby area of Dibang HEP in Arunachal Pradesh, a common pooling station and the connectivity lines for Dibang HEP may be constructed under ISTS. Two alternatives for pooling of power from the generation project have been studied viz. pooling power at Silapather (about 160km away), and Gogamukh (about 215km away). The tentative location of Dibang HEP, the pooling points and existing 400kV ISTS points are shown in the map below:

Map for Dibang (2880MW), NHPC



2.3 CTU presented the brief details of the proposed transmission system alternatives as given below:

Alternative-1: Pooling at Silapathar (through ISTS line)
• 4 no. 400kV line bays at Dibang, for Dibang – Silapathar 2xD/c lines ➢ 4x63MVAr switchable line reactors at Dibang end of Dibang – Silapathar 400kV 2xD/c (Quad) line, one in each circuit • 2x125MVAr (420kV) bus reactors along with bays at Dibang • Space for future expansion: ➢ Additional 400kV line bays (along with space for switchable line reactor) / Bus reactors: 4 no.
• Silapathar 400/220kV, 2x500MVA S/s ➢ 8 no. 400kV line bays ❖ 4 no. for Dibang - Silapathar 2xD/c lines ❖ 2 no. for Silapathar - Biswanath Chariali D/c line ❖ 2 no. for Silapathar - Lower Subansiri D/c line ➢ 420kV, 2x125MVAr bus reactor along with bays • Dibang - Silapathar 400kV 2xD/c (Quad) line: about 2x160km • Silapathar - Biswanath Chariali 400kV D/c (Quad) line: about 230km

➢ 2x63MVAr switchable line reactors at Silapathar end, one in each circuit ➢ 2x63MVAr switchable line reactors at Biswanath Chariali end, one in each circuit • Silapathar-Lower Subansiri 400kV D/c (Quad) line: about 55km • 2 no. 400kV line bays at Biswanath Chariali for Silapathar -Biswanath Chariali D/c line • 2 no. 400kV line bays at Lower Subansiri for Silapathar - Lower Subansiri D/c line
Alternative-2: Pooling at Gogamukh (through ISTS line)
• 4 no. 400kV line bays at Dibang, for Dibang – Gogamukh 2xD/c lines ➢ 4x63MVAr switchable line reactors at Dibang end of Dibang –Gogamukh 2xD/c lines, one in each circuit • 2x125MVAr (420kV) bus reactors along with bays at Dibang • Space for future expansion: ➢ Additional 400kV line bays (along with space for switchable line reactor) / Bus reactors: 4 no.
• Gogamukh 400/220/132kV, 2x500MVA + 2x200MVA ➢ 8 no. 400kV line bays ❖ 4 no. for Dibang – Gogamukh 2xD/c lines ❖ 2 no. for Gogamukh – Lower Subansiri D/c line ❖ 2 no. for Gogamukh – Biswanath Chariali D/c line ➢ 420kV, 2x125MVAr bus reactor along with bays ➢ 4x63MVAr switchable line reactors at Gogamukh end of Dibang – Gogamukh 400kV 2xD/c lines, one in each circuit ➢ 2x80MVAr switchable line reactors at Gogamukh end of Gogamukh – Biswanath Chariali 400kV D/c line, one in each circuit • Dibang – Gogamukh 400kV 2xD/c (Quad) line: about 2x215km • Gogamukh – Lower Subansiri 400kV D/c (Quad) line: about 18km • Gogamukh – Biswanath Chariali 400kV D/c (Quad) line: about 175km • 2 no. 400kV line bays at Lower Subansiri for Gogamukh – Lower Subansiri D/c line • 2 no. 400kV line bays at Biswanath Chariali for Gogamukh – Biswanath Chariali D/c line

2.4 Considering potential HEP(s) in future in nearby area of Dibang HEP, it was proposed that a common pooling station along with interconnecting lines may be taken up for implementation as ISTS.

2.5 In the 2nd meeting of NERSCT held on 08.11.2019, it was agreed to establish new 400kV substation at Gogamukh along with Biswanath Chariali (POWERGRID) – Gogamukh 400kV D/c (Twin Moose) line by AEGCL under intra-state transmission

scheme by 2022. Subsequently, in joint study meeting held on 09.09.2020 through video conference, it was discussed that the connectivity of 400kV Gogamukh substation may be provided by LILO of one D/c of Biswanath Chariali (POWERGRID) – Lower Subansiri 400kV 2xD/c (Twin Lapwing) line at Gogamukh (Gogamukh substation to be implemented by AEGCL under intra-state scheme and LILO to be implemented under ISTS). In view of ISTS lines terminating at Gogamukh S/s, it is proposed to grant Connectivity of 2880MW to NHPC for its Dibang HEP through transmission system proposed under Alternative-2 above with scope of NHPC and ISTS as under:

Alternative-2: Pooling at Gogamukh (through ISTS line)	
By NHPC	• 4 no. 400kV line bays at Dibang, for Dibang – Gogamukh 2xD/c lines ➢ 4x63MVAr switchable line reactors at Dibang end of Dibang – Gogamukh 2xD/c lines, one in each circuit • 2x125MVAr (420kV) bus reactors along with bays at Dibang • Space for future expansion: ➢ Additional 400kV line bays (along with space for switchable line reactor) / Bus reactors: 4 no.
Under ISTS	• Gogamukh 400/220/132kV, 2x500MVA + 2x200MVA ➢ 8 no. 400kV line bays ❖ 4 no. for Dibang – Gogamukh 2xD/c lines ❖ 2 no. for Gogamukh – Lower Subansiri D/c line ❖ 2 no. for Gogamukh – Biswanath Chariali D/c line ➢ 420kV, 2x125MVAr bus reactor along with bays ➢ 4x63MVAr switchable line reactors at Gogamukh end of Dibang – Gogamukh 400kV 2xD/c lines, one in each circuit ➢ 2x80MVAr switchable line reactors at Gogamukh end of Gogamukh – Biswanath Chariali 400kV D/c line, one in each circuit • Dibang – Gogamukh 400kV 2xD/c (Quad) line: about 2x215km • Gogamukh – Lower Subansiri 400kV D/c (Quad) line: about 18km • Gogamukh – Biswanath Chariali 400kV D/c (Quad) line: about 175km • 2 no. 400kV line bays at Lower Subansiri for Gogamukh – Lower Subansiri D/c line • 2 no. 400kV line bays at Biswanath Chariali for Gogamukh – Biswanath Chariali D/c line

2.6 Upon issuance of Connectivity Intimation, NHPC need to sign transmission agreement within 30 days and provide Construction Bank Guarantee (Rs 5

Lakhs/MW) for taking up implementation of immediate evacuation system under ISTS. Further, they also need to sign requisite Connection Agreements prior to physical interconnection with ISTS grid, failing which the Connectivity shall be liable for closure/cancellation.

2.7 After detailed deliberations, it was agreed that the connectivity to Dibang HEP may be granted at its switchyard by extending ISTS network to its generation switchyard. However, the transmission systems to evacuate the power suggested by CTU would be discussed in the joint system study meeting on NER.

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ANNEXURE-I

List of Participants for the 10th meeting of Connectivity and LTA of North Eastern Region

CEA:

1. Sh. Prakash Mhaske, Chairperson / Member(PS)(Additional Charge)
2. Sh. Pardeep Jindal, Chief Engineer (PSPA-II)
3. Sh. B.S. Bairwa, Director (PSPA-II)
4. Sh. S.K. Dotan, Deputy Director (PSPA-II)
5. Sh. Deepanshu Rastogi, Assistant Director-I (PSPA-II)

NERPC:

1. Sh. B. Lyngkhoi, SE
2. Sh. S.M. Aimol, SE
3. Sh. Srijit Mukherjee, EE

POWERGRID:

1. Dr. Subir Sen, COO (CTU)
2. Sh. Ashok Pal, CGM (CTU)
3. Sh. R. K. Tyagi, CGM (I/c) NERTS
4. Sh. U Kakati, CGM(AM), NERTS
5. Sh. Prasanta Kanungo, Sr. GM (NERTS)
6. Sh. Rajesh Kumar, GM (CTU)
7. Sh. Manish Ranjan Keshari, Manager (CTU)
8. Sh. Shyam Sunder Goyal, Manager (CTU)
9. Sh. Anupam Kumar, Dy. Manager (CTU)
10. Sh. Dwaipayan Sen, Dy. Manager (CTU)
11. Sh. Abhilash Thakur, Engineer (CTU)

POSOCO/NERLDC:

1. Sh. S.R. Narasimhan, Director (SO)
2. Sh. S.C. De, GM (SO)
3. Sh. Rajib Sutradhar, CGM (SO)
4. Sh. R.K. Porwal, Sr. GM (SO)
5. Sh. Priyam Jain, Dy. Manager (SO)
6. Sh. Palash Jyoti Borah, Dy. Manager (SO)
7. Sh. Sachin Kumar Singh, Dy. Manager (SO)

AEGCL, Assam:

1. Sh. P.K. Sakia, CGM, PP&D
2. Sh. G.K. Bhuyan, DGM
3. Sh. B. Bora, DGM, SLDC
4. Sh. S.M. Singha, DGM, PP&D
5. Sh. A. Choudhary, AGM, HQ
6. Smt. Jharna Devi, DM, PP&D

7. Sh. Neelkamal Sharma, AM, P&E

DoP, Arunachal Pradesh:

1. Sh. T.K. Tara, SE
2. Sh. H.R. Bado, SE

MSPCL, Manipur:

1. Sh. N. Sarat Singh, MD

MePTCL, Meghalaya:

1. Sh. E Kharmujai, Director
2. Sh. A. Kharpan, CE(Trans)
3. Sh. F E Kharsiing, SE(Trans)

P&E Dept., Mizoram:

1. Er. F.Lalrinpuia, Superintending Engineer (Planning)
2. Er. Lalbiaksanga, Superintending Engineer (SLDC)
3. Er. Benjamin L Tlumte, Senior Executive Engineer (SLDC)

TSECL, Tripura:

1. Dr. M.S. Kele, CMD
2. Sh. Debasis Sarkar, CGM
3. Sh. R Deb Barman, AGM

DoP, Nagaland

1. Sh. Shikato Sema, Engineer-in-Chief

NEEPCO:

1. Sh. Joypal Roy, DGM

NHPC:

1. Sh. J.R. Chaudhary
2. Sh. J.C. Sarkar