सत्यमेव जयते

भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

सुरक्षा है जहां, खुशियां हैं वहां
SHAKTI

SPEED POST/FAX
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website: www.nerpc.gov.in

No: NERPC/NETeST/2026/365-410 05th May 2026

**सेवा में / To**

**As per list attached**

**विषय: 33 वीं NETeST मीटिंग के बैठक का कार्यवृत्त**
**Sub: Minutes of 33rd NETeST meeting -reg.**

महोदय/महोदया,

कृपया आपकी जानकारी और आवश्यक कार्रवाई हेतु, 24 अप्रैल 2026 को गुवाहाटी के होटल नंदन में आयोजित 33वीं NETeST बैठक का कार्यवृत्त इसके साथ संलग्न है। यह कार्यवृत्त NERPC की वेबसाइट: www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द एन.ई.आर.पी.सी सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 33rd NETeST meeting which was held on 24th April 2026 at Hotel Nandan in Guwahati for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

Any comments/observations may kindly be communicated to NERPC Secretariat at the earliest.

भवदीय / Yours faithfully,

अलीक 05.5.26

(ए. दे / A.De)
उप निदेशक / Deputy Director

Encl: As above

**tribution List:**

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
3. Managing Director, APDCL, Bijuli Bhawan, Guwahati – 781 001
4. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
5. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
6. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Director (Generation), MePGCL, Lumjingshai, Short Round Road, Shillong – 793 001
8. Director (Distribution), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
9. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
10. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
11. GM (Transmission), TPTL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
12. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
14. Chief Engineer (Commercial) -cum- CEI, DoP, Govt. of Arunachal Pradesh, Itanagar- 791111
15. Engineer-in-Chief, P&E Department, Govt. of Mizoram, Aizawl – 796 001
16. Engineer-in-Chief, Department of Power, Govt. of Nagaland, Kohima – 797 001
17. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
18. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
19. Group GM, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
20. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura – 799014
21. ED, PGCIL/NERTS, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
22. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
23. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi – 110066
24. Dy. COO, CTUIL, "Saudamini", 1st Floor, Plot No. 2, Sector-29, Gurugram, Haryana – 122001
25. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
26. Chief Engineer, NPC Division, Central Electricity Authority, New Delhi – 110066
27. ED, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
28. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
29. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
30. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
31. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
32. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
33. Head of SLDC, MSPCL, Imphal – 795001
34. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
35. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
36. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
37. Head of SLDC, TSECL, Agartala – 799001
38. Chief Engineer (Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
39. DGM (O&M), OTPC, Badarghat Complex, Agartala, Tripura – 799014
40. Director, NETC, 2C, 3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-77
41. Head, Transmission, KMTL, 7th Floor, Fulcrum, Sahar Road, Andheri (E), Mumbai-400099
42. Project Head, NERPSIP/PGCIL, Pub Suraj Nagar, Nutun Bazar, Kahelipara, Guwahati- 781019
43. ED, Comprehensive Scheme (Ar. Pradesh), PGCIL, Tayeng Building, Nitivihar, Itanagar-791111
44. M/s Genus
45. M/s PwC
46. M/s Infotek

अलीक 05.V.26

(ए. दे / A.De)
उप निदेशक / Deputy Director


# MINUTES

# OF

# 33RD NETeST MEETING

**Time of meeting: 10:00 Hrs.**

**Date of meeting: 24th April, 2026 (Friday)**

**Venue: Hotel Nandan, Guwahati**

# Contents

# NORTH EASTERN REGIONAL POWER COMMITTEE

## MINUTES OF 33RD NETeST MEETING HELD ON 24.04.2026 (FRIDAY) AT 10:00 HRS

Member Secretary, NERPC welcomed to all the officers and representatives from NER states and various utilities to the 33rd NETeST Meeting and expressed appreciation for their continued streamlining the communication issues in the region.

He expressed with disappointment that the AMC of SAMAST in totality has not been renewed by the States and stated that the Committee has to discuss in threadbare to find a permanent solution. He informed that PGCIL had communicated to NERPC Secretariat about the non-willingness to carry out the SCADA/EMS Phase-III AMC in spite of direction by the 31st NERPC Board meeting. He mentioned that the issue has already been taken up with CEA HQR and the reply is awaited. He also expressed displeasure about the exorbitant rates raised by some utilities in carrying out the business in NER and requested them to be considerate considering the financial constraints being faced by NER States. He expressed confidence that the deliberations in the meeting would lead to constructive outcomes and reaffirmed NERPC's commitment to facilitating coordinated efforts among all stakeholders.

Thereafter he requested Director (Operations) to take up the agenda items for deliberation.

# 1. PART-A: CONFIRMATION OF MINUTES

## 1.1. Confirmation of Minutes of 32nd Meeting of NETeST Sub-Committee of NERPC

The minutes of 32nd meeting of NETeST Sub-committee held on 29.08.2025 at NERPC Conference Hall, Shillong were circulated vide letter No. NERPC/NETeST/2025/2268-2307 24th September, 2025.

The following comments have been received from NERLDC via e-mail dated 26/09/2025:

1. The Annexure B2.2 (i) under Agenda 2.2 is not available in the minutes.
2. The Annexure 2.7.3(a) under Agenda 2.7 is not available in the minutes.
3. The necessary deliberations under Agenda 3.9: The detailed status of each state was discussed in the meeting and same was provided as inputs.
4. The necessary deliberations under Agenda 3.28: The detailed status of each ISGS generator was discussed in the meeting and same was provided as inputs.

***Subsequently, Annexure- B 2.2(i) and Annexure 2.7.3(a) have been uploaded in website.***
***The status updates in Sl. No. 3 & 4 as mentioned above have been included in the agenda for 33rd NETeST and shall be further deliberated.***

***Deliberation of the sub committee***

***The Sub-committee noted as above and confirmed the minutes of 32nd NETeST meeting of NERPC along with the above amendment.***

## 2. PART-B: ITEMS FOR DISCUSSION

### AGENDA FROM NERPC

### 2.1. Performance Audit of Communication systems installed at ISTS/SLDC stations-NERPC

As per Clause 10 of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017 – "The RPC Secretariat shall conduct a performance audit of communication system annually as per the procedure finalized in the forum of the concerned RPC. Based on the audit report, RPC Secretariat shall issue necessary instructions to all stakeholders to comply with the audit requirements within the time stipulated by the RPC Secretariat."

The Communication Audit Committee of North Eastern Region vide NERPC letter dated 30.07.2024 has been formed based on the provision of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017. The data format for communication audit is attached as Annexure B 2.1.

In the 32nd NETeST meeting, the forum requested the data from the following utilities as per the table described below to conduct the communication audits:

| Sl No. | State/Utility | Name of sub station |
|---|---|---|
| 1 | Arunachal Pradesh | SLDC Arunachal Pradesh, Chimpu |
| 2 | Assam | Kahilipara and Sarusajai |
| 3 | Nagaland | SLDC Nagaland |
| 4 | Meghalaya | NEHU and SLDC Meghalaya |
| 5 | Manipur | SLDC Manipur |
| 6 | Tripura | SM Nagar (Tripura) |
| 7 | Mizoram | SLDC Mizoram |
| 8 | PGCIL | Nirjuli, Aizawl, Dimapr, Imphal and Misa |
| 9 | Indigrid | SM Nagar |

| | | |
|---|---|---|
| 10 | NHPC | Loktak |
| 11 | NEEPCO | Kathaguri |

The data from all the NER states and PGCIL has been received via e-mails. Data from NHPC and NEEPCO is still awaited.

The communication audits in respect of SLDC Meghalaya and 132kV NEHU substation have been completed on 28th November 2025 and the audit reports have been shared over e-mail dated 23/02/2026.

***Deliberation of the sub committee***

PGCIL apprised the forum that data on behalf of NHPC (Loktak) and NEEPCO (Kathalguri) has been submitted by POWERGRID on 23/04/2026 via e-mail.

Member Secretary, NERPC advised Meghalaya to comply with the observations mentioned in the audit report and submit a compliance report to NERPC Secretariat at the earliest.

The forum also noted that communication audits shall be done on regular basis and it was decided that communication audits for SLDC Tripura, SM Nagar (Tripura) and SM Nagar (Indigrid) shall be carried out tentatively on 14th and 15th May 2026.

***The subcommittee noted as above.***

***Action: Meghalaya / NERPC / Tripura / Indigrid.***

## 2.2. Communication System Outage Planning-NERPC

As per Regulation 7.3 of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017:

**Quote:**

*The RPC Secretariat shall be responsible for outage planning for communication system in its region. RPC Secretariat shall process outage planning such that uninterrupted communication system is ensured.*

**Unquote**

Communication System Outage Planning will be limited to the following systems:

(i) ISTS Communication System including ISGS

(ii) Intra-state Communication System being utilized for ISTS Communication

(iii) ICCP links between Main & Backup RLDCs, Main & Backup SLDCs & Main & Backup NLDCs.

(iv) Inter-regional AGC links

(v) Any other system agreed by the sub-group

- Communication System Outage Planning (CSOP) meeting shall be conducted during the third week of every month normally (preferably through VC) to discuss and approve the proposed outages of communication links and equipment.
- In case of any emergency outage requirement of communication links and equipment, Entities/Users/Owners may directly apply to respective RLDC with intimation to respective RPCs on D-2 basis. Confirmation of approval/rejection will be provided on D-1 basis by RLDCs in consultation with respective RPCs considering 24hrs processing window.
- Detailed SOP of Communication System Outage Planning attached at Annexure-B 2.2
- As per Communication system outage planning SOP provision, Monthly Communication system Outage planning meeting needs to be conducted in current month for approval of planned outage of communication equipment's and links in next month.
- Hence, it is proposed to start outage planning for Communication system in line with provisions of Communication system regulations, 2017.

**In 32nd NETeST meeting**, NERLDC presented a draft list of critical communication elements which impacts the NER grid during outage (the list of important FOTE and OPGW links is attached as **Annexure B 2.2 (i)**. The forum requested all constituents to review the list and provide their inputs, including any modification, additions of any communication links, devices, or related elements, at the earliest.

It was further decided that proposal for communication system outages shall be discussed and approved along with the monthly OCC Shutdown of Transmission elements, and the status would be updated in the subsequent NETeST meetings on a quarterly basis for the information of members.

***Deliberation of the sub committee***

The forum noted that planned communication shutdown proposals from May-2026 onwards shall be put up for deliberation in OCC shutdown meetings by all the concerned utilities. The forum also advised NERLDC to allow D-2 communication shutdown proposals only in case of emergency.

***The sub-committee noted as above.***
***Action: All Concerned Utilities / NERLDC.***

## 2.3. Guidelines on Availability of Communication system-NERPC

CERC vide order dated 19.01.2024 had approved the "Guidelines on Availability of Communication System" (Annexure-B.2.3) under the *Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017*.

- In 28th NETeST meeting, the sub-committee decided that CTU shall provide the details of communication channels to NERLDC and NERLDC shall forward the information of the channels to NERPC for computation of availability of the communication systems.
- CTU agreed to provide the list of channels as per guidelines from UNMS. Member Secretary, NERPC asked CTU to provide the information within 2 weeks. CTU has not provided the requisite information. CTU to update on the matter.

- In 30th NETeST Meeting, CTU apprised the forum that sharing the desired list of communication channels comes under the operational aspect of grid communication and CTU being a planning body shall not be responsible for sharing the list of communication channels. CTU informed that they file Petition in Hon'ble CERC in October-2024 in this regard & hearing for the petition has been scheduled on 13/02/25. CTU further stated that the course of action shall be decided as per the hearing of Hon'ble CERC.
- NERPC responded that as per Communication regulations shared by the Hon'ble CERC in January-2024, it is the responsibility of CTU to share the details of channels for communication. NERPC further stated that it is important to determine the channels whose availability is to be calculated. ULDC-POWERGRID agreed to share the list of important ISTS channels.
- The forum advised ULDC-POWERGRID to share the list of important ISTS channels by 10th February-2025.

**In 31st NETeST meeting**, ULDC-POWERGRID shared the list of important ISTS channels to NERPC. However, the forum noted that the format of the shared list does not clarify the type of service for which the channel is being used. Moreover, the nature of the outages and the duration of the down time of the channels are not specified. PGCIL responded that these evolving requirements should be resolved after the proper tagging process is completed.

**In the 32nd NETeST meeting**, it was informed that the uniform format for Communication Availability was approved in 16th NPC meeting. The forum agreed to adopt the finalized format as approved in 16th NPC meeting.

Further, PGCIL informed that the standard naming convention of Communication channels and equipment is under finalization. The forum advised Powergrid/CTU to share the requisite information at the earliest so that the NERPC can issue the Availability of Communication System.

***Deliberation of the sub committee***

PGCIL apprised the forum that the standard naming convention for communication channels and equipment is under progress. PGCIL further

submitted that the issues pertaining to M/s ECI and M/s Tejas make equipment shall be resolved by May-2026. The issues related to M/s Fibcom make equipment are also under progress.

***The sub-committee noted as above.***

***Action: PGCIL.***

### 2.4. Finalization of a common Detailed Project Report (DPR) for the establishment of Cyber Security Operation Centre (C-SOC) at SLDCs: NERPC

As per Clause 3(j) of the Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018, organizations with protected systems are mandated to establish a Cyber Security Operation Centre (C-SOC) to implement real-time preventive, detective, and corrective controls against cyber threats.

Furthermore, following a review meeting chaired by the Secretary (Power) on 21.03.2025, it was mandated that SOC proposals submitted under the PSDF-funded scheme must include indigenous SOC and NOC solutions, along with a 5-year Annual Maintenance Contract (AMC).

During the 31st NERPC meeting, Chairperson, NERPC opined that NERPC Secretariat shall take over the responsibility of preparing the DPRs and NITs for all the constituent states (with the exception of Assam). This centralized approach aims to ensure the standardization of systems, encourage participation from reputed vendors, and facilitate the cost-effective implementation of the project across the region.

To achieve this, NERPC forum suggested that a Sub-Committee comprising representatives from all the concerned states, NERLDC, and NERPC be formed to thoroughly review and finalize the DPR.

The Sub-Committee would comprise one member each from Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and NERLDC and NERPC Secretariat would be Convener of the committee.

In view of the above, a letter requesting the nomination of officers (Name, Designation, Contact No., Email ID) possessing the requisite technical background not below the rank of Executive Engineer (EE), was sent via e-mail dated 02/04/2026. The nominations were requested latest by 10th April 2026.

DoP, Arunachal Pradesh, SLDC Mizoram and SLDC Tripura have sent the requisite nominations. Nominations from the remaining states are awaited.

***Deliberation of the sub committee***

NERPC Secretariat apprised the forum that the draft DPR has been prepared and comments are awaited from the state utilities for the BoQ part of the DPR.

Arunachal Pradesh, Tripura & Mizoram have already sent their nominations. Meghalaya apprised the forum that the nomination for the sub-committee to finalize the DPR has been submitted via e-mail dated 23/04/2026. Manipur mentioned that nominations would be sent soon.

Member Secretary stated that once the nominations are received by NERPC Secretariat, a meeting would be convened to finalize the DPR so that the same could be sent to PSDF Secretariat at the earliest.

***The sub-committee noted as above.***
***Action: All concerned State Utilities / NERPC.***

## 2.5. Regional Cyber Security Coordination Forums for NER: NERPC

The Government of India, through Information Technology Act-2000 laid the foundation of CERT-In, an organization dedicated to the cause of Cyber Security Standards,

Compliances, Incident Response and Guidance. The GoI, Ministry of Power, CEA and Central Electricity Regulatory Commission brought in multi-layered approach to coordinate cyber defence, considering the intensity and complexity of the cyber threat perceptions in Indian Power Sector.

Brief of the relevant Regulations with respect to regional-sub-sectoral coordination forums are given under:

i. Clause 53(1) & (2) of IEGC 2023 stipulate as below:

a) The sectoral CERT (Computer Emergency Response Team) for wings of power sector, as notified by Government of India, from time to time, shall form a Cyber Security Coordination Forum with members from all concerned utilities and other statutory agencies to coordinate and deliberate on the cyber security challenges and gaps at appropriate level. A sub-committee of the same shall be formed at the regional level.

b) The sectoral CERT shall lay down rules of procedure for carrying out their activities.

ii. The draft Central Electricity Authority (Cyber Security in Power Sector) Regulations, 2025 proposes the following (at Clause 5):

The Authority through separate order may also designate sub sectoral CERTS in Power Sector for Generation, Transmission, Distribution, Grid Operation and any other sub-sector, along with their roles and responsibilities, to assist CSIRT-Power.

The Government of India after reviewing the needs of Cyber Security in Critical Infrastructure Sector, created dedicated Sectoral CERTs. Following the directives of GOI/ CERT-In, MOP created six sectoral CERTs and designated nodal organisations, as listed below:

| S.No. | Sectoral CERT | Nodal Organization |
|---|---|---|
| 1 | CERT – Thermal | NTPC |
| 2 | CERT – Hydro | NHPC |
| 3 | CERT – Transmission | POWERGRID |
| 4 | CERT – Distribution | DP&T Division, CEA |
| 5 | CERT – Grid Operation | NLDC |
| 6 | CERT – Renewable Energy | MNRE/SECI |

The status of Regional Cyber security Coordination Forum (Thermal, Hydro and Transmission) in NER may be discussed.

In 31st TCC Meeting, the forum opined that the item is to be further discussed in Sub-Committee meeting(s) for detailed study/deliberation/clarification and is therefore referred to the Sub-Committee(s) of NERPC.

***Deliberation of the sub committee***

After detailed deliberations, the forum agreed that each nodal agency shall form a sub-committee for each sectoral CERT for NER grid consisting of

- Representatives specializing in Cyber Security/IT from the respective nodal agencies, NERLDC, NERPC and Central/State Sector Generators/IPPs (For CERT Thermal/Hydro)
- Representatives specializing in Cyber Security/IT from the respective nodal agencies, NERLDC, NERPC and Central/State sector Transmission utilities/other TSPs (for CERT-Transmission).

The forum also noted that the respective sub committees shall sit quarterly to discuss the cyber security issues of NER grid pertaining to that sector. A letter in this regard shall be issued by NERPC to all the concerned stakeholders.

***The sub-committee noted as above.***

***Action: NTPC/NHPC/POWERGRID / NERPC.***

## 2.6. Cyber Security Testing of Power Sector Equipment at Central Power Research Institute (CPRI): NERPC

Central Power Research Institute (CPRI), Bengaluru, via letter No. 01/04/CPRI/SGRL/2025-26 dated 18th September 2025, has apprised NERPC regarding the operationalization of its Cyber Security Testing Laboratory. CPRI is currently the only Government Testing Laboratory in the Indian power sector equipped for this purpose.

As per the Ministry of Power (MoP) Order No: 12/34/2020-T&R (dated 24th December 2021 & August 2025), cyber security testing is mandatory for both indigenous and imported equipment prior to deployment in the power grid.

**Key Highlights of CPRI's Facilities:**

- **Accreditation:** The test facilities are accredited as per ISO/IEC 17025:2017.
- **Standards Covered:** The lab performs communication protocol and security conformance testing as per IEC 60870-5-101, IEC 60870-5-104, IEC 60870-5-7, IEC 62351 series, and IEC 61850.
- **Equipment Covered:** The testing applies to products such as RTUs, FRTUs, Intelligent Electronic Devices (IEDs), Numerical Protection Relays, Bay Control/Protection Units, Gateways, and Transformer Tap Controllers.
- **Testing Methodology:** Testing must be conducted on actual supply lot samples that are intended for field deployment.

Given the national importance of safeguarding the Critical Information Infrastructure (CII) of the power sector from cyber threats, CPRI has recommended that all regional utilities ensure their devices undergo these mandatory tests.

***Deliberation of the sub committee***

The forum advised all the concerned utilities to ensure that their devices undergo the mandatory tests as mentioned above before deployment in the grid. PGCIL further submitted that upgradation works are in progress at Balipara and Misa substations and the equipment to be installed there shall be put through mandated tests by CPRI before deployment.

***The sub-committee noted as above.***

***Action: All Regional utilities.***

## 2.7. Progress of SCADA/EMS ULDC-III Project of NER: NERPC

With reference to the NER SCADA/EMS ULDC-III Project which the 26th Monitoring Committee of PSDF had assigned to POWERGRID for implementation. PSDF has agreed to provide 70% of the cost of the project as

grant and 30% of the cost of the project shall be contributed by POWERGRID as an equity.

During the 31st NERPC/TCC meeting held on 11th- 12th March 2026 at Aizawl, Mizoram following were recommended:

NERPC forum noted the consensus among the constituent states, including the formal agreement from Mizoram, for implementation of the NER SCADA/EMS ULDC-III Project under the 70:30 funding mechanism.

Emphasizing that the comprehensive DPR already includes the AMC, the forum advised POWERGRID to proactively take up the matter with their higher management to secure the necessary approvals for executing the AMC component.

A special meeting shall be convened by the NERPC Secretariat with all concerned stakeholders to finalize the detailed mechanism and commercial modalities for the project including execution of the AMC.

In view of this POWERGRID-GA&C and ULDC may provide the tentative total cost of each state including AMC which needs to pay through RTM.

***Deliberation of the sub committee***

Member Secretary, NERPC apprised the forum that a letter in this regard has been sent to CEA seeking clarification on the AMC part of the project. He further informed that deliberation on the matter shall be taken up after response is received from CEA.

***The sub-committee noted as above.***

***Action: NERPC / CEA.***

## AGENDA FROM NERLDC

### 2.8. Status of Construction of Backup SLDC in NER states: NERLDC

As deliberated in 86th Meeting of the TESG of PSDF held on 22nd October 2024, TESG has communicated the NER States that civil construction for setting of infrastructure for backup control centres at NER SLDCs is not being funded through PSDF as per the laid guidelines. Hence, all NER state has to arrange necessary fund for construction of backup SLDC on their own

resources. The status of construction of backup SLDCs in tabulated, states may provide the updated status:

| ***Sl. No.*** | ***Name of state*** | ***Status of construction of Back up SLDC as per 30th RPC meeting*** | ***Status of construction of Back up SLDC as per 33rd NETeST Meeting*** |
|---|---|---|---|
| 1 | Arunachal Pradesh | The matter could not be included in the budget estimate for FY 2025-26 due to uncertainty over PSDF funding of SCADA for Back up SLDC. After clarification, the matter will be incorporated in the revised Estimate. | |
| 2 | Assam | Assam informed that land has been identified in Samaguri, and a Detailed Project Report (DPR) with an estimated cost of around ₹8.5 crore has been submitted to the Government of Assam for fund approval. The Power Department had raised certain queries, which have been duly addressed by AEGCL. The Department will review the responses, and upon satisfaction, will forward the proposal to the Standing Finance Committee of the Government of Assam, chaired by the Chief Secretary (Power) | |
| 3 | Manipur | Location identified at 400kV Thoubal SS. Space required for accommodating UPS and Battery. | |
| 4 | Meghalaya | Meghalaya informed that the tender will be floated by December 2025 | |
| 5 | Mizoram | Budget allocation and administrative approval done, waiting for expenditure sanction. Expected by this FY. | |
| 6 | Nagaland | Space ready at New Kohima S/S (New Secretariat). | |
| 7 | Tripura | Board approval awaited. TSECL requested to include replica of control centre screen to corporate office in the scope of the work. | |

It is requested to all the states to provide the periodic updates and show a substantial progress before the pre-bid stage of tendering as it will be difficult to make provision for SCADA/EMS equipment for Backup SLDC afterwards.

***Deliberation of the sub committee***

| Sl. No. | Name of state | Status of construction of Back up SLDC as per 30th RPC meeting | Status of construction of Back up SLDC as per 33rd NETeST Meeting |
|---|---|---|---|
| 1 | Arunachal Pradesh | The matter could not be included in the budget estimate for FY 2025-26 due to uncertainty over PSDF funding of SCADA for Back up SLDC. After clarification, the matter will be incorporated in the revised Estimate. | SLDC Arunachal Pradesh informed that the proposal for the budgetary estimate had been submitted to the State Government for approval for FY 2026–27. Upon receipt of approval, the construction of the building is expected to be completed within approximately 1.5 to 2 years. |
| 2 | Assam | Assam informed that land has been identified in Samaguri, and a Detailed Project Report (DPR) with an estimated cost of around ₹8.5 crore has been submitted to the Government of Assam for fund approval. The Power Department had raised certain queries, which have been duly addressed by AEGCL. The Department will review the responses, and upon satisfaction, will forward the proposal to the Standing Finance Committee of the Government of Assam, chaired by the Chief Secretary (Power) | AEGCL informed that bids are currently under evaluation. The Letter of Award (LoA) is expected to be issued shortly. Following the issuance of the LoA, the building at the 220 kV Samaguri substation is expected to be completed within two years. |
| 3 | Manipur | Location identified at 400kV Thoubal SS. Space required for accommodating UPS and Battery. | MSPCL informed that the building is ready at 400 kV Thoubal S/s. |
| 4 | Meghalaya | Meghalaya informed that the tender will be floated by December 2025 | MePTCL informed that LoA is awarded in the month of March'26 and work is expected to completed in upcoming six months at 220/132/33kV Mawphlang Grid Sub-station. |
| 5 | Mizoram | Budget allocation and administrative approval done, waiting for expenditure sanction. Expected by this FY. | PE&D, Mizoram informed that budget is approved from government and the work order will be placed at the earliest by 1st week of May 2026. The work is expected to be completed within 2 years. |
| 6 | Nagaland | Space ready at New Kohima S/S (New Secretariat). | DoP Nagaland informed that building is ready at 132 kV New Secretariat S/s. |

| | | | |
|---|---|---|---|
| 7 | Tripura | Board approval awaited. TSECL requested to include replica of control centre screen to corporate office in the scope of the work. | TPTL informed that the renovation work is under progress at one of the buildings at 132 kV Surjamani Nagar S/s. The work is expected to be completed in 3-4 months. |

Member Secretary, NERPC further stressed that the respective SLDCs should enhance the manpower capability to deploy at the back up SLDCs.

***The sub-committee noted as above.***

***Action: All State Utilities (SLDCs).***

## 2.9. Re-modelling of ICCP architecture of NER-SLDCs to minimise downtime and enable automatic switchover between NER-SLDC–NERLDC Shillong and NER-SLDC–NERLDC Guwahati: NERLDC

NERLDC is presently operating with Main-1 and Main-2 control centre establishments. In order to enhance the reliability of both Main-1 and Main-2, NERLDC has already completed parallel reporting from most of the central sector stations to both control centres. However, since each state is presently operating through a single SLDC, parallel reporting from the SLDCs to both NERLDC Shillong and NERLDC Guwahati is not feasible under the existing arrangement.

At present, switchover of ICCP connectivity from NER-SLDC–NERLDC Shillong to NER-SLDC–NERLDC Guwahati is carried out manually at the respective control centres. This results in interruption of data exchange and also requires the physical availability of manpower at the concerned control centres for carrying out the switchover.

In order to address this issue, a new ICCP architecture is proposed to be deployed at the NER-SLDCs, which will enable automatic switchover of connectivity from NER-SLDC–NERLDC Shillong to NER-SLDC–NERLDC Guwahati in the event of any disruption in the NER-SLDC–NERLDC Shillong link. This proposed arrangement will significantly improve the availability and reliability of data exchange between NERLDC and the NER-SLDCs, with only

a minimal disruption of about 10–20 seconds during switchover. The detailed implementation scheme is enclosed at **Annexure-B 2.9**.

It is also pertinent to mention that NERLDC has already implemented this architecture at SLDC Arunachal Pradesh, and the same has been functioning successfully since 14.11.2025 without any operational issues.

NERLDC shall provide all necessary assistance for adoption and implementation of the proposed architecture.

***Deliberation of the sub committee***

NERLDC apprised the forum that minor modifications shall be carried out in the ICCP database to enable automatic switchover from NER SLDC-NERLDC Shillong link to NER SLDC-NERLDC Guwahati link.

The forum appreciated the initiative from NERLDC and advised all states to do necessary changes for ICCP architecture as it will minimize ICCP data interruption between RLDC and SLDCs.

All State SLDCs further provided their consent for the implementation of the new ICCP architecture.

NERLDC confirmed that the necessary database changes would be carried out in coordination with the respective SLDC counterparts and are expected to be completed by June 2026.

***The sub-committee noted as above.***
***Action: NERLDC / All SLDCs.***

## 2.10. Restoration and Planning of ER–NER Redundant Communication Path via Bongaigaon–Binaguri-1 OPGW Link: NERLDC

In reference to a series of communications issued by NERLDC vide letters and emails attached as **Annexure-B 2.10**, regarding restoration and utilization of the Bongaigaon–Binaguri-1 OPGW link for the ER–NER corridor. At present the traffic of NER region is running on the Salakati–Alipurduar route and the redundant path needs to be established for ER-NER corridor. As brought out in earlier correspondence, the Bongaigaon–Binaguri-1 OPGW link is owned

and operated by POWERTEL and more than 225 km long and requires repeaters/SDH/FOTE for establishing redundant link for ER-NER corridor for reliable operation.

In the 9th CPM held on 16th March 2026, POWERGRID informed that redundant path through Binaguri – Bongaigaon link at STM-16 will be established by first week of April as some link configurations works are still pending.

***Deliberation of the sub committee***

POWEGRID-ULDC informed that the Binaguri-Bongaigaon link was configured and commissioned on 11th April 2026.

NERLDC further informed that the necessary services (such as ICCP, AGC, etc.) will be diverted through the newly configured link in coordination with NLDC by end of May 2026. Further, NERLDC requested CTU to put up such agenda items (related to Communication planning for ISTS elements) in CPM meeting.

***The sub-committee noted as above.***

***Action: POWEGRID-ULDC / NERLDC/CTU.***

### 2.11. Planning for OPGW connectivity of 220 kV Agomoni S/s AEGCL: NERLDC

As per the minutes of the 1st meeting of North Eastern Regional Power Committee (Transmission Planning) / 2nd meeting of North Eastern Region Standing Committee on Transmission (NERSCT) held on 18th November 2019, LILO of both circuits of 220 kV Alipurduar–Bongaigaon D/C line at Agomoni (AEGCL – New) was agreed for implementation.

It is observed that the said LILO is being implemented over the existing ER–NER inter-regional link comprising 220 kV Alipurduar–Salakati line, which is presently carrying critical communication services in addition to power transmission.

In this regard, the matter was deliberated in the 9th CPM Meeting held on 16th March 2026, wherein NERLDC requested CTU to ensure that Fibre

Sharing Guidelines are strictly adhered to during implementation of the LILO. CTU informed that POWERGRID is required to provide the fibre details of the 220 kV Alipurduar–Salakati main line as per the fibre sharing format already circulated by CTU.

Further, it was suggested that a detailed agenda may be submitted by AEGCL so that a separate meeting can be convened to deliberate on the sharing of main line OPGW in the LILO section in line with CEA fibre sharing guidelines. CTU also suggested that an alternate communication path for the 220 kV Alipurduar–Salakati link may be established at the earliest by POWERGRID. This will facilitate execution of OPGW-related works in the LILO section and ensure commissioning of the LILO at Agomoni Substation within the timeline provided by AEGCL.

CTUIL, AEGCL and POWERGRID are requested to provide an update on the progress of the above activities.

***Deliberation of the sub committee***

CTUIL requested ULDC–POWERGRID to provide details regarding the utilization of fiber on the 220 kV Alipurduar–Salakati link, including the number of fibers used for Grid-Operation purposes and those used for commercial purposes.

NERLDC informed the forum that, as per the CEA Fibre Sharing Guidelines, all fibers are required to be LILOed at the 220 kV Agomoni substation, irrespective of their current usage.

AEGCL confirmed that they will comply with the CEA Fibre Sharing Guidelines and carry out the LILO of the respective fibers accordingly.

***The sub-committee noted as above.***

***Action: CTUIL / PGCIL / AEGCL.***

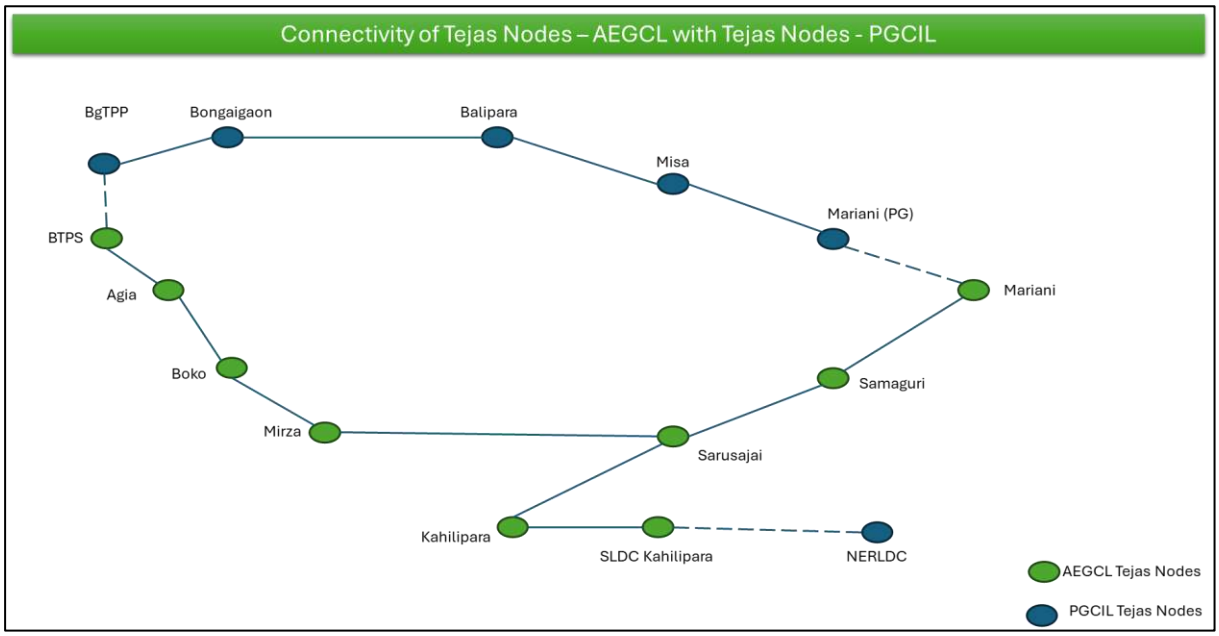
### 2.12. Connectivity of Tejas network developed by AEGCL and POWERGRID-ULDC to enhance the reliability of NER communication network: NERLDC

NERLDC has observed that AEGCL has deployed a Tejas SDH based network in 32 locations of Assam. Further, ULDC-POWERGRID has also commissioned Tejas SDH in multiple ISTS/ISGS nodes within Assam. The connectivity of

such nodes will enhance the reliability of Assam state network and in turn NER communication network. For example:

1. BgTPP (NTPC) to BTPS (AEGCL) connectivity.
2. NERLDC Guwahati to SLDC Assam connectivity.
3. Mariani (PG) to Mariani (AEGCL) connectivity.

Forum is requested to discussed the matter further.




***Deliberation of the sub committee***

1. Bongaigaon (PG) to Bongaigaon (AS): ULDC–POWERGRID informed that bandwidth sharing is presently feasible and the link is ready for handover.
2. Mariani (PG) to Mariani (AS): ULDC–POWERGRID informed that bandwidth sharing is presently feasible and the link is ready for handover.
3. SLDC Kahilipara to NERLDC: NERLDC informed that this connectivity is required for RLDC purposes, as currently only the Fibcom device is connected.

The forum requested ULDC–POWERGRID to establish connectivity between the Tejas devices at SLDC Kahilipara and NERLDC via fiber, subject to the healthiness of the fiber. The forum further requested AEGCL and ULDC–POWERGRID to complete the connectivity for Sl. Nos. 1 and 2 by the end of April-2026.

***The sub-committee noted as above.***

***Action: AEGCL / PGCIL.***

## 2.13. Cyber Security Concerns in ADMS Architecture across NER States and Implementation of Mitigation Measures: NERLDC

It is observed that the ADMS architecture, attached as **Annexure-B 2.13**, implemented across all NER States follows a similar communication setup. As discussed in the 9th CSCF Meeting dated 25.03.2026 and subsequent interaction with SLDC Mizoram and OEM, certain cybersecurity concerns have been identified.

***Existing Architecture:***

ADMS at SLDC Mizoram is connected through a BSNL lease line with a modem having one static public IP interface and one private IP interface. The public IP interface is connected to the ADMS Router-cum-Firewall, enabling external connectivity.

***Observations:***

It has been observed that there is no provision for geo-fencing or IOC blocking at the modem level, and the current practice of blocking IOCs at the ADMS router is not sufficient as malicious traffic continues to reach the system. Further, remote stations are connected through GPRS SIMs with dynamic IP allocation, which restricts implementation of IP whitelisting. Additionally, system analysis has indicated that multiple public IPs are communicating with the ADMS servers over ports 80 and 443; while VPN communication is configured over port 443, the presence of traffic over port 80 is not in line with the intended architecture and remains unexplained.

***Risk:***

Since ADMS controls remote station equipment including circuit breakers, such vulnerabilities may lead to a major cybersecurity incident. As similar architecture exists across all NER States, the risk is system-wide.

***Recommendations:***

a. Deployment of Next Generation Firewall (NGFW) at communication entry point for geo-fencing and threat filtering.
b. Use of M2M SIM cards with static IPs at remote stations to enable secure whitelisting.

***Deliberation of the sub committee***

NERPC Secretariat informed the forum that a separate meeting shall be convened to discuss the AMC of the ADMS system which is expiring in Jan'2027, during which the deployment of a Next Generation Firewall (NGFW) will also be deliberated.

In the meantime, the forum advised all SLDCs to deploy M2M SIM cards at remote stations at the earliest to enable secure whitelisting.

***The sub-committee noted as above.***

***Action: NERPC / NERLDC / All States.***

## 2.14. VAPT cyber security audit of SCADA/EMS system of SLDCs: NERLDC

During the review in the 9th CSCF Meeting dated 25.03.2026, it has been noted that Vulnerability Assessment and Penetration Testing (VAPT) of OT systems for FY 2025-26 is yet to be completed in all SLDCs except Assam SLDC. As per the provisions of the Information Technology Rules / Cyber Security guidelines applicable to power sector entities (IT Rules 2018 and subsequent directions), periodic VAPT is a mandatory requirement for critical infrastructure systems.

A letter from Office of CISO-NERLDC was also written to all SLDCs vide reference NERLDC/Cyber Security/CSCF/01 dated 06.04.2026, attached as **Annexure-B 2.14**.

Non-completion of VAPT for the current financial year may therefore be treated as non-compliance of the applicable cyber security requirements.

All SLDCs are requested to expedite the completion of VAPT for both IT and OT systems and submit the status/compliance report at the earliest.

***Deliberation of the sub committee***

NERLDC apprised the forum that the VAPT audit for OT system for FY: 2025-26 has been completed only by Assam. The forum stressed that VAPT audit for OT system for each financial year should be completed by 31st March.

Further, the forum expressed that non completion of VAPT audit for OT system for all NER states except Assam for FY: 2025-26 within 31st March 2026 shall

be treated as non-compliance for M/s GE, as M/s GE is responsible for carrying out the VAPT audit as part of the AMC.

M/s GE regretted the delay in execution of VAPT audit and further submitted that VAPT audit for OT system is already in progress for all other NER States.

***The sub-committee noted as above.***

***Action: M/s GE / All SLDCs.***

## AGENDA FROM POWERGRID

### 2.15. Supply and Installation of VoIP Communication System for NER SLDCs: PGCIL

Submission of Remote Site Details and readiness and requirement of Backup Control Centres of Assam, Arunachal Pradesh, Mizoram, Tripura, and Manipur for the VoIP Communication System Project:

| Sl.No | Description | Remarks |
|---|---|---|
| 1 | Brief on the package | The scheme "***Supply and Installation of VoIP Communication System including Phones, Voice Recorder, etc., for Grid Operation for all Five Regions (NR, NER, SR, WR, ER) at NLDC, RLDCs, and SLDCs***" has been approved in **27th NCT dated 24.02.2025** and the **CTU OM dated 24.02.2025** issued for implementation of the scheme on **RTM basis to POWERGRID**. The broad scope of the scheme includes supply and installation of VoIP phones and PoE switches at local and remote stations, along with establishing main and backup control centres for NLDC, RLDCs, SLDCs, and the International Exchange to create an integrated communication network across the country. |

| | | |
|---|---|---|
| 2 | Scope | The broad scope for NER region includes:<br>• 2 (Main + Backup) Control Centres for NERLDC,<br>• 2 (Main + Backup) Control Centres each for the SLDCs of Assam, Arunachal Pradesh, Mizoram, Tripura, Manipur, Nagaland, and Meghalaya.<br>• Supply and installation of approximately 900 VoIP phones and PoE switches across remote locations associated with these control centres. |

**Current Status**:

- Kick off meeting was held on 19.01.2026 and all the Constituents were asked to share the information regarding the Address/location of SLDCs (Main & Backup), availability of space and the address of the Substations where VoIP phones are to be installed.
- Letters in this regard have also been sent to all constituents on 20.01.2026 and 06.03.2026.
- M/s Orange has completed surveys at the Main and Backup NERLDC and the main SLDC control centres excluding Assam Main Control centre.
- Survey completed at Nagaland and Meghalaya back up SLDC.

**Requirement:**

A. Details of status and requirement of back up SLDC's at:
   - Assam.
   - Arunachal Pradesh.
   - Mizoram.
   - Tripura.
   - Manipur along with their addresses.

B. Further, M/s Orange reported for non-confirmation of space in Assam main control centre, Guwahati.

**Proposal:**

The concerned state utilities are requested to expedite submission of complete remote site details, including Backup control centre locations, to facilitate timely implementation of the project by M/s Orange.

In case, the Backup SLDC is not ready or will not be ready in another 6 months, the VoIP system of Backup SLDC can be descoped as there is failover redundancy available at NER RLDC level and another level of failover at NLDC level. Also, if the Substation addresses are not provided, then the BoQ for the substation shall be accordingly descoped.

***Deliberation of the sub committee***

After detailed deliberations, Nagaland and Meghalaya urged the forum to include VoIP scheme for back up SLDCs in the scope of work. Whereas Arunachal Pradesh, Mizoram, Assam, Tripura and Manipur requested the forum to descope the VoIP scheme for back up SLDCs from the scope of work as of now.

The forum advised POWERGRID to go ahead with the implementation of VoIP scheme at the main control centres and for back up control centres the same be considered as per the request of the concerned states.

***The subcommittee noted as above.***

***Action: POWERGRID / All State SLDCs.***

### 2.16. Formation of a core team for streamlining of UNMS: PGCIL

As per CERC Regulations 2017, UNMS has been commissioned and is under usage from Dec 2023. However, it is observed that issues are being faced for integration of other TSP equipment viz. equipment installed under TBCB etc. Several follow ups are being made by NERTS POWERGRID, however, very less response is being received. As channel availability calculation will encompass all central sector links, integration of equipment under POWERGRID, other central sector utility and TSP will be of utmost importance. For streamlining of the same, a team may be formed comprising of members of POWERGRID,

Grid India, CTU, other central sector utility, TSP to follow up and ensure integration in UNMS.

***Deliberation of the sub committee***

Powergrid apprised the forum about the difficulties being faced by them for integration of other TSP equipment in UNMS and requested the forum to constitute a Core Team comprising the members of POWERGRID, Grid India, CTU, other central sector utility, TSPs and NERPC to ensure smooth integration in UNMS.

A letter in this regard shall be issued by NERPC Secretariat to all the concerned stakeholders.

***The subcommittee noted as above.***

***Action: Concerned Utilities / NERPC***

**AGENDA FROM ASSAM**

**2.17. Non-Availability of Telemetry data pertaining to 132kV Chapakhowa GSS, AEGCL constructed under NERPSIP scheme and other issues related to communications links established under NERPSIP scheme: ASSAM**

***Issue 1:***

The Real Time Telemetry data of 132kV Chapakhowa Sub-station has not been reporting at SLDC, Assam since 25.12.2024 due to Fibre break of 132kV Rupai-Chapakhowa OPGW Link constructed by POWERGRID under NERPSIP scheme. The 132kV Rupai-Chapakhowa OPGW Link also acts as a redundant path for Arunachal Pradesh transmission system. Several communications have already been taken up by AEGCL Field offices and HQ, SLDC-Assam with NERPSIP, POWERGRID for restoration of the faulty 132kV Rupai-Chapakhowa OPGW link, but till date, the issue has not been resolved. In this regard, an email was received from the DGM, NERPSIP, POWERGRID, Dibrugarh stating that the 132kV Rupai-Chapakhowa OPGW link will be established by the end of January, 2026, but thereafter, no intimation has been received from NERPSIP, POWERGRID regarding any action taken for restoration of the link. Moreover, the 132kV Rupai-Chapakhowa OPGW link

is very much essential for proper working of the Special Protection scheme implemented for reliable power supply to Arunachal Pradesh from Assam through the Roing-Chapakhowa D/C line. But, due non-healthiness of the 132kV Rupai-Chapakhowa OPGW link, the SPS is not properly working presently leading to situations causing unwanted trippings of 33kV feeders instead of 132kV Chapakhowa-Roing D/C line along with 20MVAR Bus Reactor at Roing GSS and furthermore, this may lead to cascading tripping of other transmission lines resulting in total blackout at Rupai GSS, Margherita GSS and Chapakhowa GSS of AEGCL along with some other Sub-stations of Arunachal Pradesh.

***Deliberation of the sub committee***

AEGCL apprised the forum that the work for 132kV Rupai-Chapakhowa OPGW link is in progress since 10th April 2026 and is expected to be completed by April 2026.

***The subcommittee noted as above.***

***Issue 2:***

The FOTEs were provided at Sub-stations of AEGCL in Assam for overall OPGW connectivity with SLDC-Assam under NERPSIP scheme. But, the implementation of overall optical network connectivity under NERPSIP scheme has not been completed as on date and AEGCL has not received any information regarding handing over of the facilities to AEGCL along with associated AMC, if applicable. It is further to inform that there is no update on the status on installation and commissioning of 48V DC Battery Bank along with Chargers under NERPSIP scheme at the Sub-stations of AEGCL.

***Deliberation of the sub committee***

PGCIL apprised the forum that in coordination with NERPSIP-Assam team issues pertaining to the handing over process and 48-volt DC battery bank shall be resolved shortly.

***The subcommittee noted as above.***

***Action: AEGCL / PGCIL / NERPSIP.***

## 2.18. High cost of Firewalls quoted by M/S GE Vernova T&D as compared to previous agreed rates: Assam

**Background:**

The SCADA system utilizes two sets of firewalls-*Internal and External*. The set of internal firewalls had been replaced in FY 2023-24 at a price of Rs. 23 Lakhs. The price was agreed upon after deliberation in the NERPC forum.

License of the set of external firewalls used in SCADA will expire on 26th March 2026. The product has already reached End-Of-Life and hence its license cannot be extended any further. So, a new set of external firewalls have to be procured.

**AMC Status:**

Meanwhile, the AMC of the SCADA system has been extended (from 12.11.2025 to 11.11.2026) beyond the scope of the initial AMC.

Despite several meetings at NERPC and SLDC with M/S GE Vernova T&D India Ltd (AMC provider for SCADA at SLDC), support for End-Of-Life devices could not be included in the scope of this extended AMC.

**Financial Offer Received:**

A financial offer was requested from M/S GE Vernova T&D India Ltd. and the same has been obtained.

The price quoted by M/S GE Vernova T&D India Ltd is Rs. 44,37,000.00 for supply, installation and commissioning two no of firewalls excluding GST. *Considering GST at 18%, the total price would be Rs. 52,35,660.00.*

**Issue for Forum's Consideration:**

Two firewalls were procured from M/S GE Vernova T&D India Ltd. in December 2023 at a price of ₹23.00 Lakhs. Budget provisions for the procurement of two external firewalls in FY 2025-26 were accordingly made on the basis of this established price point.

However, the price now quoted by M/S GE Vernova T&D India Ltd. is nearly double the previously agreed and paid price, which is a matter of significant concern.

***Deliberation of the sub committee***

MS, NERPC expressed serious concern over the exorbitant cost quoted by M/s GE and asked GE for providing justifications for the same.

Representative of M/s GE submitted that the matter has to be taken up with the finance team of M/s GE.

NERLDC further apprised the forum that M/s GE has only 4 nos. of approved empanelled vendors for the supply of Next Generation Firewall (NGFW) which creates a limited pool for selection resulting in higher costing.

The forum advised M/s GE to empanel more numbers of vendors for supply of NGFW so that the cost implication can be minimized.

***The sub-committee noted as above.***

***Action: M/s GE.***

## AGENDA FROM MEGHALAYA

### 2.19. High cost of Firewalls quoted by M/S GE Vernova T&D as compared to previous agreed rates: Meghalaya

SLDC Meghalaya had received the information from GE Vernova that the License for the Check Point 5400 firewall had expired in March 2026, it may be noted that the Check Point 5400 firewall had reached End of Support (EOSL) on December 2025.SLDC Meghalaya had been in correspondence with GE Vernova regarding this matter and it was mentioned that an upgrade/change of the hardware was also required. On enquiry from another constituent state, it was found out that the rates offered from GE Vernova for new replacement of the firewall was quite high. Since the existing Check Point 5400 firewall is the external F/W and the architecture is the same for all NER constituents. Meghalaya would like to request the forum to negotiate on the price for all the constituent states together. Considering the cyber security significance of this External Firewall for the SCADA-EMS (OT System) at SLDC and to counter the cybersecurity risks, including exposure to new vulnerabilities, chances of service disruption due to unpatched threats, this

matter may be taken up with GE Vernova for uniformity in price for all the constituents and thereby reduce the financial implications for the states.

***Deliberation of the sub committee***

The matter was deliberated along with Agenda 2.19.

***The sub-committee noted as above.***

***Action: M/s GE.***

## 2.20. AMC for Metering and AMR Component of SAMAST — Cost Submitted by M/s Genus Power Infrastructure Ltd. Exceeds Original Tender's Own ATS Figures Despite Revised and Reduced Scope of Work: Meghalaya

***Subject:***

M/s Genus Power Infrastructure Ltd. was awarded the contract for supply, installation, and commissioning of the Metering and AMR infrastructure for the SAMAST project across all seven NER States under two LOAs issued by NERPC (2020 and 2021). With the warranty period now concluded, the Annual Maintenance Contract (AMC) for this component is required to be put in place.

NERPC has been pursuing this AMC over the past several months on behalf of all NER States. Despite extensive engagement — including a special meeting in September 2025, issuance of a revised and rationalised scope of work in October 2025, a further meeting in January 2026, and additional relaxations agreed in February 2026 — the final offer submitted by M/s Genus on 06.04.2026 has not reduced in line with the revised scope. Instead, it is priced higher than what was permissible even under the original tender's own ATS provisions.

***Core Issue:***

The original SAMAST tender contained an explicit ceiling on post-implementation support cost:

> "The price quoted under Comprehensive ATS for 3 years should not exceed 75% of the project implementation cost under this tender."

This 75% ceiling was the reference point. The revised scope of work issued in October 2025 was specifically intended to rationalise the AMC scope further — meaning the expected AMC cost under the revised scope should have been lower than even that 75% ceiling. Instead, the offer submitted by M/s Genus on 06.04.2026 exceeds the original tender's ATS figures in every NER State — as if the revised scope and the months of negotiation never happened.

State wise comparison (In crores):

The green-shaded columns show the maximum ATS cost permissible under the original tender (75% cap). The red-shaded columns show what M/s Genus has actually submitted. All figures inclusive of tax where stated.

| Sl No | NER State | Meters (Nos) | DCU (Nos) | Ind. Eth Switch (Nos) | Project Impl. Cost (₹ Cr, excl. Tax) | Project Impl. Cost (₹ Cr, incl. 18%) | Original Tender ATS 3yr Cap (₹ Cr, excl. Tax) | Original Tender ATS 3yr Cap (₹ Cr, incl. Tax) | Genus New Offer AMC 5yr (₹ Cr, incl. Tax) | Genus New Offer AMC 3yr (₹ Cr, incl. Tax) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Meghalaya | 225 | 47 | 79 | 2.68 | 3.16 | 2.01 | 2.37 | 4.73 | 2.84 |
| 2 | Assam | 560 | 100 | 216 | 4.18 | 4.93 | 3.14 | 3.70 | 7.39 | 4.43 |
| 3 | Arunachal Pradesh | 55 | 12 | 5 | 4.25 | 5.02 | 3.19 | 3.76 | 7.53 | 4.52 |
| 4 | Manipur | 475 | 94 | 94 | 6.47 | 7.63 | 4.85 | 5.73 | 11.45 | 6.87 |
| 5 | Mizoram | 223 | 96 | 12 | 5.14 | 6.07 | 3.86 | 4.55 | 9.10 | 5.46 |
| 6 | Nagaland | 128 | 24 | 10 | 4.64 | 5.48 | 3.48 | 4.11 | 8.22 | 4.93 |
| 7 | Tripura | 261 | 39 | 30 | 5.34 | 6.30 | 4.01 | 4.73 | 9.45 | 5.67 |
| | **TOTAL** | **1927** | **412** | **446** | **32.70** | **38.59** | — | **28.94** | **57.88** | **34.73** |

Key observation: The Genus 3-year AMC offer of ₹34.73 Crore (total, all States, incl. tax) is higher than the original tender's own permissible ATS ceiling of ₹28.94 Crore — an excess of ₹5.79 Crore. In Meghalaya, the 3-year offer alone (₹2.84 Cr) exceeds the entire project implementation cost (₹2.68 Cr excl. tax / ₹3.16 Cr incl. tax). The revised scope was issued to bring costs down — the submission has instead gone up.

**Note:** To put the Genus offer in perspective — the cost submitted by M/s Genus for a 5 -year AMC is comparable to the cost of procuring and deploying an entirely new SAMAST infrastructure at each SLDC. In reality, the meters,

DCUs, and servers are already installed, commissioned, and largely stable. Metering hardware of this nature does not require intensive intervention — the day-to-day requirement is essentially periodic preventive maintenance, with corrective support only when needed. It was precisely for this reason that the original tender's 75% ATS ceiling was set as a ceiling, and thereafter the revised scope of work was issued — both steps taken specifically to rationalise the AMC cost to a level that is affordable and justifiable, so that NER State utilities can process the AMC award through their internal approval mechanisms without requiring extraordinary financial sanction or high-level justification. The offer submitted by M/s Genus defeats this purpose entirely.

***Other points noted in the offer:***

- All-or-Nothing Condition: Genus has conditioned their pricing on the LOA being awarded by all seven States simultaneously. If even one State is unable to award within the same timeframe, the offer lapses for all States.
- Scope Restricted to Original LOA Equipment Only: Any work beyond the equipment supplied under the original LOAs — including new meter integration or additional software support — has been excluded and will be charged separately.
- Offer Not Aligned with Revised Scope: The offer submitted on 06.04.2026 is based on the original LOA terms, not the revised scope of work issued on 09.10.2025 and 18.02.2026.

***Deliberation of the sub committee***

Member Secretary, NERPC stressed that the cost quoted by M/s GENUS for the AMC of metering part of SAMAST scheme is exorbitantly high. The forum noted that NER stakeholders may approach other vendors if M/s GENUS does not negotiate the quoted price. The forum agreed that a special meeting shall be convened with all the concerned stakeholders to discuss the AMC of metering part of SAMAST scheme.

***The subcommittee noted as above.***

***Action: NERPC / M/s GENUS / All Stakeholders***

## AGENDA FROM GENUS

## 2.21. Long outstanding payments pending across states: GENUS

### *1. Pending payments*

| Support Required for long outstanding pending payment. | | | | |
|---|---|---|---|---|
| SL No | State | Pending Payment ( In Lakhs) | Ageing | Support Required from NERPC |
| 1 | Manipur | 82.51 | Payment pending for over 13 months now | PSDF had released the funds; however, the amount was returned due to non-payment by MSPCL within the deadline of 31st March. Request NERPC's support in pursuing PSDF for re-release of the funds. |
| 1 | Mizoram | 57.44 | Payment pending for over 20 months now | Requisition has been submitted to PSDF. Request NERPC's support in expediting the release of funds. |
| 5 | Tripura | 117.19 | Payment pending for over 20 months now | Requisition has been submitted to PSDF. Request NERPC's support in expediting the release of funds. |

***Deliberation of the sub committee***

Member Secretary, NERPC assured M/s GENUS that NERPC Secretariat shall follow up with PSDF for release/re-release of funds to the respective states.

The forum advised all the concerned States to clear the dues on receipt of the funds from PSDF.

***The subcommittee noted as above.***

***Action: NERPC.***

***2. Finalization of AMC Order***

We have submitted our offer for all seven states to NERPC and request your favorable consideration for the same and the issuance of the LOA at the earliest.

It may kindly be noted that the prices offered are our most competitive and are based on the assumption that LOAs will be awarded for all seven states. The offer shall not remain valid if the LOA is not awarded for even one state, as per the state-wise pricing submitted.

***Deliberation of the sub committee***

The forum noted that further deliberation on the matter shall be held after the special meeting on AMC of metering part of SAMAST scheme.

***The subcommittee noted as above.***

***Action: NERPC.***

**ADDITIONAL AGENDA**

**2.22. Issuance of long pending LOA, clearance of long outstanding payment and non-finalization of system availability- M/s GE VERNOVA**

1. Issue of long pending LOA of Tripura, Manipur, and Meghalaya. (AMC Order is pending since 1st April'2025 for Tripura, Meghalaya and 8th Nov'2025 for Manipur)
2. Clearance of long outstanding payment (~ 2 Cr), as mentioned below (Major account)

| S. No. | Control Centres | Invoice No. | Invoice Date | Outstanding Payment |
|---|---|---|---|---|
| 1 | Manipur | VD0925101044 | Oct'2025 | 32,00,756.24 |
| 2 | Mizoram | VD0925101455 | Nov'2025 | 23,70,554.59 |
| 3 | Tripura | VD0925101232 | Nov'2025 | 11,58,043.78 |

| | | | | |
|---|---|---|---|---|
| 4 | AEGCL | VD0925102024 | Jan'2026/Feb'2026 | 60,18,958.16 |

3. Non finalization of System Availability of Manipur SLDC for last three quarters (Pending since May'2025).

***Deliberation of the sub committee***

Regarding the issuance of LoA, SLDC-Tripura apprised the forum that Board approval has been obtained for placing LoA for the principal amount. Proposal to include the Tax (GST) component which was inadvertently missed, has been put up for approval of the Board.

Further, SLDC-Manipur apprised the forum that discussion with higher management is in progress regarding the issuance of LoA.

Regarding, the pending payments issue, Mizoram apprised the forum that the pending invoice shall be cleared in the first week of May-2026.

SLDC-Tripura and SLDC-Assam apprised the forum that the pending payments shall be cleared shortly.

Regarding, the non-finalisation of system availability by SLDC-Manipur, NERLDC apprised that M/s GE has been unable to raise the invoices as system availability report has not been signed by Manipur. The forum advised SLDC-Manipur to resolve the issue at the earliest.

***The sub-committee noted as above.***

***Action: SLDC-Tripura / SLDC-Manipur / SLDC-Mizoram / SLDC-Assam.***

## 2.23. Inclusion of LILO of OPGW for Upcoming AEGCL GSS

***Background:***

The following AEGCL Grid Substations (GSS) are under construction under AIIB-funding:

1.220 kV Agomoni (LILO between 220 kV Salakati (PG) and Alipur (PG) line)

2.400 kV Sonapur (LILO between 400 kV Silchar (PG) and Barnihat (PG) line)

3.400 kV Rangia (LILO between 400 kV Balipara (PG) and Bongaigaon (PG) line)

LILO of OPGW for the above upcoming GSS is required with the Power Grid lines.

***Proposal:***

To include the LILO of optical fiber for the above schemes.

***Deliberation of the sub committee***

The forum advised Assam to bilaterally discuss the issue with POWERGRID.

***The sub-committee noted as above.***

***Action: Assam (AEGCL) / POWERGRID.***

## 3. PART-C: ITEMS FOR UPDATE/FOLLOW-UP

### 3.1. Usage of POWERTEL OPGW in view of the order of Hon'ble CERC against petition no. 494/MP/2020. (Agenda 2.4 of 32nd NETeST Meeting): NERLDC

During the 32nd NETeST Meeting, it was decided to utilise the following OPGW links at the earliest:

1. ***400 kV Silchar – Imphal line:*** The matter would be taken up with POWERTEL at the earliest.
2. ***400 kV Balipara–Bongaigaon Lines 3 & 4***- The matter has already been taken up with POWERTEL and is in progress.
3. ***132 kV Kumarghat–Aizawl line***- There is high loss in this link. PGCIL will submit detailed loss report (OTDR) within 15 days.

***Deliberation of the sub committee***

1. **400 kV Silchar – Imphal line:** ULDC–POWERGRID informed that an OTDR test was carried out on the OPGW. It was observed that 16 fibers are live and currently being utilized by POWERTEL, while 8 fibers are unhealthy and are expected to be restored by May 2026.
2. **400 kV Balipara–Bongaigaon Lines 3 & 4:** ULDC–POWERGRID informed that this link is currently being used by ULDC following the commissioning of the new OPGW over the second peak.
3. **132 kV Kumarghat–Aizawl line**: ULDC–POWERGRID informed that an OTDR test was carried out on the OPGW. It was observed that 8 fibers are live and currently being utilized by POWERTEL, while 16 fibers are unhealthy and are expected to be restored by May 2026.

Forum requested ULDC-POWERGRID to restore the 400 kV Silchar – Imphal OPGW and 132 kV Kumarghat–Aizawl at the earliest.

***The sub-committee noted as above.***

***Action: POWERTEL / ULDC-POWERGRID.***

### 3.2. Optimised utilisation of OPGW & FOTE across the NER considering the assets that are being commissioned under NERPSIP, Comprehensive T&D, State-owned projects, TBCBs and ULDCs: (Agenda 2.5 of 32nd NETeST Meeting): NERLDC

With the recent commissioning of numerous links under various State and Central projects, the communication infrastructure of the NER Grid has witnessed significant development. However, the optimal utilization of the infrastructure is essential to derive its full benefits. As per direction of 32nd NETeST, a letters from office of CGM (Logistics), NERLDC was written to POWERGRID-ULDC, POWERGRID-NERPSIP and CTDS-AP to carry out necessary connectivity of networks, attached as **Annexure-C 3.2 (i)** and **Annexure-C 3.2 (ii)**. The details as per 32nd NETeST are tabulated below:

| ***Sl. No.*** | ***Name of link/node*** | ***Deliberation as per 32nd NETeST Meeting*** |
|---|---|---|
| 1. | BNC-HVDC → Balipara → Rangia → Bongaigoan → Alipurduar | PGCIL informed that fibre connectivity from HVDC BNC to Rangia is healthy, whereas the link from Rangia to Alipurduar is experiencing high losses. Rectification work is in progress and may take some time. PGCIL has been advised to submit the loss report within a week. |
| 2. | Tinsukia →Kathalguri → Namsai →Tezu - - -> Roing - - -> Pasighat → Along → Basar →Daporizo →Ziro | NERLDC informed that inter-patching at Kathalguri is pending, along with OPGW connectivity between Namsai–Tezu and SDH connectivity between Roing–Pasighat. CTDS and POWERGRID agreed to jointly complete the required connections. |

| | | |
|---|---|---|
| 3. | Kameng → Khupi → Tenga → Balipara | NERLDC apprised that inter-patching is pending from Balipara to Kameng which will enable a ring communication for Kameng. |
| 4. | Inter-patching between FOTE of ULDC and NERPSIP-Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura | Letter with reference NERLDC/Communication/Oct'25/8422 dated 23.10.2025. |

***Deliberation of the sub committee***

| ***Sl. No.*** | ***Name of link/node*** | ***Deliberation as per 33rd NETeST Meeting*** |
|---|---|---|
| 1. | BNC-HVDC → Balipara → Rangia → Bongaigoan → Alipurduar | Completed |
| 2. | Tinsukia →Kathalguri → Namsai →Tezu - - -> Roing - - -> Pasighat → Along → Basar →Daporizo →Ziro | Completed |
| 3. | Kameng → Khupi → Tenga → Balipara | Interpatching done. NMS integration pending. |
| 4. | Inter-patching between FOTE of ULDC and NERPSIP-Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura | POWERGRID–ULDC informed that, as the NERPSIP project is nearing closure, the NERPSIP team was unable to procure the required SFPs to complete the inter-patching. Accordingly, ULDC–POWERGRID is procuring 68 SFPs |

| | | |
|---|---|---|
| | | through an amendment to the existing additional communication scheme. The necessary link configuration is expected to be completed by August 2026. |

The forum advised ULDC-POWERGRID to submit a consolidated list of all communication issues related to NERPSIP which shall be taken up as agenda in upcoming OCC meetings.

***The subcommittee noted as above.***

***Action: ULDC-POWERGRID***

### 3.3. Establishing Communication Link between 400 kV New Kohima and 220 kV Zhadima via 220 kV Zhadima–New Kohima Line – Restoration of Connectivity in View of Link Failure: (Agenda 2.6 of 32nd NETeST Meeting): NERLDC

The communication link between **400 kV New Kohima** and **400 kV Imphal** has remained **non-functional since June 2024**. Restoration efforts by **Aparva (TSP)** have been hindered due to prevailing **law and order issues in Manipur**, resulting in a prolonged outage and communication blackout at New Kohima.
However, there exists an alternative opportunity to restore connectivity through the **OPGW laid on the 220 kV Zhadima–New Kohima transmission line**, which is being executed by the **Department of Power (DoP), Nagaland**.

- A **Fibcom FOTE** is installed at **220 kV Zhadima**.
- An **ABB FOTE** is available at **400 kV New Kohima**.

A direct fiber patch between these FOTEs using the available OPGW on the Zhadima–New Kohima line can restore essential communication for New Kohima until the primary route via Imphal is re-established.

**In the 32nd NETeST Meeting,** DoP-Nagaland informed that approach cabling work is in progress from New Kohima (Aparva, KMTL) to Zhadima (DoP-N) and is expected to be completed by November-2025. The forum further advised

PGCIL and KMTL to provide hardware support at Zhadima and New Kohima respectively, if required.

***Deliberation of the sub committee***

DoP, Nagaland informed that the installation of OPGW, approach cable, and FODB has been completed at both stations—220 kV Zhadima and 400 kV New Kohima on Nov'2025. The forum advised M/s Apraava and ULDC–POWERGRID to complete the necessary configuration at the earliest to enable utilization of the OPGW. Target date is by end of May'2026.

***The sub-committee noted as above.***

***Action: DoP-Nagaland / PGCIL / KMTL.***

### 3.4. Request to integrate data of Panyor and Pare in Chimpu S/s RTU (Agenda 3.6 of 32nd NETeST Meeting): NERLDC

NERLDC observed that the data (MW, MVAR, CB, and isolators) for Panyor and Pare bays at Chimpu S/s is not being reported. Upon further analysis, it has come to NERLDC's attention that MFTs and CMRs for the mentioned bays are yet to be installed. Since the above-mentioned lines are connected to ISGSs, monitoring of the same is imperative from Chimpu end also.

NERLDC requested DoP, Arunachal Pradesh to carry out the following actions to enable data reporting for the mentioned bays via email dated 17th February 2025 and reminder mail on 11th March 2025, 16th April 2025, 08th May 2025, 05th August 2025, 18th March 2026 and 02nd April 2026 attached as **Annexure-C 3.4**:

1. **Installation of MFTs:**
   - MFTs need to be installed for both bays.
   - Appropriate CT and PT connections must be completed.
   - MFTs should then be integrated with the Chimpu RTU.
2. **Installation of CMRs:**
   - CMRs need to be installed for both bays.
   - CB and isolator status should be integrated with the Chimpu RTU.

In the 32nd NETeST Meeting, DoP-Arunachal Pradesh informed the forum that the wiring issue has been pending due to manpower issues. The forum advised DoP-Arunachal Pradesh to expedite the matter and resolve the issue within a month on priority basis.

***Deliberation of the sub committee***

DoP, Arunachal Pradesh informed that the materials (both MFT and CMR) have been received at the Itanagar site. However, the technician has been deployed to Dukumpani for urgent restoration work, and the installation remains pending. To be completed by end of May 2026.

***The sub-committee noted as above.***

***Action: DOP-Arunachal Pradesh.***

### 3.5. Dual Connectivity between Main-1 & Main-2 NERLDC and SLDCs (Agenda 3.9 of 32nd NETeST Meeting)

NERLDC currently operates under the Main-1 and Main-2 concept, with its establishments located in Shillong and Guwahati. This structure enhances operational efficiency and ensures redundancy in case of failures. To strengthen grid reliability and communication resilience, a dual independent physical connectivity path between NERLDC and State Load Despatch Centres (SLDCs) is crucial.

In case of last mile connectivity all SLDCs should ensure that the minimum two physical OPGW/underground/ADSS fiber is available between SLDC and the last mile sub-station.

ULDC-NERTS and SLDCs are requested to ensure the dual independent physical path between SLDC and Main-1 & Main-2 NERLDC.

NERLDC has submitted the preliminary map of each SLDC in 31st NETeST Meeting which is attached as **Annexure-C 3.5**.

In 32nd NETeST Meeting, the forum advised all the states/SLDCs to devise their respective plans for dual connectivity between SLDCs and their last mile connectivity and subsequently to NERLDC and share the plan at the earliest.

The proposed plan by NERLDC for each SLDC is tabulated:

| ***Name of State*** | ***Status as per 32nd NETeST*** | ***Deliberation in 33rd NETeST*** |
|---|---|---|
| Arunachal Pradesh | Already achieved as SLDC Arunachal Pradesh is established in 132 kV Chimpu S/s which is in-turn connected with multiple stations such as Pare, Nirjuli, Lekhi etc. | |
| Assam | The multiple paths will be achieved once the connectivity of NERLDC Guwahati with Kahilipara S/s, via UFGO is completed under reliable communication scheme. | |
| Manipur | MSPCL – representative not available | |
| Meghalaya | Already achieved as SLDC Meghalaya is established in 132 kV NEHU S/s which is further connected with multiple stations such as Mawlai, umtru etc. | |
| Mizoram | NERLDC informed that currently SLDC Mizoram is only connected with 132 kV Zuangtui S/s, which does not statisfy the reduncancy.<br>Forum suggested to SLDC Mizoram to establish a new connection between SLDC Mizoram and 132 kV Lungmual S/s or SLDC Mizoram and 132 kV Aizawl (PG) S/s via ADSS or city-fibre cable at the earliest.<br>NERLDC requested SLDC Mizoram to submit the plan at the earliest. | Member Secretary, NERPC advised Mizoram to complete the work using self-funds. |
| Nagaland | DoP, Nagaland informed the scheme has been recently sanctioned by 24th Meeting of the Monitoring Committee of PSDF. LoA has been placed and work is under progress under | The work shall be completed under reliable communication |

| | | |
|---|---|---|
| | which SLDC Nagaland will be directly connected to 220 kV Dimapur (PG) S/s.<br>SLDC Nagaland also informed that currently SLDC Nagaland is connected with 132 kV Nagarjan S/s hence the dual connectivity will be achieved. | scheme by June-2026. |
| Tripura | SLDC Tripura informed that SLDC Tripura is connected with 132 kV SM Nagar (TPTL) as well as 132 kV RC Nagar (NEEPCO) | |

***Deliberation of the sub committee***

NERLDC emphasised on the requirement of last mile connectivity as SLDCs needs to strengthen in order to avoid any outage of SLDC node from communication network. The status of last-mile connectivity was updated as follows:

| **Name of State** | **Status as per 32nd NETeST** | **Deliberation in 33rd NETeST** |
|---|---|---|
| Arunachal Pradesh | Already achieved as SLDC Arunachal Pradesh is established in 132 kV Chimpu S/s which is in-turn connected with multiple stations such as Pare, Nirjuli, Lekhi etc. | Achieved. |
| Assam | The multiple paths will be achieved once the connectivity of NERLDC Guwahati with Kahilipara S/s, via UFGO is completed under reliable communication scheme. | The multiple paths will be achieved once the connectivity of NERLDC Guwahati with Kahilipara S/s, via UFGO is completed under reliable communication scheme. |

| | | |
|---|---|---|
| Manipur | MSPCL – representative not available | NERLDC requested MSPCL to lay one more OPGW/ADSS cable between Imphal (PG) and SLDC Manipur as currently only one OPGW over 132 kV Imphal (PG) – Yuremebam-1 is available. |
| Meghalaya | Already achieved as SLDC Meghalaya is established in 132 kV NEHU S/s which is further connected with multiple stations such as Mawlai, Umtru etc. | Achieved. |
| Mizoram | NERLDC informed that currently SLDC Mizoram is only connected with 132 kV Zuangtui S/s, which does not satisfy the redundancy.<br>Forum suggested to SLDC Mizoram to establish a new connection between SLDC Mizoram and 132 kV Lungmual S/s or SLDC Mizoram and 132 kV Aizawl (PG) S/s via ADSS or city-fiber cable at the earliest.<br>NERLDC requested SLDC Mizoram to submit the plan at the earliest. | PE&D Mizoram informed that efforts will be made to include this component under the State Reliable Communication Scheme. However, NERLDC advised PE&D Mizoram not to wait for the scheme, as it may delay execution, and emphasized the importance of last-mile connectivity. It was highlighted that, in the past, SLDC Mizoram was isolated from the NER communication network due to single Fiber connectivity between SLDC Mizoram and Zuangtui.<br>The forum requested SLDC Mizoram to expedite the establishment of a second fiber connectivity, as Reliable |

| | | |
|---|---|---|
| | | communication project would take considerable time. |
| Nagaland | DoP, Nagaland informed the scheme has been recently sanctioned by 24th Meeting of the Monitoring Committee of PSDF. LoA has been placed and work is under progress under which SLDC Nagaland will be directly connected to 220 kV Dimapur (PG) S/s.<br>SLDC Nagaland also informed that currently SLDC Nagaland is connected with 132 kV Nagarjan S/s hence the dual connectivity will be achieved. | DoP, Nagaland informed that as part of the State Reliable Communication scheme project, the work is in progress, under which SLDC Nagaland will be directly connected to the 220 kV Dimapur (PG) substation. The forum requested DoP Nagaland to expedite this part of the project at the earliest to establish a redundant link between the SLDC and the NER communication network. Target: By end of June'2026. |
| Tripura | SLDC Tripura informed that SLDC Tripura is connected with 132 kV SM Nagar (TPTL) as well as 132 kV RC Nagar (NEEPCO) | Achieved |

***The sub-committee noted as above.***

***Action: All SLDCs / NERLDC.***

### 3.6. Re-configuring RTUs of POWERGRID owned stations for reporting to NERLDC Guwahati (as per Agenda 3.11 of 32nd NETesT): NERLDC

With help of PGCIL-NERTS and PGCIL-ULDC eleven (12) stations out of sixteen (16) stations are reporting parallelly to NERLDC Shillong and NERLDC Guwahati.

POWERGRID-NERTS was requested to extend further support to configure rest four (04) stations to enable them to report to NERLDC Shillong and NERLDC Guwahati. The status is tabulated below:

| ***Sl. No.*** | ***Sub-station*** | ***Status as per 236th OCC meeting*** |
|---|---|---|
| 1 | Misa | Target: August 2026 |
| 2 | Mokokchung | Target: End of May 2026 |
| 3 | Roing | Target: End of May 2026 |
| 4 | Tezu | Target: End of May 2026 |

***Deliberation of the sub committee***

POWERGRID-NERTS updated the current status as follows:

| ***Sl. No.*** | ***Sub-station*** | ***Status as per 33rd NETeST meeting*** |
|---|---|---|
| 1 | Misa | Target: August 2026 |
| 2 | Mokokchung | Target: End of June 2026 |
| 3 | Roing | Target: End of June 2026 |
| 4 | Tezu | Target: End of June 2026 |

***The sub-committee noted as above.***

***Action: POWERGRID.***

### 3.7. Discussion on operational issues and punch points for UNMS of NER (as per Agenda 3.31 of 32nd NETeST): NERLDC

In view of the meeting held on 16th July 2024 between Grid-India, POWERGRID & CTUIL, letters addressed to ULDC-POWERGRID by NERLDC and NERPC meeting held on 18th December 2024. Following operational issues and punch points are yet to be resolved by ULDC-POWERGRID:

***A. Partially closed points***

Following points are partially closed by ULDC-POWEGRID:

1. **Integration of NMS of NERPSIP and Comprehensive T&D-Arunachal Pradesh with U-NMS System** – State-wise Progress (As per 9th CPM held on 16th March 2026):

- Arunachal Pradesh: Delivery is received and commissioning of Arunachal Pradesh-NMS is yet to be done.
- Manipur: Installation and commissioning work is completed, and integration works of same NMS with UNMS will be completed by March end.
- Nagaland: Only integration of Nagaland-NMS with UNMS part is pending. However, ULDC informed that New Kohima – Mokokchung path is yet to be completed as SFP supply is pending, which is required to complete NMS path.
- Meghalaya: Installation and commissioning work is completed and integration works will be completed by March end.
- Mizoram: NERPSIP-NMS is yet to commissioned and NMS shall be integrated with UNMS after commissioning of NERPSIP-NMS

2. **Integration of Fiber Optic Terminal Equipment (FOTE) for Various TSPs and ULDC (MUML, Aparva, and Indigrid)** – Incomplete SNMP Integration and Configuration Updates (As per 9th CPM held on 16th March 2026):

In the 9th CPM held on 16th March 2026 NERLDC stated that TSPs are not attending the meeting on regular basis and requested to take up with all other TSPs for completion of the work at the earliest.

- Indigrid: Several nodes have been partially integrated and are visible in the U-NMS system. However, these nodes are currently not communicating over the SNMP protocol, which is necessary for full operational integration and status monitoring within U-NMS. The support from Indigrid is required.
- Aparva (KMTL): Integration remains pending due to the absence of a required gateway IP configuration, which is to be provided by the

vendor ABB. This has caused long-standing delays in completing integration of critical nodes like New Kohima, Imphal, and Mariani. The support from Aparva (KMTL) is required.

- Sterlite node: Tejas devices commissioned by Sterlite at 220 kV Nangalbibra and 400 kV Bongaigaon

***B. Points yet to be addressed***

1. **Naming Nomenclature Standardization** – Lack of Uniformity Across Vendors:

NERLDC has raised persistent operational challenges due to the lack of a standardized naming convention for services within the U-NMS system. The service identifiers auto generated by different OEM platforms such as ECI, ABB, and Fibcom are often ambiguous and do not clearly indicate the nature or function of the respective service (e.g., RTU, PMU, VoIP). This ambiguity hampers efficient fault identification and resolution during service disruptions. In a special triparty meeting held between NERLDC, POWERGRID and M/s Sterlite (OEM) on16th March 2026, OEM informed that work is in progress however following information is required:

1. End devices list with substation details with Technology (RTU, PMU, VOIP, TWFL, ICCP and ETC.)

2. Required details intermediate dropping services with VCG port detail from OEM to identify service path E2E.

2. **Supply of 2 x 6 kVA UPS System across NER SLDCs and NERPC**:

Presently, the U-NMS System delivered at NER SLDCs & NERPC are on raw power supply in absence of healthy UPS System at NER SLDCs & NERPC. So, it was decided that 2 x 6 kVA UPS Systems would be procured and delivered/commissioned at respective sites.

In 32nd NETeST meeting, POWERGRID informed that UPS would be deployed by Jan'26.

***C. New operational issue discovered:***

1. **Mismatch in Status of Links in U-NMS for ABB devices under NERPSIP-Assam**:

NERLDC observed discrepancies between the actual status of link availability and the status displayed in the U-NMS system for ABB devices deployed under NERPSIP-Assam. These inconsistencies are misleading and undermine the reliability and utility of the U-NMS system.

The issue discovered during the investigation of Chapakhowa Node, the OPGW connectivity of Chapakhowa with Rupai is down but still the node is showing up in the UNMS. The snap is attached for reference.

NERLDC requests to complete integration of NMS of ABB with U-NMS.

2. **Discrepancies in the UNMS regarding Fibcom services**

   NERLDC observed the following discrepancies in the UNMS regarding Fibcom services that are impacting operational clarity:

   a. **Inaccurate Routing Visualization**: Following the recent re-routing via the Balipara - Bongaigaon path, several services—such as the Guwahati-Delhi ICCP (VLAN 1006)—continue to display their previous configurations rather than the active path.

**Incorrect Service Status**: The UNMS is reporting services as "UP" despite active outages. For instance, both the Guwahati-Delhi ICCP (VLAN 1006) and Guwahati-Kolkata ICCP (VLAN 938) currently show as "UP" in the system, even though they are down due to the Bongaigaon - Balipara issue.

***Deliberation of the sub committee***

Regarding integration of Fiber Optic Terminal Equipment (FOTE) for Various TSPs and ULDC (MUML, Aparva, and Indigrid):

- **Indigrid:** Forum requested ULDC-POWERGRID to take up again with Indigrid to implement the necessary changes.
- **Apraava (KMTL):** Forum requested ULDC-POWERGRID to take up again with Aprava to implement the necessary changes. M/s Apraava confirmed that all the necessary support will be provided to ULDC-POWERGRID for the configuration of the same

- **Resonia node:** NBTL (Resonia) informed that Tejas devices commissioned at 220 kV Nangalbibra and 400 kV Bongaigaon will be connected with NMS of Tejas installed at Shillong or Guwahati for the further connectivity to UNMS. For the nodes installed at 132 kV Hastingmari and Ampati, the possibility will be explored to connect with UNMS.

Regarding Naming Nomenclature Standardization – Lack of Uniformity Across Vendors:

ULDC-POWERGRID informed that naming convention is under implementation and the same will be completed by May'26 for Tejas and ECI nodes.

Regarding Supply of 2 x 6 kVA UPS System across NER SLDCs and NERPC:
POWERGRID informed that tender for procurement has been re-initiated and UPS would be deployed by Aug'26.

Regarding Mismatch in Status of Links in U-NMS for ABB devices under NERPSIP-Assam:
ULDC-POWERGRID will explore the possibility to connect the ABB NMS with UNMS to mitigate the issue.

Regarding discrepancies in the UNMS regarding Fibcom services:
ULDC-POWERGRID informed that GA&C is taking up the issue with M/s Fibcom to mitigate the issue.

Member Secretary, NERPC advised to conduct a separate meeting to discuss the pending issues of UNMS and NERPSIP.

***The sub-committee noted as above.***

***Action: POWERGRID- ULDC / NERPC.***

### 3.8. Missing link OPGW in 132 kV Karong-Kohima line (as per Agenda 3.14 of 32nd NETesT MoM): NERLDC

NERPSIP-Manipur has laid OPGW from Karong (in Manipur) up to Mao (the border of Manipur and Nagaland). However, there is currently no project planned to extend the OPGW from Mao to Kohima, which is necessary to

complete the link from Karong to Kohima. This line is an ISTS connection between the two states. The OPGW connectivity will enhance the reliability and redundancy of the power systems in both Manipur and Nagaland, as well as for the entire North Eastern Region (NER).

As per MOM of 32nd CMETS-NER, DoP, Nagaland has agreed to install OPGW and associated equipment in the Nagaland portion of 132 kV Kohima (Nagaland) – Karong line i.e in the Mao to Kohima portion. (Please refer to Points 2.9 and 2.10 of MOM of 32nd CMETS-NER).

**In 29th NETeST Meeting** DOP Nagaland has been requested to prepare a DPR to be submitted to PSDF under State Reliable Communication Scheme or any other suitable scheme for 100% funding from PSDF.

**In 30th NETeST Meeting**, DOP-Nagaland informed that they shall update the status of DPR via e-mail to NERPC.

**In 31st NETeST Meeting**, DOP-Nagaland apprised the forum that they will submit a separate DPR for Mao-Kohima link for PSDF funding as the same was not included in the State Reliable Communication Scheme for Nagaland which has been recently approved by PSDF.

**In 32nd NETeST Meeting**, DOP-Nagaland informed that they are in process to submit a separate DPR for Mao-Kohima link for PSDF funding. The proposed link connection is shown below:

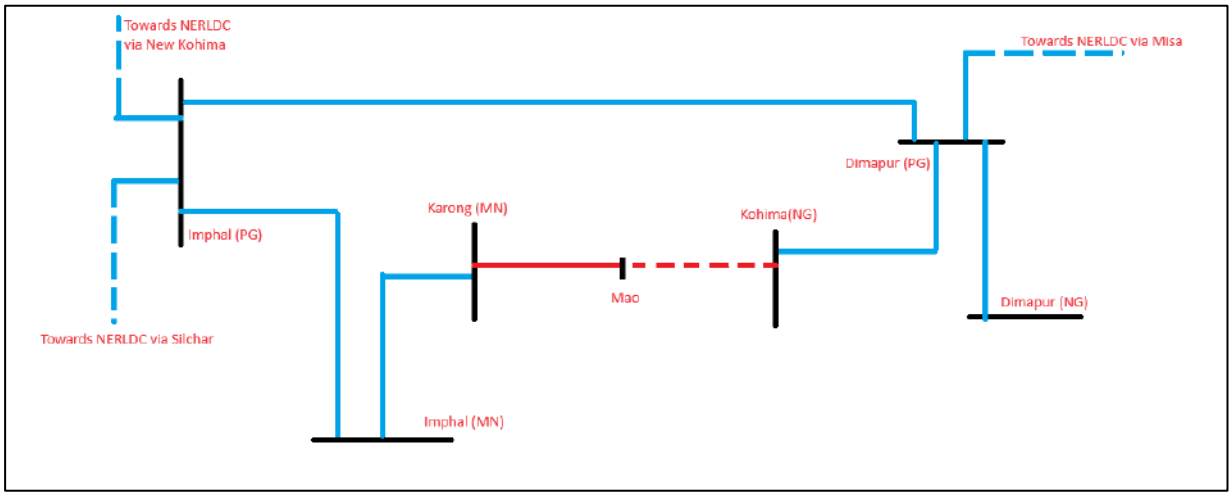



Figure 1: Connectivity Depicting Karong-Kohima

***Deliberation of the sub committee***

NERPC Secretariat informed that, since one tranche of the Reliable Communication Scheme has already been approved under PSDF, DoP Nagaland will not be eligible for an additional tranche under the same scheme.

The forum requested MSPCL to include the said communication link in the DPR for Manipur, as the DPR is yet to be submitted to PSDF.

***The sub-committee noted as above.***

***Action: DoP-Nagaland/MSPCL.***

### 3.9. Feeble condition of State-Estimator of NERLDC SCADA system due to low availability of Real-time Telemetry. (as per Agenda 3.1 of 32nd NETeST MoM): NERLDC

As per IEGC 33.2, *"SLDCs, RLDCs and NLDC shall utilize network estimation tool integrated in their EMS and SCADA systems for the real time operational planning study. All users shall make available at all times real time error free operational data for the successful execution of network analysis using EMS/SCADA. Failure to make available such data shall be immediately reported to the concerned SLDC, the concerned RLDC and NLDC along with a firm timeline for restoration. The performance of online network estimation tools at SLDC and RLDC shall be reviewed in the monthly operational meeting of RPC. Any telemetry related issues impacting the online network estimation tool shall be monitored by RPC for their early resolution."*

It is to report that the real-time telemetry availability for states such as Tripura, Mizoram, Manipur, and others is currently in the range of 30-60%. This low availability is significantly impacting the accuracy of state estimation, which relies heavily on the status of Circuit Breakers (CBs), Isolators, and Analog values to ensure reliable estimates. It is highlighted that the feeble state estimation is a direct consequence of the inadequate real-time telemetry data. The states are therefore strongly urged to prioritize the integrity of their Remote Terminal Units (RTUs) and communication systems to enhance the availability and quality of real-time telemetry data. This improvement is

crucial for achieving accurate state estimation and ensuring the stability and reliability of the power system in the region.

In 32nd NETeST Meeting, Member Secretary, NERPC advised all the states to aspire for 95% minimum telemetry availability.

The present status of NER-states is attached as Annexure-C 3.9.

***Deliberation of the sub committee***

The status of telemetry availability of NER states as presented by NERLDC is given below:

| Sl No. | State | Average Total Percentage | Average Analog Percentage | Average Digital Availability | Average RTU Availability |
|---|---|---|---|---|---|
| 1 | Arunachal Pradesh | 58.12 | 48.68 | 62.07 | 63.18 |
| 2 | Assam | 73.67 | 74.8 | 72.12 | 74.32 |
| 3 | Manipur | 41.65 | 46.92 | 40.43 | 59.45 |
| 4 | Meghalaya | 71.87 | 84.12 | 62.67 | 88.1 |
| 5 | Mizoram | 56.11 | 62.36 | 47.32 | 78.32 |
| 6 | Nagaland | 38.12 | 30.3 | 36.12 | 38.44 |
| 7 | Tripura | 54.54 | 62.12 | 51.32 | 76.32 |

Forum discussed utilities wise progress for each SLDC and advised each SLDC to do necessary to increase the availability.

***The sub-committee noted as above.***

***Action: NERLDC / All States.***

### 3.10. Adherence to CERC order dated 04th August 2023 for petition 197/MP/2020 (Arunachal Pradesh), 201/MP/2020 (TPTL), 263/MP/2020 (DoP, Nagaland) and 556/MP/2020 (PE&D, Mizoram). (as per Agenda 3.18 of 32nd NETeST MoM): NERLDC

NERLDC would like to draw the forum's attention to the adherence by states to the CERC order dated 04th August 2023, concerning petition 197/MP/2020 (Arunachal Pradesh), 201/MP/2020 (TPTL), 263/MP/2020 (Department of Power, Nagaland), and 556/MP/2020 (Power & Electricity Department, Mizoram).

**In 29th NETeST Meeting**, NERLDC informed that only PE&D, Mizoram has been submitting the monthly progress report while DOP-Arunachal Pradesh, DOP-Nagaland and TPTL (Tripura) has not yet submitted the monthly progress report to NERPC and NERLDC. MS NERPC has further emphasized the need to adhere to CERC order strictly and comply accordingly.

However, DOP-Arunachal Pradesh, DOP-Nagaland and TPTL (Tripura) are yet to submit the progress report.

**In the 30th NETeST Meeting**, the forum decided that DOP-Arunachal Pradesh, DOP-Nagaland and TPTL (Tripura) shall update the status via e-mail to NERPC.

**In 32nd NETeST Meeting**, forum advised Tripura and DoP-Ar. Pradesh to comply with CERC order in the above petitions and submit the monthly progress report in timely manner.

NERLDC also sent the reminder mail to Tripura and DoP-Ar. Pradesh on 23rd March 2026, attached as **Annexure-C 3.10 (i) & Annexure-C 3.10 (ii)**. However, NERLDC is yet to receive the report from Tripura and DoP-Ar. Pradesh.

***Deliberation of the sub committee***

NERLDC informed the forum that DoP Arunchal Pradesh had nominated EE, SLDC as nodal officer to provide the monthly report.

NERLDC further informed the forum that TPTL had submitted the first report to NERLDC in the month of April 2026.

SLDC-Tripura apprised the forum that Smt. Shampa Sen, DGM, SLDC-Tripura shall be the nodal officer and authorised signatory for the monthly progress report for Tripura.

***The sub-committee noted as above.***

***Action: DoP-Arunachal Pradesh / SLDC-Tripura.***

### 3.11. Status of State reliable communication scheme (Agenda 3.20 of 32nd NETesT Meeting): NERLDC

In the 26th Monitoring Committee meeting of PSDF held in the December 2025, it was decided by the committee that NER States will be funded 90% from PSDF instead of earlier 100% funding and rest 10% funding will be funder from state owned sources. In this regard NERLDC requests each state to kindly update on the status of submission of DPR to PSDF.

| ***Name of State*** | ***Status as per 32nd NETeST*** |
|---|---|
| Arunachal Pradesh | DoP-Arunachal Pradesh informed that the proposals are already covered in Comprehensive Scheme (CTDS) so they would not submit DPR for PSDF funding. |
| Assam | DPR submitted to PSDF and under review of TESG Committee. |
| Manipur | MSPCL – representative not available |
| Meghalaya | DPR submitted to PSDF and under review of TESG Committee. |
| Mizoram | Mizoram apprised that the DPR would be submitted to PSDF in the first week of September-2025. |
| Nagaland | DoP, Nagaland informed the scheme has been recently sanctioned by 24th Meeting of the Monitoring Committee of PSDF. |

| | |
|---|---|
| Tripura | Tripura apprised the forum that the DPR would be submitted to PSDF by September-2025. |

***Deliberation of the sub committee***

| ***Name of State*** | ***Status as per 33rd NETeST*** |
|---|---|
| Arunachal Pradesh | DoP-Arunachal Pradesh informed that the proposals are already covered in Comprehensive Scheme (CTDS) so they would not submit DPR for PSDF funding. |
| Assam | DPR submitted to PSDF and under review of TESG Committee. |
| Manipur | MSPCL representative informed the forum that DPR is under preparation and expected to be submitted by May'26. |
| Meghalaya | DPR submitted to PSDF and under review of TESG Committee. |
| Mizoram | Mizoram apprised that the DPR is prepared. However, the government approval for 10% own source is pending as the PSDF will only fund 90%. |
| Nagaland | DoP, Nagaland informed the scheme has been recently sanctioned by 24th Meeting of the Monitoring Committee of PSDF. |
| Tripura | Tripura apprised the forum that they will re-assess the requirement to prepare the DPR. |

***The sub-committee noted as above.***

***Action: Respective State Utilities***

### 3.12. Implementation of Guwahati Islanding Scheme (Agenda 3.21 of 32nd NETeST Meeting): NERLDC

In 27th NETeST Meeting, AEGCL informed that Detailed Project Report (DPR) for the Guwahati Islanding Scheme has been formally submitted to the Power System Development Fund (PSDF) for review and consideration. SLDC, Assam also informed that DPR for the communication part shall be submitted shortly.
In 28th NETeST Meeting, AEGCL informed that DPR for the communication part would be submitted by 3rd week of May'24.
In 29th NETeST Meeting, AEGCL informed that the revised DPR has been submitted to PSDF on 06th July 2024.
In the 30th NETeST Meeting, the forum decided that AEGCL/SLDC, Assam shall update the status via e-mail to NERPC.
In the 31st NETeST Meeting, AEGCL/SLDC Assam informed that response from PSDF is still awaited. Status may be updated.
In the 32nd NETeST meeting, it was informed that monitoring committee has approved the funding of Guwahati Islanding Scheme.
*Assam may update.*

***Deliberation of the sub committee***

AEGCL informed that the necessary technical specifications have been finalised and approved by the NERPC sub-committee. AEGCL further informed the forum that commissioning of OPGW and communication equipment required for Guwahati Islanding Scheme has been proposed under the State Reliable Communication Scheme for necessary PSDF funding. Thus, the tender of the Guwahati Islanding Scheme will be floated after getting sanction approval for the reliable communication scheme from PSDF.

The forum advised AEGCL not to wait for approval of the Reliable Communication Scheme, as the tendering, approval and implementation process may take more than a year. The forum further noted that the Monitoring Committee has already sanctioned the amount for the islanding scheme, and any delay in tendering may lead to a significant variation between the sanctioned amount and the eventual LoA value.

For the communication components required for the Guwahati Islanding Scheme, AEGCL was advised to explore funding through its own resources, considering the relatively small requirement, instead of waiting for PSDF support. Accordingly, the forum instructed AEGCL to proceed with the tendering of the Guwahati Islanding Scheme without any further delay.

NERLDC also highlighted that the capital city of Assam remains the only one in the NER where the islanding scheme is yet to be implemented, while all other capital cities in the region have already been covered.

***The sub-committee noted as above.***

***Action: AEGCL.***

### 3.13. Non-availability of real-time data pertaining to POWERGRID-owned bays installed at AEGCL-owned stations (Agenda 3.22 of 32nd NETeST Meeting): NERLDC

It has been observed that the real-time data of POWERGRID-owned bays installed at AEGCL stations are not reporting to NERLDC. These bays have been identified as follows:

a) Silchar bays installed at Srikona station isolator data since 28th Nov - 2022.
b) Silchar bays installed at Hailakandi.
c) 132 kV BNC HVDC bays at Pavoi S/s.

All these bays are ISTS elements, thus data availability is important for real-time drawl calculation and monitoring of ISTS element. Thus, POWERGRID is requested to update the status as per the table below:

| ***Sl. No.*** | ***Name of Bay*** | ***Latest status (as per 32nd NETeST Meeting)*** |
|---|---|---|

| | | |
|---|---|---|
| 1. | Silchar bays installed at Srikona station | The forum advised Assam to resolve the issues for Silchar bays installed at Srikona and Hailakandi substation at the earliest. |
| 2. | Silchar bays installed at Hailakandi. | |

***Deliberation of the sub committee***

| ***Sl. No.*** | ***Name of Bay*** | ***Latest status (as per 33rd NETeST Meeting)*** |
|---|---|---|
| | Silchar bays installed at Srikona station | POWERGRID-ULDC informed that necessary material (Cables, MFTs, CMRs etc.) are handed over to AEGCL. AEGCL informed that they will engage vendor to configure the RTU database and necessary hardware installation. |
| | Silchar bays installed at Hailakandi. | |

***The sub-committee noted as above.***

***Action: PGCIL / AEGCL / M/s GE.***

### 3.14. Restoration of OPGW owned by Manipur (Agenda 3.22 of 32nd NETeST Meeting): NERLDC

It has been noticed that seven stations i.e., 132 kV Chandel, 132 kV Churachandpur, 132 kV Hundung, 132 kV Kakching, and 132 kV Kongba of Manipur are not reporting due to outage of 132 kV Churachandpur – Ningthoukhong OPGW link. It was reported that there is a break in the Optical Ground Wire (OPGW) approximately eight (08) Kilometers from the 132 kV Ningthoukhong Substation. However, the rectification work could not be

undertaken as the subjected OPGW installation was done by POWERGRID-ULDC under NER-FO. Incomplete Handing over documents (absence of signatures by POWERGRID executives) was furnished by POWERGRID to SLDC, Manipur on 06th April 2021. SLDC Manipur has requested ULDC-POWERGRID to sign the documents on 11th December 2023. SLDC Manipur has conveyed that proper documentation is essential for addressing the issue. The forum requested POWERGRID furnish complete handing over document.

During 28th NETeST Meeting, POWERGRID-ULDC informed that in a meeting with Managing Director, MSPCL, Manipur had requested POWERGRID to complete the entire task. However, the financial aspects of the work were not discussed with MSPCL. Member Secretary, NERPC advised POWERGRID and MSPCL to discuss the issue bilaterally.

During 29th NETeST Meeting, ULDC-NERTS informed that all necessary documents has been handed over to SLDC, Manipur in April 2024. However, Manipur has requested ULDC-NERTS to complete this work. ULDC-NERTS assured the forum to complete the work within three months after having discussion internally.

In the 30th NETeST Meeting, the forum decided that POWERGRID-ULDC and MSPCL shall update the status via e-mail to NERPC.

In the 31st NETeST Meeting, POWERGRID-ULDC informed that matter has been taken up internally by MSPCL for restoration of the OPGW link.

In the 32nd NETeST meeting, NERLDC apprised the forum that official letter in connection to the matter has been sent to MD, MSPCL.

***Deliberation of the sub committee***

The matter has not been resolved due to law-and-order situation in Manipur.

***The sub-committee noted as above.***

***Action: POWERGRID-ULDC / MSPCL.***

### 3.15. Status of Fiber-Optic works under different projects (Agenda 3.25 of 32nd NETeST Meeting): NERLDC

| S. No. | Link name | Utilities which may respond | As per 32nd NETeST |
|---|---|---|---|

| I. Fiber Optic Expansion Projects | | | |
|---|---|---|---|
| Central Sector | | | |
| 1 | 400kV Bongaigaon (PG) - 220kV Salakati - 220kV BTPS | POWERGRID-NERTS | The original vendor M/s TCIL has agreed to restart the work. Expected to be completed by December-2025. |
| 2 | 400kV Mirza (Azara) – Byrnihat (Killing) | | The original vendor M/s TCIL has agreed to restart the work. Expected to be completed by December-2025. |
| 3 | 400kV Silchar – Palatana | | The original vendor M/s TCIL has agreed to restart the work. Expected to be completed by December-2025. |

***Deliberation of the sub committee***

| S. No. | Link name | Utilities which may respond | As per 33rd NETeST |
|---|---|---|---|
| I. Fiber Optic Expansion Projects | | | |
| Central Sector | | | |
| 1 | 400kV Bongaigaon (PG) - 220kV | POWERGRID-NERTS | The original vendor M/s TCIL has agreed to restart the work. Expected to be |

| | | | |
|---|---|---|---|
| | Salakati - 220kV BTPS | | completed by November-2026. |
| 2 | 400kV Mirza (Azara) – Byrnihat (Killing) | | Stringing work has been completed. Entire work shall be completed by May-2026. |
| 3 | 400kV Silchar – Palatana | | The original vendor M/s TCIL has agreed to restart the work. Expected to be completed by October-2026 |

***The sub-committee noted as above.***

***Action: POWERGRID-NERTS.***

### 3.16. Status and details of Fiber-Optic projects approved in 17th TCC/RPC meeting (Agenda 3.26 of 32nd NETeST Meeting): NERLDC

**A. Additional Communication Scheme**: Status may be provided

***Action: POWERGRID-ULDC may update the status.***

**B. Reliable Communication Scheme:**

a. Replacement of existing fibre: Status may be provided

b. Fibre on new lines: Status may be provided

***Action: POWERGRID-ULDC may update the status.***

***Deliberation of the sub committee***

**A. Additional Communication Scheme:** Status is attached as Annexure-C 3.16 (i).

**B. Reliable Communication Scheme:** Status is attached as Annexure-C 3.16 (ii).

***The sub-committee noted as above.***

***Action: NERLDC***

### 3.17. Integration of Dikshi HEP real time data and pending Voice communication (Agenda 3.27 of 32nd NETeST Meeting): NERLDC

As per 23rd NETeST meeting, DoP-Arunachal Pradesh informed that PLCC panel at Khupi for the erstwhile 132kV Balipara – Khupi will be shifted to Tenga and one (1) out of the two (2) new panels at Tenga will be shifted to Khupi. Thereafter, PLCC for 132kV Balipara-Tenga and 132kV Tenga-Khupi shall be operational. It was assured that the above works along with data reporting to respective SCADA system shall be completed by Aug'22

During 25th NETeST meeting, DoP, Arunachal Pradesh informed that Devi Energies Pvt. Ltd. has purchased PLCC panel for locations Dikhsi, Khupi and Balipara, which are delivered at sites but these PLCC panels are not compatible with PLCC panels present in Khupi and Balipara. Therefore, integration is held up at sites. The forum requested DoP, Arunachal Pradesh to resolve the matter bilaterally with M/s Devi Energies.

During 29th NETeST Meeting, DOP-Arunachal Pradesh informed that Dikshi HEP is now connected to a dedicated leased line from July'24 onwards and they are in the process of connecting the VOIP phone.

In the 32nd NETeST meeting, Forum advised DoP, Arunachal Pradesh to expedite the matter at the earliest.

***Deliberation of the sub committee***

Member Secretary, NERPC apprised that NERPC Secretariat shall discuss the matter with DoP, Arunachal Pradesh /Dikshi.

***The sub-committee noted as above.***

***Action: NERPC / NHPC.***

### 3.18. Automatic Generation Control (AGC) in Indian Grid (Agenda 3.28 of 32nd NETesT Meeting): NERLDC

The status is tabulated below:

| ***Station Name*** | ***Status as per 31st NETeST Meeting*** | ***Status as per 32nd NETeST Meeting*** |
|---|---|---|
| AGBPP (Kathalguri) | NEEPCO mentioned that AGC cannot be implemented in STG as it is only slave to GTG. NEEPCO raised the concerned regarding the ramping UP/down for the gas/steam. MS NERPC informed to follow as per discussion with Member Technical CERC and keep the AGC system ready | NEEPCO once again mentioned that AGC cannot be implemented in STG as it is only slave to GTG. NEEPCO raised the concerned regarding the ramping UP/down for the gas/steam. Forum requested NEEPCO to approach the CERC for necessary exemption. |
| Doyang | Order placed for one unit and will be upgraded during 40days shutdown. After completion of one-unit, subsequent unit will be executed. | The SCADA and DCS of remaining two units will be carried out during lean hydro period i.e., Nov'25 – Dec'25. After which AGC commissioning will be carried. |
| Khandong Stage | NEEPCO yet to decide whether to implement AGC or not as the system rating has been revised to 23MW. | Implementation is under progress along with Stage-1 units. |
| Khandong | Under progress | Implementation is under progress along with Stage-1 units. |

| ***Station Name*** | ***Status as per 31st NETeST Meeting*** | ***Status as per 32nd NETeST Meeting*** |
|---|---|---|
| Kameng | Quotation not yet received from vendor. | M/s BHEL has not provided the quotation till date. NEEPCO is trying to acquire the quotation at the earliest. |
| Ranganadi (Panyor) | Quotation not yet received from vendor. | Quotation is received and further discussions are going with Vendor for the implementation. |
| Pare | Upgradation of DCS required. Quotation received from vendor. | Implementation work will start during lean hydro period. |
| RC Nagar | NEEPCO mentioned that due to gas shortage 1 module is always in off condition. For rest module, same shall be followed as per discussion with member technical CERC | NEEPCO mentioned that due to gas shortage 1 module is always in off condition. Forum requested NEEPCO to approach the CERC for necessary exemption. |
| Palatana | OTPC raised the concerned regarding the ramping UP/down for the gas/steam. MS NERPC informed to follow as per discussion with Member Technical CERC and keep the AGC system ready. | OTPC was not present. However, forum requested OTPC to approach the CERC for necessary exemption. |

***Deliberation of the sub committee***

| ***Station Nam*** | ***Status as per 33rd NETeST Meeting*** |
|---|---|
| AGBPP (Kathalguri) | NEEPCO informed that they will decide internally for the necessary action on the Gas based plant to carry out the AGC in plant. Likely to go to CERC for exemption. |
| Doyang | Work in under progress and commissioning is expected to be completed by May'26. Open Loop testing done. Close Loop testing by 2nd week of May'2026. |
| Khandong St -2 | Units are under 25 MW hence AGC will not be implemented. |
| Khandong | Units are under 25 MW hence AGC will not be implemented. |
| Kameng | NEEPCO informed that machines are still not stable as high vibrations are present due to mechanical issues, once the machines stabilize the necessary AGC implementation will be taken up. |
| Ranganadi (Panyor) | SCADA is very old, and for which DCS upgradation is required. Tender has been floated, and Technical Evaluation going on. The AGC implementation will be carried out in the lean period i.e., after Nov'26. |
| Pare | The AGC implementation will be carried out in the lean period i.e., after Nov'26. |
| RC Nagar | NEEPCO informed that they will decide internally for the necessary action on the Gas based plant to carry out the AGC in plant. Likely to go to CERC for exemption. |
| Palatana | OTPC was not present. However, forum requested OTPC to approach the CERC for necessary exemption. |

***The -committee noted as above and referred to OCC for regular update.***

***Action: Respective Generating Station.***

### 3.19. Feasibility to connect Lekhi Substation over Fiber-Optic Network (Agenda 3.30 of 32nd NETeSTMeeting): NERLDC

**During 25th NETeST Meeting**, POWERGRID informed the forum that SDH equipment has been diverted from Monarchak and the same shall be installed by 15th June, 2023. POWERGRID requested DoP, Arunachal Pradesh to provide space for installation & they have agreed to provide the same. POWERGRID also informed that due to DCPS issue, presently they were using DC convertor. DoP, Arunachal Pradesh agreed to look into the matter.

**During 26th NETeST Meeting**, POWERGRID-ULDC informed the forum that new SDH is proposed under NER Reliable communication scheme. Currently the DC converter of Lekhi S/s is not working due to which Lekhi PDH is not powered up and thus not reporting to SLDC Arunchal Pradesh over fiber network. DoP-AP is requested to update on the status for providing space DCPS. POWERGRID is requested to update on the status for installation of the DCPS.

**During 27th NETeST Meeting**, DoP-AP informed that space for installation of DCPS will be provided. DC converter of Lekhi is not working due to which Lekhi is not connected over OPGW network. POWERGRID-ULDC is requested to restore the DC converter as an interim measure till the new SDH and DCPS are installed.

**During 28th NETeST Meeting**, POWERGRID informed that they had taken up the matter with vendor M/s Tejas for the supply of DC converter. The work shall be included under the NER reliable communication scheme.

**During 29th NETeST Meeting**, DOP-Arunachal Pradesh informed that the new control room will be ready by December 2024, so the necessary work can be completed by ULDC-NERTS after commissioning of new control room.

**In the 30th NETeST Meeting**, the forum decided that POWERGRID-ULDC shall update the status via e-mail to NERPC.

**In the 31st NETeST Meeting**, POWERGRID-ULDC apprised the forum that the FOTE system is now connected with new battery bank, however relocation to new control room is pending. The matter could not be deliberated as DOP-Arunachal Pradesh representative was absent.

**In 32nd NETeST meeting**, DOP- Arunachal Pradesh informed that work for new control room is almost complete, hence POWERGRID-ULDC can start the work.

***Deliberation of the sub committee***

ULDC-POWEGRID informed that even though building is ready but other infrastructure such as Power Supply etc. is yet to be established in the new building. DoP Arunachal Pradesh informed that they will shift to new control room in the month of June 2026. Once the necessary infrastructure is ready then they will inform ULDC-POWERGRID to do necessary connectivity.

***The sub-committee noted as above.***

***Action: PGCIL / DoP-AP.***

### 3.20. State-wise SAMAST Status: PwC

Manipur SAMAST Status, Mizoram SAMAST Status, Tripura SAMAST Status and AMC Status: State-Wise is attached at **Annexure C 3.20.**

***Deliberation of the sub committee***

PwC presented the latest status update and progress of SAMAST state wise. The latest status is as given below:

| State | Design phase | H/W installing and commissioning | Factory acceptance testing | Site acceptance testing | User training and go live |
|---|---|---|---|---|---|
| **Manipur** | Completion of milestone approval received on 23 May 2022 | Completion of milestone approval received on 20 March 2023 | Completion of milestone approval received on 6 January 2023 | SAT of all software modules completed on 20 June 2025 | Go-live of SAMAST modules completed on 30 June 2025. Warranty support period is going on. |
| **Mizoram** | Completion of | Completion of milestone | Completion of milestone | SAT of all software modules | Go-live of SAMAST |

| | | | | | |
|---|---|---|---|---|---|
| | milestone approval received on 15 March 2022. | approval received on 24 March 2023 | approval received on 9 January 2023 | completed on 14 Feb 2024 | modules completed on 19 July 2024 Warranty support period completed on 19 July 2025 |
| **Tripura** | Completion of milestone approval received on 23 May 2022 | Completion of milestone approval received on 04 December 2023 | Completion of milestone approval received on 28 April 2023 | SAT of all software modules completed on 18 June 2024 | User training was conducted from 24-26 June 2024 Go-live of SAMAST modules completed on 29 June 2024 Warranty support period completed on 29 June 2025 |

The latest status regarding payment is as given below:

| **State** | **Latest status** |
|---|---|
| **Manipur** | 1.Total invoicing INR 5,31,00,000/- (100% of contract value). |

| | |
|---|---|
| | 2.Payment received INR 4,77,90,000/- (90% of Contract Value)<br><br>3.User training and go live (Milestone #5): Payment pending of INR 53,10,000/-. Aging is 100+ days |
| **Mizoram** | 1. Total invoicing INR 5,31,00,000/- (100% of contract value).<br><br>2.Payment received INR 4,64,36,526/-(~87.45% of Contract Value).<br><br>3. Site acceptance testing (Milestone #4): Part-payment made. Balance pending INR 13,53,474/- Aging is 602+ days.<br><br>4. User training and go live (Milestone #5): Full payment pending INR 53,10,000/- Aging is 254+ days.<br><br>5.Total payment pending INR 66,63,474/- (~12.55% of Contract value).<br><br>6. SLDC to provide project completion letter, and to return Bank Guarantee. |
| **Tripura** | 1.Total invoicing INR 5,31,00,000/- (100% of contract value).<br><br>2.Payment received INR 4,77,90,000/- (90% of Contract Value). |

| | |
|---|---|
| | 3. User training and go live (Milestone #5):: Payment pending of INR 53,10,000/-. Aging is 115+ days.<br><br>4. Fund requisition has been submitted to PSDF for remaining 10% payment.<br>5.SLDC to provide project completion letter, and to return Bank Guarantee. |

***The sub-committee noted as above.***

***Action: PwC / Respective States.***

**********

| **REGIONAL COMMUNICATION AUDIT REPORT** | | | |
|---|---|---|---|
| **General Information:** | | | |
| **1** | **Substation Name** | | |
| **2** | **SS Voltage level** | | |
| **3** | **Date of commissioning of the substation** | **XX.XX.XXXX** | |
| **4** | **Region & State / Auditee** | **/** | |
| **5** | **Audit Date** | | |
| **6** | **Name of the Utility which owns the SS** | | |
| **Details of Audit Team Members :** | | | |
| **SL** | **Name** | **Designation** | **Organization** |
| **1** | | | |
| **2** | | | |
| **3** | | | |
| **4** | | | |
| **Attached Documents, if any** | | | |
| **SL** | **Name of the document** | | **Original / Signed / Copy** |
| **1** | | | |
| **2** | | | |
| **3** | | | |
| **4** | | | |
| **5** | | | |
| **6** | | | |
| **7** | | | |

| | | |
|---|---|---|
| **8** | | |
| **9** | | |
| **10** | | |
| **11** | | |
| **12** | | |
| **13** | | |
| **14** | | |
| **15** | | |
| **16** | | |
| **17** | | |

# Communication Channels and Equipments Audit Format

**(A) List of channels in usage for data (64 kbps, 104, PMU, VC, 101) / Voice / Protection circuits / others:**

| Sl | Description (64 kbps, 104, PMU, VC, 101) / Voice / Protection circuits / Others) | Source | Destination | Channel Routing | Ownership details of terminal equipment / Links |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |

**(B) List of terminal communication equipments:**

| Sl | Name of Station | Equipment Type (SDH / PDH / Radio / VSAT / EPABX) | Make / Model | Ownership |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

**(C) Communication System Details:**

**I. SDH Equipment**

**(1) Card Details:**

| Slot No | IP Address & Path / Direction Name | Card Details | Place a ✓mark if on usage, else Write as "Spare" | Whether Card is healthy / Faulty ? ( H / F) | Cards Redundancy available (Yes / No) | Power Supply Card / Optical Card (Yes / No) | MSP configured? (Yes / No) | Action Plan for faulty cards | Other Information, if any |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| And so on | | | | | | | | | |

**(2) Whether equipment is time synchronized : Yes / No**

| If Yes, how is it being done? |
|---|
| |

**(3) Failures during last Fin. year / since last Audit :**

| Particulars | Number of failures of Card / Power Supply | Reason for failures | Measures taken for rectification |
|---|---|---|---|
| **Card** | | **(i)**<br>**(ii)**<br>**(iii)** | **(i)**<br>**(ii)**<br>**(iii)** |
| **Power Supply** | | **(i)**<br>**(ii)**<br>**(iii)** | **(i)**<br>**(ii)**<br>**(iii)** |

**(4) Configuration of the Node:**

| Name of Equipment | Number of Nodes | Number of directions | Name of Directions | Number of links down, with details | Details of corrective action, if any, taken |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |

**(5) Preventive maintenance schedule and its compliance:**

| Date of Last Preventive maintenance | Maintenance carried out as per schedule? (Yes / No) | Whether all the defects have been attended? (Yes / No) Give details |
|---|---|---|
| | | |

## II. PDH Equipment

**(1) Card Details :**

| Slot No | IP Address | Card Details | Place a ✓mark if on usage, else Write as "Spare" | Whether Card is healthy / Faulty ? ( H / F) | Cards Redundancy available (Yes / No) | Power Supply Card / Optical Card (Yes / No) | MSP configured? (Yes / No) | Action Plan for faulty cards | Other Information, if any |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| And so on | | | | | | | | | |

**(2) Whether equipment is time synchronized : Yes / No**

| If Yes, how is it being done? |
|---|
| |

**(3) Failures during last Fin. year / since last Audit :**

| Particulars | Number of failures of Card / Power Supply | Reason for failures | Measures taken for rectification |
|---|---|---|---|
| **Card** | | **(i)**<br>**(ii)** | **(i)**<br>**(ii)** |

| | | | |
|---|---|---|---|
| | | **(iii)** | **(iii)** |
| **Power Supply** | | **(i)**<br>**(ii)**<br>**(iii)** | **(i)**<br>**(ii)**<br>**(iii)** |

**(4) Configuration of the Node:**

| Name of Equipment | Number of Nodes | Number of directions | Name of Directions | Number of links down, with details | Details of corrective action, if any, taken |
|---|---|---|---|---|---|
| | | | | | |

**(5) Preventive maintenance schedule and its compliance:**

| Date of Last Preventive maintenance | Maintenance carried out as per schedule? (Yes / No) | Whether all the defects have been attended? (Yes / No)<br>Give details |
|---|---|---|
| | | |

## III. OPGW / Optical Fibre Details

| **Number of Directions** | **Name of Direction** | **No. of Pairs** | **No. of Fibers used** | **No. of spare & healthy Fibers** | **Unarmoured cable laid within PVC/Hume duct pipe?** | **Fibre Count in OPGW? Whether matching with Approach cable to FODP?** | **Overall Optical Fibre Path Attenuation (dB/km)** | **Power Received** | **Conformation to Compliance of CEA Standards** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**IV. Healthiness of Auxiliary System:**

**(1) Details of 2 independent Power Sources :**

| Source | Commissioning Date | Battery Back up (Hour) | Battery capacity (AH) | Supply Voltage (V) | Healthiness of Battery (Yes / No) | Make of Charger | Charger Capacity (A) | Periodicity of Maintenance Schedule | Date of Last 2 Actual Maintenance carried out | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |

**(2) Conformation to Compliance of CEA Standards :**

**V. Healthiness of Earthing of each equipment:**

| Sl | Equipment | Status on Healthiness of Earthing |
|---|---|---|
| | | |
| | | |
| | | |

**VI. Details of Voice communication available between Sub-station and Control Centre:**

| Sl | Voice communication (Sub-station - Control Centre) | Status on Healthiness of Voice communication | Healthiness of air-conditioning of communication room as per OEM recommendation |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

**VII. PLCC Details:**

| Number of Panels | Make and Model | Direction | Frequency (Tx & Rx) KHz | Status on Healthiness | Last preventive maintenance | | Details of defects, if any, attended | Status of Availability of Spares | Conformation to Compliance of CEA Standards |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Schedule | Actual | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**VIII. Radio Communication Details:**

| Number of Equipments | Make and Model | Status on Healthiness | Last preventive maintenance | | Details of defects, if any, attended | Status of Availability of Spares | Conformation to Compliance of CEA Standards |
|---|---|---|---|---|---|---|---|
| | | | Schedule | Actual | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**IX. Data Retention :**

**(i) Earliest Date of availability of data: _____**

**(ii) Historical data availability : ____ days.**

**X. Control Command Delay :**

**(i) Time delay in seconds from Control Centre for SCADA : ____ Seconds**

**(ii) Time delay in seconds from Control Centre for WAMS : ____ Seconds**

**XI. Wide Band Network :**

**(i) Absolute channel delay in protection applications : _____ ms**

**(ii) Channel delay asymmetry in protection applications : _____ ms**

**(iii) Switching Time delay to alternate path/route during failure of one path : _____ ms**

**XII. Any other information :**

| Audit Team Member | Audit Team Member | Audit Team Member | Audit Team Member |
|---|---|---|---|
| NERPC | NERLDC | PGCIL (Internal / External) | State (Internal / External) |

## Communication Audit Checklist (Annexure-II)

| S.No | Check list points | Expected | Actual | Reference |
|---|---|---|---|---|
| 1 | Whether OPGW is terminated properly. Down lead shall be fixed property in sufficient locations. Metallic part shall be connected to earth mat riser. | Yes | | |
| 2 | Distinct approach cable shall be laid 1 Protection & Communication 2 Fibers for commercial applications<br>Item no 1 cable shall be terminated in communication room FODP<br>One number FODP panel shall be available in communication room | | | |
| 3 | Fiber Identification shall be done in FODP properly | | | |
| 4 | Whether End to end tests were carried out during installation and records are available<br>(both Optical Power Source/receiver testand OTDR Test results | | | |
| 5 | Whether patch chords 1 Cross labelled ( source/ receive) 2 Tx – Rx Marking 3 Mechanical protection is provided for pach chords laid between panels | | | |
| 6 | Whether separate room for communication is available with following:-<br>1 Air conditioning with standby A/C Unit 2 AC Distribution board with ELCB<br>3 Single point earthing bar which shall be connected to substation Earth mat | | | |
| 7 | Two sets of 48 V ( Positive Earthed) DC Systemshall be available with<br>1 Common DC Distribution board/ Panels with incoming MCB, coupler MCB , out doing MCBsetc<br>2. Minimum 200 Ah ( 2 sets of battery) VRLA batteries are preferred to keep chargers and battery in communication room.<br>3. Battery Charger shall be Thryristorised/SMPS | | | |
| 8 | Battery Charger alarms /measurements shallbe made available to SAS ( if available)<br>It can be achieved through MOD bus or connecting analogue/ digital signals to Common BCU of SAS.<br>If such system is not available major | | | |

| | | | | |
|---|---|---|---|---|
| | alarms shall b alarmed in common substation annunciator | | | |
| 9 | 2 nos of substation Data ( From RTU or SAS Gateway)shall route in different roots to Main and Standby Load Dispatch centres | | | |
| 10 | Kindly assure proper protection is available for AC Distribution ( ELCB, MCB, Backup fuse ), | | | |
| 11 | Aux Transformer neutral Earthing shall be connected to Stations earth mat ( Aux Transformers shall be installed in yard earth mat area only) | | | |
| 12 | Whether DG sets with AMF panels are provided for Aux AC Supply | | | |
| 13 | Whether 2 nos 11 kV ( or 33kV) supplies are available for Each station aux Transformer | | | |

Annexure B 2.2 (i)

# List of Important FOTE as per requirement of NERLDC

| Sl. No. | Station/SLDC/RLDC Name | Location-Owner | FOTE-OEM | OWNERSHIP | CONNECTED TOWARDS |
|---|---|---|---|---|---|
| 1 | Bongaigaon | PGCIL | ECI | PG | BONGAIGOAN (AS) |
| | | | | | SALAKATI |
| | | | | | NTPC-BgTPP |
| | | | FIBCOM | PG | SALAKATI |
| | | | | | RANGIA |
| 2 | BTPS | AGECL | ECI | AEGCL | Bongaigaon |
| | | | | | AGIA |
| 3 | Agia | AGECL | ECI | AEGCL | BTPS |
| | | | | | Boko |
| 4 | Boko | AGECL | ECI | AEGCL | Mirza |
| | | | | | Agia |
| 5 | Mirza | AGECL | ECI | AEGCL | Sarusajai |
| | | | | | Boko |
| 6 | Sarusajai | AGECL | ECI | AEGCL | SLDC-Kahilipara |
| | | | | | Samaguri |
| | | | | | Mirza |
| 7 | SLDC-Kahilipara | AGECL | ECI | AEGCL | Sarusajai |
| | | | | | Umtru |
| | | | | | ABB-SLDC-Kahilipara |
| | | | | | Fibcom-SLDC-Kahilipara |
| | | | Fibcom | PGCIL | Backup-NERLDC |
| | | | ABB | AEGCL | Kamakhaya |
| | | | | | Sonabil |
| 8 | Guwahati NERLDC | NERLDC | FIBCOM | PGCIL | SLDC-Kahilipara |
| | | | | | Tejas-NERLDC |
| | | | Tejas | PGCIL | Fibcom-NERLDC |
| 9 | Samaguri | AGECL | ECI | AEGCL | Misa |
| | | | | | Mariani(AS) |
| | | | | | Sarusajai |
| 10 | Mariani (AS) | AGECL | ECI | AGECL | Lakwa |
| | | | | | Mariani (PGCIL) |
| | | | | | Mariani -ABB |
| 11 | Maraini (PGCIL) | PGCIL | ECI | PGCIL | Mariani (AS) |
| | | | | | Mariani - Fibcom |
| | | | | | Mariani - ABB _KMTL |
| | | | Fibcom | | Kathalguri |
| | | | | | Mokokchung-PG |
| | | | ABB | | Mariani - Fibcom |
| | | | | | New Kohima |
| 12 | Kathalguri | NEEPCO | Fibcom | PGCIL | Mariani - PG |
| | | | | | Kathalguri_Tejas_PG |
| | | | Tejas | | Mariani - Fibcom |
| 13 | MISA | PGCIL | ECI | PGCIL | Samaguri - ECI |
| | | | | | Misa- Fibcom |
| | | | | | Khleihriat-ECI |
| | | | | | Kopili-ECI |
| | | | | | Misa-ECI(ComTel) |
| | | | | | Dimapur(PG)-ECI |
| | | | | | Balipara-ECI |
| | | | Fibcom | | Misa-EC |
| | | | | | Dimapur-Fibcom |
| | | | | | Misa-Tejas |
| | | | | | Balipara-Fibcom |
| | | | ECI | | Misa-ECI |
| | | | | | Balipara-Fibcom |
| | | | | | Balipara-ABB |

| | | | | | |
|---|---|---|---|---|---|
| 14 | Balipara | PGCIL | | PGCIL | Balipara(AEGCL)-ECI |
| | | | | | Gohpur(AEGCL)-ECI |
| | | | Fibcom | | Balipara-ECI |
| | | | | | Misa-Fibcom |
| | | | | | BNC_HVDC-Fibcom |
| | | | ABB | | Sonabil(AEGCL)-ABB |
| | | | | | Gohpur(AEGCL)-ABB |
| 15 | BNC_HVDC | PGCIL | Fibcom | PGCIL | Balipara-Fibcom |
| | | | | | AP_SLDC-Fibcom |
| | | | | | Ranganadi-Fibcom |
| | | | | | Rangia-Fibcom |
| 16 | Ranganadi | NEEPCO | Fibcom | PGCIL | BNC_HVDC-Fibcom |
| | | | | | Ziro-Fibcom |
| | | | | | Ranganadi(PGCIL)-ECI |
| | | | ECI | | Ranganadi-Fibcom |
| | | | | | Pare(PGCIL)-ECI |
| | | | | | Gohpur(AEGCL)-ECI |
| 17 | Ziro | PGCIL | Fibcom | PGCIL | Ranganadi-Fibcom |
| | | | | | Ziro-Tejas |
| 18 | Pare | NEEPCO | ECI | PGCIL | Ranganadi(PGCIL)-ECI |
| | | | | | Pare_Sterlite-ECI |
| | | | | | AP_SLDC-ECI |
| | | | ECI | STERLITE | North Lakhimpur_Sterlite-ECI |
| | | | | | Nirjuli_Sterlite-ECI |
| 19 | Nirjuli | PGCIL | ECI | PGCIL | Gohpur(AEGCL)-ECI |
| | | | | | Nirjuli_Sterlite-ECI |
| | | | | | AP_SLDC-ECI |
| | | | ECI | STERLITE | PARE_Sterlite-ECI |
| | | | | | Nirjuli_PGCIl-ECI |
| | | | | | North Lakhimpur_Sterlite-ECI |
| 20 | SLDC_AP | AP | ECI | PGCIL | Nirjuli_PGCIL-ECI |
| | | | | | Pare_PGCIL-ECI |
| | | | | | Lekhi-ECI |
| | | | | | SLDC_AP-Fibcom |
| | | | Fibcom | | AP_SLDC-ECI |
| | | | | | AP_SLDC-Tejas |
| | | | | | BNC_HVDC-Fibcom |
| 21 | Gohpur_AEGCL | ASSAM | ECI | AEGCL | Ranganadi_ECI |
| | | | | | Nirjuli_PGCIL-ECI |
| | | | | | Balipara(PGCIL)_ECI |
| | | | | | Gohpur_NERPSIP |
| | | | ABB | | North Lakhimpur-ABB |
| | | | | | Balipara-ABB |
| 22 | Sonabil_AEGCL | ASSAM | ABB | AEGCL | Balipara-ABB |
| | | | | | Tezpur-ABB |
| | | | | | Kahilipara_SLDC-ABB |
| 23 | Salakati | PGCIL | ECI | PGCIL | Bongaigaon_PGCIL-ECI |
| | | | | | Salakati-Fibcom |
| | | | Fibcom | | Bongaigaon-Fibcom |
| | | | | | Salakati-ComTel |
| | | | | | Salakati-ECI |
| 24 | Kamakhya | ASSAM | ABB | AEGCL | Paltan Bazar-ABB |
| | | | | | Sishugram-ABB |
| | | | | | Kahilipara_SLDC-ABB |
| 25 | Sishugram | ASSAM | ABB | AEGCL | Kamakhya-ABB |
| | | | | | Amingaon-ABB |
| 26 | Amingaon | ASSAM | ABB | AEGCL | Sishugram-ABB |
| | | | | | Kamalpur-ABB |
| | | | | | Rangia-ABB |
| 27 | Umtru | MEGHALAYA | ECI | MEPTCL | Kahilipara_SLDC-ECI |
| | | | | | UmiamStg3-ECI |

| | | | | | |
|---|---|---|---|---|---|
| 28 | Umiam Stg3 | MEGHALAYA | ECI | MEPTCL | Umtru-ECI |
| | | | | | UmiamStg1-ECI |
| | | | | | UmiamStg3-GE |
| 29 | Umiam Stg1 | MEGHALAYA | ECI | MEPTCL | UmiamStg3-ECI |
| | | | | | NEHU_SLDC-ECI |
| 30 | NEHU_SLDC | MEGHALAYA | ECI | MEPTCL | UmiamStg1-ECI |
| | | | | | PGCIL_Shillong-ECI |
| | | | | | NEHU_SLDC-Fibcom |
| | | | | | NEHU_SLDC-Tejas |
| | | | Fibcom | MEPTCL | NEHU_SLDC-ECI |
| | | | | | Neighrims-Fibcom |
| | | | | | NERLDC_Shillong-Fibcom |
| 31 | Khleihriat | PGCIL | ECI | PGCIL | PGCIL_Shillong-ECI |
| | | | | | Khleihriat_PG-Tejas |
| | | | | | Badarpur_PG-ECI |
| | | | | | Khleihriat_PG-Fibcom |
| | | | | | Khandong_PG-ECI |
| | | | | | Misa_PG-ECI |
| | | | Fibcom | | Khleihriat_PG-Tejas |
| | | | | | Khleihriat_State-Fibcom |
| | | | | | NERLDC_Shillong-Fibcom |
| | | | | | Haflong_PG-Fibcom |
| | | | | | Badarpur_PG-Fibcom |
| | | | | | Khleihriat_PG-ECI |
| | | | Tejas | | Khleihriat_PG-ECI |
| | | | | | Khleihriat_PG-Fibcom |
| 32 | Khandong | NEEPCO | ECI | PGCIL | Khleihriat_PG-ECI |
| | | | | | Kopili_PG-ECI |
| 33 | Kopili | NEEPCO | ECI | | Khandong_PG-ECI |
| | | | | | Misa_PG-ECI |
| 34 | Badarpur | PGCIL | ECI_Upgrade | PGCIL | Khleihriat_PG-ECI |
| | | | | | Kumarghat_PG-ECI |
| | | | | | Badarpur_PG-Fibcom |
| | | | | | Badarpur_PG-ECI |
| | | | ECI | | Badarpur_PG-ECI Upgrade |
| | | | | | Badarpur_PG-Fibcom |
| | | | | | Kolasib_Mizoram-ECI |
| | | | | | Silchar_PG-ECI |
| | | | | | Jiribam_PG-ECI |
| | | | | | AEGCL_Badarpur-ECI |
| | | | Fibcom | | Khleihriat_PG-Fibcom |
| | | | | | Kumarghat_PG-Fibcom |
| | | | | | Aizwal_PG-Fibcom |
| | | | | | Jiribam_PG-Fibcom |
| | | | | | Silchar_PG-Fibcom |
| | | | | | Badarpur_PG-ECI |
| | | | | | Badarpur_PG-ECI Upgrade |
| 35 | Silchar | PGCIL | Fibcom | PGCIL | Badarpur_PG-Fibcom |
| | | | | | Melriat_PG-Fibcom |
| | | | | | Jiribam_PG-Fibcom |
| | | | | | Silchar_PG-ECI |
| | | | ECI | | Silchar_PG-Fibcom |
| | | | | | Silchar_ECI-ComTel |
| | | | | | Melriat_PG-ECI |
| | | | | | Srikona_AEGCL-ECI |
| | | | | | Badarpur_PG-ECI |
| | | | Comtel_ECI | | Silchar_PG-ECI |
| | | | | | Misa_PG-ComTel |
| | | | Fibcom | | Jiribam_PG-ECI |
| | | | | | Silchar_PG-Fibcom |
| | | | | | Badarpur_PG-Fibcom |

| | | | | | |
|---|---|---|---|---|---|
| 36 | Jiribam | PGCIL | Fibcom | PGCIL | Jiribam_AS-Fibcom |
| | | | | | Imphal_PG-Fibcom |
| | | | | | Loktak_NHPC-Fibcom |
| | | | ECI | | Jiribam_PG-Fibcom |
| | | | | | Pailapool_AS-ECI |
| | | | | | Badarpur_PG-ECI |
| 37 | Imphal | PGCIL | Fibcom | PGCIL | Imphal_PG-ABB |
| | | | | | Imphal_SLDC-Fibcom |
| | | | | | Imphal_PG-ECI |
| | | | | | Loktak_NHPC-Fibcom |
| | | | ECI | | Imphal_PG-Fibcom |
| | | | | | Kohima_Nagaland-ECI |
| 38 | Loktak | NHPC | Fibcom | PGCIL | Imphal_PG-Fibcom |
| | | | | | Ningthoukhong-Fibcom |
| | | | | | Rengpang-Fibcom |
| | | | | | Jiribam_PG-Fibcom |
| 39 | Dimapur | PGCIL | Fibcom | PGCIL | Kohima_Nagaland-Fibcom |
| | | | | | Nagarjan-Fibcom |
| | | | | | Dimapur_PG-ECI |
| | | | | | Misa-Fibcom |
| | | | | | Doyang-Fibcom |
| | | | ECI | | Dimapur_PG-Fibcom |
| | | | | | Misa_PG-ECI |
| | | | | | Kohima_Nagaland-ECI |
| 40 | Doyang | NEEPCO | Fibcom | PGCIL | Dimapur_PG-Fibcom |
| | | | | | Sanis-Fibcom |
| | | | | | Mokokchung_Naga-Fibcom |
| 41 | Palatana | OTPC | Fibcom | PGCIL | Udaipur_TS-Fibcom |
| | | | | | SMNagar_TS-Fibcom |
| 42 | SM Nagar(TS) | TRIPURA | Fibcom | PGCIL | SMNagar_Sterlite-GE |
| | | | | | Budhjungnagar)TS-Fibcom |
| | | | | | Palatana-Fibcom |
| | | | | | Agartala_79Tilla-Fibcom |
| 43 | Agartala_SLDC | TRIPURA | Fibcom | PGCIL | SMNagar_TS-Fibcom |
| | | | | | Agartala_SLDC-ECI |
| | | | | | RCNagar-Fibcom |
| | | | | | Baramura-Fibcom |
| | | | ECI | TSECL | Agartala_79Tilla-Fibcom |
| | | | | | RCNagar_PG-ECI |
| | | | | | Rokhia-ECI |
| | | | | | Mohanpur-ECI |
| 44 | RCNagar_AGTCCPP | NEEPCO | Fibcom | PGCIL | Agartala_79Tilla-Fibcom |
| | | | | | RCNagar_PG-ECI |
| | | | | | Kumarghat-Fibcom |
| | | | | | PK Bari_TS-Fibcom |
| | | | | | RC_Nagar_Indigrid-GE |
| | | | ECI | | RCNagar-Fibcom |
| | | | | | Agartala_SLDC-ECI |
| | | | | | Kumarghat_PG-ECI |
| 45 | Kumarghat | PGCIL | Fibcom | PGCIL | RCNagar-Fibcom |
| | | | | | Kumarghat_PG-ECI |
| | | | | | PKBari_TS-Fibcom |
| | | | | | Badarpur-Fibcom |
| | | | | | PK Bari_TS-ECI |
| | | | ECI | | RCNagar_PG-ECI |
| | | | | | Kumarghat-Fibcom |
| | | | | | Badarpur-ECI Upgrade |
| 46 | Aizwal | PGCIL | Fibcom | PGCIL | Melriat_PG-Fibcom |
| | | | | | Aizwal_PG-ECI |
| | | | | | Badarpur_PG-Fibcom |
| | | | | | Zembawak-Fibcom |

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|---|---|---|---|---|---|
| | | | ECI | | Aizwal_PG-Fibcom |
| | | | | | Kolasib_Mizoram-ECI |
| | | | | | Melriat_PG-ECI |
| 47 | Melriat | PGCIL | Fibcom | PGCIL | Melriat_PG-ECI |
| | | | | | Shimmui-Fibcom |
| | | | | | Aizwal_PG-Fibcom |
| | | | | | Silchar_PG-Fibcom |
| | | | | | Zembawak-Fibcom |
| | | | ECI | | Aizwal_PG-ECI |
| | | | | | Melriat_PG-Fibcom |
| | | | | | Silchar_PG-ECI |

Annexure B 2.2 (i)

# List of Important OPGW

| Sl. No. | Name of OPGW Link | Ownership |
|---|---|---|
| 1 | Bongaigoan (PG) - Bongaigoan (AS) | PGCIL |
| 2 | Bongaigoan (PG) - Salakati (PG) | PGCIL |
| 3 | Bongaigoan (PG) - NTPC BgTPP | PGCIL |
| 4 | Doyang(NEEPCO) - Mokachung(state) | PGCIL |
| 5 | Doyang - Dimapur | PGCIL |
| 6 | Doyang - Sains | Nagaland |
| 7 | Mokakchung( PG) - Mokakchiung(State) | PGCIL |
| 8 | Mokakchung(PG) - Mariani(PG) | PGCIL |
| 9 | Dimapur SLDC - Nagarjun | PGCIL |
| 10 | Dimapur SLDC - Dimapur(PG) | PGCIL |
| 11 | Dimapur - Doyang | PGCIL |
| 12 | Dimapur - Kohima | PGCIL |
| 13 | Dimapur - Misa | PGCIL |
| 14 | Wokha- Kohima | Nagaland |
| 15 | Kohima - Wokha | Nagaland |
| 16 | Kohima - Dimapur(PG) | PGCIL |
| 17 | Kohima - Imphal(PG) | PGCIL |
| 18 | Imphal - Imphal SLDC | PGCIL |
| 19 | Imphal - Jiribam(PG) | PGCIL |
| 20 | Imphal - Loktak | PGCIL |
| 21 | 132kV Yurembam(Imphal) - Yaingangpokpi | MSPCL |
| 22 | Yaingangpok - Hundung | MSPCL |
| 23 | Yaingangpok - Kongba | MSPCL |
| 24 | Kongba - Thoubal | MSPCL |
| 25 | Thoubal - Kakching | MSPCL |
| 26 | Loktak(NHPC) - Imphal(PG) | PGCIL |
| 27 | Loktak(NHPC) - Rengpang | MSPCL |
| 28 | Loktak(NHPC) - Ningthoukhomg | MSPCL |
| 29 | Loktak - Jiribam(PG) | PGCIL |
| 30 | Misa - Balipara | PGCIL |
| 31 | Misa(PG) - Mariani(PG) | PGCIL |
| 32 | Mariani - Kathalguri | PGCIL |
| 33 | Mariani(PG) - Mariani AEGCL | PGCIL |
| 34 | Mariani(PG) - New Kohima (KMTL) | Aparva |
| 35 | New Kohima (KMTL) - Imphal (PG) | Aparva |
| 36 | Balipara - Gohpur | PGCIL |
| 37 | Balipara - Sonabil | AEGCL |
| 38 | Balipara - BNC(HVDC) | PGCIL |
| 39 | Mirza - Sarusajai | AEGCL |
| 40 | Mirza - Boko | AEGCL |
| 41 | Agia - Boko | AEGCL |

| | | |
|---|---|---|
| 42 | Agia - BTPS | AEGCL |
| 43 | Agia - Mendipathar | AEGCL |
| 44 | Rangia - BNC_HVDC | PGCIL |
| 45 | BNC(HVDC) - Balipara | PGCIL |
| 46 | BNC_HVDC - Rangia | PGCIL |
| 47 | BNC_HVDC - Ranganadi | PGCIL |
| 48 | BNC_HVDC - Itanagar_SLDC | PGCIL |
| 49 | Bongaigaon (AS) - Rangia | AEGCL |
| 50 | Salakati - Bongaigaon | PGCIL |
| 51 | Ranganadi - Ziro | PGCIL |
| 52 | Ranganadi - BNC_HVDC | PGCIL |
| 53 | Ranganadi - Gohpur | PGCIL |
| 54 | Ranganadi - Parey | PGCIL |
| 55 | Itanagar - BNC_HVDC | PGCIL |
| 56 | Itanagar - Arunachal_Itanagar(SLDC) | PGCIL |
| 57 | Arunachal_Itanagar(SLDC) - Nirjuli | PGCIL |
| 58 | Palatana(OTPC) -SM Nagar(TR) | PGCIL |
| 59 | SM Nagar(TR) - Agartala_79Tilla | PGCIL |
| 60 | Agartala_79Tilla - RC Nagar | PGCIL |
| 61 | SM Nagar(TR) - SM Nagar(ST) | PGCIL |
| 62 | SM Nagar(ST) - PK Bari(ST) | PGCIL |
| 63 | PK Bari(ST) - PK Bari(TR) | PGCIL |
| 64 | PK Bari(TR) - RC Nagar | PGCIL |
| 65 | RC Nagar - Kumarghat | PGCIL |
| 66 | PK Bari(TR) - Kumarghat | PGCIL |
| 67 | Kumarghat - Badarpur | PGCIL |
| 68 | Badarpur - Khleihriat(PG) | PGCIL |
| 69 | Badarpur - Jiribam | PGCIL |
| 70 | Badarpur - Silchar | PGCIL |
| 71 | Badarpur - Aizwal | PGCIL |
| 72 | Khleihriat(PG) - Khleihriat (ME) | PGCIL |
| 73 | Khleihriat(PG) - Khandong | PGCIL |
| 74 | Khleihriat(ME) - Neighrims | PGCIL |
| 75 | Neighrims - NEHU | PGCIL |
| 76 | Khandong - Kopili | PGCIL |
| 77 | Kopili - Misa | PGCIL |
| 78 | Aizwal - Melriat | PGCIL |
| 79 | Melriat - Silchar | PGCIL |
| 80 | Aizwal - Kolasib | PGCIL |
| 81 | Badarpur - Kolasib | PGCIL |
| 81 | Haflong(PG) - Umrangshu | PGCIL |
| 81 | Umrangshu - Khandong | PGCIL |
| 82 | Pare - SLDC_Itanagar | PGCIL |

# Final Standard Operating Procedure (SoP) for Communication System Outage Planning

1. As per the following CEA and CERC Regulations, the Communication Outage for the Region shall be carried out by RPC Secretariat:
   a) Regulation 7.3 of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017 stipulates as below:
   *Quote:*
   *7.3 Role of National Power Committee (NPC) and Regional Power Committee (RPC):*
   ……
   *(iv) The RPC Secretariat shall be responsible for outage planning for communication system in its region. RPC Secretariat shall process outage planning such that uninterrupted communication system is ensured.*
   ……
   *Unquote*

   b) Regulation 10 Central Electricity Authority (Technical Standards for Communication System in Power System Operations) Regulations, 2020 notified on 27.02.2020 envisages as below:
   *Quote:*
   *10. Outage Planning: Monthly outage shall be planned and got approved by the owner of communication equipment in the concerned regional power committee, as per detailed procedure finalized by the respective regional power committee.*
   *Unquote*

2. A Communication System Outage Planning Sub-Group/ TeST Sub Committee shall be formed in each region constituting the members from all the entities connected to ISTS including all CGS, ISGS, REGs/SPPDs/SPDs, STUs, SLDCs etc., of the respective Region, RLDC/Grid-India, PGCIL, CTUIL, Private Transmission licensees in respective region & RPC secretariat. The sub-group/ Sub Committee may co-opt any other member from any organization for facilitating the activities of the sub-group/ Sub Committee.

3. Communication System Outage Planning will be limited to the following systems:
   (i) ISTS Communication System including ISGS
   (ii) Intra-state Communication System being utilized for ISTS Communication
   (iii) ICCP links between Main & Backup RLDCs, Main & Backup SLDCs & Main & Backup NLDCs.
   (iv) Inter-regional AGC links.

(v) Any other system agreed by the sub-group.

4. Communication Equipment/link within the scope of the Procedure would include :

   (i) Optic Fibre links
   (ii) Any other link being used for ISTS communication
   (iii) ICCP links between Main & Backup RLDCs, Main & Backup SLDCs & Main & Backup NLDC
   (iv) VC links between LDCs
   (v) Inter-regional AGC links
   (vi) SPS Links
   (vii) Tele-Protection
   (viii) AMR
   (ix) PMU
   (x) SDH & PDH
   (xi) DCPC
   (xii) RTU & its CMU cards
   (xiii) DTPCs
   (xiv) Battery Banks and Charging Equipment
   (xv) EPABX
   (xvi) Any other equipment/link agreed by the sub-group

5. A Web Portal named as "Communication System Outage Planning Portal" shall be developed by respective RLDCs. Log-in credentials shall be provided to all the ISTS connected entities/concerned entities.

6. Entities/Users/Owners shall add their communication links and the equipment to the Web Portal as soon as they are commissioned. The same has to be furnished to RPC Secretariat /RLDCs.

7. Entities/Users/Owners of the communication equipment shall upload the outage proposals of communication links and the equipment (in the prescribed format only) to be availed during subsequent month by 7th/8$^{th}$ of every month in the Web Portal.

8. RPC Secretariat consolidates the list of outage proposals received from various Entities/Users/Owners of the communication links and equipment by downloading from the Web portal and circulate the same among all the respective region entities by 15$^{th}$ of every month. Communication outages affecting other regions would be coordinated by respective RLDC through NLDC.

9. Communication System Outage Planning (CSOP) meeting shall be conducted during the third week of every month normally (preferably through VC) to discuss and approve the proposed outages of communication links and equipment.

10. The approved outages of Communication links and equipment in the CSOP meeting shall be published in the RPC website and respective RPCs Communication Outage Portal within 3 days from the date of CSOP meeting.

11. Outage of the approved communication links and equipment shall be availed by the respective owner /entities after confirming the same with RLDC on D-3 basis.

12. In case of any emergency outage requirement of communication links and equipment, Entities/Users/Owners may directly apply to respective RLDC with intimation to respective RPCs on D-2 basis. Confirmation of approval/rejection will be provided on D-1 basis by RLDCs in consultation with respective RPCs considering 24hrs processing window.

13. Entities/Users/Owners shall take the code from the respective RLDC before availing the planned outage of the communication links & equipment and before restoration of the same.

14. Entities/Users/Owners of the communication links and equipment shall submit the deviation report for the approved outages (approved dates & approved period) availed during the previous month and the report on planned / forced / other outage of communication links / equipment by 10$^{th}$ of the month to RPC Secretariat as per the format at **Annexure-I** .

15. In the monthly CSOP meetings, communication links and equipment whose outage duration (Planned / Forced / Others) more than 48 hours for the last 12 months of rolling period shall be deliberated for the measures to be taken in future for the better outage management. The date deviations and non-availing the outages that were approved in the previous CSOP meetings shall also be deliberated in the CSOP meetings.

***

**Annexure: DCOA-I**

**Outage Deviation Report : List of outages of Communication Links, availed / deviated during the month of June, 2021**

**Dated :**

**A Details of Communication Links (Point to Point) availed :**

| SL | Name of Requesting Agency | Description of Link | Source | Destination | Channel Routing | Ownership | Reason for availing outage with the details of equipment attended | Approved Start Date : Time [dd-mm-yy<>hh:mm] | Approved End Date : Time [dd-mm-yy<>hh:mm] | Approved Outage Hours | Outage availed Start Date : Time [dd-mm-yy<>hh:mm] | Outage availed End Date : Time [dd-mm-yy<>hh:mm] | Total hours of outage availed now | Deviation ? (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 1 | **Example** | Back up Control Center (BCC) : Data | KAYATHAR 230 kV SS | MADURAI LDC | Data will be availble throu | TANTRANSCO | Shifting of FODB panel at Kayathar 230 KV SS | 10-Mar-2021 09:00 | 10-Mar-2021 18:00 | **09:00** | 10-Mar-2021 14:07 | 10-Mar-2021 17:30 | **03:23** | **N** |

**Annexure: DCOA-II**

**Outage Deviation Report : List of outages of Communication Equipment availed / deviated during the month of June, 2021**

**Dated : 00:00**

**B Details of Communication Equipment availed :**

| SL | Name of Requesting Agency | Name of the communication equipment | Location of the Equipment / Name of Station | Name of the Link/Channel/Path / directions affected | Alternate Channel/Path available ? (Furnish details) | Ownership | Reason for availing outage with the details of faults | Approved Start Date : Time [dd-mm-yy<>hh:mm] | Approved End Date : Time [dd-mm-yy<>hh:mm] | Approved Outage Hours | Outage availed Start Date : Time [dd-mm-yy<>hh:mm] | Outage availed End Date : Time[dd-mm-yy<>hh:mm] | Total hours of outage availed now | Deviation ? (Y/N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 1 | **Example** | DC Charger -2, Amararaja, 48v | Edamon | Nil | Nil | KSEBL | Monthly maintenance. No interruption as alternate chargers available | 16-Mar-21, 11:00 | 16-Mar-21, 16:00 | **05:00** | 16-Mar-21, 10:30 | 16-Mar-21, 16:00 | **05:30** | Y |
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Annexure B 2.3

**Annexure**

# GUIDELINES

# ON

# AVAILABILITY OF COMMUNICATION SYSTEMS

*Prepared in Compliance*

*To*

*Central Electricity Regulatory Commission*

*(Communication System for inter-State transmission of electricity)*

*Regulations, 2017*

January 2024

## GUIDELINES ON AVAILABILITY OF COMMUNICATION SYSTEM

**1. INTRODUCTION**:

1.1 As per Regulation 7.3 of the Central Electricity Regulatory Commission (Communication System for inter-State transmission of Electricity), Regulations, 2017, National Power Committee (NPC) has been entrusted to prepare Guidelines on Availability of Communication System in consultation with RPCs, RLDCs, CTU and other stakeholders. Accordingly, these Guidelines have been prepared for determining Availability of Communication System.

1.2 The relevant provisions in the Central Electricity Authority (Technical Standards for Connectivity to the Grid), Regulations, 2007, CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020 and CERC (Indian Electricity Grid Code) Regulations, 2023 in respect of Communication System are as follows:

1.2.1 **Regulation 6(3) of the CEA (Technical Standards for Connectivity to the Grid)** stipulates that *'the requester and user shall provide necessary facilities for voice and data communication and transfer of online operational data, such as voltage, frequency, line flows and status of breaker and isolator position and other parameters as prescribed by the appropriate load dispatch centre.'*

1.2.2 **Regulation 5(1) of the CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020** stipulates that user shall be capable of transmitting all operational data as required by appropriate control centre.

1.2.3 **Regulation 11 of the Indian Electricity Grid Code (IEGC) 2023 stipulates as follows:**

*"11. DATA AND COMMUNICATION FACILITIES (1) Reliable speech and data communication systems shall be provided to facilitate necessary communication, data exchange, supervision and control of the grid by the NLDC, RLDC and SLDC in accordance with the CERC (Communication System for inter-State Transmission of Electricity) Regulations, 2017 and the CEA Technical Standards for Communication.*

*(2) The associated communication system to facilitate data flow up to appropriate data collection point on CTU system including inter-operability requirements shall also be established by the concerned user as specified by CTU in the Connectivity Agreement.*

*(3) All users, STU and participating entities in case of cross-border trade shall provide, in coordination with CTU, the required facilities at their respective ends as specified in the connectivity agreement. The communication system along with data links provided for speech and real time data communication shall be monitored in real time by all users, CTU, STU, SLDC and RLDC to ensure high reliability of the communication links."*

## 2. DEFINITION:

2.1 Words and expressions used in these guidelines shall have the same meaning assigned in the Electricity Act, Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulation ,2007, CEA (Technical Standards for Communication System in Power System Operation) Regulations, 2020, CERC (Communication System for Inter-State transmission of Electricity), Regulations, 2017 and Indian Electricity Grid Code Regulations, 2023 and amendments thereof.

2.2 Other words have been explained as per the context in these Guidelines.

## 3. SCOPE AND APPLICABILITY:

3.1 As per Regulation 5 (i) of the CERC (Communication System for inter-State transmission of Electricity), Regulations, 2017, "*These regulations shall apply to the communication infrastructure to be used for data communication and tele -protection for the power system at National, Regional and inter-State level and shall also include the power system at the State level till appropriate regulation on Communication is framed by the respective StateElectricity Regulatory Commissions.*"

3.2 Accordingly, these guidelines shall be applicable to the CTU for the Communication System Infrastructure of inter-State Transmission System. The guidelines shall also be applicable to STU for the Communication System Infrastructure of intra-State Transmission System, till appropriate regulation on Communication is framed by the respective State Electricity Regulatory Commission.

3.3 The CTU (or STU as the case may be) shall have back to back co-ordination/agreement with transmission licensees, generators, dedicated transmission line owners, bulk consumers and concerned entities for providing power system communication on their network.

3.4 **Responsibility of CTU and STU:**

a) CTU (or STU as the case may be) shall be responsible for submission of the details of communication channels including the redundant channels configured for use of voice / data / video exchange, protection, Tele-protection / SPS to respective RLDC (SLDC as the case may be) on monthly basis incorporating the details of new channels configured during previous month. The total number of communication channels (N) is based on the requirement of RLDCs/NLDC and the same would be decided in consultation with respective RPCs/NPC.

b) CTU (or STU as the case may be) shall be responsible for submission of the performance/availability of configured channels of the previous month to respective RLDCs for verification by RLDCs and onward submission to respective RPC for computation of availability of the communication system for previous month.

c) CTU (or STU as the case may be) shall submit availability reports of configured channel including the redundant channels in format prescribed by RLDC/RPC, generated from the centralized NMS. The availability report of the call logging facility (with time stamp) may be provided till commissioning of centralized NMS for availability computation.

## 4. TREATMENT OF COMMUNICATION SYSTEM OUTAGES:

4.1 Outage time of communication system elements (i.e. channels) due to acts of God and force majeure events beyond the control of the communication provider shall be considered as deemed available. However, onus of satisfying the Member Secretary, RPC that element outage was due to aforesaid events shall rest with the communication provider.

4.2 Any outage of duration more than one (01) minute in a time-block shall be considered as not available for the whole time-block. Any outage of duration less than or equal to one (01) minute in a time-block shall be treated as deemed available provided such outages are not more than ten (10) times in a day.

Illustration: If a channel is out for a duration less than or equal to one (01) minute in a time-block, and such outages are more than ten (10) times in a day, all the time-blocks with such outages shall be treated as not available.

4.3 All other outages not covered under 4.1 and 4.2 shall be considered as not available during the whole block for the computation of channel availability.

## 5. METHODOLOGY FOR COMPUTATION OF AVAILABILITY OF COMMUNICATION SYSTEM:

5.1 Availability of Communication System **($A_{CS}$)** shall be calculated as under:

$$A_{CS} = \frac{\sum_{i=1}^{N} A_i}{N}$$

Where - $N$ is total number of communication channels as specified in 3.4(a) above.

- $A_i$ is Availability of $i^{th}$ Channel which shall be calculated as given in 5.2 below.

5.2 Availability of $i^{th}$ Channel ($A_i$) shall be arrived as under:

$$A_i = \frac{B_T - B_{Ni}}{B_T} \times 100$$

Where $B_T$ is Total number of time-blocks in a month

$B_{Ni}$ is the total number of time-blocks, in which $i^{th}$ *channel was not available after considering deemed availability status of 4.1 & 4.2 above.*

$B_{Ni} = B_{ANi} - B_{Gi} - B_{LTTi}$,

Where-$B_{ANi}$ is absolute number of time-blocks in which the $i^{th}$ channel was 'not available' on account of any reason.

-$B_{Gi}$ is Number of time-blocks out of $B_{ANi}$, in which $i^{th}$ *channel was 'not available' on account of act of God as specified in 4.1 above.*

-$B_{LTTi}$ is Number of time-blocks out of $B_{ANi}$, in which $i^{th}$ *channel was 'not available' for a duration less than or equal to one (01) minute in a time-block and not more than ten (10) times in a day as specified in 4.2 above.*

***Illustrations:***

**Case1**: If there are 2880 time-blocks ($B_T$) in a month, and a particular channel is not available for a total of 70 time-blocks; and out of this, the above mentioned channel was not available for 20 ($B_{Gi}$) time-blocks due to act of God, six (06) time-blocks for less than one (01) minute ($B_{LTTi}$), then $B_{ANi}$=70, $B_{LTTi}$ =06, $B_{Ni}$ =70-20-06 = 44, and $A_i$ = (2880-44)/2880 = 98.47%

**Case 2:** If there are 2880 time-blocks ($B_T$) in a month, and a particular channel is not available for a total of 70 time-blocks; and out of this, the above mentioned channel was not

available for 20 ($B_{Gi}$) time-blocks due to act of God, 11 time-blocks for less than 1 minute, then $B_{ANi}$=70, $B_{LTTi}$ = 0, $B_{Ni}$=70-20-0=50, and $A_i$ = (2880-50)/2880 = 98.26%.

## 6. Revision of these Guidelines

6.1 As and when required, these Guidelines shall be reviewed and revised by NPC with the approval of the Commission.

***

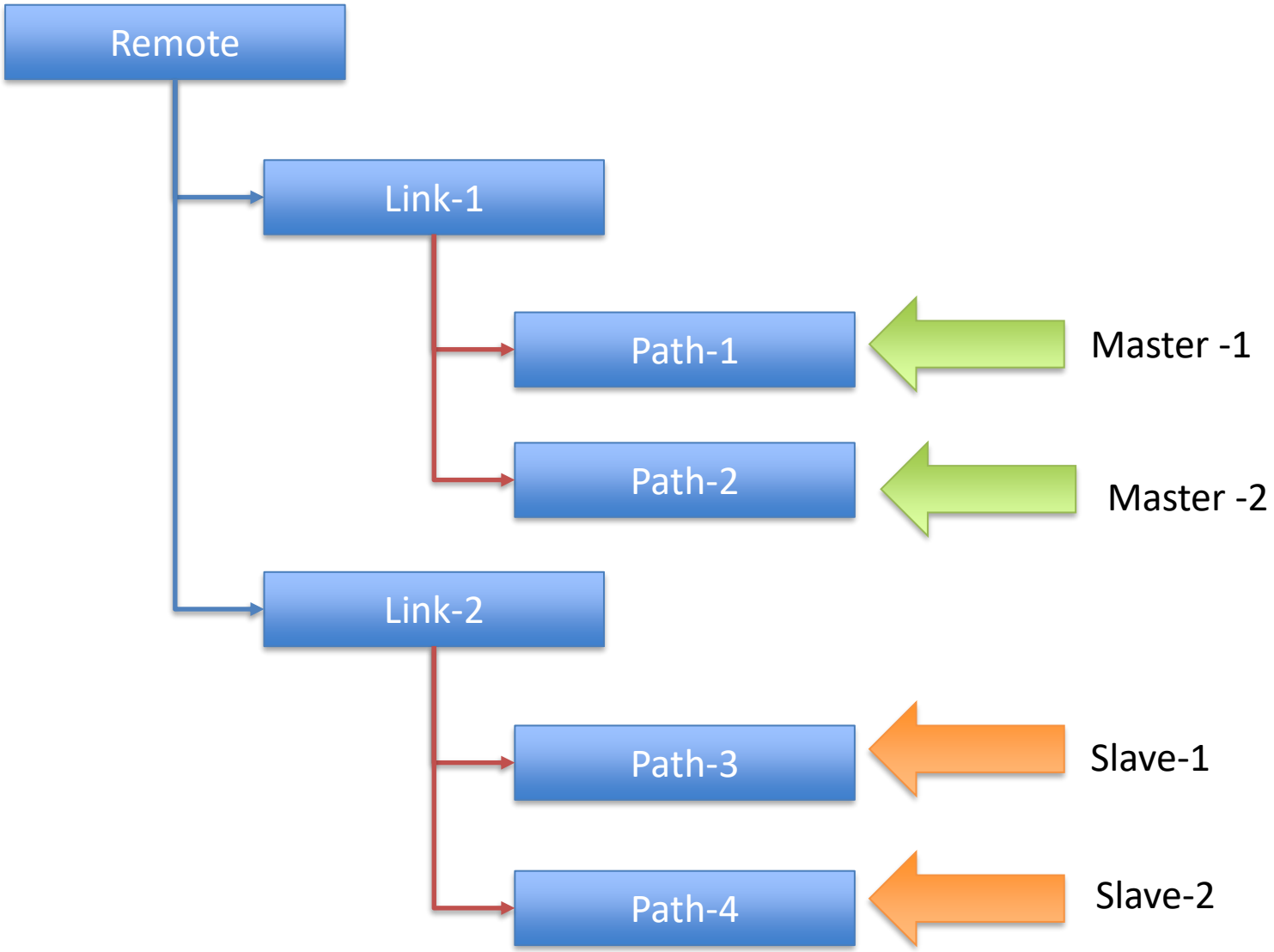
# GE ICCP Link & Path Configuration

## Dual Direction vs Single Direction Association

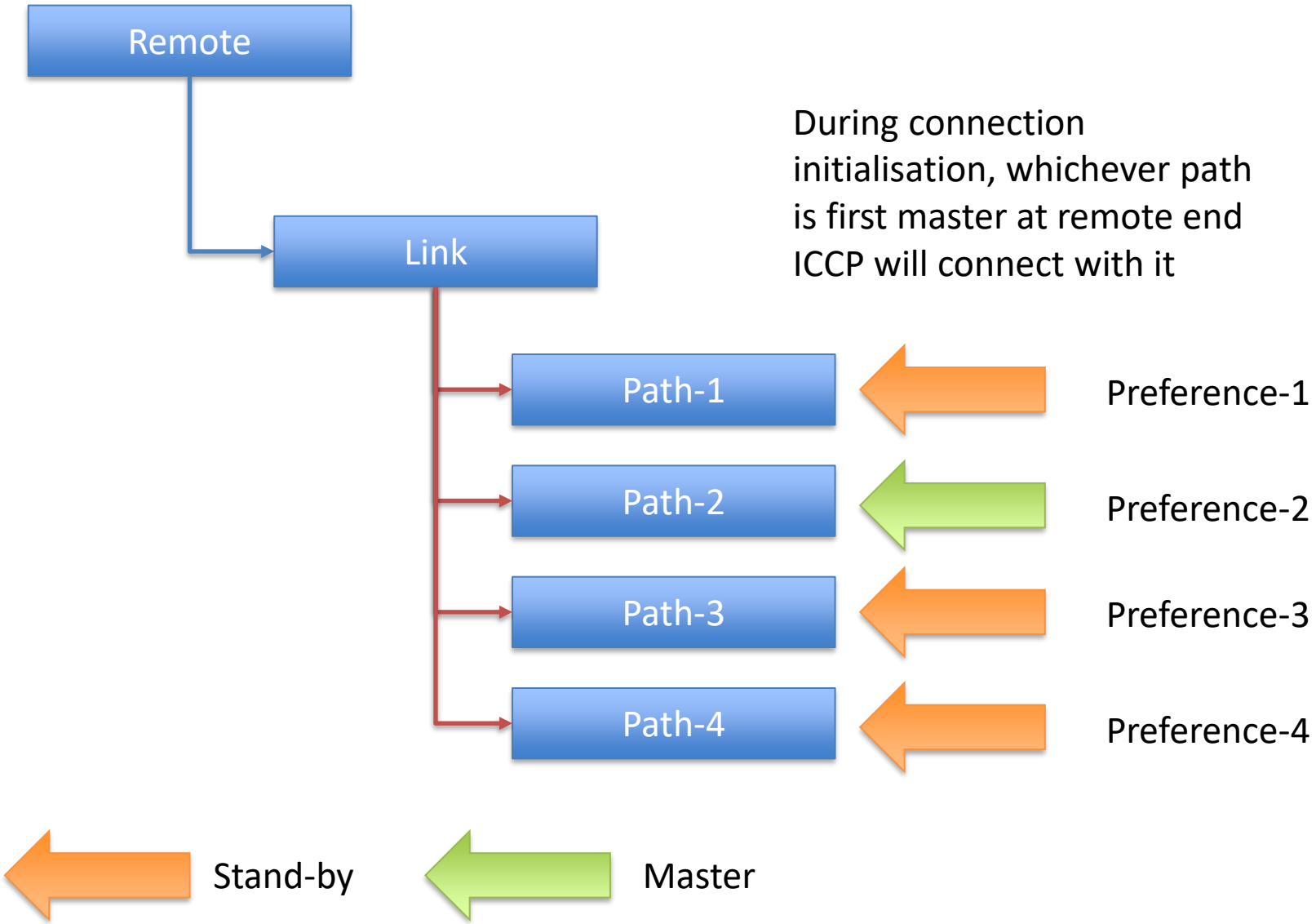
# Introduction to ICCP

- ICCP (TASE.2 / IEC 60870-6-503) is used for real-time data exchange between Control Centre.
- GE Hierarchy: Remote → Link → Path
- Remote – Name Field specifying the name of Remote Control Centre
  - Link – It's a Logical connection: If remote CC has more than one servers then this is defined.
    - Path – TCP/IP communication path (end servers)
- Type of Associations –
  - Single direction: Data is exchanged from Master to Client or vice versa
  - Dual direction: Both ends exchange data and there is no master. Only one end initiate the connection.

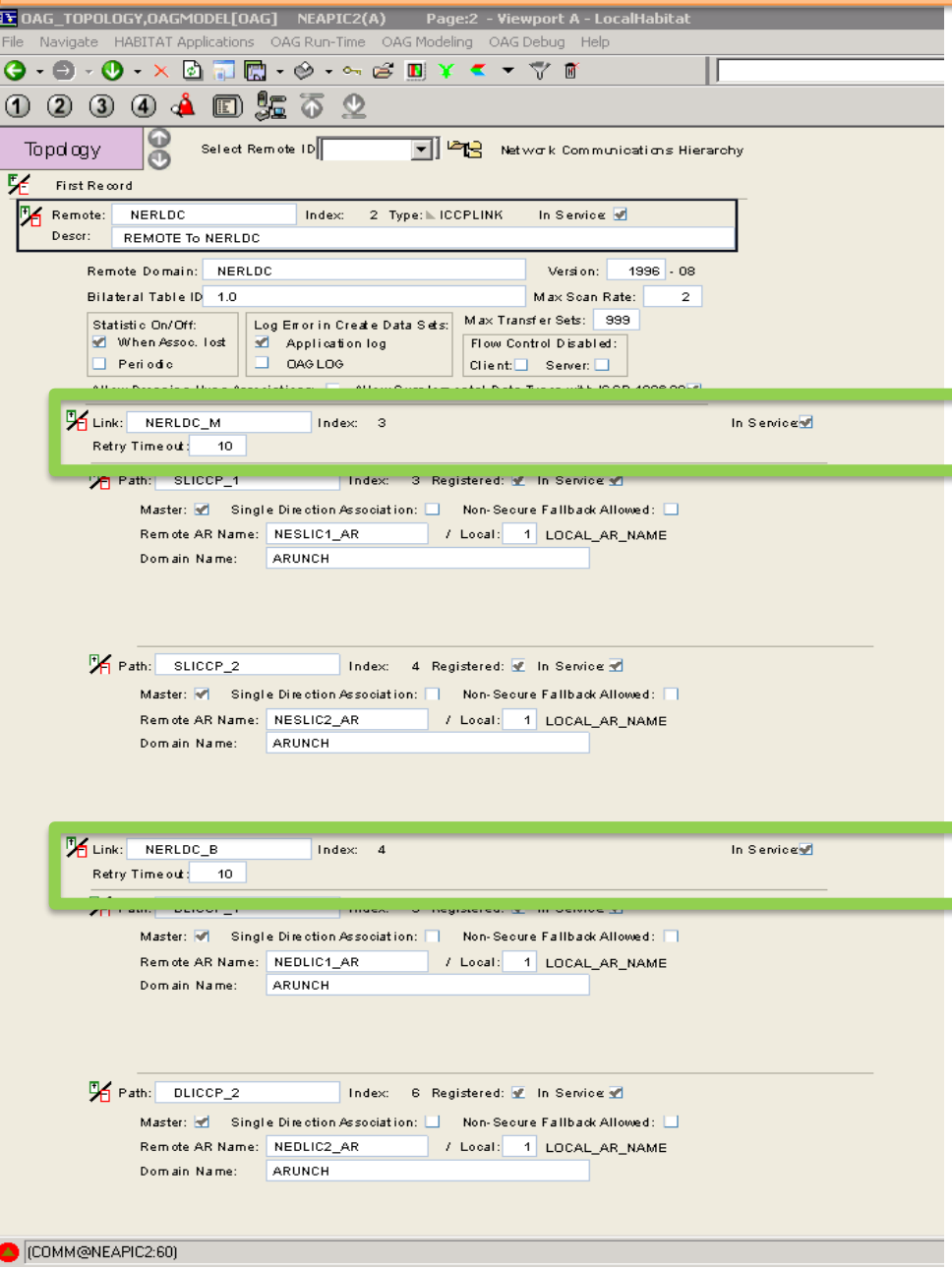
# GE configuration for Single Direction Association



# GE configuration for Dual Direction Association



# Existing ICCP Configuration




**Ideal for single direction path,**
**but why GE configured for dual direction at the time of project implementation??**

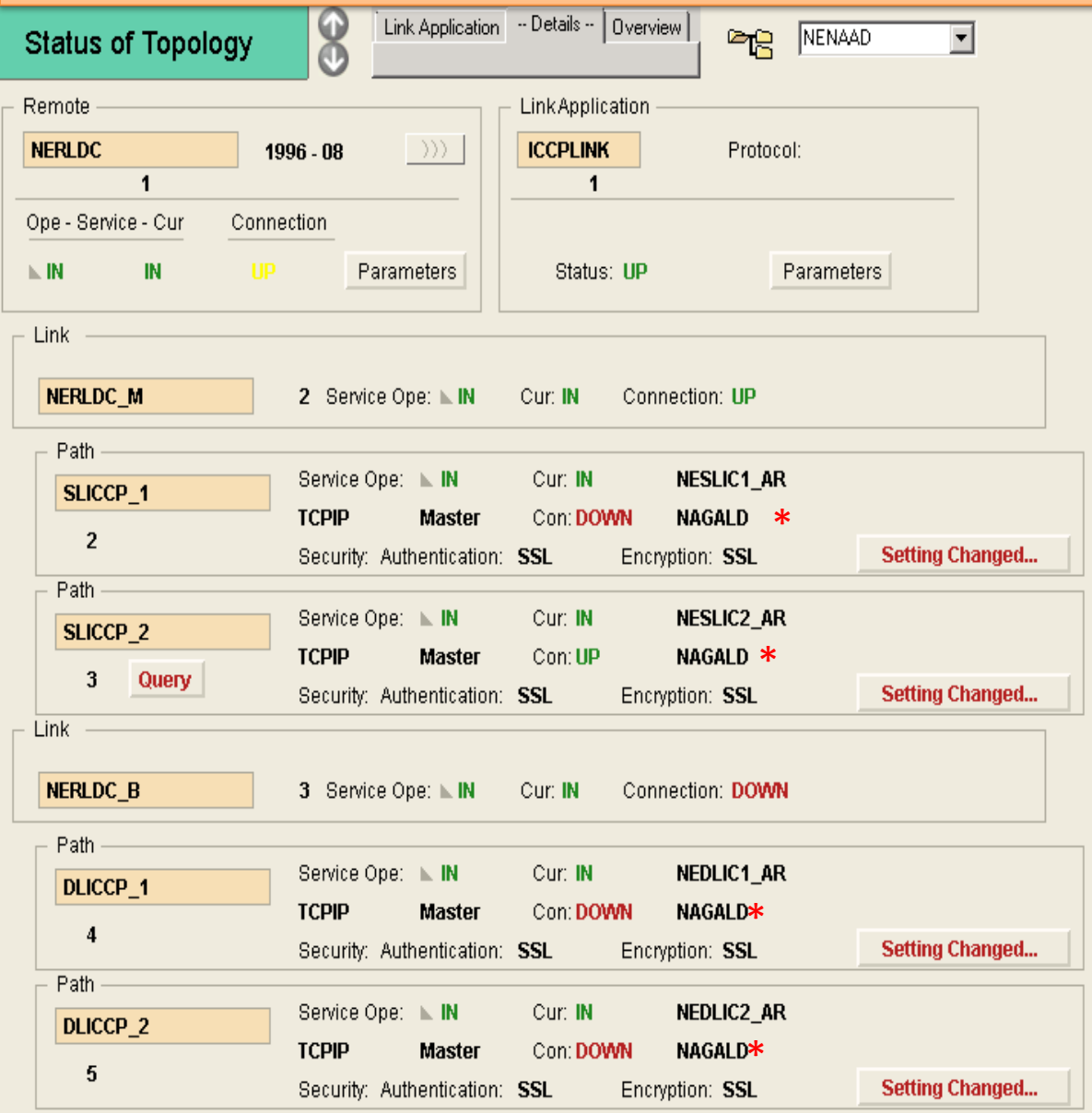
**With this configuration manual switching was required**

Shillong

Two different Links

Guwahati

# Existing ICCP Configuration in Online

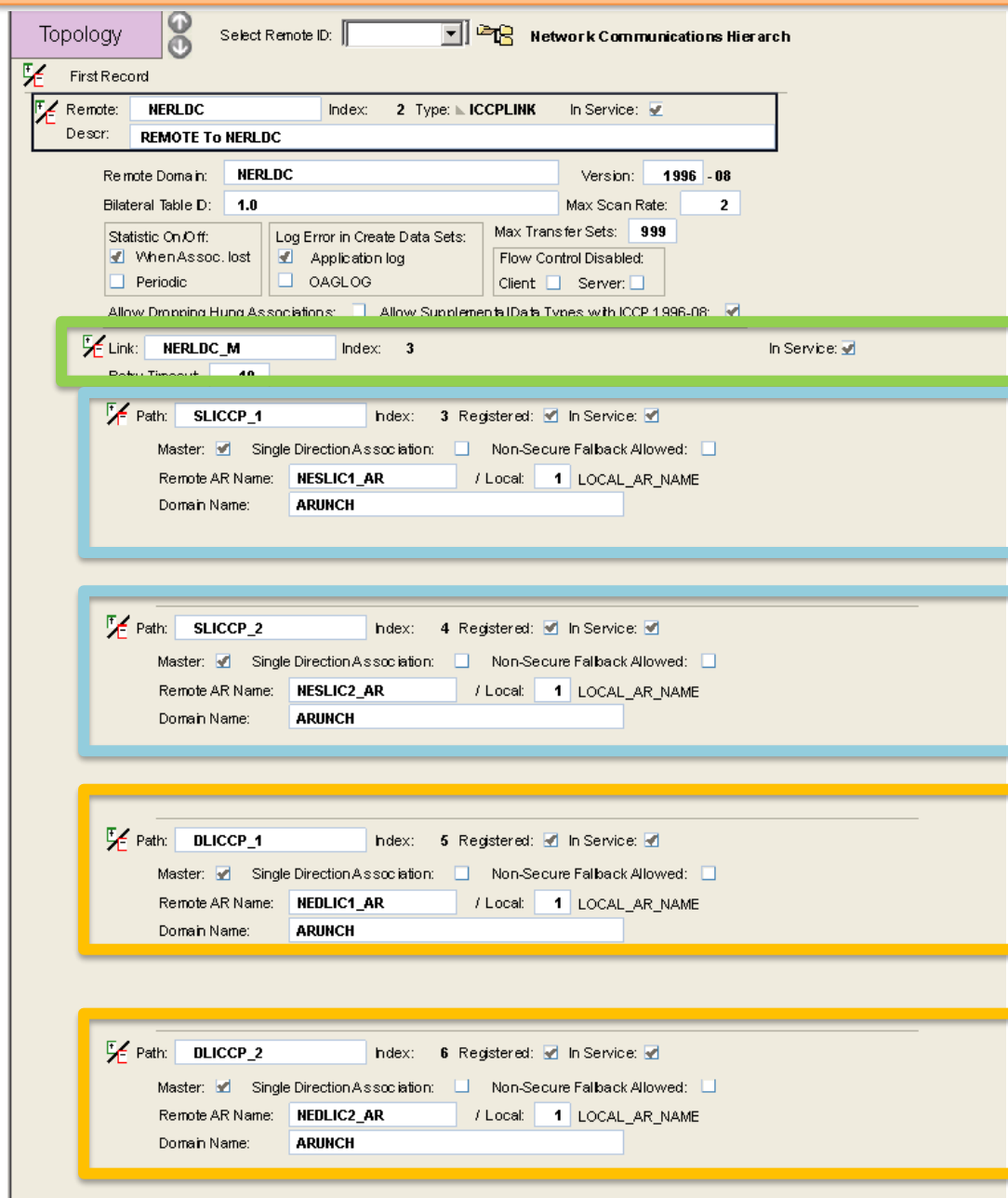



Only works if remote at Guwahati is kept down.
During the transition, we manually UP remote from Guwahati
And manually DOWN remote from Shillong.

If remote is kept UP in Shillong and Guwahati, the connection fluctuates and data also fluctuates at NERLDC.
Whereas in SLDC it completely stops reporting.

*: NAGALAND snap taken as new settings already implemented in Arunachal

# New ICCP Configuration




**Ideal for dual direction path, Now this helps in automatic switching between GHY and SHL IC**

One link

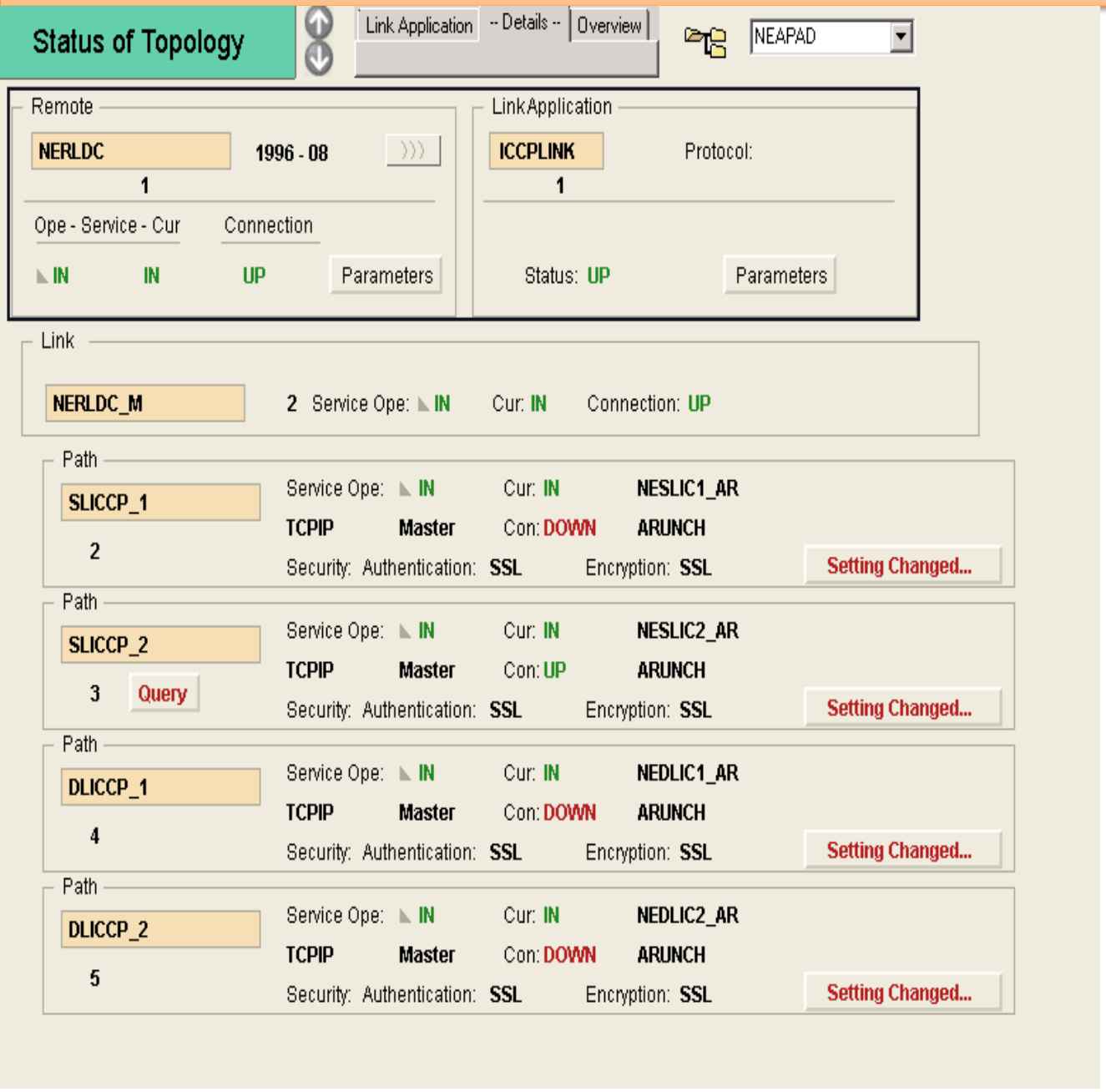
Shillong ICCP-1

Shillong ICCP-2

Guwahati ICCP-1

Guwahati ICCP-2

# New ICCP Configuration in Online




Works if remote is kept UP at both Guwahati & Shillong. During the transition, if Shillong gets down then ICCP will connect with Guwahati and vice versa.

**संदर्भ संक्या:** एनईआरएलडीसी/एसएल/ओटी/संचार/जनवरी'26/8778 **दिनांक:** 20/01/2026

प्रति,
मुख्य महाप्रबंधक (ए.एम. एवं यूएलडीसी)
उ. पू. क्षे. सं. प्र., पावर ग्रिड कॉरपोरेशन ऑफ इंडिया लिमिटेड (पीजीसीआईएल), लापालांग, शिलांग
पिन कोड: 793006
**कृपया ध्यान दें:** श्री मनीष तिवारी

प्रति,
मुख्य महाप्रबंधक (यूएलडीसी), पू. क्षे. -II, पावर ग्रिड कॉरपोरेशन ऑफ इंडिया लिमिटेड (पीजीसीआईएल), स्ट्रीट CF-17, संख्या 240, CF ब्लॉक (न्यूटाउन), एक्शन एरिया-1C, न्यू टाउन, पश्चिम बंगाल – 700107
**कृपया ध्यान दें:** श्री सोमनाथ नायक

**विषय: 400 के.वी. बिन्नागुड़ी–बोंगाईगांव लाइन पर उपलब्ध OPGW एवं संचार उपकरणों के उपयोग द्वारा संचार लिंक रेडंडेंसी हेतु अनुरोध**

महोदय,

यह पत्र उत्तर-पूर्वी क्षेत्र (उ.पू.क्षे.), पूर्वी क्षेत्र (पू.क्षे.) एवं उत्तरी क्षेत्र (उ.क्षे.) के मध्य आईसीसीपी एवं एजीसी संचार लिंक में बार-बार देखी जा रही अस्थिरता एवं बैंडविड्थ उतार-चढ़ाव के संदर्भ में है, जो सुरक्षित एवं विश्वसनीय ग्रिड संचालन के लिए अत्यंत महत्वपूर्ण हैं। उक्त विषय की जानकारी पूर्व में संलग्न ई-मेल (***अनुलग्नक-1***) के माध्यम से दी जा चुकी है।

उ.पू.क्षे.भा.प्र.के. के संज्ञान में आया है कि वर्तमान में उ.पू.क्षे. से राष्ट्रीय भार प्रेषण केंद्र/ बैक-अप राष्ट्रीय भार प्रेषण केंद्र की ओर जाने वाली समस्त संचार सेवाएँ केवल 220 के.वी. सलकाटी – अलीपुरद्वार कॉरिडोर पर आधारित एकल संचार पथ के माध्यम से संचालित की जा रही हैं, जिससे एक गंभीर *विफलता का बिंदु* की स्थिति उत्पन्न हो रही है। इस कॉरिडोर में किसी भी प्रकार की बाधा की स्थिति में मुख्य एवं सुरक्षा दोनों प्रकार के आईसीसीपी एवं एजीसी लिंक एक साथ प्रभावित हो जाते हैं। इस प्रकार की आकस्मिकता कई अवसरों पर देखी जा चुकी है तथा मई-2025 से समय-समय पर अवगत कराया जाता रहा है।

हालाँकि, संलग्न ईआरपीसी रिपोर्ट (***अनुलग्नक-2***) के अनुसार, पूर्व में 400 के.वी. बोंगाईगांव–बिन्नागुड़ी के माध्यम से एक वैकल्पिक संचार पथ उपलब्ध था, जिसका उपयोग किया जा रहा था। रिपोर्ट में यह भी दर्ज है कि पॉवरटेल द्वारा 400 के.वी. बोंगाईगांव–बिन्नागुड़ी लाइन पर ओपीजीडब्ल्यू बिछाई गई थी तथा उ.पू.क्षे. – पू.क्षे. कॉरिडोर में डेटा साझा करने हेतु छह (06) ऑप्टिकल फाइबर का उपयोग किया जा रहा था। उ.पू.क्षे.भा.प्र.के. द्वारा 32वीं NETeST बैठक में पावरग्रिड से उक्त संसाधनों के उपयोग हेतु अनुरोध किया गया था, जिसके संबंधित कार्यवृत्त (मिनट) ***अनुलग्नक-3*** के रूप में संलग्न हैं।

केंद्रीय विद्युत विनियामक आयोग संचार विनियम, 2017 के अनुसार, सभी परिचालन संचार सेवाएँ 100% विश्वसनीयता के साथ रेडंडेंट एवं भौतिक रूप से विविध संचार पथों के माध्यम से उपलब्ध होनी चाहिए। वर्तमान एकल-पथ निर्भरता, उक्त विनियमों के अनुरूप नहीं है तथा इससे ग्रिड संचालन अनावश्यक जोखिम के प्रति संवेदनशील हो जाता है।

इस विषय की गंभीरता इस कारण और बढ़ जाती है कि निकट भविष्य में उ.पू.क्षे.भा.प्र.के. गुवाहाटी में बैक-अप उ.क्षे.भा.प्र.के. एवं बैक-अप पू.क्षे.भा.प्र.के. की होस्टिंग प्रस्तावित है, जिससे अंतर-क्षेत्रीय संचार कॉरिडोरों पर विश्वसनीय एवं रेडंडेंट संचार की निर्भरता और अधिक बढ़ जाएगी।

उपरोक्त के दृष्टिगत, पावरग्रिड से अनुरोध है कि कृपया निम्नलिखित बिंदुओं पर आवश्यक कार्रवाई करने का कष्ट करें:

1. बोंगाईगांव–बिन्नागुड़ी कॉरिडोर पर उपलब्ध ओपीजीडब्ल्यू एवं संबंधित संचार उपकरणों के शीघ्र उपयोग / बहाली की प्रक्रिया को त्वरित किया जाए।
2. सलकाटी – अलीपुरद्वार के एकमात्र मार्ग पर निर्भरता समाप्त करते हुए, भौतिक रूप से विविध एवं रेडंडेंट आईसीसीपी एवं एजीसी संचार पथ स्थापित किया जाए।
3. शीघ्र परीक्षण एवं कमीशनिंग हेतु पॉवरटेल तथा संबंधित यूएलडीसी / टेलीकॉम टीमों के साथ समन्वय किया जाए।

100% उपलब्धता की नियामकीय अनिवार्यता तथा आईसीसीपी एवं एजीसी संचार की अत्यधिक संवेदनशीलता को ध्यान में रखते हुए, इस विषय को *अत्यावश्यक* मानते हुए शीघ्र कार्रवाई करने का कष्ट करें।

धन्यवाद।

भवदीय,

सौगतो मोंडल
महाप्रबंधक (लॉजिस्टिक्स)
उत्तर-पूर्वी क्षेत्रीय भार प्रेषण केंद्र
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड (ग्रिड - इंडिया)

**प्रतिलिपि (ई-मेल द्वारा):**

1. सदस्य सचिव, NERPC, शिलांग
2. कार्यपालक निदेशक, राष्ट्रीय भार प्रेषण केंद्र, दिल्ली
3. कार्यपालक निदेशक, उ.पू.क्षे.भा.प्र.के.
4. कार्यपालक निदेशक, उ.पू.क्षे.सं. प्र., पावरग्रिड
5. कार्यपालक निदेशक, पू.क्षे. -II, पावरग्रिड
6. मुख्य महाप्रबंधक, लॉजिस्टिक्स, उ.पू.क्षे.भा.प्र.के.

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[Formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र/ North Eastern Regional Load Despatch Centre
कार्यालय: लोअर नोंगराह, लापलांग, शिलांग- 793006(मेघालय)
Office: Lower Nongrah, Lapalang, Shillong- 793006 (Meghalaya)
CIN:U40105DL2009GOI188682, Website: www.nerldc.in, E-mail: nerldc@grid-india.in,Tel:0364-2537470/427,Fax:03642537486

**Ref No:** NERLDC/SL/OT/Communication/Jan'26/8778 **Date:** 20/01/2026

To,
The Chief General Manager (AM & ULDC)
NERTS, Power Grid Corporation of India Limited (PGCIL),
Lapalang, Shillong
Pin Code: 793006
Kind Attention: Shri Manish Tiwari

To,
The Chief General Manager (ULDC)
ER-II, ERTS, Power Grid Corporation of India Limited
(PGCIL), Street CF-17, Number 240, CF Block (Newtown),
Action Area 1C, New Town, West Bengal 700107
Kind Attention: Shri Somanath Nayak

**Subject: Request for utilisation of available OPGW and communication equipment on 400 kV Binaguri–Bongaigaon line for communication link redundancy**

Sir,

This is with reference to the recurring instability and bandwidth fluctuation observed in ICCP and AGC communication links between NER-ER-NR, which are critical for secure and reliable grid operation. The same had been communicated over email attached as (***Annexure-1***).

It has come to the notice of NERLDC that currently all communication services emanating from NER towards NLDC / Backup NLDC are routed through a single communication path over the 220 kV Salakati (PG) – Alipurduar corridor, resulting in a significant single-point-of-failure. Any impairment on this corridor leads to simultaneous impact on both Main and Protection ICCP and AGC links. Same contingency had been observed on multiple occasions, and being communicated time to time since May-2025.

However, as per the attached ERPC report (***Annexure-2***), an alternate path from 400 kV Bongaigaon-Binaguri was available earlier and was being utilised. The attached report also records that POWERTEL had laid OPGW on the 400 kV Bongaigaon–Binagur line and six (06) optical fibres were being used for data sharing in the NER–ER corridor. NERLDC requested POWERGRID to utilise the same in 32nd NETeST meeting, relevant minutes attached as (***Annexure-3).***

The CERC Communication Regulations, 2017 mandate that all operational communication services shall be available with 100% reliability through redundant and physically diverse communication paths. The present single-path dependency is therefore not in line with the regulatory requirement and exposes grid operation to avoidable risk.

The criticality of this issue is further accentuated as NERLDC Guwahati is envisaged to host Backup NRLDC as well as Backup ERLDC in the near future, which will significantly increase dependency on reliable and redundant inter-regional communication corridors.

In view of the above, POWERGRID is requested to kindly:

1. Expedite utilisation / restoration of OPGW and associated communication equipment on the Bongaigaon–Binaguri corridor.

2. Establish a physically diverse and redundant ICCP and AGC communication path, eliminating dependence on the sole Salakati (PG) – Alipurduar route.

3. Coordinate with POWERTEL and concerned ULDC / telecom teams for early testing and commissioning.

Considering the regulatory mandate of 100% availability and the criticality of ICCP and AGC communication, the matter may kindly be treated as urgent.

Thanking you.

Yours sincerely,

Saugato Mondal
General Manager (Logistics)
North Eastern Regional Load Despatch Centre
Grid Controller of India Limited (Grid-India)

Copy To (E-mail):

1. Member Secretary, NERPC Shillong
2. Executive Director, NLDC Delhi
3. Executive Director, NERLDC
4. Executive Director, NERTS, PGCIL
5. Executive Director, ER-II, PGCIL
6. Chief General Manager, Logistics, NERLDC

Annexure-1

# RE: Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,

Sakal Deep (सकल दीप)

Tue 23-12-2025 17:21

To:Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>;

Cc:Sajan George (सजन जार्ज) <sajan@grid-india.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; B S Roy (बी एस रॉय) <bsroy@grid-india.in>; Manish Kumar Tiwari {मनीष कुमार तिवारी} <manish.tiwari@powergrid.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; Kamlesh Baishya {कमलेश Baishya} <kamlesh156@powergrid.in>; Kaushal Suman {कौशल सुमन} <k.suman@powergrid.in>;

Sir,

We once again request to kindly re-establish the Bongiagoan - Binaguri -1 OPGW link along with appropriate equipment for ER- NER corridor as currently NER is currently connected with single ER (Alipurdwar) node.

Submitted for your kind consideration.

Regards,
Sakal Deep/सकल दीप
North Eastern Regional Load Despatch Centre/उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
**(A Government of India Enterprise) / (भारत सरकार का उद्यम)**

---

**From:** Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>
**Sent:** 26 May 2025 14:55
**To:** Sakal Deep (सकल दीप) <skldeep@grid-india.in>; Kaushal Suman {कौशल सुमन} <k.suman@powergrid.in>
**Cc:** Amaresh Mallick (अमरेश मल्लिक) <amareshmallick@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Rajesh Gupta {राजेश गुप्ता} <rajeshgupta@powergrid.in>; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन} <bhaskarjyotigohain@powergrid.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; B S Roy (बी एस रॉय) <bsroy@grid-india.in>; Madhusudan Dutt {एम. दत्त} <msdutt@powergrid.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; NLDC SCADA <nldc-scada@grid-india.in>; Doman Yadav {दोमन यादव} <dyadav@powergrid.in>; Arun Kumar Singh {ए.के. सिंह} <singh_ak@powergrid.in>; Anjan Kumar Das {अंजन कुमार दास} <anjandas@powergrid.in>; Navodit Hyanki {नवोदित हयांकी} <navodit@powergrid.in>; Gottumukkala Sudhakar <gsudhakar@grid-india.in>; Ankur Gulati (अंकुर गुलाटी) <ankurgulati@grid-india.in>; Kamlesh Baishya {कमलेश Baishya} <kamlesh156@powergrid.in>
**Subject:** Re: Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,



Dear Sir,
Matter may kindly be taken up with CTU as CTU is planning schemes for ISTS for approval for implementation.

सादर धन्यवाद/ Best Regards

सांतनु रुद्रपाल / Santanu Rudrapal

उप महाप्रबंधक / Dy. General Manager

एकीकृत भार प्रेषण और संचार / Unified Load Despatch & Communication (ULDC)

पूर्वी क्षेत्र-II, क्षेत्रीय मुख्यालय, कोलकाता/ERTS-II, RHQ-Kolkata,

पावर ग्रिड कारपोरेशन ऑफ इँडिया लिमिटेड/Power Grid Corporation of India Ltd.

Address: CF-17, Action Area-1C, New Town, Kolkata-700156 (WB)

Mobile: 9434735848
Email: santanu.rudrapal@powergrid.in

---

**From:** Sakal Deep (सकल दीप) <skldeep@grid-india.in>
**Sent:** Friday, May 23, 2025 7:25 PM
**To:** Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>; Kaushal Suman {कौशल सुमन} <k.suman@powergrid.in>
**Cc:** Amaresh Mallick (अमरेश मल्लिक) <amareshmallick@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Rajesh Gupta {राजेश गुप्ता} <rajeshgupta@powergrid.in>; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन} <bhaskarjyotigohain@powergrid.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; B S Roy (बी एस रॉय) <bsroy@grid-india.in>; Madhusudan Dutt {एम. दत्त} <msdutt@powergrid.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; NLDC SCADA <nldc-scada@grid-india.in>; Doman Yadav {दोमन यादव} <dyadav@powergrid.in>; Arun Kumar Singh {ए.के. सिंह} <singh_ak@powergrid.in>; Anjan Kumar Das {अंजन कुमार दास} <anjandas@powergrid.in>; Navodit Hyanki {नवोदित हयांकी} <navodit@powergrid.in>; Gottumukkala Sudhakar <gsudhakar@grid-india.in>; Ankur Gulati (अंकुर गुलाटी) <ankurgulati@grid-india.in>; Kamlesh Baishya {कमलेश Baishya} <kamlesh156@powergrid.in>; Kaushal Suman {कौशल सुमन} <k.suman@powergrid.in>
**Subject:** Re: Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,

Sir,

As per your trailing mail, it is mentioned that since OPGW is old, it will be replaced post-NCT approval. Further, you mentioned that as the link length is significant, it requires a repeater/additional SDH for operation. However, the placement of SDH/FOTE/repeater is not approved in the 53rd RPC meeting, as per inputs from PGCIL that the same is not required.

As the NCT meeting is scheduled on 30th May 2025, kindly clarify on an urgent basis why SDH/repeater/FOTEs are not kept for the said link. If SDH/repeater/FOTEs are included in some other scheme, kindly specify the same.

CTU is also requested to look into the matter on an urgent basis.

The relevant minutes of the 53rd ERPC meeting are attached.

Regards,

Sakal Deep (सकल दीप)
North Eastern Regional Load Despatch Centre
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
(Formerly known as Power System Operation Corporation Ltd)
**(A Government of India Enterprise)**

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**From:** Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>
**Sent:** 19 May 2025 19:05
**To:** Sakal Deep (सकल दीप)
**Cc:** Amaresh Mallick (अमरेश मल्लिक); S Usha (एस उषा); Rajesh Gupta {राजेश गुप्ता}; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन}; S P Barnwal (एस पी बर्नवाल); B S Roy (बी एस रॉय); Madhusudan Dutt {एम. दत्त}; Saugato Mondal (सौगाता मंडल); NERLDC SCADA; NLDC SCADA; Doman Yadav {दोमन यादव}; Arun Kumar Singh {ए.के. सिंह}; Anjan Kumar Das {अंजन कुमार दास}; Navodit Hyanki {नवोदित हयांकी}; Gottumukkala Sudhakar; Ankur Gulati (अंकुर गुलाटी); Kamlesh Baishya {कमलेश Baishya}
**Subject:** Re: Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,



Dear Sir,
Binaguri-Bongaigaon link is more than 225Km long which requires Repeater/additional SDH for operation. Further, link-loss is higher in this old link and accordingly, OPGW laying was proposed by CTU in last 53rd ERPC meeting held on 11.02.2025. Implementation will be taken up as per recommendation & timeline in NCT.

सादर धन्यवाद/ Best Regards

सांतनु रुद्रपाल / Santanu Rudrapal

उप महाप्रबंधक / Dy. General Manager

एकीकृत भार प्रेषण और संचार / Unified Load Despatch & Communication (ULDC)

पूर्वी क्षेत्र-II, क्षेत्रीय मुख्यालय, कोलकाता/ERTS-II, RHQ-Kolkata,

पावर ग्रिड कारपोरेशन ऑफ इँडिया लिमिटेड/Power Grid Corporation of India Ltd.

Address: CF-17, Action Area-1C, New Town, Kolkata-700156 (WB)

Mobile: 9434735848
Email: santanu.rudrapal@powergrid.in

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**From:** Sakal Deep (सकल दीप) <skldeep@grid-india.in>
**Sent:** Friday, May 16, 2025 8:32 PM
**To:** Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>
**Cc:** Amaresh Mallick (अमरेश मल्लिक) <amareshmallick@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Rajesh Gupta {राजेश गुप्ता} <rajeshgupta@powergrid.in>; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन} <bhaskarjyotigohain@powergrid.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; B S Roy (बी एस रॉय) <bsroy@grid-india.in>; Madhusudan Dutt {एम. दत्त} <msdutt@powergrid.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; NLDC SCADA <nldc-scada@grid-india.in>; Doman Yadav {दोमन यादव} <dyadav@powergrid.in>; Arun Kumar Singh {ए.के. सिंह}

<singh_ak@powergrid.in>; Anjan Kumar Das {अंजन कुमार दास} <anjandas@powergrid.in>; Navodit Hyanki {नवोदित हयांकी} <navodit@powergrid.in>; Gottumukkala Sudhakar <gsudhakar@grid-india.in>; Ankur Gulati (अंकुर गुलाटी) <ankurgulati@grid-india.in>; Kamlesh Baishya {कमलेश Baishya} <kamlesh156@powergrid.in>
**Subject:** Re: Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,

Dear Sir,

Gentle reminder-1.

We still awaits for your response.

Regards,
Sakal Deep (सकल दीप)
North Eastern Regional Load Despatch Centre
Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(Formerly known as Power System Operation Corporation Ltd)
(A Government of India Enterprise)

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**From:** Sakal Deep (सकल दीप) <skldeep@grid-india.in>
**Sent:** Monday, May 12, 2025 1:29:21 PM
**To:** Santanu Rudrapal {सान्तनू रुद्रपाल} <santanu.rudrapal@powergrid.in>
**Cc:** Amaresh Mallick (अमरेश मल्लिक) <amareshmallick@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Rajesh Gupta {राजेश गुप्ता} <rajeshgupta@powergrid.in>; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन} <bhaskarjyotigohain@powergrid.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; B S Roy (बी एस रॉय) <bsroy@grid-india.in>; Madhusudan Dutt {एम. दत्त} <msdutt@powergrid.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; NLDC SCADA <nldc-scada@grid-india.in>; Doman Yadav {दोमन यादव} <dyadav@powergrid.in>; Arun Kumar Singh {ए.के. सिंह} <singh_ak@powergrid.in>; Anjan Kumar Das {अंजन कुमार दास} <anjandas@powergrid.in>; Navodit Hyanki {नवोदित हयांकी} <navodit@powergrid.in>; Gottumukkala Sudhakar <gsudhakar@grid-india.in>; Ankur Gulati (अंकुर गुलाटी) <ankurgulati@grid-india.in>; Kamlesh Baishya {कमलेश Baishya} <kamlesh156@powergrid.in>; Bhaskar Jyoti Gohain {भास्कर ज्योति गोहेन} <bhaskarjyotigohain@powergrid.in>
**Subject:** Request for restoration of Bongiagoan-Binaguri -1 OPGW link for ER- NER corridor,

Dear Sir,

It has come to the notice of NERLDC that all the services emanating from NER towards NLDC/Backup NLDC are using single path which is Salakati (PG) - Alipurduar. Howerver, as per knowledge of NERLDC, there is one more path from Bongaigaon (PG) to Binaguri - 1, which was also being utilised earlier.

The relevant ERPC report is also attached for your reference, which mentions that POWERTEL laid the OPGW on Bongaigoan - Binaguri -1 and six number of fibres were being used for data sharing in NER - ER corridor.

Hence, it is requested that the status of OPGW connectivity between Bongaigoan - Binaguri be provided.

Further, it is requested to utilise the Bongaigoan - Binaguri - 1 OPGW connectivity by diverting the following services over it:

1. VLAN 2005: NERLDC Shillong to NLDC Delhi
2. VLAN 743: NERLDC Shillong to Backup NLDC Kolkata
3. VLAN 2006: NERLDC Guwahati to NLDC Delhi
4. VLAN 985: NERLDC Guwahati to Backup NLDC Kolkata
5. AGC Link - 2 of NTPC BgTPP up to NLDC Delhi
6. AGC Link - 2 of Kopili up to NLDC Delhi
7. AGC Link - 2 of Loktak up to NLDC Delhi.

Kindly provide the necessary information at earliest.

Regards,
Sakal Deep (सकल दीप)
North Eastern Regional Load Despatch Centre
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
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Annexure-2

Suspension assembly

Down lead clamp

# Report on Strengthening of Inter-regional & Intra-regional OPGW Communication Links for Strengthening of Eastern Region

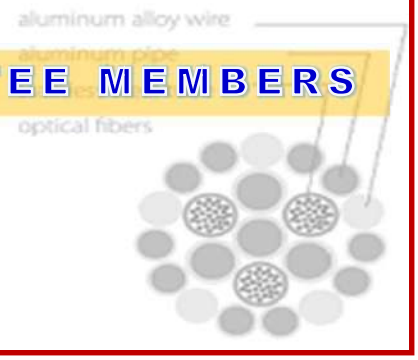
OPGW Cable

Opticla Distribution Frame (ODF)

Patch Cord

Joint Boxes

**Date: 13th November 2019**


**Prepared by: NOMINATED COMMITTEE MEMBERS**

# Contents

# Preface

With the growth in Eastern Regional Grid of Indian Power system, smart technologies are being rolled out in Indian Power System for monitoring and control like AGC, SPS, Digital protection, WAMS and VoIP etc. For smooth running of these applications, it requires reliable and robust communication backbone. Therefore, in 23rd SCADA O & M meeting held on 06th March 2019, it was decided to review the communication network to find out its loopholes to strengthen the inter-regional and intra-regional OPGW back bone in Eastern Region. Accordingly committee was formed to contemplate on requirement of additional Inter-regional & Intra-regional OPGW links for strengthening of Eastern Regional OPGW network.

This report is the consensus of the committee for incorporation of additional inter-regional as well as intra-regional OPGW communication links.

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# Executive Summary

Eastern Regional Grid of Indian Power System is consisting of six (06) constituents namely Bihar, Jharkhand, West Bengal, Odisha, DVC and Sikkim. These Regional Constituents including ERLDC are entrusted to ensure judicious, effective and efficient management of the transmission assets within the region and under their control, without losing the focus of national interest as well the safety, security and reliability of the other regional transmission grids, which are interconnected directly or indirectly with the Grid. Hence, for Grid Operational expediency, ISTS OPGW communication network is in place for seamless transfer of real time data, hot line voice communication, video and Power System control signal transfer from geographically dispersed sub-stations/Generating station to SLDCs/RLDCs/NLDC.

India had witnessed two massive grid disturbances on 30$^{th}$ & 31$^{st}$ July 2012 wherein major parts of Northern, Eastern & North-Eastern Regional affected. Subsequently, it was emphasized to create a back-up control centre at a different location as recommended by Intelligence Bureau. It was also emphasized to implement pan India hot line voice communication covering all generating power plants, sub-stations and control centres.

Many times, it has been felt that our inter-regional corridors are not strong enough and needs to be strengthened. So, in 23$^{rd}$ SCADA O & M meeting, POWERGRID came up with a proposal to strengthen the inter-regional OPGW links along with communication equipment on few important lines which are presently not having OPGW. These will also be required for alternate path / redundancy of ER grid, ER-NR, ER-SR, ER-NER and ER-WR corridors. Accordingly ERPC constituted a committee comprising of members from all state utilities, POWERGRID (ULDC), POWERGRID (LD&C), NLDC, ERLDC and ERPC who can ascertain the requirement after considering the route diversity. The scope of the Committee was assessing the requirement of OPGW link along with communication equipment for important ISTS lines in ER grid and also ER to other regions corridors for reliable communication among them. The committee would deliberate, prepare & submit the report within three months for necessary approval at TCC/ERPC.

Scope of the committee includes identification of the requirement of additional Inter-regional & Intra-regional OPGW communication links along with communication equipment for strengthening of Eastern Regional OPGW network.

According committee has deliberated on various OPGW related matter on 1st OPGW Provisioning Technical Committee Meeting, held on 14th August 2019, and 2nd OPGW Provisioning Technical Committee Meeting, held on 24th October 2019.

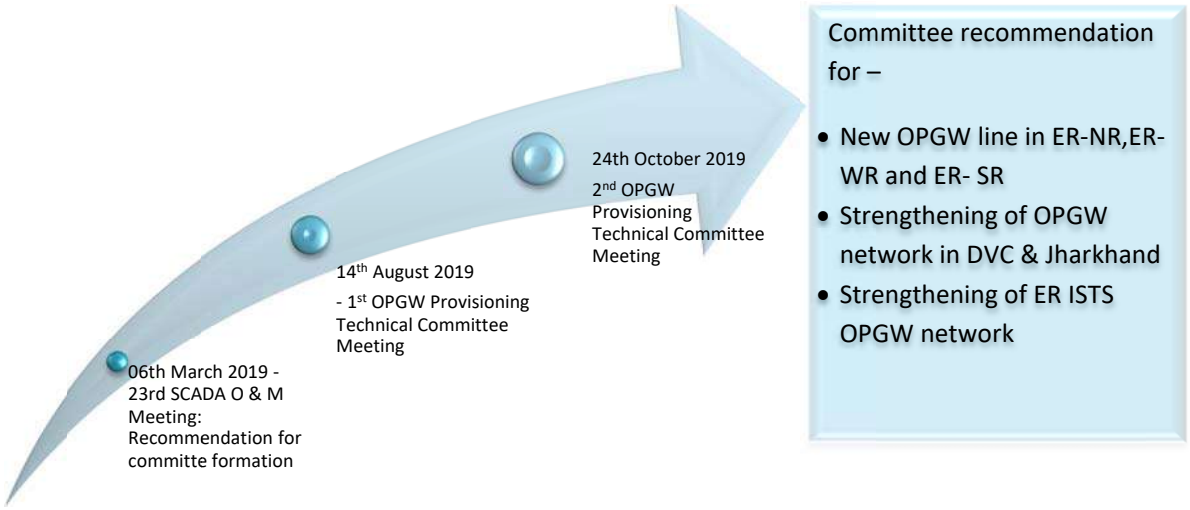


Fig 1: OPGW provisioning technical committee meeting

# 1. Committee Members:

As per deliberation in 23rd SCADA O & M Meeting, held on 24th August 2019, a committee has been formed comprising members from all state utilities, POWERGRID (ULDC), NLDC, ERLDC and ERPC. The list of nominated committee members is mentioned at Annexure – I.

# 2. Scope of the work:

The committee was constituted for deliberation and planning of following OPGW related matters -

- Assessing the requirement of OPGW link along with communication equipment for important ISTS lines in ER grid and inter-regional corridors for reliable communication among SLDCs to ERLDC, NRLDC, WRLDC, SRLDC, NERLDC and NLDC.

# 3. Major Findings:

There were two (02) numbers of meetings held, 1st OPGW provisioning technical committee meeting on 14th August 2019 & 2nd OPGW provisioning technical committee meeting on 24th October 2019, for detailed deliberation of OPGW link related matter of Eastern region so that communication links among SLDCs, ERLDC and NLDC could be strengthened. It was also felt that few nodes in Eastern Regional communication network require redundant path, accordingly committee came up with the following recommendation:-

**A. Requirement of Communication Links between ER and other regions:**

- Committee opined that existing OPGW communication links (>15 years old) may not be reliable. All such communication links in Inter-regional corridor shall not be considered for path redundancy which is ageing more than 15 years.
- Since, backup NLDC is located at ERLDC, Kolkata reliable data & voice communication from ER to other Regions is required. Higher bandwidth communication between NLDC and ERLDC is also required for SCADA, WAMS, VOIP and AGC as well in near future. In addition to the above requirement, multisite data and voice communication link between Main and Backup control centres of ERLDC, NLDC and NRLDC is configured through ER- NR corridor which is not protected as of now. Hence, for providing the communications links with adequate bandwidth and path redundancy, the committee decided to envisage the following number of communication links between ER and other regions:
  i. Three (3) numbers of communication links between ER-NR corridors.
  ii. Two (2) numbers of communication links between ER-SR, ER-WR and ER-NER corridors each.

- Committee reviewed the status of existing communication links between ER and other regions which are under implementation stage. Accordingly, the Committee has considered the following communication links between ER and other regions as mentioned below:

| Sl No | Corridor | Selected lines for laying OPGW | Length (KM) | Remarks |
|---|---|---|---|---|
| 1 | ER- NR | 765 kV S/C Gaya-Varanasi Line –I | 265 | |
| 2 | | 400 kV D/C Patna – Balia Line –I | 195 | |
| 3 | | 400 kV Barh-Gorakhpur Line-I | --- | Under implementation, would be completed by October 2020. |
| 4 | ER - WR | 765 KV S/C Ranchi – Dharamjaygarh Line-1 | 305 | |
| 5 | | 765 KV S/C Jharsugada – Dharamjgarh Line-1 | 149 | |
| 6 | ER – SR | 765 KV S/C Angul - Srikakulam Line-1 | | Under implementation, would be completed by October 2020. |
| 7 | | 400 kV D/C Jeypore – Gazuwaka | 221 | |
| 8 | ER-NER | 220 kV D/C Alipurduar-Salakati Line | --- | Under implementation, would be completed by October 2020. |
| 9 | | 400 kV D/C Binaguri-Bongaigaon Line -1 | --- | POWERTEL implemented OPGW communication link in 400 kV Binaguri-Bongaigaon Line, So, 6 core could be shared for data sharing in ER-NER corridor. |
| | | **Total length of OPGW to be installed** | **1135** | |

Table 1: OPGW communication link for Inter- Regional corridor in Eastern Region

**A. Requirement of communication links within ER:**

OPGW communication links for few intra-regional stations for facilitating data communication for SCADA, PMU, AGC, VOIP, Digital Protection etc. were discussed, the followings are also recommended:-

- **400 kV D/c Nabinagar (BRBCL) Generating Station – Sasaram:** This has been considered for laying of OPGW communications links for reporting of real time SCADA data to ERLDC BCC over IEC 104 protocol & WAMS data etc.
- **220 kV Daltonganj (JUSNL) – Latehar (JUSNL) LILOed at Daltanganj (PG)**: This has been recommended for laying of OPGW communication as suggested by JUSNL. The same would be deleted from the scope if they get necessary funding from PSDF.
- **Howrah (DVC) – Howrah(WB):** Presently, OPGW communication link is not available between Howrah (DVC) to Howrah (WB). So, it is recommended to establish the communication path between these control centres. This will also help

in establishing the OPGW communication links from DVC MCC located at Andul Road to ERLDC BCC at New Delhi.

- **400 kV Farakka-Sagardighi-Subhasgram (400KV Farakka-Sagardighi-I & 400KV Sagardighi-Subhasgram TL):** 400 kV Farakka - Jeerat OPGW communication link was executed in POWERGRID Telecom package which is the main backbone of connectivity to ERLDC from the entire eastern region stations. The link is quite old & losses gradually increased in this link. So, it is recommended to establish the OPGW communication link in the 400KV Farakka-Sagardighi-I & 400KV Sagardighi-Subhasgram TL which is parallel to Farakka-Jeerat line.
- **Farakka-Purnea (400KV Farakka-Purnea under construction TL):** OPGW communication link in Farakka-Purnea link will act as redundant for Farakka-Malda & Malda-Purnea links and will add reliability in the communication network in eastern Region. So, it is recommended to establish the OPGW communication link on this line also.
- **400kV Maithan (PG) – Durgapur (WB) – Sagardighi (WB):** Presently, all real time SCADA & WAMS data and voice communication to ERLDC is through Farakka node. Hence, committee opined that the alternative of Farakka node is also to be planned and implemented, so that any contingency of Farakka node would not lead to any disruption in data & voice communications. Accordingly, it is recommended to establish the OPGW communication links through 400kV Maithan (PG) – Durgapur (WB) – Sagardighi (WB) path as alternate path of Farakka node.

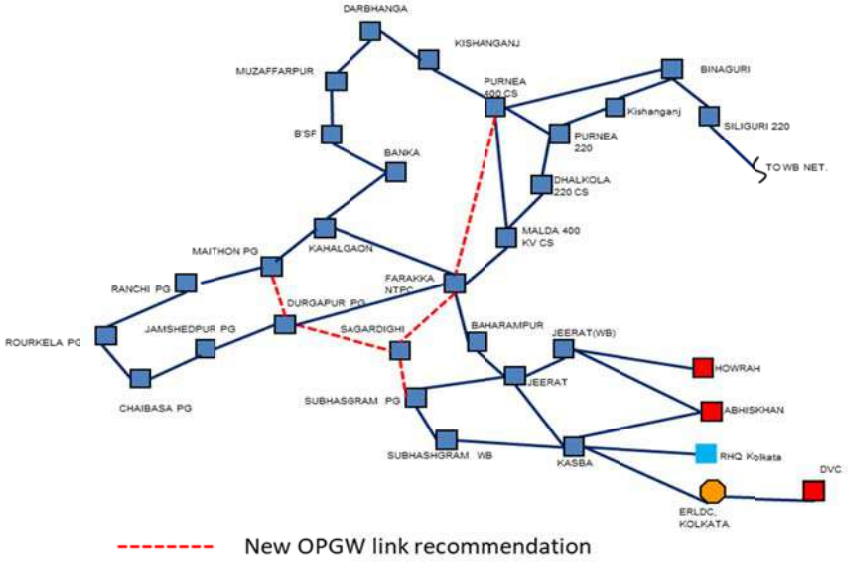


Fig 2: Alternate OPGW link for Farakka node

**B. Laying of OPGW on some transmission lines of DVC control area for making alternate route to KTPS power house along with three sub-stations has been**

**reviewed and it is recommended to establish the OPGW communication links as mentioned below:-**

| Sl. no. | Line | Line Length (KM) | Purpose |
|---|---|---|---|
| 1 | 220 KV KTPS – Giridih (Line # 251, 252 ) | 101 | To provide alternate route of OPGW to KTPS, Jamuria, Ramkanali and Purulia |
| 2 | 132 KV Jamuria – Ramkanali (Line # 90) | 53 | |
| 3 | 132 KV Ramkanali – CTPS (Line # 60) | 70 | |
| 4 | 132 KV Purulia – Jamshedpur (Line # 39, 40) | 87 | |
| 5 | 132 KV CTPS – Gola (Line # 6,7) | 67 | To reduce Bandwidth congestion in Ramgarh& CTPS area. |
| | Total | 378 | |

Table 2: New OPGW link for DVC network

**C. Laying of OPGW on some transmission lines of JUSNL control area for making alternate route through OPTCL & PG ULDC Network has been reviewed and it is recommended to establish the OPGW communication links as mentioned below:-**

| Sl. no. | Line | Line Length (KM) | Purpose |
|---|---|---|---|
| 1. | 220 kV Daltonganj (JUSNL) – Latehar (JUSNL) LILOed at Daltanganj (PG) | 90 | Alternate path for Daltanganj (PG) |
| 2. | 220 kV Jodda (OPTCL)- Ramchandrapur (JH) | 130 | Alternate route through OPTCL |
| 3. | 220 kV Chandil (JH)- Ranchi (PG) (up to LILO point) | 90 | Alternate route through POWERGRID 400/220 kV Ranchi (Namkom S/s) |

Table 3: New OPGW link for JUSNL network

## 4. Conclusion & Recommendation:

Communication network is the backbone of SCADA system of geographically dispersed Indian Power System, and periodic review and strengthening of OPGW network is essential for fulfilling the growing requirement of reliable wide area communication with requirement of higher bandwidth. Considering the location of Back up of NLDC at ERLDC, which is required to communicate all other regions, it was decided to review the Inter-regional OPGW connectivity with Eastern region and accordingly N-1 redundant communication is proposed. ER-NR corridor is considered to be critical path since this is also used for multisite communication (communication between MCC and

BCC) for ERLDC, NRLDC and NLDC. Accordingly N-2 redundant OPGW communication is recommended. In 2016, during up-gradation of SCADA/EMS system of Eastern Region, Main Control Centre (MCC) and Backup Control Centre (BCC) were implemented and interconnectivity related matter amongst these MCC and BCC of SLDCs and ERLDC in Eastern Region was deliberated and accordingly, additional OPGW links were recommended by the committee.

**Followings are the list of additional OPGW link, which are envisaged by the committee for implementation along with Communication Equipments & DCPS:-**

| Sl No | Corridor | Selected lines for laying OPGW | Length (KM) |
|---|---|---|---|
| 1 | ER- NR | 765 kV S/C Gaya-Varanasi Line –I | 265 |
| 2 | | 400 kV D/C Patna – Balia Line –I | 195 |
| 3 | ER - WR | 765 KV S/C Ranchi – Dharamjaygarh Line-1 | 305 |
| 4 | | 765 KV S/C Jharsugada – Dharamjgarh Line-1 | 149 |
| 5 | | 400 kV D/C Jeypore – Gazuwaka | 221 |
| 6 | ISTS network | 400 kV D/c Nabinagar (BRBCL) Generating Station – Sasaram | 82 |
| 7 | | 400 kV Farakka –Purnea | 160 |
| 8 | | 400 kV Farakka-Sagardighi-Subhasgram | 301 |
| 9 | | 400kV Maithan (PG) – Durgapur (WB) | 128 |
| 10 | | 400KV Durgapur (PG) – Sagardighi (WB) | 72 |
| 11 | DVC network | 220 KV KTPS – Giridih ( Line # 251 , 252 ) | 101 |
| 12 | | 132 KV Jamuria – Ramkanali ( Line # 90) | 53 |
| 13 | | 132 KV Ramkanali – CTPS ( Line # 60) | 70 |
| 14 | | 132 KV Purulia – Jamshedpur ( Line # 39,40) | 87 |
| 15 | | 132 KV CTPS – Gola ( Line # 6,7) | 67 |
| 16 | | Howrah (DVC) – Howrah(WB) | 1 |
| 17 | JUSNL | 220 kV Daltonganj (JUSNL) – Latehar (JUSNL) LILOed at Daltanganj (PG) | 90 |
| 18 | | 220 kV Jodda (OPTCL)- Ramchandrapur (JH) | 130 |
| 19 | | 220 kV Chandil (JH)- Ranchi (PG) (up to LILO point) | 90 |

Table 4: List of new OPGW link, recommended by the committee.

All constituents agreed for implementation of the above-mentioned OPGW links in Central Sector (Sl. 1 to 10) by POWERGRID. In addition, DVC also requested POWERGRID to take up the implementation of OPGW links of DVC Sector (Sl. 11 to 16). JUSNL also requested POWERGRID to take up the implementation of OPGW links of JUSNL Sector (Sl. 17 to 19).

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**Annexure - 1**

Nomination of committee members for Provision of OPGW along with communication equipments in Important ISTS Lines

| *S. No* | *Name of the constituents* | *Committee Member* | *Contact Address* | *Contact Detail* |
|---|---|---|---|---|
| 1 | ERPC | Sri J. Ganesha Rao, Executive Engineer (Protection & Operation) | ERPC, 14, Golf Club Road, Tollygunge, Kolkata - 700 033 | 95478 91353<br>erpcprotection@gmail.com |
| 2 | ERLDC, POSOCO | Shri S. P Barnwal, General Manager (SCADA) | ERLDC, POSOCO, 14, Golf Club Road, Tollygunge, Kolkata - 700 033 | 94330 41812<br>spbarnwal@posoco.in |
| 3 | POWERGRID, ERTS-2, ULDC | Shri Satish Kumar Sahare, Dy. General Manager (ULDC) | POWERGRID, ERTS-2, CF-17, Action Area-1C, New Town, Kolkata - 700 156 | 94347 40016<br>uldcer2@powergrid.co.in,<br>satishkumarsahare@powergridindia.com |
| 4 | POWERGRID, ERTS-1, ULDC | Shri Rajesh, Senior DGM (AM) & Shri Mithun Choudhury, Manager (ULDC) | POWERGRID, ERTS-1, Near Transformer Repair Works, Board Colony, Shastri Nagar, Patna - 800 023 | 94318 21127 (1) & 94318 15651 (2)<br>uldcer1@powergrid.co.in,<br>rajeshos@powergridindia.com |
| 5 | POWERGRID, Odisha project, ULDC | Shri S. K. Sahu, DGM(ULDC) | POWERGRID, Odisha Projects, Sahid Nagar, Bhubaneswar - 751 007 | 94330 41822<br>sksahu@powergridindia.com |
| 6 | POWERGRID, LD&C | Shri Manoj Kumar Singh, Chief Manager (LD&C) | POWERGRID, Tower No - I, 5th Floor, Engineers India Limited, R&D Complex, Sector-16, Gurugram - 122 001 (Haryana) | 94285 11986<br>manojsingh@powergridindia.com |
| 7 | NLDC, POSOCO | Sri G Sudhakar, Assistant Manager (SL) | NLDC, B-09, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110 016 | 95999 20297<br>gsudhakar@pososco.in |
| 8 | WBSETCL | Shri Biswajit Madhu, Superintend Engineer (Communication) | WBSETCL, Abhikshan Bhawan, Salt Lake Sector-V, Kolkata-700 091 | 94349 10193<br>cmnabhikshan@rediffmail.com |
| 9 | DVC | Shri A. K. Tiwari, Dy. CE (Communication) | DVC Tower, 9$^{TH}$ Floor, Ultadanga, Kolkata-700 054 | 94315 09389<br>ashok.tiwari@dvc.gov.in |
| 10 | OPTCL | Sri A.K Pattnaik, CGM(Telecom) | Technical Wing, OPTCL Head Quarters, Janapath, Bhubaneswar – 751 022 | 94389 07440<br>cgm.tel@optcl.co.in |
| 11 | BSPTCL | Sri Perwez Alam, Electrical Superintend Engineer (ULDC) | BSPTCL, 4th Floor, Vidyut Bhawan, Bailey Road, Patna - 800 001 | 77638 17765<br>perwez.bseb@gmail.com<br>uldc.bsptcl@gmail.com<br>a_perwez@rediffmail.com |
| 12 | JUSNL | Sri Rimil Topno, Electrical Executive Engineer (ULDC), | Jharkhand Urja Sancharan Nigam Limited,JUSNL Building, Kusai Colony,Doranda, Ranchi - 834002 | 98357 15518<br>rimiltopno@gmail.com<br>uldc.jusnl@gmail.com |
| 13 | Sikkim | Shri Namgyal Tashi, Executive Engineer(SLDC) | Energy and power department, Sonam Tshering Marg, Gangtok - 737 101 | 77976 72743<br>sikkim.sldc@gmail.com |

Annexure-3

सत्यमेव जयते

भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

SPEED POST/FAX
Ph : 0364-2534039
Fax: 0364-2534040
email: nerpc@ymail.com
website: www.nerpc.gov.in

No: NERPC/NETeST/2025/2268 - 2307 .

24th September 2025

**सेवा में / To**

**As per list attached**

**विषय: 32 वीं एन.इ टेस्ट बैठक का कार्यवृत्त**
**Sub: Minutes of 32nd NETeST Meeting.**

महोदय/महोदया,

कृपया 29 अगस्त, 2025 को एन.ई.आर.पी.सी कॉन्फ्रेंस हॉल, शिलांग में आयोजित 32 वीं एन.इ टेस्ट बैठक के कार्यवृत्त को आपकी सूचना एवं आवश्यक कार्रवाई हेतु संलग्न देखें। कार्यवृत्त एन.ई.आर.पी.सी की वेबसाइट: www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द एन.ई.आर.पी.सी सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 32nd NETeST Meeting held at NERPC Conference Hall, Shillong on 29th August, 2025 for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

Any comments/observations may kindly be communicated to NERPC Secretariat at the earliest.

भवदीय / Yours faithfully,

24/IX/2025

(डी.के. बौरी/D.K Bauri)
निदेशक / Director

Encl: As above

- The forum advised ULDC-POWERGRID to share the list of important ISTS channels by 10th February-2025.

**In 31st NETeST meeting**, ULDC-POWERGRID shared the list of important ISTS channels to NERPC. However, the forum noted that the format of the shared list does not clarify the type of service for which the channel is being used. Moreover, the nature of the outages and the duration of the down time of the channels are not specified. PGCIL responded that these evolving requirements should be resolved after the proper tagging process is completed.

The forum noted that PGCIL would share the information as per the uniform format for sharing the requisite data after finalization of the same by NPC.

***Deliberation of the sub-committee:***

It was informed that the uniform format for Communication Availability was approved in 16th NPC meeting. The forum agreed to adopt the finalized format as approved in 16th NPC meeting.

Further, PGCIL informed that the standard naming convention of Communication channels and equipment is under finalization. The forum advised Powergrid/CTU to share the requisite information at the earliest so that the NERPC can issue the Availability of Communication System.

## 2.4. Usage of POWERTEL OPGW in view of the order of Hon'ble CERC against petition no. 494/MP/2020 - NERLDC

As per the Hon'ble CERC order in Petition No. 494/MP/2020, all assets including OPGW regardless of whether commissioned by POWERGRID or POWERTEL, are under the management and control of POWERGRID. Consequently, the ownership of the OPGW in question vests with POWERGRID.

In the 8th CTU Planning Meeting (CPM) dtd. 28-07-2025, NERLDC requested POWERGRID to provide communication links for Power System usage over all such OPGW networks previously managed by POWERTEL, including the 400 kV Silchar – Imphal, 400 kV Balipara–Bongaigaon Lines 3 & 4 and the 132 kV Kumarghat–Aizawl line.

Forum may discuss further if any other such fibre needs to brought in usage for Power System.

***Deliberation of the sub committee:***

PGCIL updated the forum as follows:

1. **400 kV Silchar – Imphal line:** The matter would be taken up with POWERTEL at the earliest.
2. **400 kV Balipara–Bongaigaon Lines 3 & 4-** The matter has already been taken up with POWERTEL and is in progress.
3. **132 kV Kumarghat–Aizawl line-** There is high loss in this link. PGCIL will submit detailed loss report (OTDR) within 15 days.

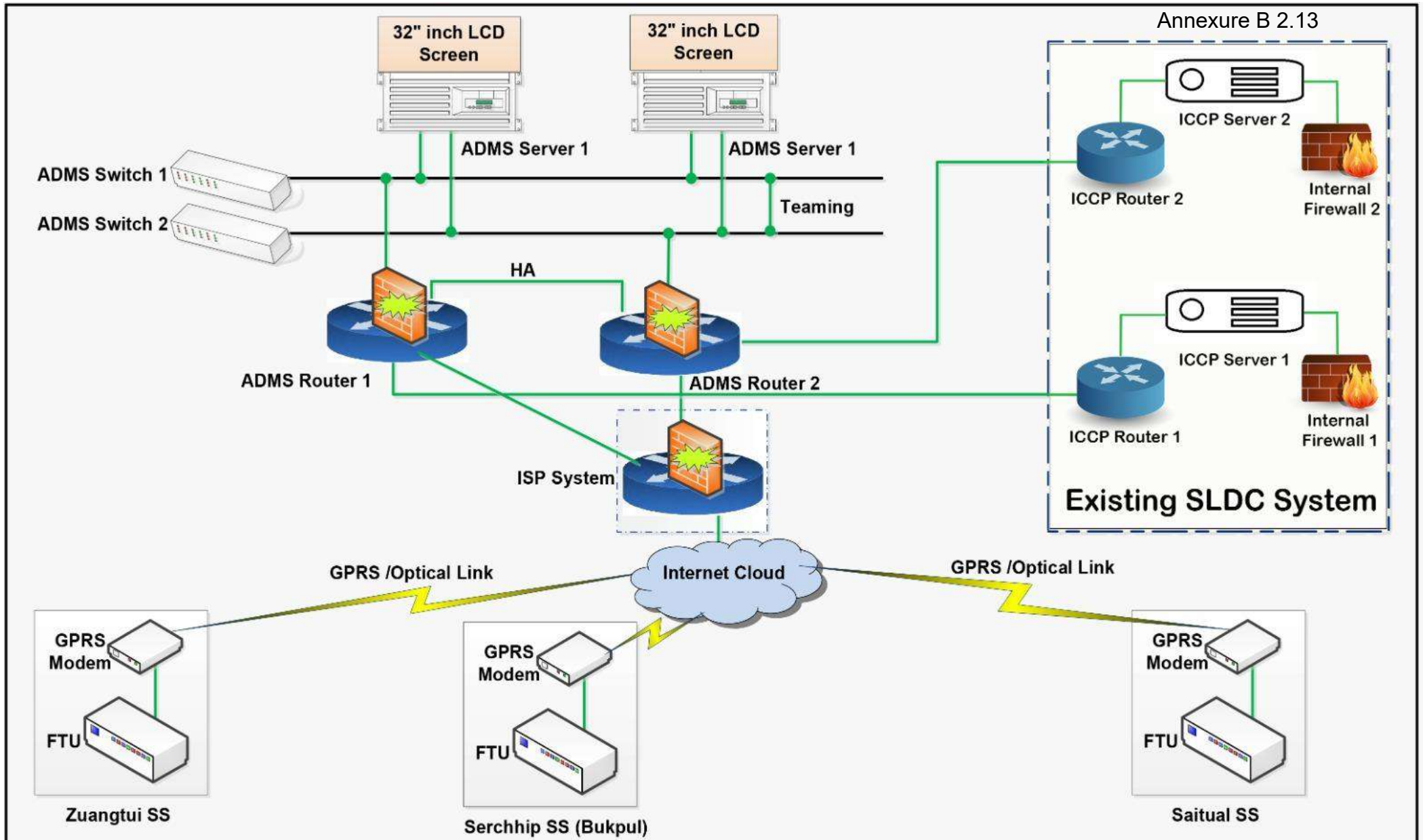
NERLDC further apprised the forum that the only communication link between NER and ER is Salakati to Alipurduar. NERLDC requested the forum for exploring fibre/ bandwith allocation via Binaguri to Siliguri link to establish redundant communication link between NER and ER.

Forum in principle agreed for the proposal of redundant communication link between NER and ER and also advised NERLDC to take the matter to CTU/NLDC being inter-regional issue.

## 2.5. Optimised utilisation of OPGW & FOTE across the NER considering the assets that are being commissioned under NERPSIP, Comprehensive T&D, State-owned projects, TBCBs and ULDCs- NERLDC

With the recent commissioning of numerous links under various State and Central projects, the communication infrastructure of the NER Grid has witnessed significant development. However, **the optimal utilization of the**

Annexure B 2.13




| | | | |
|---|---|---|---|
| **ADMS Control Centre - Network Architecture Diagram of SLDC Aizawl, Mizoram** | ORBIT Your IT Navigator · RBH SOLUTIONS · SHAURYA ENTERPRISE | SCALE NTS | SHEET 03 |
| | NERPC/SE(O)/ADMS/2019/1124 Dated 04.JUNE.2019 | REV. A | NEXT SH. / |

ग्रिड-इंडिया GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केन्द्र / North Eastern Regional Load Despatch Centre
कार्यालय : लोवर, लापालांग, शिलांग -793006
Office : Lower Nongrah, Lapalang, Shillong- 793006
CIN : U40105DL2009GOI188682, Website : www.nerldc.in, E-mail : nerldc@grid-india.in, Tel.: 0364-2537470/427, Fax: 03642537486

*संदर्भ: एनईआरएलडीसी/साइबर सुरक्षा /सीएससीएफ/ 01* *दिनांक/Date: 06.04.2026*

*सेवा में/To,*

संलग्न सूची के अनुसार। As per list attached.

**विषय/ Sub:** Compliance related to participation in GO-NER-CSCF meetings, submission of agenda points, VAPT of IT and OT systems and manpower strengthening at NER SLDCs.

**Sir/Madam,**

Regulation 53 of IEGC states:
*"The sectoral CERT (Computer Emergency Response Team) for wings of power sector, as notified by Government of India, from time to time, shall form a Cyber Security Coordination Forum with members from all concerned utilities and other statutory agencies to coordinate and deliberate on the cyber security challenges and gaps at appropriate level. A sub-committee of the same shall be formed at the regional level."*

Accordingly, North Eastern Regional Cyber Security Coordination Forum -Grid Operation (GO-NER-CSCF) was formed. As per the procedure for Activities of Cyber Security Coordination Forum, periodic meetings on a quarterly basis are to be conducted to discuss the agenda points related to Cyber Security.

The North-Eastern Regional Load Despatch Centre (NERLDC) has been regularly conducting the meetings of the North Eastern Regional Cyber Security Coordination Forum – Grid Operation (GO-NER-CSCF) since 20th February 2024 with the objective of strengthening cyber security preparedness and coordination among the regional stakeholders.

In this regard, certain issues have been observed during recent meetings which require immediate attention and necessary action from all SLDCs in the North-Eastern Region.

1. Mandatory Participation in the Meetings of GO-NER-CSCF:

It has been observed that participation from the SLDCs in the meetings of GO-NER-CSCF is inconsistent. As the forum is intended to facilitate detailed discussions, knowledge sharing and coordinated action on cyber security matters, it is requested that all NER SLDCs ensure mandatory participation of their CISOs and Alt. CISOs in all the meetings (physical and online) of GO-NER-CSCF.

2. Submission of Agenda Points Prior to Meetings:

It has also been observed that the SLDCs need to share their agenda points/issues in advance for

discussion in the CSCF meetings. Submission of agenda items beforehand is essential for structured discussions and effective resolution of issues.

3. VAPT of IT and OT Systems for FY 2025-26:

During the review, it has been noted that Vulnerability Assessment and Penetration Testing (VAPT) of OT systems for FY 2025-26 is yet to be completed in all SLDCs except Assam SLDC. As per the provisions of the Information Technology Rules / Cyber Security guidelines applicable to power sector entities (IT Rules 2018 and subsequent directions), periodic VAPT is a mandatory requirement for critical infrastructure systems.

Non-completion of VAPT for the current financial year may therefore be treated as non-compliance of the applicable cyber security requirements.

All SLDCs are requested to expedite the completion of VAPT for both IT and OT systems and submit the status/compliance report at the earliest.

4. Onboarding and Usage of Threat Dissemination Portal (TDP):

It has been observed that SLDC Arunachal Pradesh is yet to be onboarded on the Threat Dissemination Portal (TDP). Further, although other SLDCs have already been onboarded on the portal, the level of activity and regular usage is very limited.

Since the portal provides important information regarding emerging cyber threats, Indicators of Compromise (IOCs), vulnerabilities and advisories, all SLDCs are requested to ensure regular login to the TDP portal and take necessary action on the reported IOCs/vulnerabilities/advisories on a continuous basis.

5. Manpower Strengthening at SLDCs:

The issue of acute manpower shortage at the SLDCs has also been highlighted in the forum. Adequate manpower is essential for effective grid operation, cyber security monitoring, incident response and compliance with regulatory requirements.

In this regard, SLDCs are requested to take up the matter with their respective management/state utilities for deputation or recruitment of additional manpower, particularly in the areas of Cyber Security.

All SLDCs are requested to take necessary action on the above points and extend their continued cooperation in strengthening the cyber security posture and operational resilience of the power system in the North-Eastern Region. SLDCs are also requested to host the meetings at their location to ensure maximum participation of their officials.

**भवदीय / Yours sincerely**

06/4/2026

**सुगंध प्रसाद बर्णवाल / Sugandh Prasad Barnwal**
मुख्य महाप्रबंधक एवं सी.आई.एस.ओ / Chief General Manager & CISO
उ.पू.क्षे.भा.प्रे.के, ग्रिड- इंडिया / NERLDC, GRID-INDIA

Distribution list:

1. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
2. CGM (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781019
3. Head of SLDC, MSPCL, Imphal – 795001
4. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793001
5. Head of SLDC, P&E Dept. Govt. of Mizoram, Aizawl – 796001
6. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
7. Head of SLDC, TSECL, Agartala – 799001

ग्रिड-इंडिया
GRID-INDIA

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
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उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र/ North Eastern Regional Load Despatch Centre

कार्यालय: लोअर नोंगराह, लापलांग, शिलांग- 793006(मेघालय)
Office: Lower Nongrah, Lapalang, Shillong- 793006 (Meghalaya)
CIN:U40105DL2009GOI188682, Website: www.nerldc.in, E-mail: nerldc@grid-india.in,Tel:0364-2537470/427,Fax:03642537486

Annexure C 3.2 (i)

**Ref: NERLDC/Communication/Oct'25/** 8422 **Date: 23.10.2025**

**To,**
**Executive Director NERPSIP, Odalbakhra, Kahilipara, Guwahati – 781019**
**Sr. General Manager (AM/ULDC), Powergrid RHQ, Lapalang, Shillong**

**Subject:** Request for Interconnection of Commissioned SDH Systems over Existing OPGW Infrastructure to Strengthen Communication Redundancy

Sir,
As discussed in the 32nd NETeST meeting agenda 2.5, attached as Annexure-1, I would like to draw your attention to a persistent issue affecting the effective utilisation of commissioned SDH systems and the available OPGW communication backbone across multiple substations in the region. Despite the commissioning of compatible SDH equipment and the availability of functional OPGW links at several strategic locations, the absence of interconnection between these systems has resulted in significant underutilisation of available infrastructure and has limited the development of necessary main and redundant communication paths critical to power system operations.

There are multiple instances where SDH systems under various schemes such as ULDC, and NERPSIP have been installed at the same locations, yet these systems remain non-integrated, resulting in underutilisation of the available OPGW links. The details of the aforementioned locations are attached as Annexure-2.

These SDH systems are located at key nodes in the communication network and are expected to serve as main or redundant links for several central sector generating and grid stations. However, due to the lack of integration between these multiplexers, the infrastructure remains underutilised, and the intended redundancy is not achieved.

The unavailability of alternate communication paths can pose a significant risk to grid operations, particularly for data channels related to ICCP, AGC, SCADA, PMUs, Voice and protection schemes. Moreover, this defeats the purpose of investing in a robust fibre-optic and SDH backbone, as network reliability and operational visibility remain compromised.

It is therefore requested that immediate steps be taken to address this long-standing issue. Interconnection of SDH systems, wherever compatible or interoperable, should be prioritised to ensure the creation of reliable main and redundant communication paths across the network. Coordination between stakeholders under different schemes ULDC and NERPSIP, etc. will be essential in resolving interoperability or administrative issues, if any.

Your kind intervention in this matter is earnestly requested to ensure that the full potential of the region's communication infrastructure is realised for the benefit of grid security and reliability.

Enclosed:

1. Annexure-1: Minutes of 32nd NETeST meeting
2. Annexure-2: Details where inter-patching is required.

With Regards,

Saugato Mondal
General Manager (Logistics, NERLDC)

Copy to (via email):
1. MS, NERPC
2. ED, NERTS
3. CGM(I/C), NERLDC

Annexure - I

सत्यमेव जयते

भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

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Ph : 0364-2534039
Fax: 0364-2534040
email: nerpc@ymail.com
website: www.nerpc.gov.in

No: NERPC/NETeST/2025/2268 - 2307 .

24th September 2025

**सेवा में / To**

**As per list attached**

**विषय: 32 वीं एन.इ टेस्ट बैठक का कार्यवृत्त**
**Sub: Minutes of 32nd NETeST Meeting.**

महोदय/महोदया,

कृपया 29 अगस्त, 2025 को एन.ई.आर.पी.सी कॉन्फ्रेंस हॉल, शिलांग में आयोजित 32 वीं एन.इ टेस्ट बैठक के कार्यवृत्त को आपकी सूचना एवं आवश्यक कार्रवाई हेतु संलग्न देखें। कार्यवृत्त एन.ई.आर.पी.सी की वेबसाइट: www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द एन.ई.आर.पी.सी सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 32nd NETeST Meeting held at NERPC Conference Hall, Shillong on 29th August, 2025 for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

Any comments/observations may kindly be communicated to NERPC Secretariat at the earliest.

भवदीय / Yours faithfully,

24/IX/2025

(डी.के. बौरी/D.K Bauri)
निदेशक / Director

Encl: As above

In the 8th CTU Planning Meeting (CPM) dtd. 28-07-2025, NERLDC requested POWERGRID to provide communication links for Power System usage over all such OPGW networks previously managed by POWERTEL, including the 400 kV Silchar – Imphal, 400 kV Balipara–Bongaigaon Lines 3 & 4 and the 132 kV Kumarghat–Aizawl line.

Forum may discuss further if any other such fibre needs to brought in usage for Power System.

***Deliberation of the sub committee:***

PGCIL updated the forum as follows:

1. **400 kV Silchar – Imphal line:** The matter would be taken up with POWERTEL at the earliest.
2. **400 kV Balipara–Bongaigaon Lines 3 & 4-** The matter has already been taken up with POWERTEL and is in progress.
3. **132 kV Kumarghat–Aizawl line-** There is high loss in this link. PGCIL will submit detailed loss report (OTDR) within 15 days.

NERLDC further apprised the forum that the only communication link between NER and ER is Salakati to Alipurduar. NERLDC requested the forum for exploring fibre/ bandwith allocation via Binaguri to Siliguri link to establish redundant communication link between NER and ER.

Forum in principle agreed for the proposal of redundant communication link between NER and ER and also advised NERLDC to take the matter to CTU/NLDC being inter-regional issue.

**2.5. Optimised utilisation of OPGW & FOTE across the NER considering the assets that are being commissioned under NERPSIP, Comprehensive T&D, State-owned projects, TBCBs and ULDCs- NERLDC**

With the recent commissioning of numerous links under various State and Central projects, the communication infrastructure of the NER Grid has witnessed significant development. However, **the optimal utilization of the**

**infrastructure is essential to derive its full benefits.** Few of such examples are outlined below:

Usage of BNC-HVDC → Balipara → Rangia → Bongaigoan → Alipurduar, the OPGW is laid over BNC- Agra HVDC link **however it is still not being utilized for Inter-regional communication link.**

The Connectivity Tinsukia →Kathalguri → Namsai →Tezu - - -> Roing - - -> Pasighat → Along → Basar →Daporizo →Ziro consist of Tejas SDH which are either owned by Comprehensive T&D or ULDC POWERGRID, **however all the Tejas SDHs are not connected till now.**

Kameng → Khupi → Tenga → Balipara OPGW is completed, however this link is not being utilised till now.

Inter-patching requirement at multiple locations of NER to facilitate a redundant communication path between Central Sector Station and NERLDC after commissioning of various assets under NERPSIP-Tripura:

(a) Gohpur (Assam owned station),

(b) Rokhia (Tripura owned station),

(c) Udaipur (Tripura owned station),

(d) Agartala-79 Tilla (SLDC-Tripura)

***Deliberation of the sub-committee:***

***Regarding the connectivity from HVDC BNC to HVDC Agra***, PGCIL apprised that the fibre connectivity from HVDC BNC to Rangia (repeater station) is healthy. But the fibre connectivity from Rangia (repeater station) to Alipurduar is unhealthy and is reporting high losses. PGCIL further informed that rectification works on the unhealthy portion (Rangia to Alipurduar) is in process and would take some time. PGCIL was advised to share the loss report within a week. **Annexure B 2.5 attached for reference.**

***Regarding the connectivity from Tinsukia to Ziro***, NERLDC apprised that inter-patching is pending at Kathalguri. Moreover, OPGW connection is pending between Namsai and Tezu and also SDH is not connected between Roing and Pasighat.

CTDS and POWERGRID agreed to mutually complete the necessary connections.

***Regarding the connectivity from Kameng to Balipara***, NERLDC apprised that inter-patching is pending from Balipara to Kameng which will enable a ring communication for Kameng.

**MS, NERPC suggested NERLDC** to write a letter to the concerned utilities, highlighting the gaps and possible solutions regarding inter-patching and fibre sharing issues as mentioned above. This would help ensure optimal utilisation of communication infrastructure in NER. NERLDC agreed to take the necessary action.

### 2.6. Establishing Communication Link between 400 kV New Kohima and 220 kV Zhadima via 220 kV Zhadima–New Kohima Line – Restoration of Connectivity in View of Link Failure-NERLDC

The communication link between **400 kV New Kohima and 400 kV Imphal** has remained non-functional since June 2024. Restoration efforts by Aparva (TSP) have been hindered due to prevailing law and order issues in Manipur, resulting in a prolonged outage and communication blackout at New Kohima. However, there exists an alternative opportunity to restore connectivity through the OPGW laid on the 220 kV Zhadima–New Kohima transmission line, which is being executed by the Department of Power (DoP), Nagaland.

A Fibcom FOTE is installed at 220 kV Zhadima.

An ABB FOTE is available at 400 kV New Kohima.

A direct fiber patch between these FOTEs using the available OPGW on the Zhadima–New Kohima line can restore essential communication for New Kohima until the primary route via Imphal is re-established.

**ULDC-POWERGRID, Aparva** and **DoP-Nagaland** are requested to coordinate with the respective vendors (Fibcom and ABB) and execute the necessary inter-patching to restore communication between New Kohima and Zhadima via the aforementioned OPGW route, which will enhance the reliability of New Kohima (Aparva) S/s and in turn for NER. A diagram depicting the connectivity is attaches as **Annexure B 2.6.**

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - ASSAM (EHV)

| Sl No | Name of Station | NERPSIP FOTE | | | State FOTE | | ULDC FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | Supply Status | Make and Model | STM Level | ULDC FOTE available | STM level | ULDC FOTE available | STM level | |
| 1 | Rangia (Ex) | Y | Hitachi FOX 515H as SDH & FOX 505 as PDH | STM 4 | Y (State) | | FIBCOM6335 | STM4 | Interpataching to be done |
| 2 | 132kV Sonabil | Y | | STM 4 | Y (State) | STM 1 | NA | NA | Interpataching to be done |
| 3 | Chapakhowa | Y | | STM 4 | | | Tejas | STM-4 | Interpataching to be done |
| 4 | 132kV Gohpur (Ex) | Y | | STM 4 | Y (State) | STM 4 | FIBCOM6335 | STM4 | Interpataching to be done |

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - Manipur (EHV)

| Sl No | Name of Station | NERPSIP FOTE | | | | ULDC FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Supply Status | Make and Model | STM Level | Installation Completed | ULDC FOTE available | STM level | |
| 1 | Churachandpur | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM4 | Interpacting to be done. |
| 2 | Thoubal | Y (SFP only in Scope) | Tejas | STM4 | Y (in existing panel) | FIBCOM 6335 | STM4 | SFP and fiber to be connected with ULDC-FOTE |
| 3 | Kakching | Y | Tejas | STM4 | N | FIBCOM 6335 | STM4 | Interpacting to be done. |
| 4 | Jiribam (State) | Y (SFP only in Scope) | Tejas | STM4 | N | FIBCOM 6335 | STM4 | SFP and fiber to be connected with ULDC-FOTE |
| 5 | 132 kV Rengpang | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM4 | Interpacting to be done. |
| 6 | 132kV Karong | Y (SFP only in Scope) | Tejas | STM4 | Y | FIBCOM 6335 | STM4 | SFP and fiber to be connected with ULDC-FOTE |
| 7 | 132 kV Yurembam (Imphal) | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |
| 8 | 132 kV Imphal (Powergrid) | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |
| 9 | Ningthoukhong | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM4 | Interpacting to be done. |

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - MEGHALAYA (EHV)

| Sl No | Name of Station | NERPSIP FOTE | | | | ULDC/STATE FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Supply Status | Make and Model | STM Level | Installation Completed | ULDC/STATE FOTE available | STM level | |
| 1 | 132 kV Shillong (Mawlai) | Y | Hitachi | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |
| 2 | NEHU (WB) | Y | Hitachi | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |
| 3 | 132 kV Nangalbira | Y | Hitachi | STM4 | Y | Y (state) | E1 patching (as per state request) | Interpacting to be done. |
| 4 | 220 kV Kiling (Bymihat) | Y | Hitachi | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |
| 5 | MLHEP | Y | Hitachi | STM4 | | FIBCOM 6335 | STM4 | Interpacting to be done. |
| 6 | Khleriahat (ME) | Y | Hitachi | STM4 | Y | FIBCOM 6335 | STM16 | Interpacting to be done. |

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - MIZORAM (EHV )

| Sl No | Name of Station | NERPSIP FOTE | | | | ULDC FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Supply Status | Make and Model | STM Level | Installation Completed | ULDC FOTE available | STM level | |
| 1 | Zembawak | Y | Tejas | STM4 | Y | FIBCOM 6335 | STM4 | Interpataching to be done |

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - NAGALAND (EHV)

| Sl No | Name of Station | NERPSIP FOTE | | | | ULDC FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Supply Status | Make and Model | STM Level | Installation Completed | ULDC FOTE available | STM level | |
| 1 | Mokokchung (NA) | Y | Tejas | STM 4 | Y | FIBCOM 6335 | STM4 | Interpataching to be done |
| 2 | Kohima (WB) | Y | Tejas | STM 4 | Y | FIBCOM 6335 | STM16 | Interpataching to be done |
| 3 | 220kV New Kohima (NA) | Y | Tejas | STM 4 | Y | FIBCOM 6335 | STM4 | Interpataching to be done |
| 4 | 220kV Mokokchung (PG) | N | Tejas | STM 4 | N | FIBCOM 6335 | STM4 | Interpataching to be done |
| 5 | 132kV Wokha | Y | Tejas | STM 4 | N | FIBCOM 6335 | STM4 | Interpataching to be done |

Anneuxre-2

## OPGW & FOTE STATUS NERPSIP - TRIPURA (EHV)

| Sl No | Name of Link/Station | NERPSIP FOTE | | | | ULDC FOTE | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | Stn A | Supply Status | Make and Model | STM Level | Installation Completed | ULDC FOTE available | STM level | |
| 1 | 132 kV PK Bari (TPTL) | Y | ECI | STM4 | Y | FIBCOM 6335 | STM16 | Interpataching to be done |
| 2 | Kumarghat (PG) | Y | ECI | STM4 | Y | FIBCOM6335 | STM16 | Interpataching to be done |
| 3 | Baramura | Y | ECI | STM4 | Y | FIBCOM6335 | STM4 | Interpataching to be done |
| 4 | 132kV 79 Tilla Agartala | Y | ECI | STM4 | Y | FIBCOM6335 | STM16 | Interpataching to be done |
| 5 | Rokhia | Y | ECI | STM4 | Y | FIBCOM6335 | STM16 | Interpataching to be done |
| 6 | Dhalabil | Y | ECI | STM4 | Y | FIBCOM6335 | STM4 | Interpataching to be done |
| 9 | Surajmaninagar | Y (SFP only) | ECI | STM4 | N | FIBCOM6335 | STM16 | Interpataching to be done |
| 10 | Rokhia | Y | ECI | STM4 | Y | FIBCOM6335 | STM4 | Interpataching to be done |
| 11 | 132 kV Udaipur | Y | ECI | STM4 | Y | FIBCOM6335 | STM16 | Interpataching to be done |

ग्रिड-इंडिया
GRID-INDIA

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[Formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र/ North Eastern Regional Load Despatch Centre

कार्यालय: लोअर नोंगराह, लापलांग, शिलांग- 793006(मेघालय)
Office: Lower Nongrah, Lapalang, Shillong- 793006 (Meghalaya)
CIN:U40105DL2009GOI188682, Website: www.nerldc.in, E-mail: nerldc@grid-india.in,Tel:0364-2537470/427,Fax:03642537486

Annexure C 3.2 (ii)

**Ref: NERLDC/Communication/Oct'25/6423** **Date: 23.10.2025**

**To,**

**Executive Director, Comprehensive T&D Scheme Arunchal Pradesh, POWEGRID, Itanagar**

**Sr. General Manager (AM/ULDC), Powergrid RHQ, Lapalang, Shillong**

**Subject:** Optimised utilisation of communication infrastructure and Request for Interconnection of Commissioned SDH Systems over Existing OPGW Infrastructure to Strengthen Communication Redundancy

Sir,

With reference to discussion agenda 2.5 attached an Annexure-1, 32nd NETeST meeting held on 29.08.2025, I would like to draw your attention to a persistent issue affecting the effective utilisation of commissioned SDH systems and the available OPGW communication backbone across multiple substations in the region. Despite the commissioning of compatible SDH equipment and the availability of functional OPGW links at several strategic locations, the absence of interconnection between these systems has resulted in significant underutilisation of available infrastructure and has limited the development of necessary main and redundant communication paths critical to power system operations.

There are multiple instances where SDH systems under various schemes such as ULDC and Comprehensive T&D Scheme (CTDS)-Arunachal Pradesh have been installed at the same or interconnected locations, yet these systems remain non-integrated, resulting in underutilisation of the available OPGW links. Details are listed below and for visualisation kindly refer the annexure attached:

Case-1: Connectivity of Tejas Mux supplied under CTDS from Tinuskia (AEGCL) to Ziro (PG)

- **Namsai (PG owned)** – ULDC Tejas SDH and **Tezu (PG owned)** – CTDS Tejas SDH are not interconnected, despite OPGW connectivity being available between the two locations.
- **Roing (PG owned)** – ULDC Tejas SDH and **Pasighat** – CTDS Tejas SDH remain unconnected, even though the communication link is available.
- **Kathalguri (NEEPCO owned)** – Both ULDC Tejas SDH and CTDS Tejas SDH are installed at the same location, but the systems are not interconnected.

Case-2: Utilisation of the Kameng–Khupi–Tenga–Balipara OPGW route

Another important case is the Kameng–Khupi–Tenga–Balipara OPGW route, which is fully operational but remains unutilised due to the lack of interconnection between the CTDS Tejas SDH and ULDC Fibcom SDH systems at Balipara substation. This corridor holds significant potential for providing robust main or redundant connectivity, which is presently unrealised.

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GRID-INDIA

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[Formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र/ North Eastern Regional Load Despatch Centre

कार्यालय: लोअर नोंगराह, लापलांग, शिलांग- 793006(मेघालय)
Office: Lower Nongrah, Lapalang, Shillong- 793006 (Meghalaya)
CIN:U40105DL2009GOI188682, Website: www.nerldc.in, E-mail: nerldc@grid-india.in,Tel:0364-2537470/427,Fax:03642537486

These SDH systems are located at key nodes in the communication network and are expected to serve as main or redundant links for several central sector generating and grid stations. However, due to the lack of integration between these multiplexers, the infrastructure remains underutilised, and the intended redundancy is not achieved.

The unavailability of alternate communication paths can pose a significant risk to grid operations, particularly for data channels related to ICCP, AGC, SCADA, PMUs, Voice and protection schemes. Moreover, this defeats the purpose of investing in a robust fibre-optic and SDH backbone, as network reliability and operational visibility remain compromised.

It is therefore requested that immediate steps be taken to address this long-standing issue. Interconnection of SDH systems, wherever compatible or interoperable, should be prioritised to ensure the creation of reliable main and redundant communication paths across the network. Coordination between stakeholders under different schemes ULDC and Comprehensive T&D Scheme will be essential in resolving interoperability or administrative issues, if any.

Your kind intervention in this matter is earnestly requested to ensure that the full potential of the region's communication infrastructure is realised for the benefit of grid security and reliability.

With Regards,

Yours Faithfully

Saugato Mondal

General Manager (Logistics, NERLDC)

Copy to (Email):

1. MS, NERPC, Shillong
2. CGM (IC), NERLDC
3. ED, NERTS

सत्यमेव जयते

भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

सुरक्षा है जहाँ खुशियाँ हैं वहाँ
Suraksha SHAKTI

SPEED POST/FAX
Ph : 0364-2534039
Fax: 0364-2534040
email: nerpc@ymail.com
website: www.nerpc.gov.in

No: NERPC/NETeST/2025/2268 - 2307 .

24th September 2025

**सेवा में / To**

**As per list attached**

**विषय: 32 वीं एन.इ टेस्ट बैठक का कार्यवृत**
**Sub: Minutes of 32nd NETeST Meeting.**

महोदय/महोदया,

कृपया 29 अगस्त, 2025 को एन.ई.आर.पी.सी कॉन्फ्रेंस हॉल, शिलांग में आयोजित 32 वीं एन.इ टेस्ट बैठक के कार्यवृत्त को आपकी सूचना एवं आवश्यक कार्रवाई हेतु संलग्न देखें। कार्यवृत्त एन.ई.आर.पी.सी की वेबसाइट: www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द एन.ई.आर.पी.सी सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 32nd NETeST Meeting held at NERPC Conference Hall, Shillong on 29th August, 2025 for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

Any comments/observations may kindly be communicated to NERPC Secretariat at the earliest.

भवदीय / Yours faithfully,

24/IX/2025

(डी.के. बौरी/D.K Bauri)
निदेशक / Director

Encl: As above

In the 8th CTU Planning Meeting (CPM) dtd. 28-07-2025, NERLDC requested POWERGRID to provide communication links for Power System usage over all such OPGW networks previously managed by POWERTEL, including the 400 kV Silchar – Imphal, 400 kV Balipara–Bongaigaon Lines 3 & 4 and the 132 kV Kumarghat–Aizawl line.

Forum may discuss further if any other such fibre needs to brought in usage for Power System.

***Deliberation of the sub committee:***

PGCIL updated the forum as follows:

1. **400 kV Silchar – Imphal line:** The matter would be taken up with POWERTEL at the earliest.
2. **400 kV Balipara–Bongaigaon Lines 3 & 4-** The matter has already been taken up with POWERTEL and is in progress.
3. **132 kV Kumarghat–Aizawl line-** There is high loss in this link. PGCIL will submit detailed loss report (OTDR) within 15 days.

NERLDC further apprised the forum that the only communication link between NER and ER is Salakati to Alipurduar. NERLDC requested the forum for exploring fibre/ bandwith allocation via Binaguri to Siliguri link to establish redundant communication link between NER and ER.

Forum in principle agreed for the proposal of redundant communication link between NER and ER and also advised NERLDC to take the matter to CTU/NLDC being inter-regional issue.

**2.5. Optimised utilisation of OPGW & FOTE across the NER considering the assets that are being commissioned under NERPSIP, Comprehensive T&D, State-owned projects, TBCBs and ULDCs- NERLDC**

With the recent commissioning of numerous links under various State and Central projects, the communication infrastructure of the NER Grid has witnessed significant development. However, **the optimal utilization of the**

**infrastructure is essential to derive its full benefits.** Few of such examples are outlined below:

Usage of BNC-HVDC → Balipara → Rangia → Bongaigoan → Alipurduar, the OPGW is laid over BNC- Agra HVDC link **however it is still not being utilized for Inter-regional communication link.**

The Connectivity Tinsukia →Kathalguri → Namsai →Tezu - - -> Roing - - -> Pasighat → Along → Basar →Daporizo →Ziro consist of Tejas SDH which are either owned by Comprehensive T&D or ULDC POWERGRID, **however all the Tejas SDHs are not connected till now.**

Kameng → Khupi → Tenga → Balipara OPGW is completed, however this link is not being utilised till now.

Inter-patching requirement at multiple locations of NER to facilitate a redundant communication path between Central Sector Station and NERLDC after commissioning of various assets under NERPSIP-Tripura:

(a) Gohpur (Assam owned station),

(b) Rokhia (Tripura owned station),

(c) Udaipur (Tripura owned station),

(d) Agartala-79 Tilla (SLDC-Tripura)

***Deliberation of the sub-committee:***

***Regarding the connectivity from HVDC BNC to HVDC Agra***, PGCIL apprised that the fibre connectivity from HVDC BNC to Rangia (repeater station) is healthy. But the fibre connectivity from Rangia (repeater station) to Alipurduar is unhealthy and is reporting high losses. PGCIL further informed that rectification works on the unhealthy portion (Rangia to Alipurduar) is in process and would take some time. PGCIL was advised to share the loss report within a week. **Annexure B 2.5 attached for reference.**

***Regarding the connectivity from Tinsukia to Ziro***, NERLDC apprised that inter-patching is pending at Kathalguri. Moreover, OPGW connection is pending between Namsai and Tezu and also SDH is not connected between Roing and Pasighat.

CTDS and POWERGRID agreed to mutually complete the necessary connections.

***Regarding the connectivity from Kameng to Balipara***, NERLDC apprised that inter-patching is pending from Balipara to Kameng which will enable a ring communication for Kameng.

**MS, NERPC suggested NERLDC** to write a letter to the concerned utilities, highlighting the gaps and possible solutions regarding inter-patching and fibre sharing issues as mentioned above. This would help ensure optimal utilisation of communication infrastructure in NER. NERLDC agreed to take the necessary action.

### 2.6. Establishing Communication Link between 400 kV New Kohima and 220 kV Zhadima via 220 kV Zhadima–New Kohima Line – Restoration of Connectivity in View of Link Failure-NERLDC

The communication link between **400 kV New Kohima and 400 kV Imphal** has remained non-functional since June 2024. Restoration efforts by Aparva (TSP) have been hindered due to prevailing law and order issues in Manipur, resulting in a prolonged outage and communication blackout at New Kohima. However, there exists an alternative opportunity to restore connectivity through the OPGW laid on the 220 kV Zhadima–New Kohima transmission line, which is being executed by the Department of Power (DoP), Nagaland.

A Fibcom FOTE is installed at 220 kV Zhadima.

An ABB FOTE is available at 400 kV New Kohima.

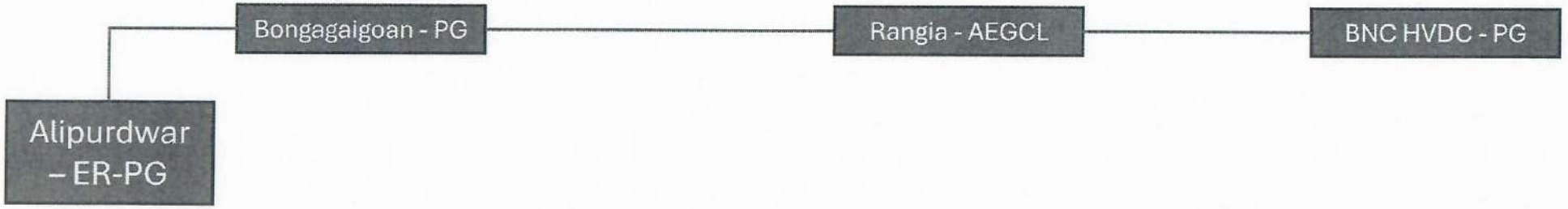
A direct fiber patch between these FOTEs using the available OPGW on the Zhadima–New Kohima line can restore essential communication for New Kohima until the primary route via Imphal is re-established.

**ULDC-POWERGRID, Aparva** and **DoP-Nagaland** are requested to coordinate with the respective vendors (Fibcom and ABB) and execute the necessary inter-patching to restore communication between New Kohima and Zhadima via the aforementioned OPGW route, which will enhance the reliability of New Kohima (Aparva) S/s and in turn for NER. A diagram depicting the connectivity is attaches as **Annexure B 2.6.**

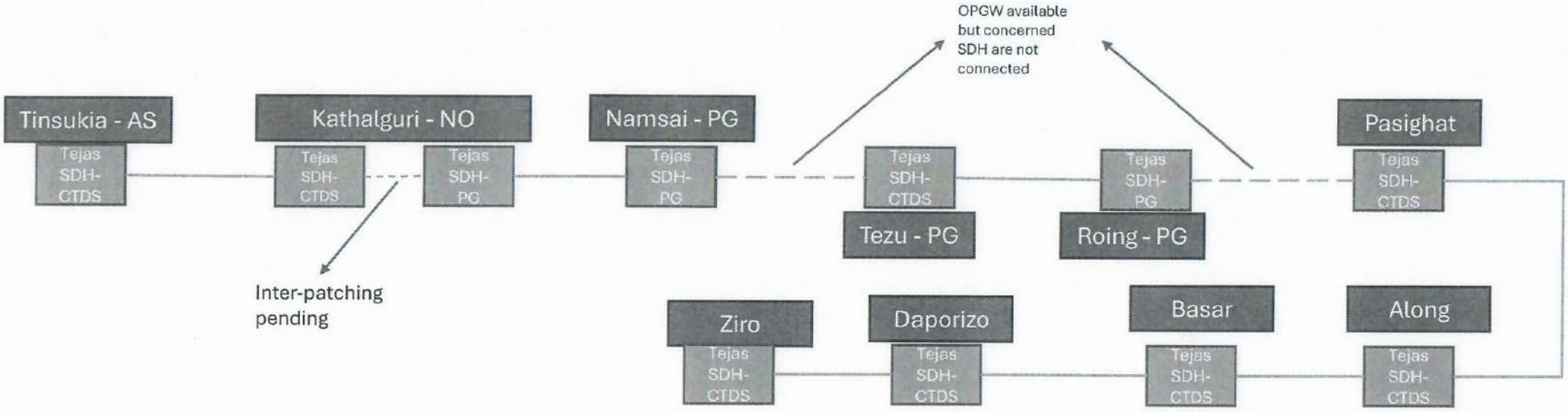
# Agenda: 2.5:

Annexure B 2.5

## Case 1: Non-utilisation of BNC-Agar HVDC OPGW for Inter-regional Purpose

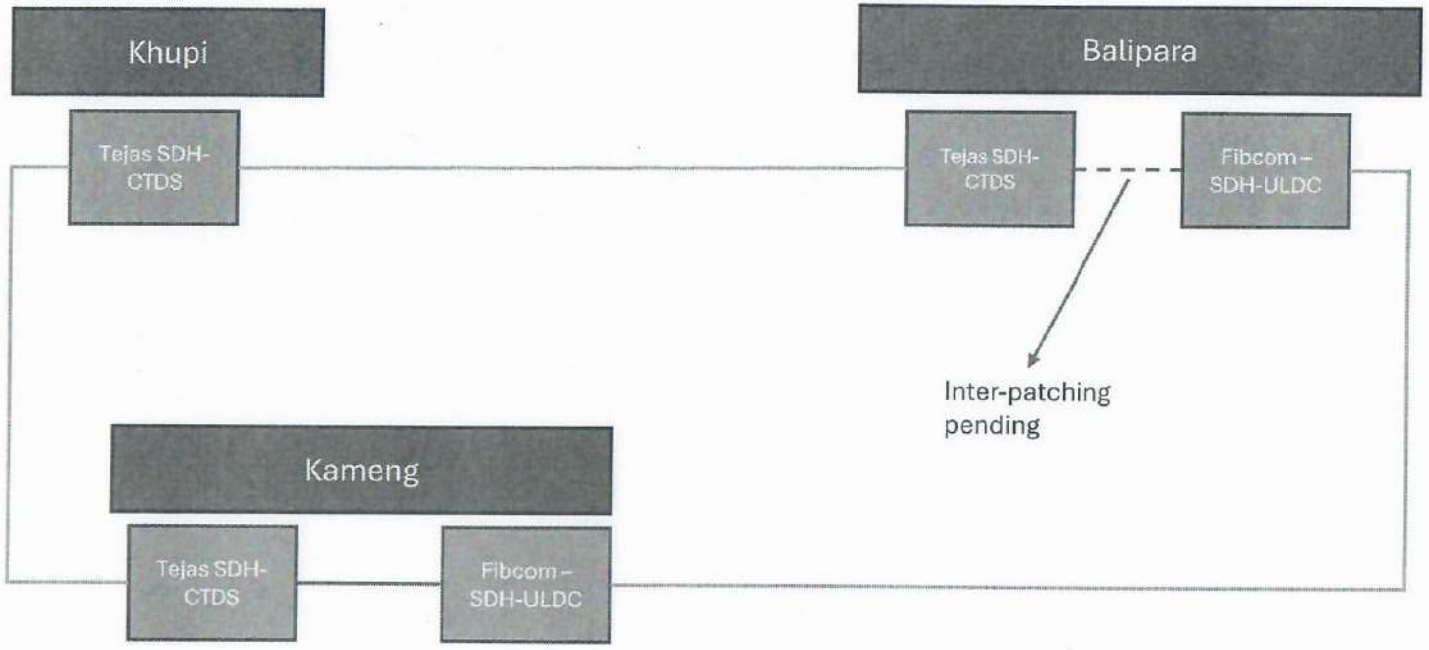



## Case 2: Non-connection of Same make SDH even after availability of OPGW



# Agenda: 2.5:

## Case 3: Utilisation of Kameng → Khupi → Tenga → Balipara OPGW



**Sakal Deep (सकल दीप)** Annexure C 3.4

**From:** Subal Das
**Sent:** 02 April 2026 12:22
**To:** apsldc.sd; nicegeyi@gmail.com
**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); Executive Engineer; Assistant Engineer; NERLDC SCADA
**Subject:** Re: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Respected Sir/Ma'am,

Gentle reminder-6

It is kindly requested to update the status of data (MW, MVAR, CB, and isolators) for Panyor and Pare bays at Chimpu S/s and installation status of MFTs and CMRs.

**भवदीय /Regards,**
**सुबल दास/ Subal Das**
**सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)**
**उ.पू.क्षे.भा.प्रे.कें. , शिलांग /North Eastern Regional Load Despatch Center, Shillong**
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड (ग्रिड-इंडिया)
*Grid Controller of India Limited (GRID-INDIA)*

Websites : https://www.nerldc.in/ | https://grid-india.in/en/

---

**From:** Subal Das
**Sent:** Wednesday, March 18, 2026 5:06 PM
**To:** apsldc.sd; nicegeyi@gmail.com
**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); Executive Engineer; Assistant Engineer; NERLDC SCADA
**Subject:** Re: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Sir,

For your reference, the PDF of the relevant minutes of the 32nd NETeST meeting (Agenda No. 2.8 of the 31st NETeST) is attached herewith. An early update in this regard will be highly appreciated.

**भवदीय /Regards,**
**सुबल दास/ Subal Das**

**सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)**
**उ.पू.क्षे.भा.प्रे.कें. , शिलांग /North Eastern Regional Load Despatch Center, Shillong**
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड (ग्रिड-इंडिया)
*Grid Controller of India Limited (GRID-INDIA)*

Websites : https://www.nerldc.in/ | https://grid-india.in/en/

---

**From:** Subal Das
**Sent:** Wednesday, March 18, 2026 1:07:42 PM
**To:** apsldc.sd; nicegeyi@gmail.com
**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); Executive Engineer; Assistant Engineer; NERLDC SCADA
**Subject:** Re: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Sir,

Gentle reminder-5.

It is kindly requested to update the status of data (MW, MVAR, CB, and isolators) for Panyor and Pare bays at Chimpu S/s and installation status of MFTs and CMRs.

**भवदीय /Regards,**
**सुबल दास/ Subal Das**
**सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)**
**उ.पू.क्षे.भा.प्रे.कें. , शिलांग /North Eastern Regional Load Despatch Center, Shillong**
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड (ग्रिड-इंडिया)
*Grid Controller of India Limited (GRID-INDIA)*

Websites : https://www.nerldc.in/ | https://grid-india.in/en/

---

**From:** Sakal Deep (सकल दीप)
**Sent:** Tuesday, August 5, 2025 11:55 AM
**To:** apsldc.sd; nicegeyi@gmail.com
**Cc:** S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); NERLDC SCADA; Executive Engineer; Assistant Engineer
**Subject:** RE: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Dear Sir,

Gentle reminder-4.

Regards,
Sakal Deep/सकल दीप
North Eastern Regional Load Despatch Centre/उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
**(A Government of India Enterprise) / (भारत सरकार का उद्यम)**

---

**From:** Paominlal Doungel (पाओमिंलाल डौंगेल) <paominlal@grid-india.in>
**Sent:** 08 May 2025 10:26
**To:** apsldc.sd <apsldc.sd@gmail.com>; nicegeyi@gmail.com
**Cc:** S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; Executive Engineer <eesldcitaap@gmail.com>; Assistant Engineer <aesldc2021@gmail.com>; Sakal Deep (सकल दीप) <skldeep@grid-india.in>
**Subject:** Re: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Sir,
As per agenda 2.8of 31st NETeST minutes and agenda 2.12 of 225th OCC meeting (*Snapshot of relevant minutes is attached)*, it is kindly requested to update the status.

_____
Regards,
Paominlal Doungel,

System Logistics
North Eastern Regional Load Despatch Centre, Shillong
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
(Formerly known as Power System Operation Corporation Ltd)
**(A Government of India Enterprise)**

---

**From:** Sakal Deep (सकल दीप)
**Sent:** 16 April 2025 14:52
**To:** apsldc.sd <apsldc.sd@gmail.com>
**Cc:** S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; Executive Engineer <eesldcitaap@gmail.com>; Assistant Engineer <aesldc2021@gmail.com>; nicegeyi@gmail.com
**Subject:** RE: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Dear Sir,

Gentle reminder-2.

Regards,
Sakal Deep (सकल दीप)
North Eastern Regional Load Despatch Centre

**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
(Formerly known as Power System Operation Corporation Ltd)
**(A Government of India Enterprise)**

---

**From:** Sakal Deep (सकल दीप)
**Sent:** Tuesday, March 11, 2025 15:33
**To:** apsldc.sd; nicegeyi@gmail.com
**Cc:** S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); NERLDC SCADA; Executive Engineer; Assistant Engineer
**Subject:** RE: Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Dear Sir,

Gentle reminder-1.

Regards,
Sakal Deep (सकल दीप)
North Eastern Regional Load Despatch Centre
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
(Formerly known as Power System Operation Corporation Ltd)
**(A Government of India Enterprise)**

---

**From:** Sakal Deep (सकल दीप)
**Sent:** Monday, February 17, 2025 11:07 AM
**To:** apsldc.sd <apsldc.sd@gmail.com>; nicegeyi@gmail.com
**Cc:** S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; Executive Engineer <eesldcitaap@gmail.com>; Assistant Engineer <aesldc2021@gmail.com>
**Subject:** Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

Dear Sir,
It has been observed that the data (MW, MVAR, CB, and isolators) for Panyor and Pare bays at Chimpu S/s is not being reported. Upon further analysis, it has come to our attention that MFTs and CMRs for the mentioned bays are yet to be installed.
Kindly coordinate with M/s GE to carry out the following actions to enable data reporting for the mentioned bays:

1. **Installation of MFTs:**
    - MFTs need to be installed for both bays.
    - Appropriate CT and PT connections must be completed.
    - MFTs should then be integrated with the Chimpu RTU.
2. **Installation of CMRs:**
    - CMRs need to be installed for both bays.
    - CB and isolator status should be integrated with the Chimpu RTU.

We request you to kindly coordinate with M/s GE for the integration of Panyor and Pare bay data into the Chimpu S/s RTU.

Regards,
Sakal Deep (सकल दीप)

North Eastern Regional Load Despatch Centre
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
(Formerly known as Power System Operation Corporation Ltd)
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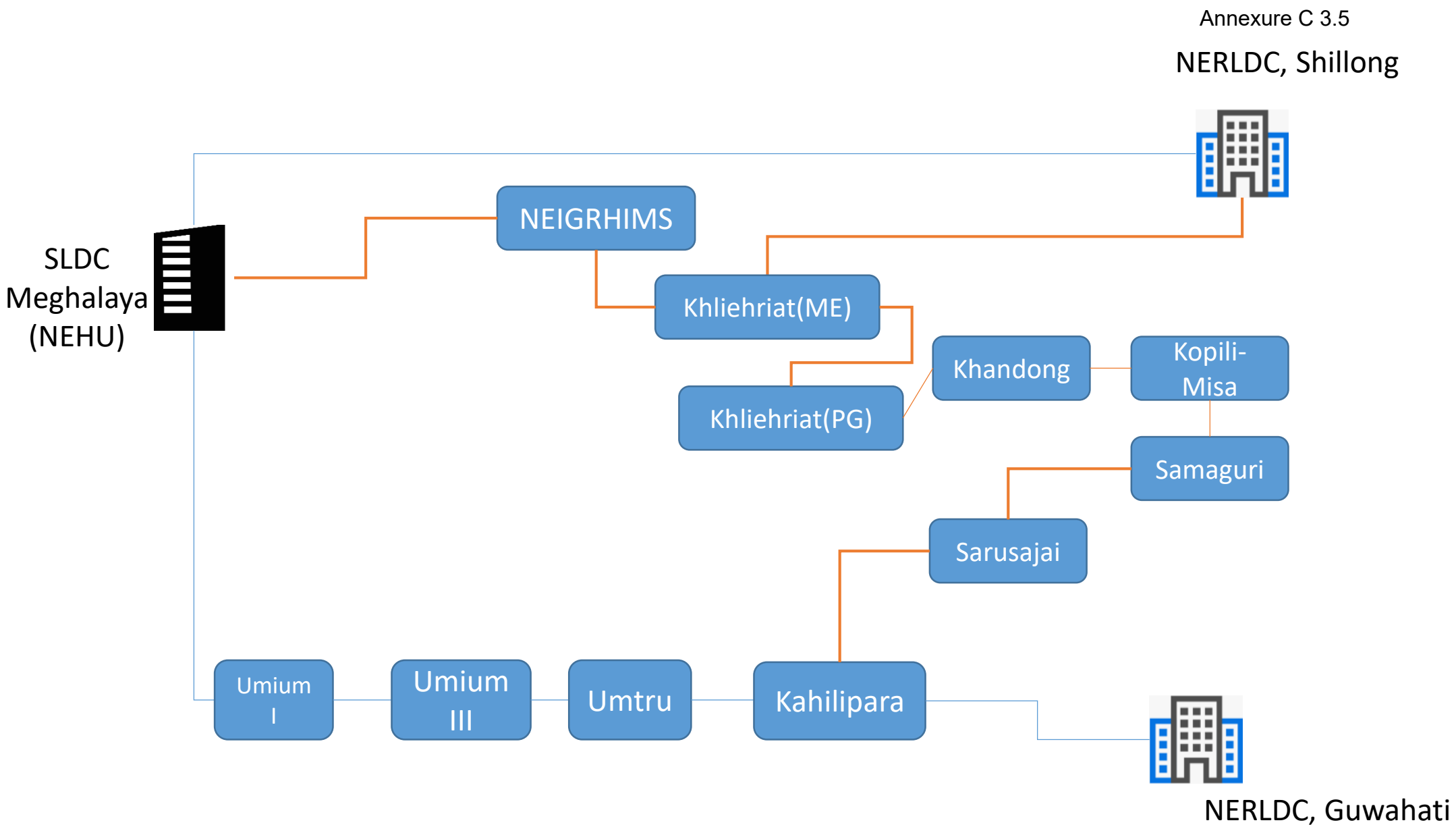
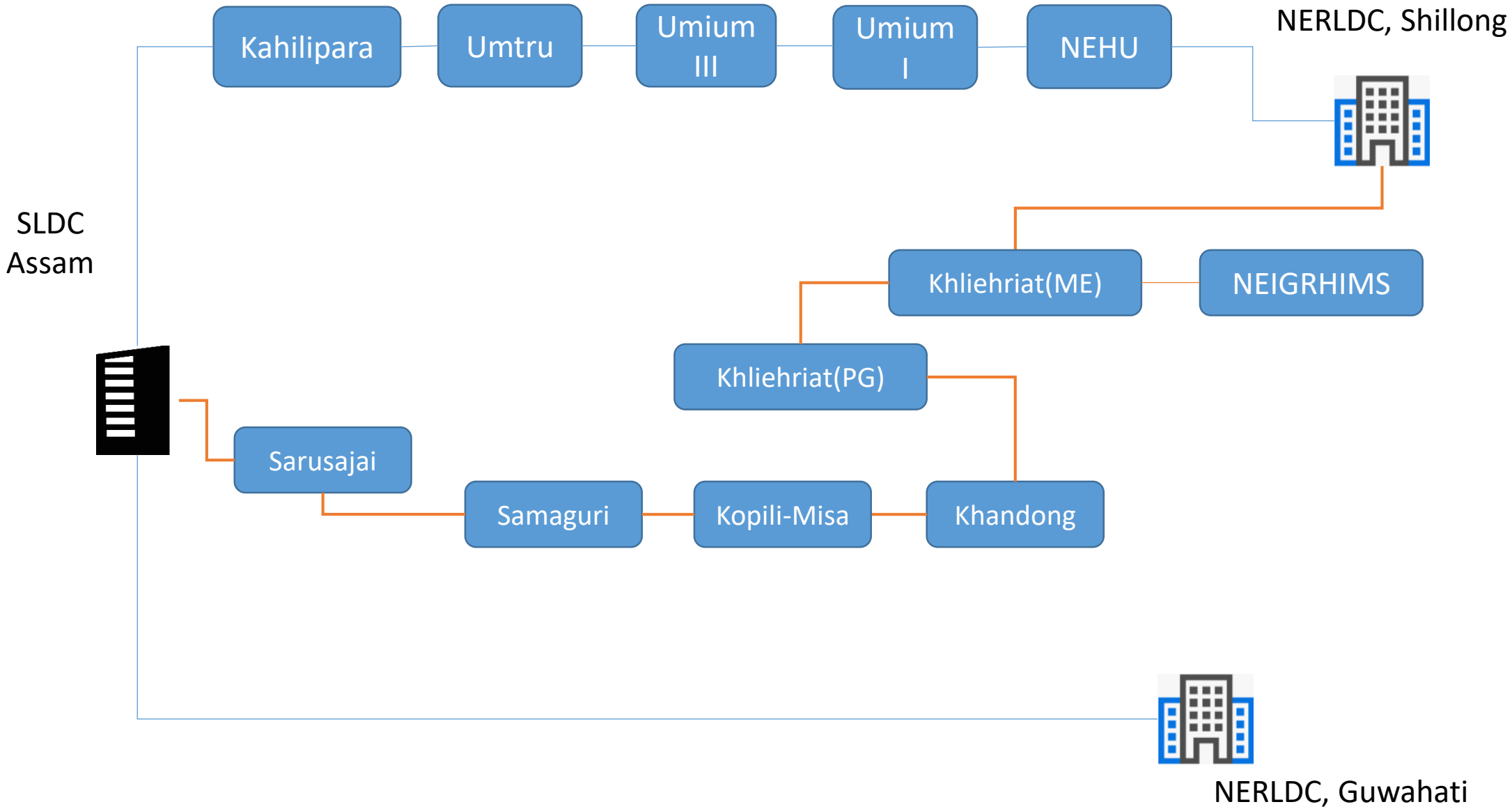
# Connection between NERLDC to SLDC, Meghalaya

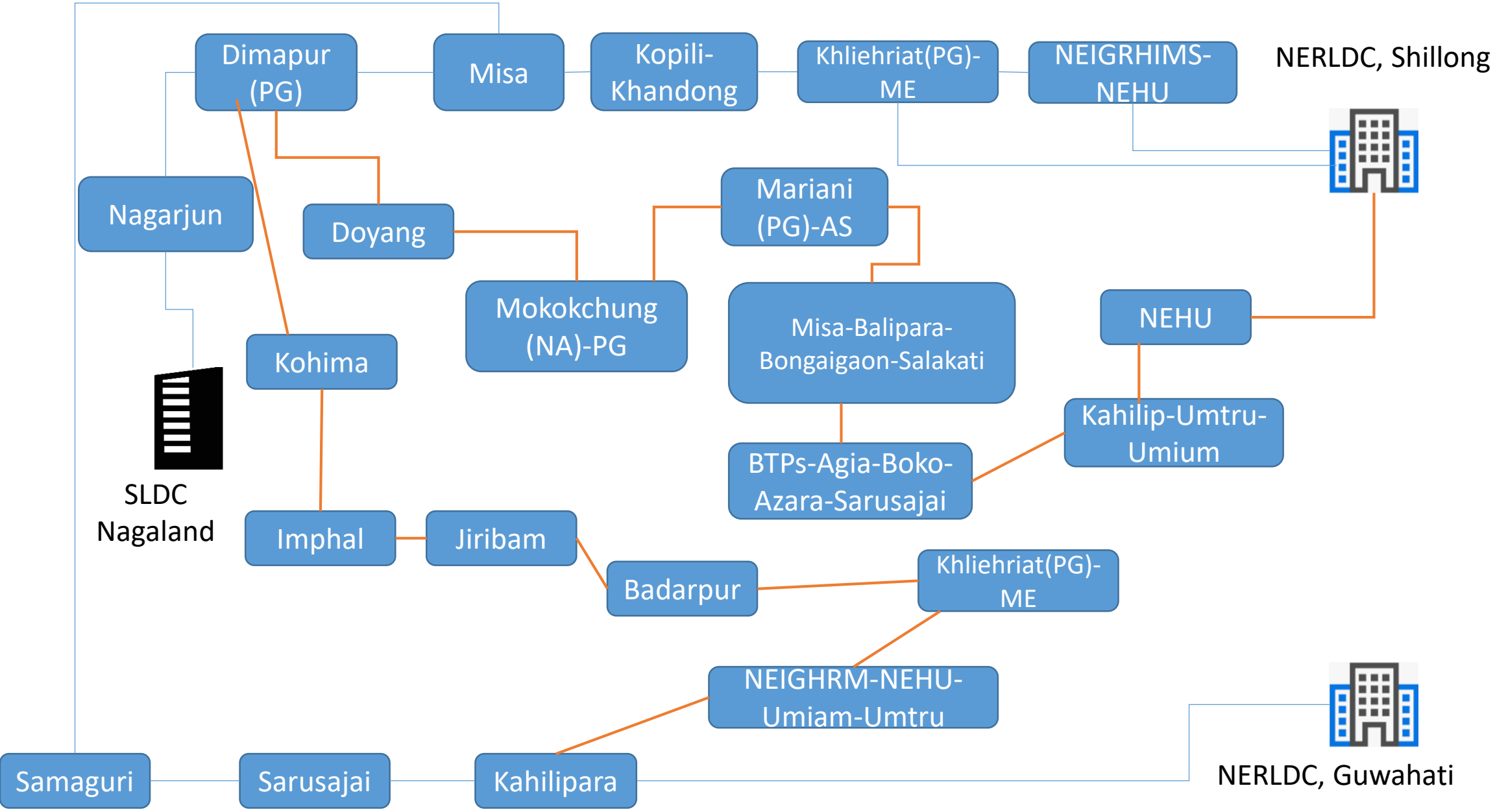
Annexure C 3.5



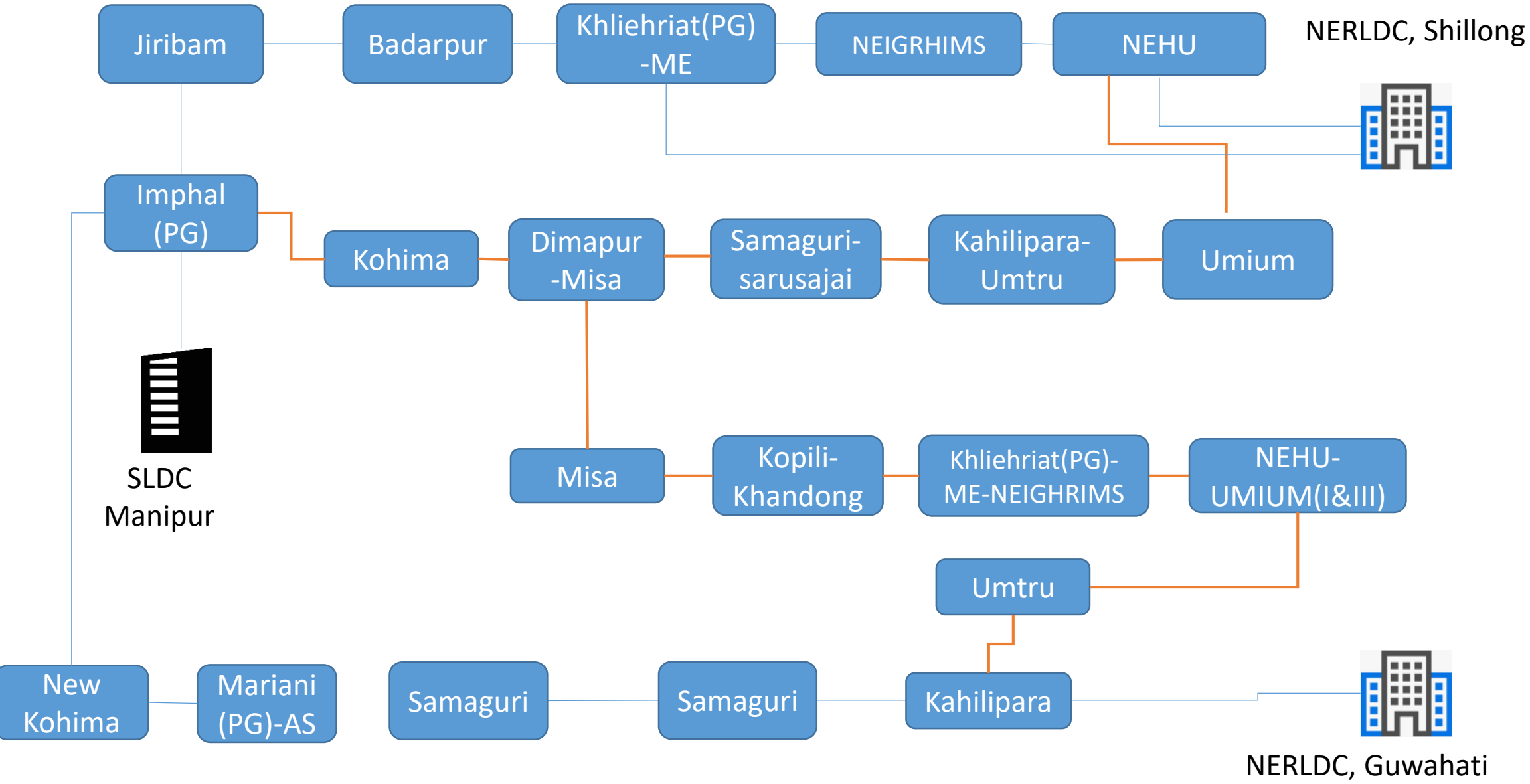
# Connection between NERLDC to SLDC, Assam



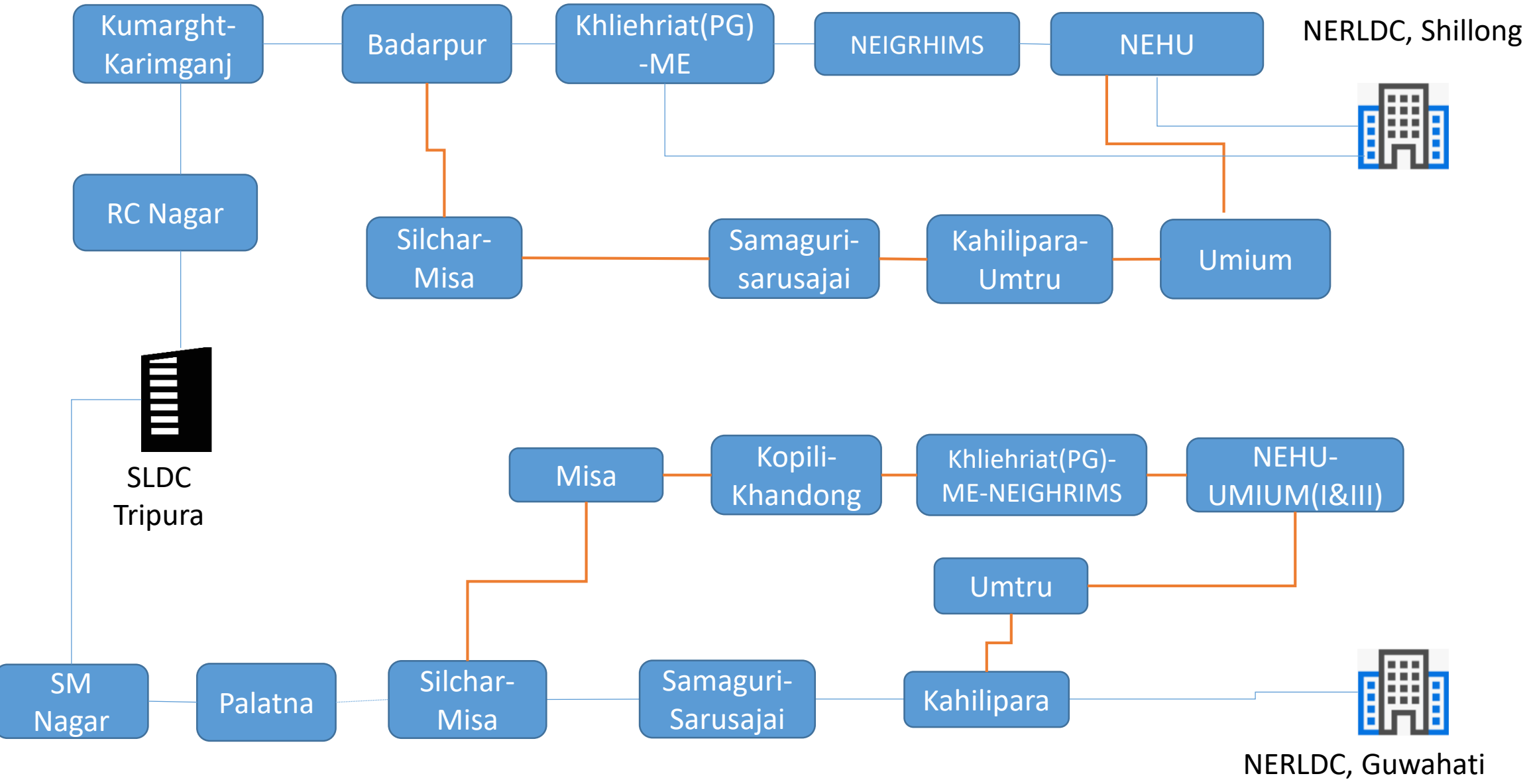
# Connection between NERLDC to SLDC, Nagaland



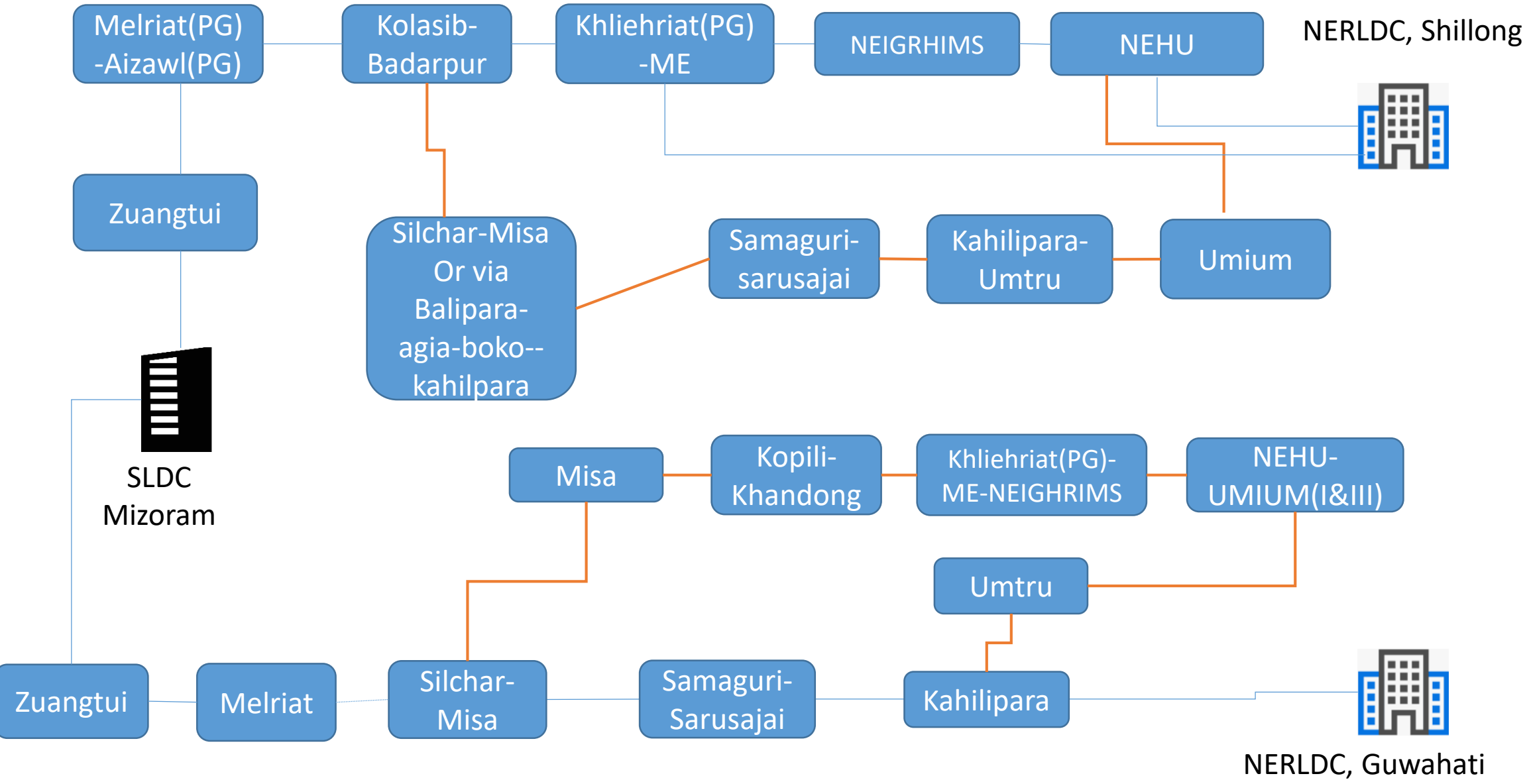
# Connection between NERLDC to SLDC, Manipur



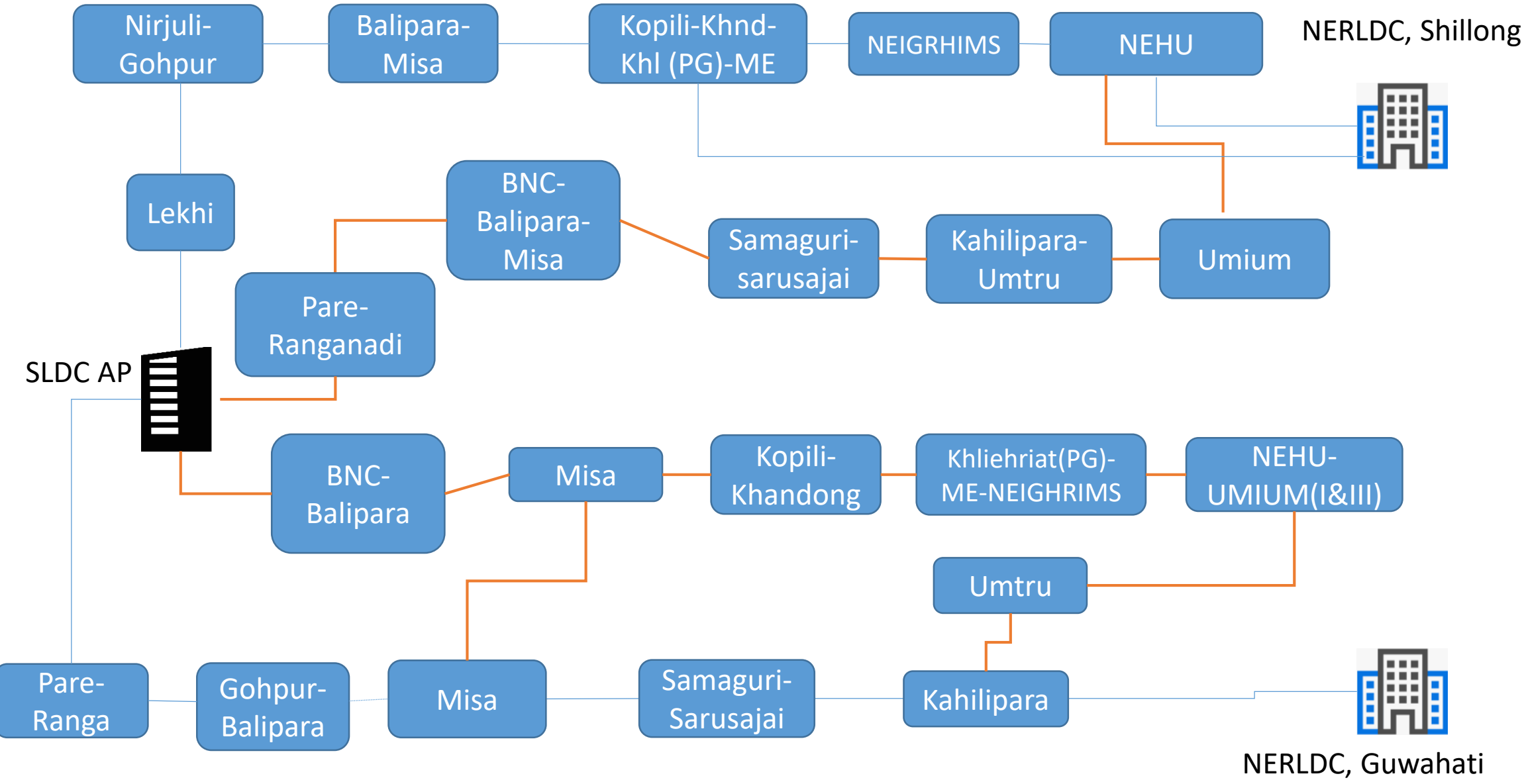
# Connection between NERLDC to SLDC, Tripura



# Connection between NERLDC to SLDC,Mizoram



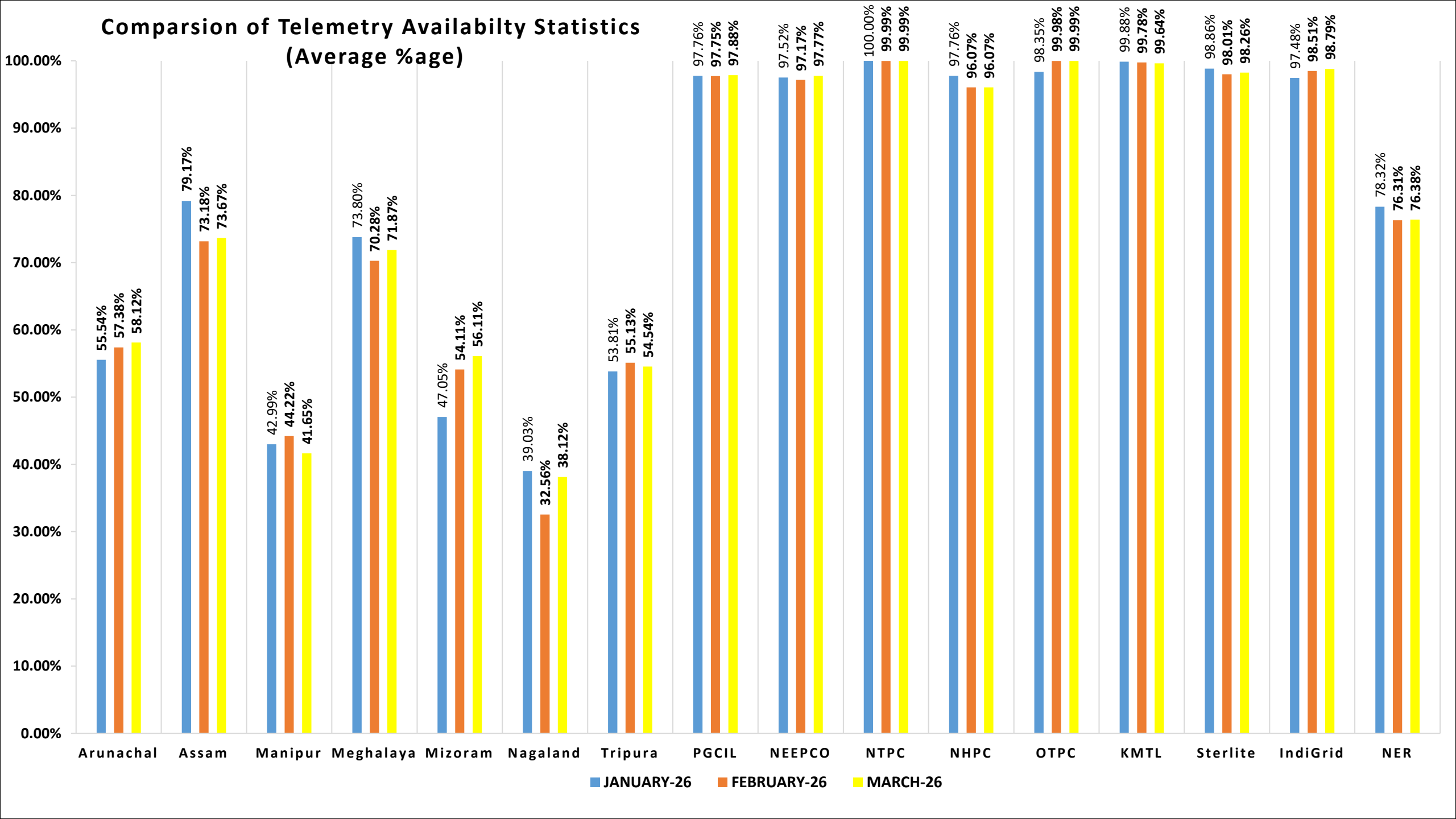
# Connection between NERLDC to SLDC,Arunachal Pradesh



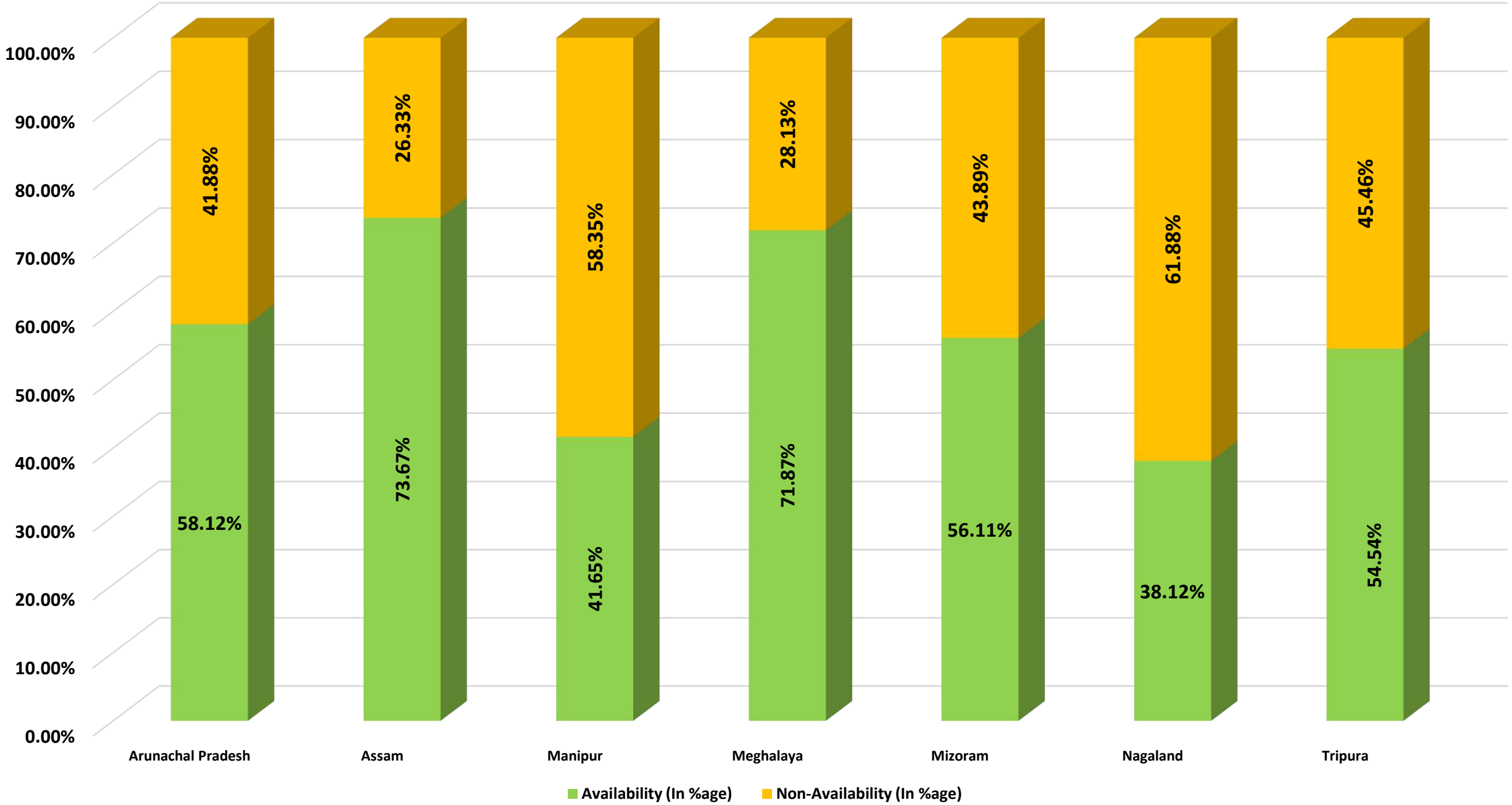
# Telemetry Statistics for the month of March 2026

Annexure C 3.9

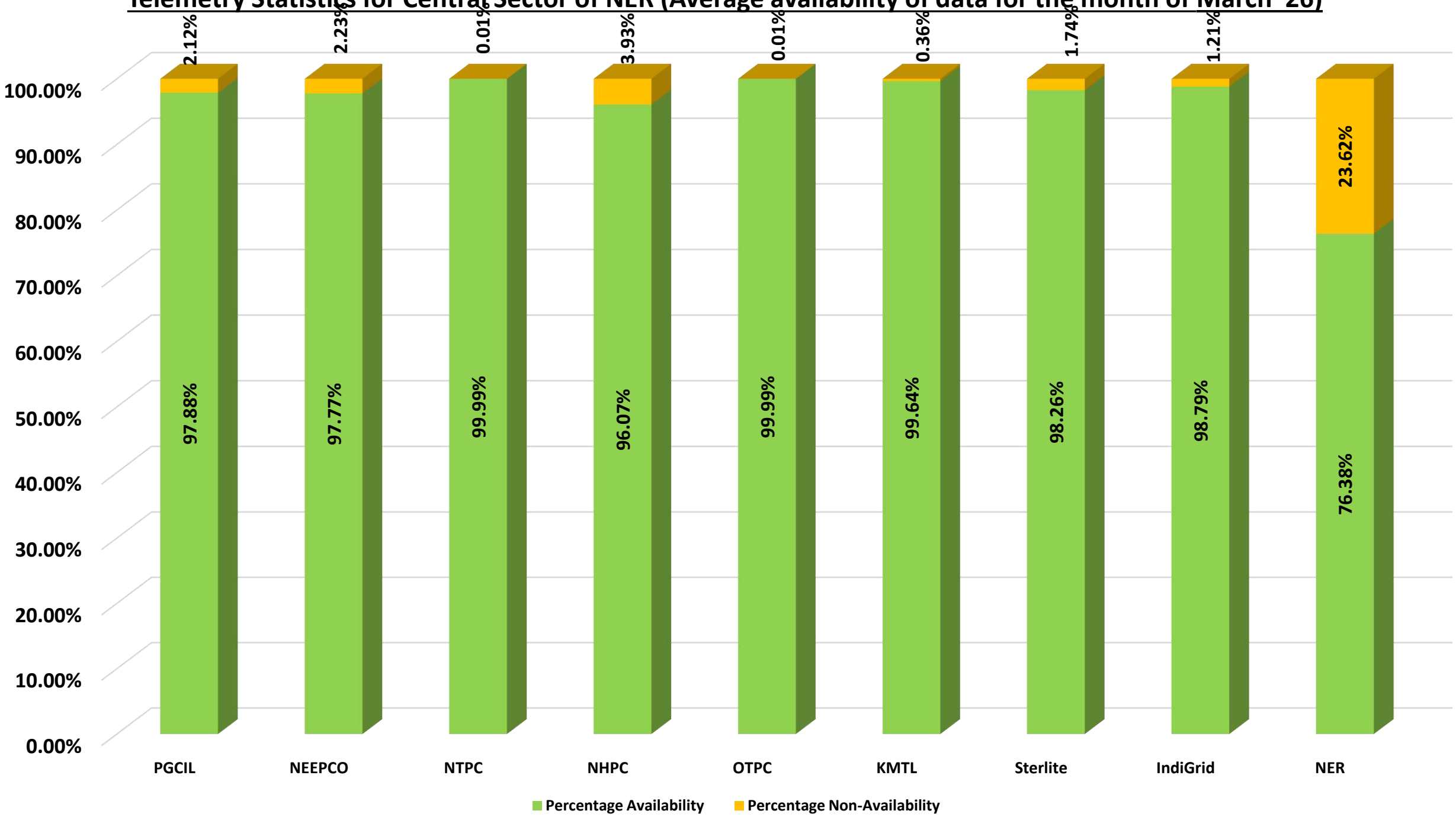
| Sl. No. | Utility | Average Total Percentage | Average Analog Percentage | Average Digital Availability | Average RTU Availability | Target as per 32nd NeTEST MOM |
|---|---|---|---|---|---|---|
| 1 | PGCIL | 97.88 | 97.84 | 97.85 | 99.21 | |
| 2 | NEEPCO | 97.77 | 95.32 | 98.84 | 99.98 | |
| 3 | NTPC | 99.99 | 99.99 | 100 | 100 | |
| 4 | NHPC | 96.07 | 99.13 | 95.87 | 99.84 | |
| 5 | OTPC | 99.99 | 99.98 | 99.98 | 100 | |
| 6 | KMTL | 99.64 | 99.75 | 99.79 | 99.81 | |
| 7 | Sterlite | 98.26 | 95.12 | 99.68 | 99.72 | |
| 8 | Indigrid | 98.79 | 97.54 | 98.14 | 99.99 | |
| 9 | Arunachal Pradesh | 58.12 | 48.68 | 62.07 | 63.18 | 95 |
| 10 | Assam | 73.67 | 74.8 | 72.12 | 74.32 | 95 |
| 11 | Manipur | 41.65 | 46.92 | 40.43 | 59.45 | 95 |
| 12 | Meghalaya | 71.87 | 84.12 | 62.67 | 88.1 | 95 |
| 13 | Mizoram | 56.11 | 62.36 | 47.32 | 78.32 | 95 |
| 14 | Nagaland | 38.12 | 30.3 | 36.12 | 38.44 | 95 |
| 15 | Tripura | 54.54 | 62.12 | 51.32 | 76.32 | 95 |


Comparsion of Telemetry Availabilty Statistics
(Average %age)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
55.54%
57.38%
58.12%
79.17%
73.18%
73.67%
42.99%
44.22%
41.65%
73.80%
70.28%
71.87%
47.05%
54.11%
56.11%
39.03%
32.56%
38.12%
53.81%
55.13%
54.54%
97.76%
97.75%
97.88%
97.52%
97.17%
97.77%
100.00%
99.99%
99.99%
97.76%
96.07%
96.07%
98.35%
99.98%
99.99%
99.88%
99.78%
99.64%
98.86%
98.01%
98.26%
97.48%
98.51%
98.79%
78.32%
76.31%
76.38%
Arunachal
Assam
Manipur
Meghalaya
Mizoram
Nagaland
Tripura
PGCIL
NEEPCO
NTPC
NHPC
OTPC
KMTL
Sterlite
IndiGrid
NER
JANUARY-26
FEBRUARY-26
MARCH-26

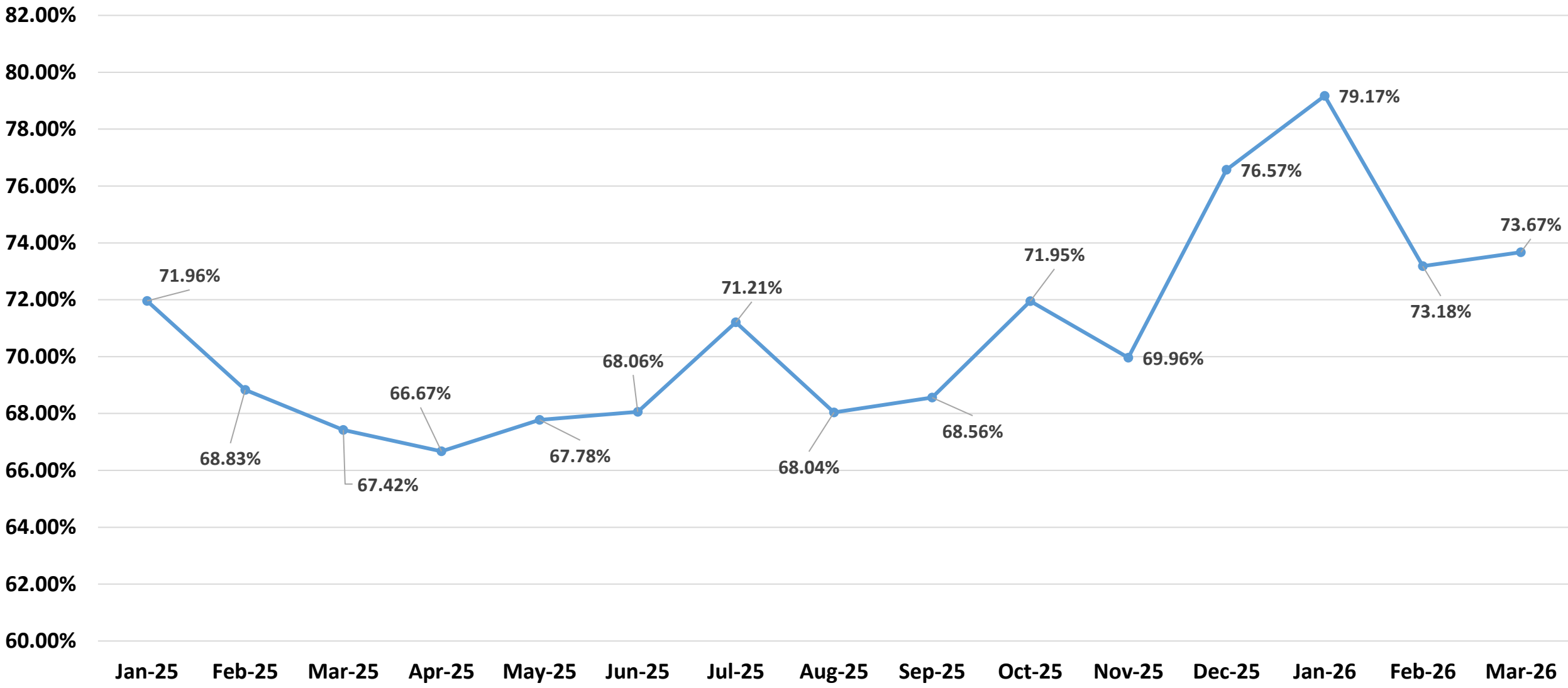
# Telemetry Statistics for NER States(Average availability of data for the month of March '26)



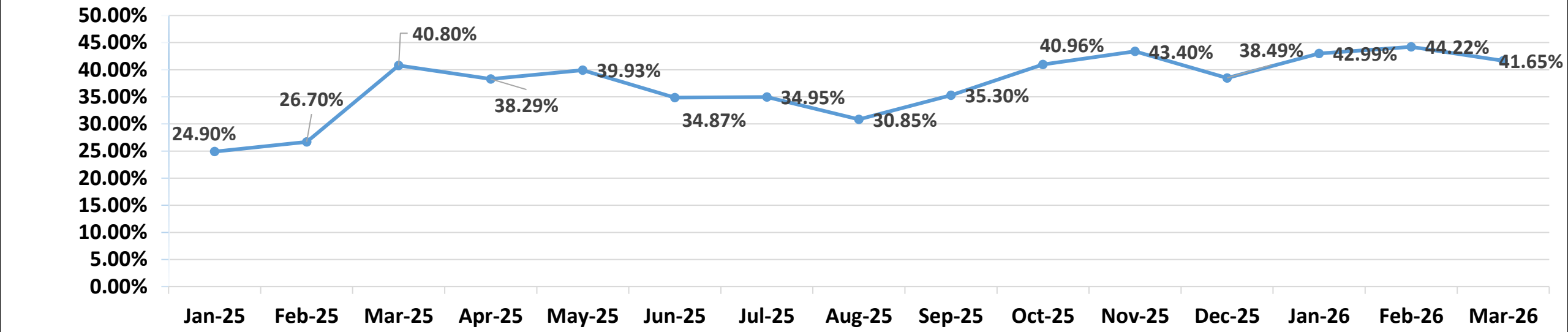
# Telemetry Statistics for Central Sector of NER (Average availability of data for the month of March '26)



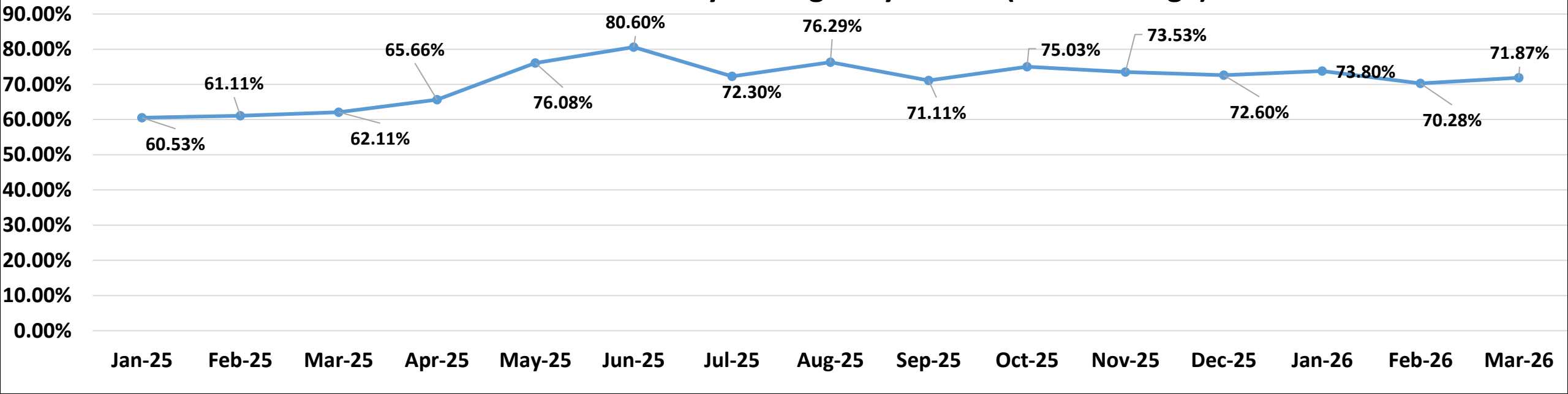
# Real Time Data Availability of Assam State (In Percentage)

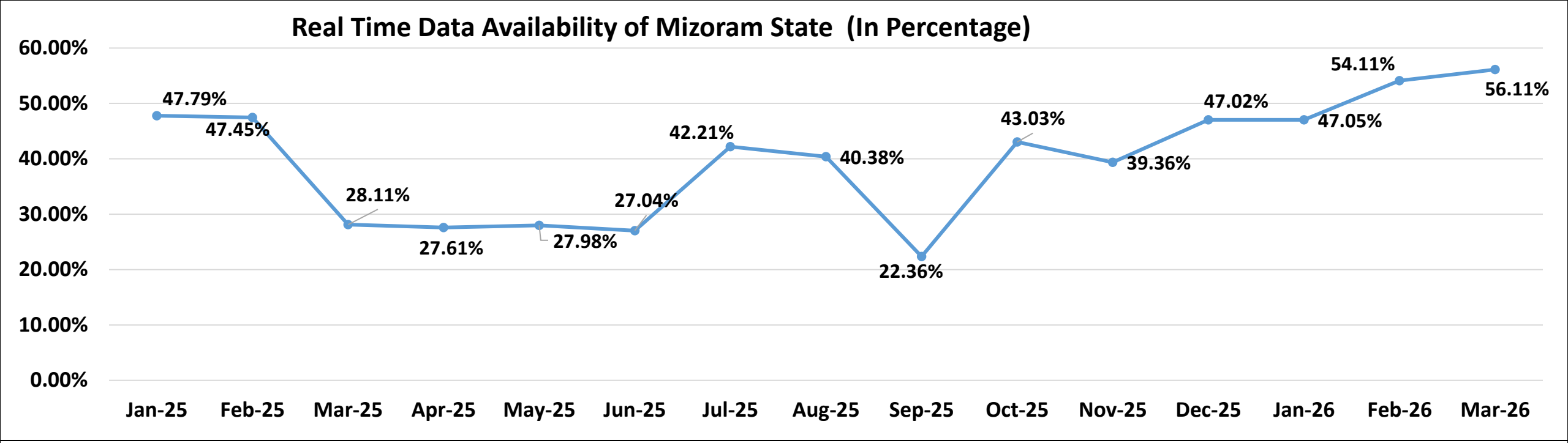


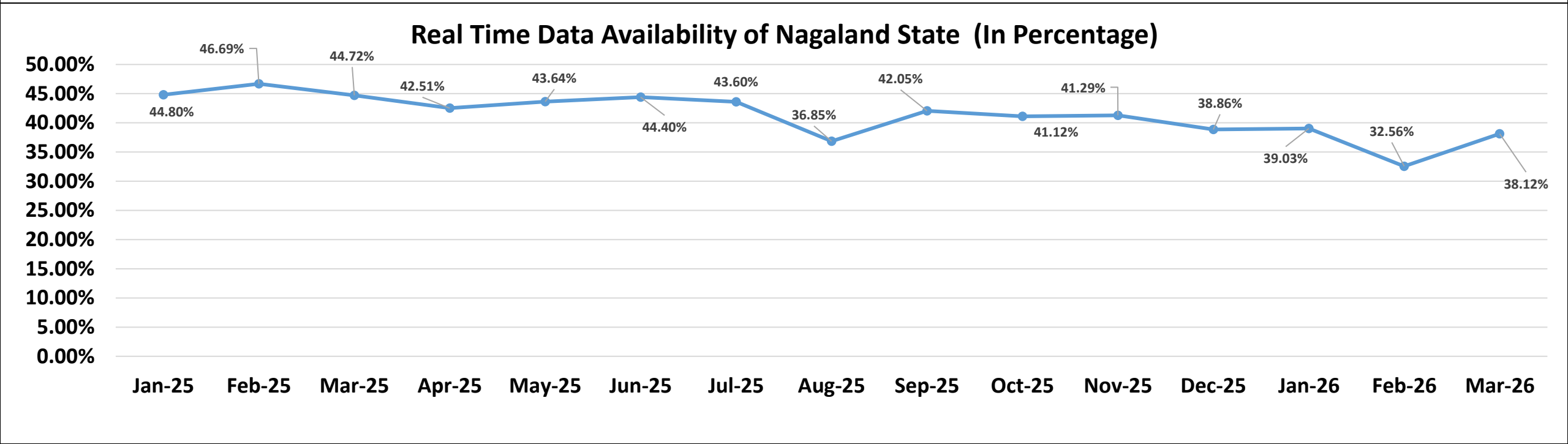
## Real Time Data Availability of Manipur State (In %)

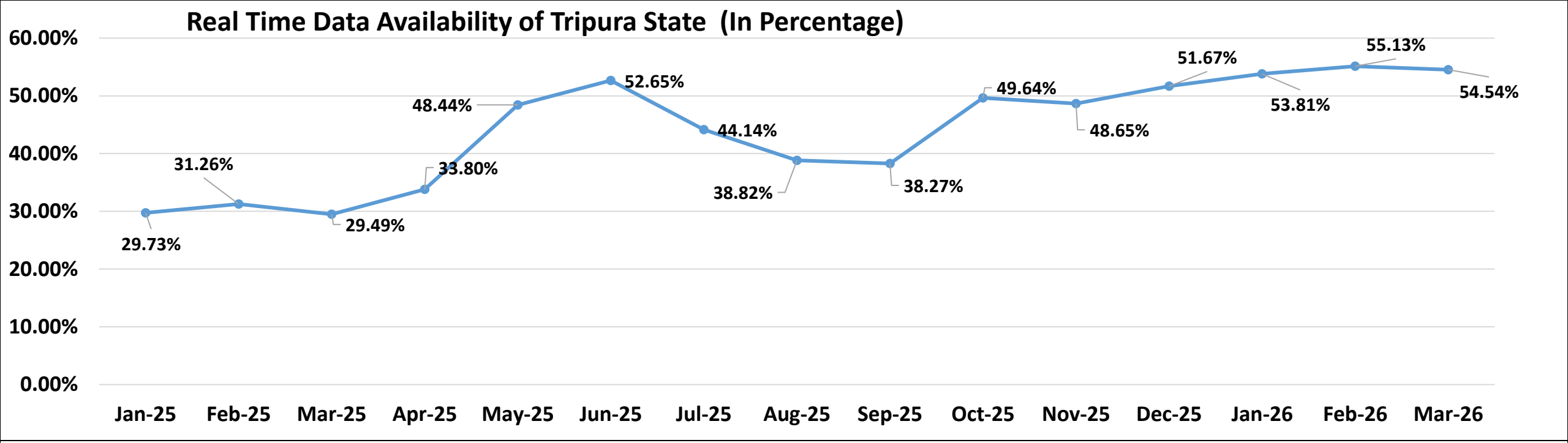


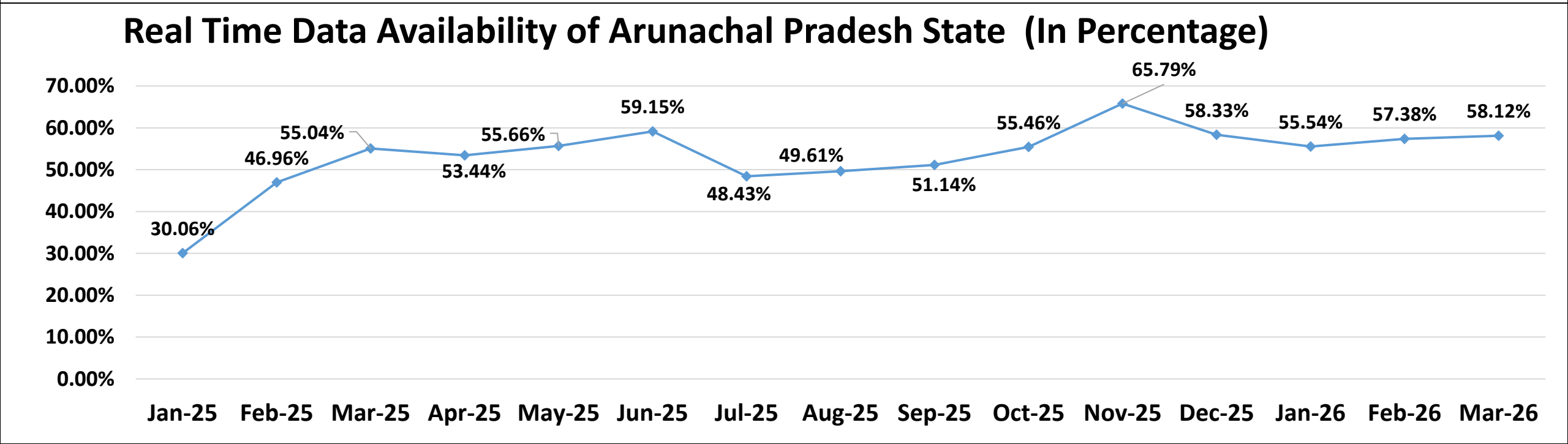

## Real Time Data Availability of Meghalaya State (In Percentage)



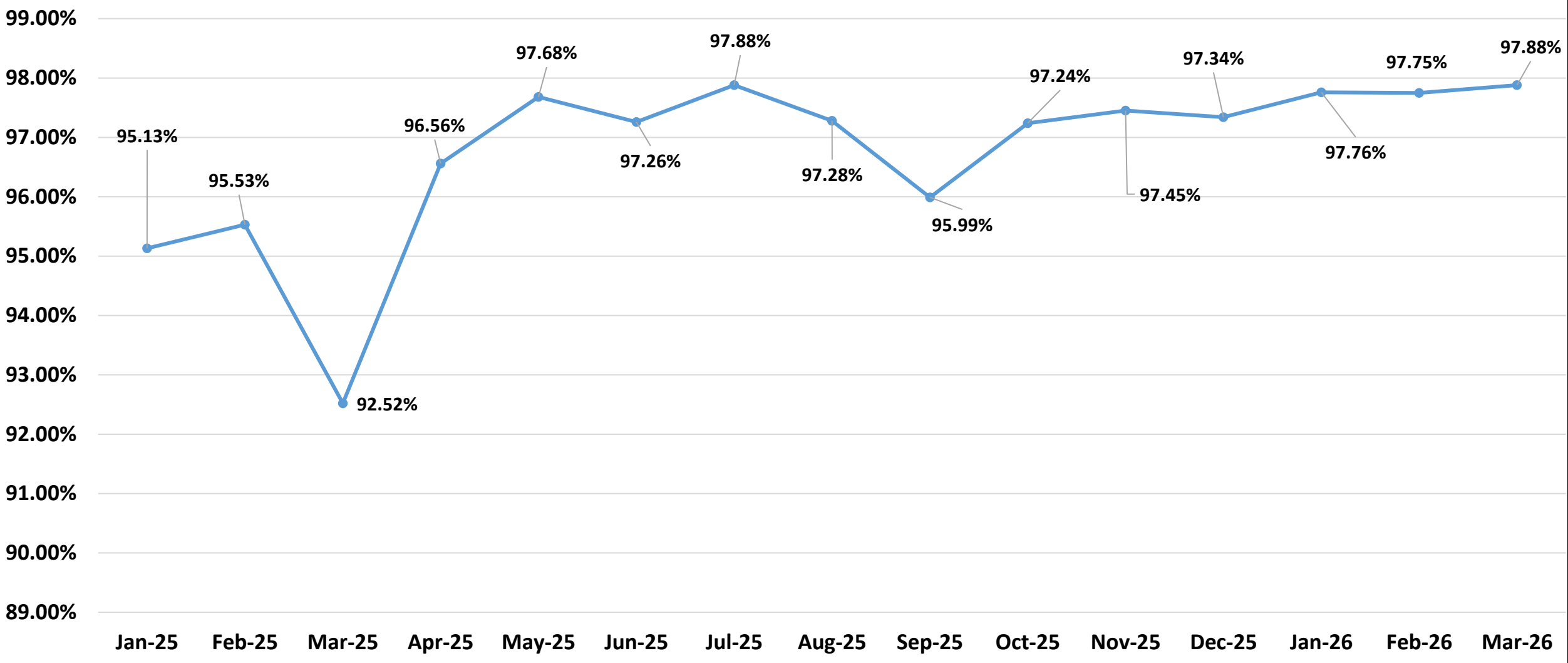

Real Time Data Availability of Mizoram State (In Percentage)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
47.79%
47.45%
28.11%
27.61%
27.98%
27.04%
42.21%
40.38%
22.36%
43.03%
39.36%
47.02%
47.05%
54.11%
56.11%
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26

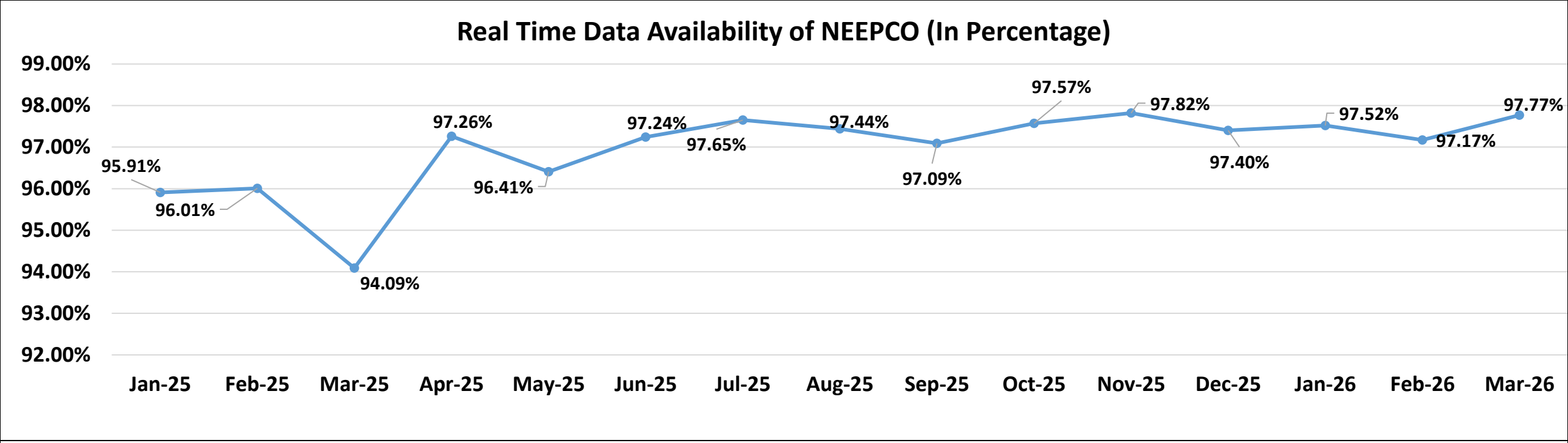

Real Time Data Availability of Nagaland State (In Percentage)
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
44.80%
46.69%
44.72%
42.51%
43.64%
44.40%
43.60%
36.85%
42.05%
41.12%
41.29%
39.03%
38.86%
32.56%
38.12%
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26


Real Time Data Availability of Tripura State (In Percentage)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
29.73%
31.26%
29.49%
33.80%
48.44%
52.65%
44.14%
38.82%
38.27%
49.64%
48.65%
51.67%
53.81%
55.13%
54.54%
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26


Real Time Data Availability of Arunachal Pradesh State (In Percentage)
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
30.06%
46.96%
55.04%
53.44%
55.66%
59.15%
48.43%
49.61%
51.14%
55.46%
65.79%
58.33%
55.54%
57.38%
58.12%
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26

# Real Time Data Availability of PGCIL(In Percentage)




Real Time Data Availability of NEEPCO (In Percentage)
99.00%
98.00%
97.00%
96.00%
95.00%
94.00%
93.00%
92.00%
95.91%
96.01%
94.09%
97.26%
96.41%
97.24%
97.65%
97.44%
97.09%
97.57%
97.82%
97.40%
97.52%
97.17%
97.77%
Jan-25
Feb-25
Mar-25
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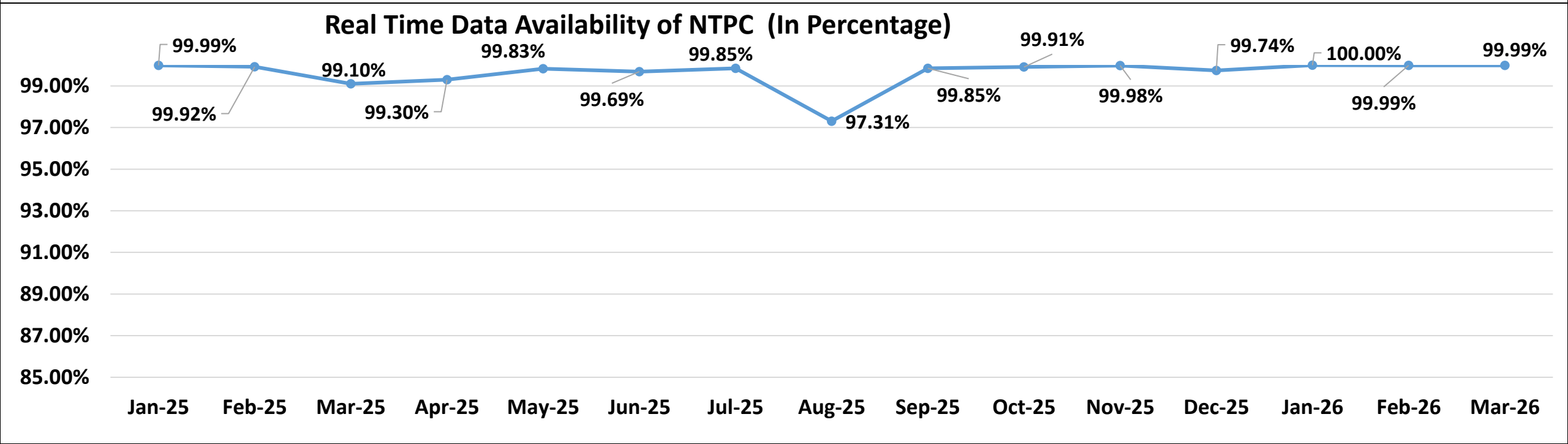
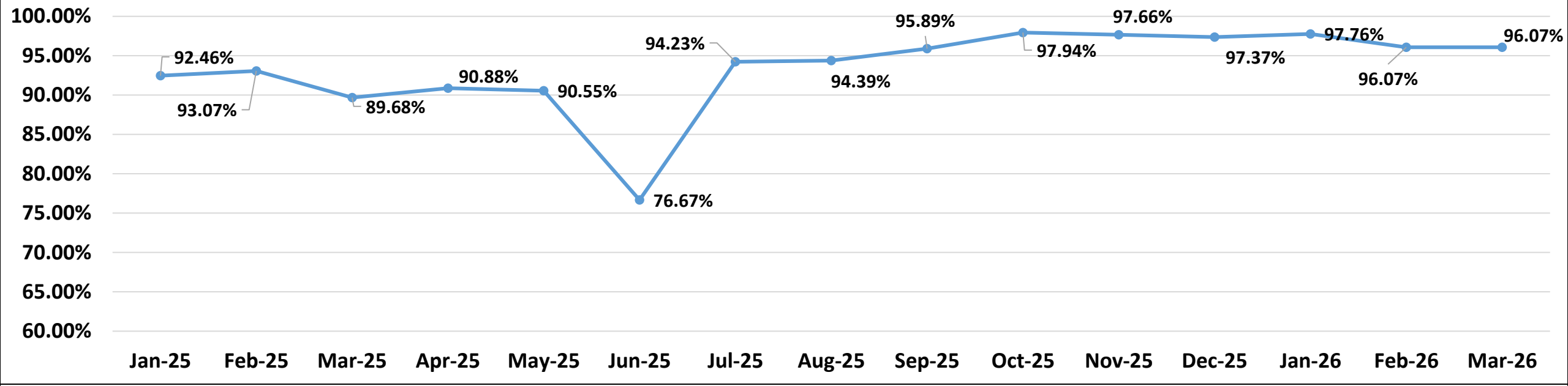
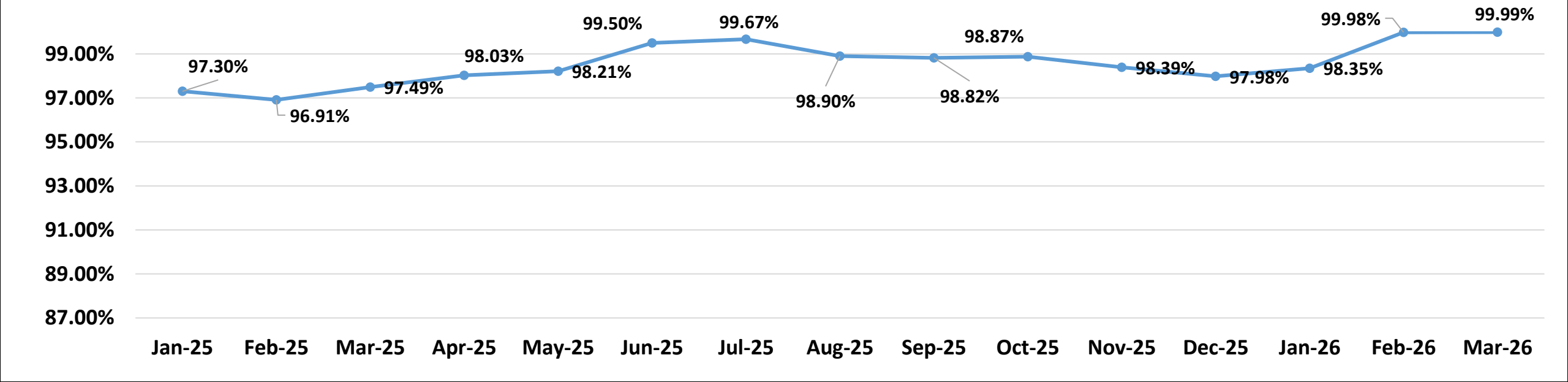
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26


Real Time Data Availability of NTPC (In Percentage)
99.00%
97.00%
95.00%
93.00%
91.00%
89.00%
87.00%
85.00%
99.99%
99.92%
99.10%
99.30%
99.83%
99.69%
99.85%
97.31%
99.85%
99.91%
99.98%
99.74%
100.00%
99.99%
99.99%
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26
Mar-26

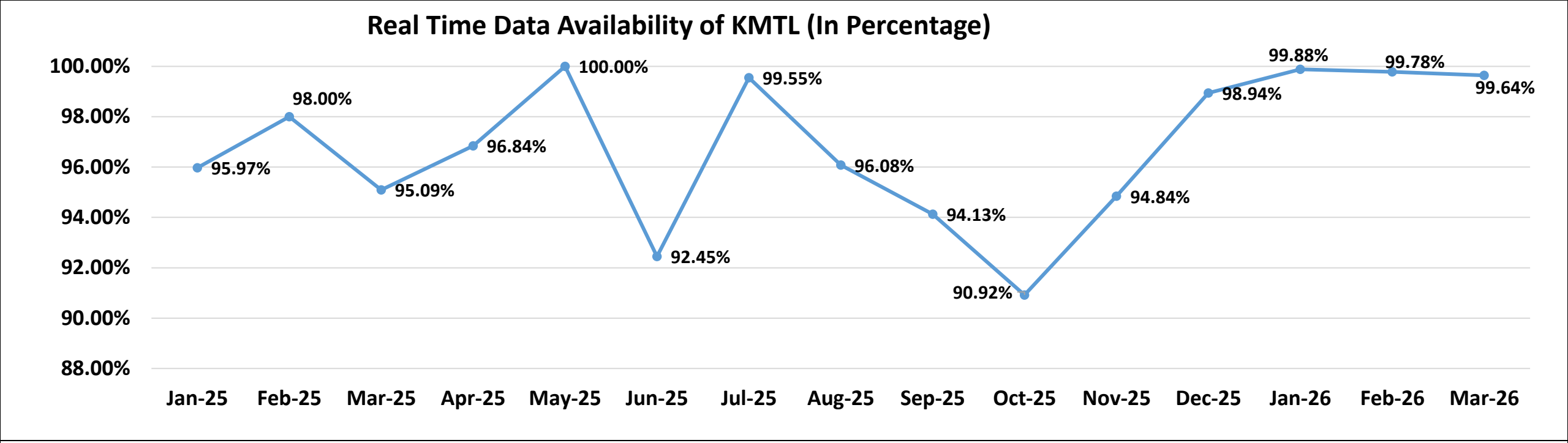
## Real Time Data Availability of NHPC (In Percentage)



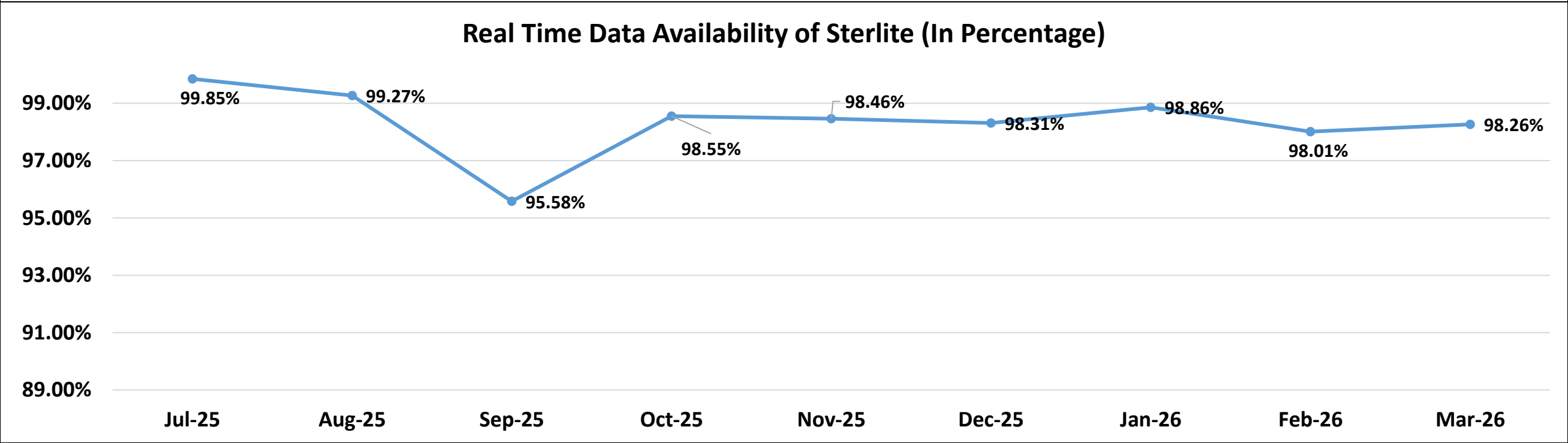

## Real Time Data Availability of OTPC (In Percentage)



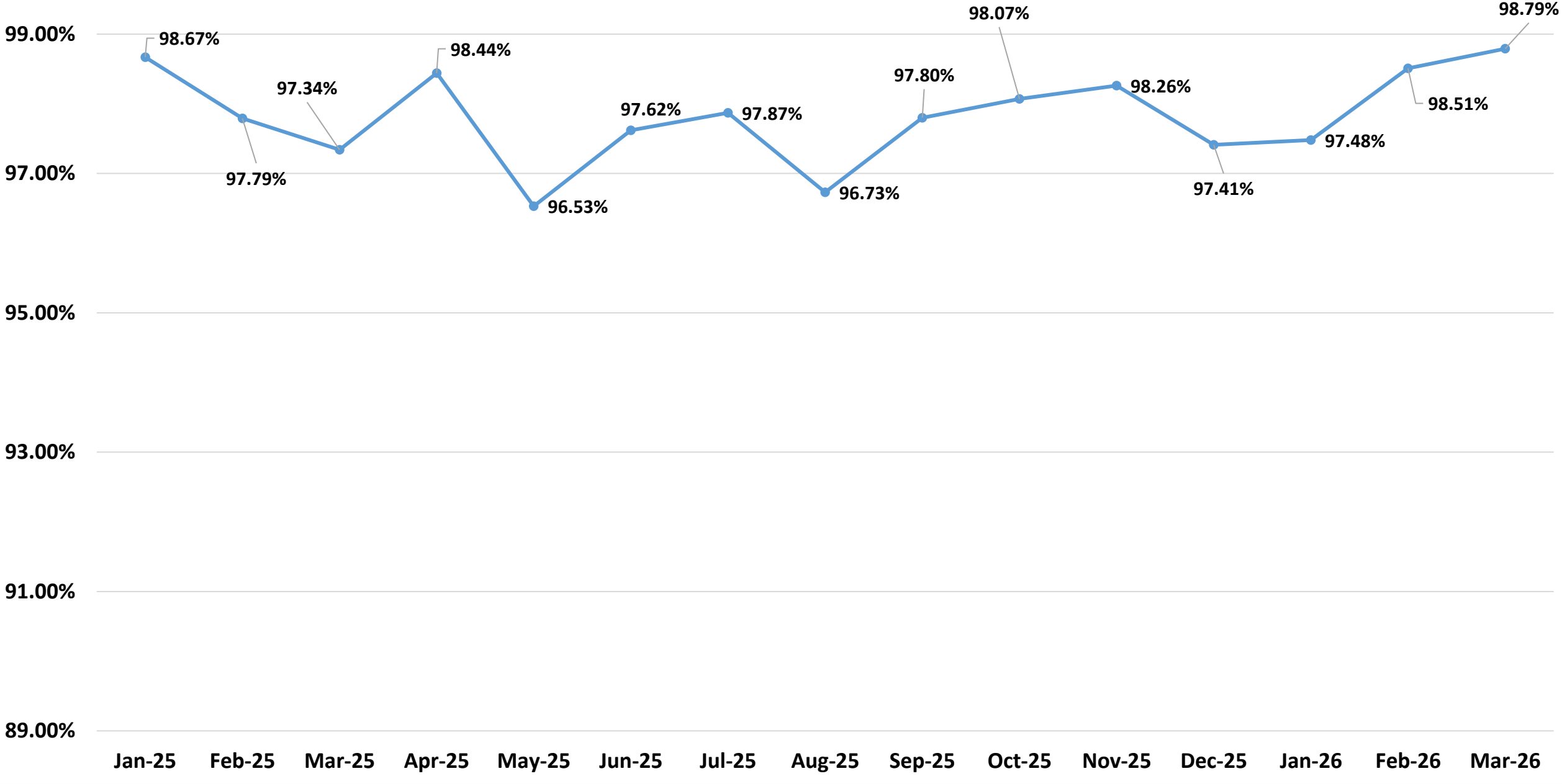
## Real Time Data Availability of KMTL (In Percentage)




## Real Time Data Availability of Sterlite (In Percentage)



# Real Time Data Availability of IndiGrid (In Percentage)



**Sakal Deep (सकल दीप)**

Annexure C 3.10 (i)

| | |
|---|---|
| **From:** | NERLDC SCADA |
| **Sent:** | 23 March 2026 13:15 |
| **To:** | apsldc.sd; aesldc2021@gmail.com; se.sopsc |
| **Cc:** | brieflee.lyngkhoi@gov.in; ms-nerpc@gov.in; nerpc@ymail.com; nerpc.communication@gov.in; Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); dkbauri.cea@gov.in; alik.erpc@gov.in; NERLDC SCADA |
| **Subject:** | Urgent Compliance of Hon'ble CERC Order – Submission of Monthly Progress Report by Arunachal Pradesh |
| **Attachments:** | CERC Order.pdf; MoM - 29th NETeST.pdf; MoM - 30th NETeST.pdf; MoM - 31th NETeST.pdf; MoM - 32nd NETeST.pdf; SLDC Nagaland Report for the month of February 2026.pdf |

Respected Sir/Ma'am,

This is in reference with respect to order issued by Honourable CERC against *Petition 197/MP/2020 (Arunachal Pradesh) dated 04/08/2023*. Where Hon' CERC directed Department of Power, Govt. of Arunachal Pradesh **to identify one person from their top management as a nodal officer, who shall submit a monthly progress report on the implementation of the communication facilities to the NERPC and NERLDC, till the availability of 100% data to their respective SLDC and NERLDC. (Attached for your reference)**

It is hereby bring to your kind notice regarding non-compliance of Hon' CERC order by ***SLDC Arunachal Pradesh (Department of Power, Govt. of Arunachal Pradesh)*** *as SLDC Arunachal Pradesh* has not submitted the monthly progress reports till date since the order.

The same was discussed in 29th NETeST on 05/09/2024, 30th NETEsT on 28/01/2025, 31st NETEsT on 04/04/2025, 32nd NETEsT on 29/08/2025 where it was decided in the forum that DoP, Aruncahal Pradesh shall submit the reports as per the order. (MoM attached for your reference).

In this regard, you are requested to kindly identify one nodal officer at your end to provide the status of implementation of the required communication facilities on monthly basis and ensure availability of reliable real-time data at NERLDC at the earliest. A sample report submitted by SLDC Nagaland is submitted for your reference.

The matter may please be treated as URGENT and necessary steps may be taken at the earliest.

भवदीय / Sincerely,
शक्ति मयंक सिंह / Shakti Mayank Singh
सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)
उ॰पू॰क्षे॰भा॰प्रे॰कें॰, ग्रिड - इंडिया / NERLDC, GRID - INDIA
गुवाहाटी, असम - 781019 / Guwahati, Assam - 781019
(भारत सरकार का उद्यम / A Government of India Enterprise)
Websites : https://www.nerldc.in/ | https://grid-india.in/en/

Follow Grid-India on:

**Sakal Deep (सकल दीप)** Annexure C 3.10 (ii)

| | |
|---|---|
| **From:** | NERLDC SCADA |
| **Sent:** | 23 March 2026 13:19 |
| **To:** | smpsen; partha.acharjya; sod.tsecl@gmail.com |
| **Cc:** | brieflee.lyngkhoi@gov.in; ms-nerpc@gov.in; nerpc@ymail.com; nerpc.communication@gov.in; Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); dkbauri.cea@gov.in; alik.erpc@gov.in; NERLDC SCADA |
| **Subject:** | Urgent Compliance of Hon'ble CERC Order – Submission of Monthly Progress Report by TSECL/TPTL |
| **Attachments:** | CERC Order.pdf; MoM - 29th NETeST.pdf; MoM - 30th NETeST.pdf; MoM - 31th NETeST.pdf; MoM - 32nd NETeST.pdf; SLDC Nagaland Report for the month of February 2026.pdf |

Respected Sir/Ma'am,

This is in reference with respect to order issued by Honourable CERC against *Petition No. 201/MP/2020 (TPTL) dated 04/08/2023*. Where Hon' CERC directed Tripura State Electricity Corporation Limited **to identify one person from their top management as a nodal officer, who shall submit a monthly progress report on the implementation of the communication facilities to the NERPC and NERLDC, till the availability of 100% data to their respective SLDC and NERLDC. (Attached for your reference)**

It is hereby bring to your kind notice regarding non-compliance of Hon' CERC order by ***SLDC Tripura (Tripura State Electricity Corporation Limited)*** as TPTL has not submitted the monthly progress reports till date since the order.

The same was discussed in 29th NETeST on 05/09/2024, 30th NETEsT on 28/01/2025, 31st NETEsT on 04/04/2025, and 32nd NETEsT on 29/08/2025 where it was decided in the forum that TPTL (Tripura) shall submit the reports as per the order. (MoM attached for your reference). A reminder mail (given in trailing) was also sent to SLDC Tripura for necessary compliance.

In this regard, you are requested to kindly identify one nodal officer at your end to provide the status of implementation of the required communication facilities on monthly basis and ensure availability of reliable real-time data at NERLDC at the earliest. A sample report submitted by SLDC Nagaland is submitted for your reference.

The matter may please be treated as URGENT and necessary steps may be taken at the earliest.

भवदीय / Sincerely,
शक्ति मयंक सिंह / Shakti Mayank Singh
सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)
उ॰पू॰क्षे॰भा॰प्रे॰कें॰, ग्रिड - इंडिया / NERLDC, GRID - INDIA
गुवाहाटी, असम - 781019 / Guwahati, Assam - 781019
(भारत सरकार का उद्यम / A Government of India Enterprise)
Websites : https://www.nerldc.in/ | https://grid-india.in/en/

**From:** Sakal Deep (सकल दीप)
**Sent:** 23 March 2026 12:58
**To:** NERLDC SCADA
**Subject:** FW: Weekly Report for Telemetry Data Availability of Tripura SLDC

Regards,
Sakal Deep/सकल दीप
North Eastern Regional Load Despatch Centre/उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
**(A Government of India Enterprise) / (भारत सरकार का उद्यम)**

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**From:** Sakal Deep (सकल दीप)
**Sent:** 08 December 2025 13:48
**To:** 'Shampa Sen' <smpsen73@gmail.com>
**Cc:** S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; ms-nerpc <ms-nerpc@gov.in>; NERLDC SCADA <nerldc.scada@grid-india.in>
**Subject:** RE: Weekly Report for Telemetry Data Availability of Tripura SLDC

Ma'am/Sir,

It is requested to share the report on monthly basis as per the attached sample.

The same is for the compliance for CERC Order dated 04 August 2023 in Petition No. 201/MP/2020, Tripura.

The matter was also discussed in 3.18 agenda of 32nd NETeST meeting.

This is for your information and necessary actions.

Regards,
Sakal Deep/सकल दीप
North Eastern Regional Load Despatch Centre/उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र
**Grid Controller of India Limited/ ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**
**(A Government of India Enterprise) / (भारत सरकार का उद्यम)**

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**From:** Shampa Sen <smpsen73@gmail.com>
**Sent:** 08 December 2025 12:06
**To:** ms-nerpc <ms-nerpc@gov.in>

**Cc:** S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; Sakal Deep (सकल दीप) <skldeep@grid-india.in>
**Subject:** Weekly Report for Telemetry Data Availability of Tripura SLDC



Dear Sir,
The Telemetry Data Availability Progress Report dated 08th December-2025 of Tripura SLDC is hereby attached with the mail for your reference.

Regards

**Er. Shampa Sen**
**Deputy General Manager (Communication)**
**Tripura Power Transmission Limited.**



Follow Grid-India on:

# Annexure C 3.16 (i)

| Name of the link | From (A-end) | To (B-end) | Length of OPGW | Status as in 33rd NETeST Meeting | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OPGW Status | Approach cable between Gantry and FODB status (A-end) | FOTE Status (A-end) | DCPS Status (A-end) | Interpatching with existing FOTE A-end (If any) | Approach cable between Gantry and FODB status (B-end) | FOTE Status (B-end) | DCPS Status (B-end) | Interpatching with existing FOTE B-end (If any) |
| 132 kV Silchar - Hailakandi (Part of line) | Silchar | Hailakandi | 17 KM | Pending | Pending | Pending | Pending | Pending | Material Delivered | Material Delivered | Material Delivered | Pending |
| 132 kV Roing – Pasighat | Roing | Pasighat | 103 KM | Completed | Completed | Completed | Completed | Done | Completed | Completed | Completed | Done |
| 132 kV Roing – Tezu | Roing | Tezu | 73 KM | Completed | Completed | Completed | Completed | Done | Completed | Completed | Completed | Done |
| 132 kV Tezu – Namsai | Tezu | Namsai | 96 KM | Completed | Completed | Completed | Completed | Done | Completed | Completed | Completed | Done |
| 132 kV Tuirial – Kolasib | Tuirial | Kolasib | 44 kM | Completed | Completed | Material Delivered | Material Delivered | Pending | Completed | Material Delivered | Material Delivered | Pending |
| 400 kV Balipara – Kameng | Balipara | Kameng | 75 KM | Completed | Completed | Completed | Completed | Done | Completed | Completed | Completed | Done |
| 400 kV Bongaigoan – Killing (Brynihat) | Bongaigoan | Killing | 200 KM | Completed | Completed | Not in Scope | Completed | Not in scope | Completed | Installed. Commissioning Pending | Completed | Pending |
| 400 kV Silchar – Killing (Brynihat) | Silchar | Killing | 217 KM | 126/217 kM completed | Material Delivered | Material Delivered | Material Delivered | Pending | Material Delivered | Material Delivered | Material Delivered | Pending |

## List of Links to be implemented for replacement of old FO under Reliable Communication Scheme in NER region

| SN | Name of Link | 33rd NETeST | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | OPGW Status | Approach cable between Gantry and FODB (A-end) | FOTE Status at A end | DCPS Status at A end | Interpatching with existing FOTE at A end (if any) | Approach cable between Gantry and FODB (B-end) | FOTE Status at B end | DCPS Status at B end | Interpatching with existing FOTE at B end (if any) |
| 1 | NEHU-Shillong UNDER GROUND FO | UGFO laying completed. Jointing at T-23 and UGFO dressing pending at JB location (T-23). Pending due to ROW issue. Resolved on Jan'26. WIP. | NA | Not in scope of project | Not in scope of project | Not in scope of project | NA | Supplied,installed and commisioned | Not in scope of project | Completed |
| 2 | Khliehriat(MESEB)-Khliehriat(PGCIL) | Completed | Completed | Not in scope of project | Not in scope of project | Not in scope of project | Completed | Completed | Completed | Completed |
| 3 | Khliehriat-Khandong(PGCIL) | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Not in scope of project |
| 4 | Khandong(PGCIL)-Koplili(PGCIL) | Completed | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project |
| 5 | Misa(PGCIL)-Koplili(PGCIL) | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Not in scope of project |
| 6 | Misa(PGCIL)-Balipara(PGCIL) | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project | Not in scope of project |
| 7 | Misa(PGCIL)-Dimapur(PGCIL) | Completed | Completed | Completed | Not in scope of project | Not in scope of project | Completed | Completed | Not in scope of project | Completed |
| 8 | Badarpur(PGCIL)-Khliehriat(PGCIL) | Completed | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Completed |
| 9 | Badarpur(PGCIL)-Kumarghat(PGCIL) | Completed | Completed | Completed | Completed | Not in scope of project | Completed | Not in scope of project | Not in scope of project | Not in scope of project |
| 10 | Agartala Gas(PGCIL)-Kumarghat(PGCIL) | Completed. | Completed | Not in scope of project | Not in scope of project | Not in scope of project | Completed. | Not in scope of project | Not in scope of project | Not in scope of project |
| 11 | Agartala(PGCIL)-Agartala Gas(PGCIL) | Already installed under NER FO Expansion Scheme. Scope deleted. | | | | | | | | |
| 12 | Dimapur (PGCIL)-Kohima(PGCIL) | Completed | Completed | Completed | Not in scope of project | Not in scope of project | Completed | Not in scope of project | Not in scope of project | Not in scope of project |
| 13 | Kohima(NAG)-Imphal(PGCIL) | Completed | Completed | Completed | Not in scope of project | Not in scope of project | Completed | Not in scope of project | Not in scope of project | Not in scope of project |
| 14 | 132 kV NEHU-NEIGRIMS-Kheliriat (Approved in 27th NPC) | Survey completed. Supply under progress. | | | | | | | | |
| 15 | 132kV Kahilipara-Umiam Stg. III-Umiam Stg. I - Umiam - NEHU | Survey completed. Supply under progress. | | | | | | | | |
| 16 | 132kV Sarusajai -Umtru | Survey completed. Supply under progress. | | | | | | | | |

Annexure-2



## List of Links to be implemented new under Reliable Communication Scheme in NER region

| S No | Name of Link | From | To | Length in 18th TCC/29th NCT* | 33rd NETeST | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | End A | End B | | OPGW Status | Approach cable between Gantry and FODB (A-end) | FOTE Status at A end | DCPS Status at A end | Interpatching with existing FOTE at A end (if any) | Approach cable between Gantry and FODB (B-end) | FOTE Status at B end | DCPS Status at B end | Interpatching with existing FOTE at B end (if any) |
| 1 | Mariani (new)- Misa II | Mariani (new) | Misa | 223 | Completed. | Complete | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project | Not in scope of project |
| 2 | Bongaigaon III (quad)-Balipara | Bongaigaon | Balipara | 309 | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project | Completed |
| 4 | Misa - Kopli | Misa | kopli | 73 | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Completed | Completed |
| 5 | Jiribam - Haflong | Jiribam | Haflong | 101 | Completed | Completed | Completed | Supplied. Installed. To be commissioned. | Completed | Completed | Completed | Supplied. Installed. To be commissioned. | Completed |
| 6 | Biswanath Chariali - Biswanath Chariali(Pavoi) | Biswanath Chariali | Pavoi | 13 | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project | Not in scope of project |
| 7 | Kopili Khandong-other circuit | kopili | khandong | 12 | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Completed | WIP |
| 8 | Khandong Khliehriat other circuit | khandong | khliehriat | 43 | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Completed | Completed |
| 9 | Balipara - Bongaigoan Line 1&2 | Balipara | Bongaigaon | 290 | Completed | Completed | Completed | Not in scope of project | Completed | Completed | Completed | Not in scope of project | Completed |
| 10 | Aizawl-Jiribam | Aizawl | Jiribam | | WIP | WIP | WIP | WIP | WIP | WIP | WIP | WIP | WIP |
| 11 | UGFO from Tower 25 of 132kV Nehu-Mawlyndep line to NERLDC Shillong* | T25 | NERLDC Shillong | 3.5 | Survey completed. Supply under progress. | | | | | | | | |
| 12 | UGFO NERLDC Guwahati to Kahilipara* | NERLDC Guwahati | Kahilipara S.s | 2 | Survey completed. Supply under progress. | | | | | | | | |

# 33rd NETeST Meeting
# State-wise SAMAST Status

24 April 2026

# *Agenda*

1. Manipur SAMAST Status
2. Mizoram SAMAST Status
3. Tripura SAMAST Status
4. AMC Status: State-Wise

# Manipur SAMAST Status

| | Milestone#1<br>Design phase | Milestone#2<br>H/W installation & commissioning | Milestone#3<br>Factory Acceptance Testing | Milestone#4<br>Site Acceptance Testing | Milestone#5<br>User training and Go Live |
|---|---|---|---|---|---|
| **Timelines** | • Completion of milestone approval received on **23 May 2022** | • Completion of milestone approval received on **20 March 2023** | • Completion of milestone approval received on **6 January 2023** | • SAT of all software modules completed on **20 June 2025** | • Go-live of SAMAST modules completed on **30 June 2025.**<br>• Warranty support period is going on. |
| **Invoicing & payment status** | • Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received INR 4,77,90,000/- (90% of Contract Value)<br>• Milestone #5: **Payment pending of INR 53,10,000/-. Aging is 100+ days** | | | | |
| **Key issues to discuss** | • **Pending Payment of INR 53,10,000/-** | | | | |

# Mizoram SAMAST Status

| | Milestone#1<br>Design phase | Milestone#2<br>H/W installation & commissioning | Milestone#3<br>Factory Acceptance Testing | Milestone#4<br>Site Acceptance Testing | Milestone#5<br>User training and Go Live |
|---|---|---|---|---|---|
| **Timelines** | • Completion of milestone approval received on **15 March 2022.** | • Completion of milestone approval received on **24 March 2023** | • Completion of milestone approval received on **9 January 2023** | • SAT of all software modules completed on **14 Feb 2024** | • Go-live of SAMAST modules completed on **19 July 2024**<br>• Warranty support period completed on **19 July 2025** |
| **Invoicing & payment status** | • Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received **INR 4,64,36,526/-(~87.45% of Contract Value)**.<br>• Milestone #4: Part-payment made. Balance **pending INR 13,53,474/- Aging is 602+ days.**<br>• Milestone #5: Full payment **pending INR 53,10,000/- Aging is 254+ days.**<br>• **Total payment pending INR 66,63,474/- (~12.55% of Contract value).** | | | | |
| **Key issues to discuss** | • **Pending Payment of INR 66,63,474/-**<br>• SLDC to provide project completion letter, and to return Bank Guarantee. | | | | |

# Tripura SAMAST Status


| | | | | | |
|---|---|---|---|---|---|
| **Timelines** | • Completion of milestone approval received on **23 May 2022** | • Completion of milestone approval received on **04 December 2023** | • Completion of milestone approval received on **28 April 2023** | • SAT of all software modules completed on **18 June 2024** | • User training was conducted from **24-26 June 2024**<br>• Go-live of SAMAST modules completed on **29 June 2024**<br>• Warranty support period completed on **29 June 2025** |
| **Invoicing & payment status** | • Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received INR 4,77,90,000/- (90% of Contract Value)<br>• Milestone #5: Payment **pending of INR 53,10,000/-. Aging is 115+ days** | | | | |
| **Key issues to discuss** | • **Pending Payment of INR 53,10,000/-**<br>• Fund requisition has been submitted to PSDF for remaining 10% payment.<br>• SLDC to provide project completion letter, and to return Bank Guarantee. | | | | |

# AMC Status: State-Wise

| State | Status |
|---|---|
| • Assam | 3 Years of AMC is going on |
| • Meghalaya | LOI issued; LOA and Contract Agreement pending |
| • Arunachal Pradesh | Pending |
| • Manipur | Pending |
| • Mizoram | Pending |
| • Nagaland | Pending |
| • Tripura | Pending |

# Thank you

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