



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  
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No: NERPC/NETeST/2026/1438-1447

07<sup>th</sup> August 2026

सेवा में / To

**As per list attached**

**विषय: 34 वीं NETeST बैठक का कार्यवृत्त -संबंध में।**

**Sub: Minutes of 34<sup>th</sup> NETeST meeting - reg.**

महोदय/महोदया,

कृपया आपकी जानकारी और आवश्यक कार्रवाई हेतु, 23 जुलाई 2026 (गुरुवार) को सुबह 10:00 बजे होटल नंदन, गुवाहाटी में आयोजित 34<sup>th</sup> NETeST बैठक का कार्यवृत्त इसके साथ संलग्न है। यह कार्यवृत्त NERPC की वेबसाइट: [www.nerpc.gov.in](http://www.nerpc.gov.in) पर भी उपलब्ध है।

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

यह सदस्य सचिव, NERPC के अनुमोदन से जारी किया जाता है।

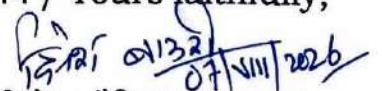
Sir/Madam,

Please find enclosed herewith the minutes of the 34<sup>th</sup> NETeST meeting which was held on 23<sup>rd</sup> July 2026 (Thursday) at 10:00 hrs at Hotel Nandan, Guwahati for your kind information and necessary action. The minutes is also available on the website of NERPC: [www.nerpc.gov.in](http://www.nerpc.gov.in).

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

This issues with the approval of Member Secretary, NERPC.

भवदीय / Yours faithfully,

  
(डी.के. बौरी / D.K Bauri)

निदेशक / Director

## Distribution 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. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
12. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Chief Engineer (Commercial) -cum- CEI, DoP, Govt. of Arunachal Pradesh, Itanagar- 791111
14. Engineer-in-Chief, P&E Department, Govt. of Mizoram, Aizawl – 796 001
15. Engineer-in-Chief, Department of Power, Govt. of Nagaland, Kohima – 797 001
16. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
17. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
18. Group GM, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
19. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
20. ED, PGCIL/NERTS, Dongtiel-Lower Nongrah, Lapalang, Shillong -793 006
21. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
22. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi – 110066
23. Dy. COO, CTUIL, “Saudamini”, 1st Floor, Plot No. 2, Sector-29, Gurugram, Haryana – 122001
24. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
25. Chief Engineer, NPC Division, Central Electricity Authority, New Delhi – 110066
26. Head & VP, (R&C), ENICL, IndiGrid, Windsor Building, Kalina, Santacruz (East), Mumbai- 98
27. ED, NERLDC, Dongtiel, 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.

  
(डॉ.के. बौरि / D.K Bauri)  
निदेशक / Director



सत्यमेव जयते

**MINUTES  
OF  
34<sup>TH</sup> NETeST MEETING**

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

**Date of meeting: 23<sup>rd</sup> July, 2026 (Thursday)**

**Venue: Hotel Nandan, Guwahati**

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## **NORTH EASTERN REGIONAL POWER COMMITTEE**

**MINUTES OF 34<sup>TH</sup> NETeST MEETING HELD ON 23.07.2026 (THURSDAY) AT 10:00 HRS**

### **1. PART-A: CONFIRMATION OF MINUTES**

#### **1.1. Confirmation of Minutes of 33<sup>rd</sup> Meeting of NETeST Sub-Committee of NERPC**

The minutes of 33<sup>rd</sup> meeting of NETeST Sub-committee held on 24.04.2026 at Hotel Nandan, Guwahati was circulated vide letter No. NERPC/NETeST/2026/365-410 dated 05<sup>th</sup> May, 2026.

#### **Deliberation of the sub committee**

***As no comments were received from the constituents, the sub-committee confirmed the minutes of 33<sup>rd</sup> NETeST meeting of NERPC.***

### **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 32<sup>nd</sup> NETeST meeting, the forum requested the data from the following utilities as per the table described below to conduct the communication audits:

| <b>Sl No.</b> | <b>State/Utility</b> | <b>Name of sub station</b>                |
|---------------|----------------------|-------------------------------------------|
| 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, Dimapur, Imphal and Misa |
| 9             | Indigrid             | SM Nagar, PK Bari                         |
| 10            | NHPC                 | Loktak                                    |
| 11            | NEEPCO               | Kathaguri                                 |

The data from all the NER states, PGCIL and Indigrid has been received via e-mails. PGCIL has submitted the data for NEEPCO (Kathalguri) and NHPC (Loktak) via e-mail dated 23/04/2026. Data from Assam in respect of Sarusajai sub station is still awaited.

The communication audits in respect of SLDC Tripura, SM Nagar (Tripura) and SM Nagar (Indigrid) have been completed on 14<sup>th</sup> May 2026 and 15<sup>th</sup> May 2026 respectively.

### **Deliberation of the sub committee**

NERPC apprised the forum about the findings and observations of the Communication audit in respect of SLDC Tripura, SM Nagar (Tripura) and SM Nagar (Indigrid) which were carried out on 14th May 2026 and 15th May 2026. Further, it was informed that during the course of audit it was noted that several data had not been submitted by the utilities. Subsequently, on request of audit team, the revised data had been received on 14.07.2026 and the communication audit report in respect of SLDC Tripura, SM Nagar (Tripura) and SM Nagar (Indigrid) was shared vide e-mail dated 28.07.2026.

The forum advised the concerned utilities to submit the compliance report at the earliest after receipt of the Audit report. The forum noted that communication audits for SLDC Assam, SLDC Meghalaya, NEHU, SLDC Tripura, SM Nagar (Tripura) and SM Nagar (Indigrid) have been completed and further advised the communication audit team to complete the audits for the remaining sub stations at the earliest.

The forum advised NERPC to make an Audit plan in coordination with the audit team for the remaining Substations to complete the communication audits at the earliest.

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

**Action: NERPC/ All stakeholders.**

### **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 32<sup>nd</sup> 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) & (ii)**). 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.

**In 33<sup>rd</sup> NETeST meeting** 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.

### **Deliberation of the sub committee**

PGCIL apprised the forum that requisitions for planned communication outages are being applied in the outage portal of NERLDC along with the OCC proposed shutdowns on monthly basis since June-2026.

The forum advised NERLDC to incorporate minor modifications in the outage portal so that the communication related shutdowns can be segregated from the OCC proposed shutdowns.

Further, the forum advised all the concerned utilities to apply monthly communication shutdown proposals in the outage portal of NERLDC.

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

***Action: NERLDC/ All stakeholders***

### **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 30<sup>th</sup> 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 10<sup>th</sup> February-2025.

**In 31<sup>st</sup> 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 32<sup>nd</sup> NETeST meeting,** it was informed that the uniform format for Communication Availability was approved in 16<sup>th</sup> NPC meeting. The forum agreed to adopt the finalized format as approved in 16<sup>th</sup> 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.

**In the 33<sup>rd</sup> NETeST meeting**, 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

**Deliberation of the sub committee**

PGCIL apprised the forum that the issues pertaining to M/s ECI and M/s Tejas make equipment have been resolved and the naming convention has been streamlined and updated in UNMS.

The issues related to M/s Fibcom make equipment are also under progress and shall be completed by 15<sup>th</sup> August 2026.

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

**Action: POWERGRID**

**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 1 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.

**In the 33<sup>rd</sup> NETeST meeting,** 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.

Nominations from SLDC Manipur have been received via e-mail dated 04/05/2026. Nominations from the remaining states are awaited.

#### **Deliberation of the sub committee**

Member Secretary, NERPC apprised the forum that TESSG meeting of PSDF Secretariat was held on 22/07/2026 wherein it was conveyed that in principle agreement was given for the project with minor observations.

NERPC had e-mailed to all the 5 NER states (Meghalaya, Manipur, Mizoram, Tripura and Arunachal Pradesh) to submit the following requisite information:

1. Approval of the project from the Board / Senior Management of the respective utility.
2. Format A-6, duly filled in and signed, as stipulated in the DPR.
3. Detailed list of existing equipment presently available at the respective SLDC's.

In this regard, response has been received from Meghalaya vide e-mail dated 27/07/2026 wherein data as requested in Sl No. 2 & 3 above has been furnished. It has been further mentioned that board approval shall be given upon finalisation in the upcoming BoD meeting for Meghalaya.

Board approvals have been obtained for Arunachal Pradesh and Mizoram.

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

***Action: Meghalaya, Manipur, Mizoram, Tripura and Arunachal Pradesh to submit all the complete documents above at the earliest.***

## **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 31<sup>st</sup> 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.

**In the 33<sup>rd</sup> NETeST meeting**, 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.

Accordingly, NERPC has issued letters dated 08/05/2026 for formation of sub committees for:

1. CERT-Thermal to NTPC (Bongaigaon)
2. CERT-Hydro to NHPC
3. CERT-Transmission to POWERGRID, NERTS

#### **Deliberation of the sub committee**

Representatives from NHPC and NTPC were absent from the meeting and hence the matter could not be deliberated. PGCIL submitted that necessary steps shall be taken to address the cyber security issues of NER grid pertaining to transmission sector after formation of the sub-committee at regional level.

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

***Action: NTPC/NHPC/POWERGRID***

## **2.6. 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.

In the 33<sup>rd</sup> NETeST meeting, the issue on the AMC portion was also deliberated. In 239<sup>th</sup> OCC Meeting, it was informed that after multiple communication with PGCIL regarding undertaking of AMC portion, a reply from Powergrid on execution of AMC has been received and a special meeting would be convened to deliberate the matter in detail with PGCIL and NERLDC.

Subsequently, a special meeting on implementation of the NER SCADA/EMS ULDC-III project under PSDF funding was held on 3<sup>rd</sup> July 2026 wherein the following decisions have been taken:

1. POWERGRID shall share the detailed BoQ (for all the states and NERLDC) for comparison with the earlier BoQ by NERLDC.
2. Each state shall nominate a nodal officer for the implementation of SCADA/EMS phase-III.
3. The detailed DPR shall be shared by POWERGRID to PSDF by August-2026.

The MoM of the special meeting is attached as **Annexure-B 2.6**.

#### **Deliberation of the sub committee**

POWERGRID-ULDC apprised the forum that the revised DPR for the SCADA/EMS Upgradation Phase-III Project of the North Eastern Region is being prepared which will be completed by August, 2026. As part of the DPR preparation, budgetary quotations are being obtained from various vendors. The Bill of Quantities (BoQ) has been finalized based on the BoQ submitted by Grid-India to PSDF in May 2025, with a few additional items incorporated based on the experience gained from the ongoing SCADA/EMS upgradation projects in the Eastern and Northern Regions.

Member Secretary, NERPC stated that the final DPR as prepared by POWERGRID shall be shared with all the concerned states along with the estimated cost break up.

The forum nominated the following nodal officers for the implementation of SCADA/EMS phase-III:

| <b>Sl No.</b> | <b>State</b>      | <b>Nodal Officer</b>         | <b>Designation</b>    |
|---------------|-------------------|------------------------------|-----------------------|
| 1             | Arunachal Pradesh | Sh. Purik Buchi              | AE(E), DoP-AP         |
| 2             | Assam             | Smt. Toushita Jigdung        | DGM, SLDC Assam       |
| 3             | Meghalaya         | Sh. M.K War                  | EE, SLDC Meghalaya    |
| 4             | Manipur           | Sh. Yaruilor Hungyd          | Manager, SLDC Manipur |
| 5             | Mizoram           | Sh. Lalthanzuala             | SE, SLDC Mizoram      |
| 6             | Nagaland          | Sh. P. Tiakaba<br>Yinchunger | JE, SLDC Nagaland     |
| 7             | Tripura           | Smt. Shampa Sen              | DGM, SLDC Tripura     |
| 8             | NERLDC            | Sh. Sakaldeep                | Deputy Manager        |
| 9             | POWERGRID         | Sh. Furkan Siddiqui          | DGM                   |

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

***Action: POWERGRID/ All stakeholders.***

## **AGENDA FROM NERLDC**

### **2.7. Status of Annual Maintenance Contract (AMC) of SCADA/EMS systems of NER states: NERLDC**

In 32nd NETeST meeting held on 29th August 2025, Tripura and other NER states expressed concern about the exorbitant high price of AMC quoted by M/s GE Vernova for the existing SCADA system. It was decided to convene a special meeting with M/s GE Vernova to resolve the pending issues pertaining to AMC of SCADA project of NER states.

In view of above a NERPC special meeting on Extension of Comprehensive-AMC of SCADA/EMS system of NER states held on 06th November 2026, where price negotiation was done with M/s GE Vernova and revised offer price was finalized. It was also discussed in the meeting that NER states will finalize and sign their respective AMC contracts with M/s GE Vernova within 3 months from the

issuance of the Minutes of the Special Meeting. (Minutes of the Special Meeting is attached as **Annexure B 2.7**)

The status of expiry of the AMC for each SLDC is tabulated below:

| <b>Sl. No.</b> | <b>Control Centre</b> | <b>Original AMC Expiry (7+2)</b> | <b>Extended AMC Expiry Date</b> | <b>Status as per 34th NETeST Meeting</b> |
|----------------|-----------------------|----------------------------------|---------------------------------|------------------------------------------|
| 1.             | Arunachal Pradesh     | 31-03-2027                       | Not required at present         |                                          |
| 2.             | Assam                 | 11-11-2024                       | 11-11-2026                      |                                          |
| 3.             | Manipur               | 07-11-2025                       | Under awarding stage            |                                          |
| 4.             | Meghalaya             | 31-03-2025                       | 31-03-2027                      |                                          |
| 5.             | Mizoram               | 30-04-2026                       | Under awarding stage            |                                          |
| 6.             | Nagaland              | 31-03-2027                       | Not required at present         |                                          |
| 7.             | Tripura               | 31-03-2025                       | Under awarding stage            |                                          |

As upcoming SCADA/EMS Project under ULDC-III will take another 2-3 years in implementation as per given timeline given by ULDC-POWERGRID, states are requested to extend the AMC accordingly.

#### **Deliberation of the sub committee**

The status of Annual Maintenance Contract (AMC) of SCADA/EMS systems of NER states as updated in the meeting is as given below:

| <b>Sl. No.</b> | <b>Control Centre</b> | <b>Original AMC Expiry (7+2)</b> | <b>Extended AMC Expiry Date</b> | <b>Status as per 34th NETeST Meeting</b> |
|----------------|-----------------------|----------------------------------|---------------------------------|------------------------------------------|
| 1.             | Arunachal Pradesh     | 31-03-2027                       | Not required at present         | Not required at present                  |

|    |           |            |                         |                                                                                                              |
|----|-----------|------------|-------------------------|--------------------------------------------------------------------------------------------------------------|
| 2. | Assam     | 11-11-2024 | 11-11-2026              | M/s GE Vernova T&D will give the offer for three years AMC within 7-10 days.                                 |
| 3. | Manipur   | 07-11-2025 | Under awarding stage    | E-mail regarding clarification of LoA sent to M/s GE. M/s GE has assured to send confirmation by July-2026.  |
| 4. | Meghalaya | 31-03-2025 | 31-03-2027              | Not required at present                                                                                      |
| 5. | Mizoram   | 30-04-2026 | Under awarding stage    | LoA issued to M/s GE Vernova T&D on 02/04/2026. Issue regarding BG submission will be resolved by July-2026. |
| 6. | Nagaland  | 31-03-2027 | Not required at present | Not required at present                                                                                      |
| 7. | Tripura   | 31-03-2025 | Under awarding stage    | LoA issued. M/s GE will send confirmation shortly.                                                           |

Further, Member Secretary, NERPC advised to convene a special meeting with M/s GE Vernova T&D and all the NER states whose AMC for SCADA Phase-II is set to expire in 2027.

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

***Action: M/s GE Vernova T&D /NERPC/All stakeholders***

## **2.8. Status Update on URTDSM Phase-II Project (ISTS Portion) and AMC Extension for URTDSM Phase-I: NERLDC**

The URTDSM Phase-II Project (ISTS Portion) was approved during the 30th NERPC/TCC meeting held on 13th–14th November 2025 at Srinagar, with an approved cost-sharing mechanism of 100% RTM (Regulated Tariff Mechanism) route under a 70:30 Debt-Equity ratio, to be implemented by POWERGRID. In view of this approval, POWERGRID-ULDC is requested to present a comprehensive status update on the project, covering key aspects such as progress on award of contracts/tenders, current implementation timeline, etc.

Also, the Annual Maintenance Contract (AMC) for URTDSM Phase-I is scheduled to expire in December 2026 and given that the implementation of URTDSM Phase-II is expected to take considerable time before commissioning, there is a critical need to ensure uninterrupted maintenance support for the existing Phase-I infrastructure in the interim period. POWERGRID-ULDC is accordingly requested to apprise the committee on the action taken/proposed towards extension of the AMC for URTDSM Phase-I, including the current status of the extension process, proposed extension period, associated cost implications, and expected timeline for finalization, so as to avoid any maintenance gap for the operational Phase-I system.

**Deliberation of the sub committee**

ULDC, POWERGRID updated that the Technical Specification (TS) and Bill of Quantities (BoQ) for the URTDSM Phase-II project have been prepared. POWERGRID further submitted that the NIT for URTDSM Phase-II project (ISTS portion) is expected by August-2026.

POWERGRID further submitted that the Annual Maintenance Contract (AMC) for URTDSM Phase-I which is going to expire in December 2026 shall be extended upto 2 years with the same rate & terms and conditions. The Letter of Award (LoA) for the AMC extension is expected to be issued by the end of September 2026.

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

***Action: POWERGRID***

**2.9. Status Update on VoIP Upgradation Package in NER: NERLDC**

The VoIP Upgradation Package for the North Eastern Region (NER) was awarded by POWERGRID to M/s Orange on 23rd December 2025, with a stipulated implementation timeline of fourteen (14) months. Pursuant to the award, the kick-off meeting for the project was held on 19th January 2026, followed by completion of the site survey of NERLDC premises by February 2026.

Further, as informed by POWERGRID in the 33rd NETeST meeting, M/s Orange has completed surveys at the Main and Backup NERLDC and the main SLDC control centres excluding Assam Main Control centre and survey is also completed

at Nagaland and Meghalaya back up SLDC. In light of the progress made so far, POWERGRID-ULDC is requested to present a detailed status update on the project, including progress against the implementation schedule, current stage of equipment procurement/installation, any deviations from the original timeline, and the anticipated date of completion.

**Deliberation of the sub committee**

POWERGRID-ULDC informed that Engineering Design for VOIP Phase-II has been completed and FAT is expected to be completed by September-2026.

POWERGRID-ULDC further submitted that there is a slight delay in the implementation schedule due to the ongoing global geo-political tensions. However, M/s Orange is committed to execute the project within the original timeline and the anticipated date of completion is February-2027.

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

**Action: POWERGRID**

**2.10. Concerning telemetry situation of SCADA data of Nagaland state owned substations: NERLDC**

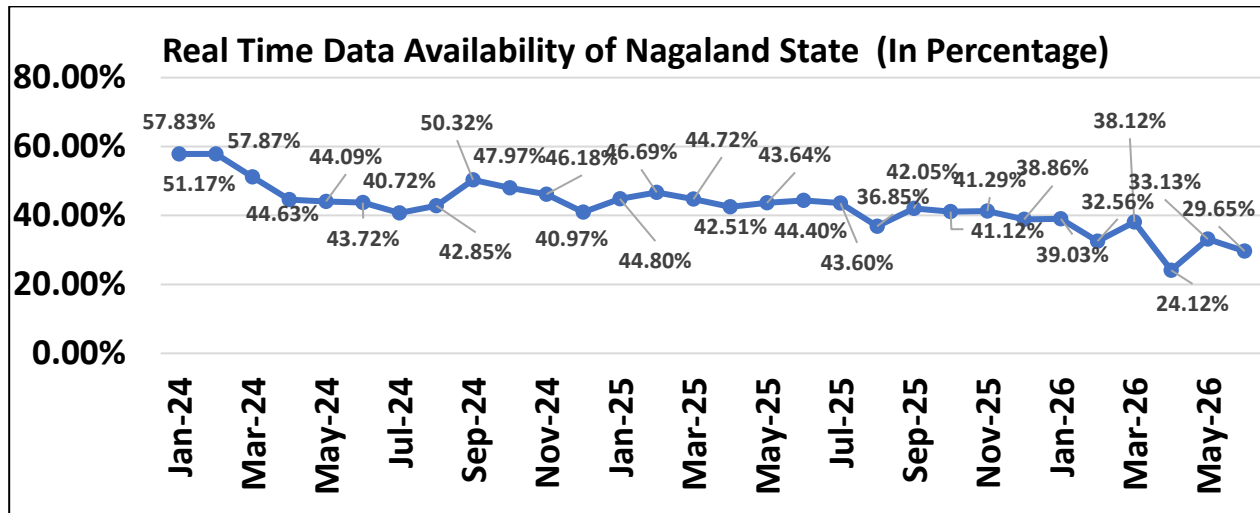
SCADA data (both analog and digital) from majority of Nagaland owned substations is presently not reporting at NERLDC. Despite regular follow-ups and weekly updates through Weekly Telemetry Availability Report and CERC Monthly Non-Availability Letter for telemetry status by the NERLDC SCADA team, the issue still persists.

As per the 30th NeTEST MoM issued on 28th January 2025, a target of 70% real-time data availability was set for Nagaland to be achieved by March 2025. However, the actual real-time data availability has shown a declining trend instead of improvement.

The picture as shown below shows the real-time data availability for Nagaland state since January 2024. There is a clear declining trend in real-time SCADA data availability as data availability drops from around ~58% (Jan-Feb 2024) to ~29.65% (June 2026) indicating a significant deterioration (~28% drop) over time.

In terms of communication related projects, NERPSIP-Nagaland is on verge of completion and Nagaland has received sanction of grant from PSDF for “Establishment for Reliable Communication System for 66kV and above network” in March 2025. Despite the major projects under implementation the improvement in telemetry is yet to be realised.

Multiple communications have been made to SLDC Nagaland on 18th March 2026, 30th March 2026, 20th April 2026, 10th June 2026, and 01st July 2026, (Attached as **Annexure-B 2.10**). However, response is yet to be received.



### **Deliberation of the sub committee**

NERLDC apprised the forum that 220kV Zhadima, 132kV Kiphire, 132kV Longnak, 132kV Longleng, 132kV Meluri, 132kV New Secretariat, 132kV New Zuhenboto, 132kV Pfutsero and 132kV Cheiphobozou of the DoP Nagaland are not reporting to SLDC Nagaland and NERLDC. Most of these Stations were recently commissioned under the NERPSIP–Nagaland project. NERLDC pointed that these stations had successfully reported data during the First Time Charging (FTC), however, later on due to maintenance-related issues the data is reporting intermittently and the overall data availability became poor.

SLDC Nagaland responded about the limitations in carrying out maintenance of the Substation Automation System (SAS) installed under the NERPSIP project.

The forum advised each State to nominate 2–3 personnel for training on the communication aspects of the SAS so that basic maintenance activities can be undertaken whenever required.

The forum further advised that the matter be taken up in upcoming OCC meetings for deliberation with the NERPSIP team.

Member Secretary, NERPC highlighted that it is the responsibility of Nagaland to maintain the system in healthy operating condition after handing over of assets from NERPSIP.

The forum advised Nagaland to come up with a comprehensive maintenance plan for SAS and associated communication equipment to ensure continuous telemetry data availability. The forum further advised NERPSIP team of POWERGRID to conduct training sessions for operation and maintenance of handed over assets for each State.

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

***Action: Nagaland/NERPSIP-POWERGRID***

#### **2.11. Concerning telemetry situation of SCADA data of Arunachal Pradesh state owned substations: NERLDC**

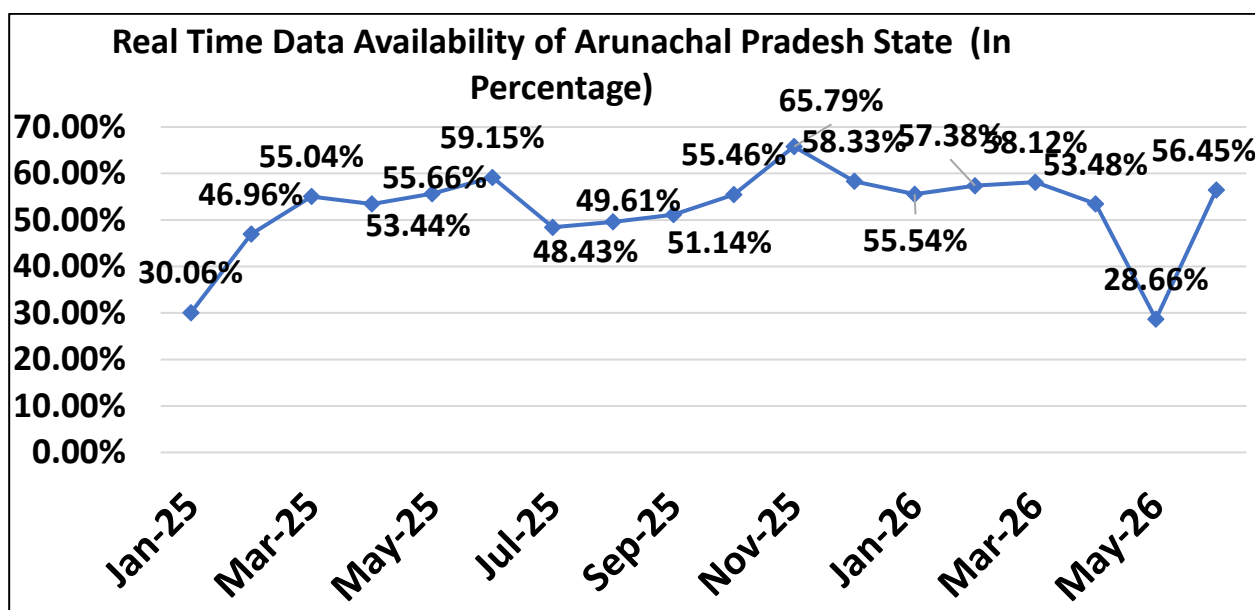
SCADA data (both analog and digital) from majority of Arunachal Pradesh owned substations is presently not reporting at NERLDC. Despite regular follow-ups and weekly updates through Weekly Telemetry Availability Report and CERC Monthly Non-Availability Letter for telemetry status by the NERLDC SCADA team, the issue still persists.

As per the 30th NeTEST MoM issued on 28th January 2025, a target of 70% real-time data availability was set for Arunachal Pradesh to be achieved by March 2025. However, the actual real-time data availability has shown a declining trend instead of improvement.

The picture as shown below shows the real-time data availability for Arunachal Pradesh state since January 2025 till June 2026. Despite the major communication infrastructure improvement via CTDS-Arunachal Pradesh

scheme, the significant improvement in availability of SCADA data from state owned substations is yet to be realized.

Multiple communications have been made to SLDC Arunachal Pradesh on 18th March 2026, 02nd April 2026, 20th April 2026, 01st June 2026, 01st July 2026 (Attached as **Annexure-B 2.11**), however no response has been received from their end.



### **Deliberation of the sub committee**

NERLDC apprised the forum that 132kV Napit, 132kV Niglok, 132kV Seppa, 132kV Khonsa, 132kV Holongi, 132kV Bhalukpong, 132kV Lekhi, 132kV Bameng and 132kV Yachuli stations of the DoP Ar. Pradesh (AP) are not reporting to SLDC AP and NERLDC and most of these Stations were recently commissioned under the Comprehensive Scheme.

DoP, Arunachal Pradesh informed the forum that the stations commissioned under the Comprehensive Scheme are yet to be handed over to the State and requested that adequate training on the operation and maintenance of the SAS be provided by the CTDS team prior to taking over these stations by DoP, Arunachal Pradesh.

The Forum advised each State to nominate 2–3 personnel for training on the communication and SAS maintenance aspects so that basic maintenance activities can be undertaken whenever required.

The forum advised that the matter be taken up in upcoming OCC meetings so that it can be deliberated with the CTDS-AP team.

The forum advised DoP-AP to come up with a comprehensive maintenance plan for SAS and associated communication equipment to ensure continuous telemetry data availability. The forum further advised NERPSIP and CTDS team of POWERGRID to visit each state in NER to conduct training sessions for operation and maintenance of handed over assets.

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

***Action: Arunachal Pradesh/CTDS-AP***

## **2.12. Status of OPGW and FOTE approved in various meeting: NERLDC**

Following communication projects have been approved in various meetings, POWERGRID may update the same:

| <b>Sl. No.</b> | <b>Project/Link Name</b>                           | <b>Award Date/Meeting approved</b> | <b>Implementing Agency &amp; Time</b> | <b>Status as per 9th CPM</b>                                                          | <b>Status as per 34th NETeST Meeting</b> |
|----------------|----------------------------------------------------|------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------|
| 1              | Additional FOTE at Loktak                          | 20.12.2023                         | POWERGRID & 06 months                 | Commissioning by May '26                                                              |                                          |
| 2              | Additional FOTE at Bongaigoan                      | 20.12.2023                         | POWERGRID & 06 months                 | Commissioning by May '26                                                              |                                          |
| 3              | Additional FOTE for AGC Locations: Subansiri       | 02.09.2024                         | POWERGRID & 06 months                 | Supply completed                                                                      |                                          |
| 4              | Additional FOTE for AGC Locations: Doyang          | 02.09.2024                         | POWERGRID & 06 months                 | Supply Completed. Commissioning Target: June'26                                       |                                          |
| 5              | OPGW replacement on 132 kV NEHU – Khliehriat Ckt-1 | 30.01.2025                         | POWERGRID & 18 Months                 | Material under production, being implemented under Bulk OPGW package. Target: Dec'26. |                                          |
| 6              | UGFO from Tower-25 to NERLDC Shillong over 132     | 30.01.2025                         | POWERGRID & 18 Months                 | Material under production, being implemented                                          |                                          |

|    |                                                                                      |                                           |                       |                                                                                          |  |
|----|--------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|------------------------------------------------------------------------------------------|--|
|    | kV Mawlyndep – NEHU line.                                                            |                                           |                       | under Bulk OPGW package.<br>Target: Dec'26.                                              |  |
| 7  | OPGW Replacement of 132 kV Kahilipara – Umtru – Umiam Stg.III – Umiam Stg. I - NEHU  | 30.01.2025                                | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package.<br>Target: Dec'26. |  |
| 8  | OPGW replacement on 132 kV Sarusajai – Umtru                                         | 30.01.2025                                | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package.<br>Target: Dec'26. |  |
| 9  | 2x24F UGFO from NERLDC Guwahati to Gantry of Kahilipara                              | 30.01.2025                                | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package.<br>Target: Dec'26. |  |
| 10 | OPGW and associated equipment on 132 kV Dharmanagar – Dullavcherra – Hialakandi line | 05.05.2025                                | POWERGRID & 24 Months | Material under production, being implemented under Bulk OPGW package.<br>Target: Dec'26. |  |
| 11 | 400 kV PK Bari (Indigrid) – Silchar (PG)                                             | 30th NERPC/TCC meeting dated & 11.03.2026 | POWERGRID & 30 Months | -----                                                                                    |  |
| 12 | 220 kV Kathalguri – Mariani (PG)                                                     | 30th NERPC/TCC meeting dated & 11.03.2026 | POWERGRID & 30 Months | -----                                                                                    |  |

### **Deliberation of the sub committee**

| <b>Sl. No.</b> | <b>Project/Link Name</b>  | <b>Award Date/Meeting approved</b> | <b>Implementing Agency &amp; Time</b> | <b>Status as per 9th CPM</b> | <b>Status as per 34th NETeST Meeting</b> |
|----------------|---------------------------|------------------------------------|---------------------------------------|------------------------------|------------------------------------------|
| 1              | Additional FOTE at Loktak | 20.12.2023                         | POWERGRID & 06 months                 | Commissioning by May '26     | The FOTE equipment has been received at  |

|   |                                                    |            |                       |                                                                       |                                                                                                                                                                                                                                                   |
|---|----------------------------------------------------|------------|-----------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                    |            |                       |                                                                       | the site. Installation and commissioning are pending. Powergrid is exploring the engagement of a local agency as an alternative to expedite the installation and commissioning activities. The work is targeted for completion by September 2026. |
| 2 | Additional FOTE at Bongaigoan                      | 20.12.2023 | POWERGRID & 06 months | Commissioning by May '26                                              | Installation completed. Link testing through new FOTE to be completed by end of July 2026 in coordination with NERLDC.                                                                                                                            |
| 3 | Additional FOTE for AGC Locations: Subansiri       | 02.09.2024 | POWERGRID & 06 months | Supply completed                                                      | Will be Completed in July-2026.                                                                                                                                                                                                                   |
| 4 | Additional FOTE for AGC Locations: Doyang          | 02.09.2024 | POWERGRID & 06 months | Supply Completed. Commissioning Target: June'26                       | Will be Completed in July-2026.                                                                                                                                                                                                                   |
| 5 | OPGW replacement on 132 kV NEHU – Khliehriat Ckt-1 | 30.01.2025 | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package. | Supply of items by December-2026.                                                                                                                                                                                                                 |

|   |                                                                                     |            |                       |                                                                                       |                                   |
|---|-------------------------------------------------------------------------------------|------------|-----------------------|---------------------------------------------------------------------------------------|-----------------------------------|
|   |                                                                                     |            |                       | Target:<br>Dec'26.                                                                    |                                   |
| 6 | UGFO from Tower-25 to NERLDC Shillong over 132 kV Mawlyndep – NEHU line.            | 30.01.2025 | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package. Target: Dec'26. | Supply of items by December-2026. |
| 7 | OPGW Replacement of 132 kV Kahilipara – Umtru – Umiam Stg.III – Umiam Stg. I - NEHU | 30.01.2025 | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package. Target: Dec'26. | Supply of items by December-2026. |
| 8 | OPGW replacement on 132 kV Sarusajai - Umtru                                        | 30.01.2025 | POWERGRID & 18 Months | Material under production, being implemented under Bulk OPGW package. Target: Dec'26. | Supply of items by December-2026. |
| 9 | 2x24F UGFO from NERLDC Guwahati to Gantry of Kahilipara                             | 30.01.2025 | POWERGRID & 18 Months | Material under production, being implemented under Bulk                               | Supply of items by December-2026. |

|    |                                                                                    |                                           |                       |                                                                                       |                                                                      |
|----|------------------------------------------------------------------------------------|-------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------|
|    |                                                                                    |                                           |                       | OPGW package. Target: Dec'26.                                                         |                                                                      |
| 10 | OPGW and associated equipment on 132 kV Dharmanagar – Dullavcherra-Hialakandi line | 05.05.2025                                | POWERGRID & 24 Months | Material under production, being implemented under Bulk OPGW package. Target: Dec'26. | Hardware-fittings supplied at Silchar. OPGW expected by August-2026. |
| 11 | 400 kV PK Bari (Indigrid) – Silchar (PG)                                           | 30th NERPC/TCC meeting dated & 11.03.2026 | POWERGRID & 30 Months | -----                                                                                 | Under NIT stage.                                                     |
| 12 | 220 kV Kathalguri – Mariani (PG)                                                   | 30th NERPC/TCC meeting dated & 11.03.2026 | POWERGRID & 30 Months | -----                                                                                 | Under NIT stage                                                      |

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

**Action: POWERGRID**

### **2.13. Establishing second communication channels of AGC from Plants (under operation) AGC to NLDC Delhi-NERLDC: NERLDC**

In view of maintaining high availability of communication connectivity between AGC Plants (under operation) and NLDC Delhi; a second communication link is configured. The details of second communication link were shared to Plants vide email dated: 20th May 2026, 07th April 2026 and 18th March 2026. However, utilisation of second communication link is yet to be started by plants.

The matter was referred from 239th OCC to NETeST forum and the updated status is as follows:

| Sl. No | Name of Plant   | Second communication link status        | Utilisation Status                                                                                                                                                                 |
|--------|-----------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | NTPC Bongaigaon | Link tested.                            | Completed.                                                                                                                                                                         |
| 2      | Kopili          | Link configured.<br>Testing is Pending. | Subsequent to link testing, NEEPCO is requested to engage OEM of AGC to connect the AGC RTU/Firewall with second link. To be completed within one week in coordination with NERLDC |
| 3      | Doyang          | Link tested.                            | Completed.                                                                                                                                                                         |
| 4      | Loktak          | Link configured.<br>Testing is pending  | Completed.                                                                                                                                                                         |
| 5      | Subansiri       | Link configured.<br>Testing is pending  | Subsequent to link testing, NHPC is requested to engage OEM of AGC to connect the AGC RTU/Firewall with second link. Closed loop testing pending, to be completed in a week.       |

### **Deliberation of the sub committee**

The status update as per 34<sup>th</sup> NETeST meeting is as follows:

| Sl. No | Name of Plant   | Second communication link status        | Status as per 34 <sup>th</sup> NETeST                                                                          |
|--------|-----------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1      | NTPC Bongaigaon | Link tested.                            | Completed.                                                                                                     |
| 2      | Kopili          | Link configured.<br>Testing is Pending. | Link testing to be completed.                                                                                  |
| 3      | Doyang          | Link tested.                            | Completed.                                                                                                     |
| 4      | Loktak          | Link configured.<br>Testing is pending  | Completed.                                                                                                     |
| 5      | Subansiri       | Link configured.<br>Testing is pending  | Forum noted that AGC is not enabled at Subansiri. However, NHPC has taken exemption from CERC till 31.12.2025. |

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

***Action: NTPC/NEEPCO/NHPC***

## 2.14. Review of award of AMC for SAMAST System NER States: NERLDC

As SAMAST system is connected with SCADA/EMS system of states, therefore regular maintenance is required to overcome operational challenges and avoid cyber security concerns. In view of same, a special meeting was held on 15th October 2025 to discuss the consolidated scope of work (both hardware and software part) for SAMAST AMC for all NER states.

Thereafter, NERPC conducted a Special meeting was held on 30th January 2026 for price negotiation in which M/s PwC and M/s Infotek has quoted prices for all seven modules of SAMSAST software for a period of 3+2 years as tabulated below:

| <b>S1 No.</b> | <b>Year</b> | <b>Cost each year (exclusive of GST)</b> | <b>Cost each year (inclusive of GST at prevailing rate)</b> |
|---------------|-------------|------------------------------------------|-------------------------------------------------------------|
| 1             | Year-1      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 2             | Year-2      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 3             | Year-3      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 4             | Year-4      | Rs. 68,25,000/annum/state                | Rs. 80,53,500/annum/state                                   |
| 5             | Year-5      | Rs. 68,25,000/annum/state                | Rs. 80,53,500/annum/state                                   |

M/s Infotek has also given the final negotiated price for hardware part of SAMSAT system for 3+2 years which is tabulated below as:

| <b>S1 No.</b> | <b>Year</b> | <b>Cost each year (exclusive of GST)</b> | <b>Cost each year (inclusive of GST at prevailing rate)</b> |
|---------------|-------------|------------------------------------------|-------------------------------------------------------------|
| 1             | Year-1      | Rs. 35,30,800/annum/state                | Rs. 29,00,300/annum/state                                   |
| 2             | Year-2      | Rs. 35,30,800/annum/state                | Rs. 29,00,300/annum/state                                   |

|   |        |                              |                           |
|---|--------|------------------------------|---------------------------|
| 3 | Year-3 | Rs.<br>35,30,800/annum/state | Rs. 29,00,300/annum/state |
| 4 | Year-4 | Rs.<br>37,07,340/annum/state | Rs. 30,45,315/annum/state |
| 5 | Year-5 | Rs.<br>38,92,707/annum/state | Rs. 31,97,581/annum/state |

All states were suggested to issue LoA to M/s PWC & M/s Infotek for the hardware part of SAMAST system for NER states at the earliest.

### **Deliberation of the sub committee**

All the states updated the status during the meeting which is as given follows:

| <b>Sl No.</b> | <b>State</b>      | <b>Software part<br/>(M/s PwC)</b>                                   | <b>Hardware part<br/>(M/s Infotek)</b>                               | <b>Metering and AMR<br/>part</b>                                                                            |
|---------------|-------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 1             | Arunachal Pradesh | Pending.<br>Put up for approval of govt. Expected by September-2026. | Pending.<br>Put up for approval of govt. Expected by September-2026. | Pending.<br>Proposal for issuance of LoA to M/s Kalkitech is put up for Govt. approval.                     |
| 2             | Assam             | 3 years AMC going on                                                 | 3 years AMC going on                                                 | LoA to be issued to M/s Genus. Approval pending from Finance Dept., Govt of Assam. Expected by August-2026. |
| 3             | Meghalaya         | LoA issued on 20/05/2026                                             | LoA issued on 20/05/2026                                             | LoA issued to M/s Genus on 01/07/2026                                                                       |
| 4             | Manipur           | LoA will be issued shortly                                           | LoA will be issued shortly                                           | LoA will be issued to M/s Genus shortly                                                                     |

|   |          |                                                                       |                                                                           |                                                                                                      |
|---|----------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 5 | Mizoram  | LoA issued on 21/07/2026                                              | LoA issued on 14/07/2026                                                  | Proposal for issuance of LoA to M/s Kalkitech is put up for govt. approval.                          |
| 6 | Nagaland | Proposal for issuance of LoA to M/s PwC is put up for govt. approval. | Proposal for issuance of LoA to M/s Infotek is put up for govt. approval. | Proposal for issuance of LoA to M/s Kalkitech is put up for govt. approval. Expected by August-2026. |
| 7 | Tripura  | LoA shall be issued within 3 months.                                  | LoA shall be issued within 3 months.                                      | LoA shall be issued within 3 months.                                                                 |

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

**Action: All stakeholders**

## **2.15. Review of Status of ADMS System in NER States: NERLDC**

A meeting was held on 05th May 2026 to discuss ADMS AMC related issues with all NER states. As ADMS is critical asset for managing demand during low-frequency and overdrawal condition of the grid and the system is also connected with SCADA/EMS system. Therefore, ADMS in a healthy operational state and AMC of the system is essential.

In the meeting, NER states highlighted cyber security/IOC issues being faced by them and other operational challenges. The minutes of the meeting are attached as **Annexure B 2.15**. As ADMS system is connected with SCADA/EMS system at SLDCs, it is very critical to ensure proper maintenance and operationalization of ADMS system.

Forum has advised all NER states to ensure that AMC is kept in place to avoid operational challenges.

| <b>Sl. No.</b> | <b>Control Centre</b> | <b>Original AMC Expiry (7+2)</b>                       | <b>Status as per 34th NETeST Meeting</b> |
|----------------|-----------------------|--------------------------------------------------------|------------------------------------------|
| 1.             | Arunachal Pradesh     | 31-03-2028                                             |                                          |
| 2.             | Assam                 | 31-03-2027                                             |                                          |
| 3.             | Manipur               | 31-03-2025<br>(Expired)                                |                                          |
| 4.             | Meghalaya             | 30-11-2026                                             |                                          |
| 5.             | Mizoram               | 31-08-2027                                             |                                          |
| 6.             | Nagaland              | Expired. (Original AMC date not available)             |                                          |
| 7.             | Tripura               | System not under operation. Expiry date not available. |                                          |

### **Deliberation of the sub committee**

The status as updated in the 34<sup>th</sup> NETeST meeting is as follows:

| <b>Sl. No.</b> | <b>Control Centre</b> | <b>Original AMC Expiry (7+2)</b>           | <b>Status as per 34th NETeST Meeting</b>                                        |
|----------------|-----------------------|--------------------------------------------|---------------------------------------------------------------------------------|
| 1.             | Arunachal Pradesh     | 31-03-2028                                 | Upto 31-03-2028                                                                 |
| 2.             | Assam                 | 31-03-2027                                 | Upto 31-03-2027                                                                 |
| 3.             | Manipur               | 31-03-2025<br>(Expired)                    | Manipur has requested M/s Orbit for survey for budgetary estimates.             |
| 4.             | Meghalaya             | 30-11-2026                                 | Negotiation going on with M/s Orbit for budgetary offer of AMC along with NGFW. |
| 5.             | Mizoram               | 31-08-2027                                 | Upto 31-08-2027                                                                 |
| 6.             | Nagaland              | Expired. (Original AMC date not available) | AMC expired in Nov-2023. Approval not                                           |

|    |         |                                                        |                                                                               |
|----|---------|--------------------------------------------------------|-------------------------------------------------------------------------------|
|    |         |                                                        | received from Govt. of Nagaland.                                              |
| 7. | Tripura | System not under operation. Expiry date not available. | Budgetary offer received from M/s Orbit. Survey shall be carried out shortly. |

The forum noted that the ADMS system is non- functional in many states and advised the respective states to switch off the non-functional ADMS system to ensure isolation of the SCADA system for cyber security reasons.

Member Secretary, NERPC advised to take up the matter regarding AMC of ADMS in upcoming TCC/NERPC meeting if it's not resolved by then. He stated that the offer given by M/s Orbit may be circulated along with the MoM.

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

***Action: All the respective stakeholders***

## **AGENDA FROM POWERGRID**

### **2.16. Regarding replacement of SDH and PDH installed under Microwave vacation Package: PGCIL**

SDH (STM-4) and PDH had been installed and commissioned around 2019 under Central -Sector and Assam State Sector in Microwave Vacation Package. As the equipment are nearing its end of life of 07 years as per the useful limit of communication system and considering the increase in network congestion, the same may be considered for replacement with suitable higher order muxes. The list of equipment is attached as **Annexure B 2.16**.

#### **Deliberation of the sub committee**

The forum in principle agreed for replacement of the SDHs as PDH technology is being phased out of market and further agreed that SDHs should be replaced as per life cycle as defined in CERC regulations.

The forum agreed in principle for upgradation of STM-4 and PDH to STM-64. The forum further advised POWERGRID to deliberate the matter in detail in upcoming NER-Communication Planning Meeting.

Further, the forum noted that some nodes for STM-64 upgradation are as per planning of CTUIL and hence POWERGRID was advised to take up the replacement in synchronisation with CTUIL planning.

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

**Action: POWERGRID/CTU**

### **2.17. Incorporation of (2X20) kVA UPS for load requirement of upcoming VOIP and existing UNMS system: PGCIL**

The agenda is for consideration of procurement of (2X20) kVA UPS for catering to the load requirements of upcoming VOIP and UNMS system. The load calculations and BOQ attached as **Annexure B 2.17**.

#### **Deliberation of the sub committee**

After detailed deliberation, the forum agreed in principle for incorporation of (2X20) kVA UPS for catering to the load requirements of upcoming VOIP and UNMS system. The forum further advised POWERGRID to conduct a site survey in all the states to confirm the availability of space for installation of the (2X20) kVA UPS.

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

**Action: POWERGRID**

## **AGENDA FROM CTU**

### **2.18. Capacity Upgradation to STM-64 for ER-NER Inter regional connectivity in NER region: CTUIL**

The need to enhance the existing communication infrastructure is increasing day by day to handle the surge in bandwidth demand driven by higher power flows, expanded SCADA operations, wide-area monitoring systems, and real-time protection signalling. With the integration of renewable energy sources, growing inter-regional transfers and the need for enhanced grid reliability, the communication backbone must evolve to support faster, more resilient and higher-capacity data transmission. Day by day there is increasing trend of services and applications, and hence more channels are getting connected to the ISTS communication network. There is also increase in redundancy communication links such as dual redundancy for RTU, ICCP link between RLDC

and NLDC, International ICCP links, redundancy in AGC, upcoming AMR scheme all over India, etc.

NERLDC vide letter Ref No.: NERLDC/System Logistics/OT/Communication/8477 dtd 20.01.26, stated that upcoming Backup ERLDC, Backup NRLDC is coming up at NER (Guwahati), hence it is quite necessary to upgrade the capacity of inter-regional links in NER including Main & Backup NERLDC.

Transitioning to STM-64 will not only provide the necessary bandwidth headroom but also ensure scalability for future requirements, reduce latency in critical grid operations and strengthen the overall reliability of the ISTS communication network.

This Agenda has been deliberated in 9th NER CPM dtd 16.03.2026(Minutes attached as Annexure-B 2.18(i)) where in NERLDC provided the below mentioned path to form STM-64 ring link in NER including NERLDC & Backup NERLDC.

400kV Bongaigaon(PG) - 220kV Salakati - 220kV BTPS(Assam) - 220kV Agia (Assam) - 220kV Boko (Assam) - 400kV Azara (Assam) - 220kV Sarusujai (Assam)- 132kV Kahilipara (Assam) - NERLDC Guwahati- 132kV Umtru (Meghalaya) - 132kV Umiam III (Meghalaya) - 132kV Umiam I (Meghalaya) - 132kV Umiam (Meghalaya) - 132kV NEHU (Meghalaya) - NERLDC Shillong - 132kV Neigrihms (Meghalaya) - 132kV Khliehriat (Meghalaya) - 132kV Khliehriat(PG) - 132kV Khandong (NEEPCO) - 220kV Kopili (NEEPCO) - 400kV Misa (PG) - 400kV Balipara (PG) - 400kV Bongaigaon (PG) to form a ring considering NERLDC.

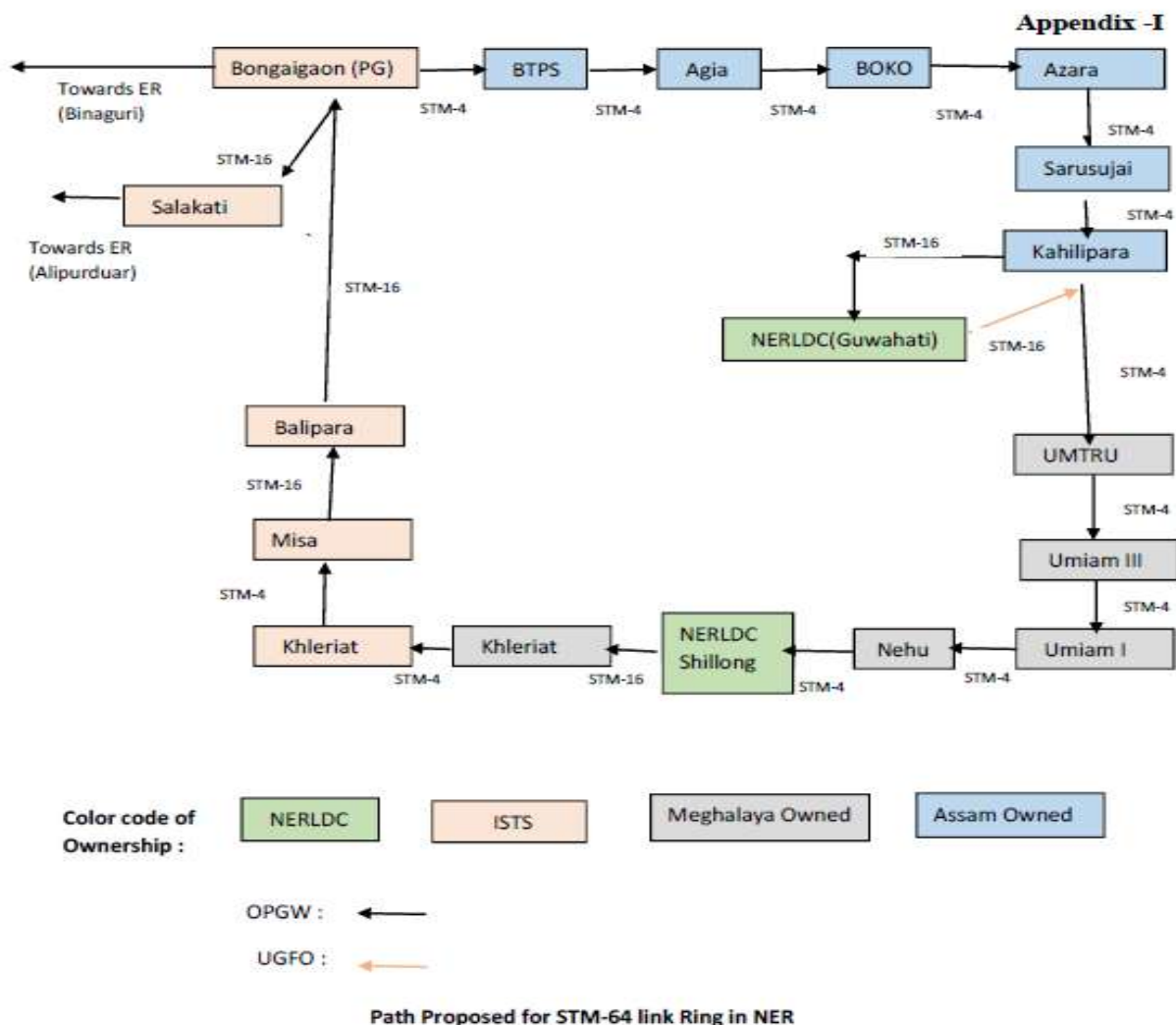
CTUIL studied the path for a new parallel STM-64 ring link formation from UNMS (UNMS Snapshots attached at Annexure-B 2.18(ii)). Further, a special meeting was held between CTUIL and POWERGRID on dt. 08.04.2026 for STM-64 ring link formation.

Based on the above deliberations and inputs, below mentioned path is suggested for STM-64 link in NER till NERLDC & Backup NERLDC:

### Path for STM-64:

ER - 400kV Bongaigaon(PG) - 220kV BTPS(Assam) - 220kV Agia (Assam) - 220kV Boko (Assam) - 400kV Azara (Assam) - 220kV Sarusujai (Assam) -132kV Kahilipara (Assam) - NERLDC Guwahati- 132kV Kahilipara (Assam) - 132kV Umtru (Meghalaya) – 132kV Umiam III (Meghalaya) - 132kV Umiam I (Meghalaya) - 132kV NEHU (Meghalaya) – NERLDC Shillong – 132kV Khliehriat (Meghalaya) – 132kV Khliehriat(PG) – 400kV Misa (PG) – 400kV Balipara (PG) – 400kV Bongaigaon (PG)- 220kV Salakati- ER to form a ring considering NERLDC.

Pictorial representation of the proposed STM-64 path is shown below in the Appendix -I.



- Further, POWERGRID suggested considering Two Nos. STM-64 equipment at Kahilipara(Assam) as backup NERLDC is connected radially to 132kV

Kahilapara(Assam) via UGFO cable and further stated that redundant UGFO path is also under implementation between Kahilapara (Assam) Node to Backup NERLDC.

- Similarly, Two Nos. STM-64 equipment is required at Bongaigaon (PG) S/s as Alipurduar-Salakati link is connected to the rest of NER via Bongaigaon (PG) Only.
- Considering the criticality of inter -regional ER-NER link and redundancy and NLDC suggestion vide letter dtd 26.06.26 (Attached as **Annexure-B 2.18(iii)**) that the infrastructure shall be reviewed and strengthened for path, equipment, port, power-supply and last-mile diversity. Main and standby links should not share avoidable common dependencies, proposed STM-64 link will be established in separate fibre pair through STM-64 SDH equipment in addition to the existing link.
- For complete up-gradation (STM 64 capacity) from main RLDC (ERLDC, NRLDC), NLDC to back up RLDC (ERLDC, NRLDC) at NERLDC Guwahati similar links need to be identified in ER and NR region.

Accordingly, 20 Nos. STM-64 FOTE are required for STM-64 link formation including NERLDC & Backup NERLDC.

Wherever end stations belong to state constituents power supply and space shall be provided by the states for installation of STM-64 FOTE.

POWERGRID/STUs may confirm the spare fibre availability, length of the links and repeater requirement on the suggested STM-64 OPGW links mentioned below.

#### **POWERGRID:**

| Sl.No | Link Name                                | Spare Fibre availability | Length |
|-------|------------------------------------------|--------------------------|--------|
| 1     | 400kV Bongaigaon(PG) - kV<br>BTPS(Assam) |                          |        |
| 2     | Khleriat -Misa                           |                          |        |
| 3     | Misa-Balipara                            |                          |        |
| 4     | Balipara-Bongaigaon                      |                          |        |
| 5     | Bongaigaon-Salakati                      |                          |        |

**Assam:**

| Sl.No | Link Name                    | Spare Fibre availability | Length |
|-------|------------------------------|--------------------------|--------|
| 1     | BTPS -Agia                   |                          |        |
| 2     | Agia- Boko                   |                          |        |
| 3     | Boko- Azara                  |                          |        |
| 4     | Azara -Sarusajai             |                          |        |
| 5     | Sarusajai- kahilipara        |                          |        |
| 6     | Kahilipara- B/U NERLDC       |                          |        |
| 7     | B/U NERLDC -kahilipara(UGFO) |                          |        |
| 8     | Kahilipara- Umtru            |                          |        |

**Meghalaya:**

| Sl.No | Link Name                                | Spare Fibre availability | Length |
|-------|------------------------------------------|--------------------------|--------|
| 1     | Umtru -Umiam III                         |                          |        |
| 2     | Umiam III -Umiam I                       |                          |        |
| 3     | Umiam I -Nehu                            |                          |        |
| 4     | Nehu – NERLDC Shillong                   |                          |        |
| 5     | NERLDC Shillong -Khliehriat              |                          |        |
| 6     | Khliehriat (Meghalaya) – Khliehriat (PG) |                          |        |

**Further as per MPLS JC report**

The Rollover from SDH to MPLS of the existing Main & Backup control centers (SLDCs & RLDC) alongwith their existing ISTS stations (RTM/TBCB) is suggested to be implemented first in a smaller region like NER which shall also require spare fibre pair and MPLS-TP Equipment as MPLS-TP shall run in parallel to SDH.

**Present Status of MPLS-TP roll out:**

Draft TS has been prepared by CTUIL and floated with OEMs/POWERGRID for suggestions/comments and received comments/suggested are incorporated. Technical specifications shall be circulated among MPLS JC Members.

In the 16th NPC (Minutes attached as Annexure-B 2.18(iv)) it was decided that

- Matter related to 'Make in India' compliances for FOTE (Fiber Optic Terminal Equipment) equipment shall be taken up by ET&I Division, CEA with MoP.
- MII relaxation for MPLS-TP is under review of MoP.
- In view of above members may deliberate and forum may suggest

accordingly.

**Deliberation of the sub committee**

CTU appraised the forum that in 9th NER CPM meeting held on 16.03.2026 the path to form STM-64 ring link in NER including NERLDC & Backup NERLDC was discussed and further based on the inputs from Powergrid, NLDC and NERLDC the following mentioned path is suggested for STM-64 link in NER till NERLDC & Backup NERLDC:

**Path for STM-64:**

ER - 400kV Bongaigaon(PG) - 220kV BTPS(Assam) - 220kV Agia (Assam) - 220kV Boko (Assam) - 400kV Azara (Assam) - 220kV Sarusujai (Assam) -132kV Kahilipara (Assam) - NERLDC Guwahati- 132kV Kahilipara (Assam) - 132kV Umtru (Meghalaya) – 132kV Umiam III (Meghalaya) - 132kV Umiam I (Meghalaya) - 132kV NEHU (Meghalaya) – NERLDC Shillong – 132kV Khleihriat (Meghalaya) – 132kV Khleihriat(PG) – 400kV Misa (PG) – 400kV Balipara (PG) – 400kV Bongaigaon (PG)- 220kV Salakati- ER to form a ring considering NERLDC.

Further, it was informed that all the nodes in the other regions have already been upgraded to STM-64. CTU also requested POWERGRID and concerned STUs to update the spare fibre availability, length of the links and repeater requirement on the suggested STM-64 OPGW links as per the above table.

After detailed deliberation the forum agreed in principle for upgradation to STM-64 link in NER till NERLDC & Backup NERLDC for the path as suggested by CTU.

AEGCL highlighted that STM-64 SDH equipment is highly sensitive to the quality and health of the optical fiber network. The section from BTPS–Agia–Chaygaon–Boko–Mirza (Azara)–Sarusajai is presently equipped with old OPGW which was supplied in 2011, and replacement of the existing old OPGW would be essential to support STM-64 deployment.

The forum advised AEGCL to explore funding for the replacement of the OPGW on the Assam section, as the assets are owned by AEGCL.

The forum also requested AEGCL to expand or upgrade its OPGW network, to the extent feasible, to facilitate effective utilization of the communication

infrastructure in view of the upcoming Backup NRLDC and Backup ERLDC at NERLDC Guwahati.

The proposal was referred to ensuing TCC/NERPC for concurrence.

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

***Action: CTU/Assam/All stakeholders***

### **2.19. Discrepancies pertaining to Availability report generated from NER UNMS: CTUIL**

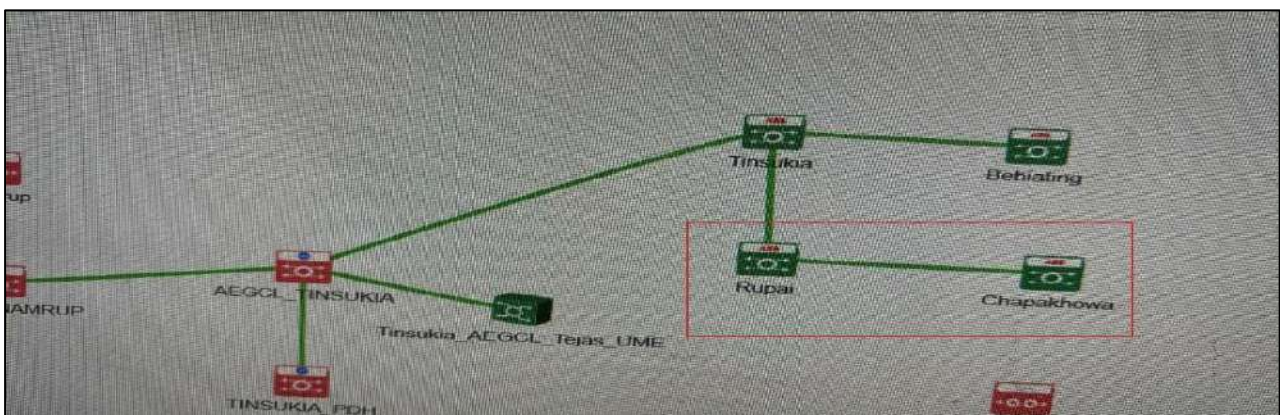
Many instances of mismatches in owner names, link names, channel count (duplicity of channels) have been observed in the monthly availability report.

NMT/ULDC may update the status of stitching channels and provide the timeline for completion as it is unable to identify the channels/channel count from availability report generated from UNMS.

Availability report being generated consists of the availability of Powergrid nodes only. NMT/ULDC is suggested to include all the ISTS nodes in availability report.

Owner/entity wise & channel wise availability report shall also be generated as per format approved in 16th NPC meeting dtd 04.07.25. Mismatch in Status of Links in U-NMS for ABB devices under NERPSIP-Assam.

The Mismatch in status of Rupai- Chapakhowa is reported by NERLDC as the OPGW connectivity of Chapakhowa with Rupai is down but still the node is showing up in the UNMS. The UNMS screenshot is attached for reference.



All nodes should be visible in UNMS (FIBCOM & ABB nodes not visible) Further, following TSP wise discrepancies are reported:

**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 de-lays in completing integration of critical nodes like New Kohima, Imphal, and Mariani. The support from Aparva (KMTL) is required.

**Sterlite node:** NMT/ULDC may provide the integration status of Tejas devices commissioned by Sterlite at 220 kV Nangalbibra and 400 kV Bongaigaon.

**Tejas devices commissioned under ULDC and TBCB:** Many Tejas nodes are recently commissioned under ULDC or TBCB schemes of PGCIL which are required to be integrated with UNMS without any delay as these nodes are being utilized and require continuous monitoring. Name of node are: Misa, Kopili, Khliehriat, Shillong-NERLDC, Guwahati-NERLDC, Subansiri HEP, BNC HVDC, Kathalguri, Namsai.

**Fibcom devices commissioned under ULDC:** Many Fibcom nodes are recently commissioned under ULDC which are required to be integrated with UNMS without any delay as these nodes are being utilized and require continuous monitoring. Name of node are: Kameng, Roing, Tezu, Namsai, Pasighat

NLDC vide letter dtd 26.06.26 (attached as Annexure- III) suggested that Inter-regional coordination for monitoring the end-to-end communication of the plants has to be urgently improved at all regional ULDCs and appropriate visibility may also be extended to NLDC for common situational awareness.

These issues have been deliberated in various meetings i.e 9th NER CPM dtd 16.03.26, 33rd NETeST meeting dtd 24.04.26, separate meeting between ULDC/NMT, POWERGRID GA&C and CTUIL regarding issues pertaining to UNMS dtd 28.04.2026. It is requested that NMT/ULDC may update the progress of the rectification of the above issues and provide the timeline for rectification.

### **Deliberation of the sub committee**

PGCIL apprised the forum that the issues pertaining to M/s ECI and M/s Tejas make equipment have been resolved and the naming convention has been streamlined and updated in UNMS.

The issues related to M/s Fibcom make equipment are also under progress and shall be completed by 15<sup>th</sup> August 2026.

PGCIL further submitted that work on the issues related to Aparvaa (KMTL) is in progress and is expected to be completed by August-2026.

PGCIL also apprised the forum that issues related to Sterlite nodes have been resolved.

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

**Action: POWERGRID**

### **AGENDA FROM ASSAM**

#### **2.20. Submission of techno commercial offer for AMC of SCADA/EMS Phase-II by M/s GE: Assam**

The existing SCADA/EMS AMC, which was extended for a period of two years, is going to expire on 11.11.2026. The upgradation of the existing system is presently under process and is expected to take at least another two years for completion.

In view of the above, on 04.05.2026 M/S GE Vernova T&D Ind. Ltd. was requested to submit a techno-commercial offer for extension of the AMC for a period of two years, with a provision for further extension by one additional year, if required. The offer may accordingly be submitted for a total duration of three years. Initially, services shall be availed for two years, and the third year may be exercised based on requirement.

M/S GE Vernova T&D Ind. Ltd. was requested to submit the offer at multiple instances. However, M/S GE Vernova T&D Ind. Ltd. is yet to submit the offer. The matter has been placed before the RPC in the special online meeting held on 03.06.2026.

The offer is required for timely formalization and execution of the contract.

**Deliberation of the sub committee**

M/s GE Vernova T&D assured Assam that they would respond within 10 days.

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

***Action: M/s GE Vernova T&D***

**AGENDA FROM PwC**

**2.21. State wise status of SAMAST: PwC**

PwC has prepared a presentation showing the state wise status of SAMAST in NER attached as **Annexure-B 2.21**

**Deliberation of the sub committee**

PwC made a presentation showing the state wise status of SAMAST for Manipur, Mizoram and Tripura.

| <b>State</b>   | <b>Milestone#1<br/>Design<br/>phase</b>                  | <b>Milestone#2<br/>H/W<br/>installation &amp;<br/>commissioning</b> | <b>Milestone#3<br/>Factory<br/>Acceptance<br/>Testing</b>   | <b>Milestone#4<br/>Site<br/>Acceptance<br/>Testing</b> | <b>Milestone#5<br/>User training<br/>and Go Live</b>                                                    |
|----------------|----------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Manipur</b> | 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 completed on 30 June 2026. |

|                |                                                             |                                                               |                                                             |                                                       |                                                                                                          |
|----------------|-------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Mizoram</b> | 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 |
| <b>Tripura</b> | 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 | Go-live of SAMAST modules completed on 29 June 2024<br>Warranty support period completed on 29 June 2025 |

The status of pending payments for Manipur, Mizoram and Tripura is as detailed below:

| <b>State</b>   | <b>Invoicing &amp; payment status (incl. of GST)</b>                                                                                                                                                                                                                                                                                                        | <b>Request</b>                                                                                                                                                                                                                          |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Manipur</b> | Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received INR 4,77,90,000/- (90% of Contract Value)<br><br>Milestone #5 (User training and Go Live): Payment pending of INR 53,10,000/-. Aging is 189+ days                                                                                                                              | 1. Pending Payment of INR 53,10,000/- to be cleared.<br><br>2. SLDC to send re-requisition to PSDF for final 10% fund<br><br>3. SLDC to provide project completion letter, and to return Bank Guarantee                                 |
| <b>Mizoram</b> | Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received INR 4,64,36,526/- (~87.45% of Contract Value).<br><br>Milestone #4 (Site Acceptance Testing): Part-payment made. Balance pending INR 13,53,474/- Aging is 691+ days.<br><br>Milestone #5 (User training and Go Live): Full payment pending INR 53,10,000/- Aging is 343+ days. | 1. Pending Payment of INR 66,63,474/- to be cleared.<br><br>2. P&ED has submitted the requisition to PSDF for the balance payment. P&ED to follow up.<br><br>3. SLDC to provide project completion letter, and to return Bank Guarantee |

|                |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                     |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Total payment pending INR 66,63,474/- (~12.55% of Contract value).                                                                                                                                                                   |                                                                                                                                                                                                                                     |
| <b>Tripura</b> | <p>Total invoicing INR 5,31,00,000/- (100% of contract value). Payment received INR 4,77,90,000/- (90% of Contract Value)</p> <p>Milestone #5(User training and Go Live): Payment pending of INR 53,10,000/-. Aging is 204+ days</p> | <p>1. Payment of INR 53,10,000/- to be cleared.</p> <p>2. TSECL has received funds from PSDF and is requested to expedite the payment process.</p> <p>3.SLDC to provide project completion letter, and to return Bank Guarantee</p> |

The status of AMC of SAMAST (for M/s PwC) for each state is as detailed below:

| <b>State</b>             | <b>Status of AMC</b>      |
|--------------------------|---------------------------|
| <b>Assam</b>             | 3 Years of AMC is ongoing |
| <b>Meghalaya</b>         | LOA issued on 20 May 2026 |
| <b>Arunachal Pradesh</b> | Pending                   |
| <b>Manipur</b>           | Pending                   |
| <b>Mizoram</b>           | Pending                   |
| <b>Nagaland</b>          | Pending                   |
| <b>Tripura</b>           | Pending                   |

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

***Action: Concerned stakeholders.***

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

The follow up items are attached at **Annexure 3.1**.

***The status updates for all the follow up items have been mentioned in Annexure 3.1***

*The meeting ended with a vote of thanks to the chair.*

\*\*\*\*\*

**List of Participants in 34<sup>th</sup> NETeST meeting held on 23.07.2026 at Hotel Nandan, Guwahati**

| S.No | Name                 | Designation         | Organization     | Email-Id                    | Contact No. | Signature |
|------|----------------------|---------------------|------------------|-----------------------------|-------------|-----------|
| 1    | JAYANTO MONDAL       | GM                  | GRID-INDIA/NERDC | rajagopal@grid-india.in     | 9433041455  |           |
| 2    | Sakal Deep           | Deputy Hqr          | Grid-India/NERDC | skdeep@grid-india.in        | 9474528218  |           |
| 3    | KHALESA BATESHYA     | Dy. Hqr             | POWERGRID        | panudh@powergrid.in         | 9859423132  |           |
| 4    | VIPUL ANAND          | Asst Mgr            | POWERGRID        | vibul-anand@powergrid.in    | 831994202   |           |
| 5    | SHAKTI MAYANK SINGH  | Asst. Mgr.          | GRIDINDIA/NERDC  | shaktimayank@grid-india.in  | 8399085576  |           |
| 6    | GAURAV BHATTACHARJEE | Dy. Mgr.            | GRID-INDIA/NERDC | gauravbhatt@grid-india.in   | 9402304210  |           |
| 7    | MANOYAM DINESH SAH   | Engineer            | CTCIL            | dinesh.sah@ctcil.in         | 8136856343  |           |
| 8    | RAUSHAN KUNAR        | Chief Hqr           | Resonia/Steelite | raushan.kun@resonia.in      | 9563336754  |           |
| 9    | RAJEEV KESHR         | Dy/Manager          | KMTL             | rajeev.keshri@kmtl.in       | 8119051439  |           |
| 10   | SRIKAM POTLURI       | Director            | PWC              | srikam.potluri@pwc.in       | 9909909584  |           |
| 11   | ARNAB PRATIM DAS     | Exec. Director      | PWC              | arnab.pratim.das@pwc.com    | 9830087811  |           |
| 12   | LALZARLIANA          | Asst. Engineer      | ROEDDO           | lalzarliana77@redodo.in     | 9768167559  |           |
| 13   | LATHANZUA            | Superintending Eng. | SLOC, Meghalam   | mlsdc.circle@gmail.com      | 9436141571  |           |
| 14   | P. TIARABA YINCHUNGR | J.G                 | SLOC, NAGALAND   | tiaraba@nagaland.gov.in     | 8974020151  |           |
| 15   | SATENDRA SEN.        | DEP, SLOC, Tripura  | SLOC Tripura     | sen@tripura.sloc.in         | 9436120263  |           |
| 16   | DEBAN ROBERT         | Manager             | SLOC, Manipur    | managers@tripura.sloc.in    | 9863345704  |           |
| 17   | YARUHOE HUNGRD       | Manager             | SLOC, Manipur    | yaruhoeh@manipur.sloc.in    | 8722981944  |           |
| 18   | Yomenmu' ZAKAI       | AEE                 | SLOC, Meghalaya  | yomenmu@meghalaya.sloc.in   | 9409133552  |           |
| 19   | M.K. WOA             | Exec. Engineer      | SLOC, Nagaland   | m.k.woa@nagaland.sloc.in    | 9776102418  |           |
| 20   | ANAKU ELAKULANG      | DM                  | HEGCL, Assam     | anaku@hegcl.in              | 9002342641  |           |
| 21   | ANIL J Chakraborty   | AGM                 | HEGCL, Assam     | anil.j.chakraborty@hegcl.in | 853890584   |           |
| 22   | Mriganka -Bhuyan     | AGM, SLOC           | AGECL            | mrigan@agecl.in             | 9101302916  |           |
| 23   | Toushika Jindal      | DEH, SLOC           | AEGCL            | toushika.jindal@aegcl.in    | 9707134351  |           |
| 24   | Fuzik Bidchind       | HEED, SLOC          | DOP A P          | fuzikbidchind@gmail.com     | 9366118384  |           |
| 25   | Ashim Bhowman        | AD-T                | NERPC            |                             |             |           |
| 26   | Dinesh Singh         | AD-T                | "                |                             |             |           |
| 27   | S. Leena             | ED                  | NERPC            |                             |             |           |
| 28   | D.K. Bhowm           | Director            | NERPC            |                             |             |           |

29. B. Singh

NS

NERC

30. HPratik Kalita

Engineer

GEVENORA

Hirajyotik Kalita

8135883171

Venue.com

| REGIONAL COMMUNICATION AUDIT REPORT    |                                         |                          |              |
|----------------------------------------|-----------------------------------------|--------------------------|--------------|
| <b>General Information:</b>            |                                         |                          |              |
| 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   |                          |              |
| <b>Details of Audit Team Members :</b> |                                         |                          |              |
| SL                                     | Name                                    | Designation              | Organization |
| 1                                      |                                         |                          |              |
| 2                                      |                                         |                          |              |
| 3                                      |                                         |                          |              |
| 4                                      |                                         |                          |              |
| <b>Attached Documents, if any</b>      |                                         |                          |              |
| SL                                     | Name of the document                    | Original / Signed / Copy |              |
| 1                                      |                                         |                          |              |
| 2                                      |                                         |                          |              |
| 3                                      |                                         |                          |              |
| 4                                      |                                         |                          |              |
| 5                                      |                                         |                          |              |
| 6                                      |                                         |                          |              |
| 7                                      |                                         |                          |              |

|           |  |  |
|-----------|--|--|
| <b>8</b>  |  |  |
| <b>9</b>  |  |  |
| <b>10</b> |  |  |
| <b>11</b> |  |  |
| <b>12</b> |  |  |
| <b>13</b> |  |  |
| <b>14</b> |  |  |
| <b>15</b> |  |  |
| <b>16</b> |  |  |
| <b>17</b> |  |  |

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

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

| Sl | Name of Station | Equipment Type<br>(SDH / PDH / Radio / VSAT<br>/ 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?<br>(Yes / No) | Whether all the defects have been attended? (Yes / No)<br>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 ?<br>(H / F) | Cards Redundancy available<br>(Yes / No) | Power Supply Card / Optical Card<br>(Yes / No) | MSP configured?<br>(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**

|                                      |
|--------------------------------------|
| <b>If Yes, how is it being done?</b> |
|                                      |

**(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)                      |

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

**(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 :**

[illegible]

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

## VII. PLCC Details:

[illegible]

**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 : \_\_\_\_\_ Seconds  
for SCADA  
(ii) Time delay in seconds from Control Centre : \_\_\_\_\_ Seconds  
for WAMS

**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  
NERPC**

**Audit Team Member  
NERLDC**

**Audit Team Member  
PGCIL (Internal / External)**

**Audit Team Member  
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<br>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<br>1 Cross labelled (source/ receive)<br>2 Tx – Rx Marking<br>3 Mechanical protection is provided for patch chords laid between panels                                                                                                                                                                                       |          |        |           |
| 6    | Whether separate room for communication is available with following:-<br>1 Air conditioning with standby A/C Unit<br>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 System shall be available with<br>1 Common DC Distribution board/ Panels with incoming MCB, coupler MCB , out doing MCB setc<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 Thyristorised/SMPS |          |        |           |
| 8    | Battery Charger alarms /measurements shall be 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                                                                                                                  |          |        |           |

## Communication Audit Checklist (Annexure-II)

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

**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 7<sup>th</sup>/8<sup>th</sup> 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<sup>th</sup> 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<sup>th</sup> 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.

\*\*\*



**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 :**

[illegible]

## 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             |
| 3                   | Agia                   | AGECL          | ECI      | AEGCL     | AGIA                   |
|                     |                        |                |          |           | BTPS                   |
| 4                   | Boko                   | AGECL          | ECI      | AEGCL     | Boko                   |
|                     |                        |                |          |           | Mirza                  |
| 5                   | Mirza                  | AGECL          | ECI      | AEGCL     | Agia                   |
|                     |                        |                |          |           | Sarusajai              |
| 6                   | Sarusajai              | AGECL          | ECI      | AEGCL     | Boko                   |
|                     |                        |                |          |           | SLDC-Kahilipara        |
|                     |                        |                |          |           | Samaguri               |
| 7                   | SLDC-Kahilipara        | AGECL          | ECI      | AEGCL     | Mirza                  |
|                     |                        |                |          |           | Sarusajai              |
|                     |                        |                |          |           | Umtru                  |
|                     |                        |                |          |           | ABB-SLDC-Kahilipara    |
|                     |                        |                | Fibcom   | PGCIL     | Fibcom-SLDC-Kahilipara |
|                     |                        |                |          |           | Backup-NERLDC          |
|                     |                        |                |          |           | Kamakhaya              |
| 8                   | Guwahati NERLDC        | NERLDC         | FIBCOM   | PGCIL     | Sonabil                |
|                     |                        |                |          |           | SLDC-Kahilipara        |
|                     |                        |                | Tejas    | PGCIL     | Tejas-NERLDC           |
| 9                   | Samaguri               | AGECL          | ECI      | AEGCL     | Fibcom-NERLDC          |
|                     |                        |                |          |           | Misa                   |
|                     |                        |                |          |           | Mariani(AS)            |
| 10                  | Mariani (AS)           | AGECL          | ECI      | AGECL     | Sarusajai              |
|                     |                        |                |          |           | Lakwa                  |
|                     |                        |                |          |           | Mariani (PGCIL)        |
| 11                  | Maraini (PGCIL)        | PGCIL          | ECI      | PGCIL     | Mariani -ABB           |
|                     |                        |                |          |           | Mariani (AS)           |
|                     |                        |                |          |           | Mariani - Fibcom       |
|                     |                        |                | Fibcom   |           | Mariani - ABB_KMTL     |
|                     |                        |                |          |           | Kathalguri             |
|                     |                        |                |          |           | Mokokchung-PG          |
|                     |                        |                | 12       |           | Kathalguri             |
| Mariani - PG        |                        |                |          |           |                        |
| Kathalguri_Tejas_PG |                        |                |          |           |                        |
| 13                  | MISA                   | PGCIL          | ECI      | PGCIL     | Mariani - Fibcom       |
|                     |                        |                |          |           | Samaguri - ECI         |
|                     |                        |                |          |           | Misa-ECI(ComTel)       |
|                     |                        |                |          |           | Dimapur(PG)-ECI        |
|                     |                        |                |          |           | Balipara-ECI           |
|                     |                        |                |          |           | Misa-EC                |
|                     |                        |                | Fibcom   |           | Dimapur-Fibcom         |
|                     |                        |                |          |           | Misa-Tejas             |
|                     |                        |                |          |           | Balipara-Fibcom        |
|                     |                        |                |          |           | Misa-ECI               |
|                     |                        |                |          |           | Balipara-ABB           |

|            |               |           |        |          |                              |
|------------|---------------|-----------|--------|----------|------------------------------|
| 14         | Balipara      | PGCIL     |        | PGCIL    | Balipara(AEGCL)-ECI          |
|            |               |           |        |          | Gohpur(AEGCL)-ECI            |
|            |               |           | Fibcom |          | Balipara-ECI                 |
|            |               |           |        |          | Misa-Fibcom                  |
|            |               |           |        |          | BNC_HVDC-Fibcom              |
|            |               |           |        |          | 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-Tejas |               |           |        |          |                              |
| 18         | Pare          | NEEPCO    | ECI    | PGCIL    | Ranganadi(PGCIL)-ECI         |
|            |               |           |        |          | Pare_Sterlite-ECI            |
|            |               |           | ECI    | STERLITE | AP_SLDC-ECI                  |
|            |               |           |        |          | 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               |
|            |               |           | Fibcom |          | Lekhi-ECI                    |
|            |               |           |        |          | SLDC_AP-Fibcom               |
|            |               |           |        |          | AP_SLDC-ECI                  |
|            |               |           |        |          | AP_SLDC-Tejas                |
|            |               |           |        |          | BNC_HVDC-Fibcom              |
| 21         | Gohpur_AEGCL  | ASSAM     | ECI    | AEGCL    | Ranganadi_ECI                |
|            |               |           |        |          | Nirjuli_PGCIL-ECI            |
|            |               |           | ABB    |          | Balipara(PGCIL)_ECI          |
|            |               |           |        |          | Gohpur_NERPSIP               |
|            |               |           |        |          | 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         |
|            |               |           | Fibcom |          | Salakati-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       |
| 33                      | Kopili     | NEEPCO    | ECI         |        | Kopili_PG-ECI           |
|                         |            |           |             |        | Khandong_PG-ECI         |
|                         |            |           |             |        | Misa_PG-ECI             |
| 34                      | Badarpur   | PGCIL     | ECI_Upgrade | PGCIL  | Khleihriat_PG-ECI       |
|                         |            |           |             |        | Kumarghat_PG-ECI        |
|                         |            |           |             |        | Badarpur_PG-Fibcom      |
|                         |            |           | ECI         |        | Badarpur_PG-ECI         |
|                         |            |           |             |        | Badarpur_PG-ECI Upgrade |
|                         |            |           |             |        | Badarpur_PG-Fibcom      |
|                         |            |           |             |        | Kolasib_Mizoram-ECI     |
|                         |            |           |             |        | Silchar_PG-ECI          |
|                         |            |           |             |        | Jiribam_PG-ECI          |
|                         |            |           | Fibcom      |        | AEGCL_Badarpur-ECI      |
|                         |            |           |             |        | 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       |
|                         |            |           | ECI         |        | Silchar_PG-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       |
|    |                 |         | ECI    |       | Imphal_PG-Fibcom        |
| 37 | Imphal          | PGCIL   | Fibcom | PGCIL | Loktak_NHPC-Fibcom      |
|    |                 |         | ECI    |       | Jiribam_PG-Fibcom       |
| 38 | Loktak          | NHPC    | Fibcom | PGCIL | Pailapool_AS-ECI        |
|    |                 |         |        |       | Badarpur_PG-ECI         |
| 39 | Dimapur         | PGCIL   | Fibcom | PGCIL | Imphal_PG-ABB           |
|    |                 |         | ECI    |       | Imphal_SLDC-Fibcom      |
| 40 | Doyang          | NEEPCO  | Fibcom | PGCIL | Imphal_PG-ECI           |
|    |                 |         |        |       | Loktak_NHPC-Fibcom      |
| 41 | Palatana        | OTPC    | Fibcom | PGCIL | Imphal_PG-Fibcom        |
|    |                 |         |        |       | Kohima_Nagaland-ECI     |
| 42 | SM Nagar(TS)    | TRIPURA | Fibcom | PGCIL | Imphal_PG-Fibcom        |
|    |                 |         |        |       | Ningthoukhong-Fibcom    |
| 43 | Agartala_SLDC   | TRIPURA | Fibcom | PGCIL | Rengpang-Fibcom         |
|    |                 |         |        |       | Jiribam_PG-Fibcom       |
| 44 | RCNagar_AGTCCPP | NEEPCO  | Fibcom | PGCIL | Kohima_Nagaland-Fibcom  |
|    |                 |         |        |       | Nagarjan-Fibcom         |
| 45 | Kumarghat       | PGCIL   | Fibcom | PGCIL | Dimapur_PG-ECI          |
|    |                 |         |        |       | Misa-Fibcom             |
| 46 | Aizwal          | PGCIL   | Fibcom | PGCIL | Doyang-Fibcom           |
|    |                 |         |        |       | Dimapur_PG-Fibcom       |
| 47 | Badarpur        | PGCIL   | Fibcom | PGCIL | Misa_PG-ECI             |
|    |                 |         |        |       | Kohima_Nagaland-ECI     |
| 48 | Zembawak        | PGCIL   | Fibcom | PGCIL | Dimapur_PG-Fibcom       |
|    |                 |         |        |       | Sanis-Fibcom            |
| 49 | Kumarghat       | PGCIL   | Fibcom | PGCIL | Mokokchung_Naga-Fibcom  |
|    |                 |         |        |       | Udaipur_TS-Fibcom       |
| 50 | RCNagar         | PGCIL   | Fibcom | PGCIL | SMNagar_TS-Fibcom       |
|    |                 |         |        |       | SMNagar_Sterlite-GE     |
| 51 | Agartala        | TRIPURA | Fibcom | PGCIL | Budhjungnagar)TS-Fibcom |
|    |                 |         |        |       | Palatana-Fibcom         |
| 52 | RCNagar         | PGCIL   | Fibcom | PGCIL | Agartala_79Tilla-Fibcom |
|    |                 |         |        |       | SMNagar_TS-Fibcom       |
| 53 | Kumarghat       | PGCIL   | Fibcom | PGCIL | Agartala_SLDC-ECI       |
|    |                 |         |        |       | RCNagar-Fibcom          |
| 54 | RCNagar         | PGCIL   | Fibcom | PGCIL | Baramura-Fibcom         |
|    |                 |         |        |       | Agartala_79Tilla-Fibcom |
| 55 | RCNagar         | PGCIL   | Fibcom | PGCIL | RCNagar_PG-ECI          |
|    |                 |         |        |       | Rokhia-ECI              |
| 56 | Kumarghat       | PGCIL   | Fibcom | PGCIL | Mohanpur-ECI            |
|    |                 |         |        |       | Agartala_79Tilla-Fibcom |
| 57 | RCNagar         | PGCIL   | Fibcom | PGCIL | RCNagar_PG-ECI          |
|    |                 |         |        |       | Kumarghat-Fibcom        |
| 58 | RCNagar         | PGCIL   | Fibcom | PGCIL | PK Bari_TS-Fibcom       |
|    |                 |         |        |       | RC_Nagar_Indigrid-GE    |
| 59 | RCNagar         | PGCIL   | Fibcom | PGCIL | RCNagar-Fibcom          |
|    |                 |         |        |       | Agartala_SLDC-ECI       |
| 60 | RCNagar         | PGCIL   | Fibcom | PGCIL | Kumarghat_PG-ECI        |
|    |                 |         |        |       | RCNagar-Fibcom          |
| 61 | RCNagar         | PGCIL   | Fibcom | PGCIL | Kumarghat_PG-ECI        |
|    |                 |         |        |       | Kumarghat-Fibcom        |
| 62 | RCNagar         | PGCIL   | Fibcom | PGCIL | Badarpur-ECI Upgrade    |
|    |                 |         |        |       | Melriat_PG-Fibcom       |
| 63 | RCNagar         | PGCIL   | Fibcom | PGCIL | Aizwal_PG-ECI           |
|    |                 |         |        |       | Badarpur_PG-Fibcom      |
| 64 | RCNagar         | PGCIL   | Fibcom | PGCIL | Zembawak-Fibcom         |
|    |                 |         |        |       |                         |

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



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

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No: NERPC/NETeST/2026/1148-1151

10<sup>th</sup> July 2026

सेवा में / To

**As per list attached**

**विषय: PSDF फंडिंग के तहत NER SCADA/EMS ULDC-III प्रोजेक्ट को लागू करने से संबंधित विशेष बैठक का कार्यवृत्त**

**Sub: Minutes of special meeting on implementation of the NER SCADA/EMS ULDC-III project under PSDF funding - reg.**

महोदय/महोदया,

कृपया आपकी जानकारी और आवश्यक कार्रवाई हेतु, 3 जुलाई 2026 (शुक्रवार) को सुबह 10:30 बजे NERLDC कॉन्फ्रेंस हॉल, गुवाहाटी में आयोजित PSDF फंडिंग के तहत NER SCADA/EMS ULDC-III प्रोजेक्ट को लागू करने से संबंधित विशेष बैठक का कार्यवृत्त इसके साथ संलग्न है। यह कार्यवृत्त NERPC की वेबसाइट: [www.nerpc.gov.in](http://www.nerpc.gov.in) पर भी उपलब्ध है।

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

यह सदस्य सचिव, NERPC के अनुमोदन से जारी किया जाता है।

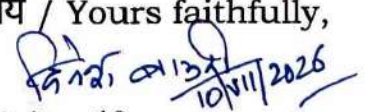
Sir/Madam,

Please find enclosed herewith the minutes of the special meeting on implementation of the NER SCADA/EMS ULDC-III project under PSDF funding which was held on 3<sup>rd</sup> July 2026 (Friday) at 10:30 hrs at NERLDC Conference Hall, Guwahati for your kind information and necessary action. The minutes is also available on the website of NERPC: [www.nerpc.gov.in](http://www.nerpc.gov.in).

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

This issues with the approval of Member Secretary, NERPC.

भवदीय / Yours faithfully,

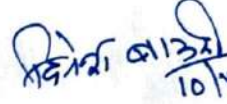
  
(डी.के. बौरी / D.K Bauri)  
निदेशक / Director

**Distribution List:**

1. ED, NERLDC, Dongtiah, Lower Nongrah, Lapalang, Shillong -793 006
2. CGM, GA&C, POWERGRID, B-9 Qutab Institutional Area, Katwaria Sarai, New delhi-110016

**Copy to:**

1. PS to Member Secretary, NERPC Shillong
2. Director (Operations), PGCIL, Plot No.2, Sector-29, Gurgaon-122001

  
10/11/2026

(डी.के. बौरी / D.K Bauri)

निदेशक / Director

## **Minutes of Special Meeting on “Implementation of the NER SCADA/EMS ULDC-III project under PSDF funding” held on 3rd July, 2026 (Friday)**

A special meeting was convened by NERPC on 3<sup>rd</sup> July, 2026 (Friday) at 10:30 Hrs at “NERLDC, Grid India”, Guwahati to deliberate the way forward for implementation of the SCADA/EMS Upgradation in NER. As per the decision in the 26<sup>th</sup> Monitoring Committee of PSDF, the project is to be executed by POWERGRID. The discussions and decisions are summarised as below.

Participants list is attached as **Annexure-I**.

### **1. Opening Remarks**

Member Secretary (MS), NERPC welcomed all participants to the meeting and invited them to engage in a fruitful discussion.

CGM (I/C), NERLDC requested that the project should be completed at the earliest in view of the impending expiry of the Annual Maintenance Contracts (AMCs) across the State Load Despatch Centres (SLDCs) and NERLDC. He emphasised that any further delay in implementation would result in significant cost escalation, noting that the extant approved project cost is approximately ₹521 crore and that discussions with POWERGRID would be necessary regarding AMC and other implementation modalities.

It was also highlighted that the extended AMC for Assam SLDC is scheduled to expire in November 2026 and for other states AMC is expected to be expire in coming years, and that any delay beyond this period would substantially increase AMC expenditure.

ED (GA&C), POWERGRID expressed gratitude to NERPC for providing the opportunity to discuss & present the SCADA/EMS Upgradation for NER project.

Member Secretary, NERPC concurred with the views expressed by CGM (I/C), NERLDC regarding the urgency of the project.

POWERGRID thereafter made a detailed presentation on the project, which is enclosed as **Annexure-II**.

### **2. Discussion Points**

#### **2.1 Total Cost Estimate**

The issue of the total cost estimate (as per the latest figures available) for each SLDC, inclusive of the Annual Maintenance Contract (AMC), was discussed. POWERGRID presented the fresh cost estimate at approximately ₹ 688/- Crore (including AMC) with ₹538.91 Crore as Supply & Service and ₹149.69 Crore as AMC.

It was explained that, while the earlier PSDF approval was based on a project cost of ₹521/- Crore, a revised estimate has now been prepared taking into account the recently awarded rates in the Northern and Eastern Regions, reflecting approximately 40–50% escalation in hardware prices. POWERGRID further submitted that the estimate is likely to escalate on account of a subsequent rise in the cost of Hardware/electronic items. It was noted that server and memory prices, in particular, continue to rise owing to growing demand from AI and data-centre applications. The revised estimate also includes IEDC and contingency charges.

#### **2.2 PSDF Fund Flow through Tripartite Agreement**

Director, NERPC observed that SCADA/EMS upgradation project had been discussed in the last two NERPC meetings and that the only major pending issue remains the AMC mechanism, on which NERPC had already communicated with POWERGRID on multiple occasions.

POWERGRID informed that it would facilitate the flow of funds under the Power System Development Fund (PSDF) to the States during the AMC period, through a Tripartite Agreement comprising PSDF, the concerned State SLDC, and POWERGRID as the implementing entity. It was clarified that POWERGRID has not been responsible for AMC execution since ULDC Phase-I & ULDC Phase-II, the AMC having traditionally remained the responsibility of the project owner (i.e. State SLDCs/RLDCs). However, in the present case of 70:30 PSDF funding mechanism for NER SCADA/EMS ULDC-III project, POWERGRID would facilitate the fund-flow mechanism for AMC payments under the proposed arrangement.

It was informed that the same modality has already been adopted and is running successfully in the State of Ladakh, where the AMC portion is also funded through PSDF. Under the arrangement, PSDF would release quarterly advance funds to POWERGRID, and POWERGRID would subsequently transfer the AMC funds to the respective States.

The Tripartite Agreement of Ladakh SCADA/EMS project is enclosed as **Annexure-III** for reference. The procedure for the flow of funds under the aforesaid arrangement was outlined as follows:

- a. On submission of the quarterly bill by the vendor to the State, the State shall raise a request to POWERGRID for the PSDF portion of the bill.
- b. POWERGRID shall thereupon submit the request to PSDF for release of the fund.
- c. On receipt of the fund from PSDF, POWERGRID shall forward the same to the State.
- d. The State shall pay the vendor's bill, discharging the PSDF portion from the fund so received and the balance from its own resources.
- e. The State shall submit a Fund Utilisation Certificate, duly certified by an auditor, to POWERGRID.

## **2.4 MoU / Agreement between POWERGRID and NER SLDCs**

POWERGRID informed that an agreement /MoU would be required between POWERGRID and the respective SLDCs of the NER States, both for execution of the project and to serve as formal consent from the SLDCs for undertaking the same.

POWERGRID requested forum to extend the necessary support in completing the signing process of agreement with the NER SLDCs. The draft agreement intended to be signed is attached as **Annexure-IV**.

## **2.5 Nomination of Project Executing Agency and Inclusion of NERLDC Guwahati & Shillong in the SCADA/EMS Upgradation Project**

POWERGRID enquired whether NERLDC agrees to the implementation of project through POWERGRID and further enquired regarding the inclusion of NERLDC Guwahati and Shillong within the ambit of SCADA/EMS upgradation project.

NERLDC referred to the deliberations held in the meeting among CMD, GRID-INDIA and CMD, POWERGRID on 08th September 2022, wherein the philosophy of "One-Region One-Tender" was adopted and it was decided that a single combined tender would be floated for one region. In terms of the said deliberations, the Northern Region (NR) and Eastern Region (ER) were entrusted to POWERGRID for execution, while the Western Region (WR) and Southern Region (SR) were entrusted to GRID-INDIA. The Northeastern Region (NER), however, remained undecided at that stage in view of the funding arrangement under PSDF.

NERLDC further submitted that, in view of POWERGRID having since been entrusted with the role of Implementing Agency for the NER-SLDCs by the 26th Monitoring Committee of PSDF held on 16th December 2025, it would be appropriate that the SCADA/EMS Upgradation of NERLDC Shillong and NERLDC Guwahati be undertaken concurrently with that of the NER-SLDCs. This would ensure vendor

uniformity and minimise operational challenges across the SCADA/EMS systems of the NER. Accordingly, NERLDC expressed its intent to incorporate the SCADA/EMS Upgradation of NERLDC Shillong and Guwahati within the scope of the aforesaid NER project, with POWERGRID acting as consultant for the project, in line with the MoU signed with ERLDC and NERLDC for executing similar projects in their respective regions. NERLDC informed the forum that the project cost for the NERLDC portion would be recovered through RLDC fees and charges as per CERC norms, as is being followed in all other regions.

## 2.6 Preparation of Draft / Revised DPRs and BoQs

POWERGRID informed the forum that the preparation of a fresh (revised) Detailed Project Report (DPR) would be necessary and requested formal concurrence from NERPC before proceeding further. It was also informed that the Technical Specification (TS) and questionnaire had been circulated to the NER States in April 2026, though responses were still awaited.

NERPC requested POWERGRID to proceed with the preparation of the Draft DPRs for the SLDCs, along with the corresponding Bills of Quantities (BoQs), and further requested NERLDC to extend all necessary assistance in verifying the BoQs and Draft DPRs. POWERGRID submitted that, based on the experience gained during execution of the NR and ER projects, certain line items — which were either not being delivered or were found not required for the project — have been excluded from the scope. It was further noted that, subsequent to preparation of the DPRs, the same shall be submitted to PSDF for approval of funds.

## 2.7 Issues Requiring Finalisation

Based on the experience of the NR and ER projects, POWERGRID observed that completion of the ULDC Phase-III projects in NR & ER had taken nearly three years, owing to challenges such as vendor-dependent database development and display configuration. Accordingly, the following aspects were identified for finalisation before preparation of the DPR:

- Responsibility for database & display development.
- Status and management of AMC for the existing RTUs.

## 2.8 Site Details and Nodal Officers

POWERGRID requested the forum to furnish the addresses of the Main and Backup SLDCs, and to appoint Nodal Officers and Alternate Nodal Officers for each SLDC. NERPC assured that all such details would be provided to POWERGRID at the earliest.

## 2.9 Status of AMC Expiry — SLDCs and NERLDC

NERLDC submitted the status of expiry of the AMC for each SLDC and NERLDC, as tabulated below:

| Sl. No. | Name of Control Centre | Original AMC Expiry<br>(7+2) | Extended AMC Expiry<br>Date |
|---------|------------------------|------------------------------|-----------------------------|
| 1.      | Arunachal Pradesh      | 31-03-2027                   | Not required at present     |
| 2.      | Assam                  | 11-11-2024                   | 11-11-2026                  |
| 3.      | Manipur                | 07-11-2025                   | Under awarding stage        |
| 4.      | Meghalaya              | 31-03-2025                   | 31-03-2027                  |
| 5.      | Mizoram                | 30-04-2026                   | Under awarding stage        |
| 6.      | Nagaland               | 31-03-2027                   | Not required at present     |
| 7.      | Tripura                | 31-03-2025                   | Under awarding stage        |

| Sl. No. | Name of Control Centre | Original AMC Expiry<br>(7+2) | Extended AMC Expiry<br>Date |
|---------|------------------------|------------------------------|-----------------------------|
| 8.      | NERLDC                 | 31-01-2026                   | 31-01-2029                  |

NERPC informed the forum that SCADA AMC support in Tripura had already been withdrawn, rendering the implementation of Phase-III increasingly critical. In view of the above, the forum requested POWERGRID to expedite the SCADA/EMS Upgradation of NER, as the extended AMCs of all the States are nearing expiry.

### 2.10 Special Meeting with SLDCs

NERPC informed the forum that a Special Meeting with the SLDCs / all NER constituent States would be convened shortly, following the present meeting, in order to apprise them of the developments in respect of the SCADA/EMS Upgradation of NER. NERPC requested the presence of Grid Automation & Communication (GA&C), POWERGRID, during the said meeting.

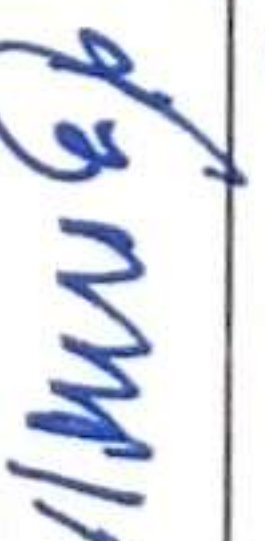
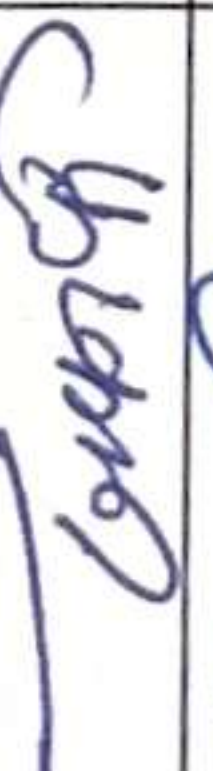
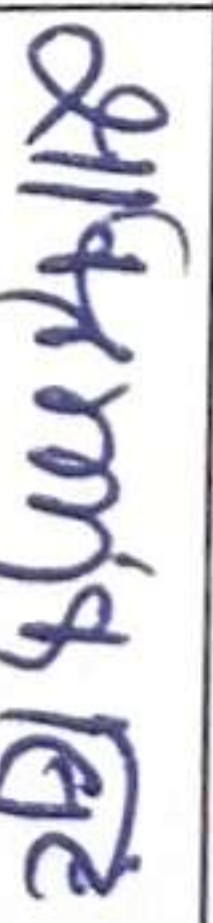
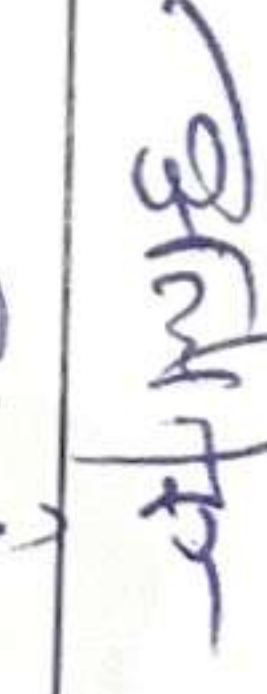
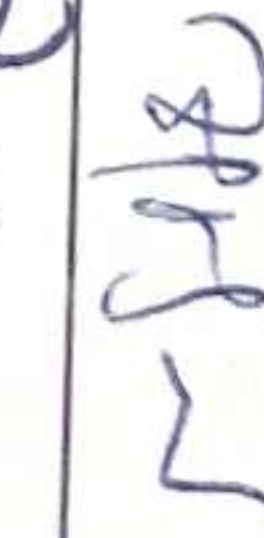
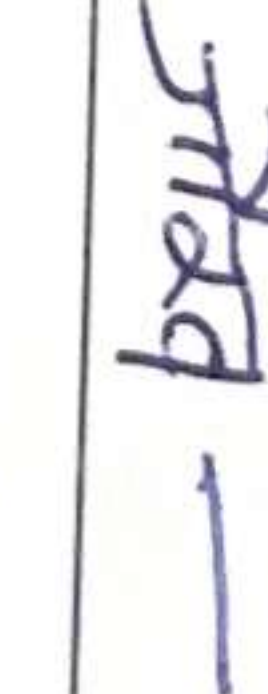
### 3. Action Points

The following action points were agreed upon:

| Sl. No. | Action Item                                                                                                   | Responsibility     | Timeline                                          |
|---------|---------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------|
| 1       | Share detailed BoQ with NERLDC for comparison with the earlier BoQ and incorporation of observations, if any. | POWERGRID / NERLDC | Within one week                                   |
| 2       | Nomination of Nodal Officers by constituent States.                                                           | NERPC / States     | During the next NeTEST meeting (end of July 2026) |
| 3       | Prepare and submit revised DPR to PSDF for approval.                                                          | POWERGRID          | By August 2026                                    |

\*\*\*\*\*

## NERPC Special meeting on SCADA/EMS Phase-3 dated 03.07.2026 at NERLDC Guwahati

| S No | Name                   | Designation  | Organization         | Email ID                           | Mobile No   | Signature                                                                             |
|------|------------------------|--------------|----------------------|------------------------------------|-------------|---------------------------------------------------------------------------------------|
| 01   | Somnath Laksh          | CGM (C/C)    | GoD Grid             | sonnath.laksh@grid-india.in        | 9310953819  |  |
| 02   | D K Bauri              | Director     | NERPC                | dkbauri.ceo@gov.in                 |             |  |
| 03   | Sunil Kumar            | ED (C/C)     | POWERGRID            | sunilkumar@powergrid.in            | 9910045512  |  |
| 04   | Furkan A. Siddiqui     | DCM          | POWERGRID            | fa.siddiqui@powergrid.in           | 9650598183  |  |
| 05   | Sakal Deep             | DM           | NERDC                | skdeep@grid-india.in               | 97744528218 |  |
| 06   | SHAKTI MAYANK SINGH    | AM           | NERLDC               | shaktimayank@grid-india.in         | 8299085576  |  |
| 07   | PALASH JYOTI BORAH     | CM           | NERLDC               | palash.jyoti@grid-india.in         | 8761093399  |  |
| 08   | Manish Kr. Tiwari      | CGM          | POWERGRID            | manish.tiwari@powergrid.in         | 8826896879  |  |
| 09   | KAHLESH BHASHYA        | DY. MGR      | POWERGRID            | kamleshb@powergrid.in              | 9859723132  |    |
| 10   | Amit Gupta             | DGM          | NERLDC               | apgupta@grid-india.in              | 9869221406  |    |
| 11   | Ashwin Kr. Ganeswarani | AD - II      | NERPC                | ashwnganeswarani@gov.in            | 8638966481  |    |
| 12   | Dinesh Kr Singh        | AD           | "                    | singh.dinesh39@gov.in              | 7042118261  |    |
| 13   | A. De.                 | Dy. Director | NERPC                | alix.erpce@gov.in                  |             |    |
| 14   | S Mondal               | Ex           | NERPC                | sumesh@grid-india.in               | 9433041555  |    |
| 15   | Gaurav Bhattacharjee   | DM           | NERLDC<br>GRID-INDIA | bhattacharjee.gaurav@grid-india.in | 9402304210  |    |
| 16   | S. dyngkhor            | MS, NERPC    |                      | ← Attended through Online →        |             |                                                                                       |

## NER ULDC Ph-III Project

“Implementation of Unified Load Dispatch and Communication (ULDC) Phase-III (SCADA/EMS Upgradation Project –North Eastern Region)”

*NERPC Special Meeting*

*on 03.07.2026*

# Index

- **Project Scope**
- **Tentative Project Cost**
- **Funding and tariff**
- **Tripartite Agreement**
- **Project execution methodology**
- **Project Timeline**
- **Inputs required for DPR**
- **Owner's Responsibility**
  - **Readiness of Site**
  - **Responsibility during Project**
  - **Responsibility during AMC**
- **Important Issues**

# Project Scope

- **Project** : “Implementation of Unified Load Dispatch and Communication (ULDC) Phase-III (SCADA/EMS Upgradation Project – North Eastern Region)”
- **Scope of Work:**
  - Installation of SCADA/EMS system equipped with Computer Hardware & Software at Main and Backup Control Centers of 7 States
  - Integration of RTUs/SASs/Terminal server/DCPC, VPS, VC systems, Aux Power Supply system and DG set etc., with respective Main & Backup Control Centers of respective RLDC/SLDCs
  - Integration of Main and Backup Control Centers of SLDCs with Main and Backup control centers of NERLDC
  - Integration with other computer systems such as metering, scheduling etc., wherever applicable.
  - Comprehensive maintenance of complete system for 7 years (1-year warranty and 6-year AMC)
  - Training of Owner’s personnel
  - Cyber Security Audit as per Statutory guidelines.

## Project Cost (As approved by PSDF in Dec'25)

| S. No.       | SLDC              | Total Cost<br>(Rs. Cr.) | Project Cost<br>(Rs. Cr.) | AMC for 7 Yr<br>(Rs. Cr.) |
|--------------|-------------------|-------------------------|---------------------------|---------------------------|
| 1            | Assam             | 79.92                   | 24.29                     | 25.63                     |
| 2            | Tripura           | 74.64                   | 49.03                     | 25.61                     |
| 3            | Meghalaya         | 75.75                   | 50.14                     | 25.61                     |
| 4            | Manipur           | 71.85                   | 46.25                     | 25.60                     |
| 5            | Mizoram           | 72.51                   | 46.91                     | 25.60                     |
| 6            | Nagaland          | 73.31                   | 47.71                     | 25.60                     |
| 7            | Arunachal Pradesh | 73.69                   | 48.09                     | 25.60                     |
| <b>Total</b> |                   | <b>521.67</b>           | <b>342.07</b>             | <b>179.27</b>             |

**Project Cost (Revised Est. Cost after considering 50% escalation on HW price). Due to increased storage and RAM prices under the current market conditions**

| S. No.       | SLDC              | Total Cost<br>(in Cr.) | Project Cost<br>(in Cr.) | AMC for 7 Yr<br>(in Cr.) |
|--------------|-------------------|------------------------|--------------------------|--------------------------|
| 1            | Assam             | 101.90                 | 79.75                    | 22.15                    |
| 2            | Tripura           | 98.29                  | 76.93                    | 21.36                    |
| 3            | Meghalaya         | 99.39                  | 77.79                    | 21.61                    |
| 4            | Manipur           | 97.53                  | 76.79                    | 21.20                    |
| 5            | Mizoram           | 94.75                  | 74.16                    | 20.59                    |
| 6            | Nagaland          | 97.94                  | 76.65                    | 21.29                    |
| 7            | Arunachal Pradesh | 98.79                  | 77.32                    | 21.47                    |
| <b>Total</b> |                   | <b>688.61</b>          | <b>538.91</b>            | <b>149.69</b>            |

## Funding and Tariff



| S. No.       | SLDC              | Project Cost (in Cr.) | Funding (Rs. Cr.)    |               | Tariff yearly |
|--------------|-------------------|-----------------------|----------------------|---------------|---------------|
|              |                   |                       | 30 % RTM (POWERGRID) | 70 % by PSDF  |               |
| 1            | Assam             | 79.75                 | 23.93                | 55.82         | 7.27          |
| 2            | Tripura           | 76.93                 | 23.08                | 53.85         | 7.01          |
| 3            | Meghalaya         | 77.79                 | 23.34                | 54.45         | 7.09          |
| 4            | Manipur           | 76.79                 | 22.89                | 53.43         | 6.96          |
| 5            | Mizoram           | 74.16                 | 22.25                | 51.91         | 6.76          |
| 6            | Nagaland          | 76.65                 | 22.99                | 53.65         | 6.99          |
| 7            | Arunachal Pradesh | 77.32                 | 23.19                | 54.12         | 7.05          |
| <b>Total</b> |                   | <b>538.91</b>         | <b>161.68</b>        | <b>377.24</b> | <b>49.14</b>  |

# Tripartite Agreement of Ladakh SLDC

## 1) Tripartite agreement

(i) First Part-PSDF as Nodal agency

(ii) Second part-SLDCs

(iii) Third part- POWERGRID as ENTITY



PSDF Tripartite Agreement\_Ladakh SLDC.pdf

- 2) Treasury Single Account( TSA) of RBI shall be maintained by the ENTITY.
- 3) ENTITY shall establish a dedicated organization within the utility and nominate a nodal officer of suitable rank for speed execution of project.
- 4) Expenditure details will also be submitted by ENTITY to Nodal Agency for release of fund.
- 5) ENTITY responsible for execution of the scheme shall ensure timely submission of Project status to NLDC along with the request for dispersal of fund from PSDF.

# Tripartite Agreement

## Mode of Release of Funds

### 1- Project cost(Excluding AMC)

- a) First Stage- 10%- After MOU signing
- b) Second stage: 20 %- Award of contract
- c) Third Stage-60%- after utilization of 1<sup>st</sup> and 2<sup>nd</sup> installment
- d) Final Stage- Balance 10%- Completion certificate to Nodal Agency by ENTITY

### 2- Funds of AMC portion out of sanction PSDF grant be released by MOP, GOI to ENTITY through the Nodal Agency and in manner as indicated below

- i) 1st Stage- 14%- Signing of AMC agreement between SLDCs and Contractor
- ii) 2nd Stage 14%-For 2<sup>nd</sup> Year
- iii) 3<sup>rd</sup> Stage ; 14%- For 3<sup>rd</sup> Year
- iv) 4<sup>th</sup> Stage: 14%- For 4<sup>th</sup> Year
- v) 5<sup>th</sup> Stage: 14%- for 5<sup>th</sup> Year
- vi) 6<sup>th</sup> Stage 16%- for 6<sup>th</sup> Year
- vii) 7<sup>th</sup> Stage 16%-- for 7<sup>th</sup> Year

# Project Execution Methodology

- 1) Consent by all Owners/Constituents
- 2) Agreement between POWERGRID and Owners/Constituents
- 3) Tripartite Agreement (POWERGRID+ Owners +PSDF)
- 4) Proposal to be put up to PSDF for approval
- 5) Sanction of Funds from PSDF
- 6) NIT, NOA
- 7) Engineering activities
- 8) Supply, Installation & commissioning at site
- 9) Handing over of system
- 10) AMC

# Project Timeline (Tentative)

| Activity                                         | Timeline                                                                      | Estimated Time (in months) |
|--------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|
| Agreement by all Stakeholders                    | July' 26                                                                      | 1                          |
| DPR preparation & Submission of proposal to PSDF | Aug' 26                                                                       | 1                          |
| PSDF Approval/Sanction Order                     | Sep' 26                                                                       | 1                          |
| NIT                                              | Nov' 26                                                                       | 2                          |
| Award                                            | Mar' 27                                                                       | 4                          |
| Engineering                                      | 18 months for existing Control Centre and<br>24 months for New Control Centre |                            |
| Factory Acceptance Test (FAT)                    |                                                                               |                            |
| Installation & Commissioning                     |                                                                               |                            |
| Site Acceptance Test (SAT)                       |                                                                               |                            |
| SAVT & Parallel Operation                        |                                                                               |                            |
| Taking Over Certificate                          |                                                                               |                            |

# Inputs required for DPR

- 1) Nomination of Coordinator (along with an alternate member) from each Constituent (SLDC) for finalization of scope.
- 2) Location & address of Main & Backup Control centers.
- 3) Input for finalization of BoQ
- 4) Details of existing RTUs. Sample format is attached at **Appendix-A**
- 6) Details of initial Power System Sizing. Sample format attached at **Appendix-B**
- 7) Requirement of furniture for CC (PSDF acceptance required)
- 8) Inputs sought vide letter dated 27.04.2026 is awaited



Letter to Manipur\_SCADA details.pdf

# Owner(s) Responsibilities...



## Readiness of Site

- 1) Readiness of Main & backup CC for smooth execution of works in terms of civil building, AC power supply, Air conditioning, etc.,
- 2) Readiness of proper earthing for SCADA system, APS and DG set
- 3) LT panel for two independent AC sources to connect Input ACDB along with suitable rating MCCB
- 4) Adequate AC in battery & UPS room, Server room, Control room
- 5) Readiness of Communication Link.
- 6) Space availability for Outdoor equipment (DG Set) installation.
- 7) Providing Email server, SMS facility and internet connectivity at sites
- 8) Temporary space for storage of supplied material under watch & ward of contractor

# Owner(s) Responsibilities...



## Responsibility during Project:

- 1) Providing support and access to facilities at the sites.
- 2) Providing site specific inputs & existing system data for exchange of data with existing IT system/WAMS/Scheduling apps etc.
- 3) Input for data related to Power System / RTU
- 4) Modification in existing systems (RTU/other control system) for integration
- 5) Development of Database & Display
- 6) Validation of Database & Display
- 7) Any statutory clearance/ entry permit/shutdowns as required.
- 8) Taking over the delivered system upon completion of the project

# Owner(s) Responsibilities...

## Responsibility during AMC:

- The responsibility for maintenance of the SCADA/EMS system shall be with the Owner(s) of the system.
- The responsibility for payment to Contractor shall be in the scope of Owner(s) of the system.

# Important Issues

- 1) A dedicated team for routine activities (including database preparation, display development, and validation etc.) shall be involved from the project initiation stage itself to ensure better coordination, quality, and timely completion of deliverables.
- 2) Augmentation of existing RTUs for dual reporting
- 3) AMC of existing RTUs
- 4) Man-Power with EMS application experience

***THANK YOU***

FRIDGES, ACs ARE AMONG 9 ITEMS THAT MAKE UP JUST 1% OF ENTIRE CPI BASKET OF GOODS & SERVICES

# The memory chip problem that is slowly feeding into inflation

Siddharth Upasani  
New Delhi, June 16

MORE EXPENSIVE PHONES & PCS

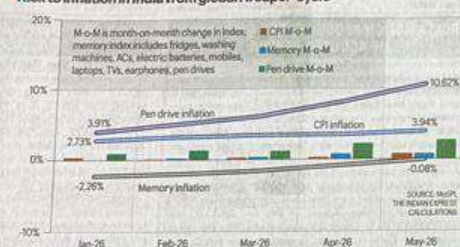
## How consumers are now quietly paying for AI boom

Soumyarendra Barik &  
Anil Sasi  
New Delhi, June 16



Soaring memory costs are projected to drive worldwide smartphone shipments to drop by 8.4% in 2026.

• Risk to inflation in India from global AI super-cycle



only make up 1% of the entire CPI basket, compare that with the three TOP vegetables (onion, onion, potato) that account for nearly 2% of the CPI. Moreover, electronics manufacturers don't pass on higher input prices as quickly and substantially as farmers. Why? Because manufacturers already have a substantial profit margin built into the final price. However, the price increases announced so far are already hurting sales.

### The India problem

As it turns out, not all buyers may be locking in long-term deals. Sumit Sadana, executive vice-president and chief business officer at Micron, told a media outlet last month that the US chip manufacturer's Indian customers were probably not understanding the gravity of the situation. He said that in terms of long-term demand, it was difficult to get "reliable signals" from Indian customers and what the company needed at this point was a "commitment" to such demand and not just an indication. The prospects for consumer electronics prices — and retail inflation — for Indians are not bright, then. The RBI currently expects CPI inflation to average 5.9% in the final three months of 2026. By then, the contribution to inflation from these electronics goods may be much higher. **FULL REPORT ON** [WWW.INDIANEXPRESS.COM](http://WWW.INDIANEXPRESS.COM)

for pen drives and hard disks is nearing 5%. Policymakers across the world are already taking note of this new source of inflation.

Last month, economists from the Federal Reserve wrote of the "unprecedented contribution" to core inflation by the "Computer Software and Accessories" category of the US Personal Consumption Expenditures price index.

### Structural shortage

In India, the contribution to inflation of the nine items mentioned above has been rather small, partially because they

such as marketing, distribution and taxes, and is a crucial metric used by manufacturers to assess profitability and pricing strategy. Senior analyst at Counterpoint, Shenghao Bai noted, "The memory price surge is delivering a structural impact to smartphone BOM costs. In 2026, OEMs will struggle to balance component costs, gross margins and shipment targets. Those who rely heavily on entry-level models to drive market share will face a significant risk of short-term losses. The way that manufacturers will mitigate these rising costs, according to Counterpoint, is by reducing expected shipment targets for low-end models, downgrading non-core specifications to offset costs, and simply passing the cost on to customers."

What that's leading to is a longer usage duration of smartphones especially in price-sensitive markets such as India. And the proportionate increase is higher in the lower end of the market, where price elasticity is higher.

AI has triggered a global memory shortage by pushing chipmakers to divert production towards lucrative high-bandwidth memory used in data centres, leaving less conventional DRAM (dynamic random-access memory) available for smartphones and PCs and driving up prices across the electronics supply chain.

### AI boom hits budget phones, computers

According to a report by market intelligence firm Counterpoint Research, memory will

Gartner estimates a 130% surge in combined DRAM and solid-state drive (SSD) prices by the end of 2026, which will increase PC prices by 17% and smartphone prices by 13%, compared to 2025 levels. This situation will concentrate demand on premium devices.

"This is the steepest contraction in device shipments witnessed in over a decade. Higher prices will narrow the range of devices available, prompting buyers to hold on to devices for longer, fundamentally altering upgrade cycles," said Ranjit Atwal, Sr. Director Analyst at Gartner. Because of rising costs, Gartner expects PC lifetime to increase by 15% for business buyers and 20% for consumers by the end of 2026. These delayed upgrades will further raise concerns over increased security vulnerabilities and challenges of managing older devices.

### Why AI is so hungry for memory

The surge in RAM prices is largely a consequence of how the AI boom has reshaped the memory industry.

AI servers, built by companies such as Nvidia, require enormous quantities of high-bandwidth memory (HBM), a specialised form of memory that allows AI chips to process data much faster. As demand for AI infrastructure exploded, memory manufacturers, which include Samsung, SK Hynix and Micron among others, began diverting more production capacity towards HBM and server-grade DRAM, which offer far higher margins than memory used in smartphones and PCs, according to a report by intelligence and consultancy firm TrendForce. With these new

States' development, welfare spending surges 131% in 10 years: CAG

RBI relaxes ECLGS 5.0 norms

ENS Economic Bureau  
Mumbai, June 16  
THE RESERVE Bank of India

As of June 10, more than 1.06 lakh loans worth over

urban cooperative banks and non-banking financial companies. The move follows the government's introduction of

# VICES MORE EXPENSIVE PHONES & PCS How consumers are now quietly paying for AI boom

Sourmyendra Barik & Anil Sasi  
New Delhi, June 16

For the entire year, the price of the smartphone has been on a downward trend. But now, it is starting to rise again. The price of the smartphone has been on a downward trend for the entire year, but now it is starting to rise again.

SMARTPHONE SALES, especially those at the budget end of the spectrum, are beginning to hit a wall, thanks to the sharp price of RAM and high-end memory that once was one of the cheapest smartphone and computer components, which has more than tripled in value since October 2022.

The cost of memory as a percentage of the total cost of a low-end phone has surged from under 10% to over 45% now. Like phones and laptops, rising memory costs could end up impacting other electronic devices such as smart TVs and medical devices.

The single biggest reason for the surge in memory cost is the explosive growth in the data centres which power AI, which has started to fall back on RAM (random access memory) now from the previous heavy reliance on graphics processing units (GPUs).

What is the leading to is a longer usage duration of smartphones especially in price-sensitive markets such as India. And the proportionate increase is higher in the lower end of the market, where price elasticity is higher.

AI has triggered a global memory shortage by pushing chipmakers to divert production towards lucrative high-bandwidth memory used in data centres, leaving less conventional DRAM (dynamic random access memory) available for smartphones and PCs and driving up prices across the electronics supply chain.

**AI boom hits budget phones, computers**  
According to a report by market intelligence firm Counterpoint Research, memory will account for a massive 45% of the total bill of materials (BOM) for smartphones priced under Rs 20,000 (\$2,200), and these whole BOM may climb by as high as 28% in 2026. For top-end phones, priced above Rs 80,000, BOM costs could rise by Rs 10,000 to Rs 15,000 by the second quarter of 2026, but of materials is the total cost of all components and materials required to manufacture a product, excluding expenses



Soaring memory costs are projected to drive worldwide smartphone shipments to drop by 8.4% in 2025.

such as marketing, distribution and taxes, and a crucial role used by manufacturers to assess profitability and pricing strategy. Senior analyst at Counterpoint, Shenghao Bai noted, "The memory price surge is delivering a cry price surge to smartphone BOM costs. In 2026, OEMs will struggle to balance component costs, gross margin and shipment targets. Those who rely heavily on memory level models to drive market share will face a significant risk of short-term losses. The way that manufacturers will mitigate these rising costs, according to Counterpoint, is by reducing expected shipment targets for low-end models, downgrading their core specifications to offset costs, and simply passing the cost on to customers."

"Considering the massive memory price surge, standard cost-cutting measures may only result in limited returns. A rise in retail prices seems unavoidable in 2026. We expect low-end retail prices to increase by around \$10, while the cost pressures on some premium flagship will likely be passed on to consumers, resulting in price hikes of \$150 to \$200," Shenghao said.

Soaring memory costs are projected to drive worldwide PC shipments to decline 10.4% and smartphone shipments to drop by 8.4% in 2026, compared to 2025 levels, according to Gartner, Inc., a business and technology intelligence company.

Gartner estimates a 130% surge in combined DRAM and solid-state drive (SSD) prices by the end of 2026, which will increase PC prices by 17% and smartphone prices by 19%, compared to 2025 levels. This situation will concentrate demand on premium devices.

"This is the steepest contraction in device shipments witnessed in over a decade. Higher prices will narrow the range of devices available, prompting buyers to hold on to devices for longer, fundamentally altering upgrade cycles," said Ranjit Atwal, Sr. Director Analyst at Gartner. Because of rising costs, Gartner expects PC lifetime to increase by 15% for business buyers and 20% for consumers by the end of 2026. These delayed upgrades will further raise concerns over increased security vulnerabilities and challenges of managing older devices.

### Why AI is so hungry for memory

The surge in RAM prices is largely a consequence of the AI boom, which has rekindled the memory industry. AI servers built by companies such as Nvidia require enormous quantities of high-bandwidth memory (HBM), a specialised form of memory that allows AI chips to process data much faster. As demand for AI infrastructure exploded, memory manufacturers, which include Samsung, SK Hynix and Micron among others, began diverting more production capacity towards HBM and server-grade DRAM, which offer far higher margins than memory used in smartphones and PCs, according to a report by Intelligence and consultancy firm TrendForce. With these new phase of AI evolution focused less on making of models alone, where Nvidia's graphic processing units or GPUs were essentially, the renewed focus now on running AI continuously across enterprise workloads and agents is what is described in industry parlance as inferencing (making sense of the training data).

There is a concomitant shift in the chip requirement mix to AI power. FUL REPORT

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Department of India, Department of Space  
SRO Propulsion Complex (PRC)  
PO, Trivendrum District, Tamil Nadu-627113, India  
CORROSION

Publications published, the use period for the below  
29-46-2024  
SRO in PRC, Mahavirgiri, Civil, P.H. Electrical & AC  
MVCMP-02/2026-21, Dated: 22.05.2024 (Estimated  
are storage facility at PRC, Mahavirgiri, Civil, P.H.  
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at 1,150, 50 Lakh)  
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10, 11th Floor, Ganga Road, New Delhi, India - 110026  
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Website: [www.mdc.co.in](http://www.mdc.co.in), [info@mdcltd.com](mailto:info@mdcltd.com)  
Office (E-Procurement Node Only)  
16-06-2024

**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**  
(A Government of Andhra Pradesh Undertaking & an ISO 27001:2022 Certified Company)  
**NOTICE INVITING TENDER**  
The APTRANSCO invites bids online for: Spec. No. MP-32-4-47/2026: Supply of 2 Nos. 220V, 150AH VRLA & Battery banks.  
Date & Time of availability of above tender : 24.06.2026 at 9:00 PM. Website: [www.tender.aeprocurement.gov.in](http://www.tender.aeprocurement.gov.in). Contact No. CE/Transmission/0666-2429230  
R.O. No. OM/C/PT/TRANSCO/2026/26-2

**OSBI**  
Strategic Training Unit, Corporate Centre,  
Madhwa Canal Road, Nariman Point, Mumbai - 400021  
**REQUEST FOR PROPOSAL FOR SELECTION OF CONSULTANT / INSTITUTE**  
Offers are invited from reputed consultants / Institutes for organizing a programme on Design thinking. For details, please see Procurement News at Bank's website <https://osbi.bank.in>.  
Sd/-  
Deputy General Manager (LED)  
(STU Department)  
Place: Mumbai  
Date: 17.06.2024

**OSBI**  
Information Security Department, State Bank of India,  
Concord 1 Centre, Sec-11, CBD Sector, Narvi Mumbai-400 614  
**Corrigendum - 5**  
Date: 06.06.2024  
Ref: SBI/GITC/ISD/2026-27/ISOC/1442  
State Bank of India (SBI) has issued Request for Proposal (RFP) for setting up a...  
Please visit 'Procurement News' at...

# Award Cost-NR ULDC\_III

*Price Bid opened on 10.06.2024*

| S No | Name of RLDC/SLDC           | No of Control canters including sub-LDCs | Award Cost as per price Bid (in Rs Cr.) |
|------|-----------------------------|------------------------------------------|-----------------------------------------|
| 1    | NRLDC                       | 2                                        | 86.69                                   |
| 2    | HP SLDC                     | 2                                        | 64.50                                   |
| 3    | BBMB SLDC                   | 1                                        | 39.66                                   |
| 4    | DTL SLDC                    | 2                                        | 72.83                                   |
| 5    | HVPNL                       | 2                                        | 63.54                                   |
| 6    | J&K SLDC                    | 2                                        | 132.93                                  |
| 7    | RRVPNL                      | 5 (3 Sub-LDCs)                           | 84.51                                   |
| 8    | PSTCL                       | 1                                        | 42.92                                   |
| 9    | UPPTCL                      | 2                                        | 72.39                                   |
| 10   | PTCUL                       | 3                                        | 69.59                                   |
|      | <b>TOTAL AWARD Cost for</b> | <b>22 Control Centres</b>                | <b>Rs. 729.57 Crores</b>                |

# Award Cost-SR ULDC\_III

| S No | Name of RLDC/SLDC           | No of Control canters including sub-LDCs | Award Cost as per price Bid (in Rs Cr.) |
|------|-----------------------------|------------------------------------------|-----------------------------------------|
| 1    | SRLDC                       | 2                                        | 78.66                                   |
| 2    | AndhraPradesh               | 2                                        | 60.89                                   |
| 3    | Kerala                      | 2                                        | 65.38                                   |
| 4    | Puducherry                  | 2                                        | 33.18                                   |
| 5    | TamilNadu                   | 2                                        | 78.46                                   |
| 6    | Telangana                   | 2                                        | 58.40                                   |
|      |                             |                                          |                                         |
|      | <b>TOTAL AWARD Cost for</b> | <b>12 Control Centres</b>                | <b>Rs. 316.07 Crores</b>                |

# Award Cost-ER ULDC-III

| S/n | Name of RLDC/SLDC       | CA No.(Aug 2024)        | No of CC incl. sub-LDCs                      | Award Cost (in Rs Cr.) (Incl. AMC) | AMC Cost (in Rs Cr.)    |
|-----|-------------------------|-------------------------|----------------------------------------------|------------------------------------|-------------------------|
| 1   | ERLDC                   | 24-1326/01/590 & 02/591 | 2                                            | 75.37                              | 22.65                   |
| 2   | BSPTCL                  | 24-109875/1&2&3         | 2                                            | 58.18                              | 17.49                   |
| 3   | DVC                     | 24-109875/4&5&6         | 2                                            | 55.32                              | 16.64                   |
| 4   | JUSNL                   | 24-109875/16&17&18      | 2                                            | 69.35                              | 20.85                   |
| 5   | OPTCL                   | 24-109875/7&8&9         | 2                                            | 54.63                              | 16.43                   |
| 6   | SIKKIM                  | 24-109875/10&11&12      | 2                                            | 54.97                              | 16.54                   |
| 7   | WBSETCL                 | 24-109875/13&14&15      | 4 (2 Sub-LDCs)                               | 69.39                              | 20.87                   |
|     | <b>TOTAL AWARD Cost</b> |                         | <b>16 Control Centres (incl. 2 Sub-LDCs)</b> | <b>Rs. 437.20 Crores</b>           | <b>Rs 131.47 Crores</b> |

# Details of Control Centers

(As per Technical specification)

| S. No. | SLDC              | Main CC                | Backup CC            | No. of existing RTU |
|--------|-------------------|------------------------|----------------------|---------------------|
| 1      | Arunachal Pradesh | Itanagar (Chimpu)      | Pasighat or Namsai * | 8                   |
| 2      | Assam             | Kahalipara             | Samaguri             | 90                  |
| 3      | Manipur           | Imphal (Yurembam)      | Thoubal (400 kV)     | 12                  |
| 4      | Meghalaya         | Nehu                   | Mawphlang            | 26                  |
| 5      | Mizoram           | Aizawl (Electric Veng) | Kolasib              | 6                   |
| 6      | Nagaland          | Dimapur (Nagarjun)     | Zhadima              | 14                  |
| 7      | Tripura           | Tripura (79 Tilla)     | P.K. Bari            | 26                  |

\* Under Consideration

**GRID CONTROLLER OF INDIA LTD.  
(Erstwhile POSOCO)**

**National Load Despatch Centre**

(Designated as Nodal Agency in accordance with Regulation 5 of CERC (PSDF) Regulations, 2014)  
(PSDF-Secretariat)

Office Address: B-9, 1<sup>st</sup> Floor, Qutub Institutional Area, Katwaria Sarai, New Delhi - 16

Fax: 011-26524525, 26536901

Website: <https://psdfindia.in/>. Email: [psdf@posoco.in](mailto:psdf@posoco.in) ; [nlde.psdf2020@gmail.com](mailto:nlde.psdf2020@gmail.com)

Ref: NLDC-PSDF/POWERGRID-348/2022-23/

Date: 13<sup>th</sup> April, 2023

To,

Chief General Manager

Power Grid Corporation of India Ltd.

“Saudamini” Plot No: 02, Sector-29, Gurgaon-122001, Haryana

Email: [chohan@powergrid.in](mailto:chohan@powergrid.in)

Sub: Sanction of grants from PSDF towards “Implementation of “Establishment of State Load Despatch Centre (SLDC) cum Renewable Energy Management Centre (REMC) in UT of Ladakh. (Project ID-348)”, signing of tripartite Agreement- reg.

Ref: Ministry of Power, GOI sanction orders No 10/1 /2014/0M (Vol-V) dated 16<sup>th</sup> January, 2023 for sanction of grant of Rs. 29.46 Crore for “Implementation of “Establishment of State Load Despatch Centre (SLDC) cum Renewable Energy Management Centre (REMC) in UT of Ladakh. (Project ID-348)”.

Sir,

Please find enclosed herewith the copy of the tripartite agreement duly signed by PGCIL, Power Grid and NLDC, Grid-India.

Thank you,

Your Faithfully



Suhas Dambhare  
General Manager PSDF  
NLDC-Grid India  
(Erstwhile POSOCO)

Enclose: As above

For Kind Information:

1. Chief Engineer (OM), Ministry of Power

Non Judicial



Indian-Non Judicial Stamp  
Haryana Government



Date : 06/04/2023

Certificate No. G0F2023D2832

\*G0F2023D2832\*

Stamp Duty Paid : ₹ 101

GRN No. 101181634

\*101181634\*

Penalty : ₹ 0

(Rs. Zero Only)

**Seller / First Party Detail**

Name: Nldc Grid controller of India Ltd

H.No/Floor : Na

Sector/Ward : Na

LandMark : Na

City/Village : Delhi

District : Delhi

State : Delhi

Phone: 98\*\*\*\*\*10



**Buyer / Second Party Detail**

Name : Pdd

H.No/Floor : Na

Sector/Ward : Na

LandMark : Na

City/Village: Ladakh

District : Ladakh

State : Ladakh

Phone : 98\*\*\*\*\*10

Others : Power grid corporation of india ltd

Purpose : TRIPARTITE AGREEMENT

The authenticity of this document can be verified by scanning this QrCode Through smart phone or on the website <https://egrashry.nic.in>

AGREEMENT AMONGST  
NODAL AGENCY OF PSDF,  
PDD LADAKH

AND

POWER GRID CORPORATION OF INDIA LTD.

THIS AGREEMENT entered into this. <sup>12<sup>th</sup></sup> day of <sup>APRIL</sup> 2023 (Two Thousand Twenty-Three) AMONGST National Load Dispatch Centre (NLDC) operated by Grid Controller of India Ltd (formerly Power System Operation Corporation Ltd), a company incorporated under the Companies Act, 1956 having its registered office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016(hereinafter referred to as "Nodal Agency") as the party of the First part.

AND

Union Territory of Ladakh, through POWER DEVELOPMENT DEPARTMENT OF UT of LADAKH (hereinafter referred to as " PDD LADAKH which expression shall include his successors in office") having its office at 1st Floor, 2nd Block, Council Secretariat Complex Ladakh Autonomous Hill Development Council Leh, Ladakh - 194101 is the party of the Second part.

AND

Power Grid Corporation of India Limited (**POWERGRID**), a Company incorporated under the Companies Act, 1956, having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110016, (hereinafter referred to as "ENTITY" which expression shall unless repugnant to the context or

सुहास डभारे / <sup>12<sup>th</sup></sup> APRIL 2023  
महाप्रबन्धक (पी.एस.डी.एफ.) / General Manager (PSDF)  
राष्ट्रीय भार प्रेषण केंद्र / National Load Dispatch Centre  
पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड (प्रा.स.डी.एफ.)  
POWER SYSTEM OPERATION CORPORATION LTD. (PSOCL)  
बी-9, कुतुब इंस्टीटयूशनल एरिया, कटवारी सराय, नई दिल्ली-110016  
B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi

meaning thereof include its successors and assignee) as party of the Third part.

Nodal Agency, **PDD Ladakh** and **POWERGRID** are collectively referred to as "**Parties**" and singularly as a "Party/Entity".

- A. AND WHEREAS **PDD Ladakh** and **ENTITY** intend to implement the project for **Establishment of State Load Dispatch Center (SLDC) cum Renewable Energy Management Center (REMC) in UT of LADAKH** and whereas it has been agreed to finance such project(s) from PSDF on the terms and conditions as may be stipulated in the Sanction Letter(s) issued by Ministry of Power.
- B. AND WHEREAS the parties have agreed that the project(s), as posed by **ENTITY** and sanctioned by Monitoring Committee, under the PSDF Scheme commencing from the **Financial Year 2023-24** shall be deemed to have been covered under this agreement. The terms and conditions of sanction for a particular project, as contained in the Sanction Letter issued by the Ministry of Power, shall also form part and parcel of the present agreement. The sanction letter shall include supplementals and modifications issued by the Ministry of Power, if any, to the sanction letter.
- C. AND WHEREAS the responsibility for formulation, development and implementation of the aforesaid project(s) rests with the **ENTITY**.
- D. AND WHEREAS Funding from PSDF shall be considered for the projects proposed by **ENTITY** that have a bearing on grid safety and security, provided these are not covered under any other scheme of the Government of India, such as RAPDRP/RGGVY/NEF, etc.
- E. AND WHEREAS, Monitoring Committee of the PSDF has sanctioned the aforesaid project(s) for release of funds to meet the expenditure to be incurred on implementation of the project(s) covered under the programme, directly to **ENTITY** through the Nodal Agency.
- F. AND WHEREAS, a Treasury Single Account (TSA) of RBI, shall be maintained by the **ENTITY** for the development and implementation of such PSDF-funded projects.
- G. AND **PDD Ladakh** and **ENTITY** commit that they the **ENTITY** shall ensure that no tariff is claimed in the petition for the portion of the scheme funded from PSDF.
- H. AND WHEREAS **PDD Ladakh** shall be the owner of the assets created on implementation of the individual project(s), as sanctioned by PSDF.

Now, therefore, in consideration of the premises and mutual agreements, covenants and conditions set forth herein which shall form an integral part of this Agreement, it is hereby agreed by and amongst the parties as follows:

## 1. PROJECT FINANCING BY PSDF

- 1.1 (a) The **ENTITY** shall establish a dedicated organization within the utility and nominate a nodal officer of suitable rank, for speedy execution of the project(s) and shall be responsible for compliance of the provisions as stipulated. The nodal officer will also arrange to expeditiously get the relevant clearance/orders from **PDD Ladakh**. The **ENTITY** will assign utmost priority to the works to be executed and help in the speedy execution of the project(s) by issuing necessary orders to avoid delay
- (b) Expenditure details will also be submitted by **ENTITY** to Nodal Agency for release of funds against progressive reimbursement claims in the manner prescribed herein under and the detailed procedure, for release of funds as per the structured formats as may be prescribed by Nodal Agency.

  
सुहास डम्भानी / SUHAS DAMBHANI  
महाप्रबन्धक (पी.एस.डी.एफ.) / General Manager (PSDF)  
राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre  
पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड (पोसोको)  
POWER SYSTEM OPERATION CORPORATION LTD. (POSOCO)  
गे-9, कतुब इस्टीट्यूशनल एरिया, कटवारिया सड़क, नई दिल्ली-110  
C-9, Katwariya Institutional Area, Katwaria Sarai, New Delhi-11



- (c) The ENTITY responsible for the execution of the scheme shall ensure timely submission of Project Status reports to NLDC along with the request for disbursement of funds from PSDF in accordance with the Detailed Procedure.
- (d) Periodic review and monitoring of the physical and financial progress of the project(s) shall also be taken up by the Monitoring Committee of PSDF.
- (e) Any expenditure that is not directly and exclusively spent towards implementing the scheme shall not be counted as eligible expenditure.

## 1.2 Mode of Release of Funds

The release of funds from PSDF will be regulated as per the extant instructions of the Ministry of Finance. The funds for implementation of the project(s) shall be released by the Ministry of Power, Government of India, to the ENTITY through the Nodal Agency and in the manner as indicated below:

- a) **First stage:** 10% of the total sanctioned grant (excluding the grant towards AMC charges) within 15 days from the date of signing of the Agreement and fulfilment of all requirements and submission of documents.
- b) **Second Stage:** 20% of the total sanctioned grant (excluding the grant towards AMC charges) shall be released in accordance with the award of contracts placed, in max. no. of 05 tranches and fulfilment of all requirements, and submission of documents, including requisite legal formalities by **PDD Ladakh** and **ENTITY** as per sanction letter of the project. The release of 1<sup>st</sup> tranche would be after the Letter of Award is issued by the **ENTITY** and an agreement has been signed with the contractor.
- c) **Third Intermediate Stage(s)** - 60% of the total sanctioned grant (excluding the grant towards AMC charges) within 15 days from the date of submitting the expenditure details to the Nodal Agency by **ENTITY**, after utilizing the fund received in the first and second instalment.
- d) **Final Stage-** Balance 10% of the total sanctioned grant (excluding the grant towards AMC charges) within 30 days from the date of submitting the expenditure details and completion certificate to the Nodal Agency by **ENTITY**.
- e) Final completed cost shall be submitted by **ENTITY** to Nodal Agency based on the audited account.
- f) The funds for the Annual Maintenance Contract portion, out of the Total sanctioned PSDF grant, shall be released by the Ministry of Power, Government of India, to the **ENTITY** through the Nodal Agency and in the manner as indicated below:

| Payment Stage         | % of PSDF Grant sanctioned towards AMC portion to be released every year in advance | Remarks                                                                                                                      |
|-----------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1 <sup>st</sup> Stage | 14%                                                                                 | Within 15 days from the date of signing of the AMC Contract Agreement between PDD Ladakh and the Contractor. (for AMC during |

सुहास दाम्भारे / SUHAS DAMBHARE  
 महाप्रबन्धक (पी.एस.डी.एफ.) / General Manager (PSDF)  
 राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre  
 पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड (पी.सोको)  
 POWER SYSTEM OPERATION CORPORATION LTD. (POSOCO)  
 पी-9, कुतुब इन्स्टीट्यूशनल एरिया, कान्हागिरा सराय, नई दिल्ली-16  
 P-9, Qutab Institutional Area, Kanhanra Sarai, New Delhi-16

|                                                                                                                                                                  |     |                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                  |     | Defect Liability Period of one year)                                                                                                                                                                      |
| 2 <sup>nd</sup> Stage                                                                                                                                            | 14% | For 2 <sup>nd</sup> year AMC                                                                                                                                                                              |
| 3 <sup>rd</sup> Stage                                                                                                                                            | 14% | For 3 <sup>rd</sup> year AMC                                                                                                                                                                              |
| 4 <sup>th</sup> Stage                                                                                                                                            | 14% | For 4 <sup>th</sup> year AMC                                                                                                                                                                              |
| 5 <sup>th</sup> Stage                                                                                                                                            | 14% | For 5 <sup>th</sup> year AMC                                                                                                                                                                              |
| 6 <sup>th</sup> Stage                                                                                                                                            | 14% | For 6 <sup>th</sup> year AMC                                                                                                                                                                              |
| 7 <sup>th</sup> Stage (Final)                                                                                                                                    | 16% | Balance of Sanctioned PSDF Grant towards AMC portion, to be released within 30 Days from the date of submitting the expenditure details and completion certificate to the Nodal Agency by <b>ENTITY</b> . |
| Final completed Cost for the AMC portion shall be submitted by <b>ENTITY</b> to <b>Nodal Agency</b> based on the audited account after completion of AMC period. |     |                                                                                                                                                                                                           |

### 1.3 TAXED AND DUTIES

All statutory taxes/levies, duties, cess, entry tax or any kind of imposition(s) whatsoever imposed/charged by any Government (Central/State) and/or any other local bodies/authorities on the **PDD LADAKH** and/or its contractors in respect of the execution of the project(s) covered under this Agreement and Service Tax on service charge (including any variation thereof), not covered in the estimated cost of the project shall be paid by the **PDD LADAKH**.

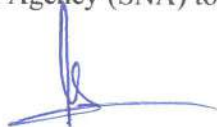
### 2. UTILIZATION CERTIFICATE

**ENTITY** shall provide utilization certificate(s) for the funds released by the Ministry of Power for the implementation of the project(s) in the manner prescribed by the **Nodal Agency**.

### 3. CONSTRUCTION/IMPELMENTATION

- 3.1 **ENTITY** shall make all possible efforts to complete the project(s) within the approved time frame starting from the date of release of the First Installment of funds by the Ministry of Power, Government of India to the **ENTITY**.
- 3.2 **ENTITY** and **PDD Ladakh** shall specify quarterly milestones, and progress shall be reviewed with reference to these milestones by the Monitoring Committee.
- 3.3 The best cost and quality control measures shall be enforced by **ENTITY** during implementation through appropriate management and control systems
- 3.4 The grant for the project shall be released through the Treasury Single Account (TSA) system of RBI as per the "Revised procedure for the flow of funds for Central Sector Scheme" issued by the Ministry of Finance, Department of Expenditure vide its OM F.No.1(18)/PFMS/FCD/2021 dated 09th March 2022. The Entity shall open a Treasury Single Account (TSA) in RBI and map the same in the Public Finance Management System (PFMS) portal as Sub-Nodal Agency (SNA) to Central Nodal Agency (CNA) for

  
**सुहास डामरे / SUHAS DAMHARE**  
 महाप्रबन्धक (पी.एस.डी.एफ.) / General Manager (PSDF)  
 राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre  
 पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड (पोसोको)  
 POWER SYSTEM OPERATION CORPORATION LTD. (POSOCO)  
 को-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-16  
 Co-9 Outub Institutional Area, Katwaria Sarai, New Delhi-16





the PSDF scheme.

#### 4. TAKING-OVER OF THE PROJECT

**PDD Ladakh** shall ensure taking over the completed project after commissioning (in part or full, as the case may be), **PDD Ladakh** shall be responsible for the operation & maintenance of the project thereafter (in part or full, as the case may be) at their own expenses, except for the portion of sanctioned PSDF grant for Annual Maintenance Contract.

#### 5. ARBITRATION

Any difference or dispute between the parties arising out of or in connection with this project shall be discussed and settled amicably amongst the parties. In the event of non-settlement of the difference or dispute within sixty (60) days, the same shall be referred to the Secretary to the Government of India in the Ministry of Power, for arbitration and whose decision shall be final and binding on the parties to this Agreement.

#### 6. FORCE MAJEURE

The parties shall ensure due compliance with the terms of this Agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as fire, rebellion, mutiny, civil commotion, riot, strike, lock-out forces of nature, accident, act of God and any other reason beyond the control of concerned party. But, any party claiming the benefit of this clause shall satisfy the other party of the existence of such as event and give written notice of 15 days to the other party to this effect. The services covered under the agreement shall be started as soon as practicable by the parties concerned after such eventuality as come to an end or ceased to exist.

#### 7. IMPLEMENTATION OF THE AGREEMENT

All discretions to be exercised and directions, approvals, consents and notices to be given and actions to be taken under these presents, unless otherwise expressly provided herein, shall be exercised and given by the signatories to this Agreement or by the Authorized representative(s) that each party may nominate on this behalf and notify in writing to the other party. Any other nomination of Authorized representative(s) and/or changes in a designation shall be informed likewise in writing to/by ENTITY and Nodal Agency within one month of the signing of the Agreement. Any changes in designations / registered office address shall be intimated in writing to all concerned parties.

#### 8. NOTICE

All notices required or referred to under this Agreement, shall be in writing and signed by the respective authorized signatories of the parties mentioned herein above unless otherwise notified. Each such notice shall be deemed to have been duly given if delivered or served by registered mail, speed post of Department of Posts or by Courier service with an acknowledgement due to the other parties.

#### 9. TERMINATION

This agreement shall remain valid unless terminated with the consent of all the Parties.

सुहास ईश्वर लाम्बा  
महाप्रबन्धक (पी.एस.डी.एफ.) / General Manager (PSDF)  
राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre  
पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड (पॉसोको)  
POWER SYSTEM OPERATION CORPORATION LTD. (POSOCO)  
डी-9, कुतुब इन्स्टीट्यूशनल एरिया, कटपारिया सराय, नई दिल्ली-110  
D-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110

10. The competent Courts of Delhi shall have exclusive jurisdiction in all matters relating to or arising out under these present.

IN WITNESS WHEREOF the parties have executed these presents through their Authorized Representatives at New Delhi.

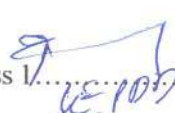
  
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B-9, Qutab Institutional Katwaria Sarai, New Delhi-16

  
For and on behalf of  
Chief Engineer,  
Distribution PDD,  
UT-Ladakh (Kargil)  
PDD,  
UT of Ladakh

  
For and on behalf of  
महानिदेशक (ग्रीड नियंत्रण एवं वितरण) / DGM (GA&C)  
उप महाप्रबन्धक (ग्रीड नियंत्रण एवं वितरण) ऑफ इंडिया लिमिटेड  
Power Grid Corporation of India Ltd.  
(भारत सरकार का उद्यम) / (A Govt. of India Enterprise)  
कॉट नं. 42, सेक्टर-44, मुल्ताम-122001 (हरियाणा)  
Plot No. 42, Sector-44, Gurgaon-122001 (Haryana)

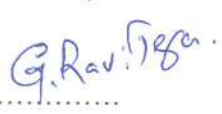
Witness 1 

टी. शीमेश / T. SHEEMESH  
प्रबंधक / Manager  
राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre  
ग्रीड कंट्रोलर ऑफ इंडिया लिमिटेड (ग्रीड-इंडिया)  
GRID CONTROLLER OF INDIA LIMITED (GRID-INDIA)  
(भारत सरकार का उद्यम) / (A Government of India Enterprise)  
formerly Power System Operation Corporation Limited (POSOCO)  
बी-9, कुतब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-16  
B-9, Qutab Institutional Katwaria Sarai, New Delhi-16

Witness 1 

Witness 2 

Witness 1 

Witness 2 

**MEMORANDUM OF UNDERSTANDING**  
**Between**  
**Constituents of North Eastern Region and POWERGRID**  
**For**  
**Implementation of Unified Load Despatch and Communication**  
**(ULDC) Phase–III (SCADA/EMS upgradation Project)**  
**by**  
**POWERGRID**  
**in**  
**North Eastern Region**

MEMORANDUM OF UNDERSTANDING BETWEEN NORTH EASTERN REGION  
CONSTITUENTS (NER SLDCs) AND POWER GRID CORPORATION OF INDIA  
LTD. (POWERGRID).

For the

**Implementation of Unified Load Despatch and Communication  
(ULDC) Phase–III (SCADA/EMS upgradation Project)**

IN

**NORTH EASTERN REGION**

\*\*\*\*\*

This Memorandum of Understanding signed between Power Grid Corporation of India Limited, a Public Sector Undertaking and incorporated as a company under the companies Act 1956, on 23<sup>rd</sup> October 1989, hereinafter referred to as “**POWERGRID**” and the Constituents of North Eastern Region , namely Department of Power Arunachal Pradesh (DoPAP), Department of Power Nagaland (DoPN), Assam Electricity Grid Corporation Limited (AEGCL), Meghalaya Electricity Power Transmission Corporation Limited (MEPTCL), Tripura Power Transmission Limited (TPTL), Power and Electricity Department, Gov of Mizoram and Department of power, Govt of Manipur hereinafter referred to collectively as ‘**Constituents**’ of North Eastern Region.

Whereas the Constituents of the North Eastern Region are desirous for the upgradation/replacement of their SCADA/EMS Systems under the North Eastern Region Unified Load Despatch Centre -III Scheme and have approached POWERGRID for implementation of the SCADA/EMS Load Despatch centres for them under Regulated Tariff Mechanism of CERC.

Whereas POWERGRID and the Constituents have agreed in the Special NERPC meeting Dated: 30.01.2026, that the Implementation of Unified Load Despatch and Communication (ULDC) Phase–III (SCADA/EMS upgradation Project) for North Eastern Region shall be done by POWERGRID.

For the purpose of this MOU, terms used herein shall unless repugnant to the context thereof shall have the meaning assigned to them as under:

## 1. DEFINITIONS

1.1. "**MOU**" shall mean the Memorandum of Understanding herein containing the Terms & Conditions set forth & agreed therein, including all other documents expressly annexed thereto or incorporated therein.

1.2. "**Project** " shall mean and comprise the following:

- i) Upgradation/Replacement of existing SCADA/EMS system at Main SLDC / Back-up SLDC and Sub-LDCs including Supply of RTUs, other supporting components (wherever applicable), Supply of UPS, ACDB, DCPS, Battery sets and DG Sets and Supply of Cyber security hardware and IT infrastructure hardware and software
- ii) Integration of existing and future RTUs (as per agreed sizing requirements) with Main & Back up SLDC Control Centres.
- iii) Integration of Main & Back up Control Centres of SLDCs with Main & Backup Control Centres of RLDC.

1.3. "**Bid Documents**" shall mean the tender documents prepared by POWERGRID consisting of technical specifications and other terms & conditions of contract (GCC, SCC, etc.) pursuant to which POWERGRID shall invite a tender for procurement of goods and services for the project.

1.4. "**CERC**" shall mean Central Electricity Regulatory Commission, as referred to in Section: 76(1) of the Electricity Act, 2003 of India.

1.5. "**DOCO**" shall mean Date of Commercial Operation declared by POWERGRID after Commissioning of the Project/element as the case may be and duly approved by CERC.

1.6. "**Contractor**" shall mean the Bidder whose bid is accepted by POWERGRID for the award of Contract for the total work or any part of the work of the Project resulting in a Contract and shall include such Contractor's legal representatives, successors and permitted assigns.

1.7. **"Nodal Officers"** shall mean the official nominated by the POWERGRID and the Constituents in writing, who shall be responsible for co-ordination of all activities concerning the implementation of the project.

1.8. **"System/Equipment/material"** shall mean the System/Equipment/material procured by POWERGRID for the respective SLDC system under this project. It shall comprise of the SCADA/EMS system, associated IT systems, Cyber security system, Power supply equipment, RTUs, etc.

1.9. **"Site"** shall mean the location identified by the Constituents at which the work under the project is to be executed, which may be allocated by the Constituents, to the Contractor in performance of their work under this MOU.

1.10. **"Tariff Regulations"** shall mean CERC (Terms and Conditions of Tariff) Regulations, 2024 and its amendments thereof or any subsequent enactment thereof as notified by CERC.

1.11. **"Unrecovered net Project Cost"** shall mean cost equal to the gross block minus recovered depreciation through transmission tariff paid by Constituents.

1.12. The words/expressions used in this MOU unless repugnant to the context shall have the same meaning assigned to them by Sharing Regulations, Tariff Regulations and The Electricity Act, 2003 (of India) and the rules framed there under as may be amended from time to time. Words denoting singular only shall also include plural and vice-versa, where the context so desire.

'POWERGRID', and the 'Constituents' have agreed as under for the project of **Implementation of Unified Load Despatch and Communication (ULDC) Phase– III (SCADA/EMS upgradation Project).**

## **2. SCOPE OF WORK AND RESPONSIBILITIES**

POWERGRID shall be responsible for the overall planning, design, engineering, and procurement of SCADA/EMS equipment/system, overall coordination of erection, testing and commissioning of Load Despatch centre as unified scheme.

The Constituents will be responsible for providing infrastructure and certain other facilities such as land, building, civil works, air-conditioning, power supply,

establishment etc. for the replacement/upgradation of Load Despatch Centre in their respective states.

The project shall be awarded to a Contractor through POWERGRID's Bidding process. The project has a provision of a maintenance contract, wherein the Contractor shall maintain the supplied systems for a period of 7 years (1 year defect liability period (DLP) + 6 years AMC). Further, there is a provision in the Contract that the Constituents at their own discretion may extend the duration of maintenance period for up to 2 years at the same rates, terms and conditions in the contract.

There shall be three different contracts formed. First Contract shall be for Supply of Goods, Second Contract shall be for Supply of Services i.e. Freight & Insurance, Installation, testing and commissioning. The Third contract shall be for supply of maintenance services after commissioning and operational acceptance of the system. The third contract shall be signed between the Constituents and the Contractor for their respective states. Also, the execution of the third contract shall be the responsibility of the Constituents.

The broad scope to be rendered by POWERGRID for execution of the project under this MOU will be as under

- 2.1. Preparation of all Bid documents including technical specifications, Bill of Quantity (BoQ), Qualifying Requirements, General and Special contract, terms and conditions, invitation of tenders, evaluation of bids, award of contracts for supply, erection, testing and commissioning of SCADA/EMS system equipment's execution of contracts, settlement of contractual issues, insurance claims in respect of contracts placed by POWERGRID.
- 2.2. Preparation of common bid document for all SLDCs for award & execution including maintenance of SCADA/EMS systems in a unified manner.
- 2.3. Evaluation of bids including recommendation of award, post-award discussions, preparation of three NOAs (Notification of Award), and preparation of three Contract agreements.
- 2.4. The placement of NOAs on the Contractor for all the three contracts shall be done by POWERGRID. The contract agreement for the First and Second Contract shall be signed between the Contractor and POWERGRID whereas the

Third contract agreement shall be signed between the Contractor and the Constituents.

- 2.5. Design & Engineering of SCADA/EMS system duly considering the requirements along with expansion requirements of the Constituents.
- 2.6. Arranging training for engineers of Constituents.
- 2.7. Coordinate installation, testing & commissioning of all the equipment procured by POWERGRID in this project at State Load Despatch Centres, Sub-Load dispatch centre and sub-stations of the Constituents.
- 2.8. Final acceptance/clearance of Factory test reports and Issuance of dispatch clearances (CIP/MICC)
- 2.9. Arranging despatch of equipment to State Load Despatch Centres, Sub-Load dispatch Centre, and substations of various Constituents as per scope.
- 2.10. Association in Site installation, Integration, commissioning, if required, to address any technical matter and support the Constituents.
- 2.11. Association in Site Acceptance Tests, if required, to address any technical matter and support the Constituents.
- 2.12. Final acceptance/clearance of Site acceptance test reports and Issuance of Operational Acceptance/Taking over to the Contractor.
- 2.13. Issuance of post-contract amendment (if any) based on site conditions and or specific requirements raised by the Constituents during execution, subject to feasibility as per Contractual provisions.
- 2.14. Project Management including overall coordination, planning, guidance and supervision for implementation of the scheme.

### **3. SCOPE OF WORK AND RESPONSIBILITIES OF THE CONSTITUENTS**

The scope of work and responsibilities of the Constituents are as follows:

- 3.1. Construction/Renovation of building for State Load Despatch Centre, air-conditioning, power supply arrangement and all related works pertaining to establishment of Load Despatch Centres at State/ Constituent level.
- 3.2. Minor civil works in existing buildings for enabling cable laying, Room partitioning.
- 3.3. Ensuring timely availability of infrastructure (Building/rooms), Air conditioning, Firefighting, Power Supply etc.

- 3.4. Timely furnishing of required information/data to POWERGRID for enabling expeditious updation of composite project report and design and engineering of the Unified Scheme.
- 3.5. Providing data input for Design and engineering work and associating during Physical survey, including CRP scheme, cable trench/duct, Layouts, Electrical drawings, etc.
- 3.6. Obtaining all statutory clearances from Authorities/Government including issue of necessary notification(s).
- 3.7. Providing smooth access to POWERGRID/Contractor involved in implementation, to all sub-stations/Control centres required to be visited during project implementation.
- 3.8. Association in witnessing of type testing and functional testing of equipment/materials at factory/facility of Contractor:-
- 3.9. Receipt and proper storage of equipment pertaining to their State/System.
- 3.10. Verification and inspection of equipment on receipt (during unloading and joint verification stage) and reporting damages, shortages etc. to POWERGRID and providing storage space for storage of equipment.
- 3.11. Arranging necessary shut down/isolation etc. for transmission lines, sub-stations generating units, whenever required, for erection, installation, testing and commissioning of equipment/system.
- 3.12. Supervision of installation, testing and commissioning of all the equipment at State Load Despatch Centres, Sub-LDCs and sub-stations as applicable.
- 3.13. Participating in installation, commissioning, Signals Validation, Database & Displays validation, System Availability Tests.
- 3.14. Taking Over of the system from POWERGRID for operation & maintenance. The system shall be taken over from the date of issuance of operational acceptance by POWERGRID to the contractor.
- 3.15. Operation & Maintenance of the various systems supplied under the contract from the date of taking over including the completion of one-year DLP and 6-year AMC period including extension of AMC period for 2 years, if any.

Activity wise Responsibility Matrix is provided as Annexure-A to this MOU.

#### **4. OPERATION AND MAINTENANCE OF LOAD DESPATCH & COMMUNICATION FACILITIES**

##### **4.1 Responsibilities of POWERGRID during O&M of SLDCs**

- i) Tender documents (prepared by POWERGRID) shall have provision of Annual Maintenance Contract (AMC) of project for 01(One) + 06 (Six) years including defect liability period. Also, there is a provision to extend the duration of maintenance period for up to 2 years at the same rates, terms and conditions in the contract. However, the AMC including its extension period, shall be operated by respective Constituent. POWERGRID shall issue the NOA for the third contract and provide the final Contract agreement of the third contract for signing of the Contract agreement between Constituents and the Contractor for their respective states.

##### **4.2 Responsibilities of the Constituents during O&M of SLDCs**

- i) Execution of the Maintenance Contract (AMC) including its extension period, shall be the responsibility of respective Constituent.
- ii) Operation and routine maintenance of SCADA/EMS systems supplied at Control Centres (Main, Backup and Sub-LDCs) and at substations including Auxiliary power supply systems, new RTUs, IT infrastructure and Cyber security system under the scheme as per the responsibility in terms of the final Contract agreement signed between Constituents and the Contractor for their respective states/jurisdiction.
- iii) Maintaining proper operating environment (temperature, humidity, dust free, rodent protection, compatible use) for the Systems and Equipment supplied under the scheme.
- iv) Coordinate with the contractor for reporting of defects/issues, requirement of integration of new equipment/systems, database/display modification, maintain defect rectification records, calculating system availability and certifying system availability.
- v) Providing access and permission to the Contractors for preventive maintenance and AMC services.
- vi) Review and maintain the spares for the SLDCs.

vii) Avail insurance of the various System/Equipment. However, if the States desire, the LoA for insurance of the equipment may be issued by POWERGRID. Charges for this service will be paid by the State Constituents, based on actual expenses plus POWERGRID's prescribed overhead.

## **5. FUNDING OF SCHEME**

The funding of the total cost of the Project shall be as under: -

POWERGRID will arrange funds required for procurement of Load Despatch Centre equipment, design and engineering, training, installation/erection, testing and commissioning of the scheme by suppliers required for establishment of Load Despatch facilities at state level for the Constituents.

Each constituent shall arrange funds required for the creation of infrastructural and other facilities such as land, building, civil works, staff quarters, air-conditioning, power supply arrangement, lighting, establishment, office equipment, vehicles etc. Only the SCADA/EMS system shall be supplied by POWERGRID for installation at the State Load Despatch Centres, and at the sub-stations/generating stations as may be agreed between Constituents & POWERGRID.

The Funds required for payment of Operation and Maintenance charges to the Contractor shall be arranged by the respective constituents and paid directly by them.

## **6. OWNERSHIP OF PROJECT:**

Ownership of all the assets delivered in this project shall remain with POWERGRID till recovery of capital cost through tariff during its useful life of 07 years in terms of prevailing CERC Tariff Regulations. The constituent shall be responsible for the operation and maintenance of the system & keeping the system healthy and shall bear all costs and charges for it. However, for all cyber security compliance purposes in terms of the prevailing Rules/ Policies/ Regulations, the Constituents shall be the Responsible Entity (refer CEA cyber security guidelines, 2021). On completion of useful life, Project shall be transferred by POWERGRID to respective Constituent at the net book value. The transfer of Project shall be subject to payment of Unrecovered net Project

Cost by respective Constituent to POWERGRID. Further, Constituents shall pay all dues/ unpaid tariff including interest at the time of transfer of Project.

#### **7. RECOVERY OF CHARGES BY POWERGRID:**

POWERGRID shall implement the Project under the Regulated Tariff Mechanism (RTM) route . Terms & Conditions for the Tariff of the Project shall be as per norms specified by CERC in Tariff Regulations in vogue.

- 7.1 Post the DOCO of Project, POWERGRID shall approach CERC for tariff determination of the project and the tariff order passed by CERC will be final and binding on respective constituents.
- 7.2 The monthly bills shall be submitted by POWERGRID to Constituents through e-mail to the official e-mail address (of the official nominated under this MOU) and the official email of the Entity (DISCOMs/Beneficiary) provided by the Constituent in **Annexure-B**. The monthly bills shall be raised in the name of the entity. The Annexure-B shall be specific to each Constituent. The details in the **Annexure-B** shall include the name of the entity, share ratio in the bills, and Contact details. The date of e-mail sent to the respective officials, forwarding the bill, shall be the date of presentation of the Bill.
- 7.3 The due date for payment of bills is 45 days from the date of presentation of bill. Constituents shall be liable to pay Late Payment Surcharge (LPS) on the payment outstanding after the due date in accordance with the prevailing CERC regulations/LPS rules of MOP.
- 7.4 The Fee & Charges payable to NLDC or RLDC or SLDC, as applicable and any ULDC/Communication Charges or any other charges in accordance with CERC's Regulations and applicable Laws etc. shall be the responsibility of the Constituents. Further, License fee, Publication fee and filing fee shall be paid separately by Constituents to POWERGRID.
- 7.5 Applicable statutory payments/ taxes, duties, surcharge, cess etc. on tariff payable under this MOU, if any, as determined by CERC, shall be paid separately by Constituents.
- 7.6 POWERGRID shall also recover charges from the Constituents for providing technical expertise and support service, from time to time, for carrying out major repairs/maintenance of POWERGRID supplied and owned Load Despatch Centres installed in the constituents' system. Such charges shall be based on actual expenses plus POWERGRID's prescribed overhead.

## **8. TIME SCHEDULE:**

- 8.1. It is agreed that the start Date for the Project shall be date of Investment Approval (IA) of the Project accorded by POWERGRID management. Completion schedule shall be as per the implementation timeline provided under

1A or any date mutually agreed between Parties. The above schedule shall be subject to fulfillment of obligation on part of both the parties.

8.2. . Delay in any work will affect the completion schedule and therefore, the period of implementation of this MOU shall be deemed to have been extended to cover such delay as may occur.

8.3. If by reason of extra or additional work or any industrial dispute or any cause or causes outside of and beyond the reasonable control of POWERGRID, the work is delayed or impeded, the delayed period shall be construed as automatic time extension.

## **9. FACILITIES / INFORMATION TO BE PROVIDED TO “POWERGRID”**

9.1 All necessary information data and facilities as may be required by POWERGRID in connection with services shall be promptly rendered by the Constituents(s) under this MOU.

9.2 The Constituents shall give their views on all matters pertaining to this project as may be referred to by POWERGRID from time to time within a reasonable time, which would normally not exceed fifteen (15) days and shall discharge faithfully all its obligations.

9.3 Any statutory clearance/Right of way, provision of space required for establishment of the control centre along with AC power source shall be arranged by the Constituents.

## **10.FORCE MAJEURE EVENTS**

10.1 The Parties shall ensure due compliance with the terms of this MOU. However, no Party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the MOU to the extent that such a failure is due to events or circumstances or combination of events or circumstances including those stated below:

10.1.1 Act of God, including but not limited to drought, fire and explosion (to the extent originating from source external to the site), earthquake, landslide, flood, lightning, cyclone typhoon, tornado, any geological surprises or exceptionally adverse weather conditions, epidemic/ pandemic notified by Indian Government Instrumentality etc.; or

10.1.2 Any unlawful, unreasonable or discriminatory revocation of or delay or refusal to grant or renew any Consents, Clearance and Permits required by or from CERC, CEA or any other regulatory or governmental authority in accordance with law for the development of the Project; or

10.1.3 Acts of any Government domestic or foreign, including but not limited to war (whether declared or undeclared), invasion, blockade, embargo, revolution, riots, civil commotions, terrorist or military action; industry-wide strikes and labor disturbances etc.; or

10.1.4 Delays in obtaining Statutory clearances for implementing the Project even after joint efforts by Parties; or

10.1.5 Stay/ injunction on the Project by any district administration/ government authority/ regulatory authority/ Court of law/ NCLT or any other Tribunal / etc.

## **11.PROGRESS REVIEW MEETING**

11.1. To review the progress of work, a quarterly review meeting shall be held at the level of Nodal officer of both the parties at mutually agreed places.

## **12. TERMINATION OF MOU**

12.1. Generally, this MOU shall be irrevocable and shall not be terminated once executed before expiry of the term of contract.

12.2. In the event when the Parties mutually agree to terminate the MOU, on account of Force Majeure or any other reasons, the termination shall take effect from the date and time to be agreed upon mutually.

12.3. Either Party shall be entitled to terminate the MOU in case Force Majeure prolonged for a period of more than 12 months.

12.4. In case such termination is prior to commencement of commercial operation of Project, POWERGRID shall handover/surrender the Project so created on "as is where is" basis to Constituents and shall also provide to Constituents a statement (certified by POWERGRID's auditor) of the actual costs incurred for the Project. Constituents shall be liable to pay such cost to POWERGRID along with the incidental/ miscellaneous expense, if any.

12.5. In case such termination is after commencement of commercial operation of Project, Constituents shall pay POWERGRID the cost equivalent to the unrecovered net Project Cost/Depreciation along with unpaid applicable transmission tariff, if any, as on date of termination of this MOU.

## **13. SETTLEMENT OF DISPUTE & ARBITRATION**

13.1. This MOU shall be governed by and construed in accordance with the laws of India.

13.2. The parties shall endeavor to resolve amicably, in the first instance, all disputes, controversies or differences which may arise between the Parties, out of or in relation to or in connection with the project mentioned in this MOU, or for breach thereof.

13.3. In the event, the parties are unable to resolve such dispute or difference amicably within sixty days (60) after the same has arisen then the dispute shall be referred to by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14<sup>th</sup> December 2022 and

subsequent amendments thereunder. The decision of AMRCD on the said dispute will be binding on both the parties.

13.4. Subject to the above, the courts of New Delhi shall have exclusive jurisdiction over all or any matters arising under or pertaining to this MOU.

#### **14. THIRD PARTY DISPUTE**

If any litigation/ arbitration cases crop up due to various contract orders placed by POWERGRID till the taking over of the system from POWERGRID by the Constituents, POWERGRID shall resolve the same. However, the cost of litigation or Arbitration (Arbitrator fee, Advocate fee etc.) and liability arising out of the award thereof, if any shall be borne by Constituents only.

After taking over the system from POWERGRID, if any litigation/ arbitration cases crop up, Constituents shall resolve the same. Further, the total cost of litigation or Arbitration (Arbitrator fee, Advocate fee etc.) and liability arising out of the award thereof, if any shall be borne by Constituents only.

#### **15. AMENDMENT**

This MOU may be amended or modified, if necessary, by a written instrument signed by the Parties and the same shall be considered as an integral part of this MOU.

#### **16. EFFECTIVE DATE**

This MOU shall be deemed to have come into force with effect from the date of signing of MOU. All rights, obligations and responsibilities of Constituents and POWERGRID shall be deemed to have commenced and accrued from the said date.

#### **17. NOTICE OF DEFAULT:**

Notice of default given by either Party to the other Party under this MOU shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto if delivered against acknowledgement due, addressed to the signatories to this MOU.

#### **18. SEVERABILITY**

If any provision of this MOU is held to be invalid or illegal, such provision will be struck from the MOU and the remaining provisions of this MOU shall remain in full force and effect. Further, the Parties shall endeavor to replace such provision with a valid, legally enforceable provision that reflects the original intent of the Parties.

## **19. SURVIVAL**

Those Clauses that by its nature should survive expiration or termination of this MOU shall remain in effect after the expiration or termination of this MOU. It specifically clarified that the provisions of Clause 17 (Settlement of dispute & arbitration) shall survive expiration or termination of this MOU.

## **20. CORRESPONDENCE**

20.1.All communications from Constituents to POWERGRID shall be addressed to the Nodal officers nominated separately by POWERGRID in writing for the purpose of this work.

20.2.All communication from POWERGRID to Constituents shall be addressed to the Nodal officers nominated separately by Constituents in writing for the purpose of this work.

IN WITNESS WHEREOF the Parties hereto have fully executed these present through their duly authorized representatives on the Day, Month and Year mentioned above.

## Responsibility Matrix

## Annexure-A

| S.No.     | Description of Activity                                                    | POWERGRID | Constituents |
|-----------|----------------------------------------------------------------------------|-----------|--------------|
| <b>1.</b> | <b>Pre-NIT Activities</b>                                                  |           |              |
| a)        | BOQ Finalization                                                           | √         | *            |
| b)        | QR Requirements                                                            | √         |              |
| c)        | NIT Cost Estimate                                                          | √         |              |
| d)        | Technical Specifications preparation                                       | √         | *            |
| e)        | Preparation of GCC, Bid proposal sheet, SCC and other Tender documents     | √         | *            |
| <b>1.</b> | <b>NIT Activity</b>                                                        | √         |              |
| a)        | Publication of NIT                                                         | √         |              |
| b)        | Preparation and issuance of clarifications, if any required by the Bidders | √         |              |
| c)        | Pre-Bid Meeting                                                            | √         |              |
| <b>2.</b> | <b>Post-NIT activities</b>                                                 | √         |              |
| a)        | Bid Opening                                                                | √         |              |
| b)        | Evaluation of Bid                                                          | √         |              |
| c)        | Post-Bid Discussion                                                        | √         |              |
| d)        | Issue of Notification of Award                                             | √         |              |
| e)        | Signing of Contract Agreement (First and Second Contract)                  | √         |              |
| f)        | Signing of Third Contract Agreement                                        |           | √            |
| <b>3.</b> | <b>Post Award Activities</b>                                               |           |              |
| a)        | Site Survey                                                                |           | √            |
| b)        | Providing Inputs for designing of the system                               | *         | √            |
| c)        | Design and Engineering Documents approval                                  | √         |              |
| <b>4</b>  | <b>Type Test</b>                                                           | √         |              |
| <b>5</b>  | <b>Factory Acceptance Test</b>                                             | √         |              |

|           |                                                                                                                                     |   |   |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---|---|
| <b>6</b>  | Dispatch Clearance (CIP/MICC)                                                                                                       | √ |   |
| <b>7</b>  | Engineering Input for Post-Contract Amendment for First and Second contract                                                         | * | √ |
| <b>8</b>  | Post Contract Amendment for First and Second contract                                                                               | √ | * |
| <b>9A</b> | Material Receipt & Joint verification                                                                                               |   | √ |
| <b>9B</b> | Installation and Commissioning                                                                                                      |   | √ |
| <b>10</b> | Site Acceptance Test (SAT)                                                                                                          | * | √ |
| <b>11</b> | System Availability Test (SAVT)                                                                                                     | * | √ |
| <b>12</b> | Operational Acceptance/ Taking over Certificate to Contractor                                                                       | √ |   |
| <b>13</b> | Release of Funds to POWERGRID                                                                                                       |   | √ |
| <b>14</b> | Payment to Contractors for first & second contract                                                                                  | √ |   |
| <b>15</b> | Payment to Contractors for third contract                                                                                           |   | √ |
| <b>16</b> | Operation and maintenance of the system during AMC (one-year DLP and 6 years thereafter, including extension of AMC period, if any) |   | √ |

√ Responsible

\* Association



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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website: www.nerpc.gov.in

No.: NERPC/Communication/2025/ २९७६ - ३०२ .

November 10, 2025

सेवा में/To

As per list attached.

**Subject: Minutes of the special meeting on AMC of SCADA/EMS system of NER states - reg.**

**विषय: एन.ई.आर. राज्यों की SCADA/EMS प्रणाली की AMC पर विशेष बैठक का कार्यवृत्त के संबंध में।**

महोदय/महोदया,

कृपया पूर्वोक्त राज्यों में SCADA/EMS प्रणाली के वार्षिक रखरखाव अनुबंध (AMC) पर मेसर्स GE वर्नोवा की टीम के साथ 6 नवंबर, 2025 (गुरुवार) को सुबह 11:00 बजे "NERLDC कॉन्फ्रेंस हॉल", गुवाहाटी में आयोजित विशेष बैठक के कार्यवृत्त संलग्न देखें। यह कार्यवृत्त NERPC की वेबसाइट [www.nerpc.gov.in](http://www.nerpc.gov.in) पर भी उपलब्ध है।

कृपया किसी भी टिप्पणी से जल्द से जल्द NERPC को अवगत कराएँ।

Sir/Madam,

Please find enclosed herewith the minutes of the special meeting on Annual Maintenance Contract (AMC) of SCADA/EMS system in NER states with the team of M/s GE Vernova which was held on **6<sup>th</sup> November, 2025 (Thursday) at 11:00 Hrs at "NERLDC Conference Hall"**, Guwahati. The minutes is also available on the website of NERPC: [www.nerpc.gov.in](http://www.nerpc.gov.in)

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

भवदीय / Yours faithfully,

(डी.के. बौरी / D.K Bauri)

निदेशक / Director

### Distribution 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, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
18. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
19. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
20. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
21. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
22. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
23. Head of SLDC, MSPCL, Imphal – 795001
24. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
25. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
26. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
27. Head of SLDC, TSECL, Agartala – 799001

दिनेश बाँरी  
10/11/2025

(डी.के. बाँरी / D.K Bauri)

निदेशक / Director

# **NORTH EASTERN REGIONAL POWER COMMITTEE**

## **Shillong**

### **Record of discussion of Special Meeting on “Extension of Comprehensive-AMC of SCADA/EMS System of NER States”**

**Date:** 06.11.2025

**Venue:** NERLDC Conference Hall, Guwahati

A special meeting was convened under Chairmanship of Member Secretary, NERPC on 6<sup>th</sup> November, 2025 at the NERLDC Conference Hall, Guwahati, to deliberate on the extension of the Comprehensive Annual Maintenance Contract (C-AMC) for the existing SCADA/EMS System of the North Eastern Region (NER) States.

Member Secretary, NERPC, welcomed all delegates and expressed appreciation for their participation. He wishes for productive discussions on the important matter of AMC of Existing SCADA System. Representatives from all NER States attended the meeting, except Manipur participated through online mode. Officials from NERPC, NERLDC, and M/s GE Vernova T&D India Limited (GE VERNOVA INDIA) were also present.

The list of participants is attached as **Annexure-1**.

#### **Background**

During the 32<sup>nd</sup> NeTEST Meeting held on 29<sup>th</sup> August, 2025, Tripura and other North Eastern Region (NER) States expressed concern about the exorbitantly high prices of Annual Maintenance Contract (AMC) quoted by M/s GE Vernova for the existing SCADA .

Accordingly, it was decided to convene a special meeting at Guwahati with the M/s GE Vernova to resolve the pending issues pertaining to the AMC for SCADA Project of the NER States.

#### **A. The following deliberation were made in the meeting:**

1. Assam representative informed that the AMC agreement for SCADA/EMS System was pending due to observations raised by AEGCL's Law Department, primarily concerning the Bank Guarantee (BG) forfeiture

clause in the event of contract termination. Subsequently, Assam and GE Vernova India mutually agreed to revise the relevant clause and execute the contract agreement at the earliest.

Other NER States also conveyed their willingness to sign the Letter of Award (LOA) once the AMC prices are rationalized.

2. At present, AMC Offers were given by M/s GE Vernova to Meghalaya and Tripura. The quotation for Tripura State was approximately ₹3.66 crore for a two-year period with a 90% target availability, while Meghalaya's quotation was approximately ₹2.71 crore for the same period and availability.
3. Tripura sought clarification on whether 90% availability was adequate for SLDC operations and how it compared to RLDC levels. CGM (SL), NERLDC informed that to reflect higher operational sensitivity at RLDCs, RLDCs are stipulated to 99.95% availability.

Further, he communicated that presently, three regions are having GE M/s GE Vernova systems namely Southern, Western & North-Eastern Regions. The new C-AMC of M/s GE Vernova system is being done in coordination with Corporate Centre, GRID-INDIA. SRLDC had already placed the LoA for new C-AMC with a 99.95% system availability. NERLDC, also following the same pattern.

4. Forum opined that for NER SLDCs, availability up to 90% would be acceptable as it is in line with the LoA placed by SLDC-Puducherry & SLDC-Assam.
5. On a query regarding External Firewall (Check Point) replacement under AMC, GE Vernova clarified that if the hardware had reached End-of-Life (EoL), hardware upgrade would be necessary, which would involve additional cost. SLDC Assam had already communicated this issue to GE via email; GE assured that a formal reply would be provided.
6. Meghalaya raised concern regarding the reduced scope of work in the latest GE VERNOVA INDIA offer, particularly exclusion of 3rd-party audits and vulnerability mitigation.
  - GE clarified that, considering multiple audits (e.g., NCIIPC), it was not always feasible for GE to address every observation. GE's 3rd-party vulnerability assessments are conducted after apprising auditors of the legacy system limitations, whereas NCIIPC audits often apply latest technology standards.

- NERLDC informed that since OT systems are in hard isolation (no Internet exposure), penetration testing may not be required.
- SLDC Assam requested GE to comply with CSIRT-Power guidelines to the extent possible. GE VERNOVA INDIA agreed to the same.

## **B. Finalization of Scope of Work for NER State SLDCs**

**After detailed deliberation**, forum agreed to adopt the Scope of work similar to Assam for their respective C-AMC of SCADA/EMS System. The Scope of Work in line with the Scope of Work of SLDC Assam was discussed and finalized as follows:

1. Deputation of 2 engineers at SLDC control centre – Agreed by NER States
2. Back-office support from Noida – Agreed by NER States
3. Control Centre Comprehensive AMC – Agreed by NER States
4. VPS – Preventive Maintenance and Fault Diagnosis only. VPS can be maintained using spares available with SLDC however the support shall not be covered under availability calculation. - Agreed by NER States

Further, informed that;

- SLDC Arunachal Pradesh stated that no VPS spares are left and SLDC Nagaland also reported exhausted spares.
  - CGM (SL), NERLDC requested all the NER SLDCs to review their existing spares. The same needs to be communicated to GE VERNOVA INDIA for replenishment.
  - MS, NERPC emphasized regular maintenance and ensuring replenishment of working spares and GE Vernova agreed to replenish VPS spares during the existing 7 + 2-year AMC period.
5. eDNA – L1 (GE) and L2 Support (Kalkitech) - Agreed by NER States
    - L-1(Basic trouble shooting, data indexing if any segment corrupted).
    - L-2 (Regeneration of license only as eDNA is obsolete declared by OEM.).
    - In case of data loss (even after data indexing), the required source code is not available as product is end of life. Data can only be retrieved through manual entry for maximum 25 points.
  6. Required Antivirus for the supplied hardware – Agreed by NER States

7. Annual Cyber Security Audit from third party agency (only Vulnerability Assessment). Vulnerability mitigation shall be limited to configuration changes only.
  - GE to look into their tied-up party (M/s AKS). CGM (SL), NERLDC requested GE VERNOVA INDIA to conduct extensive cyber security audit as NCIIPC is raising questions on the report submitted by M/s AKS. CGM (SL) also communicated that a few of the audit compliances may not be addressable due to obsolete hardware and software. MS, NERPC requested GE to do more comprehensive audit.  
- Agreed by NER States
8. SAN/NAS/Tape Library storage availability shall be included in the offer however; GE shall ensure quick restoration of the SAN/NAS/Tape Library storage in case of any failure restoration will be done in maximum 90 business days. Post 90 business days SLA will be applicable.
  - GE explained that cluster configuration takes significant time; hence, the 90-day grace period has been considered. - Agreed by NER States
9. Support for existing UPS & DG will be provided however; SLA will be applicable post 90 business days will be applicable.
  - Forum advised to keep DG in Auto Mode to minimize dependency on UPS and batteries. GE VERNOVA INDIA will look into the matter - Agreed by NER States.
10. GE shall suggest remedial action in case of database errors. Integration of new stations/bays shall be the prime responsibility of Owner (SLDC). In case Owner is not able to perform the same GE shall be paid for the job as per mutually agreed rate.
  - MS, NERPC urged all SLDCs to build in-house capability in database modelling. Further, GE agreed to train SLDC personnel on RTU integration at site level through online mode.
11. Replacement of Degraded Battery Cells – Agreed by NER States.
12. Checkpoint external Firewall support limited to patch updates if available with OEM
  - If external firewalls are directly purchased by SLDCs, GE will not cover them under AMC. Technical support to be availed directly from OEM - Agreed by NER States.

All NER states agreed for all the points of the finalised Scope of work as mentioned above.

### **C. Discussion on Price Rationalization:**

In the case of Assam, the price offered by M/s GE Vernova during November 2024 for the C-AMC was as follows:

- 1st Year: ₹ 0.96 Cr
- 2nd Year: ₹ 1.07 Cr (with 10 % year-wise escalation)
- Total: ₹ 2.04 Cr (excl. GST) / ₹ 2.41 Cr (incl. 18 % GST)

For Assam, the offer was based on a factor of 2.52 times the running AMC rate prevailing at that time.

In the current offer for Meghalaya, the total two-year cost was quoted as ₹ 2.71 Cr (excl. GST). M/s GE Vernova clarified that this quotation was derived using the same 2.52× factor with an additional 10 % escalation every year.

Further, it was informed that:

- For Meghalaya and Tripura, the existing AMC expired during March 2025.
- For Manipur, the AMC will expire on 07 November 2025.
- For Mizoram, the AMC will expire during April 2026.

MS, NERPC observed that the prices offered for Meghalaya and Tripura were higher than Assam's, despite these being smaller States with comparatively lower system demand. He emphasized that it would be difficult for the States to justify higher AMC costs and suggested the rate can be around ₹ 1.0 Cr per year for better acceptability by higher Management.

He further noted that the new SCADA/EMS project is expected to go live within two years, and there is a possibility of requiring a third-year AMC extension in the interim.

In response, M/s GE Vernova agreed for a revised common rate for other State and rationalized its offer which is given as below:

| <b>Year</b> | <b>Proposed Price (in ₹ Cr)</b> | <b>Remarks</b>                          |
|-------------|---------------------------------|-----------------------------------------|
| 1st Year    | 1.02                            | Comparable to Assam 2024 reference rate |
| 2nd Year    | 1.12                            | 10 % escalation on 1st year price       |

|                         |           |                            |                                                  |
|-------------------------|-----------|----------------------------|--------------------------------------------------|
| <b>Total<br/>Years)</b> | <b>(2</b> | <b>2.14 Cr (excl. GST)</b> | <b>Common offer for all NER<br/>States each.</b> |
|-------------------------|-----------|----------------------------|--------------------------------------------------|

**After detailed deliberation, the following decisions were made :**

1. Forum agreed to the revised price offer of ₹ 2.14 Cr (excl. GST) for the two-year AMC applicable to all participating NER States except Assam, Arunachal Pradesh & Nagaland.
2. M/s GE VERNOVA INDIA informed that the current C-AMC for SCADA of Arunachal Pradesh & Nagaland remains valid until 2027, and therefore, no fresh offer can be provided at this stage.
3. It was agreed that, within three months from issuance of the Minutes of the meeting, Meghalaya, Tripura, and Manipur to finalize and sign their respective AMC contracts with M/s GE Vernova. Mizoram shall follow subsequently.
4. The forum requested M/s GE Vernova to submit a detailed cost justification for the increase over the previous AMC pricing. The same has been attached as **Annexure-2**.
5. GE Vernova assured that Assam would be offered a reasonable rate for the third-year extension of its AMC when it becomes due.
6. MS, NERPC assured that the matter would be placed in the upcoming NERPC meeting to apprise higher authorities of the States.
7. Finally, the forum and NER States unanimously agreed on the rationalized scope and cost components for the two-year extended C-AMC for SCADA/EMS System. M/s GE Vernova India shall submit the revised offers accordingly, and the NER States shall proceed with signing the Letters of Award (LOAs) by taking their respective internal approvals.

The meeting concluded with a Vote of Thanks to the Chair.

\*\*\*\*\*

## Attendance list for the special meeting on AMC of SCADA/EMS system of NER states on 06-11-2025

| Sl No. | Name                  | Designation         | Organisation   | e-mail                            | Contact    |
|--------|-----------------------|---------------------|----------------|-----------------------------------|------------|
| 1      | K.B. Jagtap           | Member Secretary    | NERPC          |                                   |            |
| 2      | D.K. Bawari           | Director            | NERPC          |                                   |            |
| 3      | V. Munecha            | Director            | NERPC          |                                   |            |
| 4      | B. Lenin              | Deputy Director     | NERPC          |                                   |            |
| 5      | Ashwin Kr. Goswami    | AD-II               | NERPC          | ashwin.goswami@gov.in             | 8638966481 |
| 6      | Lenin.B               | DD                  | NERPC          | lenin.bce@gov.in                  | 8335595973 |
| 7      | M.K. Usha             | EE(Su)              | SRE Madhalaya  | ceism.sldc@madhalaya.gov.in       |            |
| 8      | J. Rakai              | AEE, State          | " "            | ja                                | 9402133552 |
| 9      | Parik Buchi           | AEE                 | SLE DOP HP     | gesldc2021@gmail.com              | 9366118384 |
| 10     | Nirvik Aggarwal       | Prd Director        | GS Varanasi    | nirvik.aggarwal@gov.in            | 9958960584 |
| 11     | Devesh Kumar          | Regional Manager    | " "            | devesh.jin@gov.in                 | 8826936803 |
| 12     | C. Chaudhary          | SE, SLD C           | PRED, Mirzapur | msldc.cir@nildc.in                | 9862925462 |
| 13     | H. Lalrustki ma       | SE, SLD C           | PRED, Mirzapur | msldc.cir@nildc.in                | 9862925462 |
| 14     | Nitin Kumar Azad      | AE, SLD C           | PRED, Mirzapur | sldc.mirzapur@gmail.com           | 8294899510 |
| 15     | P. Thakura Thakura    | JE                  | SLEC Nagaland  | thakura.p@nildc.in                | 8974020151 |
| 16     | MEKA KINIM            | SE                  | SLEC Nagaland  | meka.kinni@gmail.com              | 7630857499 |
| 17     | SHAMPA SEN.           | DEP, SLD C, Tripura | TPTR.          | shampa.sen@nildc.in               | 7436129263 |
| 18     | Rupjyoti Das          | SLDC, AECCL         | SLDC, AECCL    | rupjyoti.das@aeccl.co.in          | 9435097009 |
| 19     | Nilotpal Bhattacharya | SLDC, AECCL DM      | SLDC, AECCL    | nilotpal.bhattacharya@aeccl.co.in | 7044374443 |
| 20     | Toushika Jindung      | DEP, SLD C, Assam   | SLDC, AECCL    | toushika.jindung@aeccl.co.in      | 9703134351 |
| 21     | Arundhan Deka         | CEM, SLD C, Assam   | SLDC, AECCL    | arundhan.deka@aeccl.co.in         | 9435733889 |
| 22     | Sayan Charya          | Head, NERPC         | NERPC          | sayan@nildc.in                    | 9910338011 |
























[illegible]

372

**Sakal Deep (सकल दीप)**

**From:** Jha, Devesh (GE Vernova) <devesh.jha@gevernova.com>  
**Sent:** 07 November 2025 10:15  
**To:** S P Barnwal (एस पी बर्नवाल)  
**Cc:** Sakal Deep (सकल दीप); Aggarwal, Vivek (GE Vernova)  
**Subject:** Rate Justification for SCADA/EMS System for NER Constituents  
**Attachments:** LoA\_Order Ack.pdf

**\*\*\*\*Warning\*\*\*\***

**This email has not originated from Grid-India. Do not click on attachment or links unless sender is reliable. Malware/ Viruses can be easily transmitted via email.**

Dear Sir,

Our team has been consistently maintaining the system since its procurement 11 years ago, with successful commissioning and handover to the end user in 2016-2017. While IT components typically have a lifecycle of 7–8 years, significantly shorter than OT components as per CEA guidelines (2021), the systems—owned by third-party OEMs—follow dynamic product roadmaps that generally doesn't align with OT power systems.

Maintaining these systems is inherently costly, primarily due to end-of-life challenges, continuous technology upgrades and challenging market landscapes.

The rising costs are primarily driven by escalating service maintenance agreements for third-party systems, stringent cybersecurity requirements, persistent compatibility challenges, and the ageing infrastructure that leads to frequent hardware failures and limited availability of spare parts. These pressures are further compounded by inflation and the increasing wages of skilled technical personnel

Maintenance and support (M&S) costs for such systems typically escalate by 15–20% year-over-year during the initial Annual Maintenance Contract (AMC) phase. Once the system reaches End-of-Life (EOL) or End-of-Support (EOS), these cost drivers surge significantly due to increased service complexity, limited vendor support, and higher risk of component failures.

SCADA system comprises of 3 major aspects

1. GEV proprietary software
2. 3<sup>rd</sup> Party IT infra and Software
3. Skilled resources

Points 2 and 3 are particularly significant in light of the market shifts over the past five years, driven by rapid technological evolution and increasing constraints in resource availability for maintaining ageing systems.

Furthermore, we have listed a number of major reasons for the difficulty in maintaining such legacy system.

**1. Inflation and Cost Escalation**

- ✓ Over time, operational costs including manpower, logistics, and infrastructure have risen due to inflation.
- ✓ Forex fluctuations as all IT parts and IT software are procured generally from International markets
- ✓ The extended term covers future years where cost escalation is expected to be higher than the original contract period.

- ✓ Supply chain is a big challenge and cost since OEM have already declared these products as EOL/ EOS and only limited distributors/ partners support these legacy product. Their spares HUB and channels are limited which increase the cost dramatically.

## **2. Technology Obsolescence and Upgrades**

- ✓ As systems age, maintaining compatibility with evolving technologies requires additional effort and resources.
- ✓ Ensuring continued performance and reliability may involve upgrades, patches, and integration support beyond standard maintenance.

## **3. Extended Warranty and Risk Coverage**

- ✓ The extended AMC includes continued warranty coverage, which mitigates risk for the customer.
- ✓ Older systems typically require more frequent interventions, increasing the support burden.

## **4. Resource Retention and Expertise**

- ✓ Retaining skilled personnel familiar with the deployed system ensures continuity and quality of service.
- ✓ Long-term contracts require strategic resource planning and retention incentives.
- ✓ Skilled resource mobility has increased due to project demands and hence retaining resources for old systems is a challenge

## **5. Current Market scenario and rates of similar systems**

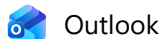
- ✓ The original procurement rates from 12 years ago do not reflect current market dynamics, technological advancements, or inflationary trends, making them unsuitable for accurate benchmarking.
- ✓ Rapid shifts in technology, vendor ecosystems, and service models over the past decade necessitate using contemporary cost structures rather than relying on legacy pricing frameworks.

**Devesh Kumar**

Regional Sales Manager

M +91 8826996803





## Re: Urgent: Restoration of SCADA Data from Nagaland owned Substations

From NERLDC SCADA <nerldcscada@grid-india.in>

Date Wed 2026-07-01 12:41

To NERLDC SCADA <nerldcscada@grid-india.in>; sldc.ngl <slcd.ngl@gmail.com>; tiaquenger <tiaquenger@gmail.com>; pongmeine1 <pongmeine1@gmail.com>

Cc Somara Lakra (सामरा लाकड़ा) <somara.lakra@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; nerpc@ymail.com <nerpc@ymail.com>; ms-nerpc@gov.in <ms-nerpc@gov.in>; nerpc.communication@gov.in <nerpc.communication@gov.in>

Sir/Ma'am,

### Gentle Reminder - 4

Please refer to the trailing email dated 18 March 2026 concerning the persistent non-availability of SCADA/Telemetry data from multiple Nagaland-owned substations. Despite repeated follow-ups and reminders, the issue remains unresolved, resulting in severely reduced grid observability and posing a significant risk to the secure and reliable operation of the power system.

The continued absence of real-time SCADA data is critically impacting grid monitoring, contingency analysis, situational awareness, and operational decision-making at NERLDC. Reliable and uninterrupted telemetry is an essential requirement for secure grid operation, and the prolonged outage of these data streams is a matter of serious concern.

In view of the above, you are once again requested to accord top priority to this matter and initiate immediate corrective actions for the restoration of both Analog and Digital SCADA data from the affected substations. The prolonged delay in restoring telemetry is unacceptable and continues to adversely affect real-time system operations.

You are requested to provide a detailed status update, including the actions taken so far and a firm timeline for complete restoration of all affected SCADA data points from Nagaland owned substations. Please feel free to reach out to us in case of any query.

Please refer Weekly Telemetry Report sent regularly on weekly basis to SLDC Nagaland for detailed SCADA points from Nagaland owned stations. Some of stations are mentioned below:

- 220kV Zhadima
- 132kV Kiphire
- 132kV Longnak
- 132kV Longleng
- 132kV Meluri
- 132kV New Secretariate
- 132kV New Zuhenboto
- 132kV Pfutsero
- 132kV Cheiphobozo

This may please be treated as URGENT.

भवदीय / Sincerely,

शक्ति मयंक सिंह / Shakti Mayank Singh

सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)

उप-क्षेत्र प्रो. ग्रेड - इंडिया / NERLDC, GRID - INDIA

गुवाहाटी, असम - 781019 / Guwahati, Assam - 781019

(भारत सरकार का उद्यम / A Government of India Enterprise)

मो. / Ph.-+91-8299085576

Websites : <https://www.nerldc.in/> | <https://grid-india.in/en/>



---

**From:** NERLDC SCADA <nerldcscada@grid-india.in>

**Sent:** 10 June 2026 11:26

**To:** sldc.ngl <sldc.ngl@gmail.com>; tiaquenger <tiaquenger@gmail.com>; pongmeine1 <pongmeine1@gmail.com>

**Cc:** Somara Lakra (सामरा लोकड़ा) <somara.lakra@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; NERLDC SCADA <nerldc.scada@grid-india.in>; nerpc@ymail.com <nerpc@ymail.com>; ms-nerpc@gov.in <ms-nerpc@gov.in>; nerpc.communication@gov.in <nerpc.communication@gov.in>

**Subject:** Re: Urgent: Restoration of SCADA Data from Nagaland owned Substations

Sir/Ma'am,

**Gentle Reminder - 3**

Please see the trailing mail sent on 18th March 2026 regarding non-availability of SCADA/Telemetry data of multiple stations of Nagaland owned substations. This is to bring to your notice that such low availability of SCADA data has led to poor observability of grid, thereby increasing risk in real-time grid operation.

The non-availability of real-time SCADA data is significantly impacting effective grid monitoring and secure system operation. Availability of reliable and continuous SCADA telemetry is critical for real-time grid operation, contingency analysis, and decision-making by system operators.

In view of the above, you are requested to kindly treat this matter with utmost priority and take necessary actions for immediate restoration of SCADA data (Analog & Digital) from these substations.

- 220kV Zhadima
- 132kV Kiphire
- 132kV Longnak
- 132kV Longleng
- 132kV Meluri
- 132kV New Secretariate
- 132kV New Zuhenboto
- 132kV Pfutsero
- 132kV Cheiphobozo

It is once again requested to share the status of corrective actions taken along with an expected timeline for complete restoration.

This may please be treated as URGENT.

भवदीय / Sincerely,

शक्ति मयंक सिंह / Shakti Mayank Singh

सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)

उप-क्षेत्र प्रमुख, ग्रिड - इंडिया / NERLDC, GRID - INDIA

गुवाहाटी, असम - 781019 / Guwahati, Assam - 781019

(भारत सरकार का उद्यम / A Government of India Enterprise)

Ph-+91-8299085576

Websites : <https://www.nerldc.in/> | <https://grid-india.in/en/>



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**From:** NERLDC SCADA

**Sent:** 20 April 2026 12:45

**To:** sldc.ngl; tiaquenger; pongmeine1

**Cc:** Somara Lakra (सामरा लोकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); NERLDC SCADA

**Subject:** Re: Urgent: Restoration of SCADA Data from Nagaland owned Substations

Sir/Ma'am,

**Gentle Reminder -2**

It is to bring to your kind notice regarding the issue of non-availability of telemetered SCADA data from Nagaland-owned

substations. It is hampering real-time grid operations as grid visibility is reduced due to non-availability of data from substation.

In view of the above, you are requested to kindly treat this matter with utmost priority and take necessary actions for immediate restoration of SCADA data(Analog & Digital) from these substations.

The list of substations is provided below for your reference:

- 220kV Zhadima
- 132kV Kiphire
- 132kV Longnak
- 132kV Longleng
- 132kV Meluri
- 132kV New Secretariate
- 132kV New Zuhenboto
- 132kV Pfutsero
- 132kV Cheiphobozo

It is once again requested to share the status of corrective actions taken along with an expected timeline for complete restoration.

---

**From:** NERLDC SCADA

**Sent:** 30 March 2026 13:02

**To:** sldc.ngl; tiaquenger; pongmeineu1

**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); NERLDC SCADA

**Subject:** Re: Urgent: Restoration of SCADA Data from Nagaland owned Substations

Sir/Ma'am,

**Gentle Reminder -1**

Please see the trailing mail and take necessary appropriate actions at your end for timely resolution of the telemetry issues from Nagaland owned substations.

---

**From:** NERLDC SCADA

**Sent:** 18 March 2026 11:24

**To:** sldc.ngl; tiaquenger; pongmeineu1

**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); NERLDC SCADA

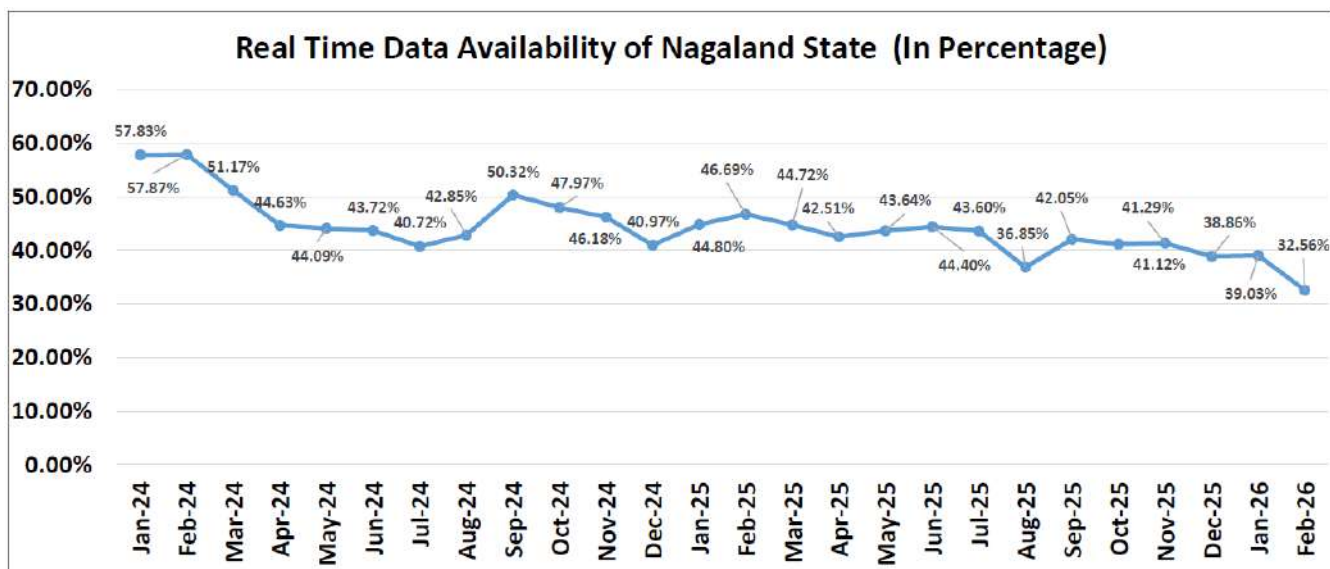
**Subject:** Urgent: Restoration of SCADA Data from Nagaland owned Substations

Sir/Ma'am,

This is to bring to your kind notice that SCADA data from the majority of Nagaland-owned substations is presently not reporting correctly at NERLDC. Despite regular follow-ups and weekly updates through Weekly Telemetry Availability Report and CERC Monthly Non-Availability Letter for telemetry status by the NERLDC SCADA team, the issue still persists.

As per the 30th NeTEST MoM issued on 28th January 2025, a target of 70% real-time data availability was set for Nagaland to be achieved by March 2025. However, the actual real-time data availability has shown a declining trend instead of improvement.

The picture as shown below shows the real-time data availability for Nagaland state since January 2024. It can be seen that there is a clear declining trend in real-time SCADA data availability as data availability drops from around ~58% (Jan–Feb 2024) to ~32.5% (Feb 2026) indicating a significant deterioration (~25% drop) over time.



Such low availability of SCADA data has led to poor observability of grid, thereby increasing risk in real-time grid operation. The non-availability of real-time SCADA data is significantly impacting effective grid monitoring and secure system operation. Availability of reliable and continuous SCADA telemetry is critical for real-time grid operation, contingency analysis, and decision-making by system operators.

In view of the above, you are requested to kindly treat this matter with utmost priority and take necessary actions for immediate restoration of SCADA data(Analog & Digital) from these substations.

The list of substations is provided below for your reference:

- 220kV Zhadima
- 132kV Kiphire
- 132kV Longnak
- 132kV Longleng
- 132kV Meluri
- 132kV New Secretariate
- 132kV New Zuhenboto
- 132kV Pfutsero
- 132kV Cheiphobozo
- 

Apart from these, digital data from few other stations is either not reporting or reporting incorrectly.(Recent Weekly Report can be taken as reference)

Further, it is also requested to share the status of corrective actions taken along with an expected timeline for complete restoration.

This may please be treated as URGENT.

भवदीय / Sincerely,

शक्ति मयंक सिंह / Shakti Mayank Singh

सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)

उष्णक्षेत्रीय प्रणाली, ग्रिड - इंडिया / NERLDC, GRID - INDIA

गुवाहाटी, असम - 781019 / Guwahati, Assam - 781019

(भारत सरकार का उद्यम / A Government of India Enterprise)

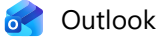
Ph:+91-8299085576

Websites : <https://www.nerlde.in/> | <https://grid-india.in/en/>



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Outlook

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**Re: Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required**


---

**From** NERLDC SCADA <nerldcscada@grid-india.in>  
**Date** Mon 2026-04-20 12:39  
**To** apslcdc.sd <apsldc.sd@gmail.com>; nicegeyi@gmail.com <nicegeyi@gmail.com>  
**Cc** Somara Lakra (सामरा लाकड़ा) <somara.lakra@grid-india.in>; S P Barnwal (एस पी बर्नवाल) <spbarnwal@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; aesldc2021@gmail.com <aesldc2021@gmail.com>; eesldcitaap@gmail.com <eesldcitaap@gmail.com>; NERLDC SCADA <nerldc.scada@grid-india.in>

Sir/Ma'am,

**Gentle Reminder -2**

Please see the trailing mail and take necessary appropriate actions at your end for timely resolution of the telemetry issues from Arunachal Pradesh owned substations.

**भवदीय /Regards,**

**सुबल दास/ Subal Das**

**सिस्टम लॉजिस्टिक्स (एस.एल.) / System Logistics (SL)**

**उ.पू.क्षे.भा.प्रे.के. , 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:** NERLDC SCADA  
**Sent:** 02 April 2026 12:13  
**To:** apslcdc.sd; nicegeyi@gmail.com  
**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); aesldc2021@gmail.com; eesldcitaap@gmail.com; NERLDC SCADA  
**Subject:** Re: Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required

Sir/Ma'am,

**Gentle Reminder -1**

Please see the trailing mail and take necessary appropriate actions at your end for timely resolution of the telemetry issues from Arunachal Pradesh owned substations.

---

**From:** NERLDC SCADA  
**Sent:** 18 March 2026 10:47  
**To:** apslcdc.sd; nicegeyi@gmail.com  
**Cc:** Somara Lakra (सामरा लाकड़ा); S P Barnwal (एस पी बर्नवाल); Saugato Mondal (सौगाता मंडल); aesldc2021@gmail.com; eesldcitaap@gmail.com; NERLDC SCADA  
**Subject:** Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required

Dear Sir/Madam,

It has been observed that the following stations in Arunachal Pradesh are currently not reporting to NERLDC:

- Holongi
- Bhalukong

The non-reporting of these stations is a matter of serious concern, as it is impacting the data availability of Arunachal Pradesh, which is very critical for real-time system operation and monitoring.

You are requested to kindly look into the issue on priority and take necessary corrective actions to restore the data at the earliest. Additionally, please share the root cause of the issue along with the expected timeline for restoration.

Timely resolution of this matter is highly critical for ensuring reliable system operation.

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.nerlhc.in/> | <https://grid-india.in/en/>



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**Fw: Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required**

---

**From:** NERLDC SCADA <nerldcscada@grid-india.in>  
**Date:** Wed 2026-07-01 16:37  
**To:** NERLDC SCADA <nerldc.scada@grid-india.in>

---

**From:** NERLDC SCADA <nerldcscada@grid-india.in>  
**Sent:** Wednesday, July 1, 2026 10:25 AM  
**To:** apslcdc.sd <apsldc.sd@gmail.com>; nicegeyi@gmail.com <nicegeyi@gmail.com>  
**Cc:** Somara Lakra (सामरा लोकड़ा) <somara.lakra@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; aesldc2021@gmail.com <aesldc2021@gmail.com>; eesldcitaap@gmail.com <eesldcitaap@gmail.com>; NERLDC Control Room <nerldccr@grid-india.in>  
**Subject:** Re: Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required

Dear Sir/Madam,

It has been observed that the following stations in Arunachal Pradesh are currently not reporting to NERLDC:

- Napit
- Seppa
- Lekhi
- Along

The non-reporting of these stations is a matter of serious concern, as it is impacting the data availability of Arunachal Pradesh, which is critical for real-time system operation and monitoring. You are also requested to look into the issue on priority and take necessary corrective actions for restoration of data.

Timely resolution of this matter is highly critical for ensuring reliable system operation.

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/>



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**From:** NERLDC SCADA  
**Sent:** Monday, June 1, 2026 3:04 PM  
**To:** apslcdc.sd <apsldc.sd@gmail.com>; nicegeyi@gmail.com <nicegeyi@gmail.com>  
**Cc:** Somara Lakra (सामरा लोकड़ा) <somara.lakra@grid-india.in>; Saugato Mondal (सौगाता मंडल) <saugato@grid-india.in>; aesldc2021@gmail.com <aesldc2021@gmail.com>; eesldcitaap@gmail.com <eesldcitaap@gmail.com>; NERLDC SCADA <nerldc.scada@grid-india.in>  
**Subject:** Non-Reporting of Stations in Arunachal Pradesh – Urgent Attention Required

Dear Sir/Madam,

It has been observed that the following stations in Arunachal Pradesh are currently not reporting to NERLDC:

- Napit

- Niglok
- Pasighat
- Along

The non-reporting of these stations is a matter of serious concern, as it is impacting the data availability of Arunachal Pradesh, which is critical for real-time system operation and monitoring.

As per available information, there is a fiber break in the Along–Pasighat section. You are requested to kindly identify the exact fiber break location and restore the communication link at the earliest possible.

You are also requested to look into the issue on priority and take necessary corrective actions for restoration of data.

Timely resolution of this matter is highly critical for ensuring reliable system operation.

**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.nerlhc.in/> | <https://grid-india.in/en/>





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/Communication/2026/ 3780-3821

February 04, 2026

सेवा में/To

As per list attached.**Subject: Minutes of the special meeting on AMC of SAMAST system of NER states - reg.****विषय: NER राज्यों के SAMAST सिस्टम के AMC पर विशेष बैठक का कार्यवृत्त - संबंध में।**

महोदय/महोदया,

कृपया पूर्वोत्तर राज्यों में SAMAST प्रणाली के वार्षिक रखरखाव अनुबंध (AMC) पर हुई स्पेशल मीटिंग का मिनट्स अटैच है, जो 12 जनवरी, 2026 (शुक्रवार) को 11:00 बजे NERLDC कॉन्फ्रेंस हॉल, गुवाहाटी में हुई थी। मिनट्स NERPC की वेबसाइट: [www.nerpc.gov.in](http://www.nerpc.gov.in) पर भी उपलब्ध है।

कोई भी कमेंट/सुझाव कृपया जल्द से जल्द NERPC को बताएं।

Sir/Madam,

Please find enclosed herewith the minutes of the special meeting on Annual Maintenance Contract (AMC) of SAMAST system in NER states which was held at NERLDC Conference Hall, Guwahati on **30<sup>th</sup> January, 2026 (Friday) at 11:00 Hrs.** The minutes is also available on the website of NERPC: [www.nerpc.gov.in](http://www.nerpc.gov.in)

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

भवदीय / Yours faithfully,

(डी.के. बौरी /D.K Bauri)

निदेशक / Director

Encl: As above

### **Distribution 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, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
18. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
19. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
20. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
21. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
22. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
23. Head of SLDC, MSPCL, Imphal – 795001
24. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
25. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
26. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
27. Head of SLDC, TSECL, Agartala – 799001
38. ED-Grid India, Kahilipara,Guwahati-781034
39. CGM(Logistics),Grid India, Kahilipara,Guwahati-781034
40. M/s GENUS
41. M/s PwC
42. M/s Infotek

दिनांक 04/11/2026

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



सत्यमेव जयते

Government of India

Ministry of Power

**North Eastern Regional Power Committee**

Lapalang, Shillong- 793006

**Minutes of Special Meeting on AMC of SAMAST system for  
NER States held on 30/01/2026 (Friday) at NERLDC  
Conference Room, Guwahati.**

A special meeting to discuss the AMC of SAMAST system (software, hardware and metering part) for the North Eastern states was held on **30/01/2026 (Friday) at 11:00 hours** under the Chairmanship of Member Secretary, NERPC. The meeting was attended by representatives from all the North Eastern states, representatives from M/s PwC, M/s Infotek and M/s Genus, NERLDC and NERPC.

Member Secretary, NERPC welcomed all the delegates and briefed the agenda of the meeting.

***Deliberation:***

M/s PwC vide letter no. PwC/NERPC/NER-SAMAST/2025-26/008 dated NIL has shared the price quote for AMC of SAMAST software for North Eastern states (except Assam) for 3 years. M/s PwC has quoted the following price:

For all the seven modules of SAMAST software

Rs. 65,00,000/annum/state (exclusive of GST)

Rs. 76,70,000/annum/state (inclusive of GST)

For a 3 year period, the cost implication for each state shall be Rs. 1.95 crore (exclusive of GST) and Rs. 2.30 crore (inclusive of GST).

The forum impressed for a 3+2(extended) year AMC offer for the software part of SAMAST system from M/s PwC.

M/s PwC offered a flat 7% increment in AMC for the additional 2 years(extended period).

After detailed deliberation, M/s PwC agreed for AMC of the additional two (2) (extended) years with flat 5% increment on the submitted offer. The financial implication for the entire period of 3+2(extended) years is as summarized below:

| <b>Sl No.</b> | <b>Year</b> | <b>Cost each year (exclusive of GST)</b> | <b>Cost each year (inclusive of GST at prevailing rate)</b> |
|---------------|-------------|------------------------------------------|-------------------------------------------------------------|
| 1             | Year-1      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 2             | Year-2      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 3             | Year-3      | Rs. 65,00,000/annum/state                | Rs. 76,70,000/annum/state                                   |
| 4             | Year-4      | Rs. 68,25,000/annum/state                | Rs. 80,53,500/annum/state                                   |
| 5             | Year-5      | Rs. 68,25,000/annum/state                | Rs. 80,53,500/annum/state                                   |

The forum agreed to the above mentioned budgetary offer from M/s PwC for software part of SAMAST system for NER.

The forum further agreed upon the optional components which were included in the budgetary offer from M/s PwC as follows:

1. On site on demand 6 days training for Rs. 2.124 lakhs (inclusive of GST at prevailing rate).
2. Expert site visit charges on man day rate basis at Rs. 35,400 (inclusive of GST at prevailing rate)

The optional components shall be charged upon if only availed by the respective states at their own discretion.

The forum noted that a capping of 10 minor modifications per annum per state during the AMC period of 3+2 years shall remain valid and any work

after exhaustion of the aforementioned capping shall be charged on man day basis rate.

M/s PwC has agreed to do minor software modifications to incorporate new regulations/guidelines which have been effected during the lapsed period of 1-2 years without AMC support for all NER states without any additional cost. M/s PwC further agreed to do API integration of new Grid India WBES application with SAMAST scheduling for all NER states except Manipur at no additional cost.

The forum agreed that AMC for SAMAST software for NER would come into effect post completion of the above mentioned assurances from M/s PwC.

On query, M/s PwC apprised the forum that IT/cyber security audits for SAMAST IT system shall be done by M/s PwC as per the extant regulations and VAPT shall be a part of the audit. M/s PwC will be responsible for compliance of the cyber security audit observations for SAMAST IT system.

**Decision:**

The forum agreed to the price as mentioned above and conditions quoted by M/s PwC for the software part of AMC of SAMAST for NER states for 3+2 (extended) years. Member Secretary, NERPC suggested that NER states can issue LoA to M/s PwC for the software part of AMC of SAMAST for NER states at the earliest.

***Deliberation on the revised budgetary offer from M/s Infotek for hardware part of SAMAST system:***

M/s Infotek apprised the forum that the original price quote for the AMC of hardware part of NER-SAMAST system was Rs. 40,00,000 (excl. of GST) per annum per state. M/s Infotek further submitted that the revised offer is as described below:

| <b>Cost with manpower (excl. Of GST)</b> | <b>Cost without manpower (excl. Of GST)</b> |
|------------------------------------------|---------------------------------------------|
| Rs. 36,40,000/annum/state                | Rs. 29,90,000/annum/state                   |

After detailed deliberation, M/s Infotek offered for a reduction of 3% on the submitted budgetary offers as mentioned above with and without manpower.

The forum pressed for a 3+2(extended) year AMC offer for the hardware part of SAMAST system for NER from M/s Infotek.

M/s Infotek submitted that a 7% year-on-year increment shall be levied on the already submitted offer for the additional 2 years period.

After detailed deliberation the final negotiated cost for the additional 2 years was arrived to 5% year-on-year increment on the submitted offer.

The financial implication for the entire period of 3+2 years is as summarized below:

| <b>Sl No.</b> | <b>Year</b> | <b>Cost each year (with manpower) (excluding GST)</b> | <b>Cost each year (without manpower) (excluding GST)</b> |
|---------------|-------------|-------------------------------------------------------|----------------------------------------------------------|
| 1             | Year-1      | Rs. 35,30,800/annum/state                             | Rs. 29,00,300/annum/state                                |
| 2             | Year-2      | Rs. 35,30,800/annum/state                             | Rs. 29,00,300/annum/state                                |
| 3             | Year-3      | Rs. 35,30,800/annum/state                             | Rs. 29,00,300/annum/state                                |
| 4             | Year-4      | Rs. 37,07,340/annum/state                             | Rs. 30,45,315/annum/state                                |
| 5             | Year-5      | Rs. 38,92,707/annum/state                             | Rs. 31,97,581/annum/state                                |

M/s Infotek further apprised the forum about offer of additional 9% discount on yearly advance payment or 4% discount on quarterly advance payments of above AMC charges. The additional discounts may be availed by the NER states during the entire 3+2 years AMC period subject to the fulfilment of the timely advance payment conditions.

Further, M/s Infotek also agreed to submit BG to the respective states in the event of any advance payment of AMC charges.

The forum agreed to the price and conditions for with and without manpower quoted by M/s Infotek for AMC of the hardware part for SAMAST system for NER states for 3+2 years. Member Secretary, NERPC suggested

that NER states can issue LoA to M/s Infotek for AMC of the hardware part of SAMAST system for NER states at the earliest

Further, M/s Kalkitech showed a presentation on AMR system and meter integration (various makes) part.

***Deliberation on the revised budgetary offer from M/s Genus for metering part of SAMAST system:***

M/s GENUS is yet to submit their revised budgetary offer for the AMC of metering part of SAMAST system. M/s GENUS requested the forum to finalise the scope of work for the AMC of metering part of SAMAST system after addressal of the points as raised by M/s GENUS vide email dated 13/01/2026.

Member Secretary, NERPC advised to conduct an online meeting on 6<sup>th</sup> February 2026 to finalise the scope of work for the AMC of metering part of SAMAST system.

The meeting ended with a vote of thanks to the chair.

\*\*\*\*\*

# Attendance sheet for Spl. Meeting on SAMAST AMC for NER

| Sl. No. | Name                      | Designation        | Organisation        | Contact     | Email                                                              | Signature |
|---------|---------------------------|--------------------|---------------------|-------------|--------------------------------------------------------------------|-----------|
| 1       | K. B. Jagtap              | Member Secretary   | NERPL               |             |                                                                    |           |
| 2       | Sajan George              | ED, NERLDC         | NERLDC              |             |                                                                    |           |
| 3       | D. K. Bahari              | Director           | NERPC               | 9883617236  | dbahari, cea@pcv.in                                                |           |
| 4       | Sugandh Prasad<br>Bazmwal | CGM(CSL)           | NERLDC              | 9433041812  | spbasbwal@grid-india.in                                            |           |
| 5       | A. De                     | Dy. Director       | NERPC               | -           | alix.exp@ce.gov.in                                                 |           |
| 6       | Ashim Goswami             | AD - II            | "                   |             |                                                                    |           |
| 7       | Puneet Budhi              | AELE,              | SLDC, DOPAD         | 9366118384  | ae51dc20a1e@gmail.com                                              |           |
| 8       | H. Lakshatkings.          | SE, SLDC           | PRD, Mizoram        | 9862925462  | mslde@ircle.gov.in                                                 |           |
| 9       | Nipin Kumar Azad          | AE, SLDC           | PRD, Mizoram        | 7085 205665 | slde.mizoram@rediffmail.com                                        |           |
| 10      | Niriganka Bhuyan          | AGM, SLDC<br>Assam | AEGL                | 9101302116  | Sand cell. slde<br>@ae@cel.eria<br>@aml@ae. slde<br>@ae@cel. co.in |           |
| 11      | T. Jiglung                | AGM, SLDC          | AEGL                | 9707134351  | swamastell, slde@<br>ae@cel. co.in                                 |           |
| 12      | J. Borah                  | Jr. Manager        | Assam, SLDC<br>AEGL | 6901458371  | swamastell, slde@<br>ae@cel. co.in                                 |           |
| 13      | P. TIKARA Yenchunta       | JE SLDC            | SLDC Nagaland       | 8974020651  | TIARUN@ae@cel. co.in                                               |           |
| 14      | ABDUL KASSIM              | Dy. Manager        | SLDC-ASSAM          | 9435549537  | abdul.kassim@<br>ae@cel. co.in                                     |           |
| 15      | SAKAL DEEP                | Dy. Manager        | NERLDC              | 9714528218  | skdeep@grid-india.in                                               |           |

# Attendance sheet for Spl. Meeting on SAMAST AMC for NER

| Sl. No. | Name                | Designation        | Organisation       | Contact    | Email                         | Signature |
|---------|---------------------|--------------------|--------------------|------------|-------------------------------|-----------|
| 16      | SATHISH SEN         | DCM (Commercial)   | SLDC Tripura, TPTL | 9436120263 | syfene.rediffmail.com         | Shanku    |
| 17      | HANUJA S RANDEWANE  | Manager            | Mspcl, Manipal     | 9862398275 |                               | Shanku    |
| 18      | LAKSHMAN RITU       | GM (Gen) Inspcl    |                    | 9612882985 | redut03@gmail.com             | Shanku    |
| 19      | Alakesh Koch        | AEE,               | SLDC, Madhaya      |            | alakesh.koch@gmail.com        | Shanku    |
| 20      | D. J. LINGDOH       | SE                 | SLDC, MERTL        |            | David.Jeremy6@gmail.com       | Shanku    |
| 21      | ARNAB PRATIM DAS    | EXECUTIVE DIRECTOR | PWC                | 9830087831 | arnab.pratim.das@pwc.com      | Shanku    |
| 22      | S. Datta            | C.O.O.             | Infotel Services   | 9830030223 | spktr@infoteleservices.in     | Shanku    |
| 23      | DYUTIMAN CHODHURY   | DIRECTOR           | PwC                | 9007449471 | dyutiman.chodhury@pwc.com     | Shanku    |
| 24      | Pradip Kumar Sharma | Project Manager    | Genus Power        | 9986410588 | Pradip.Sharma@genus.in        | Shanku    |
| 25      | SAPTARSHI DEB       | Manager            | Genus              | 8420472769 | Saptarshi.Deb@genus.in        | Shanku    |
| 26      | Atul Aseerkar       | Director           | Kaukitech          | 9822409675 | atul.aseerkar@kaukitch.com    | Shanku    |
| 27      |                     |                    |                    |            |                               |           |
| 28      | Balaji Duraisamy    | Team leader        | Kaukitech          | 9739150735 | balaji.duraisamy@kaukitch.com | Shanku    |
| 29      |                     |                    |                    |            |                               |           |
| 30      |                     |                    |                    |            |                               |           |
| 31      |                     |                    |                    |            |                               |           |



भारत सरकार / Government of India  
विद्युत मंत्रालय / Ministry of Power

Annexure B 2.15

उत्तर पूर्वी क्षेत्रीय विद्युत समिति / North Eastern Regional Power Committee  
लपालांग शिलांग - 793006 / Lapalang, Shillong 793006

No. NERPC/SE(O)/OCC/517 - 543

Date: 8<sup>th</sup> May, 2026

सेवा में / To,  
संलग्न सूची के अनुसार / As per list enclosed.

विषय / Sub: "एडीएमएस एएमसी से संबंधित मुद्दों पर चर्चा करने के लिए बैठक" पर बैठक का कार्यवृत्त-  
तत्संबंधी। / Minutes of Meeting on "Meeting to discuss ADMS AMC related issues" -  
reg.

सर/मैडम,  
Sir/Madam,

कृपया अपनी जानकारी और आवश्यक कार्रवाई के लिए वीसी पर 5 मई 2026 को "एडीएमएस एएमसी संबंधित मुद्दों पर चर्चा करने के लिए बैठक" पर बैठक का कार्यवृत्त यहां संलग्न देखें।

Please find enclosed herewith the Minutes of Meeting on "Meeting to discuss ADMS AMC related issues" on 5<sup>th</sup> May 2026 on VC for your kind information and necessary action.

भवदीय / Yours faithfully,

*कंचन चौहान*  
08/05/2026

(कंचन चौहान / Kanchan Chauhan)  
उप निदेशक / Deputy Director  
परिचालन /

Operation

Encl: As above

अभिभाषकों की सूची / List of Addressees:

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.
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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
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23. Head of SLDC, MSPCL, Imphal – 795001
24. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
25. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
26. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
27. Head of SLDC, TSECL, Agartala – 799001



# North Eastern Regional Power Committee

## Minutes of Meeting

### of the meeting held for discussion on

### “The ADMS AMC related issues of NER states”

**Date:** 5<sup>th</sup> May, 2026 (Tuesday)

**Time:** 11:00 Hrs.

**Venue:** Online

**Deputy Director (Operations), NERPC** welcomed all participants and then outlined the background for convening the meeting, referring to the deliberations held during the 237<sup>th</sup> OCC meeting, wherein it was emphasized that ADMS is a critical asset for managing demand during low-frequency and overdrawal conditions in the grid. She highlighted that maintaining ADMS in a healthy operational state is mandatory as per the IEGC provisions. It was further brought to notice that after main project implementation including three-year warranty support by ADMS System Vendor, Manipur, Nagaland, and Tripura have not taken the ADMS System AMC leading to significant operational concerns including Potential system degradation, Loss of real-time control capability of the SS included with ADMS System for Automatic Load Management etc.

**Member Secretary, NERPC** emphasized the need for periodic monitoring of ADMS status across all states and stated that in cases where ADMS is non-operational, the concerned state must take immediate corrective action, failing which the matter may be reported to the Commission. He then requested the 4 (four) States who have undertaken AMC to share their experience with the executing agency so that the forum can take as feedback and then a request can be made to the remaining States in NER to sign the AMC.

**APDCL** apprised that ADMS is functioning satisfactorily in Assam and currently operational in 10 substations across 17 feeders. It was informed that M/s Orbit has been maintaining proper logs and that the utility is satisfied with the performance of the agency since the operationalization of AMC in 2024. The current AMC is valid till March, 2027.

**Arunachal Pradesh** informed that ADMS is presently non-functional at two substations, namely Ranganadi and Nirjuli, and that the matter is being followed up with the distribution team. It was further stated that three substations were funded under PSDF and four additional substations were subsequently identified and expressed to integrate with ADMS for all seven locations. M/s Orbit is maintaining these installations and has deployed one engineer at site under a two-year AMC till March, 2028. Except for the issues mentioned, the system is functioning satisfactorily.

**Meghalaya** informed that the ADMS project was commissioned in 2020 and that AMC has been in place since January 2024 and the current AMC is valid till November, 2026. The system availability is approximately 98%, and the performance has been satisfactory. The state also expressed interest in expanding ADMS coverage to additional substations.

**Manipur** apprised that although ADMS was commissioned in 2020 and operated satisfactorily until 2023, the AMC was not continued due to fund constraint, resulting in the system currently being non-operational, with several substations not reporting to SLDC Manipur. It was also mentioned that during the visit of ED, NERLDC to SLDC Manipur, the importance of ADMS as a critical infrastructure for managing grid stress conditions was emphasized. The representative from Manipur requested that NERPC to highlight the matter to the Managing Director, MSPCL, emphasizing the urgency of restoration of the ADMS and AMC related issue.

**Tripura** informed that due to NERPSIP-related substation shifting, ADMS installations were dismantled at certain locations, resulting in non-availability of the system at those substations. It was further informed that a request had been made to M/s Orbit for a quotation to reintegrate ADMS at the shifted substations; however, no response had been received yet.

**M/s Orbit Techsol India Pvt. Ltd.** apprised that AMC is currently in place with four states, namely Meghalaya, Mizoram, Arunachal Pradesh, and Assam. It was stated that while GPRS-related issues had been observed at some substations, all equipment-related issues were addressed within the stipulated timelines as per the Service Level Agreement (SLA). Regarding Tripura, M/s Orbit stated that a detailed examination of the shifted substations and associated techno-commercial aspects is required before submitting a proposal, and assured that a quotation would be provided upon receipt of the scope from the state.

The agency also stated that considering the gap post mandatory support period a System Healthiness & Operational Status Survey need to be conducted on chargeable basis upon request from State Utility and in case any equipment / subsystem / component is found defective, Orbit shall submit detailed repair/replacement estimate.

In this regard, **Member Secretary, NERPC** stated that since M/s Orbit was the implementing agency and was well acquainted with the system, the System Healthiness & Operational Status Survey should not be conducted on a chargeable basis.

Subsequently, **M/s Orbit** agreed to conduct the survey without any charges. However, it was clarified that if any equipment/subsystem/component is found defective during survey and requires repair or replacement, the associated cost would have to be borne by the concerned State Utility.

**M/s Orbit** presented the cost implications of AMC for all states (copy at **Annexure-I**) and stated that once AMC is in place, the responsibility for maintaining the healthy status of ADMS would lie with M/s Orbit.

**SE-SLDC, Meghalaya** expressed serious concern regarding the need for urgent strengthening of cyber security infrastructure for the ADMS System in line with prevailing CERT-In guidelines applicable to critical IT-OT systems at SLDCs. He highlighted that the existing Router-cum-Firewall infrastructure deployed under ADMS requires early replacement with advanced Next Generation Firewall (NGFW) systems to ensure enhanced protection of the ADMS platform, EMS/SCADA systems, and other associated IT-OT infrastructure against evolving cyber threats.

In view of the common architecture of ADMS implementation across all NER States, he requested NERPC to facilitate and coordinate with the ADMS implementation agency, M/s Orbit, for submission of a comprehensive techno-commercial proposal for NGFW deployment for all seven NER States. He further observed that a centralized NERPC-led approach would help in achieving uniform cyber security standards, optimized technical architecture, and competitive commercial terms for supply, integration, and commissioning of NGFW systems across the region.

**Deputy Director (Communication), NERPC**, apprised the forum about the cyber security concerns being faced by the State SLDCs in ADMS architecture. The concerns can be mitigated by taking the following measures:

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

He further stated that installation of NGFW requires significant cost implication and the discussion for the same with M/s Orbit/GE is underway. In the meantime, the State SLDCs, who are currently using GPRS SIMs with dynamic IPs, can start using M2M SIMs having static IPs as usage of GPRS SIMs restricts IP whitelisting.

Additionally, in ADMS architecture of SLDC Mizoram, 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.

**M/s Orbit** stated that firewalls compliant with current cybersecurity guidelines would be provided for all NER States iro ADMS System and that a detailed techno-commercial proposal would be submitted within two weeks.

**Deputy Director (Communication), NERPC** further requested M/s Orbit to share the technical specifications of the proposed firewall systems and M/s Orbit confirmed to provide the same along with techno-commercial proposal.

**NERLDC** advised that in locations where NGFW are not currently deployed, implementation of M2M SIMs having static IPs may be considered as a cost-effective alternative to enhance security.

**Nagaland** raised concerns regarding cybersecurity incidents and reported that during one such event, attempts to contact engineers from M/s Orbit did not receive timely response, forcing them to shut down the server. The state expressed dissatisfaction with the service provided by the agency.

**Member Secretary, NERPC** advised all states to ensure that AMC is kept in place to avoid operational challenges such as those highlighted by Nagaland. He also requested M/s Orbit to submit their proposal to the respective States for further necessary action. NERPC would take up the matter pertaining to the ADMS situation in Manipur with the Managing Director, MSPCL, through an official communication, and would also take up the matter with higher authorities of Nagaland to resolve the issues. He further affirmed that in cases where AMC is in place and service quality is found to be inadequate, NERPC would initiate appropriate action against the executing agency.

**The meeting concluded with a vote of thanks to the Chair.**

**Attendance List:**

1. Sh. B Lyngkhoi, Member Secretary, NERPC
2. Sh. Alik De, Deputy Director, NERPC
3. Smt. Kanchan Chauhan, Deputy Director, NERPC
4. Sh. Vikash Shankar, Assistant Director, NERPC
5. Sh. Rajnish Kumar, Assistant Director, NERPC
6. Sh. Ashim Kumar Goswami, Assistant Director, NERPC
7. Sh. Anil Debbarma, AGM, SLDC Tripura
8. Sh. Darshan Kumar Das, DM(Comm), APDCL
9. Smt. Sushmita Das, JM, SLDC Assam
10. Sh. Geyi Yinyo, JE, DoP AP
11. Sh. Dani Bayai, JE, DoP AP
12. Smt. Laishram Ritu, GM, MSPCL
13. Smt. E.Pongmei Phom, SDO, Nagaland
14. Sh. Alex E Ngullie, JE, Nagaland
15. Sh. M K War, EE, MePTCL
16. Sh. Rajesh Bhargava, Principal Consultant, M/s Orbit-Techsol
17. Sh. Saugato Mondal, GM, NERLDC
18. Sh. Sakaldeep, Deputy Manager, NERLDC

| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Proposal for Comprehensive AMC & FMS of Meghalaya ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.DEC.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                       |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                           | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comprehensive AMC & FMS of ADMS System of Meghalaya State<br>( ADMS System at SLDC, FTU & other Equipments supplied at 05 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 2661702                          | 221808                            | 7985105                                     | 1437319                                      | 9422424                                     |
| Total AMC Charges for 3 Years excluding GST: Rs. 7985105.00 ( Rupees Seventy Nine Lakhs Eighty Five Thousand One Hundred Five Only )                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 9422424.00 ( Rupees Ninety Four Lakhs Twenty Two Thousand Four Hundred Twenty Four Only )                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management thorough some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on seperate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System. |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                       |         |              |                                  |                                   |                                             |                                              |                                             |

*Rajeev*

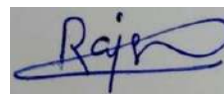


| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of ASSAM ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.MARCH.2027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                    | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comprehensive AMC & FMS of ADMS System of Assam State ( ADMS System at SLDC, FTU & other Equipments supplied at 10 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 3174048                          | 264504                            | 9522143                                     | 1713986                                      | 11236129                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 9522143.00 ( Rupees Ninety Five Lakhs Twenty Two Thousand One Hundred Fourty Three Only )                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 11236129.00 ( Rupees One Crore Twelve Lakhs Thirty Six Thousand One Hundred Twenty Nine Only )                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management thorough some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on seperate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System. |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                |         |              |                                  |                                   |                                             |                                              |                                             |

*Raj*



| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of MIZORAM ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.SEPTEMBER.2027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                            |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comprehensive AMC & FMS of ADMS System of Mizoram ( ADMS System at SLDC, FTU & other Equipments supplied at 03 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 2928879                          | 244073                            | 8786636                                     | 1581595                                      | 10368231                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 8786636.00 ( Rupees Eighty Seven Lakhs Eighty Six Thousand Six Hundred Thirty Six Only )                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 10368231.00 ( Rupees One Crore Three Lakhs Sixty Eight Thousand Two Hundred Thirty One Only )                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management thorough some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on seperate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System. |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                              |                                                                                                                                            |         |              |                                  |                                   |                                             |                                              |                                             |

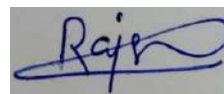



| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of ARUNACHAL PRADESH ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.APRIL.2028                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                         |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                             | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comprehensive AMC & FMS of ADMS System of Arunachal Pradesh<br>( ADMS System at SLDC, FTU & other Equipments supplied at 03 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 2840709                          | 236726                            | 8522126                                     | 1533983                                      | 10056109                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 8522126.00 ( Rupees Eighty Five Lakhs Twenty Two Thousand One Hundred Twenty Six Only )                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 10056109.00 ( Rupees One Crore Fifty Six Thousand One Hundred Nine Only )                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management thorough some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on seperate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System. |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                         |         |              |                                  |                                   |                                             |                                              |                                             |

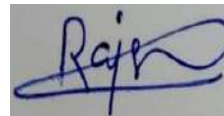
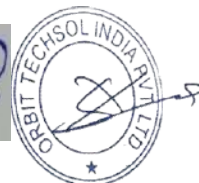
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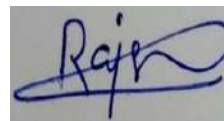
| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of MANIPUR ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.JUNE.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                 |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                                                                                                                                     | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Comprehensive AMC & FMS of ADMS System of Manipur State ( ADMS System at SLDC, FTU & other Equipments supplied at 04 Nos. 33/11 KV Sub-Station) | Lumpsum | 3            | 2874966                          | 239581                            | 8624899                                     | 1552482                                      | 10177381                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 8624899.00 ( Rupees Eighty Six Lakhs Twenty Four Thousand Eight Hundred Ninety Nine Only )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 10177381.00 ( Rupees One Crore One Lakhs Seventy Seven Thousand Three Hundred Eighty One Only )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Mandatory Pre-AMC Conditions (Critical for System Reliability) for Manipur State:</b><br>1. System Healthiness & Operational Status Survey<br>•To be conducted by Orbit on chargeable basis upon request from State Utility : Comprehensive system audit + Preventive maintenance check + Functional validation of entire ADMS ecosystem<br>2. Identification & Restoration of Defective Components<br>•In case any equipment / subsystem / component is found defective, Orbit shall submit detailed repair/replacement estimate and Upon issuance of PO by respective State Utility, Immediate corrective action shall be undertaken and System functionality shall be fully restored and demonstrated<br>6.3 AMC Commencement immediately after Successful restoration & Functional demonstration |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management through some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on separate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System.                                                                                                                                                                                                                                 |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |         |              |                                  |                                   |                                             |                                              |                                             |



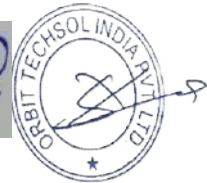

| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of NAGALAND ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.JUNE.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                             |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description                                                                                                                                 | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Comprehensive AMC & FMS of ADMS System of Nagaland ( ADMS System at SLDC, FTU & other Equipments supplied at 04 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 2847039                          | 237253                            | 8541116                                     | 1537401                                      | 10078517                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 8541116.00 ( Rupees Eighty Five Lakhs Forty One Thousand One Hundred Sixteen Only )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 10078517.00 ( Rupees One Crore Seventy Eight Thousand Five Hundred Seventeen Only )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Mandatory Pre-AMC Conditions (Critical for System Reliability) for Nagaland State:</b><br><b>1. System Healthiness &amp; Operational Status Survey</b><br>•To be conducted by Orbit on chargeable basis upon request from State Utility : Comprehensive system audit + Preventive maintenance check + Functional validation of entire ADMS ecosystem<br><b>2. Identification &amp; Restoration of Defective Components</b><br>•In case any equipment / subsystem / component is found defective, Orbit shall submit detailed repair/replacement estimate and Upon issuance of PO by respective State Utility, Immediate corrective action shall be undertaken and System functionality shall be fully restored and demonstrated<br><b>6.3 AMC Commencement immediately after Successful restoration &amp; Functional demonstration</b> |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| <b>Key Services :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management through some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on seperate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :<br>a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.<br>b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System.                                                                                                                                                                                                                                                                   |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                             |         |              |                                  |                                   |                                             |                                              |                                             |

| ANNEXURE-I                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------------------------------|
| Revised Proposal for Comprehensive AMC & FMS of TRIPURA ADMS System                                                                                                                                                                                                                                                                              |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| AMC Duration/Contract : 03 Years                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| System AMC & FMS Contract Effective from 01.JUNE.2026                                                                                                                                                                                                                                                                                            |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
|                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                  |         |              | Rs.                              |                                   |                                             |                                              |                                             |
| S.No.                                                                                                                                                                                                                                                                                                                                            | Description                                                                                                                                      | Unit    | No. of Years | Yearly AMC Charges - Basic Value | Monthly AMC Charges - Basic Value | Total AMC Charges for 3 Years - Basic Value | GST@18 % on Total 3 Years Basic Value of AMC | Total AMC Charges for 3 Years including GST |
| 1                                                                                                                                                                                                                                                                                                                                                | Comprehensive AMC & FMS of ADMS System of Tripura State ( ADMS System at SLDC, FTU & other Equipments supplied at 05 Nos. 33/11 KV Sub-Stations) | Lumpsum | 3            | 2887959                          | 240663                            | 8663876                                     | 1559498                                      | 10223374                                    |
| Total AMC Charges for 3 Years excluding GST: Rs. 8663876.00 ( Rupees Eighty Six Lakhs Sixty Three Thousand Eight Hundred Seventy Six Only )                                                                                                                                                                                                      |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| Total AMC Charges for 3 Years including GST: Rs. 10223374.00 ( Rupees One Crore Two Lakhs Twenty Three Thousand Three Hundred Seventy Four only)                                                                                                                                                                                                 |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| Mandatory Pre-AMC Conditions (Critical for System Reliability) for Tripura State:                                                                                                                                                                                                                                                                |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. System Healthiness & Operational Status Survey                                                                                                                                                                                                                                                                                                |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| •To be conducted by Orbit on chargeable basis upon request from State Utility : Comprehensive system audit + Preventive maintenance check + Functional validation of entire ADMS ecosystem                                                                                                                                                       |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. Identification & Restoration of Defective Components                                                                                                                                                                                                                                                                                          |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| •In case any equipment / subsystem / component is found defective, Orbit shall submit detailed repair/replacement estimate and Upon issuance of PO by respective State Utility, Immediate corrective action shall be undertaken and System functionality shall be fully restored and demonstrated                                                |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 6.3 AMC Commencement immediately after Successful restoration & Functional demonstration                                                                                                                                                                                                                                                         |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| Key Services :                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 1. 01 Nos. dedicated resource at each State SLDC for 8 Hrs x 5 Day (10 AM - 6 PM) for ADMS System Operation & Maintenance                                                                                                                                                                                                                        |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 2. System HW support management thorough some Spares ( MFT, Relays) and AMC support through authorized services partners of OEM for Server, FTU with Modem, Switch, Router cum FW and Screens.                                                                                                                                                   |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 3. Laptop Support Services can be taken on separate Chargeable basis as and when required on mutually agreed rates                                                                                                                                                                                                                               |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 4. Cyber Security Compliant System operation & maintenance :                                                                                                                                                                                                                                                                                     |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| a) Orbit shall ensure that the ADMS system SW shall be maintained in line with the currently applicable guidelines for IT/OT system Application SW.                                                                                                                                                                                              |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| b) All State Utilities (Owners) are requested to upgrade the Server OS, Switches and FW cum Routers in each ADMS System for which cost is to be borne by the Owners. Orbit shall support to provide the competitive and technically compliant Equipments and other SW to ensure their compliance to current CERT-IN guidelines for IT/OT System. |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 5. System Backup & Restoration : Server Management                                                                                                                                                                                                                                                                                               |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 6. Preventive Maintenance activities for Overall ADMS System                                                                                                                                                                                                                                                                                     |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |
| 7. Availability of all communication System from S/S to ADMS Control Center ( Redundant GPRS communication) and dedicated min. 2Mbps Internet connection at SLDC for ADMS System is under responsibility of the State Power Utility(Owner)                                                                                                       |                                                                                                                                                  |         |              |                                  |                                   |                                             |                                              |                                             |




| NER ADMS PROJECT : PROPOSED CHARGES FOR ADMS SYSTEM AMC & FMS - WITHOUT LAPTOP AMC (3 YEARS PERIOD) FOR ALL 7 STATES_05MAY26 |                                                          |                                 |                            |                                        |          |                                                  |                                       |                                         |                                             |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------|----------------------------|----------------------------------------|----------|--------------------------------------------------|---------------------------------------|-----------------------------------------|---------------------------------------------|
|                                                                                                                              |                                                          |                                 |                            | Rs.                                    |          |                                                  |                                       |                                         |                                             |
| S.No                                                                                                                         | State & State Power Utility                              | AMC & FMS Start Date (Proposed) | No. of Years for AMC & FMS | Yearly AMC & FMS Charges (Basic Value) | GST @18% | Total AMC & FMS Charges for 1 Year including GST | Estimated Monthly Charges without GST | Estimated Monthly Charges including GST | AMC & FMS Charges for 3 Years including GST |
| 1                                                                                                                            | Meghalaya Power Transmission Corporation Ltd , Meghalaya | 01.12.2026                      | 3                          | 2661702                                | 479106   | 3140808                                          | 221808                                | 261734                                  | 9422424                                     |
| 2                                                                                                                            | Assam Power Distribution Company Ltd, Assam              | 01.03.2027                      | 3                          | 3174048                                | 571329   | 3745376                                          | 264504                                | 312115                                  | 11236129                                    |
| 3                                                                                                                            | Power & Electricity Department, Mizoram                  | 01.09.2027                      | 3                          | 2928879                                | 527198   | 3456077                                          | 244073                                | 288006                                  | 10368231                                    |
| 4                                                                                                                            | Department of Power, Arunachal Pradesh                   | 01.04.2028                      | 3                          | 2840709                                | 511328   | 3352036                                          | 236726                                | 279336                                  | 10056109                                    |
| 5                                                                                                                            | Manipur State Power Company Ltd, Manipur                 | 01.06.2026                      | 3                          | 2874966                                | 517494   | 3392460                                          | 239581                                | 282705                                  | 10177381                                    |
| 6                                                                                                                            | Department of Power, Nagaland                            | 01.06.2026                      | 3                          | 2847039                                | 512467   | 3359506                                          | 237253                                | 279959                                  | 10078517                                    |
| 7                                                                                                                            | Tripura State Electricity Corporation Ltd, Tripura       | 01.06.2026                      | 3                          | 2887959                                | 519833   | 3407791                                          | 240663                                | 283983                                  | 10223374                                    |
| TOTAL (Rs.)                                                                                                                  |                                                          |                                 |                            |                                        |          |                                                  |                                       |                                         | <b>71562165</b>                             |



| Sl.No | Sector         | Node Name                                                                                                                                                                                                                                             | Taking Over Certificate date |
|-------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 1     | Central Sector | Misa, Kolasib, Aizawl, BTPS, NTPC (Salakati, NTPC), Silchar PG, Balipara, Jiribam, Badarpur (PG), Bongaigaon.                                                                                                                                         | 31.10.2018                   |
|       |                | Umium III, Umium 1, Nehu, Shillong, Khliehriat, Khandong, Kopili, Dimapur, Imphal, Kohima, Badarpur, Kumarghat, Agartala-RC Nagar, Agartala-79 Tlla, Bongaigaon-Only PDH, Melriat, Salakati, mariani, Nirjuli, Ranganadi, Umtru, Itanagar SLDC, Pare. | 22.05.2019                   |
| 2     | Assam Sector   | BTPS (Salakati AEGCL), Badarpur (AEGCL Panchgram), Srikona (ARGCL), Pailapool, Kahilipara, Sarusaji, Mirza, Boko, Agia, Samaguri, Lakwa, Namrup, Mariani AEGCL, Tinsukia and Gohpur                                                                   | 31.01.2018                   |

**Unquote**

At present UNMS vendor has provided manpower for maintenance of the UNMS system at STU/SLDC where UNMS console for state is placed. However, for efficient supervision and monitoring of communication system and better redundancy for transmission of data, VoIP, PMU etc, all NER state entities are required to nominate Nodal officer(s) from respective states.

This agenda has been deliberated in 8<sup>th</sup> CPM meeting where in forum agreed for the submission of said denominations but CTU hasn't received any nomination of nodal officers from respective states for coordination with Regional Network Monitoring Team of UNMS

**Deliberation:**

CTU stated that CERC guidelines on procedure for maintenance and testing of communication system mandates that Communication system owner/user shall identify Nodal officer(s) for coordination with NMT.

Accordingly, CTU requested all the NER stakeholders (RLDC, STU, TSP) to nominate and provide the details of the Nodal officers on priority from the respective states for coordination with NMT team for efficient supervision and monitoring of communication system.

Forum agreed for the same.

**6. Inclusion of inter-regional/cross border/ missing links in dashboard of UNMS (CTUIL)**

UNMS for NER region has been commissioned in Dec'23. It has been noticed that inter regional/cross-border links and some of the links/nodes of the communication system are not incorporated in the UNMS. Accordingly, ULDC and NMT are requested to provide the details of all those nodes/links which aren't incorporated in the UNMS and integrate them into UNMS for better visibility and supervision. A separate dashboard maybe incorporated in the UNMS for inter-regional and cross border links for specific monitoring.

**Deliberation:**

CTU submitted that inter-regional/cross border links are to be incorporated in regional UNMS and suggested for a separate dashboard for the inter-regional/cross border links for better monitoring and planning purposes.

POWERGRID stated that the dashboard has been created. However, CTUIL stated that they will confirm the same from the CTUIL UNMS Console.

Further, CTUIL checked and updated the status to POWERGRID regarding the same and POWERGRID incorporated the required dashboard for inter regional/cross border links on 25.03.2026.

**7. Capacity Upgradation for ISTS Inter regional connectivity: CTUIL**

Backup for ERLDC and NRLDC has been planned to be established at Back up NERLDC, Guwahati. In order to cater the expected increase in bandwidth requirement for transmission of

## *Minutes for 9<sup>th</sup> NER Communication Planning Meeting*

data from Backup ERLDC, Backup NRLDC, Main and Backup NERLDC, capacity of existing inter-regional links may be upgraded.

Available Inter regional links for NER:

**A. Existing OPGW link for Leased line/ Bandwidth provisioning:**

- 400kV Bongaigaon-Binaguri (Planned for STM-16)

**B. Existing OPGW link:**

- 220kV Salakati-Alipurduar (STM-4)
- BiswanathChariali- Alipurduar-Agra (HVDC)-(STM-4)

**C. Upcoming OPGW link:**

- 400kV Bornagar-Alipurduar-Binaguri (Planned for STM-16)

GRID-INDIA/POWERGRID may confirm the link capacity status and requirement of bandwidth for planned backup ERLDC and backup NRLDC.

### **Deliberation:**

In view of above agenda, the requirement was noted and CTUIL stated that for the inter regional links between ER and NER, there is requirement of upgradation of capacity to STM-64.

Forum suggested to upgrade the capacity of both main and back up links to STM-64 and this capacity upgradation shall be required upto RLDC.

For this CTUIL asked to mention the path with node name that are required for the upgradation to STM -64.

NERLDC stated that the following nodes may be upgraded in NER so that STM- 64 ring link is established:

400kV Bongaingaon(PG) - 220kV Salakati - 220kV BTPS(Assam) - 220kV Agia (Assam) - 220kV Boko (Assam) - 400kV Azara (Assam) - 220KV Sarusajai (Assam) - 132kV Kahilipara (Assam) - NERLDC Guwahati– 132kV Umtru (Meghalaya) – 132kV Umiam III (Meghalaya) - 132kV Umiam I (Meghalaya) – 132kV Umiam (Meghalaya) - 132kV NEHU (Meghalaya) – NERLDC Shillong – 132kV Neigrihms (Meghalaya) – 132kV Khleihriat (Meghalaya) – 132kV Khleihriat(PG) – 132kV Khandong (NEEPCO) – 220kV Kopili (NEEPCO) – 400kV Misa (PGCIL) – 400kV Balipara (PGCIL) – 400kV Bongaingaon (PGCIL) to form a ring considering NERLDC.

The ring comprises of ISGS, ISTS and State-owned stations. Among these state-owned stations are mentioned below:

State owned stations- 220kV BTPS(As), 220kV Agia, 220kV Boko, 400kV Azara, 220KV Sarusajai, 132kV Kahilipara, 132kV Umtru, 132kV Umiam III, 132kV Umiam I, 132kV Umiam, 132kV NEHU, 132kV Neigrihms, 132kV Khleihriat.

## *Minutes for 9<sup>th</sup> NER Communication Planning Meeting*

CTUIL stated that POWERGRID, UNMS NMT is yet to provide the path details with node name for capacity upgradation and present capacity utilisation for both main and back up path. POWERGRID agreed to provide the same at the earliest. A system generated report may be also supplemented for the same.

ERLDC has provided capacity requirement for different services as per attached **Annexure V**.

CTU further stated that based on the inputs provided by POWERGRID & NERLDC, path(nodes) for capacity upgradation shall be planned and accordingly the scheme shall be prepared.

For complete upgradation(STM 64 capacity) from main RLDC(ERLDC,NRLDC) to back up RLDC(ERLDC,NRLDC) similar links needs to be identified in ER and NR region.

### **8. Migration from Legacy SDH to MPLS-TP technology for NER ISTS communication network**

Joint committee of MPLS-TP has recommended the following:

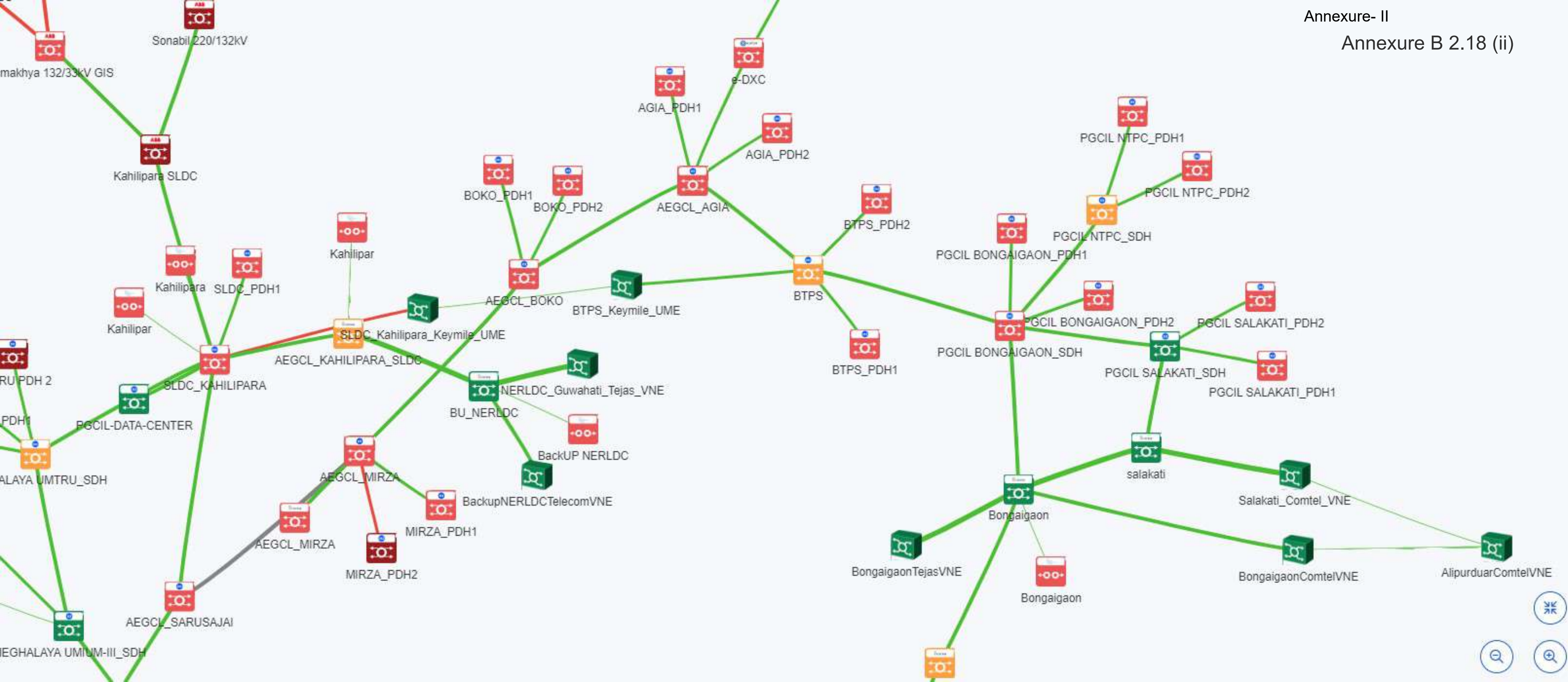
#### **As per Clause no 5.3.3 of JC MPLS-TP report**

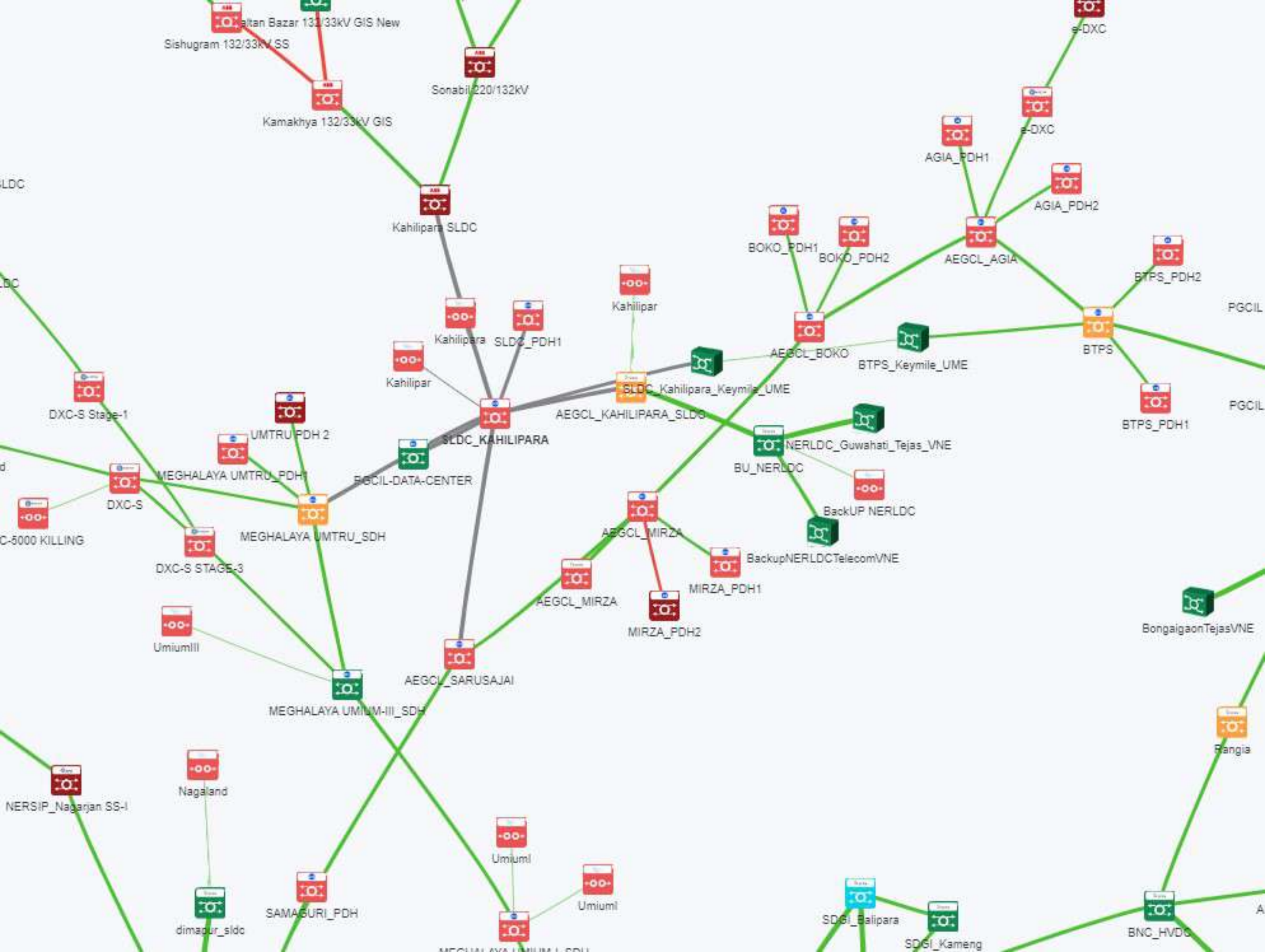
- The Rollover from SDH to MPLS of the existing Main & Backup control centers (SLDCs & RLDC) along with their existing ISTS stations (RTM/TBCB) is suggested to be implemented first in a smaller region like NER.
- This Rollover is suggested to be connected through additional pairs of fibers on MPLS TP Network with suitable and optimized provision of repeaters and proper configuration on Regional/National UNMS. Moreover, to meet the space constraints in the Control Room (CR) of the stations, the equipment panels can be optimized for SDH & MPLS equipment.
- There may be some intervening STU nodes on the ISTS paths, which shall also be taken up after deliberations in appropriate RPC forums for the said network implementations.
- After completion of the rollover of MPLS TP Network in the ISTS system, the existing nodes of IPP/RE/Bulk consumers etc. shall be required to ensure integration of their existing communication equipment in line with the above-mentioned steps for rollover to MPLS TP Network and proper configuration on Regional/National UNMS.

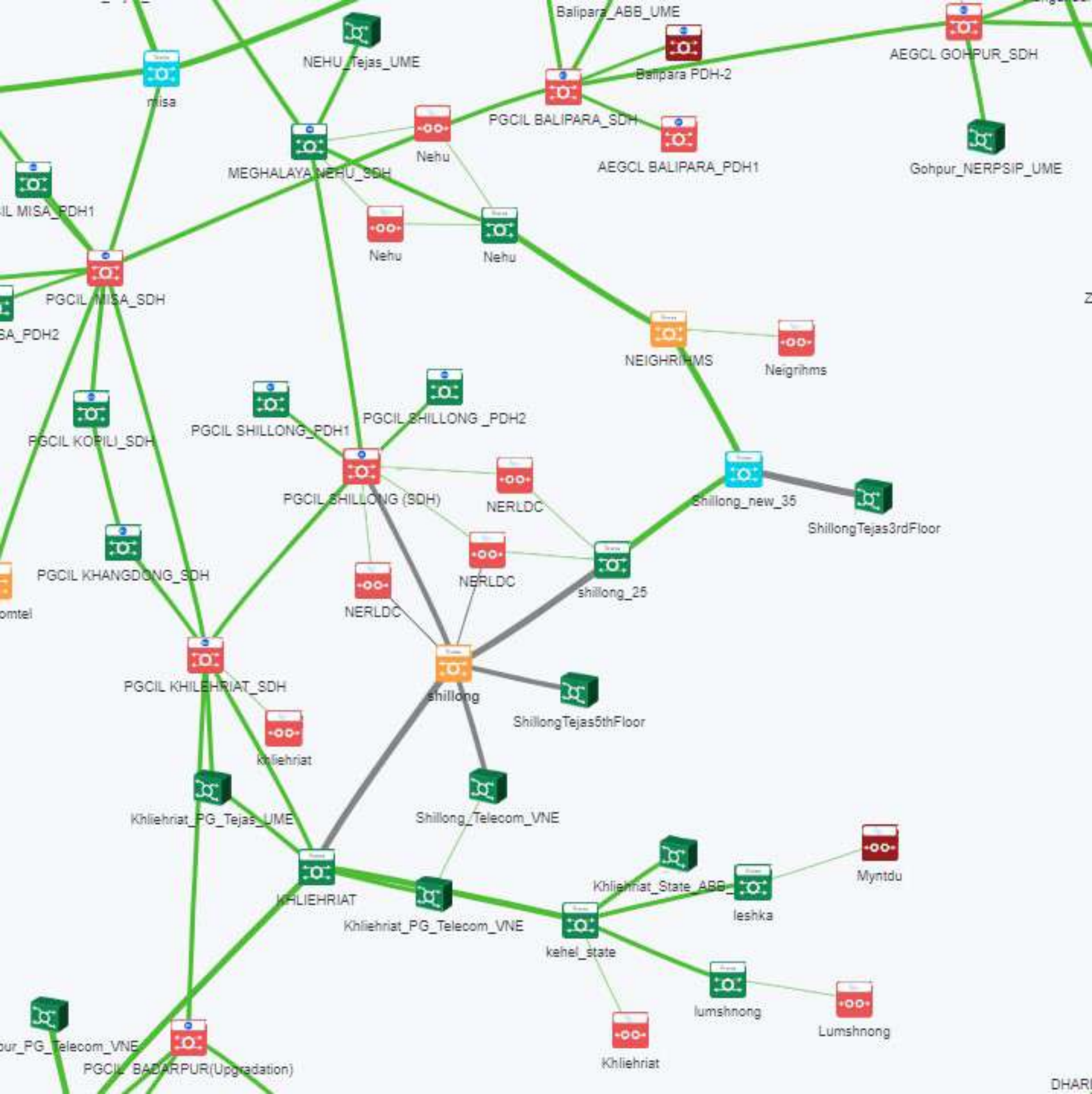
Accordingly, CTUIL has prepared a Draft Technical Specifications for MPLS-TP. For Planning of MPLS-TP network in NER POWERGRID is suggested to provide the following details:

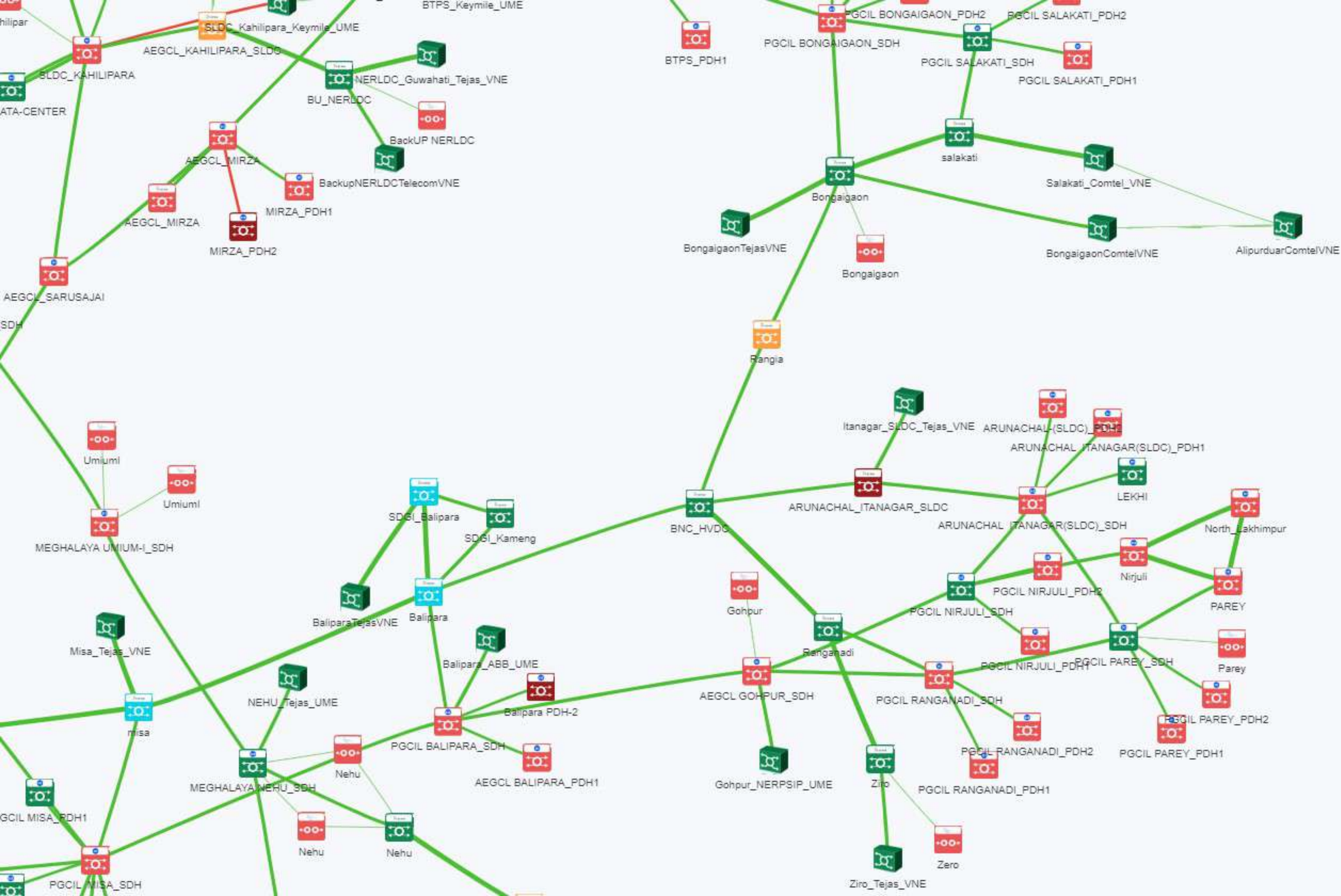
- **Ring Connectivity of all the NER ISTS/ISGS Nodes**
- **Spare fibre details of all the ISTS links**
- **Spare port details of existing nodes**
- **Requirement of MPLS-TP Equipment at ISTS/ISGS nodes and at intermediate STU/Non-ISTS/Non-ISGS Nodes for forming MPLS-TP Link.**

**Deliberation:**











**ग्रीड 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)]  
**राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre**

कार्यालय : बी-9, प्रथम एवं द्वितीय तल, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016  
Office : 1<sup>st</sup> and 2<sup>nd</sup> Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016  
CIN : U40105DL2009GOI188682, Website : www.grid-india.in, E-mail : gridindiacc@grid-india.in, Tel.: 011- 42785855

Date: 26 June 2026

Ref. No.: NLDC/SO/AGC/Communication/2026/

To

**Executive Director (GA &C)**  
**Power Grid Corporation of India Limited**  
**01<sup>st</sup> Floor, Plot No.42, Sector 44, EPFO Office**  
**Gurgram -122001, Haryana**

**Subject: Strengthening of monitoring and restoration mechanisms for Automatic Generation Control (AGC) communication links**

**Reference:**

- (i) SOP for AGC Communication Management as per NLDC Detailed Procedure for SRAS
- (ii) NLDC vide letters dated 14.07.2022 and 31.08.2022 to POWERGRID regarding standard operating procedure (SOP) for management of AGC communication
- (iii) POWERGRID vide letters dated 26.07.2022 and 17.10.2022 to NLDC regarding availability of communication links for AGC
- (iv) Minutes of meeting dated 24.06.2022 on improving AGC communication

**Sir/Madam,**

Secondary Reserve Ancillary Services (SRAS) for frequency regulation has been implemented in India through Automatic Generation Control Operation of 89 power plants with aggregate capacity of 85.6 GW. Availability of communication links is indispensable for operation of AGC and for reliability of the grid. On 23 June 2026, at around 2030 hrs, all standby communication links of the Western Region (WR) plants and all ULDC links of the Southern Region (SR) plants failed which resulted in unavailability of frequency regulation service from 13 number of power plants with aggregate capacity of 14.5 GW. The failure of multiple communication links was brought to the notice of the POWERGRID-ULDC team at 2151 hrs by NLDC Control room. It is a matter of concern that the communication links remained unavailable for the entire night and were restored only at 1030 hrs on 24 June 2026.

Such a prolonged outage of vital communication link warrants an urgent review in respect of the redundancy of the system importantly from the perspective of –

- a. Common mode failure/single point failure,
- b. Round-the-clock monitoring of link availability and
- c. Dissemination of the outage information to the maintenance team.

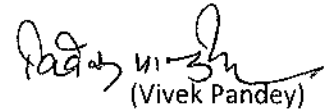
Coordination and jurisdiction issues were observed when inter-regional links are involved in the AGC communication. It is necessary to monitor and manage the end-to-end communication link availability from NLDC to the power plant, irrespective of the involvement of inter-regional lines/jurisdiction. Availability of spares, crisis response, and last mile connectivity issues needs further review and strengthening by POWERGRID. It is requested that the concerned team may be advised to share the event chronology, detailed root-cause analysis of the communication outage of 23-24 June 2026 and the implementation of actions to avoid such outages.

Considering the ongoing efforts for expanding the ambit of AGC to add more number of intrastate plants, it is imperative to take adequate measures for improving monitoring of the end-to-end communication of the plants. Link-wise availability statistics of all the power plants wired in AGC, for the preceding month is enclosed as **Annexure-I**.

Unified Network Monitoring System (UNMS) has been commissioned by POWERGRID at all Regions. In this regard, it is requested that necessary action may kindly be taken to ensure deployment of adequate manpower for round-the-clock NOC operations. It is requested to share an updated region-wise list of 24x7 nodal officers, shift contacts and first/second-level escalation contacts of POWERGRID executives, as the personnel nominated earlier in 2022 may have changed. Any subsequent change shall be communicated promptly to NLDC and all stakeholders.

A few suggestions in this regard for kind consideration are enclosed as **Annexure-II**. Looking forward to your continued support in ensuring reliability of communication system for power systems operations.

Yours faithfully,



(Vivek Pandey)

**Chief General Manager, NLDC**

**Encl.:**

1. Annexure-I - Link-wise availability statistics for the preceding month.
2. Annexure-II - Suggestions for securing the availability of communication for power system

**Copy to:**

1. Member (GO&D), CEA
2. Member Secretary, WRPC
3. Member Secretary, SRPC
4. Member Secretary, NPC
5. Executive Director, NLDC, GRID-INDIA
6. Chief Operating Officer, CTUIL
7. Heads of NRLDC/WRLDC/SRLDC/ERLDC/NERLDC

### Annexure-I

| Communication link availability of the AGC power plants -- June 2026 |                            |               |                         |
|----------------------------------------------------------------------|----------------------------|---------------|-------------------------|
| Sl No.                                                               | Communication Link         | Station       | Percentage Availability |
| 1                                                                    | DTHM_ST1_CHGRP_ULDC_LINK1  | DADRI1        | 0%                      |
| 2                                                                    | DTHM_ST1_CHGRP_ULDC_LINK2  |               | 100%                    |
| 3                                                                    | RIHND1_CS_ULDC_LINK_1      | RIHAND1       | 100%                    |
| 4                                                                    | RIHND1_CS_ULDC_LINK_2      |               | 100%                    |
| 5                                                                    | CHMR1_NH_ULDC_LINK_2       | CHAMERA1      | 99%                     |
| 6                                                                    | CHMR1_NH_ULDC_LINK_1       |               | 91%                     |
| 7                                                                    | NPHTA_NJ_CHGRP_ULDC_LINK2  | NJPC          | 100%                    |
| 8                                                                    | NPHTA_NJ_CHGRP_ULDC_LINK1  |               | 100%                    |
| 9                                                                    | TEHRI_TH_CHGRP_ULDC_LINK2  | TEHRI         | 100%                    |
| 10                                                                   | TEHRI_TH_CHGRP_ULDC_LINK1  |               | 0%                      |
| 11                                                                   | UNCH4_NT_CHGRP_ULDC_LINK2  | UNCHAHAAR4    | 100%                    |
| 12                                                                   | UNCH4_NT_CHGRP_ULDC_LINK1  |               | 100%                    |
| 13                                                                   | ANTA_CS_CHGRP_ULDC_LINK2   | ANTA          | 0%                      |
| 14                                                                   | ANTA_CS_CHGRP_ULDC_LINK1   |               | 99%                     |
| 15                                                                   | UNCH3_NT_CHGRP_ULDC_LINK2  | UNCHAHAAR3    | 100%                    |
| 16                                                                   | UNCH3_NT_CHGRP_ULDC_LINK1  |               | 100%                    |
| 17                                                                   | UNCH2_NT_CHGRP_ULDC_LINK2  | UNCHAHAAR2    | 100%                    |
| 18                                                                   | UNCH2_NT_CHGRP_ULDC_LINK1  |               | 100%                    |
| 19                                                                   | SINGR_NT_CHGRP_ULDC_LINK2  | SINGRAULI     | 100%                    |
| 20                                                                   | SINGR_NT_CHGRP_ULDC_LINK1  |               | 100%                    |
| 21                                                                   | RIHND3_CS_CHGRP_ULDC_LINK2 | RIHAND3       | 100%                    |
| 22                                                                   | RIHND3_CS_CHGRP_ULDC_LINK1 |               | 94%                     |
| 23                                                                   | RIHND2_CS_CHGRP_ULDC_LINK2 | RIHAND2       | 100%                    |
| 24                                                                   | RIHND2_CS_CHGRP_ULDC_LINK1 |               | 100%                    |
| 25                                                                   | DULHA_NH_CHGRP_ULDC_LINK2  | DULHASTI      | 0%                      |
| 26                                                                   | DULHA_NH_CHGRP_ULDC_LINK1  |               | 91%                     |
| 27                                                                   | SEWA2_NH_CHGRP_ULDC_LINK2  | SEWA2         | 0%                      |
| 28                                                                   | SEWA2_NH_CHGRP_ULDC_LINK1  |               | 93%                     |
| 29                                                                   | CHMR3_NH_CHGRP_ULDC_LINK2  | CHAMERA3      | 0%                      |
| 30                                                                   | CHMR3_NH_CHGRP_ULDC_LINK1  |               | 91%                     |
| 31                                                                   | DHULI_NH_CHGRP_ULDC_LINK2  | DHAULIGNGA    | 100%                    |
| 32                                                                   | DHULI_NH_CHGRP_ULDC_LINK1  |               | 100%                    |
| 33                                                                   | CHMR2_NH_CHGRP_ULDC_LINK2  | CHAMERA2      | 99%                     |
| 34                                                                   | CHMR2_NH_CHGRP_ULDC_LINK1  |               | 91%                     |
| 35                                                                   | BAIRA_NH_CHGRP_ULDC_LINK2  | BAIRASIUL     | 0%                      |
| 36                                                                   | BAIRA_NH_CHGRP_ULDC_LINK1  |               | 90%                     |
| 37                                                                   | KTSWR_TH_CHGRP_ULDC_LINK2  | KOTESHWAR     | 99%                     |
| 38                                                                   | KTSWR_TH_CHGRP_ULDC_LINK1  |               | 100%                    |
| 39                                                                   | DTHM_ST2_NT_ULDC_LINK2     | DADRI2        | 92%                     |
| 40                                                                   | DTHM_ST2_NT_ULDC_LINK1     |               | 0%                      |
| 41                                                                   | DRGS_NT_CHGRP_ULDC_LINK2   | DADRI_GAS     | 0%                      |
| 42                                                                   | DRGS_NT_CHGRP_ULDC_LINK1   |               | 100%                    |
| 43                                                                   | IGSTPS_NT_CHGRP_ULDC_LINK2 | IGSTPSJHAJJAR | 94%                     |
| 44                                                                   | IGSTPS_NT_CHGRP_ULDC_LINK1 |               | 95%                     |

| Communication link availability of the AGC power plants -- June 2026 |                               |           |                         |
|----------------------------------------------------------------------|-------------------------------|-----------|-------------------------|
| Sl No.                                                               | Communication Link            | Station   | Percentage Availability |
| 45                                                                   | TANDA_NT_CHGRP_ULDC_LINK2     | TANDA2    | 0%                      |
| 46                                                                   | TANDA_NT_CHGRP_ULDC_LINK1     |           | 100%                    |
| 47                                                                   | AURIY_NT_CHGRP_ULDC_LINK2     | AURAIYA   | 100%                    |
| 48                                                                   | AURIY_NT_CHGRP_ULDC_LINK1     |           | 100%                    |
| 49                                                                   | KHRGN_NT_CHGRP_ULDC_LINK2     | KHARGONE  | 99%                     |
| 50                                                                   | KHRGN_NT_CHGRP_ULDC_LINK1     |           | 99%                     |
| 51                                                                   | CGPLM_GS_ULDC_LINK_1          | CGPL      | 0%                      |
| 52                                                                   | CGPLM_GS_ULDC_LINK_2          |           | 95%                     |
| 53                                                                   | SNTPC_GS_CHGRP_ULDC_LINK2     | SOLAPUR   | 90%                     |
| 54                                                                   | SNTPC_GS_CHGRP_ULDC_LINK1     |           | 100%                    |
| 55                                                                   | JHANOR_GS_CHGRP_ULDC_LINK2    | GANDHAR   | 99%                     |
| 56                                                                   | JHANOR_GS_CHGRP_ULDC_LINK1    |           | 100%                    |
| 57                                                                   | VSTP5_GS_CHGRP_ULDC_LINK2     | VSTPS5    | 100%                    |
| 58                                                                   | VSTP5_GS_CHGRP_ULDC_LINK1     |           | 100%                    |
| 59                                                                   | VSTP4_GS_CHGRP_ULDC_LINK2     | VSTPS4    | 100%                    |
| 60                                                                   | VSTP4_GS_CHGRP_ULDC_LINK1     |           | 81%                     |
| 61                                                                   | VSTP3_GS_CHGRP_ULDC_LINK2     | VSTPS3    | 100%                    |
| 62                                                                   | VSTP3_GS_CHGRP_ULDC_LINK1     |           | 87%                     |
| 63                                                                   | VSTPS_1_GS_CHGRP_ULDC_LINK2   | VSTPS2    | 100%                    |
| 64                                                                   | VSTPS_1_GS_CHGRP_ULDC_LINK1   |           | 86%                     |
| 65                                                                   | SIPAT_II_GS_CHGRP_ULDC_LINK2  | SIPAT2    | 99%                     |
| 66                                                                   | SIPAT_II_GS_CHGRP_ULDC_LINK1  |           | 100%                    |
| 67                                                                   | SIPAT_GS_CHGRP_ULDC_LINK2     | SIPAT1    | 99%                     |
| 68                                                                   | SIPAT_GS_CHGRP_ULDC_LINK1     |           | 100%                    |
| 69                                                                   | KSTPS_3_GS_CHGRP_ULDC_LINK2   | KSTPS3    | 99%                     |
| 70                                                                   | KSTPS_3_GS_CHGRP_ULDC_LINK1   |           | 100%                    |
| 71                                                                   | KSTPS_GS_CHGRP_ULDC_LINK2     | KSTPS1&2  | 99%                     |
| 72                                                                   | KSTPS_GS_CHGRP_ULDC_LINK1     |           | 100%                    |
| 73                                                                   | NSPCL_CG_CHGRP_ULDC_LINK2     | NSPCL     | 99%                     |
| 74                                                                   | NSPCL_CG_CHGRP_ULDC_LINK1     |           | 100%                    |
| 75                                                                   | MAUDA_II_GS_CHGRP_ULDC_LINK2  | MOUDA2    | 31%                     |
| 76                                                                   | MAUDA_II_GS_CHGRP_ULDC_LINK1  |           | 100%                    |
| 77                                                                   | KAWAS_NT_CHGRP_ULDC_LINK2     | KAWAS     | 99%                     |
| 78                                                                   | KAWAS_NT_CHGRP_ULDC_LINK1     |           | 0%                      |
| 79                                                                   | GADARWARA_NT_CHGRP_ULDC_LINK2 | GADARWARA | 98%                     |
| 80                                                                   | GADARWARA_NT_CHGRP_ULDC_LINK1 |           | 100%                    |
| 81                                                                   | LARA_NT_CHGRP_ULDC_LINK2      | LARA      | 99%                     |
| 82                                                                   | LARA_NT_CHGRP_ULDC_LINK1      |           | 100%                    |
| 83                                                                   | MAUDA_I_NT_CHGRP_ULDC_LINK2   | MOUDA1    | 31%                     |
| 84                                                                   | MAUDA_I_NT_CHGRP_ULDC_LINK1   |           | 100%                    |
| 85                                                                   | NLY12_NT_CHGRP_ULDC_LINK1     | NLCTPS2   | 0%                      |
| 86                                                                   | NLY12_NT_CHGRP_ULDC_LINK2     |           | 0%                      |

| Communication link availability of the AGC power plants -- June 2026 |                                  |               |                         |
|----------------------------------------------------------------------|----------------------------------|---------------|-------------------------|
| Sl No.                                                               | Communication Link               | Station       | Percentage Availability |
| 87                                                                   | VALUR_CS_ULDC_LINK_2             | NTECLVALLUR   | 98%                     |
| 88                                                                   | VALUR_CS_ULDC_LINK_1             |               | 95%                     |
| 89                                                                   | NTPL_CS_ULDC_LINK_2              | NTPL          | 97%                     |
| 90                                                                   | NTPL_CS_ULDC_LINK_1              |               | 96%                     |
| 91                                                                   | NNTPP_CS_CHGRP_ULDC_LINK2        | NNTPP         | 99%                     |
| 92                                                                   | NNTPP_CS_CHGRP_ULDC_LINK1        |               | 96%                     |
| 93                                                                   | SMDR_CS1_CHGRP_ULDC_LINK2        | SIMHADRI1     | 99%                     |
| 94                                                                   | SMDR_CS1_CHGRP_ULDC_LINK1        |               | 96%                     |
| 95                                                                   | NLTS2_CS_CHGRP_ULDC_LINK2        | NLCTPS2       | 99%                     |
| 96                                                                   | NLTS2_CS_CHGRP_ULDC_LINK1        |               | 96%                     |
| 97                                                                   | RMGDM_III_CS_CHGRP_ULDC_LINK2    | RAMAGUNDAM3   | 99%                     |
| 98                                                                   | RMGDM_III_CS_CHGRP_ULDC_LINK1    |               | 96%                     |
| 99                                                                   | RMGDM_I_II_ULDC_LINK2            | RAMAGUNDAM1&2 | 99%                     |
| 100                                                                  | RMGDM_I_II_ULDC_LINK1            |               | 96%                     |
| 101                                                                  | NLY1E_CS_CHGRP_ULDC_LINK2        | NLCTPS1EXP    | 99%                     |
| 102                                                                  | NLY1E_CS_CHGRP_ULDC_LINK1        |               | 92%                     |
| 103                                                                  | NLY2E_CS_CHGRP_ULDC_LINK2        | NLCTPS2EXP    | 99%                     |
| 104                                                                  | NLY2E_CS_CHGRP_ULDC_LINK1        |               | 96%                     |
| 105                                                                  | KUDGI_CS_CHGRP_ULDC_LINK2        | KUDGI         | 99%                     |
| 106                                                                  | KUDGI_CS_CHGRP_ULDC_LINK1        |               | 96%                     |
| 107                                                                  | SMDR_CS2_CHGRP_ULDC_LINK2        | SIMHADRI2     | 99%                     |
| 108                                                                  | SMDR_CS2_CHGRP_ULDC_LINK1        |               | 96%                     |
| 109                                                                  | KBUNL_ST2_NT_CHGRP_ULDC_LINK2    | MTPS-II       | 96%                     |
| 110                                                                  | KBUNL_ST2_NT_CHGRP_ULDC_LINK1    |               | 94%                     |
| 111                                                                  | TALCH_ST1_CHGRP_ULDC_LINK2       | TALCHER1      | 0%                      |
| 112                                                                  | TALCH_ST1_CHGRP_ULDC_LINK1       |               | 98%                     |
| 113                                                                  | TALCH_ST2_CHGRP_ULDC_LINK1       | TALCHER2      | 98%                     |
| 114                                                                  | TALCH_ST2_CHGRP_ULDC_LINK2       |               | 0%                      |
| 115                                                                  | BARH_1_CHGRP_ULDC_LINK2          | BARH1         | 99%                     |
| 116                                                                  | BARH_1_CHGRP_ULDC_LINK1          |               | 96%                     |
| 117                                                                  | KAHAL_PG_ULDC_LINK_2             | KAHAL2        | 96%                     |
| 118                                                                  | KAHAL_PG_ULDC_LINK_1             |               | 99%                     |
| 119                                                                  | RANGI_CS_CHGRP_ULDC_LINK2        | RANGIT        | 0%                      |
| 120                                                                  | RANGI_CS_CHGRP_ULDC_LINK1        |               | 0%                      |
| 121                                                                  | MTHRB_PG_CHGRP_ULDC_LINK2        | MPL           | 0%                      |
| 122                                                                  | MTHRB_PG_CHGRP_ULDC_LINK1        |               | 98%                     |
| 123                                                                  | BARH_2_PG_CHGRP_ULDC_LINK2       | BARH2         | 96%                     |
| 124                                                                  | BARH_2_PG_CHGRP_ULDC_LINK1       |               | 98%                     |
| 125                                                                  | DARLIPALI_NT_CHGRP_ULDC_LINK2    | DARLIPALLI    | 95%                     |
| 126                                                                  | DARLIPALI_NT_CHGRP_ULDC_LINK1    |               | 98%                     |
| 127                                                                  | FARAKKA_III_NT_CHGRP_ULDC_LINK2  | FARAKKA3      | 91%                     |
| 128                                                                  | FARAKKA_III_NT_CHGRP_ULDC_LINK1  |               | 85%                     |
| 129                                                                  | FARAKKA_I_II_NT_CHGRP_ULDC_LINK2 | FARAKKA1&2    | 91%                     |
| 130                                                                  | FARAKKA_I_II_NT_CHGRP_ULDC_LINK1 |               | 85%                     |

| Communication link availability of the AGC power plants -- June 2026 |                                |              |                         |
|----------------------------------------------------------------------|--------------------------------|--------------|-------------------------|
| Sl No.                                                               | Communication Link             | Station      | Percentage Availability |
| 131                                                                  | NPGCL_NT_CHGRP_ULDC_LINK2      | NPGC         | 95%                     |
| 132                                                                  | NPGCL_NT_CHGRP_ULDC_LINK1      |              | 98%                     |
| 133                                                                  | BTPS_NT_ULDC_LINK_2            | BONGAIGAON   | 51%                     |
| 134                                                                  | BTPS_NT_ULDC_LINK_1            |              | 99%                     |
| 135                                                                  | LOKTA_NH_ULDC_LINK_2           | LOKTAK       | 0%                      |
| 136                                                                  | LOKTA_NH_ULDC_LINK_1           |              | 97%                     |
| 137                                                                  | KOLDM_NT_CHGRP_ULDC_LINK1      | KOLDAM       | 44%                     |
| 138                                                                  | KOLDM_NT_CHGRP_ULDC_LINK2      |              | 75%                     |
| 139                                                                  | NKTPP_PG_CHGRP_ULDC_LINK1      | NKSTPS       | 67%                     |
| 140                                                                  | NKTPP_PG_CHGRP_ULDC_LINK2      |              | 80%                     |
| 141                                                                  | BRBCL_CHGRP_ULDC_LINK1         | BRBCL        | 97%                     |
| 142                                                                  | BRBCL_CHGRP_ULDC_LINK2         |              | 96%                     |
| 143                                                                  | KOPIL_NO_CHGRP_ULDC_LINK1      | KOPILI       | 98%                     |
| 144                                                                  | KOPIL_NO_CHGRP_ULDC_LINK2      |              | 0%                      |
| 145                                                                  | TSTPP_CS_CHGRP_ULDC_LINK1      | TELANGANA    | 55%                     |
| 146                                                                  | TSTPP_CS_CHGRP_ULDC_LINK2      |              | 99%                     |
| 147                                                                  | IBEUL_PG1_ULDC_LINK1           | IND BHARAT   | 98%                     |
| 148                                                                  | IBEUL_PG1_ULDC_LINK2           |              | 98%                     |
| 149                                                                  | DURGAPUR_CHGRP_ULDC_LINK1      | Durgapur_DVC | 95%                     |
| 150                                                                  | DURGAPUR_CHGRP_ULDC_LINK2      |              | 95%                     |
| 151                                                                  | MEJIA_DVC_CHGRP_ULDC_LINK1     | Mejia_DVC    | 95%                     |
| 152                                                                  | MEJIA_DVC_CHGRP_ULDC_LINK2     |              | 95%                     |
| 153                                                                  | KODERMA_CHGRP_ULDC_LINK1       | Koderma_DVC  | 95%                     |
| 154                                                                  | KODERMA_CHGRP_ULDC_LINK2       |              | 95%                     |
| 155                                                                  | KHRJA_TH_CHGRP_ULDC_LINK1      | Khurja       | 100%                    |
| 156                                                                  | KHRJA_TH_CHGRP_ULDC_LINK2      |              | 100%                    |
| 157                                                                  | PPGCL_BARA_CHGRP_ULDC_LINK1    | PPGCL BARA   | 100%                    |
| 158                                                                  | PPGCL_BARA_CHGRP_ULDC_LINK2    |              | 100%                    |
| 159                                                                  | NTPC_Barauni_CHGRP_ULDC_LINK1  | Barauni      | 98%                     |
| 160                                                                  | NTPC_Barauni_CHGRP_ULDC_LINK2  |              | 92%                     |
| 161                                                                  | PATRN_NT_CHGRP_ULDC_LINK1      | Patratu      | 91%                     |
| 162                                                                  | PATRN_NT_CHGRP_ULDC_LINK2      |              | 94%                     |
| 163                                                                  | DEVIKOT_AD_CHGRP_ULDC_LINK1    | Devikot      | 69%                     |
| 164                                                                  | KILOKARI_BRPL_CHGRP_ULDC_LINK1 | BRPL         | 99%                     |
| 165                                                                  | TEHRI_PSP_CHGRP_ULDC_LINK1     | TEHRI PSP    | 100%                    |
| 166                                                                  | TEHRI_PSP_CHGRP_ULDC_LINK2     |              | 0%                      |
| 167                                                                  | UNCH1_NT_CHGRP_ULDC_LINK1      | Unchahar 1   | 100%                    |
| 168                                                                  | UNCH1_NT_CHGRP_ULDC_LINK2      |              | 100%                    |
| 169                                                                  | GHATAMPUR_ULDC_LINK1           | Ghatampur    | 100%                    |
| 170                                                                  | GHATAMPUR_ULDC_LINK2           |              | 100%                    |
| 171                                                                  | VLCTPP_CHGRP_ULDC_LINK1        | Vedanta      | 0%                      |
| 172                                                                  | VLCTPP_CHGRP_ULDC_LINK2        |              | 0%                      |
| 173                                                                  | Doyang_ULDC_LINK1              | Doyang       | 99%                     |
| 174                                                                  | Doyang_ULDC_LINK2              |              | 51%                     |

| Communication link availability of the AGC power plants -- June 2026 |                      |           |                         |
|----------------------------------------------------------------------|----------------------|-----------|-------------------------|
| Sl No.                                                               | Communication Link   | Station   | Percentage Availability |
| 175                                                                  | SUBANSIRI_ULDC_LINK1 | Subansiri | 98%                     |
| 176                                                                  | SUBANSIRI_ULDC_LINK2 |           | 0%                      |

## Annexure-II

### Suggestions for securing the availability of communication for power system

- 1. Prompt Dissemination and Escalation of failures:** In the event of any major communication failure, particularly where multiple links or an entire control area are affected, immediate dissemination shall be initiated through email and the designated messaging group, along with telephonic escalation to the Shift-in-Charge and senior management of telecom service provider. The timelines prescribed in the agreed SOP intimation shall be adhered to –
  - a. Acknowledgement of link status within 30 minutes, and
  - b. Communication of the cause and expected restoration time within 90 minutes.

For isolated outages involving only one or two links, escalation may be undertaken based on the severity and operational impact of the outage.
- 2. 24x7 proactive monitoring:** Continuously monitor the health of all main and standby AGC communication channels through available network monitoring systems (NMS/UNMS) and other tools. The monitoring arrangement should cover the complete path under ULDC purview, including terminal equipment and associated network elements.
- 3. Centralised NMS visibility:** Develop or configure a central dashboard covering all AGC plants and channels for round-the-clock monitoring by shift personnel of POWERGRID-ULDC. Presently it has been observed that inter-regional coordination is missing from ULDC. Inter-regional coordination for monitoring the end-to-end communication of the plants has to be urgently improved at all regional ULDCs and appropriate visibility may also be extended to NLDC for common situational awareness.
- 4. Redundancy and avoidance of common-mode/single-point failures:** With approximately 90 plants already wired under AGC and further expansion of AGC planned, the infrastructure shall be reviewed and strengthened for path, equipment, port, power-supply and last-mile diversity. Main and standby links should not share avoidable common dependencies. Sufficient spares, AMC/OEM support and trained personnel shall be kept ready for immediate deployment.
- 6. Intra-state/last-mile coordination:** Recurring coordination issues affecting Tanda, Barauni and North Karanpura power plants shall be technically documented, with fault chronology, ownership and pending actions. Where the issue lies with an intra-state communication provider, STU or OEM, the matter shall be escalated through formal letters/emails to CTUIL, the concerned STU and GRID-INDIA so that coordinated action can be taken.
- 7. Updated nodal officers list:** Maintain an updated list of nodal officers for routine coordination and escalation and may kindly provide regular updates.



भारत सरकार/Government of India  
विद्युत मंत्रालय/Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण/Central Electricity Authority  
एन.पी.सी. प्रभाग/National Power Committee Division  
Ist Floor, Wing-5, West Block-II, RK Puram, New Delhi-66

No. CEA-GO-15-14/1/2021-NPC Division/160

Date: 15.09.2025

To  
(As per distribution list)

विषय: 04.07.2025 को शिलांग, मेघालय में आयोजित एनपीसी की 16वीं बैठक का कार्यवृत्त के संबंध में।  
Subject: Minutes of the 16<sup>th</sup> Meeting of NPC held on 04.07.2025 at Shillong, Meghalaya -  
reg.

04.07.2025 को शिलांग, मेघालय में आयोजित एनपीसी की 16वीं बैठक का कार्यवृत्त आपकी जानकारी और आवश्यक कार्रवाई के लिए संलग्न है।

The Minutes of the 16<sup>th</sup> meeting of NPC held on 04.07.2025 at Shillong, Meghalaya is enclosed herewith for your kind information and necessary action, please.

Encl: As above

भवदीय/Yours faithfully

*(Signature)*  
15/09/2025

(ऋषिका शरण/Rishika Sharan)  
मुख्य अभियन्ता एवं सदस्य सचिव, रा.वि.स /  
Chief Engineer & Member Secretary, NPC

**The Committee confirmed the minutes of 15<sup>th</sup> NPC meeting.**

**2.2 Introduction of MPLS Technology in ISTS Communication system (Agenda from CTU):**

- 2.2.1 Briefing the Agenda item, **MS, NPC**, informed that as per the decision taken in the 15<sup>th</sup> NPC meeting held on 14.11.2024, a comprehensive report, including the technical specifications (TS) of MPLS technology in ISTS communication system and demand trajectory for MPLS equipment required during the migration from SDH to MPLS over the next 7–10 years was submitted by CTU by January, 2025. She further informed that the Joint Committee has submitted Part-I of the MPLS report, which outlines the roadmap for migration from SDH to MPLS technology, along with a pan-India migration timeline. However, the technical specifications (Part-II of the report) are yet to be finalized and submitted.
- 2.2.2 Making a presentation on the subject, **representative of CTUIL** informed that the draft report submitted by the Joint Committee (JC) in April 2025 recommends migration from SDH to MPLS-TP technology for ISTS communication, beginning with the North Eastern Region (NER) ISTS network. The proposed strategy involves parallel operation of MPLS-TP and SDH over separate fiber pairs, while also having capability to integrate both the networks as per system requirement. However, by default, both networks will operate independently. The proposed PAN-India rollout for this needs the FOTE installation at all ISTS nodes/locations. The total implementation timeline for MPLS migration for PAN INDIA [subject to the successful operation (six months) of MPLS channel in NER] is estimated to be minimum of 73 months from the date of approval by the NCT for NER MPLS deployment.
- 2.2.3 **Representative of CTUIL** further explained that the migration plan for NER from the SDH network to an MPLS-TP communication network is laid out in five strategic phases over approximately 36 months with initial groundwork involving the readiness of additional fiber pairs on existing OPGW infrastructure. In Phase 1, preparations include identification of one additional fiber pair and entity ensuring readiness for shifting/terminating of one standby channel of RTU/SAS/DTPC for upcoming MPLS equipment, identification of suitable space for additional equipment rack, DC power supply. Further, subsequent to relaxation in Make in India (MII) approval from the Ministry of Power and finalization of Technical Specifications of MPLS by JC, CTU will study and evolve the migration scheme and submit the proposal for NER ISTS Network to RPCs and NCT. Phase 2 includes equipment procurement and identifying repeater locations (existing and new) including shelter with all auxiliary equipment (DCPS, air conditioning etc.) based on link budget calculations, followed by project implementation by identified implementing agency (including scope for MPLS FOTE installation, spare fiber termination, stand by channel of RTU/SAS/DTPC termination etc.) within 24 months from NCT approval/allocation. By the end of this stage, the RLDC would begin receiving standby data via MPLS TP while maintaining main data over SDH.

Phase 3 focuses on parallel operation of MPLS channels (for 3 to 6 months) and performance assessment through operational feedback by RLDC and accordingly resolving non-conformities, if any. In Phase 4, identification of an additional second fiber pair and allowing for both standby channels to operate via MPLS (for 3 to 6 months), while the main data continues on SDH. The final transition occurs in Phase 5, where the main channels are migrated to MPLS-TP if SDH equipment reaches the end of its useful life. For SDH systems still within their service period, parallel operations will continue until full migration. At completion of (30 to 36 months) subject to closure of non-conformities, all main and standby communication channels will operate through MPLS TP, significantly modernizing and enhancing the reliability of the transmission network communication infrastructure.

- 2.2.4 **Representative of CTUIL** also apprised that the MPLS-TP rollout involves key components as FOTE and OPGW. While there are no concerns regarding OPGW under the Make in India (MII) policy, the procurement of FOTE is facing constraints related to MII compliance. In this context, proposal was stated to have been submitted by CEA to the Ministry of Power to reclassify FOTE under Class 1 and Class 2 categories to enhance vendor participation and overcome MII-related constraints.

MS, NPC informed that PCD Division of CEA has requested the States to submit data on their FOTE requirements to facilitate an assessment of the overall market potential. It was also informed that spare fibers shall be required to migrate over MPLS – TP to run on parallel network for which feasibility needs to be assessed. The initial phase of the MPLS-TP rollout will be limited to ISTS systems. However, it was noted that certain states, such as Tamil Nadu (TANTRANSCO) and Rajasthan (RRVPLN), have already begun implementing MPLS-TP and MPLS-IP technologies within their respective state networks.

- 2.2.5 **MS, SRPC**, highlighted key interoperability challenges between different technologies and vendors, including issues with labeling, UNMS integration, and hybrid communication models especially where latency (speed of communication) affects protection functions in certain states. To address this, it was suggested that latency requirements be clearly specified in RFPs. It was noted that while Ethernet-based time transfer for distance protection has generally not faced issues, differential protection still predominantly depends on fiber connectivity between relays. In many utilities, Ethernet-based schemes for distance protection are not yet widely adopted, with a preference for fiber to ensure reliability. In view of the above, he recommended that the adoption of MPLS-TP technology may be adopted to promote a standardized, future-ready, and interoperable communication infrastructure within the national power grid taking care of the issues highlighted above in technical specifications/RfP.
- 2.2.6 **CMD Grid-India** opined that the interoperability of MPLS-TP should be duly addressed during the finalization of its technical specifications to ensure seamless operation across different vendors and technologies. He further suggested that the proposed timelines appear to be on the higher side and need to be reduced.

**2.2.7 Chairperson, CEA/NPC** noted the difficulties associated with mandating new communication technologies, particularly during a transitional phase. It was emphasized that mandating adoption is not feasible until the proposed solutions are thoroughly proven in terms of performance and interoperability. He also raised concerns regarding the long implementation timeline of approximately 73 months for MPLS-TP rollout as per the current plan. It was pointed out that such extended timelines could render the technology obsolete by the time of full-scale implementation. To address this, it was suggested that deployment may be optimized using a hybrid approach wherever possible.

**2.2.8 Chairperson, CEA/NPC** further suggested that the Technical Specifications (TS) for MPLS-TP deployment may be finalized within four (04) months, in parallel with the processing of Make in India (MII) policy relaxations. The matter concerning Make in India (MII) compliance may be taken up by the ET&I Division, CEA, with the Ministry of Power (MoP). He advised to place the agenda for the implementation of MPLS technology in the ISTS system before the NCT for consideration and approval within the next six months. Additionally, he advised CTUIL to initiate the necessary exercise in consultation with States, on their FOTE requirements, to facilitate an informed assessment of the overall market potential and a comprehensive implementation plan with reduced timelines for deploying MPLS technology in ISTS and intra-state (InSTS) communication systems, extending down to the 11 kV level, may be formulated.

**2.2.9 Decisions of the NPC:**

- i. **The Joint Committee Report on MPLS technology in ISTS Communication system was approved. (Report attached at Annexure-I).**
- ii. **The existing Joint Committee (JC) may submit the technical specifications of MPLS technology in the communication system within 4 months. Interoperability issues across technology and vendors may be resolved.  
(Action: JC members)**
- iii. **An agenda for implementation of MPLS technology in ISTS system may be placed in NCT for approval within 6 months.  
(Action: CTU/JC members)**
- iv. **Matter related to 'Make in India' compliances for FOTE (Fiber Optic Terminal Equipment) equipment shall be taken up by ET&I Division, CEA with MoP.  
(Action: ET&I Division, CEA)**
- v. **A comprehensive implementation plan with reduced timelines for deploying MPLS technology in ISTS and intra-state (InSTS)**



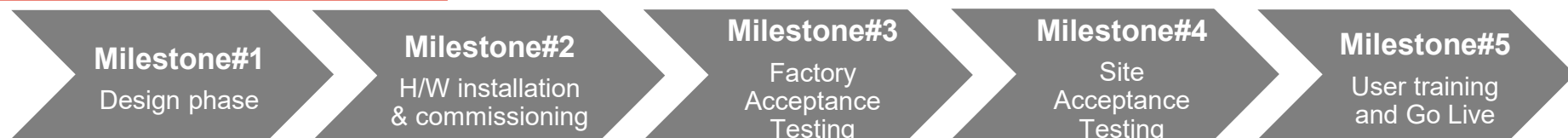
# 34<sup>th</sup> NETeST Meeting State-wise SAMAST Status

23 July 2026

# *Agenda*

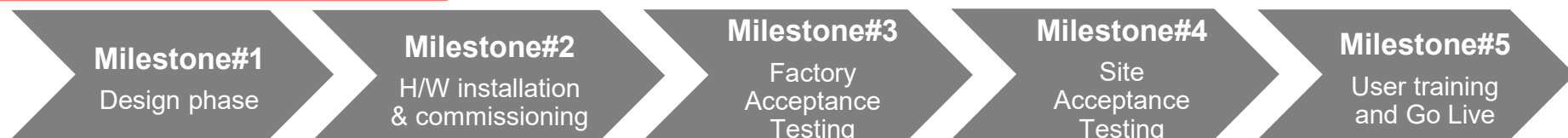
- 1 Manipur SAMAST Status
- 2 Mizoram SAMAST Status
- 3 Tripura SAMAST Status
- 4 AMC Status: State-Wise

## Manipur SAMAST Status



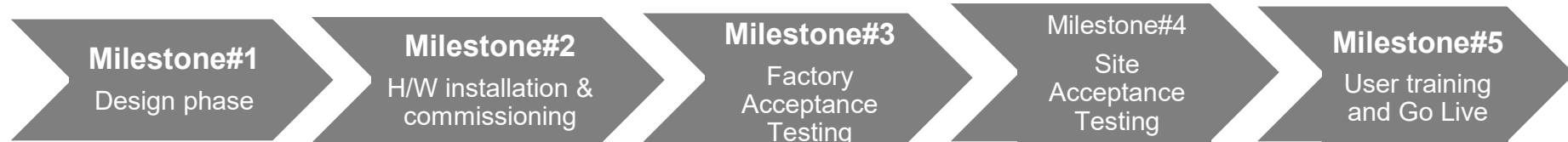
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|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Timelines</b>                                  | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>23 May 2022</b></li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>20 March 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>6 January 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>SAT of all software modules completed on <b>20 June 2025</b></li> </ul> | <ul style="list-style-type: none"> <li>Go-live of SAMAST modules completed on <b>30 June 2025</b>.</li> <li>Warranty support period completed on <b>30 June 2026</b>.</li> </ul> |
| <b>Invoicing &amp; payment status (incl. GST)</b> | <ul style="list-style-type: none"> <li>Total invoicing <b>INR 5,31,00,000/- (100% of contract value)</b>. Payment received <b>INR 4,77,90,000/- (90% of Contract Value)</b></li> <li>Milestone #5: Payment pending of <b>INR 53,10,000/-</b>. Aging is <b>189+ days</b></li> </ul> |                                                                                                                     |                                                                                                                      |                                                                                                                |                                                                                                                                                                                  |
| <b>Key issues to discuss</b>                      | <ul style="list-style-type: none"> <li><b>Pending Payment of INR 53,10,000/-</b></li> <li>SLDC to send re-requisition to PSDF for final 10% fund</li> <li>SLDC to provide project completion letter, and to return Bank Guarantee</li> </ul>                                       |                                                                                                                     |                                                                                                                      |                                                                                                                |                                                                                                                                                                                  |

## Mizoram SAMAST Status



|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                     |                                                                                                                      |                                                                                                               |                                                                                                                                                                                |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Timelines</b>                                  | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>15 March 2022</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>24 March 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>9 January 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>SAT of all software modules completed on <b>14 Feb 2024</b></li> </ul> | <ul style="list-style-type: none"> <li>Go-live of SAMAST modules completed on <b>19 July 2024</b></li> <li>Warranty support period completed on <b>19 July 2025</b></li> </ul> |
| <b>Invoicing &amp; payment status (incl. GST)</b> | <ul style="list-style-type: none"> <li>Total invoicing <b>INR 5,31,00,000/- (100% of contract value)</b>. Payment received <b>INR 4,64,36,526/- (~87.45% of Contract Value)</b>.</li> <li>Milestone #4: <b>Part-payment made</b>. Balance pending <b>INR 13,53,474/-</b> Aging is <b>691+ days</b>.</li> <li>Milestone #5: Full payment pending <b>INR 53,10,000/-</b> Aging is <b>343+ days</b>.</li> <li>Total payment pending <b>INR 66,63,474/- (~12.55% of Contract value)</b>.</li> </ul> |                                                                                                                     |                                                                                                                      |                                                                                                               |                                                                                                                                                                                |
| <b>Key issues to discuss</b>                      | <ul style="list-style-type: none"> <li><b>Pending Payment of INR 66,63,474/-</b></li> <li>P&amp;ED has submitted the requisition to PSDF for the balance payment</li> <li>SLDC to provide project completion letter, and to return Bank Guarantee</li> </ul>                                                                                                                                                                                                                                    |                                                                                                                     |                                                                                                                      |                                                                                                               |                                                                                                                                                                                |

## Tripura SAMAST Status



|                                                   |                                                                                                                                                                                                                                                                                    |                                                                                                                        |                                                                                                                     |                                                                                                                |                                                                                                                                                                                |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Timelines</b>                                  | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>23 May 2022</b></li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>04 December 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>Completion of milestone approval received on <b>28 April 2023</b></li> </ul> | <ul style="list-style-type: none"> <li>SAT of all software modules completed on <b>18 June 2024</b></li> </ul> | <ul style="list-style-type: none"> <li>Go-live of SAMAST modules completed on <b>29 June 2024</b></li> <li>Warranty support period completed on <b>29 June 2025</b></li> </ul> |
| <b>Invoicing &amp; payment status (incl. GST)</b> | <ul style="list-style-type: none"> <li>Total invoicing <b>INR 5,31,00,000/- (100% of contract value)</b>. Payment received <b>INR 4,77,90,000/- (90% of Contract Value)</b></li> <li>Milestone #5: Payment pending of <b>INR 53,10,000/-</b>. Aging is <b>204+ days</b></li> </ul> |                                                                                                                        |                                                                                                                     |                                                                                                                |                                                                                                                                                                                |
| <b>Key issues to discuss</b>                      | <ul style="list-style-type: none"> <li><b>Pending Payment of INR 53,10,000/-</b></li> <li>TSECL has received funds from PSDF and is requested to expedite the payment process.</li> <li>SLDC to provide project completion letter, and to return Bank Guarantee</li> </ul>         |                                                                                                                        |                                                                                                                     |                                                                                                                |                                                                                                                                                                                |

## AMC Status: State-Wise

| State               | Status                    |
|---------------------|---------------------------|
| • Assam             | 3 Years of AMC is ongoing |
| • Meghalaya         | LOA issued on 20 May 2026 |
| • Arunachal Pradesh | Pending                   |
| • Manipur           | Pending                   |
| • Mizoram           | Pending                   |
| • Nagaland          | Pending                   |
| • Tripura           | Pending                   |

# Thank you

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| Sl No | Issue                                                                                                                                  | Meeting No  | Action Taken / Deliberation                                                                                                                                                                                                                                                                                                                          | Action to be taken by                                                                                                                        | Timeline                                                | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------|----------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Backup SLDC: Arunachal Pradesh                                                                                                         | 34th NETeST | Budgetary estimate proposal submitted to State Government for approval for FY 2026-27.                                                                                                                                                                                                                                                               | SLDC Arunachal Pradesh / State Govt: Secure budget approval and initiate construction.                                                       | 1.5 to 2 years post-approval                            | SLDC Arunachal Pradesh informed that Backup SLDC will be established in 132 kV Ngokle Station and construction work will be starting soon by Pasighat Transmission division with expected time of completion in two (02) years.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|       | Backup SLDC: Assam                                                                                                                     | 34th NETeST | Bids are under evaluation; Letter of Award (LoA) is expected to be issued shortly for the building at 220 kV Samaguri substation.                                                                                                                                                                                                                    | AEGCL: Issue LoA and commence civil construction.                                                                                            | 2 years from LoA issuance                               | SLDC Assam informed that LoA is under final review and expected to be awarded by end of July – 2026 with completion expected in two (02) years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|       | Backup SLDC: Manipur                                                                                                                   | 34th NETeST | The building infrastructure is fully ready at the 400 kV Thouhal Substation.                                                                                                                                                                                                                                                                         | MSPCL: Provide update for 34th NETeST / Maintain readiness for SCADA integration.                                                            | Ready                                                   | Building ready                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|       | Backup SLDC: Meghalaya                                                                                                                 | 34th NETeST | LoA was awarded in March 2026 for the work at 220/132/33kV Mawphlang Grid Sub-station.                                                                                                                                                                                                                                                               | MeFTCL: Complete the ongoing infrastructure construction.                                                                                    | September 2026 (6 months from LoA)                      | The LoA is awarded and completions is expected by January 2027.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|       | Backup SLDC: Mizoram                                                                                                                   | 34th NETeST | Budget approved by the government; work order expected to be placed by the first week of May 2026.                                                                                                                                                                                                                                                   | PE&D, Mizoram: Issue work order and execute construction.                                                                                    | 2 years from May 2026                                   | SLDC Mizoram informed that civil works has already started in which existing control room building of 132 kV Kolash will be augmented.NERLDC emphasised that Battery and UPS room should be on Ground Floor in order to accommodate heavy electrical equipment.                                                                                                                                                                                                                                                                                                                                                                                                  |
|       | Backup SLDC: Nagaland                                                                                                                  | 34th NETeST | The building infrastructure is fully ready at the 132 kV New Secretariat Substation.                                                                                                                                                                                                                                                                 | DoP Nagaland: Provide update for 34th NETeST / Maintain readiness for SCADA integration.                                                     | Ready                                                   | Building ready                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|       | Backup SLDC: Tripura                                                                                                                   | 34th NETeST | Renovation work is actively under progress at one of the buildings at the 132 kV Surjamani Nagar Substation.                                                                                                                                                                                                                                         | TTPTL: Complete the ongoing renovation work.                                                                                                 | 3 to 4 months                                           | Renovation works are under progress and expected to be completed by December 2026.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2     | Restoration and Planning of ER-NER Redundant Communication Path via Bongaigaon-Binaguri-1 OPGW Link                                    | 33rd NETeST | Binaguri-Bongaigaon link was configured and commissioned on 11th April 2026. Main ICCP services (Shilling to Delhi, Shilling to Kolkata, Guwahati to Delhi and Guwahati to Kolkata) diverted over 400 kV Binaguri-Bongaigaon. AGC services are still pending.                                                                                        | POWERGRID                                                                                                                                    | Update required (Target was end of May 2026)            | Completed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3     | Planning for OPGW connectivity of 220 kV Agomoni S/s AEGCL                                                                             | 33rd NETeST | LILO of 220kV Alipurdhar-Bongaigaon D/C line at Agomoni is over existing ER-NER link. AEGCL confirmed compliance with CEA Fibre Sharing Guidelines. CTUIL requested ULDC-POWERGRID for fiber utilization details (Grid-Op vs commercial).                                                                                                            | AEGCL: Update status of LILO at Agomoni.<br>CTUIL & POWERGRID: Provide fiber utilization details and update on alternate communication path. | At the earliest                                         | Joint Survey done between AEGCL and POWERGRID on 16.07.2026. MOM to be finalised after comments from POWERTEL and AEGCL communication division. POWERGRID sent request to AEGCL communication division for a joint meeting to finalise the configuration. "may include about fibre sharing".                                                                                                                                                                                                                                                                                                                                                                     |
| 4     | Connectivity of Tejas network developed by AEGCL and POWERGRID-ULDC to enhance the reliability of NER communication network.           | 33rd NETeST | AEGCL deployed Tejas SDH network in 32 locations; ULDC-POWERGRID commissioned Tejas SDH in multiple IBTS/ISGS nodes. Connectivity (BgTTP-BTTPS, NERLDC-SLDC, Mariani PG-Mariani AEGCL) will enhance network reliability. Forum requested connectivity between Tejas devices at SLDC Kahilpara and NERLDC via fibre.                                  | ULDC-POWERGRID & AEGCL: Complete connectivity for BgTTP-BTTPS and NERLDC-SLDC and update status.                                             | End of April-2026                                       | 1.BgTTP (NTPC) to BTTPS (AEGCL) connectivity:SDH shifted and installed at BTTPS (NTPC). However, fibre break observed between BTTPS (NTPC) and BTTPS (AEGCL). Target: 31.08.2026<br>2. NERLDC Guwahati to SLDC Assam connectivity: Completed link established<br>3.Mariani (PG) to Mariani (AEGCL) connectivity: Completed                                                                                                                                                                                                                                                                                                                                       |
| 5     | Cyber Security Concerns in ADMS Architecture across NER States and Implementation of Mitigation Measures                               | 33rd NETeST | Identified vulnerabilities in ADMS architecture (lack of geo-fencing/IOC blocking at modem level, dynamic IPs on GPRS SIMs preventing whitelisting, unexplained port 80 traffic). Recommendations include NGFW deployment and M2M SIMs. AMC of ADMS expires Jan 2027.                                                                                | All NER SLDCs: Deploy M2M SIM cards at remote stations; Procure Next Generation Firewall (NGFW).                                             | At the earliest (Before Jan 2027 AMC expiry)            | APCLC has approached M/s JIO for SIM services. 34th NETeST forum advised other states to follow similar strategy. M/s Orbit has shared cost estimate with all states for NGFW and AMC of ADMS. Negotiations are in progress.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6     | VAPT cyber security audit of SCADA/EMS system of SLDCs                                                                                 | 33rd NETeST | VAPT of OT systems for FY 2025-26 pending in all SLDCs except Assam. M/S GEV submitted that VAPT audit for OT system is in progress for all other NER States. CISO-NERLDC issued letter on 06.04.2026 highlighting non-compliance.                                                                                                                   | All SLDCs (except Assam): Expedite completion of VAPT for both IT and OT systems and submit status/compliance report.                        | At the earliest                                         | SLDCs reported that VAPT for FY: 2026-27 have been completed. Agenda may be dropped.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 7     | Usage of POWERTEL OPGW in view of the order of Hon'ble CERC against petition no. 494/MP/2020                                           | 33rd NETeST | OTDR tests conducted. On 400 kV Silchar-Imphal: 16 live fibers (used by POWERTEL), 8 unhealthy (target restore May 2026). On 132 kV Kumarghat-Aizawl: 8 live (used by POWERTEL), 16 unhealthy (target restore May 2026). Status update mails sent on 1st June, 26th June, and 9th July 2026.                                                         | POWERGRID-ULDC: Update the status of each OPGW link and restoration of unhealthy fibers.                                                     | Targeted for May 2026 / Update required immediately     | a. Attempted for rectification of 400 kV Silchar Imphal link in the month of June'26 and July'26 as well. OPGW break/discontinuity observed at 22 kM from Silchar. However, rectification couldn't be completed due to local issue and landslide.<br>b. Regarding 132 kV Aizawl Kumarghat: Team was involved in:<br>i) Attempting rectification of 400 kV Silchar Imphal link.<br>ii) Restoration of OPGW of 132 kV Nirjuli-Lekhi-Chimpu line. (Request from DOP for changing of the line). The restoration took considerable time due to the incident weather and hilly terrain making it difficult for manpower and material mobilisation. Target: 31.09.2026. |
| 8     | Optimised utilisation of OPGW & FOTE across NER (NERPSP, Comprehensive T&D, State-owned, TBChs, ULDCs)                                 | 33rd NETeST | NERLDC sent letters for network connectivity. 1) Kameng-Khupi-Tenga-Balpara: Interpatching done, NMS integration pending. 2) FOTE ULDC/NERPSP interpatching: NERPSP team couldn't procure SFPs; ULDC-POWERGRID is procuring 68 SFPs (expected config by Aug 2026). Forum advised ULDC-PG to submit consolidated list of NERPSP communication issues. | POWERGRID-ULDC, POWERGRID-NERPSP, and POWERGRID-CTDS: Update status and submit consolidated list of issues to OCC.                           | August 2026 (for link configuration) / Immediate update | NERLDC Presented a presentation on the use case of inter-patching. The same is attached as Annexure 8 Interpatching.<br>POWERGRID informed the forum that 68 number of SFPs are procured and currently under transit. Once received the same will be handed over to NERPSP for completion of the inter-patching.                                                                                                                                                                                                                                                                                                                                                 |
| 9     | Establishing Comm Link between 400 kV New Kohima & 220 kV Zhadima via 220 kV Zhadima-New Kohima Line (Restoration due to Link Failure) | 33rd NETeST | New Kohima-Imphal link non-functional since June 2024. Alternate route via Zhadima-New Kohima OPGW (DoP Nagaland). DoP Nagaland completed installation of OPGW, approach cable, and FODs at both stations in Nov 2025. Forum advised Apraava and ULDC-POWERGRID to configure. Reminder mails sent in June 2026.                                      | DoP-Nagaland, POWERGRID, and KMTL (Apraava): Provide completion status of configuration to enable utilization of OPGW.                       | Target was end of May 2026                              | DoP Nagaland and KMTL informed that work is completed from their respect. Coordination from PGCL is required for further connectivity. PGCL informed that the work will be completed by September 2026.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 10    | Request to integrate data of Panyor and Pare in Chimpu S/s RTU                                                                         | 33rd NETeST | Data (MW, MVAR, CB, isolators) for Panyor and Pare bays at Chimpu S/s not reporting due to missing MFTs and CMRs. NERLDC requested DoP-Arunachal Pradesh via multiple emails to install and integrate them. DoP-AP informed MFT and CMR received at Itanagar site, but installation pending as technician deployed to Pukumpai.                      | DoP-Arunachal Pradesh: Update status on installation of MFTs and CMRs and their integration with Chimpu RTU.                                 | End of May 2026                                         | DoP Arunachal Pradesh informed that digital data are integrated. The integration of Analog data is under process and will be integrate by August 2026.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 11    | Dual Connectivity: Arunachal Pradesh                                                                                                   | 33rd NETeST | 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                                                | Achieved, agenda may be dropped for Arunachal Pradesh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|       | Dual Connectivity: Assam                                                                                                               | 33rd NETeST | The multiple paths will be achieved once the connectivity of NERLDC Guwahati with Kahilpara S/s via UFGO is completed under reliable communication scheme.                                                                                                                                                                                           | AEGCL / POWERGRID: Complete UFGO connectivity.                                                                                               | Pending scheme completion                               | Pending scheme completion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|       | Dual Connectivity: Manipur                                                                                                             | 33rd NETeST | NERLDC requested MSPCL to lay one more OPGW/ADSS cable between Imphal (PG) and SLDC Manipur. Currently only one OPGW over 132 kV Imphal (PG) - Yuremeham-1 is available.                                                                                                                                                                             | MSPCL: Lay secondary OPGW/ADSS cable and update status.                                                                                      | At the earliest                                         | Second Connectivity being proposed in State Reliable Communication Scheme.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|       | Dual Connectivity: Meghalaya                                                                                                           | 33rd NETeST | 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                                                | Achieved, agenda may be dropped for Meghalaya                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|       | Dual Connectivity: Mizoram                                                                                                             | 33rd NETeST | Currently SLDC Mizoram is only connected with 132 kV Zuanagat S/s. PE&D proposed including this in the State Reliable Comm Scheme, but NERLDC advised against waiting due to past isolation incidents. Forum requested expediting a 2nd fiber link. Reminders sent in June 2026.                                                                     | PE&D Mizoram: Expedite the establishment of a second fiber connectivity without waiting for the State Reliable Comm project.                 | At the earliest                                         | Second Connectivity proposal under consideration of Government. SLDC will be connected with 132 kV Lungmul via ADSS Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|       | Dual Connectivity: Nagaland                                                                                                            | 33rd NETeST | DoP Nagaland informed that work is in progress under the State Reliable Comm scheme to directly connect SLDC Nagaland to 220 kV Dimapur (PG). Forum requested to expedite.                                                                                                                                                                           | DoP Nagaland: Expedite direct connection to 220 kV Dimapur (PG) and update status.                                                           | End of June 2026                                        | Achieved in July 2026, agenda may be dropped for Nagaland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 12    | Dual Connectivity: Tripura                                                                                                             | 33rd NETeST | Already achieved. SLDC Tripura is connected with 132 kV SM Nagar (TTPTL) as well as 132 kV RC Nagar (NERLDC).                                                                                                                                                                                                                                        | -                                                                                                                                            | Achieved                                                | Achieved, agenda may be dropped for Tripura.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|       | RTU Re-configuration: Misa S/s (POWERGRID)                                                                                             | 33rd NETeST | Out of 16 POWERGRID-owned stations, 12 are reporting parallelly to NERLDC Shillong and NERLDC Guwahati. Configuration of remaining 4 stations is pending.                                                                                                                                                                                            | POWERGRID-NERTS / POWERGRID-ULDC: Configure RTU to enable parallel reporting to both Shillong and Guwahati.                                  | August 2026                                             | Completed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|       | RTU Re-configuration: Mokokchung S/s (POWERGRID)                                                                                       | 33rd NETeST | Out of 16 POWERGRID-owned stations, 12 are reporting parallelly to NERLDC Shillong and NERLDC Guwahati. Configuration of remaining 4 stations is pending.                                                                                                                                                                                            | POWERGRID-NERTS / POWERGRID-ULDC: Configure RTU to enable parallel reporting to both Shillong and Guwahati.                                  | End of June 2026                                        | Target: 30.09.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|       | RTU Re-configuration: Roing S/s (POWERGRID)                                                                                            | 33rd NETeST | Out of 16 POWERGRID-owned stations, 12 are reporting parallelly to NERLDC Shillong and NERLDC Guwahati. Configuration of remaining 4 stations is pending.                                                                                                                                                                                            | POWERGRID-NERTS / POWERGRID-ULDC: Configure RTU to enable parallel reporting to both Shillong and Guwahati.                                  | End of June 2026                                        | Target: 31.08.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|       | RTU Re-configuration: Tezu S/s (POWERGRID)                                                                                             | 33rd NETeST | Out of 16 POWERGRID-owned stations, 12 are reporting parallelly to NERLDC Shillong and NERLDC Guwahati. Configuration of remaining 4 stations is pending.                                                                                                                                                                                            | POWERGRID-NERTS / POWERGRID-ULDC: Configure RTU to enable parallel reporting to both Shillong and Guwahati.                                  | End of June 2026                                        | Target: 30.09.2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|    |                                                                                                           |             |                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                  |                                    |                                                                                                                                                                                                                                                                                                                                        |
|----|-----------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13 | UNMS Issues: Integration of NMS (NERPSIP & Comp. T&D) with U-NMS                                          | 33rd NETeST | Nagaland, Mizoram, Tripura: Completed. Manipur, Meghalaya: Install/comm completed, integration target March end. Arunachal Pradesh: Teja NMS delivery awaited.                                                                                                                                                                                                                              | NERPSIP / POWERGRID: Complete integration for Manipur and Meghalaya; expedite delivery for Arunachal Pradesh.                                                                                                                    | March end (Manipur/Meghalaya)      | Under progress for NMS of NERPSIP-Meghalaya, NERPSIP-Assam, NERPSIP-Manipur and CTDS-Arunachal Pradesh.                                                                                                                                                                                                                                |
|    | UNMS Issues: Integration of FOTE (Indgrid & Aprava)                                                       | 33rd NETeST | Indgrid: Nodes visible but SNMP communication pending. Aprava: Pending due to missing gateway IP (ABB). Forum requested ULDC-POWERGRID to take up with both. Aprava confirmed support.                                                                                                                                                                                                      | ULDC-POWERGRID: Indgrid, Aprava: Implement necessary changes for SNMP and IP configuration. CTUIL: Expedite onboarding.                                                                                                          | At the earliest                    | •M/s GE Veronva is not providing technical help to Indgrid for integration of GE MUX in UNMS. MS NERPC requested that Indgrid should be present in the meeting to discuss the matter.<br>•Aprava: POWERGRID will take up with ABB team after completion of Assam-NERPSIP nodes.<br>•Sterite: Completed for Nangalibira and Bongaigaon. |
|    | UNMS Issues: Integration of FOTE (Tejas & Fibcom under ULDC/TBCB)                                         | 33rd NETeST | Recently commissioned Tejas (Misa, Kopili, etc.) and Fibcom (Kameng, Roing, etc.) nodes require integration with UNMS without delay for continuous monitoring.                                                                                                                                                                                                                              | ULDC-POWERGRID: Complete integration of the recently commissioned Tejas and Fibcom nodes into UNMS.                                                                                                                              | Immediate                          | Completed.                                                                                                                                                                                                                                                                                                                             |
|    | UNMS Issues: Naming Nomenclature Standardization                                                          | 33rd NETeST | Ambiguous naming by OEMs (ECI, ABB, Fibcom) hampers fault resolution. Triparty meeting held 16th March 2026. POWERGRID informed naming for Tejas and ECI nodes targeted by May 2026.                                                                                                                                                                                                        | POWERGRID: Standardize naming convention for services within the U-NMS system and update status.                                                                                                                                 | May 2026                           | ECI and Tejas completed. Fibcom will be completed by end of the September 2026.                                                                                                                                                                                                                                                        |
|    | UNMS Issues: Supply of 2 x 6 kVA UPS System across NER SLDs and NERPC                                     | 33rd NETeST | Presently U-NMS running on raw power. Tender for procurement re-initiated by POWERGRID.                                                                                                                                                                                                                                                                                                     | POWERGRID: Complete deployment of UPS systems across NER SLDs and NERPC.                                                                                                                                                         | August 2026                        | Procurement of 2X 6 KVA UPS UNMS cancelled. Procurement of 2X 20KVA UPS for VoIP and UNMS agreed upon by 34th NETeST forum                                                                                                                                                                                                             |
|    | UNMS Issues: Mismatch in Link Status for ABB devices (NERPSIP-Assam)                                      | 33rd NETeST | Discrepancies found (e.g., Chapakhova node shows UP when OPGW is down). ULDC-POWERGRID to connect ABB NMS with UNMS. Taken up with NERPSIP team (10th June 2026).                                                                                                                                                                                                                           | ULDC-POWERGRID / NERPSIP: Resolve status mismatch and update status.                                                                                                                                                             | At the earliest                    | ABB-NERPSIP team is currently working on it and the issue is expected to be resolved by August - 2026.                                                                                                                                                                                                                                 |
|    | UNMS Issues: Discrepancies regarding Fibcom services                                                      | 33rd NETeST | Inaccurate routing visualization and incorrect service status (showing UP during active outages, e.g., ICCP paths). ULDC-POWERGRID stated GA&C is taking it up with M/s Fibcom.                                                                                                                                                                                                             | ULDC-POWERGRID: Coordinate with Fibcom to fix routing and status discrepancies. Update status.                                                                                                                                   | At the earliest                    | Fibcom informed that problem is resolved. The same will be cross checked by NERLDC and POWERGRID.                                                                                                                                                                                                                                      |
| 14 | UNMS Issues: Non-POWERGRID stations not considered for Communication Availability                         | 33rd NETeST | Availability report currently includes only POWERGRID nodes. CTUIL suggested including channel-wise details of all ISTS/BSGS stations.                                                                                                                                                                                                                                                      | POWERGRID / Members: Discuss and implement inclusion of all ISTS/BSGS stations in UNMS availability reports.                                                                                                                     | At the earliest                    | Post integration of Aprava and Indgrid nodes the same will be resolved.                                                                                                                                                                                                                                                                |
|    | Missing link OPGW in 132 kV Karong-Kohima line                                                            | 33rd NETeST | NERPSIP-Manipur laid OPGW from Karong to Mao (Manipur-Nagaland border). Link from Mao to Kohima missing. Initially DoP Nagaland was to submit DPR to PSDF, but NERPC informed they are not eligible for an additional tranche. Forum requested MSPCL to include the link in Manipur's DPR for PSDF.                                                                                         | MSPCL: Update status on inclusion of Mao-Kohima communication link in Manipur's DPR for PSDF funding.                                                                                                                            | At the earliest                    | Mainpur informed that they will not be able to consider the same in their reliable communication scheme due to administrative issues. MS NERPC informed the forum that NERPC will write a letter to MD MSPCL to request once again to include the Mao - Karong Section also under Manipur State Reliable communication Scheme.         |
|    | Feeble condition of State-Estimator of NERLDC SCADA system due to low availability of Real-time Telemetry | 33rd NETeST | Telemetry availability for states is low (30-60%), impacting state estimation accuracy. MS NERPC advised aspiring for minimum 95% availability. Current RTU Availability: AR (61.68%), AS (71.67%), MN (56.2%), ML (92.09%), MZ (50.08%), NL (40.6%), TR (67.5%).                                                                                                                           | All NER States: Prioritize integrity of RTUs and communication systems to increase data availability. Aspire for 95% minimum telemetry availability and update progress.                                                         | Continuous effort                  | All NER States: Prioritize integrity of RTUs and communication systems to increase data availability. Aspire for 95% minimum telemetry availability and update progress.                                                                                                                                                               |
|    | CERC Order Adherence (556/MP/2020): Mizoram                                                               | 34th NETeST | Requirement to submit monthly progress report to NERPC and NERLDC. Mail/reports not received for May 2026 onwards.                                                                                                                                                                                                                                                                          | PE&D Mizoram: Resume submission of the monthly progress reports.                                                                                                                                                                 | Monthly                            | Being done by Mizoram                                                                                                                                                                                                                                                                                                                  |
|    | CERC Order Adherence (263/MP/2020): Nagaland                                                              | 34th NETeST | Progress Reports are currently being submitted quarterly instead of the required monthly basis.                                                                                                                                                                                                                                                                                             | DoP Nagaland: Submit the progress reports on a strict monthly basis.                                                                                                                                                             | Monthly                            | Being done by Nagaland                                                                                                                                                                                                                                                                                                                 |
|    | CERC Order Adherence (201/MP/2020): Tripura                                                               | 34th NETeST | Nodal Person (Smt. Shampa Sen) appointed, but no reports received till date. Reminders sent on 23rd March and 24th June 2026.                                                                                                                                                                                                                                                               | SLDC Tripura / TPTL: Submit pending monthly progress reports immediately.                                                                                                                                                        | Monthly / Immediate                | Tripura is not submitting the report monthly and submitted report is not as per the format of CERC. Forum requested to submit the reports in format immediately and monthly basis.                                                                                                                                                     |
|    | CERC Order Adherence (197/MP/2020): Arunachal Pradesh                                                     | 34th NETeST | Nodal Person (Sh. Ojing Jerang) appointed on 21st April 2026, but no reports received till now. Reminders sent on 23rd March and 24th June 2026.                                                                                                                                                                                                                                            | DoP Arunachal Pradesh: Submit pending monthly progress reports immediately.                                                                                                                                                      | Monthly / Immediate                | As informed by DoP, Arunachal Pradesh Sh. Ojing Jerang has retired. Forum requested DoP Arunachal Pradesh to nominate the new nodal person immediately.                                                                                                                                                                                |
| 17 | State Reliable Communication Scheme: Arunachal Pradesh                                                    | 34th NETeST | PSDF funding pattern changed to 90:10 (PSDF:State). DoP-Arunachal Pradesh informed that proposals are already covered in Comprehensive Scheme (CTDS), hence no DPR will be submitted for PSDF funding.                                                                                                                                                                                      | -                                                                                                                                                                                                                                | -                                  | DoP Arunachal Pradesh as present the scheme is not required as maximum infrastructure is being completed in CTDS project                                                                                                                                                                                                               |
|    | State Reliable Communication Scheme: Assam                                                                | 34th NETeST | DPR has been submitted to PSDF and is currently under review by the TSEG Committee.                                                                                                                                                                                                                                                                                                         | AEGCL: Update on the review status from TSEG.                                                                                                                                                                                    | At the earliest                    | Under discussion of TSEG                                                                                                                                                                                                                                                                                                               |
|    | State Reliable Communication Scheme: Manipur                                                              | 34th NETeST | MSPCL informed that the DPR is under preparation.                                                                                                                                                                                                                                                                                                                                           | MSPCL: Expedite completion and submission of the DPR to PSDF and update status.                                                                                                                                                  | May 2026                           | DPR prepared and under review of planning department.                                                                                                                                                                                                                                                                                  |
|    | State Reliable Communication Scheme: Meghalaya                                                            | 34th NETeST | DPR has been submitted to PSDF and is currently under review by the TSEG Committee.                                                                                                                                                                                                                                                                                                         | MePTCL: Update on the review status from TSEG.                                                                                                                                                                                   | At the earliest                    | Under discussion of TSEG                                                                                                                                                                                                                                                                                                               |
|    | State Reliable Communication Scheme: Mizoram                                                              | 34th NETeST | DPR is prepared. However, government approval for the 10% state share is pending. Reminders sent on 1st July and 13th July 2026.                                                                                                                                                                                                                                                            | PE&D Mizoram: Expedite government approval for 10% state share and submit DPR to PSDF.                                                                                                                                           | At the earliest                    | Re-submitted to PSDF. NERPC and NERLDC requested to mail documents to PSDF with copy to NERLDC and NERPC.                                                                                                                                                                                                                              |
|    | State Reliable Communication Scheme: Nagaland                                                             | 34th NETeST | DoP Nagaland informed that the scheme has been recently sanctioned by the 24th Meeting of the Monitoring Committee of PSDF.                                                                                                                                                                                                                                                                 | DoP Nagaland: Proceed with implementation and provide updates.                                                                                                                                                                   | Ongoing                            | Project is ongoing.                                                                                                                                                                                                                                                                                                                    |
|    | State Reliable Communication Scheme: Tripura                                                              | 34th NETeST | Tripura apprised the forum that they will re-assess their requirement to prepare the DPR.                                                                                                                                                                                                                                                                                                   | TPTL / SLDC Tripura: Complete reassessment and submit DPR to PSDF if required. Update status.                                                                                                                                    | At the earliest                    | Tripura informed that communication infrastructure is completed in NERPSIP scheme. However, they will prepare DPR for RTU replacement.                                                                                                                                                                                                 |
| 18 | Implementation of Guwahati Islanding Scheme                                                               | 34th NETeST | PSDF monitoring committee approved funding. AEGCL proposed communication part under State Reliable Comm Scheme. Forum advised exploring own resources for communication components (FOTE at Dispur and Azara) to avoid delays. Decided in 239th OCC to implement in phases: Stage 1 without Karbi-Langpi, Jawaharnagar, and Chandrapur; Stage 2 with original plan post OPGW commissioning. | AEGCL: 1) Install FOTE at Dispur & Azara using own funds. 2) Proceed with tendering process immediately without waiting for PSDF approval for communication part. 3) Seek technical clarifications (e.g., UFR delay) from NERPC. | Immediate                          | AEGCL may update                                                                                                                                                                                                                                                                                                                       |
| 19 | Real-time data of POWERGRID bays at AEGCL stations: Srikona                                               | 34th NETeST | Data (isolator) missing since 28th Nov 2022. POWERGRID-ULDC handed over materials (Cables, MFTs, CMRs) to AEGCL. AEGCL to engage vendor for RTU DB configuration and hardware installation.                                                                                                                                                                                                 | AEGCL: Engage vendor, complete hardware installation and RTU configuration.                                                                                                                                                      | At the earliest                    | POWERGRID completed its jurisdiction of work. Remaining to be completed by AEGCL.                                                                                                                                                                                                                                                      |
|    | Real-time data of POWERGRID bays at AEGCL stations: Hailakandi                                            | 34th NETeST | Real-time data of S&S bays installed at Hailakandi is not reporting to NERLDC.                                                                                                                                                                                                                                                                                                              | POWERGRID / AEGCL: Resolve telemetry issue and update status.                                                                                                                                                                    | At the earliest                    | POWERGRID completed its jurisdiction of work. Remaining to be completed by AEGCL.                                                                                                                                                                                                                                                      |
|    | Real-time data of POWERGRID bays at AEGCL stations: Pawai S/s                                             | 34th NETeST | Real-time data of 132 kV BNC HVDC bays at Pawai S/s is not reporting to NERLDC.                                                                                                                                                                                                                                                                                                             | POWERGRID / AEGCL: Resolve telemetry issue and update status.                                                                                                                                                                    | At the earliest                    | POWERGRID completed its jurisdiction of work. Remaining to be completed by AEGCL.                                                                                                                                                                                                                                                      |
| 20 | Restoration of OPGW owned by Manipur (132 kV Churachandpur - Ningthoukhong link)                          | 34th NETeST | Outage affects 7 stations. Break is ~8km from Ningthoukhong. Handover documents provided in April 2024. In 33rd NETeST, MSPCL reported resolution pending due to law-and-order situation. NERLDC sent official letter to MD, MSPCL.                                                                                                                                                         | MSPCL / POWERGRID-ULDC: Provide update on the restoration of the OPGW link.                                                                                                                                                      | Dependent on law & order situation | Link of Manipur state sector to be rectified by MSPCL.                                                                                                                                                                                                                                                                                 |
| 21 | Fiber Optic Expansion (Central Sector): 400kV Bongaigaon (PG) - 220kV Salakati - 220kV BTPS               | 34th NETeST | The original vendor M/s TCIL has agreed to restart the work.                                                                                                                                                                                                                                                                                                                                | POWERGRID-NERTS: Update status on the progression of work.                                                                                                                                                                       | November 2026                      | Target: 30.09.2026                                                                                                                                                                                                                                                                                                                     |
|    | Fiber Optic Expansion (Central Sector): 400kV Mirza (Azara) - Byrnihat (Killing)                          | 34th NETeST | Stringing work has been completed.                                                                                                                                                                                                                                                                                                                                                          | POWERGRID-NERTS: Update status on completion of the entire work.                                                                                                                                                                 | May 2026                           | FODP and Approach cable laying completed. Link to be commissioned. Target: 31.08.2026.                                                                                                                                                                                                                                                 |
|    | Fiber Optic Expansion (Central Sector): 400kV Silchar - Palatana                                          | 34th NETeST | The original vendor M/s TCIL has agreed to restart the work.                                                                                                                                                                                                                                                                                                                                | POWERGRID-NERTS: Update status on the progression of work.                                                                                                                                                                       | October 2026                       | Works re-started from April 2026. (225/248) km completed, 13 km completed after re-start. It is to be noted that works have been greatly affected due to inclement weather and monsoon. Target: 30.09.2026                                                                                                                             |
| 22 | Fiber-Optic projects approved in 17th TCC/RPC: Additional Communication Scheme                            | 34th NETeST | Status update requested for the Additional Communication Scheme.                                                                                                                                                                                                                                                                                                                            | POWERGRID-ULDC: Update the status of the scheme.                                                                                                                                                                                 | At the earliest                    | Detailed update provided by POWERGRID. Attached as Annexure C 3.1 _22a                                                                                                                                                                                                                                                                 |
|    | Fiber-Optic projects approved in 17th TCC/RPC: Reliable Communication Scheme                              | 34th NETeST | Status update requested for: a) Replacement of existing fibre, b) Fibre on new lines.                                                                                                                                                                                                                                                                                                       | POWERGRID-ULDC: Update the status of the replacement and new fibre installations.                                                                                                                                                | At the earliest                    | Detailed update provided by POWERGRID. Attached as Annexure C 3.1 _22b                                                                                                                                                                                                                                                                 |
| 23 | Integration of Dikahi HEP real time data and pending Voice communication                                  | 34th NETeST | In 33rd NETeST, it was decided that NERPC Secretariat shall discuss the matter with DoP, Arunachal Pradesh / Dikahi. Previously (29th NETeST), it was informed that Dikahi HEP connected to a leased line and VOIP connection was in process.                                                                                                                                               | DoP-Arunachal Pradesh / Dikahi Utility: Expedite the integration of real-time data and resolve pending voice communication. Update status.                                                                                       | At the earliest                    | DoP-AP may update.                                                                                                                                                                                                                                                                                                                     |
| 24 | Feasibility to connect Lekhi Substation over Fiber-Optic Network                                          | 34th NETeST | DoP AP (IEE Itanagar) informed on 26th May 2026 that comm panels & FODP will not be shifted to the new control room. On 20th June 2026, DoP AP confirmed RTU work is completed and awaits the comm link. NERLDC requested POWERGRID and DoP AP via email on 10th July 2026 to connect Lekhi S/s RTU with SLDC AP.                                                                           | POWERGRID / DoP-Arunachal Pradesh: Provide update on the establishment of the communication link and RTU connectivity.                                                                                                           | At the earliest                    | As per mail dated 26.05.2026, POWERGRID requested confirmation for closure of the issue as DoP,AP confirmed that no shifting of communication panels and FODP will be done to the new building                                                                                                                                         |