AGENDA

FOR

30TH NETeST MEETING

Time of meeting : 11:00 Hrs.

Date of meeting : 24th January, 2025 (Friday)

Venue : NERPC Conference Hall,Shillong

Contents

NORTH EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR 30TH NETeST MEETING TO BE HELD ON 24.01.25 (FRIDAY) AT 11:00 HRS

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 29th Meeting of NETeST Sub-Committee of NERPC

The minutes of 29th meeting of NETeST Sub-committee held on 05.09.2024 at Hotel Royale De' Casa, Guwahati were circulated vide letter No. NERPC/NETeST/2024/2230-2269 September 19, 2024.

The Sub-committee may confirm the minutes of 29th NETeST meeting of NERPC.

2. PART-B: ITEMS FOR DISCUSSION

AGENDA FROM NERPC

2.1. Commencement of Audit of Communication systems installed at ISTS/SLDC stations

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(Annexure-B 2.1) has been formed based on the provision of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017.

NERPC along with NERLDC have identified some critical stations for audit of communication system and physical inspection in view of performance of the communication network. List of proposed stations (priority wise) for carrying out communication Audit has been shared by NERLDC (Annexure B 2.1(i)).
NERPC vide e mail dated 22/11/24 and 10/01/25 (Annexure B 2.1(ii)) has requested PGCIL to submit the data in respect of Kahilipara substation to carry out the communication audit. Response from PGCIL is awaited.

Members may discuss.

2.2. Guidelines on availability of communication system

- CERC vide order dated 19.01.2024 had approved the "Guidelines on Availability of Communication System" (Annexure-B.2.4) 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.

Members may discuss.

AGENDA FROM CTU

2.3. Dual reporting (2+2) of ISTS stations to Main RLDC and Backup RLDC

Presently SCADA data channels are reporting in main and backup mode (1+1) with 1 main channel to RLDC and 1 backup channel to Backup RLDC. To increase the redundancy in the system Grid-India requested that both main and backup channels should report to RLDCs as well as back up RLDCs (in dual mode). In this regard meetings were held among POWERGRID, Grid-India, CTU and CEA dated 09.05.2023 and 27.06.2023 (MoM attached at Annexure-B 2.4 I) where dual reporting of SCADA Chanels to main RLDC & Backup RLDC were deliberated.

Further, CERC has issued Guidelines on "Interface Requirements" under the CERC (Communication System for inter-State transmission of Electricity) Regulations,

2017 (Attached at Annexure-B 2.4 II) in Jan'24. Which also mandated that users shall provide communication interfaces with multiple ports, cards, gateways etc. to avoid failure of single hardware element.

To meet this requirement for new ISTS stations, CTU has started to include this requirement in the RFP inputs for the TBCB projects from Aug'23 onwards. For the existing substations CEA-PCD vide letter dtd.22.07.2024 (attached at Annexure-B 2.4 III) also confirms these requirement of 2+2 channels to main and backup RLDC.

For existing ISTS sub stations, CTU has requested all the TSPs e.g. POWERGRID, Adani, Sterlite, Indigrid, Aparaava, Renew Power etc. to provide status for readiness of 2+2 channels upto RLDC. As per inputs received POWERGRID, Indigrid, Sterlite existing SAS gateway / RTUs needs upgradation or replacement. Further TSPs stated that this requirement has cost implications, and they require a separate scheme to upgrade their existing substations.

As per discussions held within CTU (Engg & Communication departments), the Engg team suggested that as SAS upgradation comes under substation related work, this type of work can be carried out under O&M /AddCap as no separate transmission schemes are generally required at element level.
Agenda in this regard was also sent by CTU to NPC for deliberation and seeking their views and issuing guidelines, however NPC is of the view, that this agenda first needs to be put up in RPC level for consensus of all stakeholders. Thereafter CTU has forwarded the same to all the RPCs vide letter dtd. 11.09.2024 (attached at Annexure-B 2.4 IV)

Forum is requested to deliberate this requirement of SAS/RTU Upgradation/ Replacement for existing substations in Additional Capitalization for RTM substations and under Change in Law of TSA for the TBCB substations in line with CERC order on petition no. 94/MP/2021. This Agenda was discussed in 26th TeST

meeting of NR also, where NRPC stated that this requirement may be taken up in similar manner as the finalized implementation mode of Firewall scheme by CEA NPC committee.

Members may discuss.

2.4. Status of North Eastern Region Communication Schemes awarded to TSPs:

Following communication projects have been awarded to various TSPs after approval in NCT

Sl No.	Project Name	Award Date	Implementing Agency	Implementation Time	Status update by TSP
1.	Additional FOTE at Loktak and Bongaigaon AGC locations in NER region	20.12.23	POWERGRID	06 months	
2.	Scheme for Requirement of Additional FOTE for redundancy at AGC locations in NER: Revised	02.09.24	POWERGRID	06 months	

Members may discuss.

2.5. OPGW availability status on 132kV Tipaimukh (Manipur)-Aizawl (Mizoram PG) line for communication planning of 132kV Tipaimukh (Manipur)-Aizawl (Mizoram PG) link.

As per CTU database,132kV Aizawl-Jiribam line is ISTS line owned by POWERGRID and this line is LILOed at Tipaimukh and the LILO ownership is with state.

As per operational feedback from NLDC, data for the subject mentioned line is not

reporting due to absence of communication link.

In this regard, the OPGW availability on the said link may be confirmed so that necessary planning for OPGW laying may be done.

Also, it may be confirmed if the OPGW laying on the said line is already planned in some scheme.

If OPGW is not available, then ownership, line length and equipment requirement at either end may be confirmed.

Members may discuss.

2.6. OPGW laying work on 132kV Dharamnagar- Dullavcherra and 132kV Dullavcherra- Halaikandi line.

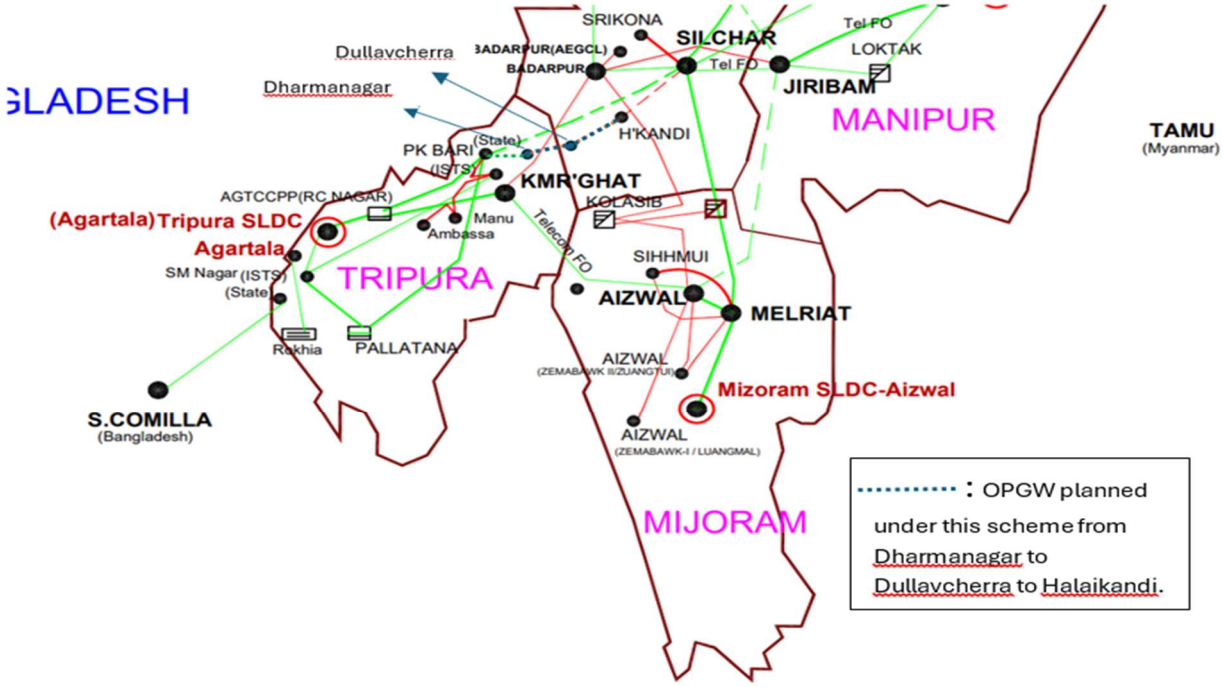
S. No.	Items	Details
1.	Scope of the scheme	OPGW(48F) laying work on 132kV Dharamnagar-Dullavcherra (37 km)(jointly owned by Assam and Tripura) and 132kV Dullavcherra- Halaikandi (31.4 km) line(Assam owned). Supply and Installation work of three no STM16 FOTEs, One each at Dharamnagar, Dullavcherra, Halaikandi S/s along with required interfaces for ISTS and STU connectivity of the 132kV Dharamnagar- Dullavcherra and 132kV Dullavcherra- Halaikandi link.
2.	Depiction of the scheme on FO Map	As depicted in Appendix-I

3.	Objective / Justification	In the 6th CPM of NER region held on 23.08.2024, NERLDC stated that OPGW connectivity for 132kV Dharamnagar-Dullavcherra ISTS line is crucial for grid parameter monitoring of the concerned states. This deemed ISTS line though exist between Tripura and Assam but has the ownership of states(Tripura & Assam) so states have the first right to lay OPGW. However, if the states do not agree then it may be considered to lay OPGW in ISTS schemes. Tripura stated that for the Dharamnagar to Dullavcherra line, Tripura has submitted a proposal to CEA for OPGW laying along with reconductoring of the line in their section. But, this is in proposal state only and hence it may be considered to lay OPGW in ISTS scheme. NERLDC/Tripura/Assam stated that this being important ISTS line, OPGW laying may be done in ISTS scheme rather than by states. It was further deliberated in the forum that as OPGW laying on Halaikandi to Silchar line and P K Bari to Dharamnagar line is already under implementation so OPGW laying on Dullavcherra-Halaikandi may also be planned as it will strengthen the ISTS OPGW connectivity in NER. It was agreed in the forum that OPGW laying from Dharamnagar- Dullavcherra and Dullavcherra-Halaikandi may be planned in ISTS scheme so as to connect these stations on OPGW. The agenda for laying OPGW on 132kV Dharamnagar-Dullavcherra line was also

		deliberated in 29th NETeST meeting held on 05.09.2024.
4.	Estimated Cost	Rs. 4,66,20,000/- (approx.) (Four Crores & Sixty Six Lacs and Twenty Thousands only) including taxes and duties as applicable.
5.	Implementation time frame	18 months from date of allocation.
6.	Implementation agency	To be implemented by POWERGRID in RTM mode.
7.	Deliberations	The agenda for OPGW laying on 132kV Dharamnagar-Dullavcherra line was deliberated in the in the 6th CPM of NER region held on 23.08.24 (minutes attached as Annexure V). The same agenda was also deliberated in 29th NETeST meeting held on 05.09.2024(MoM attached as Annexure VI). Accordingly, this scheme i.e. OPGW laying work on 132kV Dharamnagar- Dullavcherra and 132kV Dullavcherra- Halaikandi line has been prepared and after NERPC review the same shall be put up to NCT for approval.

The above scheme has been prepared considering one no. of STM 16 equipment at each of locations Dharamnagar, Dullavcherra, Halaikandi S/s. POWERGRID may

confirm the requirement of equipment and its capacity so that the scheme scope



and cost may be modified accordingly.

Members may discuss.

AGENDA FROM NERLDC

2.7. Re-configuring RTUs of NEEPCO owned stations for reporting to NERLDC Guwahati

NERLDC Guwahati was inaugurated on 11th March 2024, following which NERLDC is operating under the Main-1 and Main-2 concept, with its establishments located in Shillong and Guwahati. At present, some NEEPCO stations report exclusively to NERLDC Shillong. In view of achieving 100% redundancy of Main-1 and Main-2

NERLDC, there is a critical need to reconfigure the RTUs to enable simultaneous reporting to NERLDC Guwahati.

Correspondence regarding this matter has been initiated through emails dated 25th September 2024 and 18th November 2024, as well as a formal letter addressed to CGM (O&M), NEEPCO, under reference number NERLDC/SL/COMMUNICATION/7171 dated 27th December 2024. However, the necessary actions from NEEPCO remain pending.

The stations requiring reconfiguration are as follows:

1. RC Nagar: The RTU need to be configured in the IEC-60870-104 protocol to facilitate reporting to NERLDC Guwahati.
2. Pare HEP: The RTU need to be configured in the IEC-60870-104 protocol to facilitate reporting to NERLDC Guwahati.
3. Khandong Stage-2: An additional port of the RTU must be configured in the IEC-60870-104 protocol to facilitate reporting to NERLDC Guwahati.
4. Ranganadi: Network reconfiguration of Channel Two of existing RTU is required.

NEEPCO is requested to provide an update on the current status of these actions.

Members may discuss.

2.8. Re-configuring RTUs of POWERGRID owned stations for reporting to NERLDC Guwahati

NERLDC currently operates under the Main-1 and Main-2 concept, with its establishments located in Shillong and Guwahati. Presently, several stations owned by POWERGRID report exclusively to NERLDC Shillong. To address this, there is a need to reconfigure the RTUs to enable simultaneous reporting to NERLDC Guwahati.

The stations requiring reconfiguration are as follows:

1. 132 kV Aizawl: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
2. +/- 800 kV BNC-HVDC: Network reconfiguration of one of the SAS Gateway and router is required.
3. 220 kV Dimapur Network reconfiguration of one of the SAS Gateway and router/firewall is required.
4. 132 kV Haflong: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
5. 132 kV Nirjuli: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
6. 132 kV Jiribam: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
7. 132 kV Kumarghat: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
8. 400 kV Mariani: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
9. 132 kV Melriat: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
10. 400 kV Misa: Creation of a new IEC-104 in the SAS Gateway is required.
11. 220 kV Mokokchung: Creation of a new IEC-104 in the SAS Gateway is required.
12. 132 kV Namsai: Network reconfiguration of one of the SAS Gateway and router/firewall is required after the completion of the OPGW link.
13. 132 kV Roing: Network reconfiguration of one of the SAS Gateway and router/firewall is required after the completion of the OPGW link.
14. 220 kV Salakati: Network reconfiguration of one of the SAS Gateway and router/firewall is required.
15. 400 kV Silchar: Creation of a new IEC-104 in the SAS Gateway is required.
16. 132 kV Tezu: Network reconfiguration of one of the SAS Gateway and router/firewall is required after the completion of the OPGW link.

In light of the above, NERLDC has communicated with POWERGRID via email on 6th January 2025.

NERLDC requests POWERGRID to take the necessary steps to implement these changes in coordination with NERLDC and to provide the target dates for completion.

Members may discuss.

2.9. Integration of weather parameter data as per CERC guideline on Interface Requirements

In accordance with the CERC Guidelines on Interface Requirements dated 19th January 2024, all state-owned and central sector stations are required to integrate weather parameters, including Temperature, Wind Speed, Humidity, and Rainfall, into the SCADA system.

NERLDC requests the states to prioritize the incorporation of these weather parameters in the state capitals and other important load centers as a first step.

Additionally, NERLDC requests the following entities to take necessary actions to incorporate these weather parameters into the existing SAS/RTU systems at the earliest:

All utilities are kindly requested to provide station-wise target dates for the completion of this integration.

Members may discuss.

2.10. Consolidated list of Circuit Breaker and Isolator for all utilities.

As per Agenda 2.5 of the Minutes of Meeting (MoM) for the 221st OCC, the forum requested NERLDC to share a consolidated list of all utilities, along with the status of their circuit breakers and isolators.

In response, the consolidated list of telemetry availability for all stations is included in the weekly Telemetry Report. The latest version of this report is attached as Annexure – B 2.11 for reference.

Members may discuss.

2.11. Installation of PMU at 220kV Nangalbibra S/s

NERLDC would like to bring attention of forum that M/s Sterlite (NBTL) initiated discussions with NERLDC on first-time charging clearance requirements, leading to a series of deliberations involving CTUIL, CEA, and NERLDC.

A virtual meeting on October 18, 2023, focused on the placement of Next Generation Firewall (NGFW) and Phasor Measurement Units (PMUs) within the Nangalbibra-Bongaigaon Transmission System. NERLDC highlighted that PMUs, required for 400 kV lines (even if charged at 220 kV) as per CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations-2022, and NGFW, mandated by CEA Cyber Security Guidelines 2021, should be included. M/s Sterlite expressed concerns that these items were not part of their original RFP or TSA and requested ratification from CEA for scope changes.

Following discussions, M/s Sterlite formally approached CEA on 26th October 2023, vide letter ref no. NBTL/PMU&NGFW/2023/CEA/01, seeking ratification to include PMUs and NGFW in compliance with updated guidelines.

In a subsequent November 2023 meeting, it was agreed that NBTL would install these items but requested a 6–8 months extension due to procurement constraints.

NERLDC committed to granting first-time charging clearance with an assurance of timely implementation.

However, CEA vide letter 33109/2024 dated 17th September 2024 stated that NBTL, as a Special Purpose Vehicle (SPV) for the project, must complete its scope of work as per the Transmission Service Agreement (TSA). The implementation of PMUs and NGFW is not covered under the current TSA, and therefore, NBTL should complete the work strictly as per the TSA. CEA advised CTUIL and Grid-India to assist with the charging process, with NERPC supporting.

NBTL has already installed two (02) number of NGFW in 220 kV Nangalbibra S/s.

NERLDC requests intervention of forum to take up the matter with NPC and instruct M/s NBTL for installation of PMUs as per clause 48.6 of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations-2022.

Relevant documents are attached as Annexure-B 2.12.

Members may discuss.

2.12. Discussion on operational issues and punch points for UNMS of NER.

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

a. Naming Nomenclature Standardization

NERLDC highlighted operational challenges due to unclear service names in ECI, ABB, and Fibcom equipment, affecting RTU, PMU, and VoIP issue identification. ULDC-POWERGRID is awaiting standardized nomenclature from GA&C-POWERGRID but has initiated independent efforts. The forum requested a definitive timeline for implementation within a week.

b. Audio Alarm Configuration

NERLDC flagged non-compliance with Clause 19.5 of CEA Technical Standards 2020 regarding audio alarms. GA&C-POWERGRID is addressing the issue. The forum urged ULDC-POWERGRID to provide a timeline for resolution within a week.

c. Custom Time Selection for Event Filtering

NERLDC emphasized the need for custom time filtering in UNMS for granular event analysis. GA&C-POWERGRID is addressing this. The forum requested a concrete resolution timeline within a week.

d. Public Access to Mail Service

Lack of public mail service in U-NMS affects report sharing and communication availability certification. NERLDC requested an interim solution, independent of the National UNMS project. The forum urged ULDC-POWERGRID to address the issue on priority within a week.

e. Mismatch in Link Status in U-NMS

NERLDC reported discrepancies in link status between U-NMS and actual conditions, especially in M/s Fibcom-managed links. The forum requested coordination with vendors and a resolution timeline within a week.

f. Node Name Display in U-NMS

ABB SDH equipment under NERPSIP-Assam shows IP addresses instead of node names. NERLDC requested ABB-NMS integration with U-NMS to resolve this issue. The forum urged a resolution timeline within a week.

g. Integration of State NMS with U-NMS

Updates on state-wise NMS integration under NERPSIP and Comprehensive T&D projects were provided. Pending issues include NMS delivery, node monitoring, and configuration delays. The forum requested timelines for completion from ULDC POWERGRID and other stakeholders.

h. Integration of FOTE for TSPs

Integration of Fiber Optic Terminal Equipment (FOTE) for TSPs such as Sterlite, Aparva, and Indigrid remains incomplete. The forum requested expedited actions and timelines for integration completion.

i. Integration of VSAT with U-NMS

Integration of ULDC-POWERGRID's VSAT nodes with U-NMS is pending due to TATA NELCO device connectivity. The forum requested immediate action and a timeline within a week.

j. Submission of No Objection Certificates (NoCs)

ULDC-POWERGRID was reminded of pending NoCs from NER SLDCs for the U-NMS system. Updates were provided on state-wise progress, with specific issues in Assam (Keymile integration), Tripura (NERPSIP-NMS integration), and absent updates from Manipur and Meghalaya. The forum urged immediate resolution and NoC collection.

ULDC-POWERGRID may update on each point.

2.13. Extension of AMC of VoIP system of NER:

The AMC (Annual Maintenance Contract) for the VoIP system deployed in NER is valid only until July 2025. As per discussions held in various forums, a new VoIP

system is currently in the approval stage and is expected to take 2-3 years for deployment.

The VoIP system is a critical component of day-to-day grid operations, and its maintenance is essential to ensure seamless functionality. At present, the VoIP system is being managed by ULDC-POWERGRID.

The forum is requested to deliberate on the matter and propose a feasible solution to extend the AMC for the existing VoIP system until the new system is fully deployed in NER.

Members may deliberate.

2.14. Connectivity of 132 kV Hastingmari – Ampati link with existing OPGW network of NER:

The connectivity of the 132 kV Hatsingimari – Ampati link with the OPGW network is crucial to ensure the reliable reporting of data/voice for Hatsingimari and to enable future connectivity between Assam and Meghalaya.

As per the Minutes of the NERPC Special Meeting on the Establishment of an Alternate Path for the Hatsingimari – Ampati Line, held on 9th December 2024, the responsibilities of various utilities are outlined in the table below:

Sl No.	Location	Details of Work	Responsibility	Timeline
1	Ampati	Optical patching at Ampati has been completed. KLM is shared between the ECI multiplexer (owned by NBTL) and the ABB	M/s Sterlite	Completed

		multiplexer (owned by Meghalaya).		
2	Nangalbibra	Supply of one GE make and one ABB make STM-1 SFP. Notify MePTCL 2–3 days before delivery. MePTCL to complete inter-patching of GE and ABB FOTE within 2 days after receipt of material. Extend the KLM to Agia substation.	M/s Sterlite (supply), MePTCL (patching & KLM)	2-3 days after receipt of material
3	Agia	Assam FOTE at Agia node maintained by ULDC POWERGRID. POWERGRID to provide one ECI make SFP. POWERGRID and MePTCL to perform inter-patching between GE and ECI FOTE Mux. POWERGRID to extend KLM to SLDC Assam.	POWERGRID & MePTCL (works)	2–3 days after completion of Nangalbibra
4	Testing of Links	Joint testing between SLDC Assam and	SLDC Assam, POWERGRID,	In parallel with

		Hatsingimari to verify link establishment.	AEGCL and MePTCL	completion of Nangalbibra works

The forum is requested to review the responsibilities and discuss the necessary steps to expedite the implementation of the OPGW connectivity for this critical link.

Members may deliberate.

2.15. Non-compliance of Communication System Outage Planning:

As per Regulation 7.3 of the Central Electricity Regulatory Commission (Communication System for Inter-State Transmission of Electricity) Regulations, 2017, it has been observed that utilities are not adhering to the regulations laid down by the Hon'ble CERC.

In the 29th NETeST Meeting, it was decided that:

All constituents shall submit their outage requirements for the following month to NERPC by the 7th of the current month.

NERLDC, in coordination with NERPC, shall prepare the communication outage list for NER by the 15th of the month.

States were advised to share the list of important lines critical from a communication perspective with NERLDC by 20th September 2024.

Despite these decisions, several issues have been observed:

ULDC-POWERGRID frequently applies for shutdowns one or two days before the planned outages, which are of a planned nature.

None of the utilities have submitted the list of important lines critical from a communication perspective to NERLDC as mandated in the 29th NETeST Meeting.

NERPC is requested to intervene and instruct all utilities to strictly follow the regulations and established protocols to ensure smooth communication outage management.

Members may deliberate.

2.16. Long outage of 400 kV New Kohima – Imphal link: Restoration of Communication Link Between 400kV New Kohima (KMTL) and NERLDC via 400kV Imphal (PG)

The 400kV New Kohima (KMTL) is connected to NERLDC, Shillong via two communication paths: one through the Fibcom link via Mariani (PG) and the other via the 400kV New Kohima (KMTL) - 400kV Imphal (PG) link. The communication link via 400kV Imphal (PG) has been out of service since June 2024. Despite follow-ups by NERLDC through emails dated 10th and 17th September 2024, the issue remains unresolved. Aparava reported that an OTDR test on the OPGW cable revealed signal loss between towers 74 and 84 in Manipur, but due to the prevailing law and order situation in the region, accessing the site is not feasible. As the outage has persisted for over seven months, it is imperative to discuss efforts to engage the local administration for assistance in resolving this critical issue. The forum is requested to deliberate on the matter and propose actionable steps.

Members may deliberate.

AGENDA FROM GENUS

2.17. Regarding updates on installation of balance meters and replacement of forty-nine (49) numbers of -/1A meters with -/5A meters

This has reference to the above-mentioned LOA received from NERPC for Supply, Installation, Testing and Commissioning of 0.2S class ABT type energy meters and Automated Meter Reading(AMR) solutions as per SAMAST guidelines at various substations of state utilities in the North Eastern States of Manipur, Mizoram, Tripura, Nagaland and Arunachal Pradesh and your letter as mentioned above.

We are pleased to inform you that despite the prevailing law and order situation in Manipur, we are on track to complete the installation of 25 ABT meters in the coming week.

Regarding the balance 49 Nos of ABT meters, we would again like to reiterate that we have commenced manufacturing the meters subsequent to completing surveys of all designated substations and obtaining formal approvals. Each metering point was meticulously detailed in the approved survey, specifying meter ratings (-/1A or -/5A). Furthermore, we have already offered the meters for inspection and dispatched them promptly upon successful inspections and receipt of dispatch approvals.

Changing the meters at this juncture would entail significant financial implications for us, as the manufactured meters strictly adhere to the specifications outlined in the LOA and are not suitable for deployment in other projects. This concern was also deliberated upon at various NeTEsT and OCC meetings in the presence of MS, NERPC.

We request your prompt action towards taking over of the 49 Nos of -/1A meters so that we may proceed towards project closure. Your cooperation is crucial for the timely and successful completion of the project

We look forward to your support for the timely and successful completion of the project.

Members may deliberate.

AGENDA FROM PwC

2.18. State wise agenda points

States	Agenda	Details
Assam	1) Progress status of the project	Project has completed with the completion of Warranty support period on 31 July 2024
	2) Pending payments related to milestone # 2 (Datacenter commissioning) and milestone # 5 (Go-live)	Aging of milestone # 2 invoice is 1032+ days and that of milestone#5 invoice is 498+ days. AEGCL is yet to receive 16% of funds.
Meghalaya	1) Progress status of the project	Project has completed with the completion of Warranty support period on 31 July 2024
	2) Pending payments related to milestone # 5 (Go-live)	Aging of milestone# 5 invoice is 496+ days. MePTCL is yet to receive 10% fund from PSDF

Arunachal Pradesh	1) Progress status of the project	Warranty support period is in progress
	2) Pending payments related to milestone # 2 (Datacenter commissioning)	Aging of milestone # 2 invoice is 85+ days. DoP,AP is yet to receive 30% of funds.
Manipur	1) Progress status of the project	SAT is in progress. Completed SAT for 4 modules, waiting SAT date from SLDC for the remaining 3 modules since last one and half years.
	2) Unavailability of AMR data for Site Acceptance Testing	SAT of Meter Data Management module and Energy Accounting & Settlement module are yet to be initiated due to unavailability of significant AMR data. This has a significant impact on SAT schedule.
	3) Contract expiration	Contract period has ended on 30th Sep 2024. No extension has been provided yet, even after multiple follow ups through email, verbal communication and

		letters. Due to the absence of the extension letter, there is no contract at present.
Mizoram	1) Progress status of the project	Warranty support period is in progress
	2) Fund requisition pending for milestone#5	P&ED Mizoram to submit fund requisition to PSDF for the last milestone for the remaining 10% fund.

Nagaland	1) Progress status of the project	Warranty support period is in progress
	2) Payment Status	DoP GoN needs to submit the requisition to PSDF for Milestone #5, which is delaying the payment for the last milestone.
Tripura	1) Progress status of the project	Warranty support period is in progress
	2) Partial payment of milestone# 3 (Factory Acceptance Testing)	Aging of milestone#3 invoice is 610+ days and it has been paid partially. SLDC to submit fund requisition to pay it fully.

Members may deliberate.

AGENDA FROM MEGHALAYA

2.19. Telemetry issues due to non-functional 48V DC Chargers installed under NERPSIP- MePTCL

The 48 V DC chargers installed by PGCIL at NEHU,Mawlai,Nongstoin, Nangalbibra and Rongkhon substations as part of the NERPSIP project are non functional. PGCIL has not responded to the concerns on this issue which were highlighted way back in August 2023. It may be noted that all the telemetry information from all the sub stations after 132 kV Nongstoin are being routed via the 132 kV Nongstoin NERPSIP HITACHI SDH. However the power supply to this SDH is being fed from the existing old 48 V DC charger which goes down every now and then especially during off peak hours due to high system voltage wherein the charger disconnects its AC inputs. NERPC is requested to instruct PGCIL to attend to these issues immediately.

Additionally, no DI cards were installed at Ampati substation against the two 132 kV bays at Phulbari.

The pending NMS installation and commissioning supplied under NERPSIP by PGCIL thereby rendering maintenance or restoration work impossible. From the communication point of view NERPC is requested to instruct PGCIL to attend to these issues immediately.

Members may deliberate.

AGENDA FROM TERRAFENCE PVT LTD.

2.20. Presentation on technology for hardware isolation between SCADA and IT network

Terrafence Pvt. Ltd. requests an opportunity to present our Uni-directional Gateway solution (Data Diode) that could significantly benefit the Power sector.

The proposed solution offers physical hardware isolation between SCADA and IT Network, and we are confident that it will contribute positively securing the Power sector. We would appreciate the chance to share detailed insights, including data-driven analysis, potential impacts, and actionable steps, during the meeting.

In today's interconnected world, the power sector forms the backbone of modern economies. System Load Dispatch Centers (SLDCs) play a pivotal role in ensuring uninterrupted power supply by managing and monitoring electricity transmission across vast networks. These critical operations are facilitated by Operational Technology (OT) and Supervisory Control and Data Acquisition (SCADA) systems. However, with increasing connectivity, SLDCs are increasingly exposed to cyber threats, making robust cybersecurity measures necessary.

Among the most advanced solutions to secure OT networks is the Data Diode technology. Terafence, a leading cybersecurity solutions provider, has been at the forefront of deploying Data Diode technology in the power sector, ensuring that vital systems like those at POSOCO (Power System Operation Corporation) are safeguarded against cyber threats. This article explores the importance of Data Diode technology for the SLDC power segment, its operational benefits, and its compliance with the Ministry of Power's notifications for deploying air gap solutions.

M/s Terrafence Pvt. Ltd may present. Members may deliberate.

AGENDA FROM M/S ORBIT INDIA LTD.

2.21. Presentation of solutions for establishing C-SOC at SLDCs of NER

M/s Orbit India Ltd. Requests for a presentation of solutions for establishing C-SOC at SLDCs of NER.

M/s Orbit India Ltd may present. Members may deliberate.

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

3.1. Missing link OPGW in 132 kV Karong-Kohima line (as per Agenda 2.10 of 29th NETeST MoM)

NERPSIP-Manipur has laid OPGW from Karong (in Manipur) up to Mao (the border of Manipur and Nagaland). However, there is currently no project planned to extend the OPGW from Mao to Kohima, which is necessary to complete the link from Karong to Kohima. This line is an ISTS connection between the two states. The OPGW connectivity will enhance the reliability and redundancy of the power systems in both Manipur and Nagaland, as well as for the entire North Eastern Region (NER).

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

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

The proposed link connection is shown below:

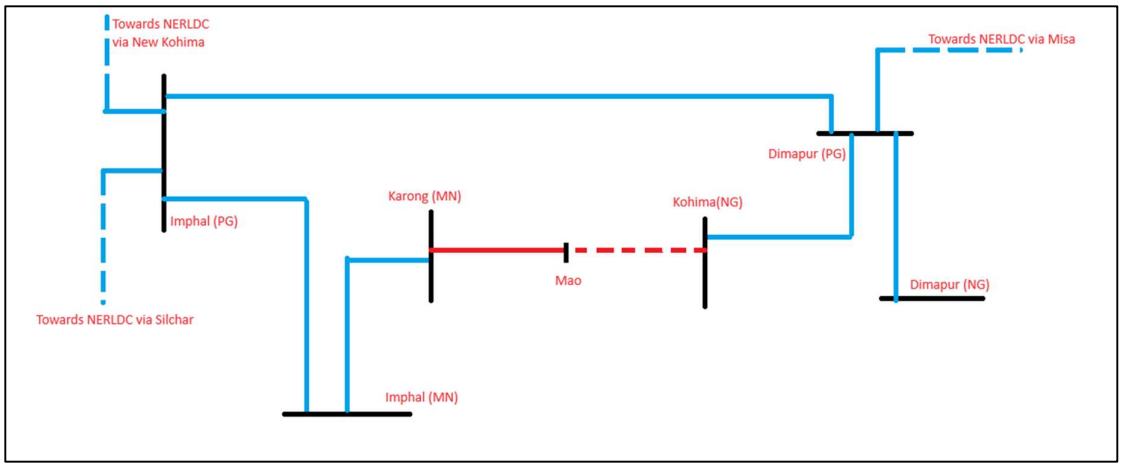


Figure 1: Connectivity Depicting Karong-Kohima

DOP-Nagaland is requested to update the status of DPR.

3.2. Dharmanagar-Dullavcherra OPGW connectivity. (as per Agenda 2.11 of 29th NETeST MoM)

NERLDC would like to draw attention to the criticality of Dharmanagar and Dullavcherra as state drawal points for Tripura and Assam, respectively. These stations have been deprived of OPGW connectivity for an extended period, resulting in their data not being reported to the SLDCs and NERLDC. Since these points are connected via the ISTS element 132 kV Dullavcherra - Dharmanagar line, their monitoring is crucial for NERLDC operations.

To address this issue, the forum is requested to deliberate on laying OPGW along the Dharmanagar - Dullavcherra - Hailakandi section to connect Dharmanagar and Dullavcherra to the ULDC Network.

Updates and Deliberations:

1. 6th Communication Planning Meeting (CPM) of CTU for the NER Region held on 23rd August 2024:
    - Tripura officials confirmed that OPGW has been installed in the P K Bari (TR) to Dharmanagar (TR) section under NERPSIP, but the FOTE installation is still pending.
    - Assam and Tripura officials requested OPGW implementation in the Dharmanagar - Dullavcherra - Hailakandi portion [(37 + 35) km ~ 72 km length] for improved data availability.

CTU agreed to initiate a fresh proposal for OPGW implementation in this portion. Alternatively, POWERGRID was asked to include this section under an existing OPGW scheme.

2. 29th NETeST Meeting and 6th CTUIL-CPM Minutes:
    - It was discussed that OPGW laying for the Dharmanagar - Dullavcherra (37 km) and Dullavcherra - Hailakandi (35 km) segments could either be planned under the ISTS scheme or included in an existing OPGW scheme of NER by POWERGRID.

3. NERPSIP-Tripura Commitment:

- As per the 29th NETeST Meeting, NERPSIP-Tripura committed to commissioning the FOTE of Dharmanagar by September 2024.

Request for Updates:

- NERPSIP-Tripura is requested to provide an updated status on the commissioning of FOTE at Dharmanagar.
- ULDC-POWERGRID is requested to inform the forum whether the OPGW laying for Dharmanagar - Dullavcherra (37 km) and Dullavcherra - Hailakandi (35 km) sections has been included in any ongoing project.

Forum may discuss and provide further direction to expedite the implementation of OPGW connectivity in these critical sections.

The proposed link connection is shown below:

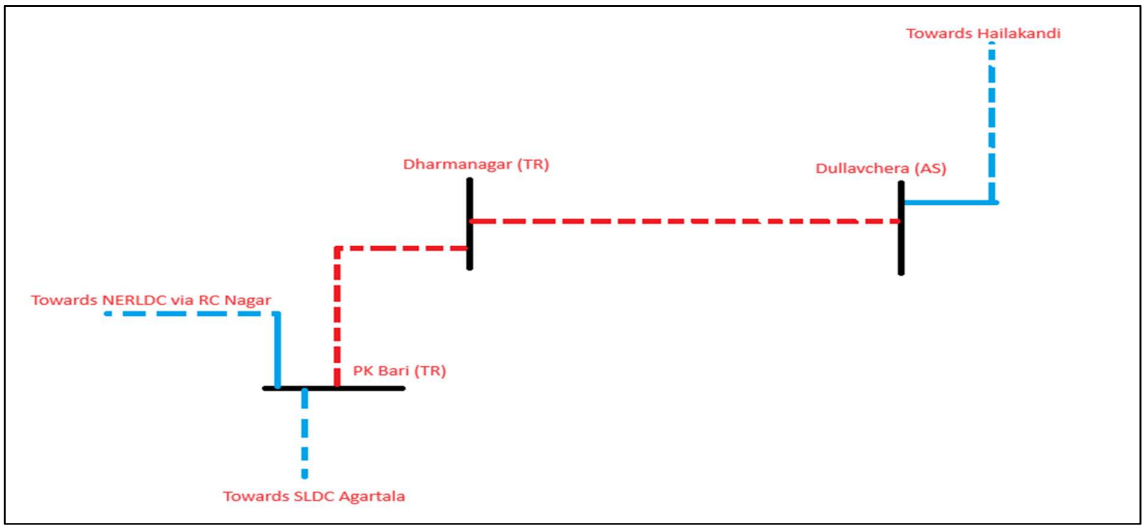


Figure 2: Connectivity Depicting Dharmanagar-Dullavcherra

Members may deliberate.

3.3. Connectivity of OPGW for 132 kV Kumarghat - PK bari for redundancy of Communication System of Tripura. (as per Agenda 2.12 of 29th NETeST MoM)

On 07/07/2024, at 1900 hrs, a technical issue at RC Nagar resulted in the failure of the 132 kV RC Nagar-Kumarghat link. This led to the unavailability of VoIP, PMU, and RTU services for the following stations at NERLDC:

- 400 kV SM Nagar
- 400 kV PK Bari
- Palatana
- RC Nagar

The outage persisted for over 20 hours, with restoration completed by 16:00 hrs on 08/07/2024.

To enhance connectivity and prevent future disruptions, it is proposed to operationalize OPGW on the 132 kV Kumarghat-PK Bari line.

Key Updates and Deliberations:

6th Communication Planning Meeting (CPM) of CTU for the NER Region held on 23rd August 2024:

- Tripura officials confirmed that OPGW and FOTE have already been installed in the Kumarghat (PG) to PK Bari (TR) portion under NERPSIP,but inter-patching remains pending.
- This link can be extended to RC Nagar via the existing OPGW (owned by Indigrid) on the 132 kV RC Nagar (NO) - PK Bari (TR) line.

Request for Fibre Allocation:

- TSECL and NERPSIP are requested to allocate a pair of fibers for the 132 kV Kumarghat-PK Bari link, which will be connected to ULDC-FOTE at both stations.

Commitments from 29th NETeST Meeting:

- NERPSIP-Tripura and TPTL committed to completing the following by September 2024:
  a. Inter-patching with ULDC-FOTE at Kumarghat and PK Bari.
  b. Providing a pair of fibers to establish a redundant communication channel between Kumarghat and PK Bari.

Request for Updates:

- NERPSIP-Tripura, TPTL, and ULDC-POWERGRID are requested to provide an updated status on the progress of the inter-patching and fibre allocation activities.

Forum may discuss and provide further direction to ensure timely completion of these critical tasks. The proposed link connection is shown below:

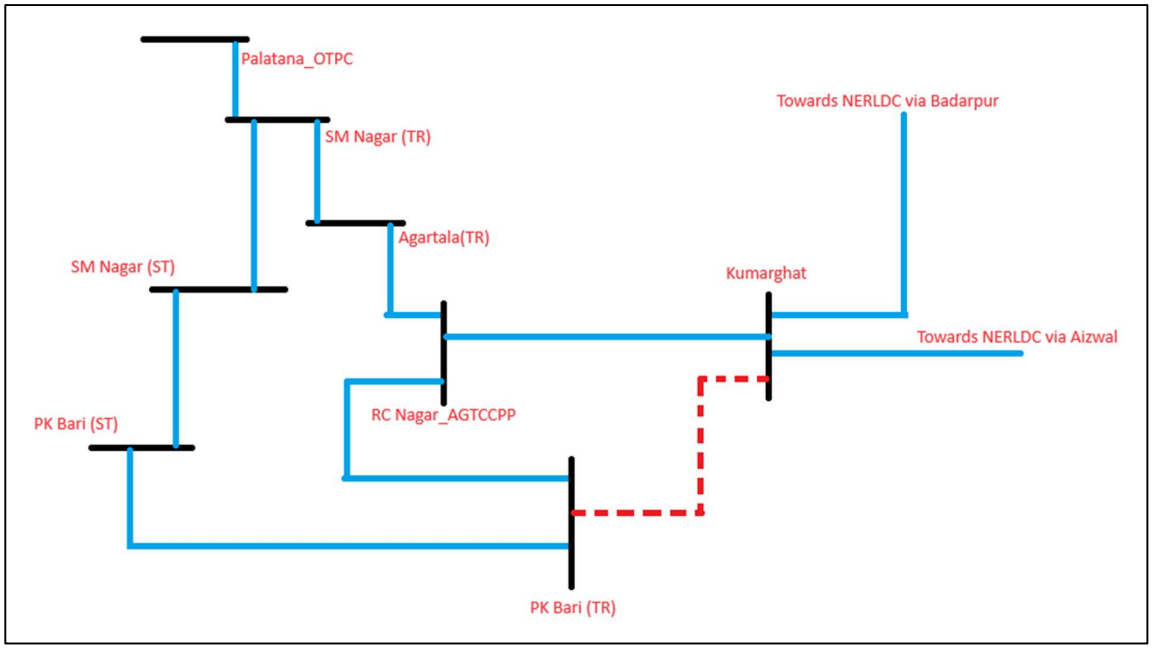


Figure 3: Connectivity Depicting Kumarghat-PK Bari

Members may deliberate.

3.4. Feeble condition of State-Estimator of NERLDC SCADA system due to low availability of Real-time Telemetr. (as per Agenda 2.13 of 29th NETeST MoM)

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

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

As per 29th NETeST meeting, MS NERPC has set a target and timelines for improvement of telemetry for all NER states, the target and timelines are as shown below:

State	Target Telemetry Percentage (Analog)	Timeline to achieve the target
Assam	80 %	2 Months
Arunachal Pradesh	80 %	2 Months
Manipur	60 %	2 Months
Meghalaya	70 %	2 Months
Mizoram	50 %	2 Months
Nagaland	60 %	2 Months
Tripura	50 %	2 Months

All states are requested to update the progress and status.

3.5. Notification of Revised Guidelines for PSDF Fund Disbursement and Request for DPR Revisions (as per Agenda 2.14 of 29th NETeST MoM)

It is pleased to inform the forum that the Ministry of Power (MoP) has issued Revised Guidelines for the disbursement of funds from the Power System Development Fund (PSDF) on 12th March 2024. According to clause 6.2.iv, "Schemes from the States of the North-Eastern region and other hilly States/UTs, including Jammu & Kashmir, Ladakh, Sikkim, Himachal Pradesh, and Uttarakhand, shall be eligible for a grant of up to 100% for the schemes mentioned in para-5.1(a), 5.1(b), 5.1(c), 5.1(d), 5.1(e) & 5.1(f)."

Additionally, as per Point (g) read under Clause 5.1(c) of Annexure III, states can apply for 100% funding for projects related to Communication Schemes for Automated Meter Reading (AMR) and real-time telemetry aimed at achieving 100% grid visibility.

As per 29th NETeST meeting, the forum requested states to revise the DPR of State Reliable Communication scheme for getting funding from PSDF and send it to PSDF by October 2024.

All states are requested to update the status of the DPR.

3.6. Non reporting of Deemed ISTS stations (as per Agenda 2.15 of 29th NETeST MoM)

Real-time data from deemed ISTS Stations (Stations owned by states) is being regularly observed by NERLDC as these are important stations connecting two different states.

However, following such stations are connected to ISTS but not reporting to NERLDC since very long.

Substation Name	**Connected with**	**Remarks**
132 kV Dharmanagar (Tripura)	132 kV Dullavcherra (Assam)	Data is not reporting due to non-availability of communication link.
132 kV Tipaimukh (Manipur)	132 kV Aizawl (Mizoram-PG)	Data is not reporting due to non-availability of communication link.

TSECL and Manipur may update on the issue.

3.7. Connectivity of 132 kV Roing, Tezu and Namsai on OPGW (as per Agenda 2.16 of 29th NETeST MoM)

Since October 2020, the 132 kV substations at Roing, Tezu, and Namsai have been reporting data over VSAT. It is now requested that ULDC-POWERGRID connect the data and voice communications of these substations over Optical Ground Wire (OPGW), as the necessary OPGW infrastructure is already available along the route Namsai → Tezu → Roing → Chapakhowa → Rupai → Tinsukia → Namrup → Lakwa → Mariani (AS) → Samaguri → Sarusajai → Kahilipara → NERLDC, Guwahati.

Specifically:

The Namsai → Tezu → Roing → Chapakhowa segment falls under ULDC-POWERGRID.

The Chapakhowa → Rupai → Tinsukia → Namrup → Lakwa → Mariani (AS) → Samaguri → Sarusajai → Kahilipara segment is managed by AEGCL.

ULDC-POWERGRID and NERPSIP committed to complete the necessary inter-patching work required at 132 kV Chapakhowa within 15 days of last NETeST (i.e. by 20th September 2024)

ULDC-POWERGRID and NERPSIP are requested to update the status.

3.8. Adherence to CERC order dated 04th August 2023 for petition 197/MP/2020 (Arunachal Pradesh), 201/MP/2020 (TPTL), 263/MP/2020 (DoP, Nagaland) and 556/MP/2020 (PE&D, Mizoram). (as per Agenda 2.17 of 29th NETeST MoM)

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

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

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

DOP-Arunachal Pradesh, DOP-Nagaland and TPTL (Tripura) may update the status.

3.9. Connectivity of NERLDC Guwahati with Sarusajai and Umiam bypassing Kahilipara for its redundancy. (Agenda 3.1 as per MoM of 29th NETeST Meeting)

As per point 3.21 of MoM of 26th TCC/RPC meeting held on 4th and 5th July 2024, RPC and TCC forum approved the following connectivity for NERLDC Guwahati:

- POWERGRID to lay two 24-core fibre optic cables from NERLDC Guwahati to Gantry of Kahilipara. At Gantry, a Joint Box would be installed, facilitating the connection of one cable from NERLDC to the Sarusajai direction and the other cable to the NEHU direction. (2 x 1 KMs): 26th TCC/RPC has approved the project. CTUIL and ***POWERGRID may update the status.***
- POWERGRID to lay 48F-OPGW on 132 kV Sarusajai – Umtru line (Approximately 37 kms): 26th TCC/RPC has approved the project subject to board approval of Meghalaya(MeECL).
  Meghalaya(MeECL) may update the status on board approval.
- The replacement of 12F to 48F OPGW on 132 kV Kahilipara – Umtru - Umiam Stg. III – Umiam Stg. I- Umiam – NEHU line by POWERGRID (Approximately 151 kms): 26th TCC/RPC has approved the project subject to board approval of Meghalaya(MeECL).
  Meghalaya(MeECL) may update the status on board approval.

As per MoM of 26th TCC/RPC meeting, NERPC gave in-principle approval of the project subject to board approval of Meghalaya and sharing of fiber laid under the scheme shall be subject to the outcome of the decision of the CEA Committee on formulating comprehensive guidelines on OPGW sharing.

In 29th NETeST meeting Meghalaya (MeECL) has updated the status of board approval. After deliberation, MS NERPC has informed that matter will be taken up by NERPC.

The matter was deliberated in 27th TCC meeting held on 7th-8th November 2024 and after detailed deliberation, NERPC forum granted in-principle

approval for the redundant fibre path to enhance grid security, with 24 fibres allocated for state use and 24 for ISTS use, subject to CEA guidelines for OPGW sharing. Meghalaya and Assam will provide the board approval accordingly to CTU/NERPC.

Meghalaya and Assam may update the status.

3.10. Upgradation Activities of SCADA-EMS systems at Regional/State level in North-Eastern Region (Agenda 3.2 as per MoM of 29th NETeST Meeting)

NERLDC would like to inform that all the NER State DPRs had been sent to PSDF committee in a consolidated manner by NERPC on 12th August 2024 and same has been delivered to PSDF on 16th August 2024.

NERLDC and NERPC met PSDF Committee in Delhi on 12th December 2024 subsequent to the 86th TESG meeting held on 22nd October 2024. We are pleased to inform you that PSDF has agreed for funding for SCADA/EMS upgradation as per the quotation received for NER. However, PSDF has requested all states to submit the following:

1. To submit the Board Approval wherever it is an enterprise, if not submitted.
2. To submit State Government approval, if not submitted.
3. Clarity on the funding of Civil part of Backup Control Centre from alternative sources as civil infrastructure work for Backup Control Centre (Backup SLDC) will not be funded through PSDF.
4. BoQ in excel format having two parts bifurcating Main and backup Control centre SCADA/EMS system.
5. Grant disbursement pattern (including the modalities for release of grant for AMC) for the project and submit the same to NLDC.
6. Exclude the Cartridges Cost and Re-location and Commissioning at new location cost from BoQ.

7. Signed copy of point-wise replies to all the observations/deliberations made by the TESG members along with the supporting documents at the earliest.

NERLDC requests all NER SLDCs to actively start the civil infrastructure of Backup SLDC, even though the grant for SCADA/EMS system is approved for Backup SLDC; states should show good progress of civil infrastructure and commits its timely completion. However, if state fails to show reasonable progress prior to pre-bid meeting during GRID-INDIA tendering process, likely to be held in six months, the SCADA/EMS system portion of Backup SLDC will stand to be deleted from project scope.

Members may deliberate.

3.11. Status of State reliable communication scheme (Agenda 3.3 as per MoM of 29th NETeST Meeting)

NERLDC would like to inform the forum that as per Minutes of 23rd Monitoring Committee meeting of PSDF, it was decided to approve the PSDF funds for NER and requested Appriasal committee to ask NER states to put the DPRs accordingly. Using the positive opportunity NERLDC requests all states to submit DPRs in PSDF for approval at the earliet.

State reliable communication scheme is being funded 100% by PSDF as per Point (g) read under Clause 5.1(c) of Annexure III, states can apply for 100% funding for projects related to Communication Schemes for Automated Meter Reading (AMR) and real-time telemetry aimed at achieving 100% grid visibility. As decided in the special meeting held on 09th January 2024, NERLDC has circulated the draft template DPR for "State Reliable Communication Scheme" to all the SLDCs in which entire scope has been divided into 4 parts – Part A (OPGW), Part B (SDH based End Equipment), Part C (VSAT) & Part D (Remote Terminal Units). It was also decided that in case of any state already submitted DPR under "State Reliable Communication Scheme" head to PSDF Secretariat, then also these additional requirements shall be put in form of new DPR and can be submitted under

heading "Additional requirements under State Reliable Communication Scheme for real-time data availability strengthening". The status is tabulated below and states are requested to kindly update further:

Name of State	**Status as per 29th NETeST meeting**	**Current Status as per 30th NETeST**
Arunachal Pradesh	Will be submitted by Oct'24	DoP-Arunchal Pradesh may update the status.
Assam	DPR for 100% funding will be submitted by Nov'24	SLDC Assam/AEGCL may update the status.
Manipur	MSPCL was not present hence no update. may update the status	MSPCL may update the status
Meghalaya	Will be submitted by Oct'24.	MePTCL may update the status.
Mizoram	Will be submitted by Oct'24.	PE&D, Mizoram may update the status.
Nagaland	Already submitted.	DoP, Nagaland may update the status.
Tripura	Will be submitted by Oct'24.	TPTL may update the status.

In 29th NETeST meeting, MS NERPC informed all NER states to prepare the revise DPRs as per new guideline issued for PSDF funding.

All states are requested to update the DPR status.

3.12. Implementation of Guwahati Islanding Scheme (Agenda 3.4 as per MoM of 29th NETeST Meeting)

In 27th NETeST meeting, AEGCL informed that Detailed Project Report (DPR) for the Guwahati Islanding Scheme has been formally submitted to the Power System Development Fund (PSDF) for review and consideration. SLDC, Assam also informed that DPR for the communication part shall be submitted shortly.

In 28th NETeST meeting, AEGCL informed that DPR for the communication part would be submitted by 3rd week of May'24.

In 29th NETeST meeting, AEGCL informed that the revised DPR has been submitted to PSDF on 06th July 2024.

AEGCL/SLDC, Assam may update the current status.

3.13. Non-availability of real-time data pertaining to POWERGRID-owned bays installed at AEGCL-owned stations (Agenda 3.5 as per MoM of 29th NETeST Meeting)

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

Silchar bays installed at Srikona station isolator data since 28th Nov -2022.

Silchar bays installed at Hailakandi.

132 kV BNC HVDC bays at Pavoi S/s.

All these bays are ISTS elements, thus data availability is important for real-time drawl calculation and monitoring of ISTS element.

Thus, POWERGRID is requested to update the status as per the table below:

Sl. No.	Name of Bay	Status as per 29th NETeST	Latest status (as per 30th NETeST meeting)
	Silchar bays installed at Srikona station	ULDC-NERTS informed that they will complete the work by one month (October 2024) Action: POWERGRID may update the status	
	Silchar bays installed at Hailakandi.	ULDC-NERTS informed that they will complete the work by one month (October 2024) Action: POWERGRID may update the status	
	132 kV BNC HVDC bays at Pavoi S/s.	ULDC-NERTS informed that they will complete the work by one month (October 2024) Action: POWERGRID may update the status	

PGCIL may update the status.

3.14. Restoration of OPGW owned by Manipur (Agenda 3.7 as per MoM of 29th NETeST Meeting)

It has been noticed that seven stations i.e., 132 kV Chandel, 132 kV Churachandpur, 132 kV Hundung, 132 kV Kakching, and 132 kV Kongba of Manipur are not reporting due to outage of 132 kV Churachandpur – Ningthoukhong OPGW link. It was reported that there is a break in the Optical

Ground Wire (OPGW) approximately eight (08) Kilometers from the 132 kV Ningthoukhong Substation. However, the rectification work could not be undertaken as The subjected OPGW installation was done by POWERGRID-ULDC under NER-FO. Incomplete Handing over documents (absence of signatures by POWERGRID executives) was furnished by POWERGRID to SLDC, Manipur on 06th April 2021. SLDC Manipur has requested ULDC-POWERGRID to sign the documents on 11th December 2023. SLDC Manipur has conveyed that proper documentation is essential for addressing the issue. The forum requested POWERGRID furnish complete handing over document.

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

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

POWERGRID-ULDC and MSPCL may update the status.

3.15. Establishment of redundant fibre path between NERLDC and NEHU for reliability of power system communication link till RLDC. (As per MoM Point 3.8 of 29th NETeST Meeting)

A. As per MoM of 26th RPC/TCC meeting held on 04th and 05th July following are the update:

- ***From T-25 to NERLDC on 132 kV NEHU-Mawlydep line:*** POWERGRID-ULDC to lay and maintain the underground 48F cable under the ongoing reliable communication scheme out of which 24F will be connected to NEHU and the balance 24F to be connected with Mawlyndep: 26th TCC/RPC has approved the project.

POWERGRID may update the status.

- ***Replacement of 12F OPGW with 48F OPGW from NEHU to Khliehriat on 132 kV NEHU-NEIGRIMS-Khliehriat line:*** The Forum approved that the OPGW should be upgraded to 48F by POWERGRID: 26th TCC/RPC has approved the project subject to board approval of Meghalaya (MeECL).

  Meghalaya (MeECL) is requested to intimate the forum about the target date for taking board approval.

B. As per 29th NETeST MoM:

- ***48F OPGW from NEHU-Mawlyndep-Mustem-Khliehriat:*** MePTCL to propose 48F OPGW on 132 kV NEHU-Mawlyndep- Mustem- Khliehriat line (132 kV NEHU – Khliehriat CKT-II) under the State reliable communication Scheme or other suitable schemes. MePTCL to lay and subsequently maintain the link as well.

MePTCL may update the status.

- ***From T-23 to NERLDC:*** Communication link from Tower-23 to NERLDC is already part of the Reliable Communication Scheme and is already approved. ULDC – POWERGRID informed that PwD Meghalaya clearance has been obtained for laying 24F UG Cable from Tower 23 of 132 kV NEHU – NEIGRIHMS line to NERLDC.

POWERGRID-ULDC may update the status.

In 29th NETeST meeting Meghalaya (MeECL) has updated the status of board approval. After deliberation, MS NERPC has informed that matter will be taken up by NERPC.

The matter was deliberated in 27th TCC meeting held on 7th-8th November 2024 and after detailed deliberation, NERPC forum granted in-principle

approval for the redundant fibre path to enhance grid security, with 24 fibres allocated for state use and 24 for ISTS use, subject to CEA guidelines for OPGW sharing. Meghalaya and Assam will provide the board approval accordingly to CTU/NERPC.

Meghalaya and Assam may update the status.

3.16. Status of Fiber-Optic works under different projects (As per MoM Point B.2 of 27th NETeST)

S. No.	Link name	Utilities which may respond	As per 29th NETeST
I. Fiber Optic Expansion Projects			
Meghalaya State Sector			
1	132kV NEHU - NEIGRIMS	POWERGRID-NERTS	--
Central Sector			
2	400kV Bongaigaon (PG) - 220kV Salakati - 220kV BTPS	POWERGRID-NERTS	No response has been obtained from Chinese vendor M/S SDJI. ULDC-NERTS is trying to Partially off load the contract, so that pending work can be assigned to new contractor. Target: October 2024
3	400kV Mirza (Azara) – Byrnihat (Killing)		No response has been obtained from Chinese vendor M/S SDJI. ULDC-NERTS is trying to Partially off load the contract, so that pending work can be assigned to new contractor. Target: October 2024
4	400kV Silchar – Palatana		Survey going on for unhealthy stretch. Work will commence after availability of materials on site.

S. No.	Link name	Utilities which may respond	As per 29th NETeST
			Target: October 2024

Members may update.

3.17. Status and details of Fiber-Optic projects approved in 17th TCC/RPC meeting (As per MoM point 3.10 of 29th NETeST)

Updates on following schemes are not yet received.

A. Additional Communication Scheme: During the 28th NETeST meeting, forum advised POWERGRID-ULDC the commissioning of links is pending for more than three months for lack of installation of FOTE which could have been avoided.

Status as per 29th NETeST meeting has not been received till date.

Action: POWERGRID-ULDC may update the status.

B. Reliable Communication Scheme:

a. Replacement of existing fibre: Status as per 29th NETeST meeting has not been received till date.

Action: POWERGRID-ULDC may update the status.

b. Fibre on new lines: Status as per 29th NETeST meeting has not been received till date.

Action: POWERGRID-ULDC may update the status.

3.18. Integration of Dikshi HEP real time data and pending Voice communication (Agenda 3.11 as per MoM of 29th NETeST)

As per 27th NETeST meeting, DoP, Arunachal Pradesh assured the forum that the matter shall be resolved by the next NETeST meeting.

As per 28th NETeST meeting, DoP-AP informed that the matter shall be resolved by May-2024.

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

Action: DoP-AP may update the status.

3.19. Automatic Generation Control (AGC) in Indian Grid (Agenda 3.12 as per MoM of 29th NETeST)

The status as per 28th NETeST is tabulated below

Station Name	Background	Status as per 29th NETeST
AGBPP (Kathalguri)	OEM visits was envisaged as per following – • Some units are of Mitsubishi make which require team from Japan to visit plant. • Other units are of GE-make and BHEL-make	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Doyang	NEEPCO may update the status	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Kopili Stage -2	25 MW	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Kopili	100W	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Khandong	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	NEEPCO will provide the status update to NERPC via e-mail.

Station Name	Background	Status as per 29th NETeST
		NEEPCO is yet to provide e-mail.
Kameng	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Ranganadi (Panyor)	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Pare	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
RC Nagar	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	NEEPCO will provide the status update to NERPC via e-mail. NEEPCO is yet to provide e-mail.
Palatana	As per new Ancillary Services Regulation 2022, all ISGS plant will be participating in AGC.	OTPC was absent.

Status as per 29th NETeST is yet to be received.

3.20. Pending issues of State Utilities of NER (Agenda 3.13 as per MoM of 29th NETeST)

Utility	Pending issues	Remarks as per 29th NETeST
Assam	SAS upgradation related works may be updated.	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.

Tripura	Dharmanagar	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
	Ambassa	
Manipur	Chandel, Churachandpur, Rengpang, Tipaimukh, and Yiangangpokpi	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
	Hundung, Yurembam, Kakching, Konga and Ningthoukhong	
	Elangkhangpokpi, Thanlon, 132kV Thoubal, 132 kV Moreh	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
Nagaland	Kiphire	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
Mizoram	Luangmual	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
	Zuangtui	
	Kolasib	
Arunachal Pradesh	VSAT installation and other issues	All the NER States will provide the status update to NERPC via e-mail. Status as per 29th NETeST is yet to be received.
Meghalaya	Non reporting of stations	220 kV Mawngap is now reporting

Status as per 29th NETeST is yet to be received. The present status of each utility is attached as Annexure-C 3.20.

3.21. Feasibility to connect Lekhi Substation over Fiber-Optic Network (Agenda 3.14 as per MoM of 29th NETeST Meeting)

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

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

During 27th NETeST meeting, DoP-AP informed that space for installation of DCPS will be provided.

DC converter of Lekhi is not working due to which Lekhi is not connected over OPGW network. POWERGRID-ULDC is requested to restore the DC converter as an interim measure till the new SDH and DCPS are installed.

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

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

Action: POWERGRID-ULDC is requested to update the status.

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