AGENDA

FOR

228thOCC MEETING

Time of meeting: 10:30 Hrs.

Date of meeting: 25thJuly, 2025 (Friday)

Venue: NERPC Conference Hall, Shillong

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NORTH EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR 228TH OCC MEETING TO BE HELD ON 25.07.2025 (FRIDAY) AT 10:30 HRS

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 227thMeeting of OCC Sub-Committee of NERPC

The minutes of 227thmeeting of OCC Sub-committee held on 20.06.2025 at NERPC Conference Hall, Shillong were circulated vide letter No.NERPC/SE (O)/OCC/2025/ 1143-1185 dated 02nd July, 2025.

No comments were received from constituents

Sub-committee may confirm the minutes of 227th OCCM

2. PART-B: ITEMS FOR DISCUSSION

AGENDA FROM NERPC

2.1. Outage planning

I. Generation Planning (ongoing and planned outages)

a. In 217thOCCM, NEEPCO informed that they would provide daily inflow data for storage-type Hydro PS. NHPC also agreed to provide inflow data as per the NER operational data format. Based on that data provided from NEEPCO and NHPC present per day MU and projected number of days of operation.

Plants	Reservoir Level in meters (as on 17/06/2025)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong STG II	719.65	25	0.593	42
Kopili	606.90	79	3.013	26
Doyang	307.50	2	0.270	7
Loktak	766.66	17	2.474	7

The outage of other generating stations may be approved considering the present water levels in reservoirs. CEA has approved the generation outage plan for FY 2025-26. All the utilities may take note of it and in case of any modification from the Approved Planned Outages, the same may be finalized in consultation with GM Division

b. Outage Planning of Transmission elements

As per the Outage planning procedure of NER the planned outages approved in the OCC forum has to be reconfirmed by the availing utilities on 10:00hrs. of D-4 to 12:00 hrs. of D-3) to NERLDC in order to either avail the approved shutdown or cancel it.

If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC between 10 hrs. of 6th of the month to 1200 hrs. of 7th of the month. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

Utilities have submitted the shutdown proposals for the month of August 2025 (annexure 2.1), for discussion in OCC shutdown discussion meeting.

Forum may deliberate on the shutdown proposals.

Agenda items referred from 29th TCC & RPC meeting

6.1. Implementation of Digital Substation Control Protection & Substation Automation at LTPS, NRPP & KLHEP System of APGCL

APGCL has submitted the DPR for Implementation of Digital Substation Control Protection & Substation Automation at LTPS, NRPP & KLHEP System of APGCL. This scheme will yield a reduction in operating costs and an increase in reliability, flexibility of the power system and further integration of protection & control events to accelerate response to problems. The DPR was placed before 29th TCC & RPC for approval, wherein the forum referred to sub-committee for further deliberation.

Forum may deliberate

6.2. Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in Nagaland.

The power infrastructure in Nagaland has been undergoing a significant transformation and development to meet the growing energy demand, ensure grid reliability and modernizing outdated systems over the last few years. As part of this transformation, several new Extra High Voltage (EHV) substations are being constructed or planned out across the state to cater the increasing electricity demand and integration of power from renewable and central sector projects.

While infrastructure expansion is underway, the protection and control systems at many substations still remain outdated. Most of the existing EHV substations in the state were commissioned decades back and still use outdated protection, Control and Relay (CR) Panels and rely on Power Line Carrier Communication (PLCC) systems for communication which has in turn become inadequate to meet the requirements of a modern, fast-responding and resilient transmission system. At present, the existing PLCC is used only for basic Speech + Data functions thereby hindering execution of fast and coordinated protection schemes across its network. Furthermore, the absence of remote monitoring and diagnostic capabilities with the existing infrastructure also limits visibility at the State Load Dispatch

Centre (SLDC). The North Eastern Regional Power Committee (NERPC) & North Eastern Regional Load Dispatch Centre (NERLDC) have also placed high priority on strengthening protection and telemetry schemes for ensuring full integration of all EHV substations into the regional protection and communication network.

In recent years, the Optical Ground Wire (OPGW) network and communication Systems has been implemented under NEFO and NERPSIP schemes covering several transmission lines and Sub-Stations in Nagaland. The remaining Transmission lines and sub-stations have also been covered under the scheme "Implementation of OPGW and Reliable Communication Scheme in Nagaland" sanctioned by PSDF. Leveraging the OPGW infrastructure, the adoption of **Digital Tele-Protection Couplers (DTPCs)** will greatly enhance protection performance and system reliability by enabling end-to-end tele protection over a secure and fast communication channel. Also, taking into consideration the rugged geography of Nagaland where accessibility to remote sub-stations remains a challenge and monsoon disrupts power lines frequently and with the increasing number of substations, DTPC-based protection scheme compatible both to OPGW and PLCC(as back up) shall ensure robust grid performance and protection.

The existing Control and Relay Panels in most of the existing EHV sub-stations in Nagaland have been in service for a very long time and become technically obsolete and is not compatible to integrate with SAS/SCADA Systems for future requirement. As most of the EHV sub-stations will soon be covered with OPGW connectivity and communication network, the upgradation to Automated Control and Relay Panels have become essential. The modernization of control room through automated Control and Relay panels will enable real-time monitoring, rapid fault detection and isolation and remote operational capabilities thereby ensuring better system stability and strengthening network reliability.

The project has been recommended during the 59th & 64th PCC Sub-Committee meeting of NERPC on account of System Stability.

The proposal "Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in Nagaland" consists of following scope of works:

a) Installation of DTPCs at 132kV and 66kV sub-stations for end-to-end tele protection compatible both to OPGW and PLCC (as back up) across Nagaland.

b) Replacement of existing 132kV, 66kV and 33kV Control & Relay Panels by new Control & Relay Panels with Automation System.

The project has been conceptualized and proposed with the following **goals & objectives:**

i. Implementation of Autoreclose and carrier aided protection in the lines.

ii. Facilitate accurate and fast isolation of faults through DTPCs thereby reducing risk of blackouts, widespread outages and safeguarding EHV transmission infrastructure.

iii. The superior selectivity and sensitivity offered by DTPCs will ensure rapid and precise exchange of protection signals between remote ends, significantly reducing fault clearing times and minimizing system downtime thereby improving overall system reliability.

iv. Modernize and strengthen the sub-station and transmission line performance in Nagaland by replacing outdated panels and protection devices in compliance with the existing national grid codes and standardized protection practices.

v. Upgradation of the Control Relay Panels with automation system at 132kV, 66kV and 33kV sub-stations shall enable real-time monitoring and remote operation thereby ensuring better system control and fault response times.

In view of the above considerations, the objective to strengthen the protection and control infrastructure of EHV sub-stations and transmission lines in Nagaland through "Installation of DTPC for Protection Scheme and Replacement of Control & Relay Panels for R&M of EHV Sub-Stations in Nagaland" with an estimated cost of **Rs. 8084.96 lakh** is hereby submitted for implementation under PSDF funding. The matter was placed before 29th

TCC & RPC for approval, wherein the forum referred to sub-committee for further deliberation.

Forum may deliberate

6.3. Construction of 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment

Power Supply to entire Mon district is catered through the lone, aged, long (165km) Single Circuit 66kV transmission line emanating from 132/66kV Substation at Mokokchung via Tuli – Naganimora - Tizit. Since, the lone, aged existing 66kV transmission line passes through a dense forest coupled with hilly & difficult terrain, with such a long span of 165 km, the frequency of un-scheduled disruption of line is very high and due to the remoteness of the location of the transmission line it takes days for the department to locate and rectify the fault/ restore the transmission line. **And since there is no alternate source of power supply, there have been many instances, wherein the whole district was blacked out for days together resulting in public outcry and system instability**.

Therefore, an alternate robust source of power supply to Mon district is the need of the hour. In this regard, a 132kV substation at Longleng district Hq. is being constructed under NERPSIP Tranche-1 by POWERGRID which is nearing completion. Taking this opportunity, the department proposes to construct a 132kV D/C transmission line with OPGW with a route length of **44km from Longleng to Mon via Aboi** with a 132/33kV, 2x25MVA sub-station at Mon district head quarter with associated 33kV line for downstream connectivity.

The proposed 132 kV D/C transmission line from Longleng to Mon covers a total route length of about 44 km. The transmission line would also be interconnected with the proposed 132 kV S/C transmission line between Mokokchung–Tuli–Naginimora–Tizit–Mon; the 132 kV Zhadima–Niuland–Champhang–Longnak–Mokokchung line which has been planned under the Transmission Plan 2030/32 by the CEA and the existing 132 kV Longleng–

Tuensang–Kiphire–Meluri–Kohima–Zhadima line. Thus, a complete 132 kV ring circuit transmission line would be formed by connecting the 400/220 kV Zhadima and 220/132 kV Mokokchung substations, both of which are connected to the grid, thereby enhancing system flexibility, stability, and ultimately overall system reliability.

Taking note of the importance of 'Act East Policy of India' and requirement for socio-economic development in the far-eastern Indian states, which borders with Myanmar, the Mon District Planning & Development Board vide its letter No.DPMM/DPDB-1/2023-24, Dt. 19.05.2023 has recommended to the Government of Nagaland about the need to come up with alternate 132kV power source to Mon District.

Construction of 33kV D/C transmission line on lattice structure from the proposed 132/33kV Mon sub-station to the existing 66/33kV Mon sub-station with one no. of 33kV bay at 66/33kV Mon sub-station for downstream link (10km) for evacuation of power from this new sub-station has been incorporated in the scheme which will strengthen the distribution system in various towns and villages by installing new and also augmenting the existing transformers to meet the load demand and Stability of Power supply.

The proposal "Construction of 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment," consists of following scope of works:

a) Construction of 132/33kV, 2x25 MVA sub-station at Mon with one 132kV sending end bay at Longleng.

b) Construction of 132kV D/C Transmission line from Longleng to Mon via Aboi (44km).

c) Construction of 33kV D/C Transmission line on lattice structure from the proposed 132/33kV Mon sub-station to the existing 66/33kV Mon sub-station with one no. of 33kV bay at 66/33kV Mon sub-station for downstream link (10km).

The project has been conceptualized and proposed with the following **goals & objectives**:

i. The proposed sub-station on implementation shall provide an alternate grid power source to Mon district, which is an urgent need.
ii. Development of the proposed sub-station and associated transmission lines shall mitigate shortages, provide reliability and cater to the load demand & growth, both intra and inter State.
iii. The sub-station along with its transmission lines on completion shall establish a new transmission corridor in the NER region.
iv. The proposed 132/33kV Sub-Station shall connect the existing 66/11kV & 66/33kV Mon sub-stations which will enhance reliability of power to Mon town and its surrounding areas. In case of any disturbance on the 66kV Transmission line from Mokokchung-Tuli-Naginimora-Tizit-Mon, the 132/33kV Sub-Station shall be able to support the entire load of Mon Town in the event of any eventuality.
v. Provision has been kept for load growth with extensive capacity additions through Government of India's program like DDUGJY, RDSS and State program.
vi. Nagaland is Phasing out 66kV system from the network.

In view of the above explanations for the urgent need to "construct 132/33kV, 2x25MVA sub-station at Mon with 132kV D/C transmission line from Longleng to Mon via Aboi along with associated 33kV line and 33kV & 132kV end equipment," with an estimated cost of **Rs. 16655.97 lakh,** the project proposal is hereby submitted for implementation under PSDF funding. The matter was placed before 29th TCC & RPC for approval, wherein the forum referred to sub-committee for further deliberation.

Forum may deliberate

6.4. PROPOSAL FOR PROCUREMENT OF MODERN DIAGNOSTIC TOOLS FOR SUBSTATIONS UNDER MSPCL AND ESTABLISHMENT OF A PERIODIC CALIBRATION SYSTEM - MSPCL

Manipur State Power Company Limited (MSPCL) operates and maintains the transmission infrastructure in Manipur, including several 33/11 kV, 132/33 kV and 400/132 kV substations. Currently, the diagnostic

capabilities at many substations are limited due to the lack of essential modern diagnostic tools and equipment. This shortfall affects the efficiency of preventive and predictive maintenance, delayed fault detection, and increases the risk of equipment failures and unplanned outages. Additionally, the absence of a structured calibration regime reduces the accuracy and reliability of test results, which may lead to erroneous diagnoses and delayed fault rectification.

To enhance asset reliability**,** reduce equipment downtime, and implement condition-based maintenance practices, MSPCL proposes to procure critical diagnostic tools for its substations and establishment of a periodic calibration system to maintain the precision and effectiveness of these tools.

The following diagnostic tools have been identified as priority equipment for substations under MSPCL:		
Sl.No.	**Diagnostic Tool**	**Purpose**
1	Dissolved Gas Analysis (DGA) Kit	Transformer fault and oil degradation detection
2	Transformer Oil Test Kit	Assess Insulation health and detect faults
3	Circuit Breaker Analyzer	Measure timing, contact travel and resistance
4	Primary & Secondary Injection Test Kit	Testing of CTs/PTs and protection relays
5	Contact Resistance Meter	Assess CB and Isolator contact condition
6	Tan Delta & Capacitance Test Kit	Assess insulation deterioration
7	Insulation Resistance Tester (5 kV/10 kV)	Test winding insulation resistance
8	Earth Resistance Tester	Verify grounding system effectiveness

9	Partial Discharge Measurement Kit	Early detection and insulation defects
10	CT/PT Analyzer	Analyze CT/PT performance characteristics
11	Thermal Imaging Camera	Hotspot detection in live switchyard equipment
12	Partial Discharge Detection Kit	Partial Discharge detection
13	SFP Gas Quality Analyzer	Purity and moisture check for SF6 breakers

In this regard, MSPCL proposes that NERPC recommend the initiative for funding under PSDF (Power System Development Pund) or coordinating with CEA/Ministry of Power for financial support.

Considering the above facts, the Committee may kindly support following request of MSPCL:

- Approval in principle for procurement and calibration framework.
- Recommendation for central or regional funding support.
- Encouragement of regional collaboration for mobile calibration facilities or shared testing infrastructure.
- Facilitation of NERPC-level capacity-building workshops on modern diagnostic practices and tool calibration.

The matter was placed before 29th TCC & RPC for approval, wherein the forum referred to sub-committee for further deliberation.

Forum may deliberate

2.2. Bus Strengthening of 132kV and 33kV system at 132/33/11kV Kohima Sub-station

The 132/33/11 kV Kohima Sub-station plays a vital role in Nagaland's power transmission network, acting as a key node for delivering power to the state capital and surrounding districts, including Tseminyu, Wokha , Phek,

Meluri and Kiphire. The 132/33/11kV Kohima Sub-station is connected to the grid through the 132kV Karong-Kohima, 132kV Dimapur PG-Kohima, 132kV Zhadima-Kohima and 132kV Meluri-Kohima Lines. The sub-station is also linked to the Doyang HEP through the 132kV Doyang-Sanis-Wokha-Chiephobozou-Zhadima-Kohima line and Likimro HEP through the 132kV Likimro-Kiphire-Meluri-Kohima line. The sub-station is linked to two(2) inter-state elements through the 132kV Karong-Kohima and 132kV Dimapur PG-Kohima lines. The sub-station not only plays an important role in system stability and reliability of Nagaland but also for Northern Part of Manipur State. Presently, the sub-station caters power to the entire State Capital with an existing load of approximately 45.6 MW. Kohima, the capital city of Nagaland state, has been selected in the list of Smart City Initiative by Government of India. As such, numerous socio-economic infrastructural developments are underway. Therefore, the Sub-station is expected to experience a substantial increase in loading due to increased load demand and capacity addition of upcoming generation sources. Besides the existing Likimro HEP (24MW), upcoming generation sources includes the proposed Tizu Valley HEP (24 MW), Zungki HEP (24 MW), Lower Tizu HEP (42 MW), Ponglefo HEP(1 MW), Lower Likimro HEP (8.1 MW) thereby cumulatively contributing an additional 123.1 MW to the grid. Consequently, the projected future loading on the 132/33/11kV Kohima sub-station is estimated to be around 190 MW.

The Sub-station presently operates on a Single Bus Bar arrangement and hence, the sub-station is highly vulnerable to disruptions. Any system breakdown or fault on the Bus leads to complete outage causing entire blackout of the state Capital severely disrupting essential public services, administrative operations, government functions and also affects the reliability and stability of power to its adjoining districts. There have been many incidents in the past where a fault on the Bus has led to blackout of the entire capital and its adjoining areas. This particular issue has been taken on a serious note by North Eastern Regional Power Committee (NERPC) & North Eastern Regional Load Despatch Centre –Grid India (NERLDC) and subsequently discussed multiple times at NER-Power Co-

ordination Committee (NER-PCC) & Operation and Co-ordination Committee (NER-OCC) meetings. During 54th, 55th, 56th, 57th and 58th PCC Meetings NERPC has strongly recommended for Bus Strengthening of 132kV and 33kV at Kohima sub-station. However, due to funding issues and space constraint, the proposed strengthening / upgradation could not be implemented. Strengthening of existing 132kV and 33kV Bus Bar from Single to Double busbar system is therefore vital to enhance system reliability.

The sub-station is also constrained in terms of available land for expansion and the aging switchgear components necessitates the need for a major upgradation to accommodate the future demand, improve fault tolerance and support modernization of the grid. Due to the hilly terrain of the sub-station, the 132kV bays at the sub-station are constructed at three different elevation levels in a cascading arrangement. On 28th June 2019, the Executive Director, NERLDC on his visit to 132/33/11 kV Kohima Sub-station also remarked on the limited space and congestion within the sub-station, noting that any future expansion and modification or strengthening would be challenging under the existing AIS setup. In 2024, the Department engaged M/s Hitachi Energy India Limited for conducting system Study of 132/33/11kV Kohima Sub-station. During their site visit, the firm observed the existing cascading layout of the 132kV bays and the space constraint of the sub-station and suggested for conversion of the existing 132kV AIS substation to Hybrid-GIS substation. Conversion of existing AIS Bays to Hybrid GIS not only offers the benefit of space optimization for construction of Double Bus Bar arrangement but also has the advantage of compactness, reduced maintenance cost and high reliability, making it a viable solution due to constrained space installations. The 33kV Hybrid-GIS arrangement at Kohima Sub-station will also increase reliability of the 33 kV voltage network and ensure better protection coordination with the 11 kV and LT levels.

Considering the existing load, future load demand and integration of upcoming Hydro Power stations projects, the bus loading is expected to

touch about 190MW. This will require replacement of ACSR Single Panther Bus with ACSR Twin Moose Bus, as the present bus is not sufficient to handle the projected load growth.

The 132/33/11kV Kohima sub-station was commissioned during the 1980s and has been a vital infrastructure for power distribution in the State capital and adjoining areas since then. Given it's age, the existing control panels have been in service for a very long time and with the advancement in control panel automation system through Substation Automation System (SAS), modernization of control room with modern SAS will enable real-time monitoring, fault isolation and remote operation by integration with SCADA system thereby ensuring better system control and fault response times.

The proposal "Bus Strengthening of 132kV and 33kV system at 132/33/11 kV Kohima Sub-station" consists of following scope of works:

c) Conversion of 132 kV & 33kV AIS Bays to Outdoor Hybrid Gas-Insulated Sub-station (GIS).

d) Strengthening of the Existing 132 kV & 33kV Busbar from Single to Double Busbar Configuration.

e) Replacement of 132 kV & 33kV Busbar Conductor from ACSR Panther to ACSR Twin Moose conductor for 132kV system and ACSR Moose conductor for 33kV system.

f) Replacement of existing 132kV and 33kV Control Panels with 132kV and 33kV Control Panel with Automation System.

g) Substation Automation System (SAS).

The project has been conceptualized and proposed with the following **goals & objectives:**

vi. The proposed strengthening of 132kV & 33kV bus shall enhance reliability of power to the State capital and it's adjoining areas.

vii. The Double Bus Bar scheme shall provide system redundancy and enable parallel operation and maintenance at both 132kV and 33kV

levels thereby ensuring uninterrupted power supply and also minimize outage during contingency and scheduled maintenance.

viii. Hybrid GIS will reduce operation and maintenance cost as compared to AIS.

ix. Improved system design, support higher short-circuit levels and ease of future addition of new elements.

x. Up-gradation of busbar conductors will enhance load carrying capacity for projected load growth and integration of upcoming generation sources.

xi. Integration of SAS and SCADA systems through modernization of the Control Room of the 132/33/11kV Kohima Sub-station shall enable real-time monitoring, fault isolation and remote operation thereby ensuring better system control and fault response times.

In view of the above considerations, with the objective to enhance capacity, reliability, and resilience of power supply across Kohima by modernizing and upgrading the 132/33/11 kV Kohima Sub-station through the implementation of Hybrid GIS, double busbar configuration, and automation systems the proposal for "Bus Strengthening of 132kV and 33kV system at 132/33 kV Kohima Sub-station" with an estimated cost of **Rs. 5956.60 lakh** is hereby submitted for consideration of funding under PSDF

The matter was discussed in 29th TCC and RPC meeting wherein it was referred to sub-committee for detailed deliberation.

Forum may deliberate

AGENDA FROM NERLDC

2.3. Operational Performance and Grid discipline during June 2025:

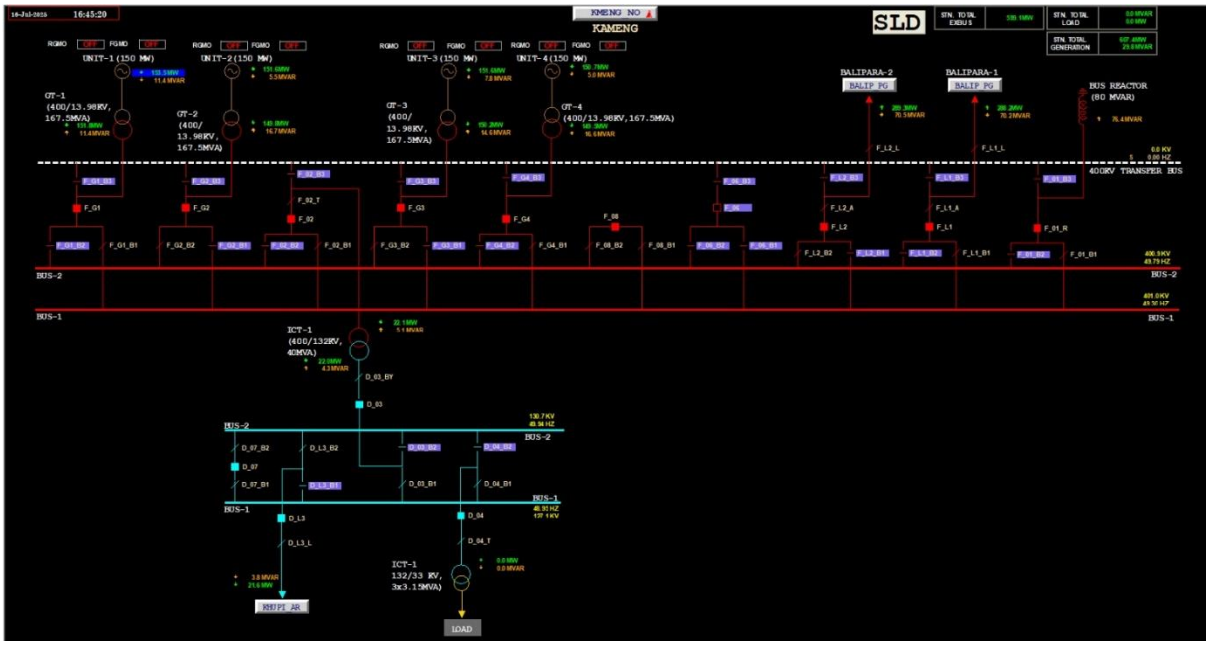
NERLDC may present the Operational Performance and Grid Discipline Report for the month of June 2025.

2.4. Delay in Commissioning of 400 kV Transfer Bus at Kameng HEP

The 400 kV substation at Kameng has been in operation since March 2019. As per the approved scheme, the 400 kV bus configuration follows a Double Main Cum Transfer Bus arrangement.

However, it is observed that since its inception, the 400 kV Transfer Bus at Kameng HEP has not been commissioned, even after more than six years of the commissioning of the 400/132 kV substation.

The absence of the Transfer Bus is adversely impacting grid reliability, particularly during maintenance activities, and poses operational challenges.



In view of the above, NEEPCO is requested to provide the reasons for the prolonged delay in commissioning the 400 kV Transfer Bus and to furnish a firm and time-bound schedule for its commissioning at the earliest.

2.5. Urgent Restoration of Phase-B Isolator of 400 kV Balipara–Kameng–1 Line at 400kV Kameng Bus

It is important to highlight that the Phase-B isolator of the 400 kV Balipara–Kameng-1 line has remained in an unhealthy condition since 29-06-2025. This poses a significant operational risk, any fault or issue on the Bus-A

side elements could potentially lead to a complete outage of the 400 kV Balipara–Kameng–1 line, thereby seriously affecting the reliability of the North Eastern Region (NER) grid.

As approved scheme at 400 kV bus at Kameng HEP is a Double Main Cum Transfer Bus scheme. This configuration allows for maintenance activities on isolators to be carried out by energizing the line through the Transfer Bus arrangement. However, due to the non-commissioning/unavailability of the 400 kV Transfer Bus at Kameng HEP, this flexibility is currently not available, further compromising grid reliability and delaying essential maintenance.

Given the high inflow, elevated reservoir water levels, and the ongoing peak monsoon season, ensuring the healthiness of all system elements remains a top priority. Hence, it is requested to provide the tentative date for the restoration of the Phase-B isolator of the 400 kV Balipara–Kameng–1 line at the earliest to ensure continued system reliability.

2.6. Early Restoration of 132kV Lekhi-Chimpu line.

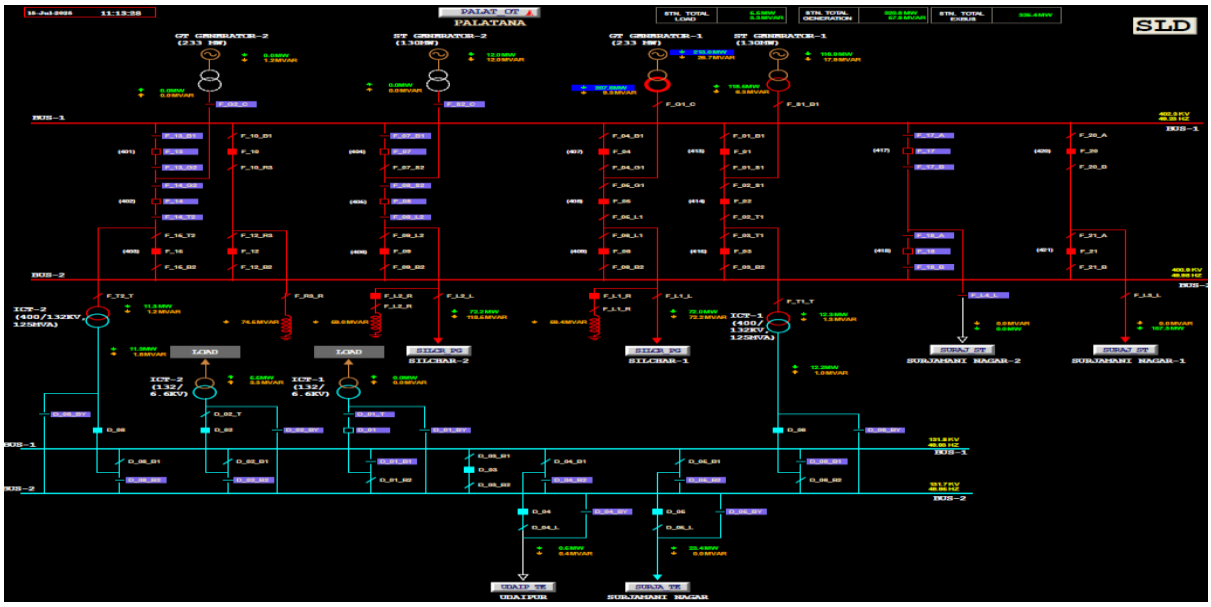
The 132 kV Lekhi–Chimpu transmission line has been under outage since 06:11 Hrs on 30-05-2025. As per information received from the Department of Power, Arunachal Pradesh (DoP AP), the outage is due to Tower No. 5 being on the verge of collapse, attributed to heavy rainfall in the area.

DoP Arunachal Pradesh is requested to provide the status update and detailed plan for the restoration of the 132 kV Lekhi–Chimpu line at the earliest.

2.7. Opening of dia at 400kV Palatana susbstation

The 400 kV bus scheme at the Palatana substation is a one-and-a-half breaker scheme, which allows for the isolation of elements during maintenance without compromising system integrity. However, it has been observed that during shutdowns of the Gas Turbine Generator (GTG) or Steam Turbine Generator (STG), the entire dia is kept open by switching

both the main and tie breakers to the open position. This results in the remaining parallel elements being connected through a single bus only, thereby compromising system reliability under N-1 contingency conditions.



It is important to note that, as per the approved scheme, isolation of the Palatana module can be achieved through the operation of a dedicated isolator at the 400 kV Palatana plant. Therefore, the current practice of opening both main and tie breakers during such outages appears unnecessary and counter to the intended design.

In view of the above, OTPC, Palatana is requested to provide justification for keeping both the main and tie breakers out of service during the outage of the Palatana module, as this practice significantly impacts the reliability and security of the North Eastern Region (NER) Grid.

2.8. Operation of 400 KV Switchyard on Single Bus mode since commissioning at Panyor Lower HEP (PLHEP)

The existing 400 kV Bus scheme of Panyor Lower HEP is double main scheme, however 400 kV Bus-1 is not available since commissioning. This does not comply with clause no. 44.2(a) CEA Technical Standards for Construction of Electrical Plants and Electric Lines), 2022.

During the 25th TCC/RPC meeting, NEEPCO had informed that the commissioning of the second bus at Ranganadi HEP was scheduled to be completed by September 2024.

Further, as per deliberations of 216th OCC meeting dated 25.03.2025, NEEPCO conveyed that isolator spares had been received and that the re-tendering process for the SF6 breaker was underway. It was also stated that the work was tentatively expected to be completed by May 2025.

Subsequently, the matter was again deliberated in the 224th OCC meeting, where NEEPCO informed that the commissioning is now expected to be completed by November 2025. However, it is noted that 400 kV Bus-2 has still not been commissioned at Panyor Lower HEP.

A status update may be provided by NEEPCO for early commissioning 400kV Bus -2 at Panyor Lower HEP.

2.9. Status of Commissioning of Lower Subhansiri HEP (8x250 MW)

As per the deliberations of the 28th TCC meeting held on February 20th and 21st, 2025, the NHPC representative had informed the Forum that three units of the Lower Subansiri Hydro Electric Project (8x250 MW) were expected to be commissioned by May 2025, with the remaining units scheduled for commissioning by May 2026.

However, it is to be noted that, as of now, no unit has been commissioned. However technical data for the Lower Subansiri HEP has been received from NHPC.

A status update may be provided regarding the commissioning schedule of the units of Lower Subansiri HEP (8x250 MW).

2.10. Request for Strengthening of 220 kV BTPS–Agia DC Line by AEGCL

It is to be informed that the current Total Transfer Capability (TTC) of the North Eastern Region (NER) is being restricted due to high loading on the

following transmission lines under the N-1 contingency condition of the 400 kV Bongaigaon–Azara line:

- 220 kV Balipara–Sonabil DC
- 220 kV BTPS–Agia DC

In the future scenario, with the anticipated commissioning of 400 kV substations at Rangia, Sonapur, and Khumtai, as well as 220 kV substations at Agamoni, Sankardev Nagar, and Bihpuria, system studies suggest that the 220 kV Balipara–Sonabil DC and the 220 kV BTPS–Agia DC will continue to remain major constraints in enhancing the import TTC of the NER.

While the strengthening of the 220 kV Balipara–Sonabil DC has already been approved in the C-METS forum, the strengthening of the 220 kV BTPS–Agia DC, under the scope of AEGCL, still needs to be taken up.

In light of the above and considering both present and future system constraints, AEGCL is kindly requested to expedite the reconductoring of the 220 kV BTPS–Agia DC line to ensure reliable and secure operation of the power system.

2.11. Regarding non-submission of Demand forecast and Resource Adequacy (RA) data as per IEGC 2023

IEGC 2023 mandated that each SLDC and such other entities (like bulk consumers) which are directly connected to ISTS will carry out the demand estimation for both active and reactive power (as per clause 31.2(a), 31.2(b), 31.2(f)) along with the generation capacity availability (as per clause 31.4(b)) for meeting the projected demand and submit the same to respective RLDC for regional level forecast by method of aggregation, each RLDC would further furnish the regional level as well as state level forecast data to NLDC for computation for all India level demand and generation estimation (as per clause 31.2(g)).

The timeline for submitting these data to RLDC/NLDC would be as given in Table-I (as per IEGC clause 31.2(h)).

Table-I: Timeline for Demand Estimation

Daily demand estimation	10:00 hours of previous day
Weekly demand estimation (Monday to Sunday)	First working day of previous week
Monthly demand estimation	Fifth day of previous month
Yearly demand estimation	30th September of the previous year

In view of the above, it has been observed that Demand estimation and RA data is not being submitted regularly by:

1. ***Arunachal Pradesh SLDC in all the time horizons (i.e. Day-ahead, Week Ahead & Month Ahead) to NERLDC.***
2. ***Tripura SLDC in Week-Ahead & Month ahead to NERLDC***

To facilitate effective operational planning, forecast and RA data is essential. Hence, SLDC AP and SLDC Tripura is requested to submit the required forecast data as per the IEGC timeline mentioned above regularly.

2.12. Conduct of annual self-audits and submission of reports in compliance with Reg. 56 of IEGC, 2023

The Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 came into force with effect from 1st October 2023.

In accordance with the Regulation 56 (Monitoring of Compliance) of IEGC, 2023, the relevant provisions pertaining to self-audits are quoted below:

Quote

(1) In order to ensure compliance, two methodologies shall be followed:

(a) Self-Audit

(b) Compliance Audit

(2) Self –Audit:

(a) All users, CTU, STUs, NLDC, RLDCs, RPCs and SLDCs, power exchanges, QCAs, SNAs shall conduct annual self-audits to review compliance of these regulations and submit the reports by 31st July of every year.

(b) The self-audit report shall inter alia contain the following information with respect to non-compliance:

(i) Sufficient information to understand how and why the non-compliance occurred;

(ii)Extent of damage caused by such non-compliance;

(iii) Steps and timeline planned to rectify the same;

(iv) Steps taken to mitigate any future recurrence;

(c) The self-audit reports by users, QCAs, SNAs shall be submitted to the concerned RLDC or SLDC, as the case may be.

(d) The self-audit reports by power exchanges shall also be submitted to the NLDC.

(e) The self-audit reports of NLDC, RLDCs, CTU, and RPCs shall be submitted to the Commission. The self-audit report of SLDC and STUs shall be submitted to the concerned SERC.

(f) The deficiencies shall be rectified in a time bound manner within a reasonable time.

(g) The monitoring agency for users shall be the concerned RLDC or SLDC on the basis of their respective control area. The monitoring agency shall track the progress of compliances of users, and exceptional reporting for non-compliance shall be submitted to the appropriate Commission.

(h) The monitoring agency for RLDC, NLDC, CTU and RPC shall be the Commission, and for STUs and SLDCs, shall be the concerned SERC.

(i) The Regional Power Committee (RPC) in the region shall also continuously monitor the instances of non-compliance of the provisions of these regulations and endeavor to sort out all operational issues and deliberate on the ways in which such cases of non-compliance shall be prevented in future. The Member Secretary of respective RPCs may also report any unresolved issues to the Commission

(j) The Commission may initiate appropriate proceedings upon receipt of report under sub-clauses (f) and (h) of this clause.

(k) In case of non-compliance of any provisions of these regulations by NLDC, RLDCs, SLDCs, RPCs and any other person, the matter may be reported by any person to the Commission through filing of a petition.

(3) Independent Third-Party Compliance Audit: The Commission may order independent third-party compliance audit for any user, power exchange, QCA, SNA, CTU, NLDC, RLDC and RPC as deemed necessary based on the facts brought to the knowledge of the Commission.

Unquote

Action Points by Users

- Conduct self-audit covering all applicable provisions of IEGC, 2023.
- Prepare report including details of any non-compliance and corrective measures.
- Submit the final self-audit report to NERLDC or SLDC depending on their respective control area by 31st July 2025.

For Users, the monitoring agency shall be the concerned RLDC or SLDC, depending on their respective control area. Monitoring agencies are responsible for tracking the progress of compliance with the IEGC, 2023 provisions by the Users under their jurisdiction. In cases where non-compliance is observed, the monitoring agency shall prepare and submit an exceptional report detailing such instances to the appropriate Commission, ensuring timely regulatory oversight and corrective action.

2.13. Request for Expedited Registration on NOAR Portal by NER Intra-State Generating Utilities:

The Ministry of Power, Government of India, has launched the National Open Access Registry (NOAR) to streamline short-term open access transactions in the electricity sector. As such, all such transactions, whether inter-state or intra-state must be routed through the NOAR portal.

Data received from Grid India indicates that a large number of intra-state generating stations in the NER region are still unregistered on the portal. It is crucial to note that unregistered generating plants are ineligible to participate in short-term open access transactions via NOAR.

This concern was highlighted during the 6th Meeting of the High-Level Committee on implementation of the Late Payment Surcharge (LPS) Rules, 2022. The Committee strongly recommended that all generating companies (GENCOs) should promptly register their intra-state generation units on the NOAR portal to ensure regulatory compliance and enable seamless scheduling.

NERLDC had previously communicated this requirement through letters dated 03.10.2024 and 03.12.2024 to all NER states. The issue was further emphasized in the 55th Commercial Committee Meeting as well as in the 227th OOC Meeting.

Despite these communications, several intra-state generating utilities from Meghalaya, Tripura, Mizoram and Arunachal Pradesh are yet to fully complete the registration process. At present, only the intra-state generating plants of Assam, Nagaland and only Monarchak CCPP from Tripura (NEEPCO) have successfully registered, while others are reportedly in the process.

In line with NLDC's directive (Annexure-I), we strongly urge all concerned utilities to prioritize and expedite the NOAR registration process at the earliest. This will ensure readiness for upcoming power transactions and avoid any operational or regulatory non-compliance.

Annexure-II contains the current status of registration efforts across the region.

2.14. De-rating of Kopili Stg II from 25 MW to 23 MW

As per the CEA letter dated 14.09.2021, received from NEEPCO, the Installed Capacity (IC) of Kopili Stage-II has been de-rated from 25 MW to 23 MW. But IC of Kopili Stage-II is still 25MW in WBES and NEEPCO is furnishing DC of 25MW till date.

In view of this, a mail was sent to NERPC on 24.06.2025 requesting necessary instructions, as the station is still being considered at 25 MW for all operational and commercial purposes.

Annexure -III contains CEA letter.

Forum may please Discuss.

2.15. CEA letter regarding issuance of guidelines to be followed for processing of PTCC proposals for 33 kV feeders of ISTS connected Renewable Energy (RE) power projects

As per Clause 80 of the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023, *the owner of every electric supply line of 11 kV and above must obtain PTCC clearance to ensure the safety of personnel and nearby telecommunication infrastructure, in accordance with Section 160 of the Electricity Act.*

Most RE power plants utilize multiple 33 kV feeder lines to transmit power from Inverter Duty Transformers (IDTs) or Wind Turbine Generators (WTGs) to the Pooling Substation (PSS), and subsequently to the electricity grid.

However, Several RE developers have recently highlighted delays in obtaining PTCC approvals primarily due to:

- Requirement of multiple feeder-wise PTCC applications for each 33 kV line.
- Involvement of multiple utilities and coordination challenges.
- Cumbersome processing for projects with large numbers of feeders.

To address these concerns, CEA guideline (attached as annexure IV) has been prepared to streamline the PTCC approval process for 33 kV feeders of ISTS-connected RE projects, while ensuring the harmonious coexistence and safety of nearby telecom assets and maintaining ease of doing business for power utilities.

Kind information and necessary compliance.

2.16. CEA Guidelines for Automatic Weather Stations (AWS) for Solar and Wind Power Plants

Solar and wind generation is highly dependent on weather conditions, and inaccurate forecasts often lead to significant financial penalties under the Deviation DSM Mechanism.

Accurate measurement of meteorological parameters can improve forecasting, optimize RE generation, enhance grid reliability, and ensure regulatory compliance.

In this regard, CEA has issued guidelines for the installation of Automatic Weather Stations (AWS) in Solar and Wind Power Plants. All Renewable Energy Implementing Agencies are requested to suitably include the requirement of Automatic/weather Stations in bid documents. The CEA letter along with the guidelines is attached as Annexure V for reference.

Kind information and necessary compliance.

2.17. 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.

On request, NEEPCO has configured all the stations for parallel except two stations which are mentioned as below:

I. RC Nagar: The RTU need to be configured in the IEC-60870-104 protocol to facilitate reporting to NERLDC Guwahati.
II. Pare HEP: The RTU need to be configured in the IEC-60870-104 protocol to facilitate reporting to NERLDC Guwahati.

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

2.18. Configuration of PGCIL stations for NERLDC Shillong and NERLDC Guwahati:

With help of PGCIL-NERTS and PGCIL-ULDC nine (09) stations out of sixteen (16) stations are reporting parallelly to NERLDC Shillong and NERLDC Guwahati.

We request POWERGRID-NERTS to kindly extend further support to configure rest seven (07) stations to enable them to report to NERLDC Shillong and NERLDC Guwahati. The status is tabulated below:

Sl. No.	Sub-station	Configuration required	Completion status	Bottleneck/issues faced
1	Aizawl	Network reconfiguration of GIS One of SAS Gateway and router.	Pending	Firewall installed at site is not accessible
2	Misa	Creation of a new IEC-104 in the GE SAS Gateway. Or	Pending	OEM support is required for Creation of new IEC-104 in the GE SAS Gateway

		Alternatively old IEC-101 can be attempted to restore.		Or Alternatively old IEC-101 can be attempted to restore.
3	Mokokchung	Creation of a new IEC-104 in the SAS Gateway.	Pending	OEM support is required for Creation of new IEC-104 in the GE SAS Gateway
4	Salakati	Network reconfiguration of D400 gateway-2 for RLDC	Pending	OEM support is required for netwrok reconfiguration of one of the Gateways.
5	Silchar	Creation of a new IEC-104 in the GE SAS Gateway.	Pending	OEM support is required for Creation of new IEC-104 in the GE SAS Gateway
6	Roing	Network reconfiguration of One of SAS Gateway and router (post OPGW link completion).	Partially Completed	Only one Gateway is reporting at a time.
7	Tezu	Network reconfiguration	Partially Completed	Only one Gateway is reporting at a

		of One of SAS Gateway and router (post OPGW link completion).		time.

The requests emails were sent to POWERGRID on 24th June 2025 and 16th July 2025. POWERGRID is requested to provide an update on the current status of these actions.

2.19. Publication of NER operating procedure 2025

NERLDC has published the North Eastern Region (NER) Operating Procedure 2025 in compliance with Regulation 28(4) of the Indian Electricity Grid Code (IEGC) 2023.This is for information only.

PART-C: METERING ITEMS

3.1. Time Drift Issues:

Time drift in SEMs may result in computational errors in Regional energy accounts & Weekly Loss. All constituents in whose premises the meters are installed are required to take corrective action for the same.

Time drift of more than 2 mins observed in the following meters:

S No.	ENTITY	FEEDER NAME	METER NO.	TIME DRIFT	REMARKS
1	MANIPUR	132 kV Ningthoukhong-Imphal-3	NE-0151-A	Around 2 mins 10 secs	
2	MANIPUR	132 kV Ningthoukhong-Imphal-1	NP-9946-A	Around 02 mins 35 secs	

3.2. Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder:

It has been observed that the data received from Dharmanagar end is erroneous and the same neither matches with SCADA data nor with data from Dullavcherra end. Several follow ups have been initiated regarding the matter with utility, however, matter is yet to be resolved.

It is also to be noted that since 222nd OCCM, data from Dharmanagar S/S has not been received by NERLDC from said substation. Issue with Vinplus Software had been mentioned by Tripura in the previous OCCM.

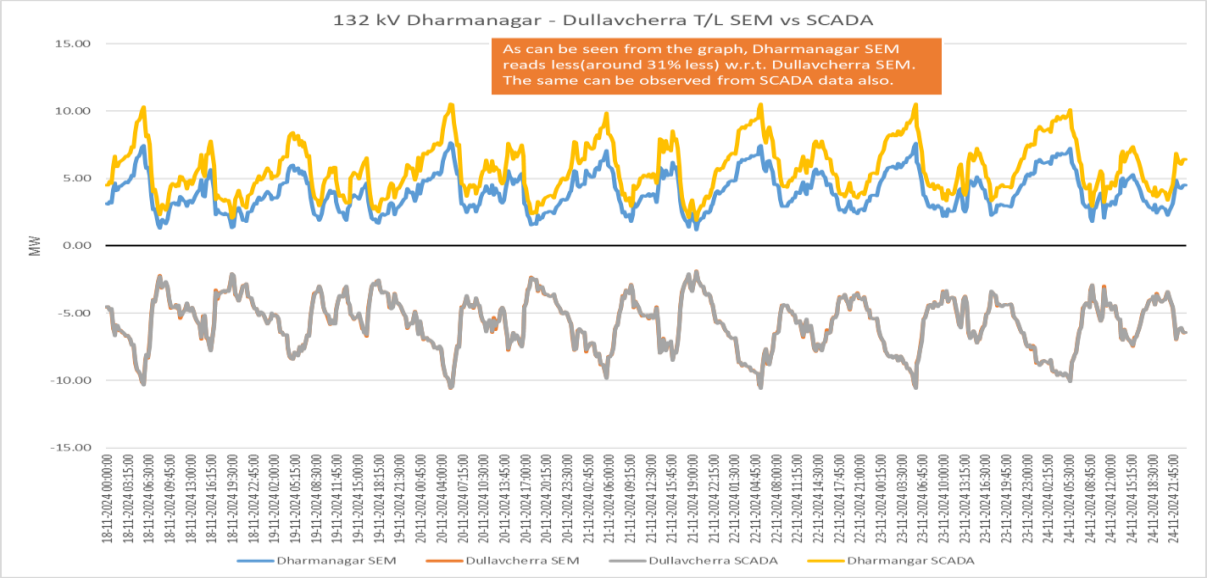
In the 225th OCCM, Tripura apprised the forum that DCD data have been received at Ambassa and Dharmanagar substations. However, due to technical issue with Vinplus software, SLDC Tripura is unable to transfer

the data to laptop. The forum advised Tripura to carry the laptop along with DCD data to Kumarghat substation where PGCIL will help Tripura to resolve the issue.

In the 227th OCCM, Tripura stated that the laptops currently present at Dharmanagar S/S is not able to run and retrieve data from DCD. Hence Tripura is in the process of procurement of 5 nos. of Laptops, which should be completed by 2nd week of July 2025. Installation of L&T based software will be done thereafter. Forum proposed that the matter be taken up in the next TCC/RPC meeting.

However, the same is yet to be resolved. Tripura is hereby requested to provide updates on the issue and also provide contact details of personnel stationed at Dharmanagar S/S for future communication.

Forum may please Discuss.



3.3. Issue in receipt of data from 132 kV Tipaimukh S/S

Weekly SEM data from 132 kV Tipaimukh (Manipur) S/S is essential for accounting of Manipur Drawal. However, SEM data for said substation is

not being received. On query, downloading data from DCD to laptop has been failing.

In 223rd OCCM, Forum requested Powergrid to assist Manipur to rectify the issue. Manipur to send Laptop along with DCD available at Tipaimukh to Aizawl PG S/S for the same.

In the 224th OCCM, Manipur informed that the equipment is ready to be dispatched but due to Law-and-Order condition in the state, movement is restricted. They are unable to send laptop along with DCD to Aizawl S/S. Manipur agreed to do the same as soon as possible.
In the 225th OCCM, Manipur apprised the forum that the DCD data and the laptop are in Manipur and are inaccessible due to the current law and order situation in Manipur. Manipur further apprised the forum that the laptop has developed technical problems and is not functional currently. Member Secretary, NERPC advised Manipur to repair the laptop and resolve the issue at the earliest.
In the 226th OCCM, Manipur updated that the Laptop issue will be resolved by next week.
In the 227th OCCM, Manipur stated that Laptop procurement is in process and data will be sent to NERLDC by the end of 1st week of July 2025. However, data from said Substation is yet to be received at NERLDC end.

Status of the same may be reviewed.

3.4. Issue in Receipt of Data data from Udaipur S/S:

Weekly SEM data from 132 kV Udaipur (Tripura) Substation is not being received since replacement of old LnT Meter with Secure Make Meter on 23-12-2024(for 132 kV Udaipur end of Palatana T/L). In 222nd OCCM, the forum advised Tripura to resolve the issue by next OCC meeting. Data from the replaced meter is yet to be received by NERLDC.

In the 225th OCCM, Tripura apprised the forum that DCD data has been received at Udaipur substation. However, due to technical issue with Vinplus software, SLDC Tripura is unable to transfer the data to laptop. The forum advised Tripura to carry the laptop along with DCD data to Kumarghat substation where PGCIL will help Tripura to resolve the issue.

In the 226th OCCM, Tripura updated that the issue will be resolved by next OCC meeting.

In the 227th OCCM, Tripura stated that the laptops currently present at Udaipur S/S is not able to run and retrieve data from DCD. Hence Tripura is in the process of procurement of 5 nos. of Laptops, which should be completed by 2nd week of July 2025. Installation of SECURE based software will be done thereafter.
Tripura may intimate present status of the same.

3.5. Receipt of SEM data from 132 kV Budhjungnagar, 132 kV Ambassa, 132 kV Dharmanagar, 132 kV PK Bari & 132 kV SM Nagar (TSECL) Substations:

As per 175th OCCM dated 18th Feb 2021 agenda D.12, Indigrid and Powergrid NERTS were given responsibility to collect and send SEM data on weekly basis for Tripura owned substations viz 132kV Ambassa S/s,132kV Budhjungnagar S/s, 132 kV PK Bari S/s and 132 kV SM Nagar S/s for the interim period, due to shortage of DCDs. The relevant extracts are furnished below

Quote:

“The forum noted that due to the existing shortage of DCDs, the same cannot be provided to Tripura for some time for new locations. This creates difficulty in getting SEM data from Budhjangnagar, Ambasa, PK Bari and SM Nagar. The Matter was discussed and it was decided that during the interim period Powergrid NERTS will provide readings from PK Bari and SM Nagar of Tripura and Sterlite will provide readings from Budhjangnagar and Ambassa of Tripura."

Unquote

As per IEGC 2023 Clause 49(12)(e) entity shall be responsible to send weekly meter data to RLDC. The relevant extracts are furnished below

Quote:

"Entities in whose premises the IEMs are installed shall be responsible for (i) monitoring the healthiness of the CT and PT inputs to the meters, (ii) taking weekly meter readings for the seven day period ending on the preceding Sunday 2400 hrs and transmitting them to the RLDC by Tuesday noon, in case such readings have not been transmitted through automatic remote meter reading (AMR) facility (iii) monitoring and ensuring that the time drift of IEM is within the limits as specified in CEA Metering Regulations 2006 and (iv) promptly intimating the changes in CT and PT ratio to RLDC."

Unquote

In 221st OCCM, Tripura confirmed the receipt of 3 nos. of DCDs and that the same have been dispatched to Dharmanagar, Ambassa and SM Nagar(State) S/Ss. Tripura further intimated that the remaining works shall be completed by 21/12/2024 and the meters shall be reporting successfully from 23/12/24.

In the 226th OCCM, Tripura updated that the issue will be resolved by next OCC meeting.

In the 227th OCCM, Tripura stated that the laptops currently present at these S/Ss are not able to run and retrieve data from DCD. Hence Tripura is in the process of procurement of 5 nos. of Laptops, which should be completed by 2nd week of July 2025. Installation of LnT based software will be done thereafter. Forum proposed that the matter be taken up in the next TCC/RPC meeting.

However, data is yet to be received from concerned utilities on weekly basis.

Tripura may Update Status.

PART-D: ITEMS FOR UPDATE/FOLLOW-UP

4.1 Restoration of 132 kV Sonabil-Gohpur and 132 kV Sonabil-Pavoi line to its original configuration

In the 186th OCC meeting held on 6th March 2020 at Guwahati, it was decided to temporarily bypass the Sonabil substation and operate the 132 kV Pavoi–Sonabil and 132 kV Sonabil–Gohpur lines as a single 132 kV Pavoi–Gohpur circuit. This arrangement was intended as a temporary measure until the 132 kV Biswanath Chariali–Itanagar line was LILO at Gohpur.

As of July 2023, the LILO of the 132 kV Biswanath Chariali–Itanagar line at Gohpur has been successfully completed. Furthermore, the 132 kV Pare–North Lakhimpur double circuit line has also been commissioned in August 2023, significantly strengthening the network in the region. Given these developments, it is now propose to restore the original configuration of the lines as follows after deliberation:

- 132 kV Sonbil–Gohpur
- 132 kV Sonabil–Pavoi

Considering the significant evolution of the network in this area, it is recommended that a committee be constituted to evaluate the proposal for restoring the original configuration. The committee should assess the technical and operational advantages and disadvantages of the restoration, taking into account both current system conditions and future network expansion plans.

4.2 Periodic Testing of Power System Elements and Submission of Simulation Model Data as per IEGC 2023

As per IEGC 2023 Clause 40 (1), periodic testing of all the power system elements shall be carried out by the equipment owners for ascertaining the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.

These tests must be conducted once every five (5) years or after major retrofits by the equipment owners. The owners shall also submit a testing plan for the next year to the concerned RPC by 31st October to ensure proper coordination during testing. This matter also stand discussed in various earlier OCC meetings.

In this context, all utilities are hereby requested to update and submit their periodic testing plans at the earliest via the link provided in the previous email to both NERPC and NERLDC.

4.3 Implementation/Review of Islanding schemes of NER:

As per Clause 10 of the Central Electricity Authority (Grid Standards), Regulations, 2010: "Islanding Schemes- (1) The Regional Power Committees shall prepare Islanding schemes for separation of systems with a view to save healthy system from total collapse in case of grid disturbance. (2) The Entities shall ensure proper implementation of the Islanding Schemes". In this regard the Islanding schemes which are being planned/have been implemented in NER are mentioned below, along with the updates from 227th OCCM.

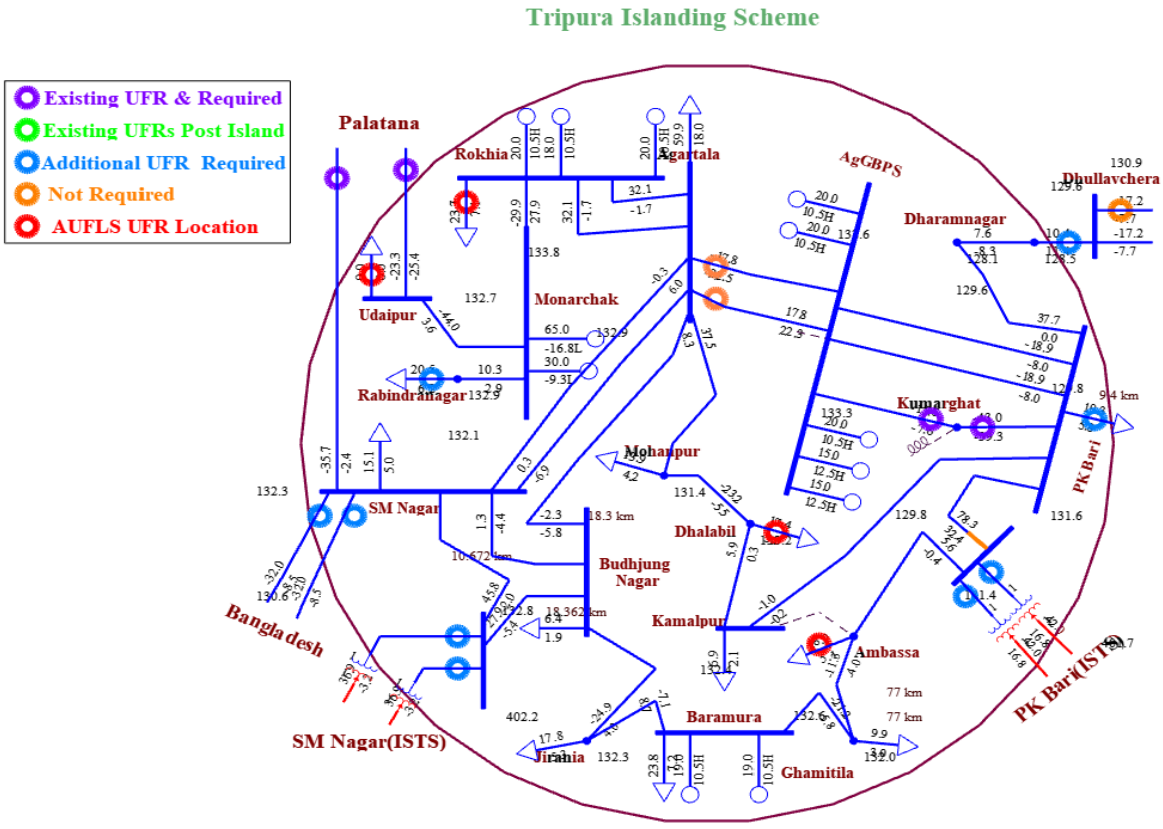
A. Guwahati Islanding Scheme

Being discussed in TESG meetings. Queries raised by TESG being replied

B. Tripura/Agartala Islanding Scheme

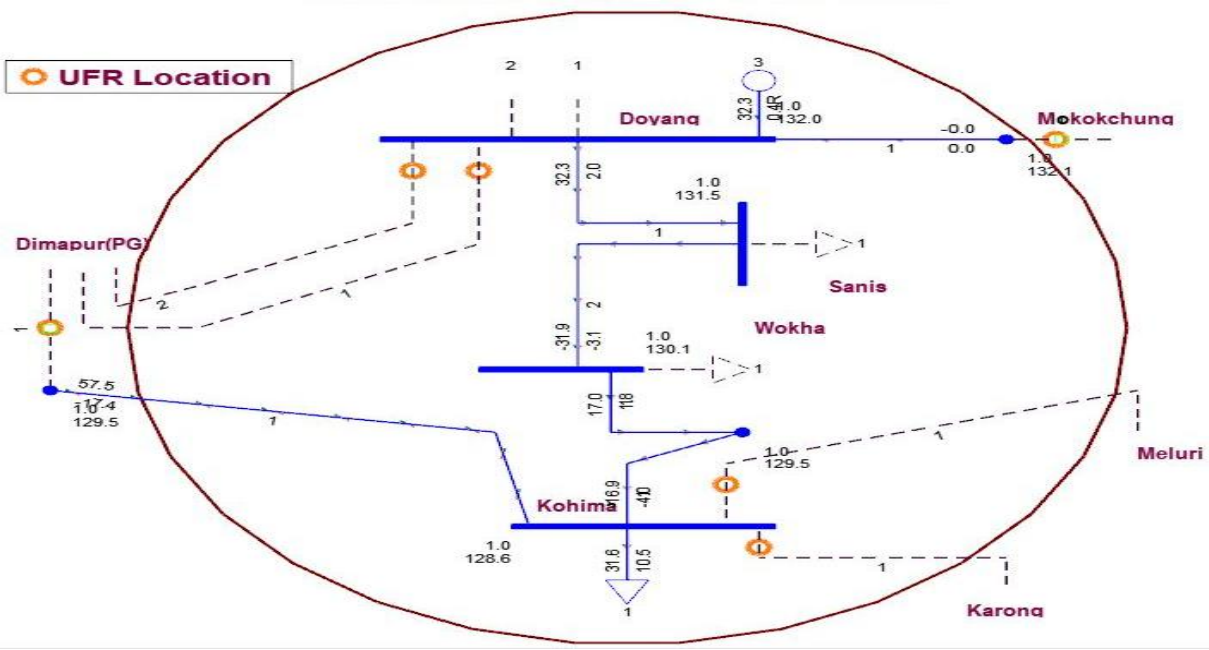
OTPC- done its part, Powergrid -will complete shortly ,NTL: absent Tripura : to buy UFRs. NERLDC suggested to check whether numerical

relays are present or not



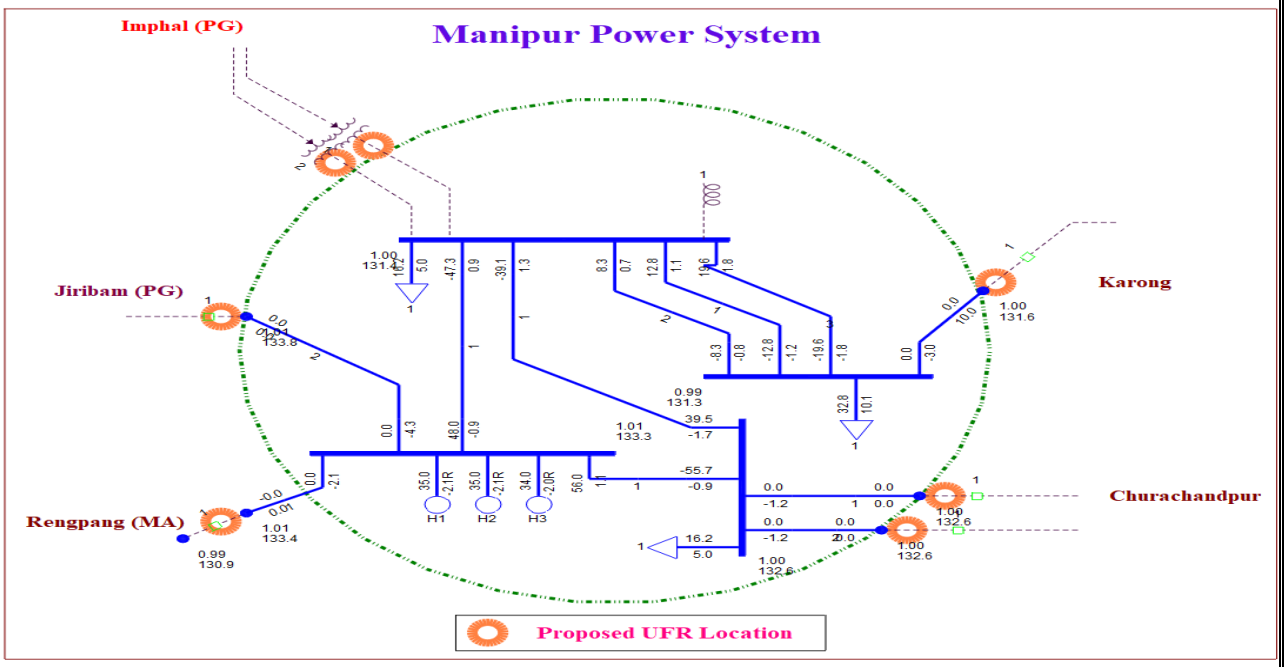
C. Kohima Islanding scheme

Stability issues observed. Furthers study to be done.



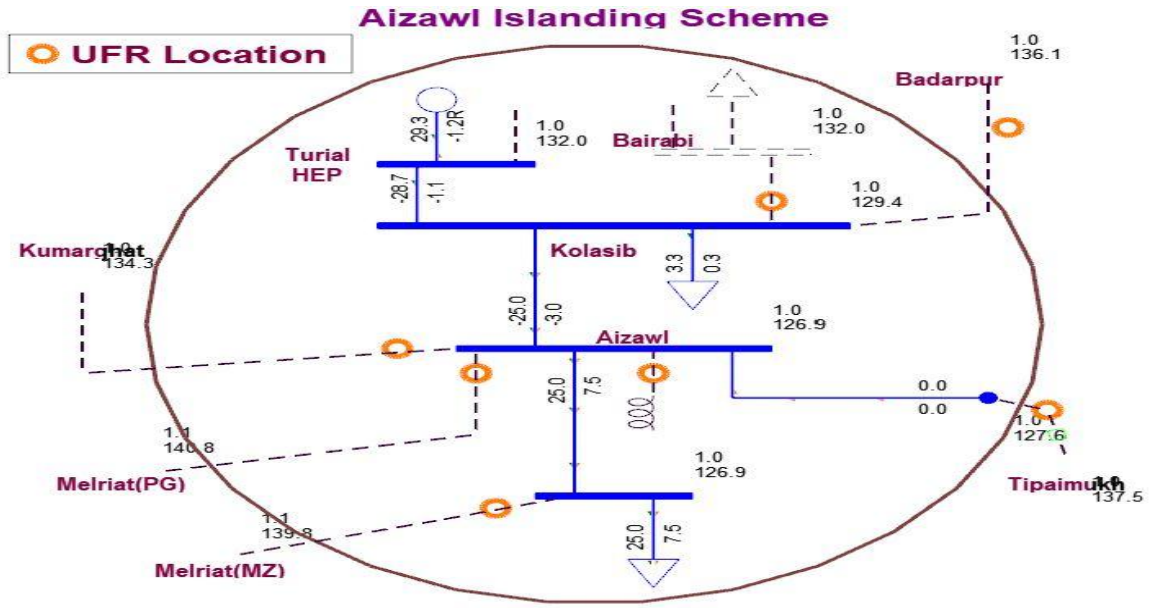
D. Imphal Islanding scheme

Dynamic study to be done. Multi machine involved, which necessitates real time monitoring of load and generation and load in the machine, therefore PMUs and centralized processors are required, as done for Guwahati Islanding scheme



E. Aizawl Islanding scheme

Under implementation.



F. Meghalaya/Shillong Islanding Scheme

NERLDC informed that Stability issues observed due to small units. Further study to be done

Utilities may further update

4.4 Automatic Under Frequency Load shedding (AUFLS) scheme of NER:

Status as updated in 227th OCCM

Name of the State/utility	Installation of UFRs	Status of mapping
Ar. Pradesh	Completed	DoP Arunachal Pradesh stated that mapping of feeder at Lekhi SS (Industry feeder, stage 1) completed For rest of the feeders and substations, coordination with GE is underway and will be taken up gradually.
Assam	Completed	Completed
Manipur	UFR installed but not enabled as system integration work is pending with GE. To be completed by June'25 end	Mapping is pending from substations end, which is being hampered due to Law & Order situation in the State. Also, system integration work is pending due to payment issue with M/s GE.
Meghalaya	Completed	Completed
Mizoram	Completed	Coordination with GE is underway for mapping.SCADA integration of Shimui completed but mapping left due to fibre issue. Coordination with PGCIL required. Mizoram further apprised that there is problem with SCADA display at Luangmualsubstation due to RTU issue. Issues to be resolved shortly
Nagaland	Completed	Completed

Tripura	Completed	Tripura apprised the forum that that mapping at Ambassa is completed but integration is left, OPGW being laid, to be completed by next OCCM.

NERPC informed that AUFLS quantum has been revised for NER for the FY 2024-25 and presented the revised quantum for load shedding to the forum, which is provided below: –

UFR load shedding for NER States for the FY 2024-25

State	**stg I (MW)**	**Stg II**	**Stg III**	**Stg IV**
Ar. Pradesh	8.659594937	10.39151392	12.12343291	12.12343291
Assam	112.3419494	134.8103392	157.2787291	157.2787291
Manipur	11.54612658	13.8553519	16.16457722	16.16457722
Meghalaya	18.85556962	22.62668354	26.39779747	26.39779747
Mizoram	7.542227848	9.050673418	10.55911899	10.55911899
Nagaland	8.100911392	9.721093671	11.34127595	11.34127595
Tripura	16.85362025	20.2243443	23.59506835	23.59506835
Total	183.9	220.68	257.46	257.46

For FY 2023-24 (already under operation)

State	**stg I (MW)**	**Stg II**	**Stg III**	**Stg IV**
Ar. Pradesh	10	14	12	10
Assam	90	125	113	115
Manipur	10	10	10	10
Meghalaya	25	25	25	25
Mizoram	5	5	5	5

Nagaland	10	10	10	10
Tripura	15	12.2	21.2	30
Total	165	201	196	205

Regarding implementation of revised quantum, in the 227th OCCM it was updated that Mizoram has revised the quantum and only Manipur and Tripura left to implement.

Manipur and Tripura *may update*

4.5 Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	Apr-25 (LGBR)	Apr-25 (Actual)	May-25 (LGBR)	May-25 (Actual)	Jun-25 (LGBR)	Jun-25 (Actual)
Arunachal Pradesh	200	172	217	184	185	192
Assam	2203	2081	2629	2336	2586	2717
Manipur	234	228	247	248	247	242
Meghalaya	455	340	439	339	370	330
Mizoram	143	138	141	138	136	128
Nagaland	185	176	192	187	200	203
Tripura (exc. Bangladesh)	384	334	423	347	380	366
NER DEMAND (exc. Bangladesh)	3689	3344	4066	3606	3899	3947

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	Apr-25 (LGBR)	Apr-25 (Actual)	May-25 (LGBR)	May-25 (Actual)	Jun-25 (LGBR)	Jun-25 (Actual)
Arunachal Pradesh	82	86.37	82	97.2	93	99
Assam	1108	1012.34	1108	1135.9	1312	1358
Manipur	94	86.13	94	96.9	105	88.3
Meghalaya	195	164.13	195	167.8	183	162.2

Mizoram	62	59.72	62	59.9	58	57.5
Nagaland	76	75.51	76	82.3	95	85.6
Tripura (excl. Bangladesh)	180	165.99	180	169.1	179	202.5
NER DEMAND (exc. Bangladesh)	1797	1650	1797	1809	2025	2054

LGBR projection for July'25, August'25 and September'25

PARTICULARS (Peak Demand in MW as per LGBR)	July-25 (MW)	July-25 (MU)	Aug-25 (MW)	Aug-25 (MU)	Sep-25 (MW)	Sep-25 (MU)
Arunachal Pradesh	204	99	214	111	212	103
Assam	2787	1543	2835	1521	3082	1562
Manipur	229	91	261	85	265	89
Meghalaya	401	191	384	190	349	166
Mizoram	141	65	164	59	162	62
Nagaland	205	105	203	92	201	94
Tripura (exc. Bangladesh)	394	205	381	237	409	196
NER DEMAND (exc. Bangladesh)	4158	2300	4265	2294	4396	2272

Sub-committee may deliberate

4.6 Status Update and Revival Plan for Long-Outage NER Generators & Transmission Lines

The following NER generators & transmission lines have been under outage since long time. Considering the increasing demand trend and reliable power supply in the Region, respective utilities are requested to intimate the updated expected date of revival & take necessary action to restore the mentioned units & lines at earliest:

Generating Units:

As updated in 227th OCC meeting

S. No.	Element Name	Outage time	Reason	Expected date (as updated in 227th OCCM)
1	Khandong Unit I	10:45 Hrs of 26-03-2022	Flash flood of reservoir causing submergence of the Khandong station	Khandong Unit I-July 2025
2	Khandong Unit II	10:45 Hrs of 26-03-2022		Khandong Unit II-July 2025
3	LTPS Unit 7 (20 MW)	17:08 hrs of 08-04-2024	High Vibration issue in Bearing Block-4 turbine bearing of gas turbine	Spare not available, waiting for OEM reply. Process may take significant time.
4	Baramura Unit 5 (21MW)	20:17 Hrs of 26-03-2024	Outage due to low gas pressure.	Machine Ok. Gas availability issue.
5	Baramura Unit 4	23:20 Hrs of 05-06-2024	gear box issue, leakage in auxiliary of gear box, display of control unit is not working due to suspected card issue	Baramura Unit 4. Tripura apprised that there is technical problem in rotor. Nonfunctional due to non-availability of gas. Forum advised to resolve rotor issue in the unit.
6	Rokhia Unit 8	22:13 Hrs of 02-05-2024	Hand Tripped due to low Gas Pressure. Issue of turbine bearing leakage observed.	In service. Gas constraint issue. Advised to swap units and confirm the healthiness of all machines. Machines may run alternatively

				in order to maintain healthiness
7	Rokhia Unit - 7	14:06 Hrs of 06-11-2024	Leakage in Heat Chamber	In service. Gas constraint issue
8	Kameng Unit 2	07:31 Hrs of 17-06-2024	Damage in the stator core & bar, and also on rotor poles due to dislodging of 1no. V-block	June-2025

Transmission Lines:

As updated in 227th OCC meeting

S. No.	**Element Name**	**Outage time**	**Reason**	**Expected date (as updated in 227th OCCM)**
1	400 kV Imphal - Thoubal I	18-10-2021	Tripped on DP, ROW issue.	RoW issue. Law and order situation is fragile.
2	132 kV Jiribam-Rengpang	17-11-2023	Tripped on Earth fault	Tower shifting required due to NHIDCL work. Resurvey done in 1st week of May'25. 16 towers affected.

				Revival will take significant time.
3	132kV Ningthoukhong - Churachandpur ckt 1	04-08-2024	Z-1, 18.5 km, O/C	Elements under outage for more than 6 months and as elements is under intra-state jurisdiction, SLDC may follow their FTC procedure (SIO etc may be obtained) and copy may be given to NERLDC.
4	132kV Srikona – Panchgram	14-01-2019	-	Survey complete, estimate in process

Utilities may further update

4.7 Mock Black Start of Units in compliance with IEGC:

As per IEGC Clause 34 (3), The user shall carry out a mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter based generating station and VSC based HVDC black-start support **at least once a year** under intimation to the concerned SLDC and RLDC.

Accordingly, Mock Black Start of the following generating plants were conducted for the FY 2024-25:

Sl. No.	**Name of Power station**	**Date of Mock exercise**
1	AGBPS GTG 4	14-05-2024
2	Kopili Unit 1, 3 & 4	Completed (U I & III 09th March 25 & U II & IV 10th March 25)

3	AgGBPS GTG 2	11-09-2024

All utilities are requested to submit the latest status of planning related to mock black-start trials of ***all units*** that are pending or yet to be conducted and to complete these activities within FY 2024-25 to ensure compliance with IEGC.

Mock Black Start of the following generating plant are pending:

Sl. No.	**Name of Power station**	**Last date of Mock exercise**	**Expected date of Mock exercise**
1	Doyang HEP	12-05-2023	Unit II Completed on 04/04/2025.
2	Khangdong Stg-2 HEP	-	November-2025
3	Kameng HEP	-	November-2025
4	Loktak HEP	31-07-2023	May-2025
5	Pare HEP	10-01-2024	November-2025
6	Panyor HEP	30-05-2023	May-2025
7	Turial HEP	-	Completed on 08/04/2025.

In 227th OCCM, NERLDC informed that as per discussion held during the special meeting convened by NERPC on 10.05.2025 regarding the preparedness of islanding and black start capabilities, it was decided to carry out unannounced mock black start exercises for all generating stations equipped with black start facilities. In line with this decision, **Loktak and Pare HEP** have successfully carried out the unannounced mock black start exercises. NEEPCO stated that due issues related to online transfer of elements at Panyor HEP unannounced mock black start exercises may not conducted.

Generating utilities to update

4.8 Urgent Review of Online Element Transfer at PLHPS

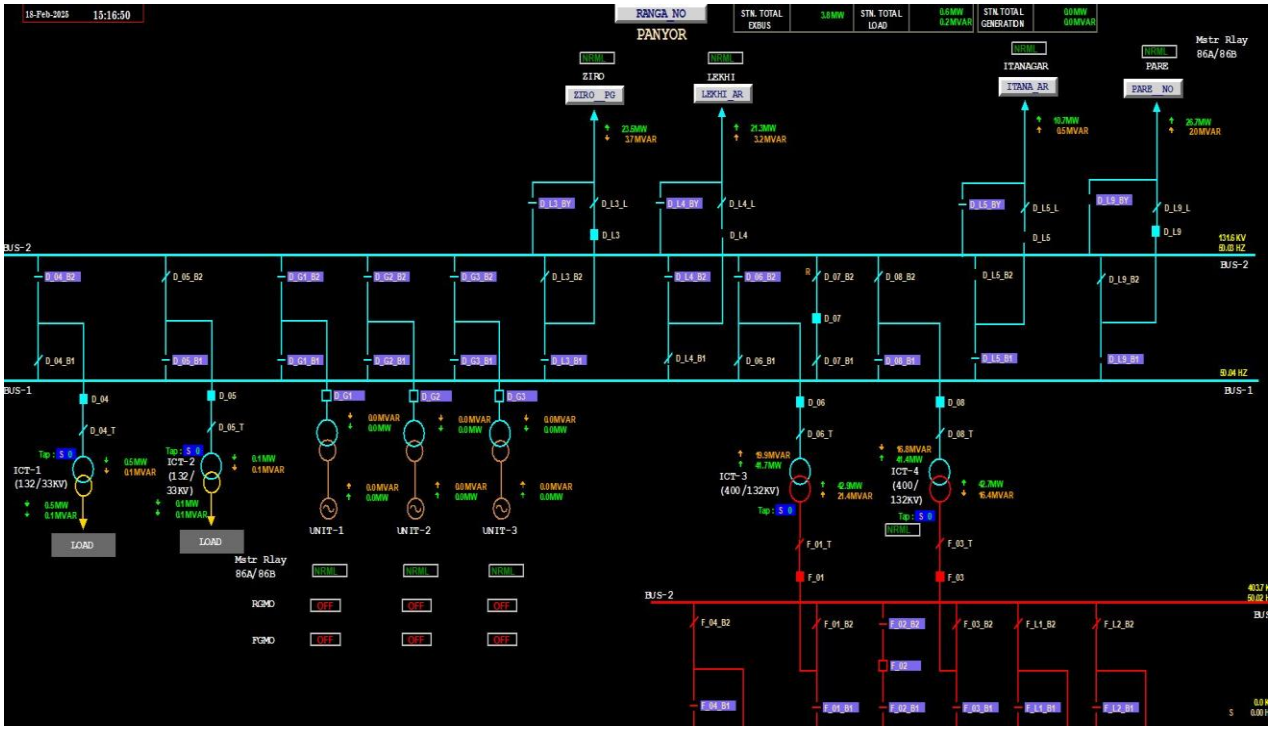
The Bus Scheme of PLHPS at the 132 kV level is a Double Main scheme, as confirmed via email. In this type of bus arrangement, the online transfer of elements from one bus to another can be performed seamlessly without any interruption in power flow.

As per the decision of the previous OCC forum, NERLDC requested PLHPS to transfer of an element to another bus on January 28, 2025, to facilitate the testing and verification of the healthiness of the non-energized element. However, in response to this request, Panyor NEEPCO stated that the existing scheme of PLHPS does not permit the online switching of isolators and that such an operation has never been carried out since the commissioning of the station.

This issue has already been raised with the NEEPCO team, highlighting that online bus transfers of elements are being successfully performed at multiple stations within the NER Grid, including AgGBPS, which is also owned by NEEPCO. However, PLHEP executives have consistently denied such operations, citing that they have never been practiced at their station.

It is important to note that with the commissioning of the 132 kV Roing-Chapakhowa D/C line and the increasing industrial load in the Pasighat area, the 132 kV Panyor-Ziro-Daporijo-Basar-Along-Pasighat-Roing-Chapakhowa link has become vital for Arunachal Pradesh and Assam power systems.

Given the importance of ensuring system reliability, a review of the non-transfer of elements at PLHPS is strongly recommended. If online element transfers are indeed not feasible under the current setup, experienced personnel should be consulted to explore possible solutions and address the issue effectively.



In 225th OCC meeting, NEEPCO informed that there is alignment issue with isolator which is hampering online transfer of the elements. He added that they are expediting the resolution of the matter at the earliest.

In 226th OCCM, forum opined that ensuring the online element transfer facility at the station is critical for reliable operation of the grid and urged In 227th OCCM Forum requested NEEPCO to expedite the plan for rectification/replacement of the isolators and make necessary arrangement for online transfer.

NEEPCO to update

4.9 Compliance with Annual Measurement of Harmonics, DC Injection, and Flicker as per CEA Regulations

As per the CEA (Technical Standards for Connectivity to the Grid) Regulations, Clause B1(4), Measurement of harmonic content, DC injection and flicker shall be done at least once in a year in presence of the parties concerned and the indicative date for the same shall be mentioned in the connection agreement;

Provided that in addition to annual measurement, if distribution licensee or transmission licensee or the generating company, as the case may be, desires to measure harmonic content or DC injection or flicker, it shall inform the other party in writing and the measurement shall be carried out within 5 working days";

In accordance with this regulation, all Wind generating stations and generating stations using inverters connected to the grid are required to perform this test annually and submit the test report to the relevant utility authorities. All utilities are requested to provide an update on the current status of test reports and outline their future testing plans as per CEA guidelines.

In 224th OCC meeting, NERLDC apprised that no wind generators or inverter-based generators have provided any test reports so far. Forum requested the SLDCS of the states where such plants are located, to take up the matter with developers of such plants to and provide a testing plan and reports to NERPC and NERLDC at the earliest.

Further, MS NERPC informed that regarding the uniform guidelines on Harmonics measurement by transmission and generating utilities, matter has been put for discussion in the upcoming NPC meeting.

As per 225th OCC meeting, forum noted that agenda for uniform procedure has been put up in NPC for further deliberations. Moreover, the forum advised SLDCs to update the status of the harmonic content contribution from solar and wind generators.

In the 226th OCCM Forum exhorted the Assam and Mizoram to provide the required details at the earliest to NERPC and NERLDC. Also, the forum requested state SLDCs to provide the charging clearance for Solar, wind and IBR based plants only after ensuring compliance with CEA regulations on testing of Harmonics, DC injection and flicker. SLDs agreed to the same.

In the 227th OCCM, Assam and Mizoram informed that corresponding SLDCs are taking up the matter with Solar developers, but no input has

been received yet. MS NERPC exhorted Assam and Mizoram to ensure compliance with the regulations and timely conduct of the tests

States to update

4.10 Submission of Healthiness Status of Under Frequency Relays (UFRs)

The North Eastern Region (NER) grid incorporates multiple islanding schemes, which are critical for maintaining grid stability during contingencies. These schemes are primarily based on the operation of Under Frequency Relays (UFRs).

For the successful operation of the islanding schemes and protection scheme, it is imperative that the designated UFRs are in a healthy condition and functioning correctly. In this regard, all utilities are kindly requested to submit the healthiness status of their respective UFRs, based on recent tests conducted to assess their performance. Please ensure the following while submitting report to NERPC and NERLDC:

- Clearly indicate the location and identification of each UFR.
- Mention the date and methodology of the last healthiness test.
- Include test results and any corrective actions taken (if applicable)

In 226th OCC meeting, Forum requested all the utilities to periodically test the healthiness of UFRs, used in AUFLS scheme and Islanding schemes, under their domain and send the reports to NERPC and NERLDC. In the 227th OCCM, The Forum also advised NERLDC to prepare a testing calendar for UFR testing, which may be jointly witnessed by NERPC and NERLDC.

NERLDC may update.

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