सत्यमेव जयते

भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय

NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

No.: No. NERPC/SE (O)/PCC/2025/ 2083-2125. September 08, 2025

To

As per list attached

Sub: 82वीं संरक्षण समन्वय उप-समिति (पीसीसी) बैठक का कार्यवृत्त/ Minutes of 82nd Protection Coordination Sub-Committee (PCC) Meeting

महोदय/महोदया,

कृपया 21 अगस्त 2025 को एनईआरएलडीसी सम्मेलन हॉल, गुवाहाटी में आयोजित 82वीं पीसीसी बैठक के कार्यवृत्त को अपनी जानकारी और आवश्यक कार्रवाई के लिए प्राप्त करें। कार्यवृत्त एनईआरपीसी की वेबसाइट www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द NERPC सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 82nd PCC Meeting held at NERLDC conference Hall, Guwahati on 21st August 2025 for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

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

भवदीय / Yours faithfully,

08/IX/2025

(डी के बौरी / D K Bauri)

निदेशक / Director

Encl: As above

Distribution List:

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
3. Managing Director, APDCL, Bijuli Bhawan, Guwahati – 781 001
4. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
5. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
6. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Director (Generation), MePGCL, Lumjingshai, Short Round Road, Shillong – 793 001
8. Director (Distribution), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
9. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
10. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
11. GM (Transmission), TPTL, Banamalipur, Agartala -799 001.
12. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
14. Chief Engineer (Commercial) -cum- CEI, DoP, Govt. of Arunachal Pradesh, Itanagar- 791111
15. Engineer-in-Chief, P&E Department, Govt. of Mizoram, Aizawl – 796 001
16. Engineer-in-Chief, Department of Power, Govt. of Nagaland, Kohima – 797 001
17. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
18. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
19. Group GM, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
20. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
21. ED, PGCIL/NERTS, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
22. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
23. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi – 110066
24. Dy. COO, CTUIL, "Saudamini", 1st Floor, Plot No. 2, Sector-29, Gurugram, Haryana – 122001
25. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
26. Chief Engineer, NPC Division, Central Electricity Authority, New Delhi – 110066
27. Head & VP, (R&C), ENICL, IndiGrid, Windsor Building, Kalina, Santacruz (East), Mumbai- 98
28. ED, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
29. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
30. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
31. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
32. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
33. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
34. Head of SLDC, MSPCL, Imphal – 795001
35. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
36. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
37. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
38. Head of SLDC, TSECL, Agartala – 799001
39. Chief Engineer (Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
40. DGM (O&M), OTPC, Badarghat Complex, Agartala, Tripura – 799014
41. AGM Regulatory & Commercial, NER II TL, 10th Floor, Berger Tower, Noida sector 16B-201301
42. Director, NETC, 2C, 3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-77.

08/IX/2025

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

सत्यमेव जयते

Minutes
of
82nd PCCM

Govt. of India

Ministry of Power

North Eastern Regional Power Committee

Shillong

North Eastern Regional Power Committee

Minutes of

82nd Protection Coordination Sub-Committee Meeting

Date: 21/08/2025 (Thursday)

Time: 11:00 hrs.

Venue: NERLDC Conference Hall, Guwahati

The list of participants is attached as annexure I

A. CONFIRMATION OF MINUTES

1. CONFIRMATION OF MINUTES OF THE 81st PROTECTION SUB-COMMITTEE MEETING OF NERPC.

Minutes of the 81st PCC Meeting held on 24th July, 2025 at NERPC Conference Hall, Shillong was circulated vide letter No.: NERPC/SE (O)/PCC/2025/1697-1738 dated 8th August 2025.

No comments were received from the constituents

Sub-committee confirmed the minutes of the 81st PCCM

B. ITEMS FOR DISCUSSION

B.1 Protection Audit of NER:

As per the protection code of IEGC 2023 following roles and responsibilities, related to the subject mentioned, of constituents have been defined–

Description		Constituent	Responsibility	Timeline
Audit	Internal Audit	All users (132kV and above)	Shall conduct internal audit of protection system	Annually
			Audit report to be shared with RPC	Within 30 days of Audit
			Action plan for rectification of deficiencies to be shared with RPC	Within 30 days of Audit
	Third party Audit	All users (132kV and above)	Shall conduct audit for each SS	Once in five years
			Shall conduct audit on advice of RPC	Within three months of advice of RPC
			Audit report* to be submitted to RPC and NERLDC/SLDC	Within a month of submission of third-party audit report
			Action plan for rectification of deficiencies	Same as above
		RPC	Compliance to audit reports to be followed up regularly	Not specified
		RPC	After analysis of any event, shall identify substations where audit is required to be carried out	Conditional responsibility

	Annual audit plan	All users	Annual audit plan to be submitted to RPC by ***31st October***	Annual

Background: In 60th PCCM the following points were discussed-

Member Secretary NERPC informed that third party protection audit has to be generally conducted by the utilities on their own. However, the 3rd party audit will be carried out by team constituted by NERPC at selected substations based on the criticality, analysis and requirement. In this regard, NERPC has already circulated an audit calendar and audit formats for reference of the constituents.

The nodal officers of respective State/Power Utilities have to fill the audit formats and submit to the NERPC secretariat within 1 week. The forum decided that compliance to audit reports will be followed up regularly in PCC meeting of NERPC.

Information regarding substations that have already been audited will be provided by States to NERPC & NERLDC. **Forum agreed that all users (132 kV and above) have to conduct Internal Audit annually and submit audit report to RPC with action plan for rectification of deficiencies within 30 days of Audit.**

Regarding audit plan of utilities, the forum requested the utilities to furnish the list of substations and audit (internal as well as third party) schedule for FY 2024-25. A google spreadsheet has been circulated to the constituents by NERLDC to provide the schedule of protection audit as well as date of last audit. The forum requested the constituents to update the spreadsheet.

Status of Internal/External audit (81st PCCM)

Sr No	Utility/ Constituents	Internal Audit		External audit	
		Latest Status	**report**	**Latest Status**	**report**
1.	Ar. Pradesh	Tentative schedule provided in the		Planning and Tendering will be done for audit of all 9	NA

		google sheet of NERLDC (Total Substation: 09)		SS. Bid document being prepared. Forum requested to provide the tentative schedule of audit	
2.	Assam	For FY 2025-2026, audits to start from Aug'25; will share the audit plan to NERPC and NERLDC (Total Substation: 75)		Reviewing the standard Bid document as presented in the 29th TCC & NERPC meeting by NERPC. Considering the option of hiring external agencies for conducting the audits; will start next year	
3.	Manipur	For FY 2025-26, audit to be done in Sept'25; schedule to be updated in the google sheet. (Total Substation: 08)		8 SS to be done, Schedule to be decided, subject to law and Order situation. Audit of Yurembam ss, Ningthounkong ss and Imphal (PG) may be done by NERPC team in Aug'25	NA
4.	Meghalaya	Audit of Umiam and Sohra done in July'25, rest to be done later. (Total Substation: 22)		Work order to be issued to CPRI. Audit plan will be shared after discussing with CPRI	

5.	Mizoram	For FY 2025-26, audits to start from August'25 Tentative plan shared with NERPC and NERLDC. (Total Substation: 10)		List of external agencies awaited. Searching for parties to conduct audit. Audit of Kolasib, Aizawl, Melriat (PG), Zuangtui and Luangmual may be done in Sept'25 by NERPC.	
6.	Nagaland	Audit of Sanis, Wokha, Chiepouzou and Kohima done in July'25 (Total 11 S/s)	Report to be shared	Audit of 5 SS to be done in Aug-Spet'25 by NERPC. For rest, to be planned later.	
7.	Tripura	Will start audit from Nov.25 (Total Substation: 18)		Exploring external agencies. Requesting NERPC to conduct the audits. MS NERPC stated that audit of Udaipur, Rokhia and Agartala may be conducted in Sept'25 by NERPC.	
8.	Powergrid (NERTS)	22 Substations. Schedule give to NERLDC. Audit of 4 SS done and 2 underway.	Report shared	Planning for external agencies. Matter is under process. Schedule of audit will be provided shortly.	
9.	NTL	No representative		No representative.	

10	KMTL	No representative		No representative	
11	MUML/NBTL	No representative		No representative	
12	NEEPCO (Total Substation: 10)	Internal audit plan for FY 2025-26 has been shared. To be started from Nov'25. Audit of Kopili underway.		Discussion with CBIP underway for conducting audit of Doayng and Turial. Audit to be done in lean hydro season. Price offer received from PRDC for Kameng S/S	
13.	OTPC (Palatana)	For FY 2025-26, to be done in Sept25		Done during 2024	shared
14.	NTPC (BgTPP)	For FY 2025-26, to be in Nov.25		Done (by CPRI) during 2024	Complete Report shared. Action plan shared.
15.	NHPC (Loktak)	To be done in Aug'25		To be done in Aug'25, order placed	
16.	APGCL	No representative			
17.	TPGCL				
18.	MEPGCL	Schedule submitted to NERLDC. Audit of Umtru, New Umtru done in July'25. Internal audit of Leshka	Report to be shared	Will propose for external agencies	

		S/S, Umiam Stg-I&II to be conducted during Aug'25 & Ganol during Sep'25.			
19	Dikshi HEP (IPP)	DoP Ar. Pradesh transmission division has written a letter to the plant, reply still awaited.		DoP Ar. Pradesh transmission division has written a letter to the plant, reply still awaited.	

Deliberation

Status of Internal/External audit (82nd PCCM)

Sr No	Utility/ Constituents	Internal Audit		External audit	
		Latest Status	**report**	**Latest Status**	**report**
1.	Ar. Pradesh	As per plan, in August'25 (Total Substation: 09)		Planning and Tendering will be done for audit of all 9 SS. Bid document being prepared. Forum requested to provide the tentative schedule of audit	NA
2.	Assam	For FY 2025-2026, audits to start from Sept'25; will share the audit		Bid Document under preparation.	

		plan to NERPC and NERLDC (Total Substation: 75)			
3.	Manipur	Audit of 8 SS done, rest to done by end of August'25 (Total Substation: 17)	Report for 8 SS submitted to SLDC, to be submitted to NERPC and NERLDC.	8 SS to be done, Schedule to be decided, subject to law and Order situation. Audit of Yurembam ss, Ningthounkong ss and Imphal (PG) may be done by NERPC team Aug'25 end or 1st week of September'25	NA
4.	Meghalaya	Audit of Umiam and Sohra done in July'25, rest to be done later. (Total Substation: 22)		Audit to start on 25th August	
5.	Mizoram	Audit of Zuangtui done, others to be done as per plan (Total Substation: 13)		List of external agencies awaited. Searching for parties to conduct audit. Audit of Kolasib, Aizawl, Melriat (PG), Zuangtui and Luangmual may be done in Sept'25 by NERPC.	

6.	Nagaland	Audit of Sanis, Wokha, Chiepouzou and Kohima done in July'25 (Total 11 S/s)	Report to be shared	Audit of 5 SS to be done in Sept'25 by NERPC. For rest, to be planned later.	
7.	Tripura	Will start audit from Nov.25 (Total Substation: 18)		Requisition sent to CPRI,offer yet to be received MS NERPC stated that audit of Udaipur, Rokhia and Agartala may be conducted in Sept'25 by NERPC.	
8.	Powergrid (NERTS)	22 Substations. Schedule give to NERLDC. Audit of 6 SS done	Report shared	Planning for external agencies. Finalizing scope of work, then will seek offer. Schedule of audit will be provided shortly.	
9.	NTL	Audit of P K Bari and S M Nagar to be done in Oct'25		Feb, March'25	
10	KMTL	Audit of New Kohima SS will be doneby Sep'	Report to be shared next month	Finalizing the auditing party. Will be done by Oct'25.	
11	MUML/NBTL	No representative		No representative	
12	NEEPCO (Total Substation: 10)	Internal audit plan for FY 2025-26 has been shared. To be started from Nov'25.	Audit report of Kopili to be shared next month	Tendering underway for Kameng and Turial. For AGBPP, in talk with CBIP.	

		Audit of Kopili underway.			
13.	OTPC (Palatana)	For FY 2025-26, to be done in Sept25		Done during 2024	shared
14.	NTPC (BgTPP)	For FY 2025-26, to be in Nov.25		Done (by CPRI) during 2024	Complete Report shared. Action plan shared.
15.	NHPC (Loktak)	To be done in Aug'25		To be done in Aug'25, order placed	
16.	APGCL	No representative			
17.	TPGCL				
18.	MEPGCL	Schedule submitted to NERLDC. Audit of Umtru, New Umtru done in July'25. Internal audit of Umiam Stg-I&II being conducted	Report to be shared	Budgetary offer received from CPRI and PRDC. Offer from one more party is awaited to prepare the bid document.	
19	Dikshi HEP (IPP)	Audit to be done in Oct'25		DoP Ar. Pradesh transmission division has written a letter to the plant, reply still awaited.	

B.2 Analysis and Discussion on Grid Disturbances which occurred in NER grid in July'25 in compliance with IEGC 2023:

TABLE 8 : REPORT SUBMISSION TIMELINE

Sr. No.	Grid Event^ (Classification)	Flash report submission deadline (users/ SLDC)	Disturbance record and station event log submission deadline (users/ SLDC)	Detailed report and data submission deadline (users/ SLDC)	Draft report submission deadline (RLDC/ NLDC)	Discussion in protection committee meeting and final report submission deadline (RPC)
1	GI-1/GI-2	8 hours	24 hours	+7 days	+7 days	+60 days
2	Near miss **event**	8 hours	24 hours	+7 days	+7 days	+60 days
3	GD-1	8 hours	24 hours	+7 days	+7 days	+60 days
4	GD-2/GD-3	8 hours	24 hours	+7 days	+21 days	+60 days
5	GD-4/GD-5	8 hours	24 hours	+7 days	+30 days	+60 days

^*The classification of Grid Disturbance (GD)/Grid Incident (GI) shall be as per the* CEA Grid Standards.

The forum may deliberate upon the GD/GI/near miss events that occurred in July 2025 based on the draft report prepared by NERLDC.

Deliberation

NERLDC informed that 37 GDs occurred in the month of July'25 out of which 18 were radial in nature and 17 GDs occurred due to protection issues.

B.3 Status of submission of FIR, DR & EL outputs for the Grid Events for the month of July'2025:

In line with regulation 12 (1) of CEA Grid Standards Regulations and IEGC-23 provision under clause 37.2 (c), FIR and DR & EL Outputs for each grid events are required to be submitted by concerned utilities to NERLDC for detailed investigation and analysis.

Status of uploading of FIR, DR & EL outputs of tripping of transmission elements in Tripping Monitoring Portal for events from 01-07-2025 to 31-07-2025 as on **12-08-2025** is given below:

Owner Name	No of tripping	FIR			DR			EL		
		Total Furnished in 24hrs %	Total Furnished after 24hrs %	Total furnished %	Total Furnished in 24hrs %	Total Furnished after 24hrs %	Total furnished %	Total Furnished after 24hrs %	Total Furnished in 24hrs %	Total furnished %
AEGCL	40	3.90%	96.10%	100.00%	10.39%	89.61%	100.00%	7.79%	92.21%	100.00%
APGCL	3	33.33%	0.00%	33.33%	0.00%	33.33%	33.33%	0.00%	33.33%	33.33%
DoP, Arunachal Pradesh	16	44.44%	51.85%	96.30%	81.48%	14.81%	96.30%	77.78%	18.52%	96.30%
DoP, Nagaland	33	48.98%	51.02%	100.00%	24.49%	67.35%	91.84%	34.69%	57.14%	91.84%
MePGCL	14	8.70%	91.30%	100.00%	8.70%	91.30%	100.00%	8.70%	78.26%	86.96%
MePTCL	28	96.43%	3.57%	100.00%	100.00%	0.00%	100.00%	85.71%	14.29%	100.00%
MSPCL	17	15.79%	31.58%	47.37%	10.53%	36.84%	47.37%	5.26%	42.11%	47.37%
MUML	2	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	50.00%	50.00%	100.00%
NBTL	1	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%
NEEPCO	18	57.50%	35.00%	92.50%	77.50%	15.00%	92.50%	75.00%	17.50%	92.50%
NHPC	9	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
NTL	2	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
OTPC	1	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
P&ED, Mizoram	7	57.14%	28.57%	85.71%	57.14%	28.57%	85.71%	71.43%	14.29%	85.71%
POWERGRID	36	50.00%	50.00%	100.00%	70.00%	28.33%	98.33%	73.33%	23.33%	96.67%
TSECL	7	0.00%	100.00%	100.00%	53.85%	46.15%	100.00%	69.23%	30.77%	100.00%

FIR/DR/EL submission status of utilities having tripping of Generating Units as on 12-08-2025:

Owner Name	No of tripping	FIR			DR			EL		
		Total Furnished in 24hrs %	Total Furnished after 24hrs %	Total furnished %	Total Furnished in 24hrs %	Total Furnished after 24hrs %	Total furnished %	Total Furnished after 24hrs %	Total Furnished in 24hrs %	Total furnished %
MePGCL GENERATION	1	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
NEEPCO GENERATION	14	28.57%	57.14%	85.71%	78.57%	7.14%	85.71%	78.57%	7.14%	85.71%
NHPC GENERATION	2	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
OTPC GENERATION	2	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%

FIR/DR/EL not submitted for tripping of Tuirial Unit-1&2 (NEEPCO) on 30th July'25.

Concerned Utilities are requested to upload Disturbance Recorder (DR), Event Logger (EL) outputs for grid events along with a First Information Report (FIR) in Tripping Monitoring Portal (https://tripping.nerldc.in/Default.aspx) for analysis purpose. In light of the cybersecurity measures implemented by Grid India to safeguard sensitive information, NERLDC has created the email address nerldcso3@gmail.com . This new account has been specifically set up to facilitate the secure exchange of DR and EL files that have previously faced blockage when sent to nerldcprotection@grid-india.in.

Also, all utilities are requested to nominate a nodal officer responsible for the submission of FIR,DR & EL in Tripping Monitoring Portal (https://tripping.nerldc.in/Default.aspx)

All the utilities are requested to submit details of tripping of downstream feeder on monthly basis in the google spreadsheet prepared by NERLDC.

https://docs.google.com/spreadsheets/d/1rlksf6KO9LgQQ6bwMRDmbwm906We1ysfR7KjrTxhG34/edit?gid=0#gid=0

Deliberation

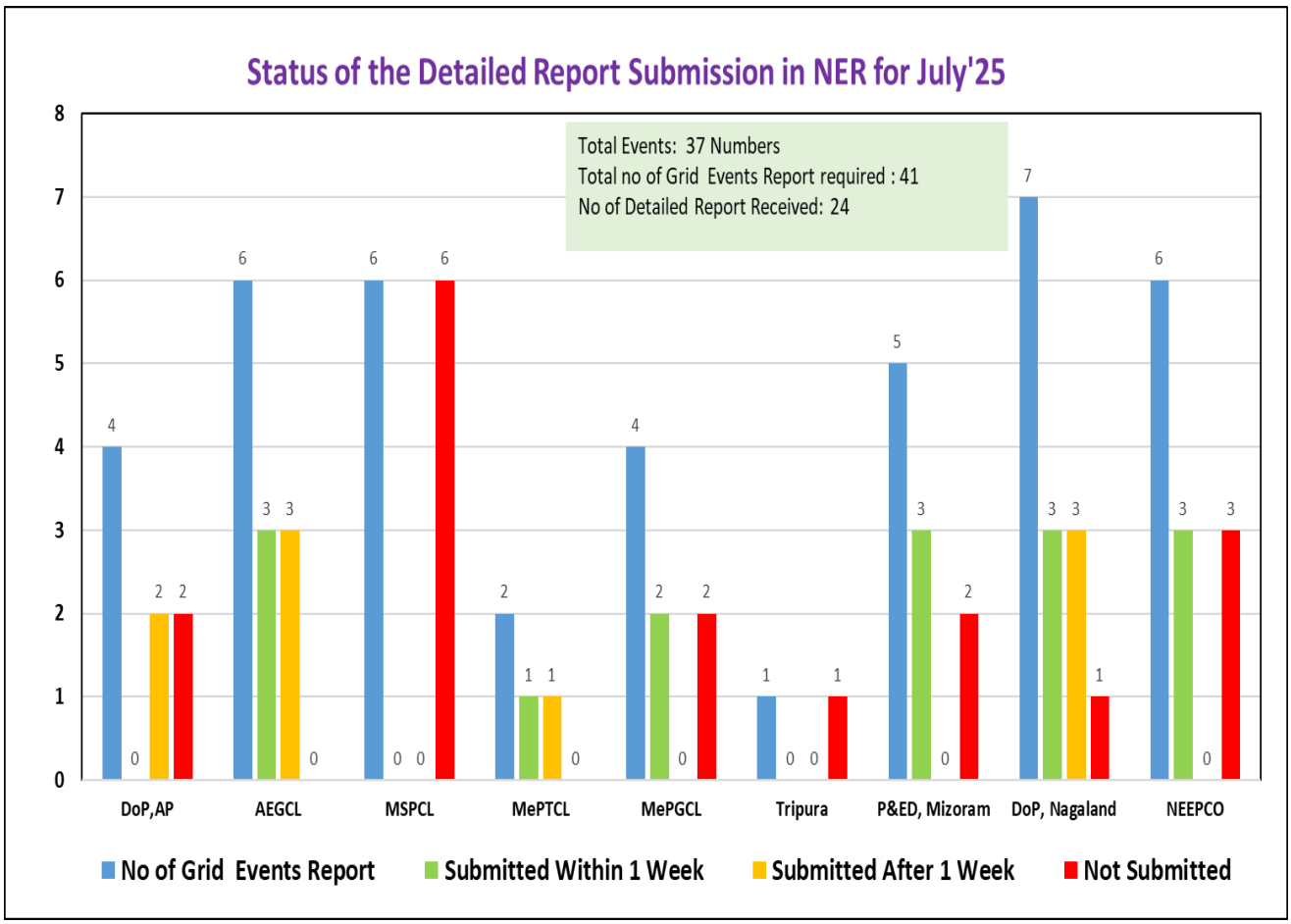
NERLDC informed that the delay in submission hampered analysis of various GD which are of repetitive nature.

MSPCL highlighted lack of PC causing non-submission of DR & EL.

The Forum informed utilities to submit FIR/DR/EL in priority (within 24 hrs) for multiple element tripping/GD events to enable faster root cause analysis.

B.4 Submission of Flash Report and Detailed Report by User/SLDC as per IEGC-2023:

As per IEGC-2023, all User/SLDCs are requested to prepare and share **Flash Report** and **Detailed Report** with **NERLDC** and **NERPC** following any Grid Events as per the timeline mentioned in the cl 37.2(f). Status of submission of the same for the month of **July, 2025** as on **12-08-2025** is shown below:



Tripura & MSPCL have not submitted any detailed report of grid events. Also, we have received 15 reports within one week of time and 9 reports after one week.

All the utilities are requested to promptly share all the necessary information such as FIR, DR, EL and Reports (Flash Report & Detailed Report) as per the specified timeline mention in the Grid Code-2023.

Deliberation

NERLDC highlighted that MSPCL is not submitting Grid Disturbance (GD) reports.

The Forum emphasized the following:

- Although the number of submissions has increased, most reports lack proper event analysis, identification of root causes, and details of remedial actions planned/taken.
- All utilities must ensure timely submission of detailed reports in compliance with the provisions of the Grid Code

B.5 Submission of Protection Performance Indices by Transmission Utilities:

As per Regulation No. 15(6), Protection Code - Users shall submit the following protection performance indices of previous month to their respective RPC and RLDC on monthly basis for 220 kV and above (132 kV and above in NER) system by 12th of every month for previous month indices, which shall be reviewed by the RPC.

As on 12.08.2025, **NETC, MUML, NBTL, KMTL, DoP Nagaland, POWERGRID, TPTL, AEGCL, OTPC, NEEPCO (Panyor, Kameng, Kopili, Khandong, Pare, Monarchak, Doyang) & MePGCL** has submitted protection performance indices for the month of July'25.

Sl. No.	Name of Transmission Licencee	D= (Nc/Nc+Nf)	S= (Nc/Nc+Nu)	R= (Nc/Nc+Ni)	Remarks
1	NETC	-	-	-	No bay owned by NETC
2	MUML	1	1	1	
3	NBTL	1	1	1	
4	KMTL	1	1	1	
5	POWERGRID	1	1	1	
6	AEGCL	1	1	1	
7	DoP Nagaland	1	0.81	0.81	Unwanted tripping of 132 kV Sanis-Wokha line from Wokha end.
8	TPTL	1	1	1	
5	MePTCL	-	-	-	Not Submitted
7	DoP Arunachal Pradesh	-	-	-	Not Submitted
8	NTL	-	-	-	Not Submitted
10	MSPCL	-	-	-	Not Submitted

11	P&ED Mizoram	-	-	-	Not Submitted

Sl. No.	Name of Generating Company	D= (Nc/Nc+Nf)	S= (Nc/Nc+Nu)	R= (Nc/Nc+Ni)	Remarks
1	NTPC	-	-	-	No tripping during July'25
2	OTPC	1	1	1	
3	NEEPCO				
	Panyor	1	1	1	
	Kameng	0.33	1	0.33	Kameng Unit-4 tripped on 3rd July'25 & 7th July'25 due to malfunctioning of mechanical overspeed relay
	Kopili	1	0.4	0.4	Unwanted tripping of 220 kV Misa-Kopili II Line on 1st July'25 & 3rd July'25
	Khandong	1	1	1	
	Monarchak	1	1	1	
	Pare	1	0.67	0.67	Unwanted tripping of 132 kV Pare-Panyor II line on 31st July'25
	Doyang	1	1	1	
4	MePGCL	1	0.9	0.9	Unwanted tripping of 132 kV Umtru-

					New Umtru line & 132 kV EPIP II-New Umtru Line on 21st July'25
5	NEEPCO(AGBPP, Doyang, Tuirial)	-	-	-	Not Submitted
6	NHPC	-	-	-	Not Submitted
7	APGCL	-	-	-	Not Submitted

Therefore, all Users are requested to furnish and ensure performance indices (Dependability-D, Security-S, Reliability-R) with regards to the tripping of elements to NERPC & NERLDC positively by **12th** of every month for previous month indices in compliance with IEGC.

Deliberation

NERLDC highlighted the values of Performance Indices was less than 1 for utilities such as Nagaland, NEEPCO (Kameng, Kopili, Pare), MePGCL, MUML, NBTL, Loktak, MePTCL, AP for July'25.

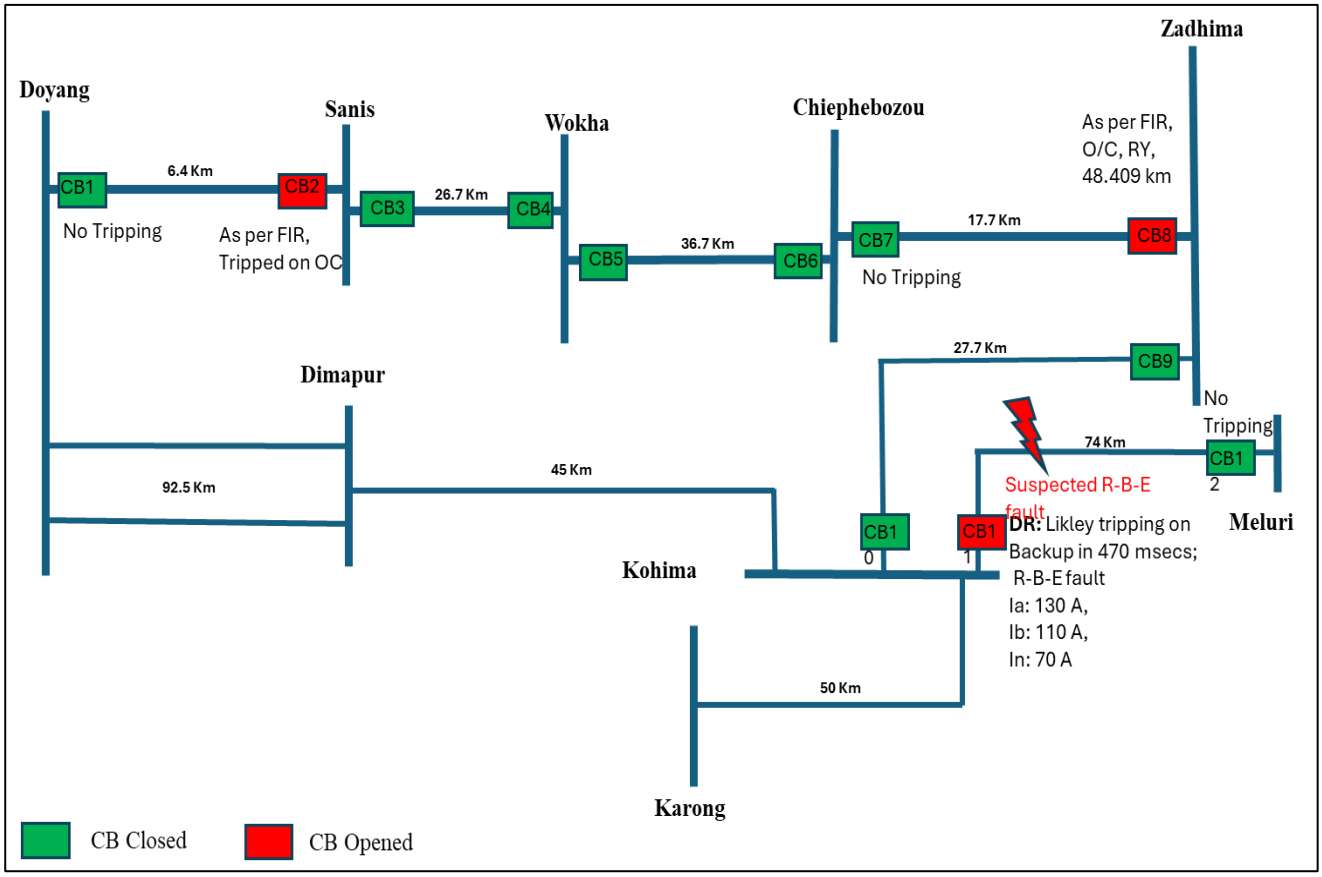
Also, Performance Indices not submitted by the utilities such as Mizoram, Manipur, APGCL, NEEPCO (AGBPP, Tuirial) & NTL for July'25.

Forum requested to ensure healthiness of the protection system where indices are less than 1 for July'25.

B.6 Grid Disturbance in Nagaland Power system during July'25:

Event 1: Grid disturbance in Chiephobozou, Wokha and Sanis areas of Nagaland Power System on 1st July'25

At 15:32 Hrs of 01-07-2025, 132 kV Doyang-Sanis and 132kV Zhadima-Chiephobozou lines tripped leading to grid disturbance in Chiephobozou, Wokha and Sanis areas of Nagaland. Load loss of 8 MW occurred.

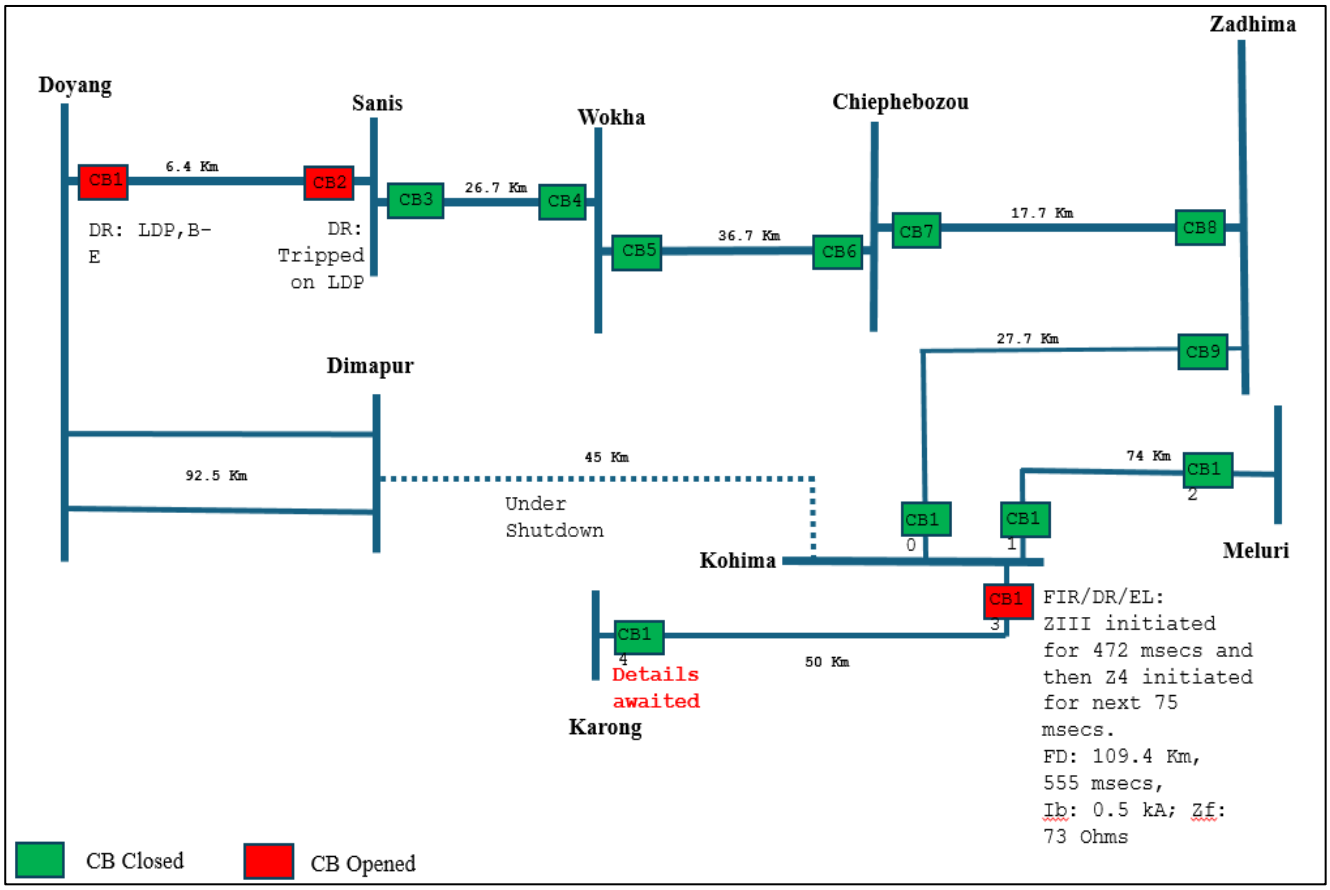


Following observations:

- Suspected fault was in 132 kV Kohima-Meluri line, R-Y-N fault (Ir-130 A, Iy-110 A, In-70 A) initiated at 15:31:18.759 Hrs which has cleared within 470 msec from Kohima end likely on operation of backup protection.
- Tripping of 132 kV Zadhima-Chiephebozou line on O/C from Zadima end for fault beyond the line seems unwanted.
- Tripping of 132 kV Doang-Sanis line on O/C from Sanis end for fault beyond the line seems unwanted.
- Backup protection setting at Doyang & Zadima end needs to be reviewed along with its directionality.
- DR/EL file of CB8 not opening.
- Non-submission of DR/EL file for CB2 which is a violation of Clause 37.2 (c) IEGC-23.

Event 2: Grid disturbance in Kohima, Meluri, Zadhima, Chiephobozou, Wokha and Sanis areas of Nagaland Power System on 10th July'25

At 14:01 Hrs of 10-07-2025, 132 kV Karong-Kohima line & 132 kV Doyang-Sanis line tripped. Prior to the event, 132 kV Dimapur-Kohima line was under shutdown. Load loss of 23 MW occurred.

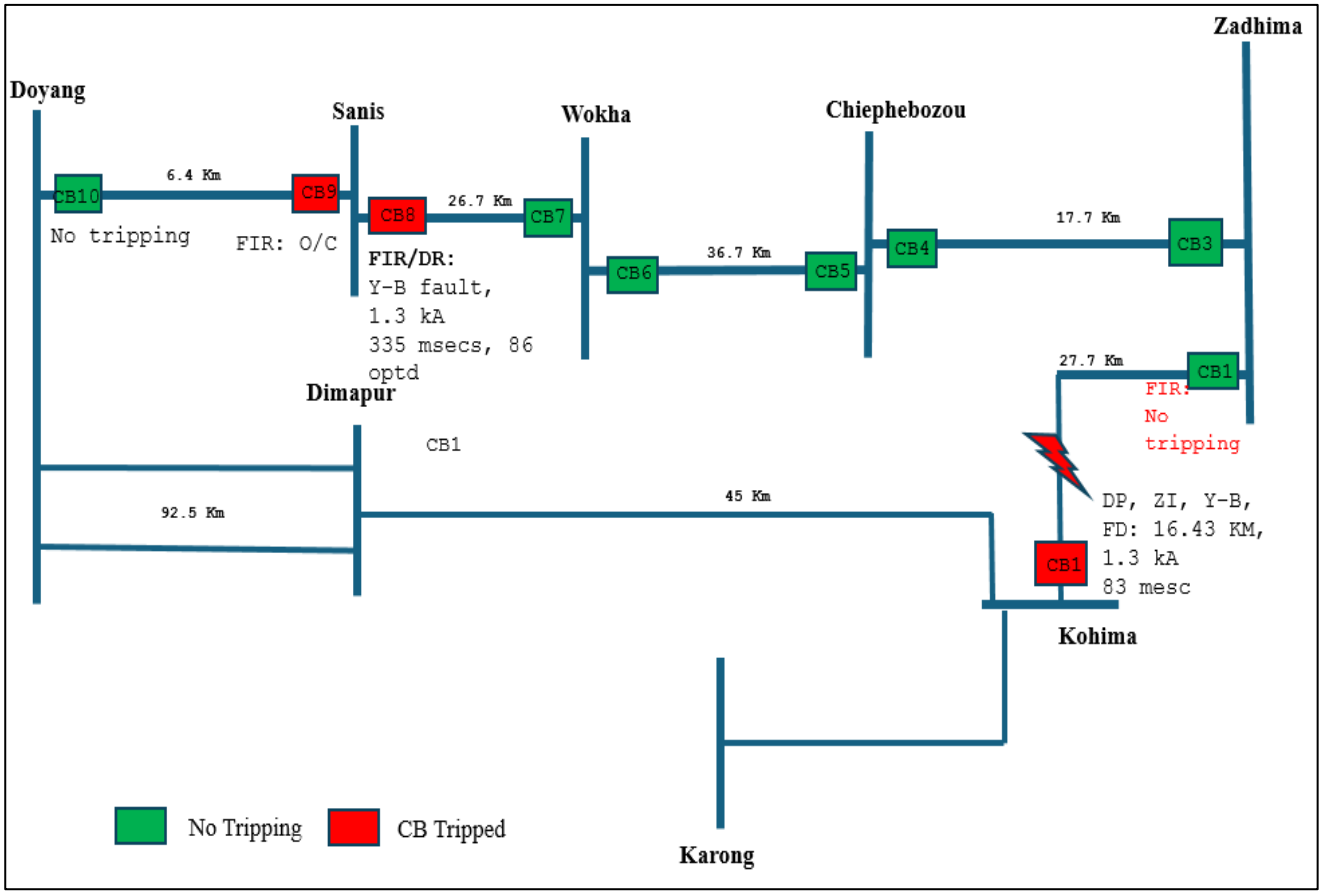


Following observation:

- At Kohima end, Main relay detected the B-E fault in ZIII for 480 msecs & after that Z4 picked up for 70 msecs. Also, In>1 start observed for 550 msecs. Fault cleared at Kohima in 555 msecs with Ib as 0.5 kA. However, FD of 109.4 KM need to be reviewed.
- Likely high resistive (L-G) fault in the system likely in downstream of Karong.
- 132 kV Doyang-Sanis Line tripped on operation of LDP from both ends within 171 msec which seems to have maloperated.

Event 3: Grid Disturbance in Zhadima, Chiephobozou, Wokha and Sanis areas of Nagaland on 11th July'25

At 07:02 Hrs of 11-07-2025, 132kV Zhadima – Kohima, 132kV Doyang-Sanis and 132kV Sanis-Wokha lines tripped. Load loss of 6 MW occurred.



Y-B fault in 132 kV Kohima – Zadhima line cleared on tripping from Kohima end in DP, ZI. But no tripping observed at Zadhima. Same fault cleared by the relay at Sanis end of 132 kV Sanis-Wokha line on suspected operation of OC protection within 335 msecs.

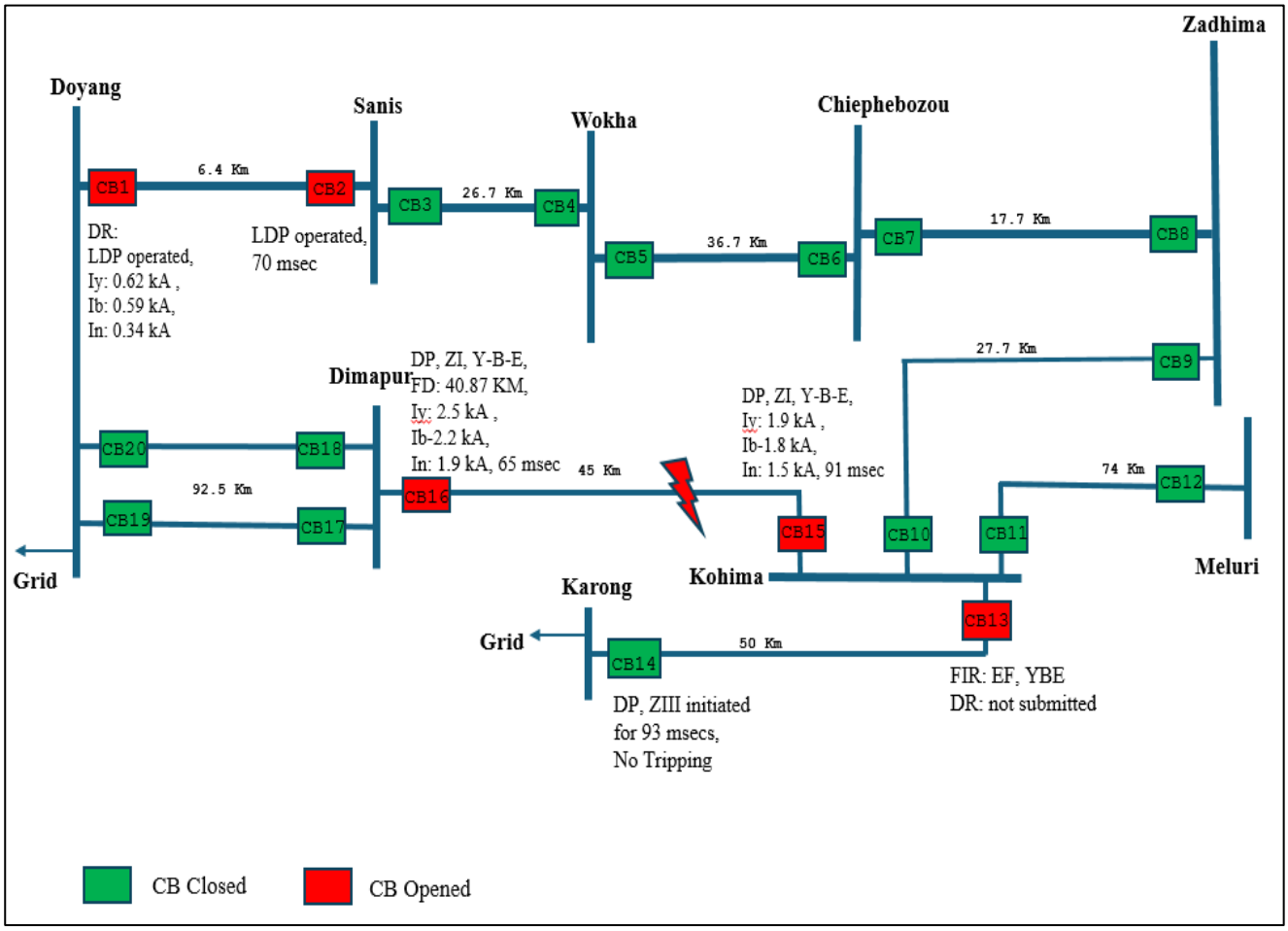
Following observations:

- Non-operation of relay/CB at Zadhima end for 132 kV Kohima line which needs to be reviewed by DoP Nagaland.
- Backup OC & EF protection setting needs to be reviewed at Sanis end for 132 kV Wokha Line and set as per protection philosophy.
- 132 kV Doyang-Sanis line tripped on O/C from Sanis end (as per FIR) for fault beyond the line seems unwanted.
- Non-submission of DR/EL file for CB9 which is a violation of Clause 37.2 (c) IEGC-23.

Event 4: Grid Disturbance in Kohima, Sanis, Wokha, Chiephobozou and Zhadima areas & Likimro HEP of Nagaland on 26th July'25

At 14:08 Hrs of 26-07-2025, 132 kV Kohima – Karong, 132 kV Kohima – Dimapur and 132kV Doyang-Sanis lines tripped resulting in blackout of Kohima, Sanis,

Wokha, Chiephobozou and Zhadima areas & Likimro HEP of Nagaland. Load loss of 25 MW & generation loss of 21 MW occurred.



As per DR analysis, Y-B-N fault (Iy-2.5 kA, Ib-2.5 kA, In-2 kA) in 132 kV Dimapur-Kohima Line initiated at 14:08:20.039 Hrs which was cleared within 65 msec from Dimapur end and within 91 msec from Kohima end on operation of DP, ZI.

132 kV Karong-Kohima line tripped from Kohima end on operation of E/F (as per FIR, DR/EL not submitted). No tripping from Karong end, ZIII initiated for 93 msec.

Tripping of 132 kV Doyang - Sanis line on LDP at both the ends seems maloperation. Following observations:

- Tripping of 132 kV Karong-Kohima line from Kohima end on E/F for fault beyond the line is inferred unwanted. The directionality of E/F protection needs to be enabled and forward direction to be ensured.
- Tripping of 132 kV Doyang - Sanis line on LDP at both the ends seems maloperation. Sustained pre-fault differential current (30–40 A) also suggests potential issues in CT phase correction factor.

- Non-submission of DR/EL file for CB13 which is a violation of Clause 37.2 (c) IEGC-23.

Deliberation

Event 1

NERLDC highlighted that here were directionality issues with Back up protection at Sanis and Zadima. DoP Nagaland updated that the directionality issues have been rectified. Further NERLDC informed that no DR has been received from Zadima for the incident and requested DoP Nagaland to provide the same at the earliest.

Event 2

Regarding maloperation of LDP in Doyang-Sanis line, DoP Nagaland informed that the issue has been rectified.

Event 3

DoP Nagaland informed that the CB1 did not operate as it was under lockout due to low gas pressure issue. NERLDC highlighted that here were directionality issues with Back up protection at Sanis, DoP Nagaland updated that the directionality issues have been rectified. Regarding BU protection settings at Sanis, DoP Nagaland updated that the settings have been coordinate along the Doyang-Sanis-Wokha-Chiepoubozou-zadima-Kohima corridor as per the instructions of NERPC.

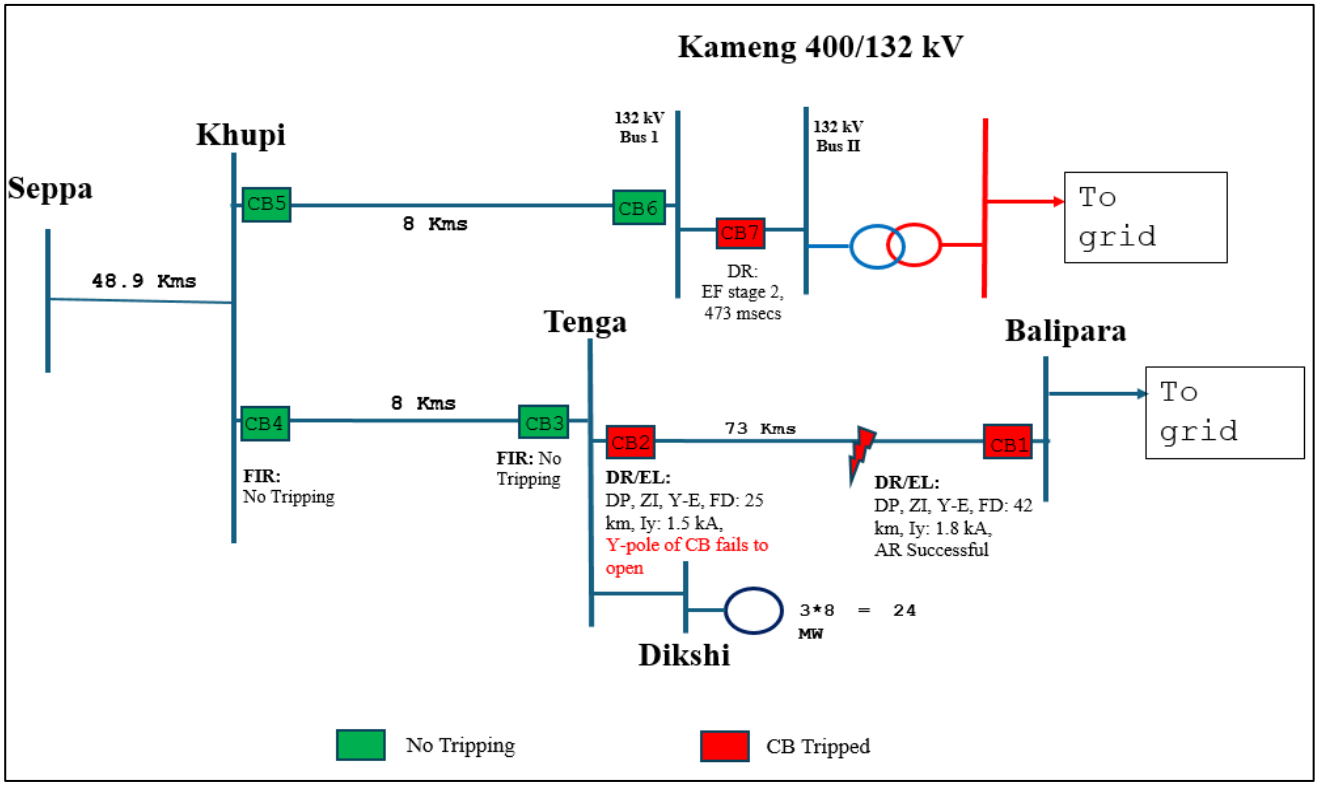
Event 4

Regarding maloperation of LDP in Doyang-Sanis line, DoP Nagaland informed that the issue has been rectified. NERLDC highlighted that there is directionality issue with the B/U protection at Kohima for Karong line.

B.7 Grid Disturbance in grid event in Khupi, Tenga, Seppa and Dikshi HEP area of Arunachal Pradesh Power System on 4th July'25:

Khupi, Tenga, Seppa areas and Dikshi HEP of Arunachal Pradesh Power System were connected with rest of NER Grid through 132 kV Tenga-Balipara line and 132 kV Kameng-Khupi line.

At 22:34 Hrs of 04-07-2025, 132kV Balipara-Tenga line and 132 kV Bus Coupler at Kameng tripped resulting in grid disturbance in Khupi, Tenga, Seppa and Dikshi HEP area of Arunachal Pradesh. Load loss of 25 MW & generation loss of 17 MW occurred.



As per DR analysis, Y-N metallic fault initiated in 132 kV Balipara – Tenga line cleared from Balipara end in DP, ZI, Y-E, FD: 42 KM, Iy/Ib: 1.8 kA/1.4 kA, in 55 msecs & AR successful from Balipara end after 1.5 seconds. Tenga end detected the fault in DP, ZI, Y-E,FD: 25.37 KM, Iy/In: 1.4 kA/1.8 kA, however Y-phase current continued to flow, implying incomplete interruption on that pole and leaving the fault electrically energised from the Kameng side via the 132 kV Tenga-Khupi–Kameng interconnection. The Khupi end B/U relay sensed the persisting fault (I> & IN> Start), while the 132 kV Bus Coupler at Kameng tripped on EF (IN>>) in 473 msec.

Following observations:

- Non-opening of Y-ph CB pole at Tenga end for 132 kV Balipara Line.
- Tripping of Bus Coupler on highset E/F was unwanted. The Bus Coupler High set setting has been disabled by Kameng(NEEPCO) as discussed during the 81st PCC Meeting.

Similar incident occurred on 23.06.2025.

DoP Arunachal Pradesh may update on the actions taken on the above-mentioned issue.

Deliberation

Regarding the issue with CB2 (at Tenga end for Balipra line), DoP AR. Pradesh informed that the Dikshi HEP will take corrective actions in September'25.

Further, NEEPCO updated that the EF stg 2 for CB7 has been disabled as per instructions of NERPC and NERLDC.

B.8 Frequent tripping of 132 kV Sanis-Wokha Line during July'25:

132 kV Sanis-Wokha Line tripped 9 number of times during July'25 which is a matter of concern.

The details of tripping are tabulated below:

S.No	Element Name	Owner Name	Tripping Date and Time	RESTORATION Date and Time	Outage Duration	RELAY _Sanis (as informed by DoP, Nagaland)	RELAY _Wokha (as informed by DoP, Nagaland)	DR Analysis by NERLDC	Root Cause
1	132 kV Sanis - Wokha Line	DoP, Nagaland	11-07-2025 07:02	11-07-2025 07:47	00:45:00	Backup OC, EF	No Tripping	Tripping in 350 msecs due to Backup protection at Sanis seems unwanted. Fault cuurent during starting as Iy: Ib: 800 A	Early tripping at Sanis during external fauit. Y-B fault in 132 kV Kohima-Zadhima Line
2			18-07-2025 06:17	18-07-2025 06:43	00:26:00	No Tripping	Backup OC, EF	At Wokha end, line charged at 6:39:30.000 Hrs however tripping observed at 6:39:35.000 Hrs i.e. after 5 seconds of charging. No fault detected in the system	Unwanted tripping at Wokha end
3			19-07-2025 14:23	19-07-2025 15:11	00:48:00	No Tripping	Backup EF	As per DR of Wokha end, 30 A-35 A current in each phase & phase voltages are 120 degree aparts indicates no fault in the system.	Unwanted tripping at Wokha end
4			20-07-2025 02:30	20-07-2025 09:33	07:03:00	No Tripping	Backup EF	-	Not Concluded
5			27-07-2025 07:55	27-07-2025 08:41	00:46:00	No Tripping	Backup OC	Analysis not possible. .DAT file not submitted for 07:55 hrs	Likley unwanted tripping at Wokha end
6			27-07-2025 17:53	28-07-2025 09:20	15:27:00	No Tripping	Backup OC	As per DR of Wokha end, 30 A-35 A current in each phase & phase voltages are 120 degree aparts indicates no fault in the system.	Unwanted tripping at Wokha end
7			28-07-2025 18:42	28-07-2025 19:04	00:22:00	No Tripping	Backup OC		Unwanted tripping at Wokha end
8			28-07-2025 19:14	29-07-2025 07:37	12:23:00	No Tripping	Backup OC		Unwanted tripping at Wokha end
9			29-07-2025 12:10	29-07-2025 21:10	09:00:00	No Tripping	Backup OC	As per DR of Wokha end, R-E fault in the system cleared in 150 msecs from Wokha end. Ir:114 A , In:56 A. Any start observed However which protection issued trip command is not visible in the DR.	Tripping reason & fault location could not be concluded

Following observations:

- **Frequent line tripping at Wokha end**: 132 kV Sanis-Wokha line tripped only at Wokha end for approximately 6 times during July'25 with no fault detected in the system.
- **Premature operation of Backup Protection**: Early operation of backup protection of 132 kV Sanis-Wokha Line.

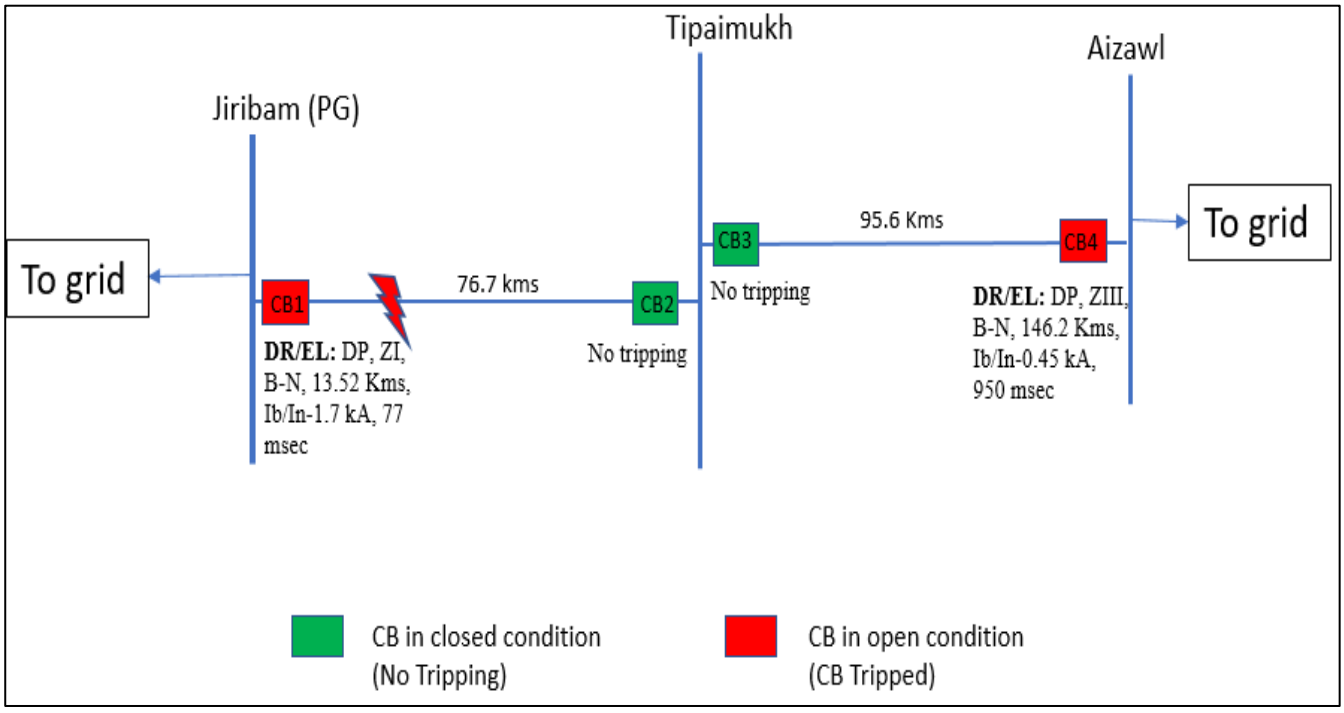
DoP Nagaland to investigate and provide the reasons for the repeated, unwanted tripping at the Wokha end, and to ensure the healthiness and reliability of all protection equipment at Wokha substation.

Deliberation

Forum noted that most of the tripping were spurious in nature and some tripping may be due to settings issue. Forum urged DoP, Nagaland to analyze the root cause of such trippings and provide a report to NERPC and NERLDC.

B.9 Grid Disturbance in Tipaimukh area of Manipur Power System on 13th July'25:

At 12:02 Hrs of 13.07.2025, 132 kV Jiribam-Tipaimukh and 132 kV Aizawl-Tipaimukh lines tripped leading to blackout of Tipaimukh area of Manipur Power system. Load loss of 1 MW occurred.



As per DR analysis, high resistive B-N fault (Ib-1.7 kA, In-1.7 kA) in 132 kV Jiribam-Tipaimukh line initiated at 12:02:14.224 Hrs which was cleared within 77 msec from Jiribam end on operation of DP, ZI. DR/EL of Tipaimukh end not submitted.

For 132 kV Aizawl-Tipaimukh line, fault cleared within 950 msec from Aizawl end on operation of DP, ZIII. There was no tripping from Tipaimukh end.

Following observations:

- Non-operation/delayed operation of protection system at Tipaimukh end for 132 kV Jiribam line which led to tripping of healthy 132 kV Aizawl-Tipaimukh line from Aizawl end.
- Non-submission of FIR/DR/EL file at Tipaimukh end for both the lines by which is a violation of Clause 37.2 (c) IEGC-23.
- Non-submission of detailed report of the event which is a violation of Clause 37.2(e) of IEGC-23.

MSPCL to update the action taken on the above mentioned issues.

Deliberation

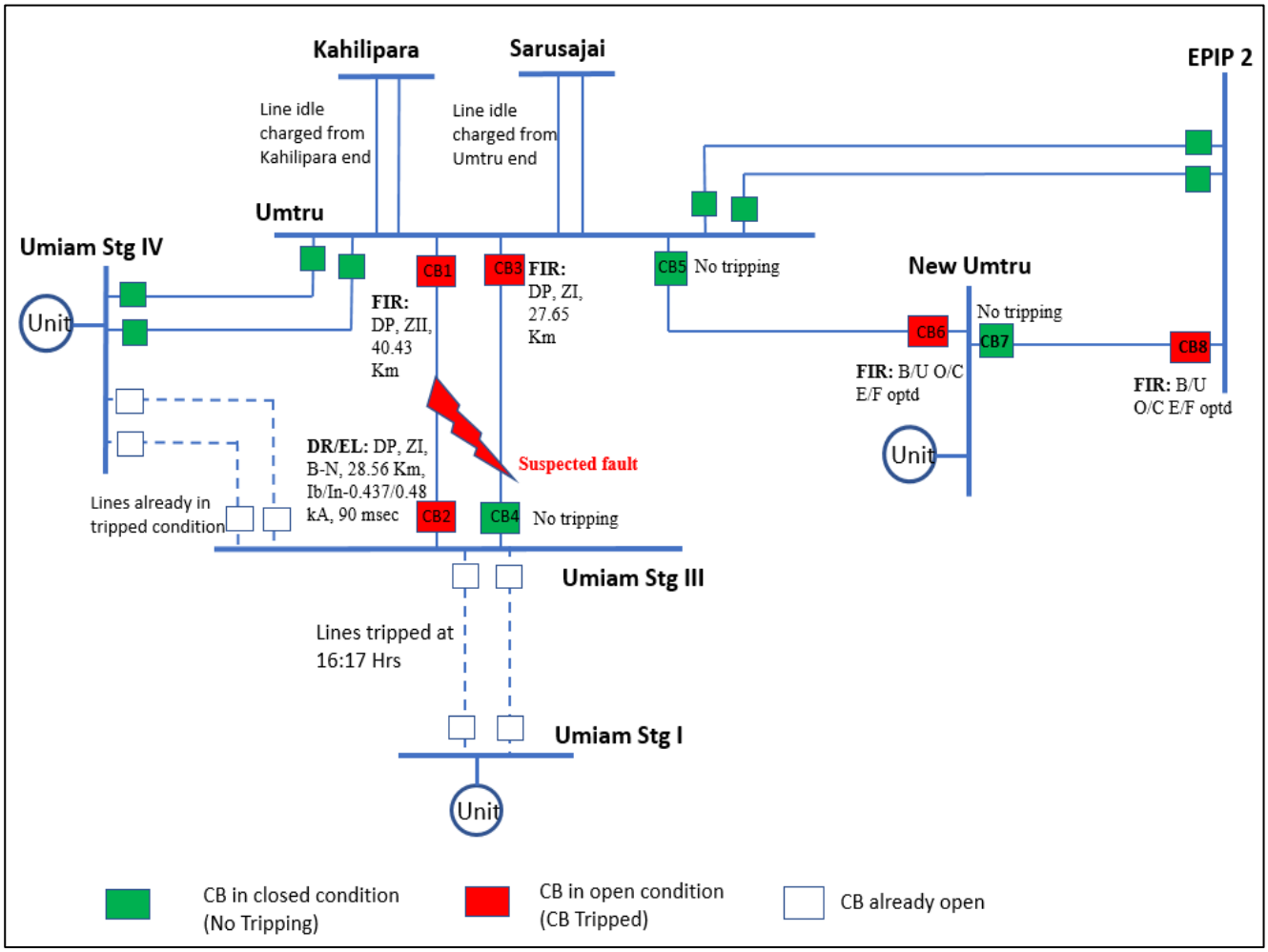
MSPCL informed that fault was not cleared at Tipiamukh end as the relay did not pick up at the substation. To ascertain the root, cause an external is required to access the substation due to prevailing law and order situation therein, further they informed that NERPSIP has been asked to visit the substation.

Forum requested MSPCL to rectify the issue at Tipaimukh at the earliest.

B.10 Grid disturbance in Umiam Stg III and New Umtru areas of Meghalaya power system on 21st July'25:

Umiam Stg III and New Umtru areas of Meghalaya Power System were connected with rest of NER Grid through 132 kV Umtru – Umiam Stg III D/C lines, 132 kV New Umtru – Umtru and 132 kV EPIP 2 – Umtru line. Prior to the event, 132 kV Umiam Stg I – Umiam Stg III line D/C lines tripped at 16:17 Hrs and 132 kV Umiam Stg IV – Umiam Stg III 1 & 2 lines tripped at 16:39 Hrs and 16:17 Hrs respectively. At 16:44 Hrs of 21-07-2025, 132 kV Umtru – Umiam Stg III D/C lines, 132 kV New Umtru – Umtru, and 132 kV EPIP 2 – Umtru II and New Umtru HEP Unit-1 tripped

resulting in blackout of Umiam Stg III & New Umtru S/S of Meghalaya power system. Generation loss of 20 MW.



As per DR analysis of 132 kV Umtru-Umiam Stg III Line-1, B-N fault (Ib-437 A, In-480 A) initiated at 16:44:00.235 Hrs which was cleared within 90 msec from Umiam Stg III end on operation of DP, ZI. ZII operated from Umtru end (as per FIR, DR/EL file not opening)

132 kV Umtru-Umiam Stg III Line-2 tripped on DP, ZI from Umtru end (as per FIR, DR/EL not opening). No tripping from Umiam Stg III end.

Following observations:

- Suspected fault in 132 kV Umtru-Umiam Stg III D/C lines.
- Tripping of 132 kV New Umtru-Umtru line on operation of B/U O/C E/F from New Umtru end seems unwanted. Backup protection setting needs to be reviewed.
- Tripping of 132 kV EPIP 2-Umtru line on operation of O/C E/F from EPIP 2 end seems unwanted. Backup protection setting needs to be reviewed.
- DR/EL file at Umtru end for 132 kV Umiam Stg III lines is not opening.

- Non-submission of DR/EL file for 132 kV New Umtru-Umtru line & 132 kV EPIP 2-New Umtru Line which is a violation of Clause 37.2 (c) IEGC-23.
- Non-submission of detailed report of the event which is a violation of Clause 37.2(e) of IEGC-23.

MePGCL may update the action taken on the above-mentioned issues.

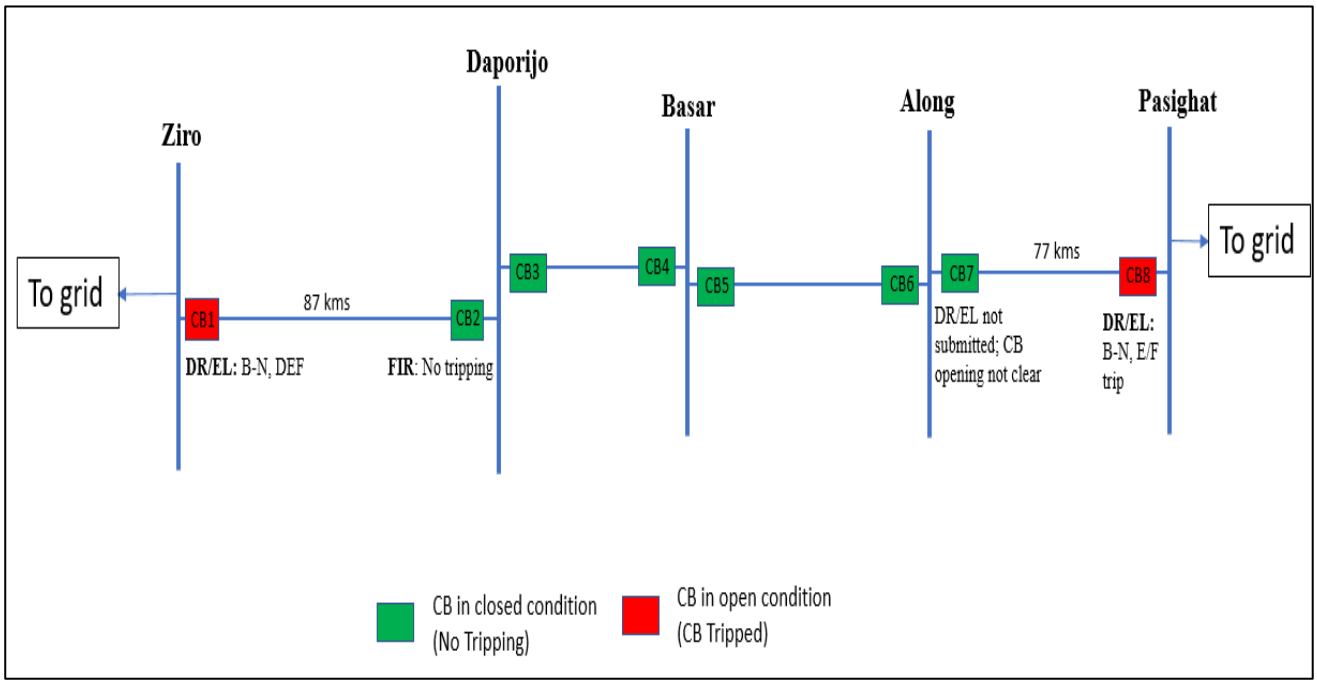
Deliberation

MePGCL informed that EPIP 2-Umtru line tripped not N. Umtru-Umtru and N. Umtru-EPIP II. Further he informed that tripping analysis for the tripping is underway and will be informed to NERPC and NERLDC shortly.

Forum also noted that tripping of Umtru-Umiam stg II (CB3) on Z1 is unwanted and it should have tripped on Zone 2. Forum requested MePGCL review the reach of zones for CB3.

B.11 Grid Disturbance in Daporijo, Basar & Along areas of Arunachal Pradesh Power System on 27th July'25:

At 04:58 hrs of 27-07-2025, 132kV Ziro – Daporijio and 132kV Pasighat – Along lines tripped resulting in blackout of Daporijo, Basar & Along areas of Arunachal Pradesh power system. Load loss of 5 MW occurred.



As per DR analysis of 132 kV Along-Pasighat line at Pasighat end, high resistive B-N fault initiated at 04:57:47.362 hrs with Ib-59A, In-111 A, Vbn-74 kV. At 04:57:50.844 Hrs, IN>2 trip observed. Total Fault duration: 3.55 sec. 132 kV Ziro-

Daporijo Line tripped on DEF from Ziro end. There was no tripping from Daporijo end.

Following observations:

- Exact fault location could not be identified. DoP Arunachal Pradesh to share the root cause of the event.
- Non-submission of FIR/DR/EL file for CB7 which is a violation of Clause 37.2 (c) IEGC-23.
- Non-submission of detailed report of the event which is a violation of Clause 37.2(e) of IEGC-23.

DoP Arunachal Pradesh to update the action taken on the above mentioned issues.

Deliberation

DoP Arunachal informed the forum the exact fault location could not be identified.

DoP Ar. Pradesh informed that the B/U protection relay at Along end for Basar line is defective and proposed that B/U protection settings may be implemented in Main relay till the rectification is done. Forum agreed.

B.12 Frequent tripping of 132 kV Badarpur-Kolasib & 132 kV Aizawl-Kolasib Lines due to fault in 132 kV Tuirial-Kolasib Line during July'25:

During July'25, 132 kV Badarpur-Kolasib Line & 132 kV Aizawl-Kolasib Line tripping 4 times due to fault in 132 kV Tuirial-Kolasib Line.

The list of tripping are shown below:

Sl. No.	Name of Element	Owner Name	Tripping Date & time	Event Analysis
1	132 kV Badarpur Kolasib Line	POWERGRID	11:50 Hrs of 26-07-2025	Y-B fault (was in 132 kV Tuirial-Kolasib line which was not cleared resulting in clearing of fault by tripping of healthy 132 kV Aizawl-Kolasib & 132 kV Badarpur-Kolasib lines from remote end on operation of DP, ZIII leading to blackout of Kolasib S/S.
2	132 kV Aizawl-Kolasib Line	POWERGRID	11:50 Hrs of 26-07-2025	
3	132 kV Badarpur Kolasib Line	POWERGRID	01:18 hrs of 27-07-2025	While taking charging attempt of 132 kV Tuirial-Kolasib line, Y-B fault (Iy-0.9 kA, Ib-0.9 kA) in 132 kV Tuirial-Kolasib line not cleared resulting in tripping of healthy 132 kV Aizawl-Kolasib & 132 kV Badarpur-Kolasib lines from remote ends on DP, ZIII leading to blackout of Kolasib S/S.
4	132 kV Aizawl-Kolasib Line	POWERGRID	01:18 hrs of 27-07-2025	
5	132 kV Badarpur Kolasib Line	POWERGRID	08:24 hrs of 27-07-2025	
6	132 kV Aizawl-Kolasib Line	POWERGRID	08:24 hrs of 27-07-2025	
7	132 kV Badarpur Kolasib Line	POWERGRID	13:24 hrs of 27-07-2025	
8	132 kV Aizawl-Kolasib Line	POWERGRID	13:24 hrs of 27-07-2025	

As per event analysis, protection system of 132 kV Tuirial-Kolasib line failed to isolate the fault in line resulting in clearing of fault by tripping of healthy 132 kV Aizawl-Kolasib & 132 kV Badarpur-Kolasib lines from remote end on operation of DP, ZIII leading to blackout of Kolasib S/S of Mizoram Power system.

In 79th PCC meeting, Forum asked P&ED Mizoram to provide relay setting of all the elements connected to Kolasib including downstream elements. Also, Mizoram to conduct relay testing for checking the healthiness for 132 kV Kolasib – Tuirial Line.

Similar incident occurred on 05.05.2024, 13.08.2024, 20.03.2025, 07.04.2025 & 12.05.2025.

P&ED Mizoram to investigate the issue of non-clearance of fault in 132 kV Tuirial-Kolasib line.

Deliberation

Mizoram informed that settings at Kolasib end for Turial line were modified earlier in light of the Mock Black Exercise of Turial units, now the settings have been reverted to the original state (on 28.07.2025). Forum requested Mizoram to share the settings to NERPC and NERLDC at the earliest.

B.13 Blackout Pailapool SPV of Assam Power dated 04-08-2025:

Event description:

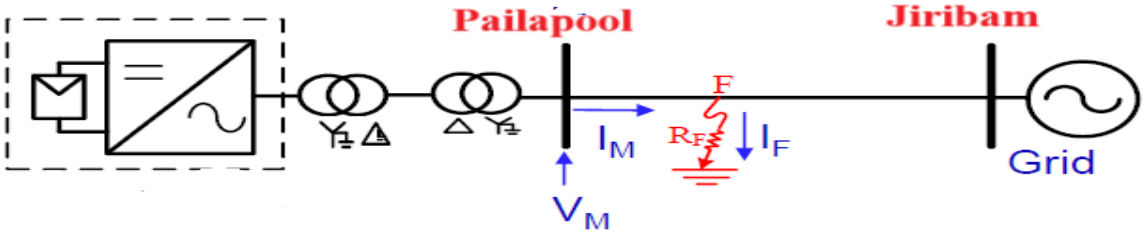
Pailapool SPV of Assam Power System was connected with rest of NER Grid through 132 kV Pailapool-Jrirbam and 132 kV Pailapool-Silchar(Srikona) line was under outage.

At 11:40 Hrs of 04-08-2025, 132 kV Pailapool-Jiribam line at Jiribam end, 132 kV line tripped at Jribam. Due to tripping of this element, Pailapool Solar generation loss was reported of 6 MW and there was 33 MW load loss in Assam Power system.

Jiribam: ΔV=16 kV; I_f =2.2 kA; As per current signature and Fault angle of -10^o, it is inferred that fault occurred due to vegetation infringement related issue and it was under Transient fault category.

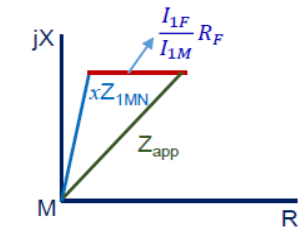
Pailapool: 67N (DEF), B-E, Picked up, Tripped at Inverter Based Resources (IBR) end.

Also, due to non-homogeneity issue mal-operation of distance relay will be reported more in case of line connecting solar plant in the near future due to more IBR integration in NER Grid. Also, Distance Relay characteristics shown below as well as Fault impedance equation, it is observed that impedance locus is not encroaching to quadrilateral characteristics due to large shift of ΔZ from horizontal axis due to Non-homogeneity issue.

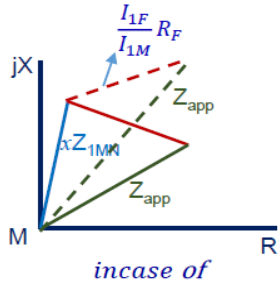


Pailapool: 67N (DEF), B-E, Picked up
Fault current: Iy: 226 A, Io: 355 A
Voltage dip: 62 kV

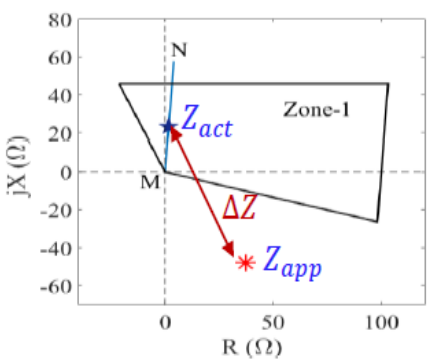
Jiribam: DP, Z-1, 2.2 kA
Voltage dip: 16 kV
Fault clearnce: 67 msec



incase of homogeneous system



incase of nonhomogeneous system



Observation:

- This event pertains to a fault on a transmission line that is radially connected to a PV plant. In the case of an Inverter-Based Resource (IBR), the fault current is inherently limited due to the inverter's current-controlled nature. Furthermore, the voltage–current (V–I) characteristics during fault conditions are modulated differently compared to conventional synchronous grid sources, resulting in non-homogeneity in the system response.
- Given the anticipated increase in IBR integration within the NER Grid in the near future, it is expected that similar protection-related challenges will arise more frequently.
- Zero-crossing DC offset was observed following the tripping of the breaker at the Remote Jiribam (PG) end.
- Low fault current contribution was observed, which imposes limitations on conventional protection schemes.

POWERGRID is requested to explore:

• Non operation of Auto-reclosure issue at Jiribam(PG) end for 132 kV Pailapool line.

Forum is requested for:

- Conventional Distance protection zone characteristics has limitation for IBR based Generation, which may be explored by the Forum.
- For the recent events at Amguri (Jackson) on 26-06-2025 and Pailapool on 04-08-2025, the inverter-side protection challenges encountered are not known to NERLDC.
- To facilitate knowledge sharing, protection engineers working on IBR protection may be invited to share their expertise and experiences gained.

Deliberation

Forum opined that in such cases of low infeed protection schemes like Line differential protection, Echo scheme and undervoltage protection may be adopted on case-to-case basis.

MS NERPC stated that the protection issues for IBR bases sources will be taken up holistically in the RE sub-group of NERPC.

B.14 Mapping of UFR in the SCADA Display for real time monitoring:

As per Clause 29(13)(d) of IEGC-23, SLDC shall ensure that telemetered data of feeders (MW power flow in real time and circuit breaker status) on which UFR and df/dt relays are installed is available at its control centre.

At present, mapping of UFR in SCADA display is available for 4 states namely, **Assam, Meghalaya, Nagaland & Tripura.**

Arunachal Pradesh, Manipur & Mizoram are requested to map UFR data in SCADA display in compliance with IEGC-23.

As per 79th PCC minutes,

Arunachal Pradesh: To be discussed in OCC meeting. (Latest update not provided)

Manipur: Payment issues with GE. By June-July'25

Mizoram: GE & Alstom updated the database. However, hardware work is pending. By June-July'25.

Deliberation

Forum noted that since the matter is regularly taken up in the OCC meetings it will be discussed in the 229th OCC meeting.

B.15 Mock Testing of System Protection Scheme (SPS):

As per Clause 16.2 of IEGC-23, for the operational SPS, RLDC or NLDC, as the case may be, in consultation with the concerned RPC(s) shall perform mock testing for reviewing SPS parameters & functions, at least once in a year. RLDC or NLDC shall share the report of such studies and mock testing including any short comings to respective RPC(s).

The list of ISTS operational SPS are listed below:

Sl. No.	Name of SPS	Operation in FY 2025-26	Tentative date of performing mock testing
1	SPS related to reliable power supply to Arunachal Pradesh & Assam through the 132 kV Roing-Chapakhowa D/C line	-	SPS to be kept OFF

2	Overloading of any one of the 400/132kV, 2x360 MVA ICTs at Panyor LowerHydro Power Station	-	Nov'25
3	Outage of 132 kV Panyor HPS-Ziro Line	Operated successfully on 30th May'25	Not applicable
4	SPS at Tezu substation related to prevention of Under Voltage scenario in Arunachal Pradesh power system	-	SPS to be kept OFF/ To be **discontinued**
5	SPS at Namsai substation related to prevention of Under Voltage scenario in Arunachal Pradesh power system	-	SPS to be kept OFF/ To be **discontinued**
6	Related to the safe evacuation of power from BgTPP(NTPC) generation	-	Oct'25
7	Outage/tripping of 400 kV New Kohima – Imphal D/C Line	-	Tentative date to be intimated after discussion by NERTS
8	Outage/ tripping of both circuits of 400 kV SM Nagar(NTL) -PK Bari(NTL) D/C Line	-	Sep'25
9	Outage/ tripping of both circuits of 400kV PK Bari (NTL) – Silchar(PG) D/C Lines	-	Sep'25
10	Outage/tripping of 400 kV Palatana – Surajmani Nagar line (charged at 132 kV)	Operated successfully on 29th May'25 & 11th June'25	Not applicable

11	Outage/tripping of both 400/132 kV, 2x125 MVA ICTs at Palatana	-	Tentative date to be intimated after discussion by NERTS
12	Outage/tripping of 400kV Palatana-Silchar D/C Line when both modules of Palatana are in service	-	After the commissioning of the 400 kV Palatana–Surajmaninagar(NTL) I Line, the SPS is deactivated. However, the SPS at Palatana must remain active during the shutdown of the 400 kV Palatana–Surajmaninagar (ISTS) Line-1

The list of state operational SPS are listed below:

Sl. No.	**Name of SPS**	**Actual Operation**	**Tentative date of performing mock testing**
1	Overloading of 220 kV BTPS - Salakati D/C Line	-	After upgradation of 220 kV BTPS-Salakati D/C lines, this SPS is kept OFF
2	Outage of 220 kV BTPS (Salakati) – Rangia I & II Line	Operated successfully on 21st & 26th June'25	Not applicable
3	Outage/tripping of 220 kV Azara-Sarusajai D/C Line	-	Aug'25
4	SPS related to tripping of 220 kV Misa- Samaguri DC Line	-	Aug'25

5	SPS related to Outage/tripping of any one circuit of 220 kV Balipara-Sonabil D/C	Operated successfully on 9th April'25	Not applicable
6	SPS at Pasighat substation for preventing Overloading of 132 kV Tinsukia-Rupai/132 kV Tinsukia-Ledo Lines	Operated successfully on 11th June'25	SPS to be kept OFF
7	SPS at BTPS(Assam) substation related to overloading of any of the 2x160 MVA ICTs at BTPS(Assam)	-	Aug'25
8	SPS related to Outage/tripping of any one circuit of the 132 kV Khliehriat (PG)- Khliehriat D/C line	-	Oct'25
9	SPS related to Outage/tripping of any one circuit of 132 kV Leshka – Mynkre- Khliehriat D/C Line	-	Oct'25
10	SPS related to Outage/tripping of any one circuit of 132 kV Dimapur(PG)- Dimapur(NA) D/C Line	Operated successfully on 24th July'25- 3 times	Not applicable
11	SPS related to secure evacuation of power from the Monarchak (NEEPCO) Power Plant	Operated successfully on 7th July'25	Not applicable
12	SPS related to Overloading of 132 kV Surajmaninagar (TSECL)-Surajmaninagar (NTL) Line	Operated successfully on 10th June'25	Not applicable

All the respective utilities are requested to provide the tentative dates for mock testing of SPS to be conducted in FY 2025-26.

Deliberation

Scheme to be revived by NERLDC (as discussed during the 81st PCC meeting):

- **Overloading of 220 kV BTPS – Salakati D/C Line**
  Preliminary system study has confirmed the requirement of the scheme under the following conditions:
  1. During high demand scenario (NER demand > 3400 MW) with high HVDC flow from BNC to Agra.
  2. During shutdown of ICT at BGTPP, if NER demand > 3000 MW.
- **SPS at Tezu & Namsai (for under-voltage prevention)**
  To be **discontinued**, as system studies confirm it is not required after charging of 220 kV AGBPP – Namsai D/C.
- **SPS for reliable power supply to Arunachal Pradesh & Assam (through 132 kV Roing – Chapakhowa D/C line)**
  Required during:
  - Disconnection of the 132 kV Roing – Tezu – Namsai link, or
  - Outage of 220 kV Kathalguri – Namsai D/C.
- **Four SPS schemes of Assam**
  Scheduled for implementation this month. However, AEGCL is not agreeing to test without actual load shedding, as this may require disconnection of multiple hard wirings. The Forum agreed with the proposal and requested submission of an **SOP for such testing**.

Agenda from NERTS (Powergrid)

B.16 <u>Scheme modification required at 400kV Balipara & Misa Ss due to replacement of electromechanical LBB relays of Tie bay with numerical LBB relay</u>

Issue being faced : For 400kV tie bays at Balipara & Misa Ss, the existing electro-mechanical LBB relays are to be retrofitted with Numerical relay (GE make P141). However, in the scheme only 3-phase external LBB initiation was present, which could have led to un-necessary operation of the LBB protection in every single-phase tripping if current limit of phases other than the isolated faulty phase rises above the determined current threshold limit. Detail sof tie bays are as below:

Bongaigaon Ss :

- 400KV BONGAIGAON-1 AND BNC-3 TIE (BAY-414) - Rectified
- 400KV BONGAIGAON-2 AND BNC-4 TIE (BAY-417) - Rectified
- 400KV MISA-1 AND BNC-1 TIE (BAY-411) - Rectified
- 400KV MISA-2 AND BNC-2 TIE (BAY-408) - Pending

Misa Ss:

- 400kV tie bay - 402 - Pending
- 400kV tie bay - 405 - Rectified

Rectification required: To rectify the above issue, the existing scheme was modified, and all single phase external LBB initiation (i.e. R-ph initiation, Y-ph initiation and B-ph initiation) along with the existing 3-ph initiation was given to the LBB relay so as to differentiate between the single-phase tripping and 3-ph tripping and subsequent operation of LBB operation.

Now, considering the fact that the above modifications have been carried out as a part of system improvement to prevent any unwanted trippings & major grid disturbances including unwanted LBB relay operations. The needful modification works have been carried out/ planned to be carried out as above as part of system improvement and hence may be kept under system improvement for the purpose of availability calculation.

Deliberation of the sub-committee

Forum opined that the separation of the single phase and three phase initiation for LBB is critical for preventing maloperation of relays and may be considered as system improvement work with regard to Transmission Availability Certificates (TAC). MS NERPC added that the outage duration, for carrying out the modifications, should not be unreasonably high.

C. FOLLOW–UP AGENDA ITEMS

C.1 Status on remedial measures actions on non-operation of auto recloser in Important Grid Elements for transient faults occurred in last few months:

Utilities updated in 81st PCCM as provided in the table below:

Sl No	Element Name	Tripping date and time	Relay End1	Relay End2	A/R not Operated	Remarks from Utility (81st PCCM)
1	132 kV Bokajan - Dimapur Line	10-11-2024 13:08	DP, ZI, Y-E, FD: 20.3 kms	DP, ZI, Y-E, FD: 8.4 KM, AR Successful	Bokajan (AEGCL)	Issues with pneumatic breakers at Bokajan end. New CBs in transit, to reach the site by end of June'25. After that 1 week required for installing the CBs.
2	132 kV Daporijo - Ziro Line	13-01-2025 15:00:00	DP, ZI, B-E, AR Not Operated	DP, ZI, B-E, FD: 67.724Kms, A/R Operated Successfully	Daporijo (DoP AP)	Relay logic issues, will be checked by experts from outside state after rainy season. Issue with pneumatic CBs. Procurement of new CBs underway.

3	132 kV AGTCCPP - Kumarghat Line	16-03-2025 20:32:00	DP, ZI, B-E, FD: 22.08 Kms, A/R Not Operated	DP, ZI, B-E, FD: 76.656 Kms, A/R Operated Successfully	AGTCCPP (NEEPCO)	Powergrid has provided the solution, to be implemented shortly.
4	132 kV Basar-Daporijo Line	19-03-2025 08:44:00	DP, ZI, R-Y, FD: 33.15 km, A/R Not Operated	DP, ZI, R-Y, A/R Operated Successfully	Basar (DoP, Arunachal Pradesh)	To be resolved by end of July'25
5	132 kV Jiribam - Tipaimukh Line	05-04-2025 20:05:00	DP, ZI, R-E, FD: 48.14 Kms , AR Operated Sucessfully	DP, R-E,16.7 KM, Ir-0.81 KA	Tipaimukh (MSPCL)	MSPCL to look into the issue as Law and order situation improves.
6	132 kV Pare - Itanagar Line	05-04-2025 22:30:00	DP, ZI, R-E	DP, ZII, R-E, FD: 29.9 KM	Both Ends	Carrier aided AR logic needs to be checked and end-to-end testing to be done. By Sep'25
7	132 kV Gohpur-Itanagar Line	28-04-2025 10:15	DP, ZII, B-N, 40.3 Km, AR not operated	DP, ZI, B-N, 0.89 Km, AR successful	Gohpur (AEGCL)	Carrier healthy signal wire loose. Applied for Shutdown to rectify the issue.
8	132 kV Pare - Itanagar Line	05-05-2025 12:22	DP, ZI, Y-B, FD: 5.26 kms, A/R Not operated	DP, ZI, Y-B, FD: 22.674 kms, A/R Operated Sucessfully	Pare(NEEPCO)	To be investigated. End-to-end testing will be conducted.

9	400 kV Misa - Silchar 1 Line	08-05-2025 06:09	DP,ZI, B-E,FD: 130.85 KM, A/R Successful	DP, ZI, R-E,FD: 2.638 Kms, A/R Not operated	Silchar(POWERGRID)	D60 relay issue. Planning to replace.
10	132 kV Hailakandi - Panchgram Line	10-05-2025 05:35	DP, ZI,R-E, A/R Successful	DP, ZII,R-E,FD: 19.8 KM, A/R Not operated	Panchgram (AEGCL); Carrier aided tripping absent in the line	Carrier faulty, so no carrier aided tripping, so no AR. S/D to be taken for AR testing.
11	132 kV AGTCCPP - Kumarghat Line	12-05-2025 05:20	DP, ZI, R-E, FD: 76.95 Kms, A/R Not operated	DP, ZI, R-E, FD: 76.95 Kms, A/R Operated Sucessfully	AGTCCPP(NEEPCO)	PLCC wiring issue, to be rectified in shutdown in June 25.
12	220KV-MAWNGAP-BYRNIHAT (KILLING)-2	13-05-2025 11:36	DP, ZI, R-E, FD: 90.14 kms, A/R Not operated	DP, ZI, R-E, FD: 7.34 kms, A/R Not operated	Both ends (MePTCL)	Single phase fault was identified as 3 phase fault by the relay. so No AR. Issue in BCU. S/D to be taken for its rectification by end of June'25.
13	220 kV Misa - Samaguri 1 Line	13-05-2025 12:37	DP, ZI, R-E,FD: 9.55 KM, A/R Successful	DP, ZI, R-E, A/R Not operated	Samaguri(AEGCL)	AEGCL informed that Samaguri end bay owned by POWERGRID. The issue will be

						checked jointly and S/D will be taken for its rectification
14	132 kV Ranganadi-Itanagar line	16-05-2025 19:39	DP, ZI, Y-E, FD: 25.11 km, A/R Operated Unsuccessfully (due to persistent fault)	DP, ZI, R-Y-E, FD: 31.9 km, A/R Not Operated	Itanagar (DoP, Arunachal Pradesh)	To be investigated. End-to-end testing will be conducted.
1	132 kV Agia - Nangalbibra Line	03-06-2025 00:48:00	No Tripping	DP, ZI, 45.93 km	Nangalbibra (MePTCL)	NO AR scheme. To be expedited by MePTCL.
2	132 kV Loktak - Rengpang Line	04-06-2025 11:48:00	DP, ZI, B-E, FD: 1.9 kA, 18.72 Km	No Tripping	Loktak (NHPC)	AR implemented. However, issue with "CB close" status. S/D to be taken and rectified.
3	132 kV Rupai - Tinsukia Line	07-06-2025 09:32:00	DP, ZI, Y-B-E, 35.3km	DP, ZI, Y-B-E	Both ends (AEGCL)	AR not operated due to multi-phase fault. Single phase AR enabled. Three phase AR to be enabled by AEGCL.
5	132 kV Golaghat - Mariani (AEGCL) Line	14-06-2025 03:50:00	DP, ZI, R-B-E, 38.2 Km	DP, ZI, R-B-E, 12.2 Km	Both ends (AEGCL)	AR not operated due to multi-phase fault. Single phase AR enabled. Three

						phase AR to be enabled by AEGCL.
8	132 kV Margherita - Rupai Line	17-06-2025 10:53:00	No Tripping	DP, ZI, B-E, 38.1 km	Rupai (AEGCL)	As informed by AEGCL, S/D will be taken for checking of AR.
9	132 kV Gohpur - North Lakhimpur 1 Line	22-06-2025 06:24:00	DP, ZI, R-E, 59.2 km	DP, ZI, R-E	Both ends (AEGCL)	Carrier fail issue as signal to noise ratio was found to be high, to be rectified.
10	132 kV Hailakandi - Panchgram Line	22-06-2025 21:52:00	DP, ZI, Y-E, AR successful	DP, ZI, Y-E	Panchgram (AEGCL)	To be checked during upcoming shutdown.
11	132 kV Margherita - Tinsukia Line	22-06-2025 22:59:00	DP, ZI, Y-B-E, AR successful	DP, ZI, Y-B-E	Tinsukia (AEGCL)	AR not operated due to multi-phase fault. Single phase AR enabled. Three phase AR to be enabled by AEGCL.
12	220 kV Dimapur - Misa 1 Line	23-06-2025 01:20:00	DP, ZI, R-Y-E, 123.5 Km	DP, ZI, R-Y-E, AR successful	Dimapur (PG)	Single phase fault sensed as Three phase fault by relay due to which AR not operated. To be rectified shortly after consultation with OEM.

13	132 kV Panchgram - Lumshnong Line	23-06-2025 21:05:00	DP, ZI, Y-B-E, 46.9 Km	DP, ZI,Y-B-E, 6.085 Km	Both ends (AEGCL)	S/D to be taken for rectification by Aug'25
15	132 kV Daporijo - Ziro Line	27-06-2025 11:48:00	DP, ZI, R-E, 68.2 km	DP, ZI, R-E, 62.80 Km, AR successful	Daporijo (DoP AP)	3 -ph AR implemented. However, testing of AR is pending. To be enabled after proper testing of AR. Issue with the CB, will replace in winter. PowerGrid informed that there is OPGW available on the line but there is no PLCC. Forum requested DoP Ar. Pradesh to install DTPC on the line.

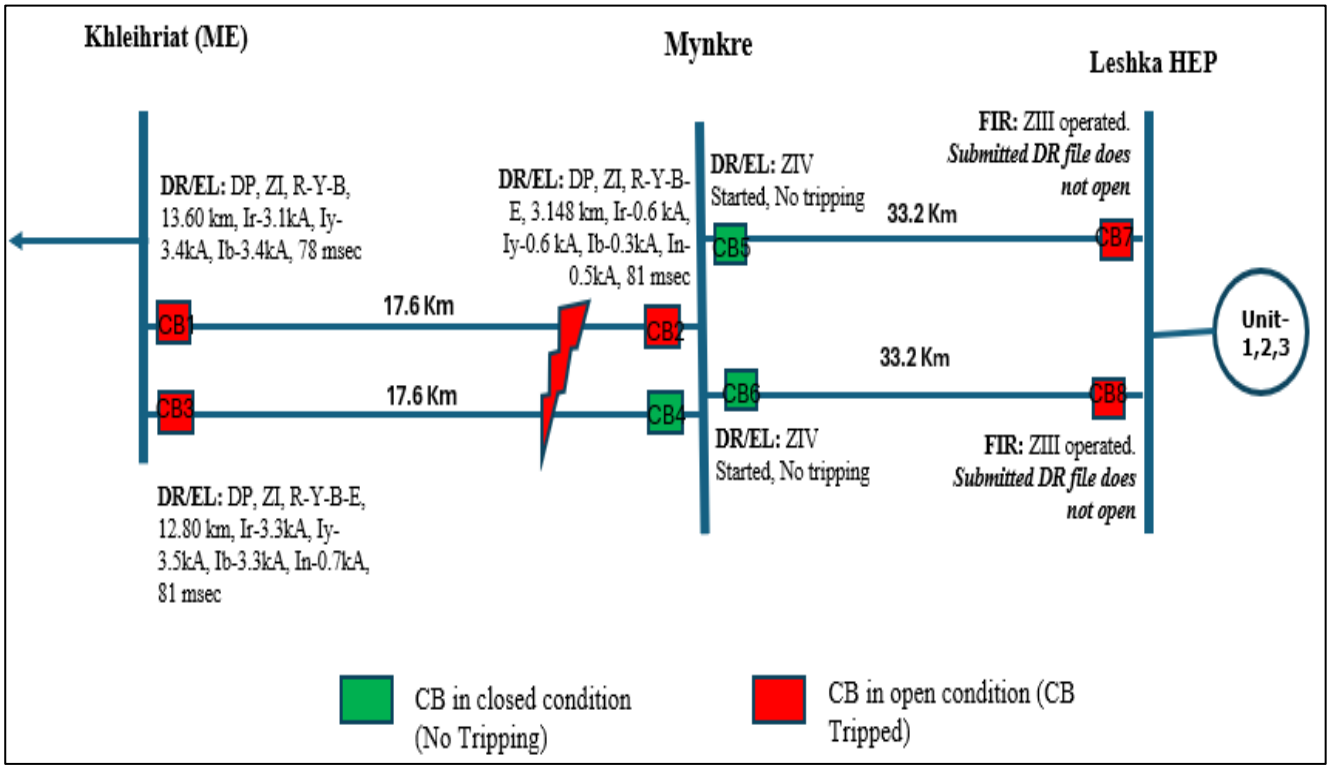
Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.2 Grid Disturbance in Mynkre area and Leshka HEP of Meghalaya Power System on 1st June'25:

At 05:37 Hrs of 01-06-2025, 132kV Mynkre (ME)- Khliehriat(ME) D/C lines and 132kV Mynkre-Leshka D/C lines tripped resulting in grid disturbance in Mynkre

area and Leshka HEP of Meghalaya Power System. Generation loss of 84 MW occurred.



As per DR analysis of 132 kV Mynkre (ME)-Khliehriat(ME) 1 line, solid R-Y-B fault (Ir-3.1 kA, Iy-3.4 kA, Ib-3.4 kA) initiated at 05:37:08.630 Hrs which was cleared within 81 msec on operation of DP, ZI.

For 132 kV Mynkre(ME)-Khliehriat(ME) 2 line, R-Y-B-E fault (Ir-3.3 kA, Iy-3.5 kA, Ib-3.3 kA, In-0.7 kA) was cleared from Khliehriat end on DP, ZI, R-Y-B-E, 12.80 km in 81 msec. There was no tripping from Mynkre end due to which fault was feeding from Leshka end of 132kV Leshka-Mynkre D/C lines which was cleared on operation of ZIII from Leshka end (DR file not opening)

Likely fault due to lightning in 132kV Mynkre (ME)-Khliehriat(ME) D/C lines.

Following observation:

- Protection system of Mynkre (ME) of 132kV Mynkre (ME)-Khliehriat(ME)-2 line failed to isolate the fault which led to clearing of the same fault by tripping of healthy 132 kV Mynkre-Leshka D/C lines from Leshka end on ZIII operation.
- Time drift of 7 mins (lag) in submitted DRs from Mynkre end for 132kV Mynkre (ME)-Khliehriat(ME) 1 line & 13 mins (lag) in submitted DRs from Mynkre end for 132kV Mynkre-Leshka D/C lines which needs to be rectified.

MePGCL may update the actions taken on the above mentioned issues.

As per 81st PCC minutes, MePTCL informed that fault was due to lightning. Regarding non-opening of CB at Mynkre end for 132 kV Khleihriat-II line, relay testing to be done by MePTCL. Also, MePTCL informed that GPS was rectified on 16th July'25.

Meghalaya may further update

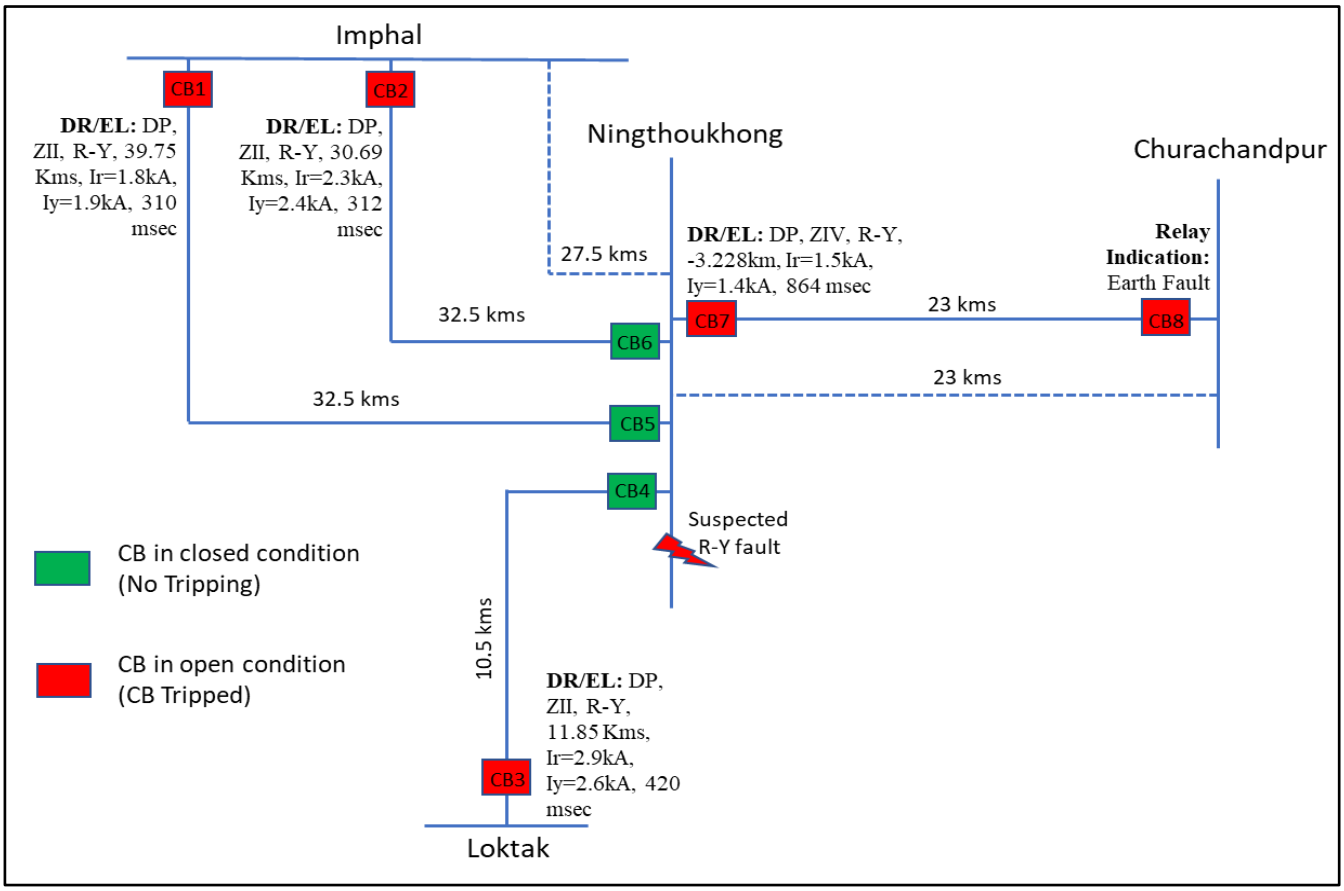
Deliberation

MS NERPC requested Meghalaya to send the update on the matter through mail to NERPC within one week.

C.3 Grid Disturbance in Ningthoukhong area of Manipur Power System on 9th June'25:

Ningthoukhong area of Manipur Power System is connected with the rest of NER Grid through 132 kV Loktak-Ningthoukhong, 132 kV Ningthoukhong-Imphal 1, 132 kV Ningthoukhong-Imphal ckt 2, 132 kV Ningthoukhong-Imphal ckt 3 and 132 kV Ningthoukhong-Churachandpur 1&2 lines. Prior to the event, 132 kV Imphal-Ningthoukhong 1 was under shutdown since 13.02.2025 and 132 kV Ningthoukhong-Churachandpur 1 is under forced outage since 04.08.2024.

At 13:34 Hrs of 09-06-2025, 132 kV Imphal-Ningthoukhong ckt 2, 132 kV Imphal-Ningthoukhong ckt 3, 132 kV Loktak-Ningthoukhong, 132 kV Ningthoukhong-Churachandpur 2 tripped. Due to tripping of these elements, Ningthoukhong area of Manipur Power System got isolated from NER Grid and collapsed due to no source available in this area. Load loss of 9 MW occurred.



Following observations:

- Suspected fault was either in 132 kV Ningthoukhong S/S or downstream of Ningthoukhong as Z4 trip from Ningthoukhong end for 132 kV Churachandpur end indicating fault in reverse direction.
- It is not clear which protection system operated at Churachandpur end and cleared the fault due to non-availability of DR/EL.
- Non-submission of DR/EL file for CB4, CB5, CB6 & CB8 which is a violation of Clause 37.2 (c) IEGC-23.
- Non-submission of detailed report of the event which is a violation of Clause 37.2(e) of IEGC-23.

MSPCL to share the root cause of the event and provide update on the above mentioned issues.

As per 81st PCC minutes, Manipur informed that the fault was in Imphal-Ningthounkong line 3 at a distance of 3 Km from Ningthoukhong end. NERLDC stated that CB6 should have operated. Further NERLDC stated that the complete analysis of the event could not be done due to non-submission of DRs by MSPCL. Forum asked Manipur to submit the DRs of CB4, CB5, CB6 & CB8 for facilitating

complete analysis. Forum urged MSPCL to thoroughly investigate the event and submit a detailed analysis report of the event.

MSPCL may further update

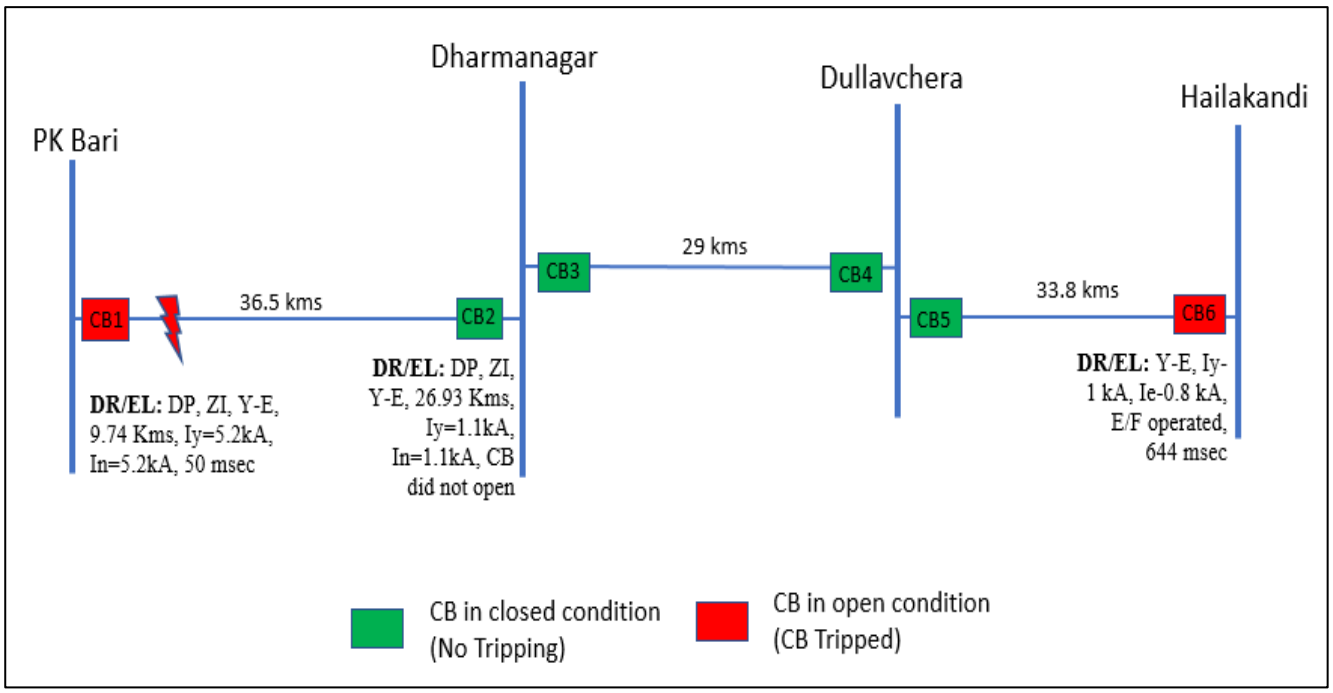
Deliberation

MS NERPC requested MSPCL to send the update on the matter through mail to NERPC within one week.

C.4 Grid Disturbance in Dharmanagar area of Tripura Power System and Dullavchera area of Assam Power System on 10th June'25:

Dharmanagar area of Tripura Power System and Dullavchera area of Assam Power System were connected with rest of NER Grid via 132 kV Dharmanagar-PK Bari line & 132 kV Hailakandi-Dullavchhhera line.

At 18:45 Hrs of 10-06-2025, 132 kV Dharmanagar-PK Bari line & 132 kV Hailakandi-DUllavchhera line tripped resulting in grid disturbance in Dharmanagar & Dullavchhera areas. Load loss of 35 MW occurred.



As per DR analysis, Y-N fault (Ib-5.2 kA, In-5.2 kA) initiated at 18:40:57.118 Hrs which was cleared within 50 msec from PK Bari on operation of DP, ZI. At Dharmanagar end, ZI trip command issued at 18:25:30.360 Hrs. However, CB did not open at Dharmanagar due to which fault was continuously feeding from Dullavchhera & Hailakandi end. Fault cleared by tripping of healthy 132 kV

Hailakandi-Dullavchhera line within 644 msec from Hailakandi end on operation of E/F (DT send).

Following observations:

- Non-opening of CB at Dharmanagar end despite issuance of ZI trip command. Reason of non-opening of CB at Dharmanagar needs to be thoroughly investigated.
- Dullavchhera CB (CB4) failed to clear the fault resulting in clearing of fault by tripping of 132 kV Hailakandi-Dullavchhera line.
- Time drift of 5 mins (lag) observed at PK Bari end & 20 mins (lag) observed at Dharmanagar end for 132 kV PK Bari-Dharmanagar Line. Time drift of 4 min at Hailakandi end for 132 kV Dullavchhera Line which needs to be rectified.
- "CB status" not present in DR digital channel. DR digital channels need to be standardized as per recommendation in FOLD working group-3.

As per 81st PCC minutes, Tripura informed that a high resistive fault occurred in the 132 kV P K BariDharmangar line and CB2 did not clear the fault as Y Pole of the CB got stuck which will be checked shortly. DCRM testing to be conducted by TSECL. Forum also noted that EF operation at Hailakandi is aggressive and the settings have to be coordinated with EF of Dharamanagar and Dullavchera substations. E/F setting at Hailakandi end for 132 kV Dullavchera line needs to be reviewed & coordinated with ZIII time delay. TMS to be changed.

TSECL may further update

Deliberation

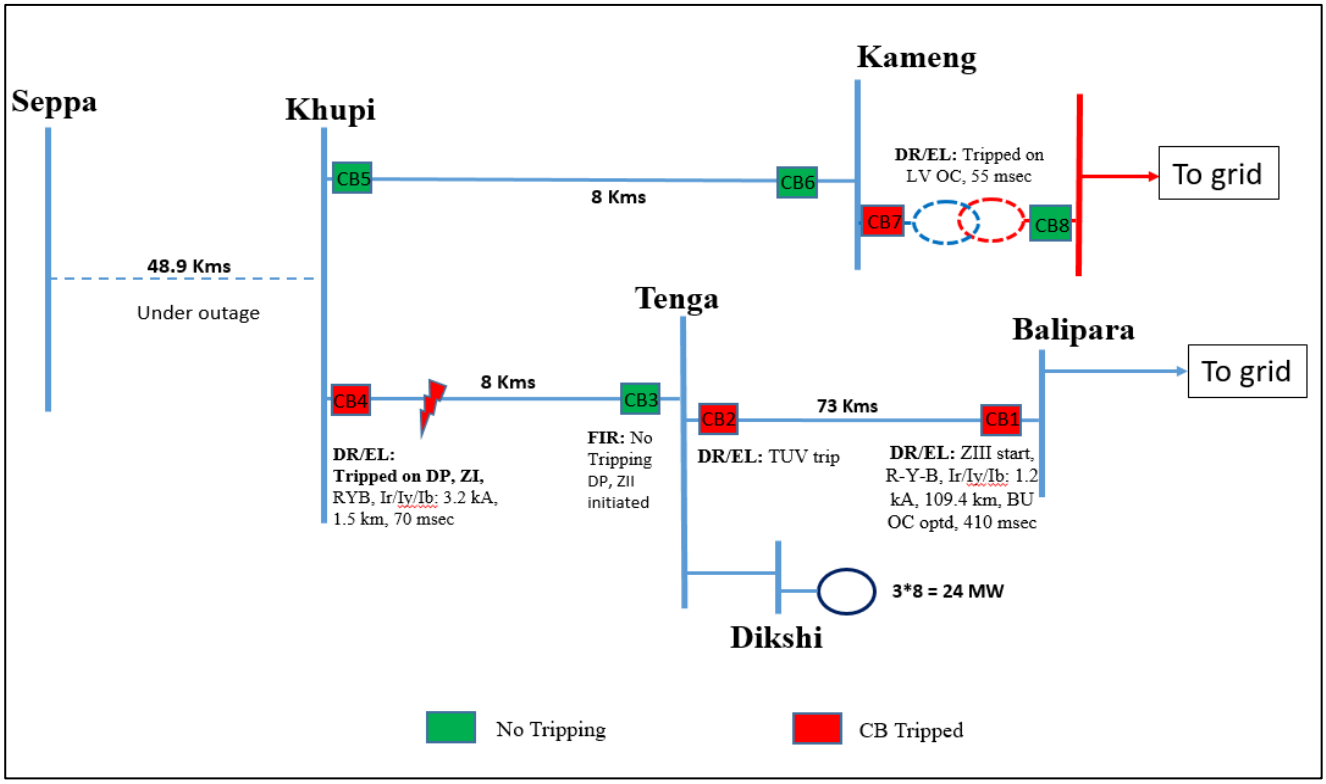
AEGCL informed the forum that no relay coordination issue observed at Hailakandi.
Also, requested Tripura to resolve the CB issue at Dharmanagar end of 132 kV Dharmanagar – P K Bari line.

MS NERPC requested TSECL to send the update on the matter through mail to NERPC within one week.

C.5 Grid Disturbance in Khupi, Tenga, Seppa and Dikshi HEP area of Arunachal Pradesh Power System:

Event 1: At 12:26 Hrs of 14.06.2025- Load Loss of 23 MW & Generation Loss of 7.2 MW

At 12:26 Hrs of 14-06-2025, 132 kV Tenga - Khupi, 132kV Balipara -Tenga and 400kV ICT at Kameng tripped.



As per available DR & EL data, 3 phase metallic fault initiated in the 132 kV Khupi – Tenga line cleared from Khupi end in DP, ZI, RYB, Ir/Iy/Ib: 3.2 kA, 1.5 km in 70 msecs. Tenga end located the fault in ZII (as per FIR).

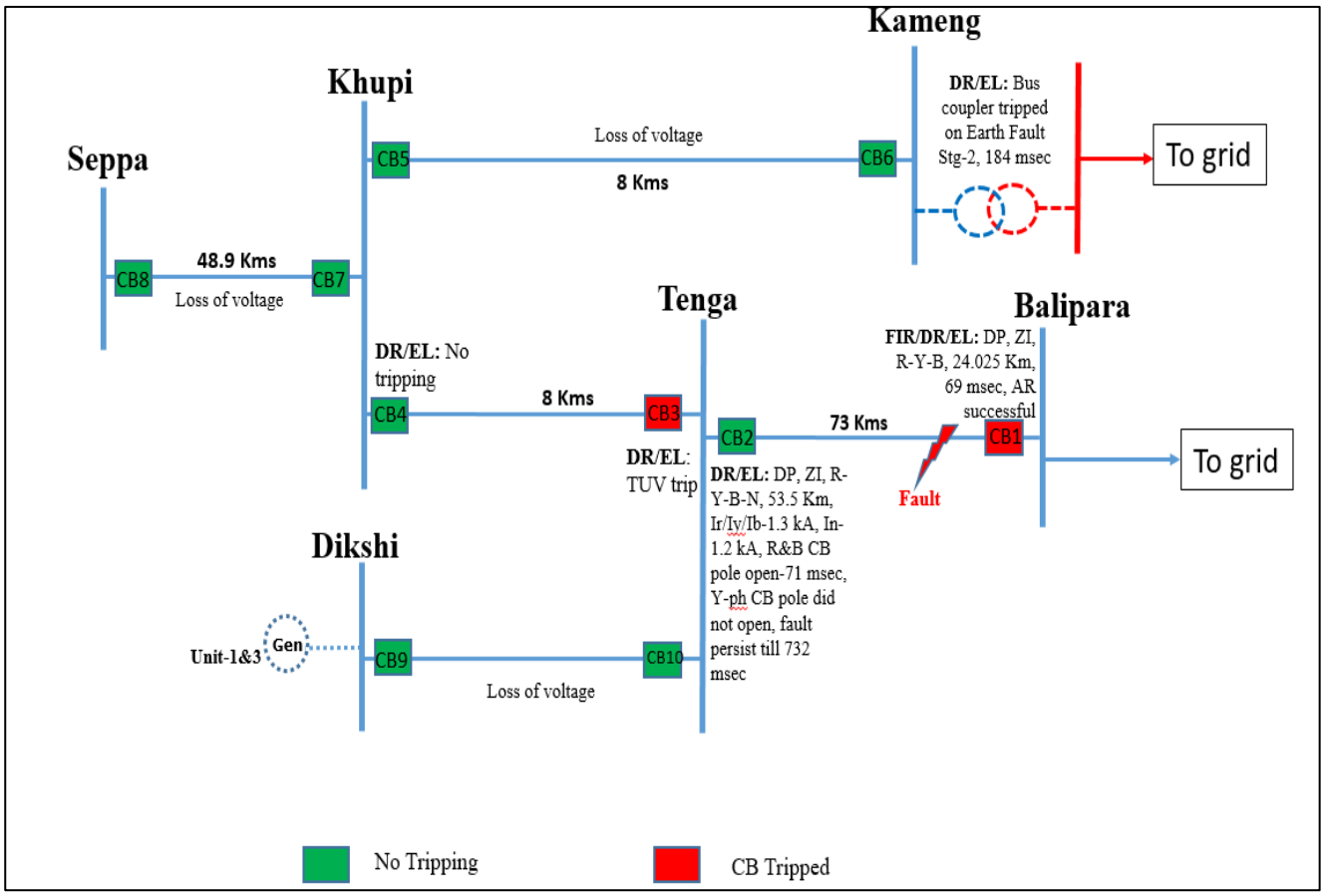
Tripping of 132 kV Balipara – Tenga line on operation of OC within 410 msecs. DPR detected the fault in ZIII.

Following observations:

- Non-operation of protection system at Tenga for 132 kV Khupi line.
- Tripping of 132 kV Balipara – Tenga line on operation of OC within 410 msecs. Overcurrent TMS need to be coordinated with ZII timing of CB3.
- Tripping of ICT at Kameng on LV side on operation of Backup DT OC wiithin 55 msecs seems unwanted.

Event 2: At 10:28 Hrs of 23.06.2025- Load loss of 34 MW & generation loss of 10 MW

At 10:28 Hrs of 23-06-2025, 132 kV Balipara-Tenga, 132 kV Tenga-Khupi, 132 kV Kameng-Khupi lines & 400/132 kV Kameng ICT tripped leading to grid disturbance in Khupi, Tenga, Seppa and Dikshi HEP area of Arunachal Pradesh.



As per DR analysis, solid R-Y-B-N fault occurred in 132 kV Balipara-Tenga Line at distance of 53.5 Km from Tenga end which was cleared within 69 msec from Balipara end on operation of DP, ZI (AR successful). ZI trip command issued from Tenga end and R & B-phase CB pole opened after 71 msec. However, Y-ph CB pole did not open and fault current persisted till 732 msec.

At 10:27:56.138 Hrs, 132 kV Bus coupler at Kameng tripped on operation of E/F stg-2 within 184 msec from initiation of fault.

Following observations:

- **Non-opening of Y-ph CB pole at Tenga end for 132 kV Balipara Line**: At Tenga end, fault initiated at 10:27:41.981 Hrs. ZI trip command issued and R & B-phase CB pole opened after 71 msec. However, Y-ph CB pole did not open and fault current persisted till 732 msec. Non-opening of Y-ph CB pole needs to be investigated by DoP Arunachal Pradesh.
- **Unwanted tripping of 132 kV Bus Coupler at Kameng**: At 10:27:56.138 Hrs, 132 kV Bus coupler at Kameng tripped on operation of E/F stg-2 which is inferred unwanted.

Similar incident occurred on 05.05.2024, 09.07.2024, 11.07.2024, 19.07.2024, 12.08.2024 & 18.08.2024, 17.04.2025, 24.04.2025.

DoP Arunachal Pradesh & NEEPCO to share the root cause and action taken on the above-mentioned issues.

As per 81st PCC minutes,

Event 1: Regarding tripping at Balipara end, Forum asked DoP Ar. Pradesh to revise the OC and EF settings to follow the NERPC protection settings protocol. Regarding unwanted tripping of Kameng ICT, NEEPCO informed that LV side pickup for DT OC revised to 4620 A. Regarding non-operation of protection at Tenga end, forum noted that ZII did not operate as fault was cleared from Balipara end aggressively.

Event 2: Regarding tripping of Bus Coupler at Kameng, NEEPCO informed that that the high set has been disabled. Regarding non-clearance of fault at Tenga end, DoP Ar. Pradesh informed that the bay belongs to Dikshi HEP and matter has been communicated with them. Forum requested to expedite the matter and resolve the issue at the earliest.

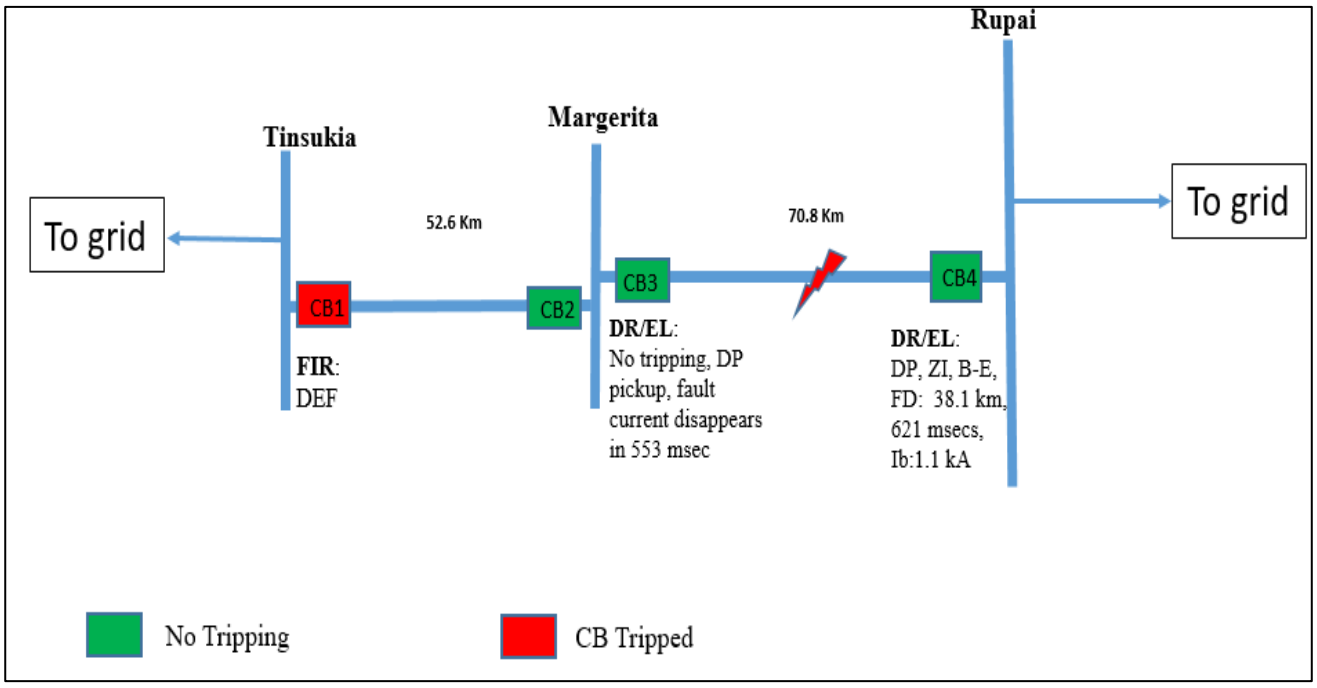
Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.6 Grid Disturbance in Margherita area of Assam Power System:

Event 1:

At 10:53 Hrs of 17-06-2025, 132 kV Tinsukia – Margherita & 132 kV Rupai-Margherita line tripped leading to blackout of Margherita area of Assam. Load loss of 21 MW occurred.



As per DR analysis, at 10:50:26.946 Hrs, high resistive B-E fault (Ib-1.1 kA, Vbe-51 kV) appears in 132 kV Rupai-Margherita line at a distance of 38.1 Km which was cleared from Rupai end within 621 msec on operation of DP, ZI. No tripping observed at Margerita end (DP pickup, fault current disappears within 553 msec).

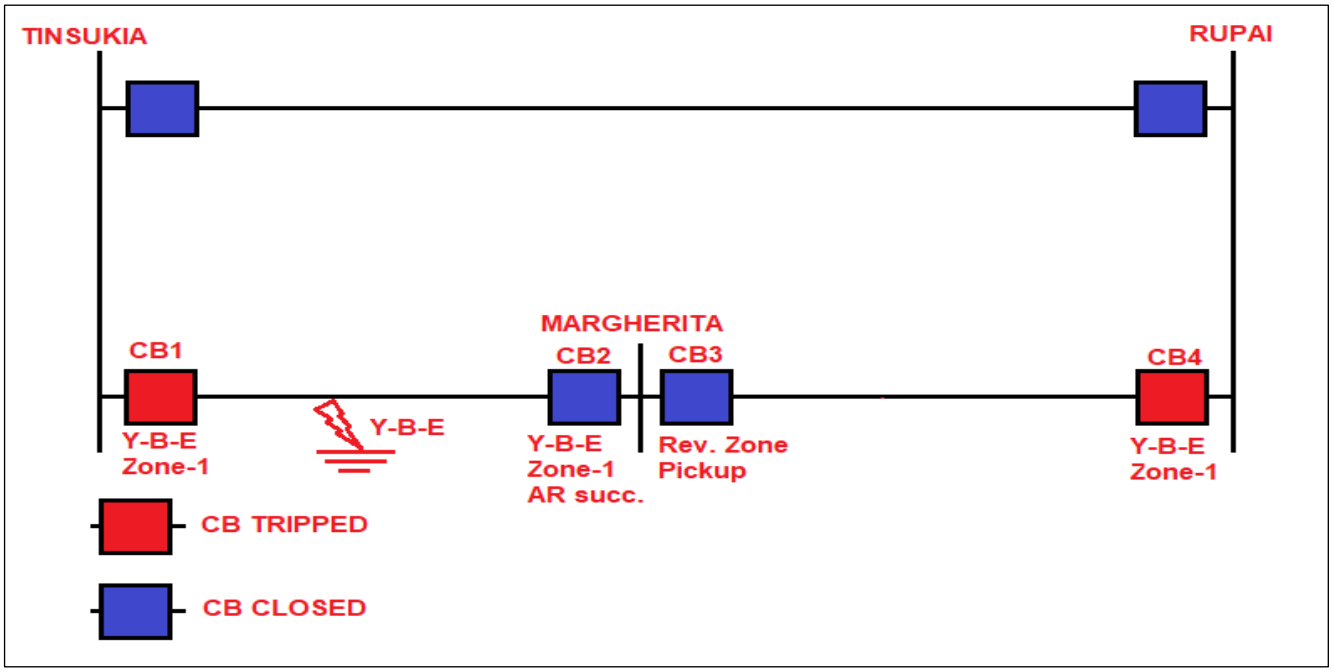
Fault cleared from Tinsukia end on operation of DEF (as per FIR, DR/EL not submitted)

Following observations:

- Protection system at Margherita end for 132 kV Rupai Line failed to isolate the fault leading to clearing of fault by tripping of healthy 132 kV Margherita-Tinsukia line from remote end.
- Time drift of 3 min observed at Rupai end for 132 kV Margherita Line.

Event 2:

At 22:59 Hrs of 22-06-2025, 132 kV Tinsukia – Margherita & 132 kV Rupai-Margherita line tripped leading to blackout of Margherita area of Assam. Load loss of 4 MW occurred.



As per DR analysis, Y-B-E fault in 132 kV Tinsukia – Margherita line cleared from Tinsukia and Margherita end in 90 msecs on operation of DP, ZI. Margherita end (CB2) successfully auto-reclosed.

However, the fault detected by the relay at Rupai end (CB4) of 132 kV Margherita – Rupai line on Zone-1 and led to tripping within 66 msecs leading to the blackout of Margherita GSS. Zone-4 picked up at (CB3) confirming the fault was in 132 kV Tinsukia – Margherita Line.

Following observations:

- Tripping of 132 kV Rupai-Margherita Line on ZI from Rupai end is unwanted. ZI setting at Rupai needs to be reviewed.
- Non-operation of Autorecloser at Tinsukia end for 132 kV Margherita line.
- Time drift of 4 min observed at Margherita end for both the lines.

As per 81st PCC minutes,

Event 1: Forum noted that tripping at Tinsukia on DEF is a maloperation and asked AEGCL to rectify the issue. Further, the forum requested AEGCL coordinate the EF and OC protection settings between Margarita and Tinsukia.

Event 2: Forum noted that zone 1 at Rupai for 132 kV Margherita line is overreaching and requested AEGCL to revise the reach of Zone1 protection. AEGCL informed S/D will be taken for tesing of relay.

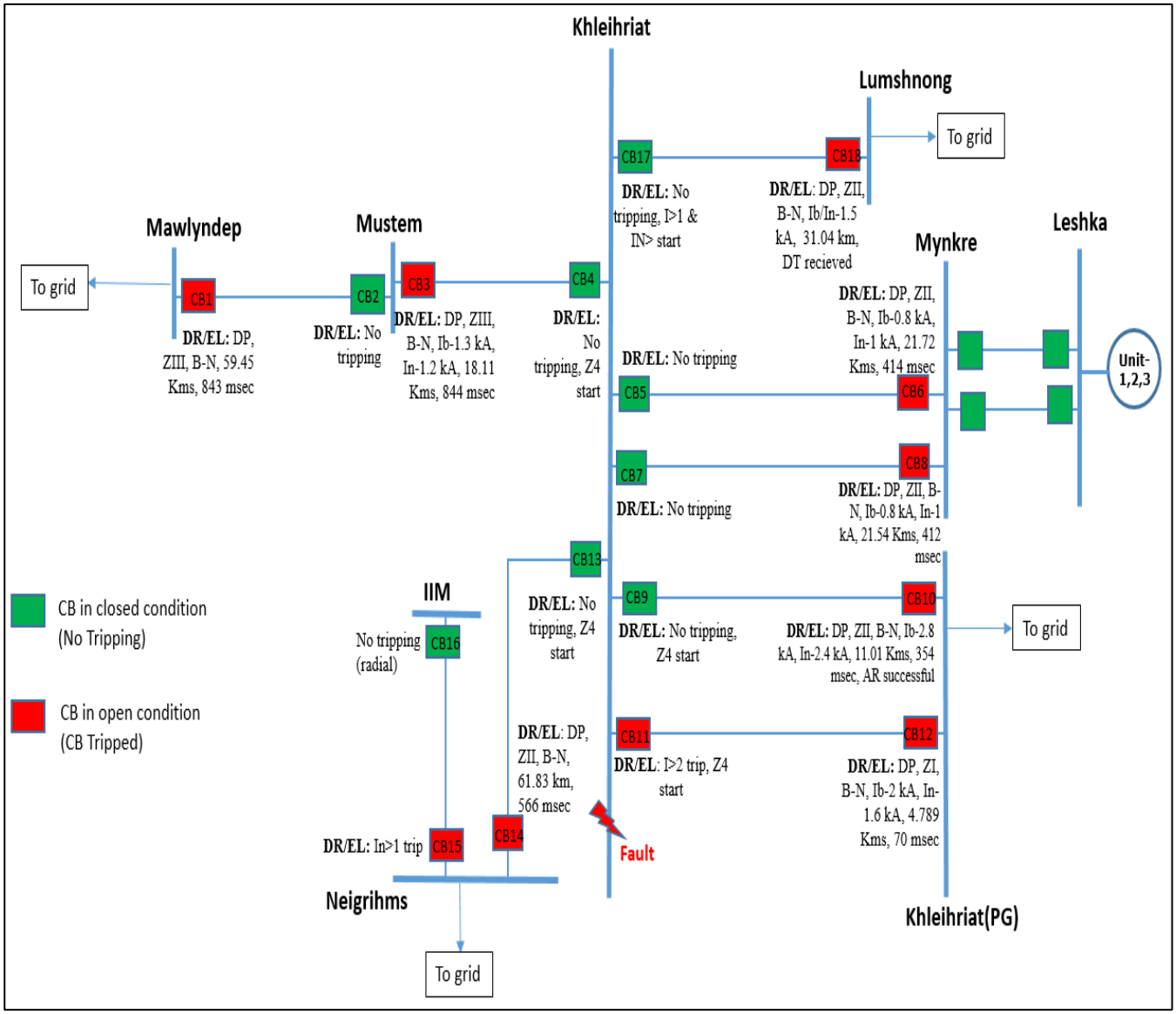
Deliberation

MS NERPC requested Assam to send the update on the matter through mail to NERPC within one week.

C.7 Grid Disturbance in Leshka, Mynkre, Mustem and IIM areas of Meghalaya Power System on 19th June'25:

Leshka, Mynkre, Mustem and IIM areas of Meghalaya Power System were connected with rest of NER grid via 132 kV Leshka-Mynkre D/C, 132 kV Khleihriat-Mynkre D/C, 132 kV Khleihriat-Mustem, 132 kV Mawlyndep-Mustem & 132 kV Neigrihms-IIM Lines.

At 14:00 Hrs of 19-06-2025, all the lines connected to 132 kV Khleihriat Bus except 132 kV Khleihriat-Khleihriat(PG) I line, 132 kV Mawlyndep-Mustem & 132 kV Neigrihms-IIM lines tripped. Due to these tripping, Leshka, Mynkre, Mustem and IIM areas of Meghalaya Power System got isolated from NER Grid and collapsed due to no source available in these areas.



Root cause:

Fault was in 132 kV Khleihriat Bus. As informed by MePTCL, there was accidental contact of one cable laid by M/S Manav Energy Pvt. Ltd. (who were carrying out works related to earthing in the substation) to the bus isolator of 132 kV Khleihriat(PG)-II line. Since there is no Bus bar protection, fault was cleared by tripping of healthy lines connected to Khleihriat S/S from remote ends on Z2/Z3. There was no tripping from Khleihriat end.

Following observations:

- 132 kV Khleihriat-Khleihriat(PG) II line tripped on ZI from Khl(PG) end. ZI protection seems to have overreached from Khl(PG) end as fault was in Khleihriat Bus. From Khl(ME) end, I>2 trip observed which is inferred

unwanted. Highset O/C setting needs to be disabled at Khl(ME) end to avoid any further reoccurrences.

- 132 kV Khleihriat-Khleihriat(PG) I line tripped from Khl(PG) end on operation of DP, ZII. After 3 sec, AR operated successfully which is undesirable. The same needs to be checked by NERTS.
- Tripping of 132 kV Mustem-Khleihriat line on Z3 from Mustem end is inferred unwanted. Z3 reach setting needs to be reviewed and revised as per NER protection philosophy.
- 132 kV Khleihriat-Lumshnong line tripped on ZII from Lumshnong end and no tripping from Khleihriat end (IN>1 start). However, DT received at 13:58:17.814 Hrs which is inferred unwanted. Also, at Lumshnong end, "CB status" showing CB closed which needs to be checked.
- Tripping of 132 kV Neigrihms-IIM line on E/F from Neigrihms end for fault in reverse direction is unwanted. Directionality of E/F relay needs to be enabled and forward direction to be ensured.
- Tripping of Umiam Stg-II Unit-2 for fault in 132 kV Khleihriat Bus is unwanted. The same needs to be thoroughly investigated.
- As 132 kV Khleihriat S/S serves as a crucial S/S in Meghalaya power system, it is advisable to consider upgrading the existing single bus scheme to a Double Main Cum Transfer scheme. This enhancement is essential for ensuring reliability and preventing outage in the event of a bus fault.
- Commissioning of bus bar protection in 132 kV Khleihriat S/S needs to be looked into by MePTCL. Z4 time delay at Khliehriat to be kept at 200 msec till bus bar protection is implemented.
- Time drift of 9 min observed at Mynkre end for Khleihriat line -1&2 lines which needs to be rectified.

As per 81st PCC minutes,

Sl. No.	**Issues**	**Remarks**
1	132 kV Khleihriat-Khleihriat(PG) II line tripped on ZI from Khl(PG) end for fault in 132 kV Khleihriat Bus	ZI overreaching issue. ZI reach setting to be reviewed.

2	132 kV Khleihriat-Khleihriat(PG) II line tripped on I>2 from Khl(ME) end	Highset O/C setting to be disabled at Khl(ME)
3	AR operated successfully at Khleihriat(PG) end for 132 kV Khleihriat-Khleihriat(PG) I Line	AR successful due to incorrect mapping which has been rectified.
4	Tripping of 132 kV Mustem-Khleihriat line on Z3 from Mustem end	LFL of the feeder was carried out to ascertain the exact line length and line length indicated was 16.9 Km. Earlier setting was kept as per 12.69 Km. The setting of 132 kV Mustem-Khleihriat line has been revised as per new line length of 16.9 Km on 25th June'25.
5	DT received at Lumshnong end for 132 kV Khleihriat Line	To be checked by MePTCL
6	Tripping of 132 kV Neigrihms-IIM line on E/F from Neigrihms end for fault in reverse direction is unwanted	Rectified
7	Tripping of Umiam Stg-II Unit-2 for fault in 132 kV Khleihriat Bus	GT O/C protection operated. To be checked by MePGCL
8	Time drift of 9 min observed at Mynkre end for Khleihriat line -1&2 lines	GPS rectified on 16th July'25

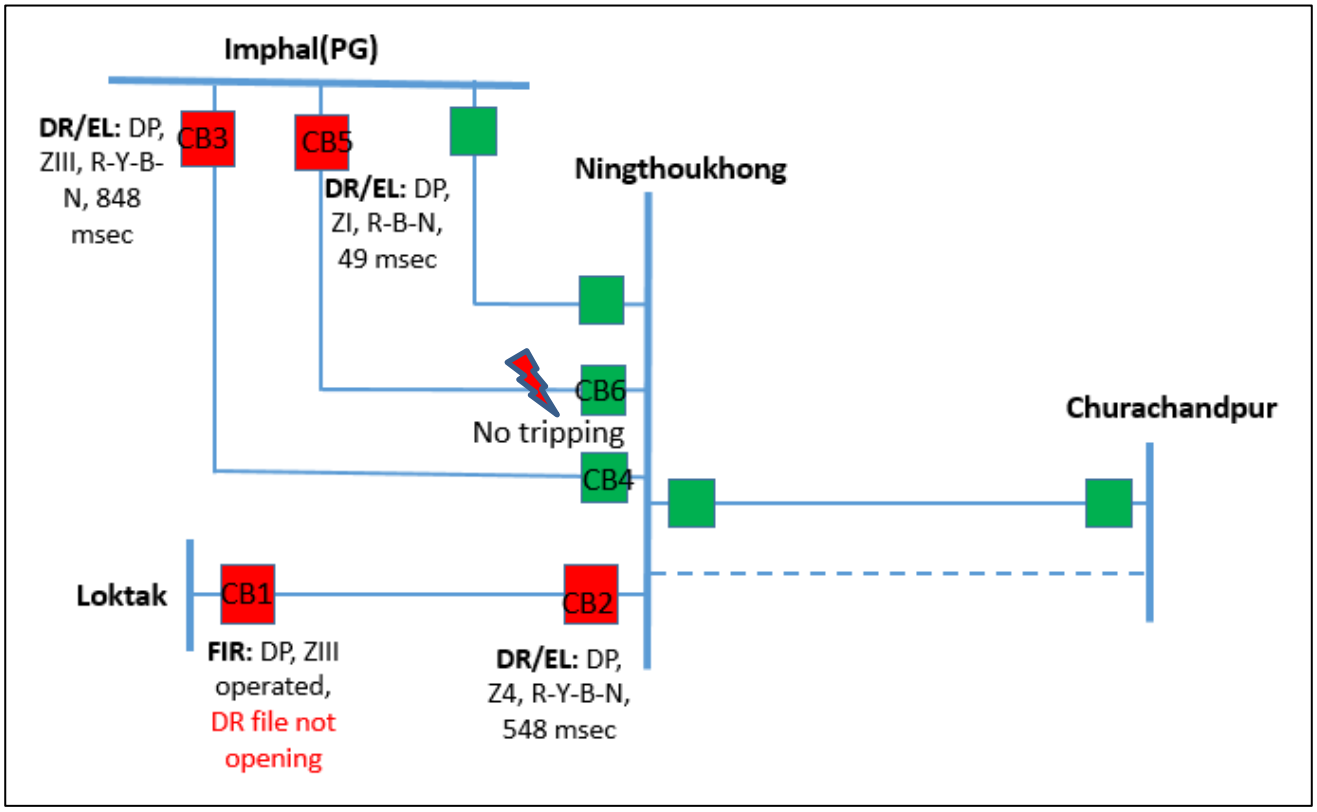
Considering the criticality of 132 kV Khleihriat S/S in Meghalaya power system, Forum advised MePTCL to consider upgrading the existing single bus scheme to a Double Main Cum Transfer scheme.

Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.8 Multiple tripping in Ningthoukhong S/S of Manipur power system on 20th June'25:

At 03:52 Hrs of 20-06-2025, 132 kV Imphal-Ningthoukhong I, 132 kV Imphal-Ningthoukhong II & 132 kV Loktak-Ningthoukhong lines tripped.



As per DR analysis, solid R-B-N fault (Ir-2.4 kA, Ib-0.8 kA, In-1.7 kA) initiated at 03:52:00.925 Hrs which was cleared within 49 msec from Imphal(PG) end on operation of DP, ZI. There was no tripping from Ningthoukhong due to which fault was continuously feeding from other lines at Ningthoukhong.

Fault was cleared by tripping of healthy 132 kV Loktak-Ningthoukhong line & 132 kV Imphal-Ningthoukhong I line on Z4 from Ningthoukhong end within 548 msec and on ZIII from Imphal(PG) within 848 msec.

Protection system of 132 kV Imphal(PG)-Ningthoukhong II line at Ningthoukhong end (CB6) failed to isolate fault in the line resulting in clearing of fault by tripping of healthy lines at Ningthoukhong.

MSPCL to share the root cause of the event & action taken on the above mentioned issues.

As per 81st PCC minutes, Forum noted that CB6 should have operated. Manipur informed that the Bays were recently handed over by NERPSIP. Further he informed that final report will be sent after taking a review meeting with NERPSIP team.

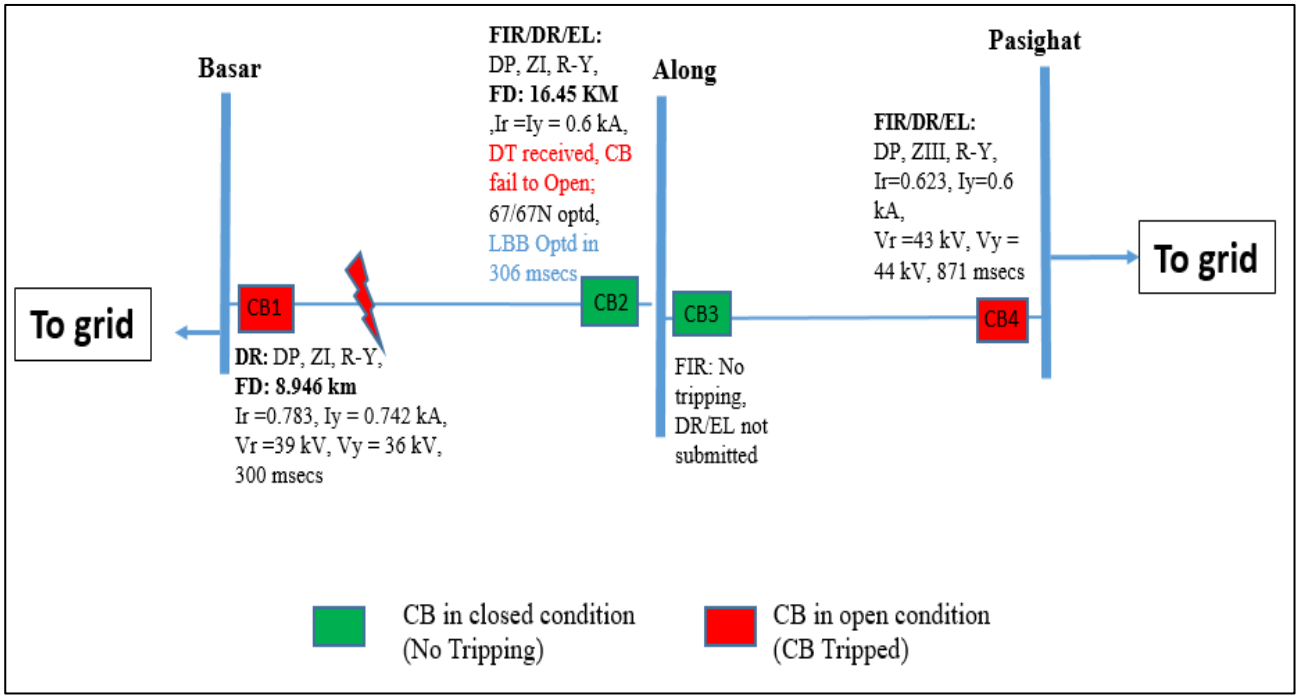
Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.9 Grid Disturbance in Arunachal Pradesh Power System on 21st June'25 & 23rd June'25:

Event 1: At 05:15 Hrs of 21-06-2025

At 05:15 Hrs of 21-06-2025, 132 kV Basar-Along and 132 kV Along-Pasighat lines tripped resulting in blackout of Along area of Arunachal Pradesh. Load loss of 3 MW occurred.



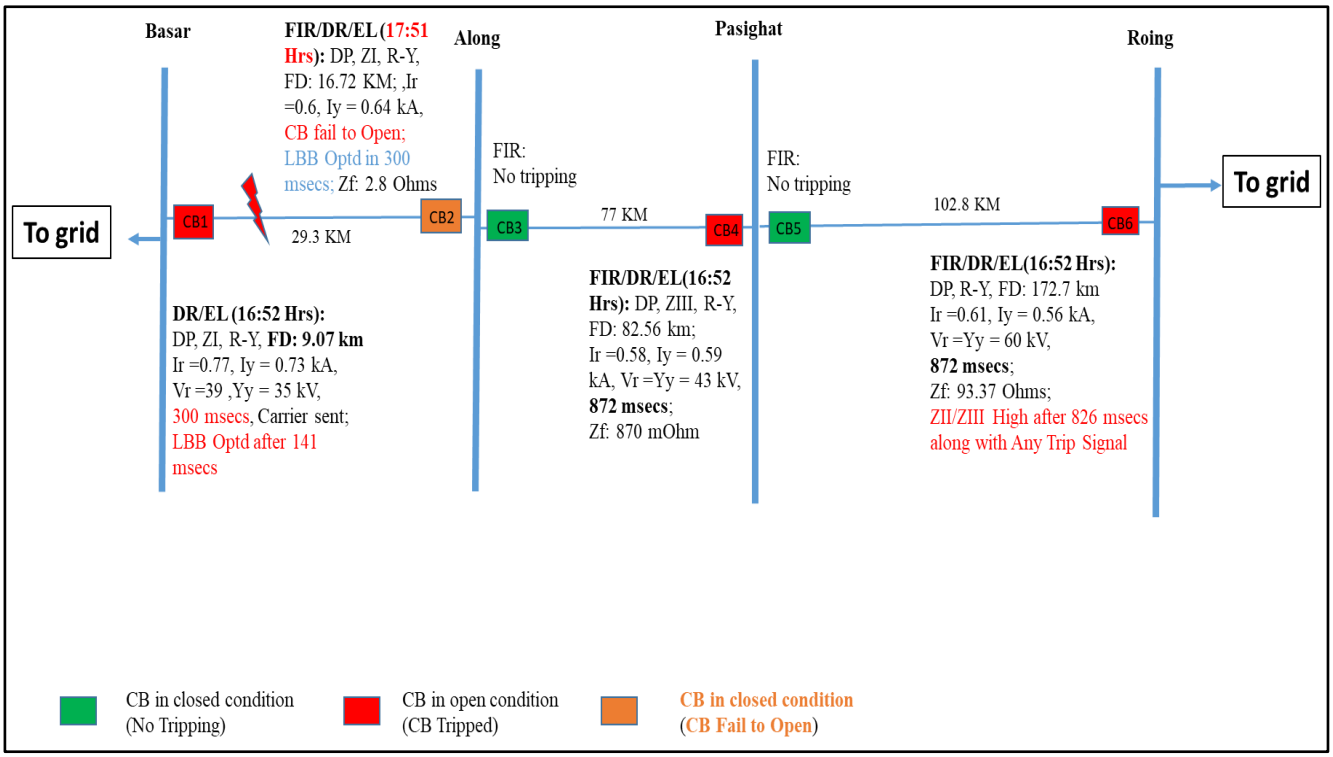
As per DR analysis, resistive R-Y fault (Ir-0.783 kA, Iy-0.742 kA) initiated at 05:14:17.444 Hrs in 132 kV Basar-Along line which was cleared within 300 msec from Basar end on operation of DP, ZI (delayed CB opening). However, CB fails to opens from Along end despite issuance of trip command by distance protection relay in ZI and the fault continued to feed from Roing side till 871 msecs. The fault was cleared from Roing end of 132 kV Pasighat - Roing line after 871 msecs on operation of DP, ZIII.

Following observations:

- **Delayed operation of CB (CB1) at Basar**: At Basar end, fault initiated at 05:14:17.444 Hrs and ZI trip command issued at 05:14:17.467 Hrs. However, CB opened after 276 msec which is undesirable.
- **Non operation of CB (CB2) at Along**: The distance protection at Along end issued the trip command. However, CB fails to open which is undesirable.
- **LBB protection at Along SS**: DR of 132 kV Basar - Along line at Along showing LBB Operation after 306 msecs. However, CB did not open at Along S/S. LBB time delay needs to be reviewed and set as per NERPC protection philosophy.
- **DT received at CB (CB2) at Along**: At 05:10:33.574 Hrs, DT received at Along end. However, no DT sent from the Basar end.
- **DR time drift at Along (CB2)**: DR for main relay at Along showing fault initiation time of 05:10:33.523 Hrs which indicates DR time drift of 5 minutes.

Event 2: At 16:52 Hrs of 23-06-2025

At 16:52 Hrs of 23-06-2025, 132 kV Basar – Along, 132 kV Along-Pasighat and 132 kV Pasighat - Roing lines tripped resulting in blackout of Along, Pasighat, Napit & Niglok area of Arunachal Pradesh. Load loss of 21 MW occurred.



Following observations:

- **Delayed operation of CB (CB1) at Basar**: The relay associated with CB1 at Basar detected an R-Y fault in Zone-1 and issued an immediate trip command. However, the fault persisted for approximately 300 milliseconds, indicating a delay in CB1 operation, which is unwanted. DoP, Arunachal/NERTS is requested to identify the root cause & ensure the healthiness of CB & LBB at Basar SS of Arunachal Pradesh.
- **Non operation of CB (CB2) at Along**: The distance protection at Along end issued a trip command for the fault. However, CB2 failed to open, which is undesirable and undermines the reliability of the protection system. DoP, Arunachal Pradesh is requested to take corrective action to avoid reoccurrence in future.
- **LBB protection at Along SS**: The Disturbance Recorder of the 132 kV Basar–Along line at Along shows that the LBB operated only after 300 milliseconds, despite a breaker failure (CB2 stuck) condition. DoP, Arunachal is requested to confirm the reason for non-operation LBB at Along SS during the CB stuck condition. Also, make necessary modification/corrective on immediate basis.
- **Time drift of relay (CB2) at Along**: Time drift of 1 hr present present at Along end. Immediate time synchronization is required at Along end.
- **Tripping of (CB6) at Roing:** NERTS is requested to investigate the protection function responsible for tripping at Roing SS.
- **Relay Coordination Issue with CB4 & CB6 at Pasighat & Roing:** The 132 kV Along- Pasighat Line & 132 kV Roing - Pasighat Line at Pasighat & Roing tripped after 872 msecs from the initiation of the R-Y fault. The Z3 reach may be relooked for providing Pasighat end of 132 kV Along - Pasighat line preference to clear the fault in ZIII to avoid Grid Disturbance at Pasighat substation in future.

Similar event occurred on 07.04.2024, 17.04.2024, 13.06.2024, 08.12.2024, 23.01.2025, 05.02.2025, 15.02.2025, 15.05.2025, 23.05.2025.

As per 81st PCC minutes,

1. Regarding non-operation of CB2 at ALong, DoP Ar. Pradesh informed that new CBs have been arranged and the exiting CBs will be replaced shortly.

2. Regarding delayed operation of CB at Basar (CB1), DoP Ar. Pradesh informed that the issues will be resolved in coordination with COMPREHENSIVE team.

3. Regarding LBB protection at Along SS, there is LBB wiring issue. To be rectified.

4. Regarding DT received at CB (CB2) at Along, DoP Arunachal Pradesh informed that issue will be resolved in coordination with COMPREHENSIVE team.

5. For Event 2, Regarding zone 3 operation of CB6, PGCIL informed that Zone 3 reach settings were modified earlier but issue persisted. He raised the doubt over correctness of line lengths. He requested DoP Ar. Pradesh to provide the distance of 132 kV Along -Pashighat line so that zone 3 reach can be correctly modified. POWERGRID informed that Offline fault locator of 132 kV RoingPasighat line to be carried out to ascertain the exact line length.

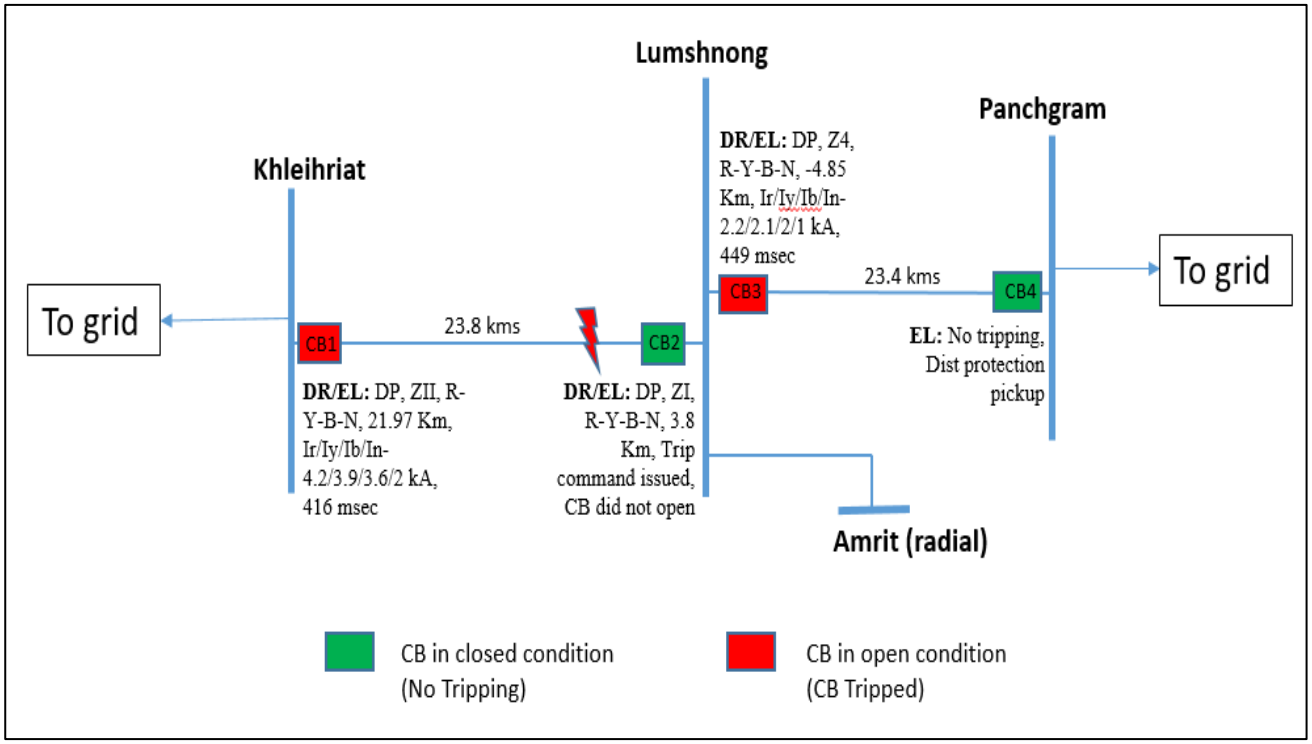
Deliberation

MS NERLDC proposed that Z4 reach (td:200 msecs) of CB3 (Along end for Pasighat) may be increased to include the whole Basar-Along line so that in case on non-operation of CB2, CB3 will isolate the fault before CB4 (Pasighat end for Along line). Forum agreed to the suggestion of NERLDC and instructed to implement the same. Original scheme needs to be adopted after the replacement of the CB at Along.

C.10 Grid Disturbance in Lumshnong & Amrit areas of Meghalaya Power System on 25th June'25:

Lumshnong & Amrit areas of Meghalaya Power System is connected to the rest of NER Power System via the 132 kV Lumshnong–Panchgram line and 132 kV Khliehriat–Lumshnong line.

At 23:25 Hrs of 25.06.2025, 132 kV Khliehriat–Lumshnong and 132 kV Lumshnong–Panchgram lines tripped resulting in blackout of Lumshnong & Amrit areas of Meghalaya. Load loss of 18 MW occurred.



As per DR analysis, R-Y-B-N fault (Ir-4.2 kA, Iy-3.9 kA, Ib-3.66 kA, In-2 kA) initiated at 23:24:29.571 Hrs in 132 kV Khleihriat-Lumshnong line which was cleared within 416 msec from Khleihriat end on operation of DP, ZII. From Lumshnong end, ZI trip command issued 23:23:42.094 Hrs. However, CB did not open. As a result of which fault was continuously feeding from Panchgram end.

Fault cleared by tripping of healthy 132 kV Lumshnong-Panchgram line on Z4 from Lumshnong end within 449 msec. (no tripping from Panchgram end, Dist. Protection pickup)

Following observations:

- Non-opening of CB at Lumshnong (CB2) for 132 kV Khleihriat Line despite issuance of ZI trip command.
- Non-tripping of 132 kV Panchgram-Lumshnong line from Panchgram end (CB4) on ZII. ZII setting needs to be reviewed and set as per NERPC protection philosophy.
- ZIV time delay at Lumshnong end (CB3) for 132 kV Panchgram line needs to be reviewed and set as per protection philosophy.

MePTCL & AEGCL may update the actions taken on the above mentioned issues.

As per 81st PCC minutes, Regarding non-operation of CB4, forum asked AEGCL to check the issue. ZIV time delay at Lumshnong end (CB3) for 132 kV Panchgram line needs to be reviewed and set as per protection philosophy.

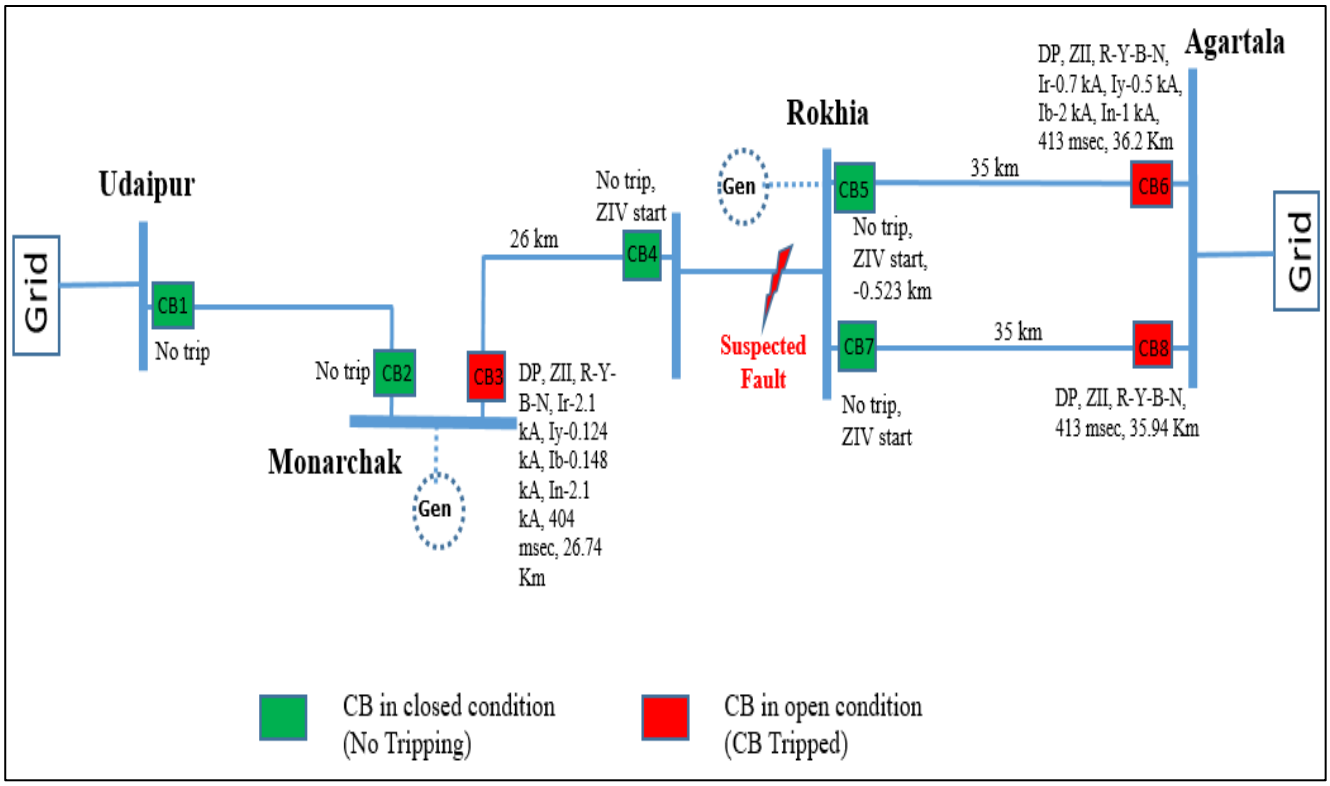
Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.11 Grid Disturbance in Rokhia area of Tripura Power System on 28th June'25:

Rokhia area of Tripura power system is connected with rest of the grid via 132 kV Rokhia – Agartala 1 & 2 line and 132 kV Rokhia -Monarchak Line.

At 06:06 Hrs of 28-06-2025, 132 kV Rokhia – Agartala 1 & 2 line and 132 kV Rokhia -Monarchak Line tripped. Due to tripping of these elements, Rokhia area of Tripura power system got isolated from NER grid due to load generation mismatch in this area. Generation loss of 11 MW & load loss of 19 MW occurred.



Suspected R-Y-B-N fault of solid nature in Rokhia S/S or 132 kV Old Rokhia-New Rokhia Link feeder which was cleared by tripping of all the healthy lines connected to Rokhia S/S from remote ends on operation of DP, ZII.

Following observations:

- Non-availability of protection system in 132 kV Old Rokhia-New Rokhia link feeder is a matter of concern. LDP needs to be implemented in the link feeder.

- Non-availability of Bus bar protection at Rokhia S/S. Bus bar protection needs to be implemented in all generating station switchyards as per NERPC Protection protocol.
- Z4 time delay at Rokhia to be reduced to 200 msec till Bus Bar protection is implemented.
- DR digital channel is not standardized at Agartala & Rokhia end for 132 kV Agartala-Rokhia I & II Lines. The same needs to be standardized as per recommendation in FOLD working group-3.
- Detailed report of the event not submitted by TSECL which is a violation of Clause 37.2 (e) IEGC-23.

Similar event occurred at 13:32 Hrs of 28-06-2025. Such repeated grid disturbances are the cause of concern.

During 2024, similar incident occurred on 13.07.2024.

TSECL may share the root cause and action taken on the above mentioned issues.

As per 81st PCC minutes,

1. Regarding non-availability of protection system in 132 kV Old Rokhia-New Rokhia link Tripura informed that LDP will be implemented in the upcoming shutdown.
2. Forum directed Tripura to implement Bus Bar protection at Rokhia SS at the earliest.
3. Forum directed Tripura to reduce the zone 4 timing to 200 msec at Rokhia SS till the Bus Bar protection is implemented.

Deliberation

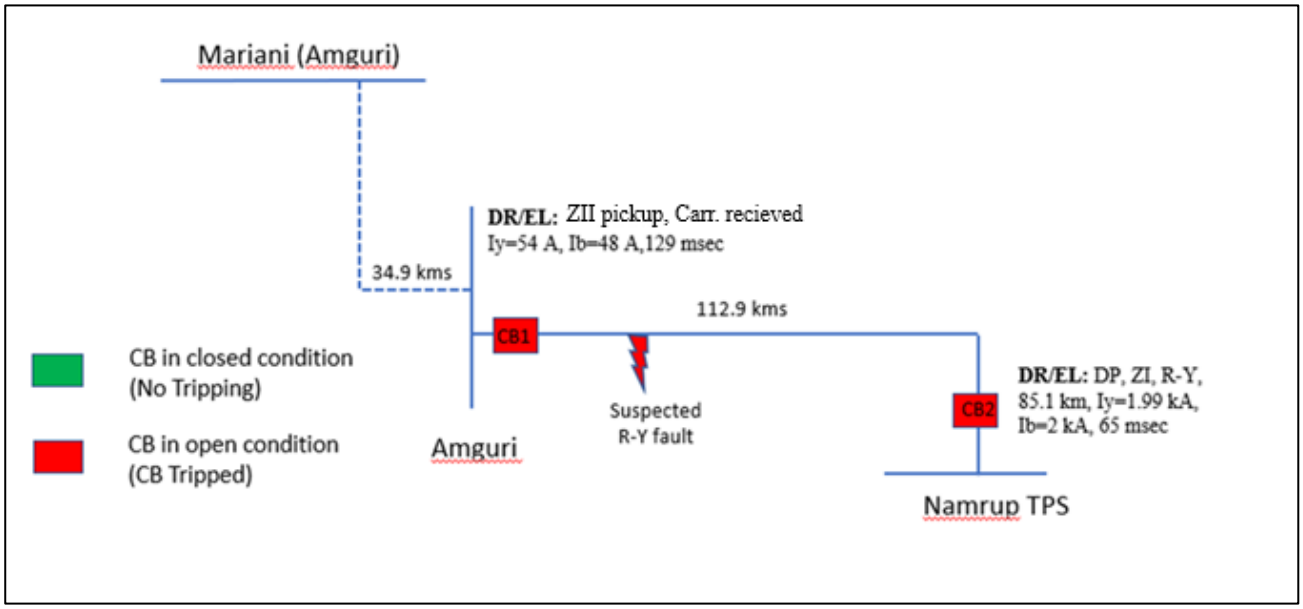
MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

NERLDC informed the forum that TSECL had installed LDP and CB at both ends of the 132 kV Rokhia–Rokhia link feeder in August 2025. It was noted that such grid disturbances are expected to be avoided during future faults in the link feeder.

C.12 Grid Disturbance in Amguri (Jackson) area of Assam Power System area of Assam Power System on 26-06-2025:

Amguri (Jackson) area of Assam Power System was connected to the rest of NER Grid through 220 kV Amguri (Jackson)–Namrup (NTPS) line. Prior to the event, 220 kV Amguri (Jackson)–Mariani (AS) line was under planned shutdown.

At 15:17 Hrs of 26-06-2025, 220 kV Amguri (Jackson)–Namrup (NTPS) line tripped. This tripping led to blackout in Amguri (Jackson) area of Assam power system. Generation loss of 33 MW occurred.



As per DR analysis, Y-B fault (Iy- 1.99 kA, Ib- 2 kA) initiated at 15:19:29.0520 Hrs which was cleared within 65 msec from Namrup TSS end. From Amguri end, Carrier/ DT received (Iy- 54 A, Ib- 48 A).

Following observations:

- 90% 3rd order Harmonic has been observed in DR signal at Amguri end. In this case IBR was obeying LVRT/HVRT Compliance and supply Reactive VAR current was leading the Voltage signal.
- The functionality of such renewable sources with numerous converter control options is much different than the conventional synchronous machine based generating units this lead to Non-homogeneity Issue in IBR Protection.
- Weak infeed issue was observed due to PSD of 220 kV Amguri - Mariani Line and 220 kV Amguri (Jackson)–Namrup (NTPS) line tripped due to DT signal receive from NTPS end.

AEGCL is requested to explore:

- DEF based carrier added protection in case of IBR related protection.
- Weak Infeed Echo scheme.

As per 81st PCC minutes, Forum approved the Weak Infeed echo scheme and requested AEGCL to implement at the earliest.

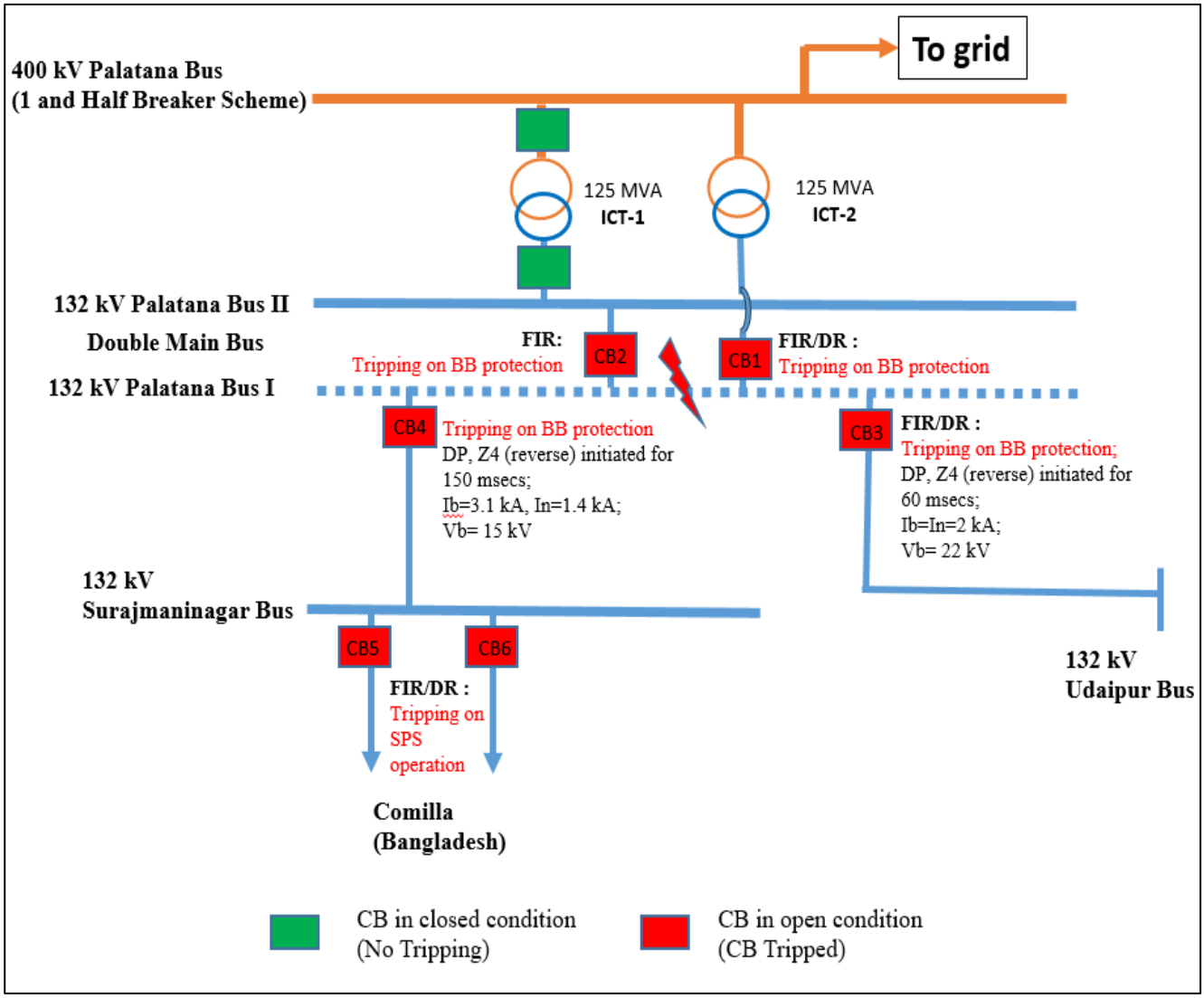
Deliberation

MS NERPC requested the concerned utilities to send the update on the matter through mail to NERPC within one week.

C.13 Repeated tripping of 132 kV Palatana Bus-I on 29th May'25:

Event 1: At 06:42 Hrs of 29.05.2025

At 06:42 Hrs of 29-May-25, 132 kV Palatana Bus-I tripped resulting in tripping of all elements connected to Bus-I namely., 132 kV Palatana-Surajmaninagar, 132 kV Palatana-Udaipur lines & 400/132 kV ICT-II at Palatana. SPS related to Bangladesh operated due to tripping of 132 kV Palatana-Surajmaninagar Line leading to disconnection of 132 kV Surajmaninagar-Comilla D/C lines. (Comilla load disconnection of 28 MW)



As per DR analysis, B-N fault of metallic nature initiated likely in the 132 kV Surajmaninagar Bus I which was cleared on operation Bus bar protection of 132 kV Main Bus I in 70-80 msecs.

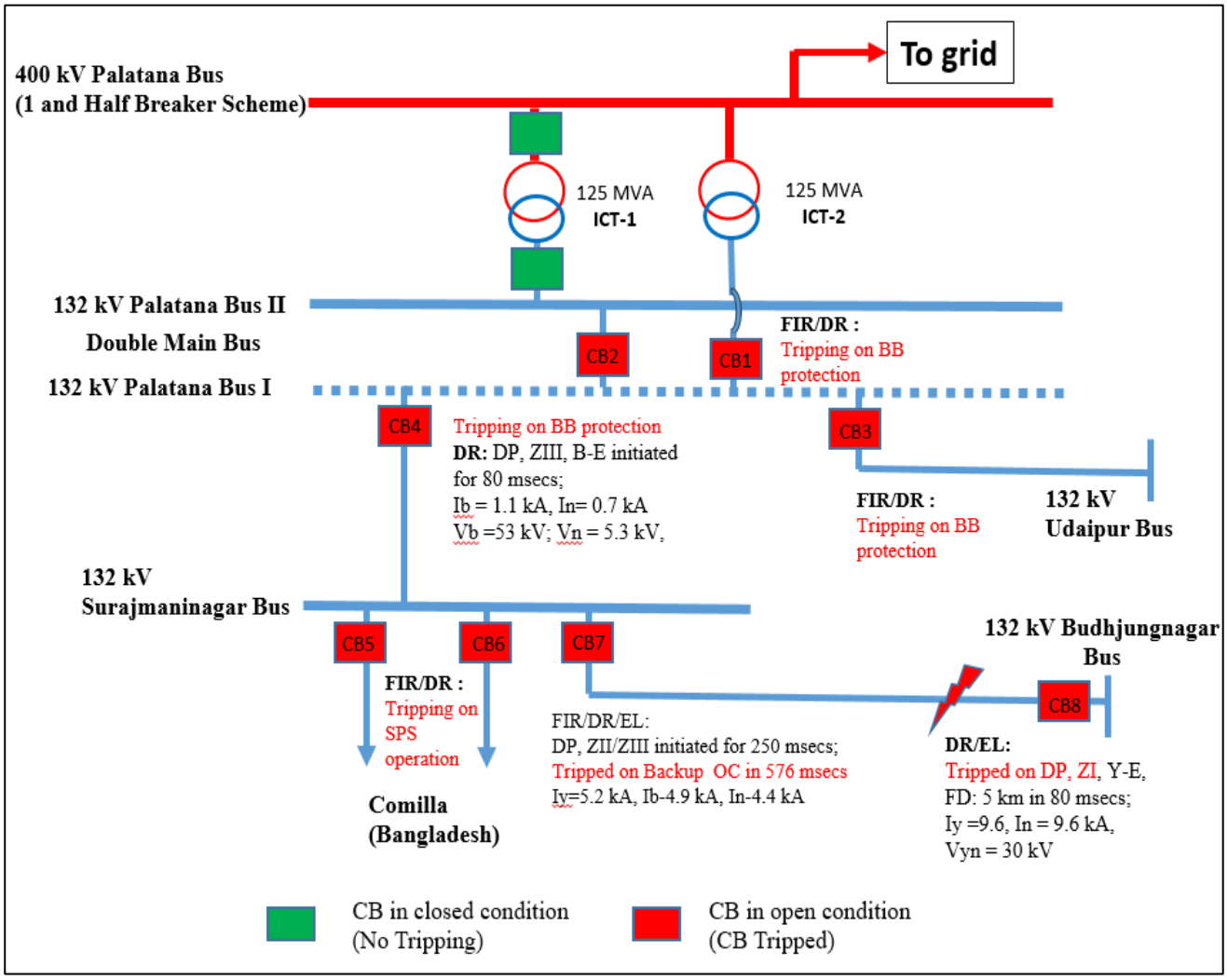
The same fault was detected by the main protection of 132 kV Palatana – Surajmaninagar line & 132 kV Palatana – Udaipur line in ZIV i.e. reverse direction. DR time drift of 1 Hr observed at Palatana end for Surajmaninagar line & 8 min for Udaipur line.

OTPC may share the root cause of the event and remedial measures taken.

Event 2: At 13:08 Hrs of 29.05.2025

At 13:08 Hrs of 29-May-25, 132 kV Palatana Bus-I tripped resulting in tripping of all elements connected to Bus-I. SPS related to Bangladesh operated due to tripping

of 132 kV Palatana-Surajmaninagar Line leading to disconnection of 132 kV Surajmaninagar-Comilla D/C lines (Comilla load disconnection of 28 MW)



As per DR analysis, Y-N fault of metallic nature initiated at 13:08:01.059 Hrs in 132 kV Surajmaninagar – Budhjungnagar line which was cleared from Budhjangnagar in 80 msecs on DP, ZI & Surajmaninagar in 576 msecs on operation of B/U O/C protection (ZII/ZIII started and deactivated after 250 msec)

The same fault was detected by main protection of 132 kV Palatana – Surajmaninagar line in ZIII. However, Bus bar protection of 132 kV Main Bus I sensed the fault & immediately issued trip command to all the feeder connected to the Bus I.

Protection issues:

- Operation of Bus Bar protection due to external fault seems unwanted. Healthiness of BB protection need to be ensured to avoid such misoperation in future.

- DP, ZII/ZIII deactivated at Surajmaninagar for Budhjungnagar line after 250 msecs during forward fault of metallic nature seems unwanted.
- DR time drift of around 10 min observed at Surajmaninagar end for 132 kV Budhjungnagar line. DR time drift of 1 Hr observed at Palatana end for 132 kV Surajmaninagar Line and 8 min for 132 kV Udaipur line.

OTPC & TSECL may update share the root cause and provide update on the above mentioned issues.

As per 80th PCC minutes, OTPC informed regarding both the events that they looked into the root cause of the fault but no issue was found. Hitachi engineer (OEM) will come on 26th June to look into the issue. Forum suggested to check the CT polarity and conduct the Bus Bar stability test during the Hitachi visit.

Deliberation

OTPC informed that Hitachi engineer visited the site and stability test was done, relay was found to be OK.

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Annexure-I

List of Participants in the 82nd PCC Meeting held on 21.08.2025

SN	Name & Designation	Organization	Contact No.
1	Sh. Moli Kamki, AE (E)	Ar. Pradesh	09863703539
2	Sh. Abhishek Kalita, Dy.Mgr, AEGCL	Assam	08486213068
3	Sh. Premjit Waikhem, JE, MSPCL	Manipur	07005348380
4	Sh. Abanta Kumar, JE (Elect.), MSPCL	Manipur	09862870901
5	Sh, H.Lalruatkima, SE,SLDC	Mizoram	09862925462
6	Sh. C.Daniela, EE	Mizoram	09774692357
7	Sh. Yuri Kharpuri, AEE,MePGCL	Meghalaya	09774507325
8	Sh. A.G.Tham, AEE, MRT, MePTCL	Meghalaya	09774664034
9	Sh. Pulovi Sumi, SDO	Nagaland	08575748180
10	Sh. Namheu Khate, EE (T)	Nagaland	09436000800
11	Sh. Alex E.Ngullie, JE, SLDC	Nagaland	08837080321
	-	Tripura	-
12	Sh. S.P.Barnwal, CGM (SL)	NERLDC	09433041812
13	Sh. Biswajit Sahu, CGM (SO)	NERLDC	09425409539
14	Sh. Sajan George, CGM (I/c)	NERLDC	09910378041
15	Sh. Babul Roy, GM (SO)	NERLDC	09436335377
16	Sh. Utpal Das, Dy.Mgr	NERLDC	07005504075
17	Sh. Subhash Kumar, Mgr	NERLDC	09485185844
18	Sh. Manash Jyoti Baishya, Ch.Manager	PGCIL	09435555740
19	Smti. Mamami Talukdar, GM (T)	NEEPCO	09435339690
20	Sh. Manas Pratim Sharma, Sr.Mgr	NEEPCO	08729901871
21	Sh. Mitangshu Saha, Lead-STG	OTPC	07085310211
22	Sh. Sajeev Mohandas, AGM	NTPC	09496006403
23	Sh. Niranjan Rabha, DM	NETC	07002022736
24	Sh. Rajeev Keshari, DM	KMTL	08119051439
25	Sh. Sudip Chanda, Engineer	PRDC	07679364781
26	Sh. Samriddhi Gogoi, AM	INDIGRID	09101330587
27	Sh. K.B.Jagtap, Member Secretary	NERPC	-
28	Sh. Veerandranath Muncha, Director	NERPC	07358529099
29	Sh.Lenin B, Dy.Director	NERPC	08335905973
30	Sh. Vikash Shankar, Asst.Director	NERPC	09455331756