



भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power उत्तर पूर्वी क्षेत्रीय विद्युत समिति North Eastern Regional Power Committee

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

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/2025/1697-1778

August 08, 2025

To As per list attached

Sub: 81वीं संरक्षण समन्वय उप-समिति (पीसीसी) बैठक का कार्यवृत्त/ Minutes of 81st Protection Coordination Sub-Committee (PCC) Meeting

महोदय/महोदया,

कृपया 24 जुलाई 2025 को शिलांग के एनईआरपीसी कॉन्फ्रेंस हॉल में आयोजित 81वीं पीसीसी बैठक के कार्यवृत्त को अपनी जानकारी और आवश्यक कार्रवाई के लिए प्राप्त करें। कार्यवृत 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 81st PCC Meeting held at NERPC conference Hall, Shillong on 24th July 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,

(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.

(डी के बौरी / D K Bauri)

12 12 01/34 2025

निदेशक / Director



# Minutes of 81st PCCM

Govt. of India

Ministry of Power

North Eastern Regional Power Committee

Shillong

### North Eastern Regional Power Committee

#### Minutes of

#### 81st Protection Coordination Sub-Committee Meeting

**Date:** 24/07/2025 (Thursday)

**Time:** 11:00 hrs.

**Venue:** NERPC conference Hall, Shillong

The list of participants is attached as annexure I

#### A. CONFIRMATION OF MINUTES

### 1. <u>CONFIRMATION OF MINUTES OF THE 80<sup>th</sup> PROTECTION SUB-</u> COMMITTEE MEETING OF NERPC.

Minutes of the 80<sup>th</sup> PCC Meeting held on 19th June, 2025 at NERPC Conference Hall, Shillong was circulated vide letter No.: NERPC/SE (O)/PCC/2025/302-343 dated 1st July 2025.

No comments were received from the constituents

Sub-committee may confirm the minutes of the 80th 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
			Shall conduct internal	Annually
			audit of protection system	
	Internal	All users	Audit report to be shared	Within 30 days
	Audit	(132kV and	with RPC	of Audit
		above)	Action plan for rectification	Within 30 days
			of deficiencies to be shared	of Audit
			with RPC	
			Shall conduct audit for	Once in five
			each SS	years
			Shall conduct audit on	Within three
		All users	advice of RPC	months of
		(132kV and		advice of RPC
		above)	Audit report* to be	Within a
			submitted to RPC and	month of
Audit	Third		NERLDC/SLDC	submission of
	party			third-party
	Audit			audit report
			Action plan for rectification	Same as above
			of deficiencies	
		RPC	Compliance to audit	Not specified
			reports to be followed up	
			regularly	
		RPC	After analysis of any event,	Conditional
			shall identify substations	responsibility
			where audit is required to	
			be carried out	

Annual	All users	Annual audit plan to be	Annual
audit plan		submitted to RPC by <b>31</b> st	
		October	

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 3<sup>rd</sup> 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 (80th PCCM)

Sr	Utility/	Interna	al Audit	External audit		
No	Constituents					
		Latest Status report		Latest Status	report	
1.	Ar. Pradesh	Lekhi SS next	Report of	Planning and	NA	
		month.	Chimpu shared	Tendering will be		
		Manpower	for FY 2024-25.	done for audit of all 9		
		shortage issue				

		hampering the internal audit (Total Substation: 09)	Planning to be done for 2025-26	SS. Bid document being prepared.  NERPC conducted audit of Along and Pashighat on 4th and 5th June'25	
2.	Assam	For FY 2025-2026, audits to start from July'25. (Total Substation: 75)	Submitted for FY 2024-25. Planning to be done for 2025-26. To be done and by July 2026	Proposing a team of protection experts from NER utilities to carry out the audits.  Assam and PowerGrid have sent the list of protection experts. Others are requested to end the list.  Other states raised the issue of manpower shortage.  MS NERPC suggested that the state can carry out the audit by hiring reputed	for phase 2017-2022. External audit of only Karimganj
3.	Manipur	For FY 2025-26, audit to be done in Aug-Sept'25  (Total Substation: 08)	Submitted for FY 2024-25. Planning to be done for 2025-26. To be done august 2026	external agencies.  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 July'25	NA

4.	Meghalaya	Internal audit of 132kV Subtations completed for FY 2024-25.	Reports shared for FY 2024-25. Planning to be done for 2025- 26 (July 25)	Audit of 6 SS (Killing, EPIP I, EPIP II, NEHU, Mawlai and Mawphlang) done.  For other substations, lowest	Report shared
		26, audits will start from July'25 (Total Substation: 22)		Offer received from CPRI. Proposal submitted to Board for approval.	
5.	Mizoram	For FY 2025- 26, audits to start from July'25 subject to rainfall condition. Tentative plan shared with NERPC and NERLDC. (Total Substation: 10)	Report shared for FY 2024-25. Planning to be done for 2025-26(July2025)	List of external agencies awaited. Searching for parties to conduct audit.  Audit of Kolasib, Aizawl, Melriat (PG), Zuangtui and Luangmual may be done in Aug'25 by NERPC.	NA
6.	Nagaland	For FY 2025- 26, audit will start next month(Total 11 S/s)	-	Audit of 5 SS to be done in Aug'25 by NERPC. For rest, to be planned later.	NA
7.	Tripura	Will start audit from Nov.25 (Total Substation: 18)	Shared for 13 SS for FY 2024- 25. But, NERPC informed that the report is	List of external agencies awaited. Facing financial constraints.	NA

0	Downwaid	22 Substations	incomplete as all the formats have not been provided.  TSECL to provide complete formats by April'25.  Planning to be done for 2025-26	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	Report shared.  Internal audit plan for FY 2025-26 has been shared.  Audit of 2 SS are done very month. 2 done in June'25	Planning for external agencies. Matter is under process.  Audit of Roing and Tezu was conducted by NERPC on 4th and 5th June'25	
9.	NTL	No representative	To be shared soon	No representative.	
10	KMTL	completed the internal audit for 400/220 KV GIS Substation, New Kohima in July 2024	Internal audit for FY 2025-26 will be conducted tentatively during July'25	Requested forum to suggest the External audit panel members.	
11	MUML/NBTL	Internal audit plan for 2025- 26 has been shared	Internal Audit done for FY 2024-25. Planning to be done for 2025-26	Forum advised to Plan for March'26	

### $Minutes \,|\, 81^{st} \, PCCM \,\,|\, 24^{th} \, July \,\, 2025 \,\,|\, Shillong$

12	NEEPCO	Internal audit	All shared for FY	Discussion with CPRI	
	(Total	plan for FY	2024-25.	underway. Doyang in	
	Substation:	2025-26 has	Planning to be	May 2025. Waiting for	
	10)	been shared.	done for 2025-	price offer.	
			26		
		Will start in			
		Nov.25			
13	OTPC	For FY 2025-	Shared for FY	Done	shared
	(Palatana)	26, to be done I	2024-25.		
		Aug-Sept25	Planning to be		
			done for 2025-		
			26		
14	NTPC	For FY 2025-	Shared for FY	Done (by CPRI)	Complete
	(BgTPP)	26, to be in	2024-25.		Report
		Nov.25	Planning to be		shared.
			done for 2025-		Action plan
			26(November		shared.
			25)		
15	NHPC	To be done in	Internal audit to	To be done in July'25	
	(Loktak)	July'25	be done before		
			June		
			2025(July/Aug		
			ust 2025)		
16	APGCL	Utilities to updat	te status		
17	TPGCL				
.					
18	MEPGCL	Audit of Stg III	Report shared	External audits of all	
		and stg IV to be		generating stations	
		done by		were done in 2021.	
		Nov'25.		Audit of Umiam	
		Internal audit		Stg-I & Stg-IV	
		plan for all S/S		planned during	
		for FY 2025-26		Nov'25. For other	
		to be shared.		1.0. 40. 101 00101	
		<u> </u>	<u> </u>		

		Leshka and	S/S, planning being	
		Umiam stgIV	done.	
		done last		
		month		
19	Dikshi HEP	DoP Ar.	DoP Ar. Pradesh	
	(IPP)	Pradesh	transmission division	
		transmission	has written a letter to	
		division has	the plant, reply still	
		written a letter	awaited.	
		to the plant,		
		reply still		
		awaited.		

#### Further deliberations of 80th PCCM

MS NERPC advised that -

- 1. Captive power plants connected with the grid can also conduct the internal and external audits and requested SLDCs to coordinate with them.
- 2. the external audit reports of the utilities to be studied by a team comprising of member from NERPC, NERLDC and PowerGrid and list of recommended actions to be finalised and presented in PCC meetings so that the regular update may be taken on work progress.
- 3. He also suggested audit team to inspect UFR during audit.

#### Deliberation:

Utilities provided the status of audits as follow-

Sr	Utility/	Internal Audit		External audit		
No	Constituents					
		Latest Status	report	Latest Status	report	
1.	Ar. Pradesh	Tentative		Planning and	l NA	
		schedule		Tendering will be	9	
		provided in the		done for audit of all 9	)	
		google sheet of		SS. Bid documen	t	
		NERLDC		being prepared.		
		(Total				
		Substation: 09)				

			Forum requested to	
			provide the tentative	
			schedule of audit	
2.	Assam	For FY 2025-	Reviewing the	
	1100011	2026, audits to	standard Bid	
		start from	document as	
		Aug'25; will	presented in the 29 <sup>th</sup>	
		share the audit	TCC & NERPC	
		plan to NERPC	meeting by NERPC.	
		and NERLDC	Considering the	
		(Total	option of hiring	
		Substation: 75)		
		Substation. 73)	external agencies for conducting the	
			audits; will start next	
			year	
3.	Moninus	For FY 2025-	8 SS to be done, NA	
3.	Manipur		, , , , , , , , , , , , , , , , , , ,	
		26, audit to be		
		done in	decided, subject to	
		Sept'25;	law and Order	
		schedule to be	situation.	
		updated in the	Audit of Yurembam	
		google sheet.	ss, Ningthounkong ss	
		(T) 4 - 1	and Imphal (PG) may	
		(Total	be done by NERPC	
		Substation: 08)	team in Aug'25	
4.	Maghalarra	Audit of	Work order to be	
4.	Meghalaya			
		Umiam and Sohra done in	issued to CPRI. Audit	
			plan will be shared	
		July'25, rest to	after discussing with	
		be done later.	CPRI	
		(Total		
		Substation: 22)		

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

		T = . = .	T	T	ı
		S/S, Umiam			
		Stg-I&II to be			
		conducted			
		during Aug'25			
		& Ganol			
		during			
		Sep'25.			
19	Dikshi HEI	DoP Ar.		DoP Ar. Pradesh	
	(IPP)	Pradesh		transmission division	
		transmission		has written a letter to	
		division has		the plant, reply still	
		written a letter		awaited.	
		to the plant,			
		reply still			
		awaited.			

#### Forum noted as above

# B.2 Analysis and Discussion on Grid Disturbances which occurred in NER grid in June'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

<sup>^</sup>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 June 2025 based on the draft report prepared by NERLDC.

#### **Deliberation**

NERLDC informed that 36 GDs and one GI occurred in June'25. Out of 36 GDs, 21 occurred due to radial nature of the network. Further it was informed that the non-radial GDs have been put up for discussion in further agenda items.

Forum urged all utilities to conduct proper maintenance of line and vegetation clearance on regular basis in order to reduce GDs of radial nature. Also, AR to be implemented in lines to avoid outage of lines due to transient fault.

# B.3 Status of submission of FIR, DR & EL outputs for the Grid Events for the month of June'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 01-06-2025 to 30-06-2025 as on **15-07-2025** 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	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
APGCL	2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
DoP, Arunachal Pradesh	21	51.35%	48.65%	100.00%	78.38%	21.62%	100.00%	75.68%	21.62%	97.30%
DoP, Nagaland	12	41.18%	58.82%	100.00%	35.29%	64.71%	100.00%	17.65%	82.35%	100.00%
KMTL	2	50.00%	50.00%	100.00%	50.00%	50.00%	100.00%	50.00%	50.00%	100.00%
MePGCL	4	33.33%	66.67%	100.00%	33.33%	66.67%	100.00%	0.00%	50.00%	50.00%
MePTCL	38	98.33%	1.67%	100.00%	95.00%	5.00%	100.00%	86.67%	13.33%	100.00%
MSPCL	15	25.00%	50.00%	75.00%	37.50%	31.25%	68.75%	43.75%	31.25%	75.00%
NEEPCO	5	41.18%	52.94%	94.12%	58.82%	41.18%	100.00%	58.82%	35.29%	94.12%
NHPC	5	33.33%	50.00%	83.33%	33.33%	50.00%	83.33%	33.33%	50.00%	83.33%
NTL	1	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%
OTPC	2	50.00%	50.00%	100.00%	50.00%	50.00%	100.00%	50.00%	50.00%	100.00%
P&ED Mizoram	4	0.00%	50.00%	50.00%	0.00%	50.00%	50.00%	0.00%	50.00%	50.00%
POWERGRID	22	57.14%	42.86%	100.00%	71.43%	28.57%	100.00%	76.19%	23.81%	100.00%
TSECL	8	0.00%	91.67%	91.67%	8.33%	91.67%	100.00%	0.00%	100.00%	100.00%

FIR/DR/EL submission status of utilities having tripping of Generating Units as on 15-07-2025:

Owner Name	No. of tripping	FIR				DR		EL		
			Total Furnished after 24hrs %			Total Furnished after 24hrs %	Total furnished %	Total Furnished after 24hrs %	Total Furnished in 24hrs %	Total furnished %
MePGCL GENERATION	4	100.00%	0.00%	100.00%	75.00%	25.00%	100.00%	75.00%	25.00%	100.00%
NEEPCO GENERATION	12	33.33%	66.67%	100.00%	75.00%	25.00%	100.00%	75.00%	25.00%	100.00%
NHPCGENERATION	1	100.00%	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%	100.00%
OTPC GENERATION	2	0.00%	100.00%	100.00%	100.00%	0.00%	100.00%	100.00%	0.00%	100.00%

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 (<a href="https://tripping.nerldc.in/Default.aspx">https://tripping.nerldc.in/Default.aspx</a>) for analysis purpose. In light of the cybersecurity measures implemented by Grid India to safeguard sensitive information, NERLDC has created the email address <a href="mailto:nerldcso3@gmail.com">nerldcso3@gmail.com</a>. 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 (<a href="https://tripping.nerldc.in/Default.aspx">https://tripping.nerldc.in/Default.aspx</a>)

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/1rlksf6KO9LgQQ6bwMRDmbwm906We 1ysfR7KjrTxhG34/edit?gid=0#gid=0

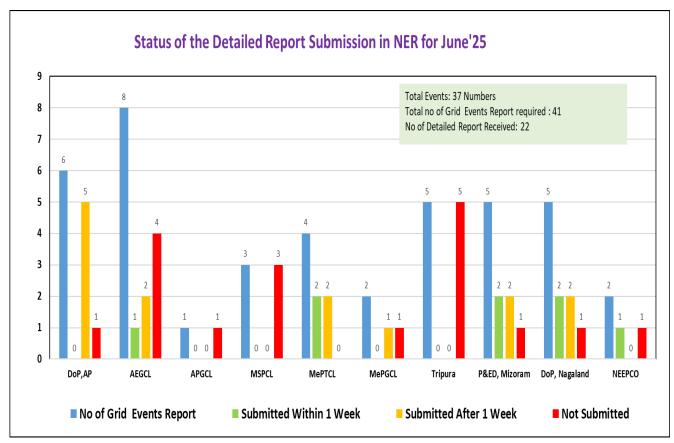
#### Members may discuss.

#### **Deliberation**

Forum urged all utilities to submit FIR/DR/EL in tripping portal within 24 Hrs of tripping as per IEGC-23. MSPCL informed that DR could not be submitted due to lack of DR downloading facility laptop at site. Forum urged MSPCL to expedite laptop procurement.

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

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 **June, 2025** as on **15-07-2025** is shown below:



APGCL, MSPCL, Tripura and NERTS have not submitted the detailed report of grid events. Also, we have received 8 reports within one week of time and 12 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.

#### Members may discuss.

#### **Deliberation**

APGCL: Absent

MSPCL: 2 GD report of Rengpang & 1 GD report of Ningthoukhong not submitted. To be shared shortly.

MePGCL: 1 GD report of Leshka HEP not submitted. To be shared shortly.

TPTL: 3 GD report not submitted. To be shared shortly.

P&ED Mizoram: 1 GD report of Bairabi not submitted. To be shared shortly.

NEEPCO: Not submitted for grid event at Tuirial HEP. To be shared shortly.

Forum appreciated DoP Arunachal Pradesh, AEGCL & MePTCL for submission of detailed report.

Forum urged all utilities for timely submission of detailed report as per grid code.

# B.5 Non-operation of auto recloser in Important Grid Elements for transient faults in June 2025:

S1. No	Element Name	Tripping Date and Time	RELAY_	RELAY_B	Auto- Reclose r not Operate d	Remarks from Utility
1	132 kV Agia - Nangalbibra Line	03-06- 2025 00:48:00	No Tripping	DP, ZI, 45.93 km	Nangalbi bra (MePTCL	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

S1. No	Element Name	Tripping Date and Time	RELAY_	RELAY_B	Auto- Reclose r not Operate d	Remarks from Utility
						phase AR to be enabled by AEGCL.
4	Jawaharnagar - Samaguri Line	12-06- 2025 03:05:00	DP, ZI, R-E	DP, ZI, R- E, 91.9 Km	Both ends (AEGCL)	Fault in reclaim time
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		AR not operated due to multi-phase fault. Single phase AR enabled. Three phase AR to be enabled by AEGCL.
6	220 kV- MAWNGAP- BYRNIHAT (KILLING)-1	15-06- 2025 13:40:00	DP, ZI, R-E	DP, ZI, Y-E, AR successful, fault reappeared on reclaim time	Mawnga p (MePTCL	AR not operated as multi-phase fault occurred.
7	132 kV Dimapur - Doyang 2 Line	15-06- 2025 15:38:00	DP, Y-E, ZII, 95.3 Km, Carrier aided tripping,	DP, ZI, Y- E, 64 Kms	Doyang (NEEPC O)	CB replacement to be done. Order placed, will receive the CB by Dec'25

S1. No	Element Name	Tripping Date and Time	RELAY_	RELAY_B	Auto- Reclose r not Operate d	Remarks from Utility
			AR successf ul			
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	2025	DP, ZI, Y-E, AR successf ul	DP, ZI, Y-E	Panchgr am (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 successf ul	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.

S1. No	Element Name	Tripping Date and Time	RELAY_	RELAY_B	Auto- Reclose r not Operate d	Remarks from Utility
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
14	132 kV Namsai - Tezu Line	25-06- 2025 15:15:00	DP, ZI, R-E	DP, ZI, R- E, AR successful	Namsai (PG)	AR attempted from Namsai end. However, tripped due to permanent fault (Jumper open)
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

S1. No	Element Name	Tripping Date and Time	RELAY_	RELAY_B	Auto- Reclose r not Operate d	Remarks from Utility
						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.

#### Sub-committee noted as above

#### B.6 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 15.07.2025, NETC, MUML, NBTL, KMTL, DoP Nagaland, MePTCL, POWERGRID, NTPC, OTPC, NEEPCO (Panyor, Kameng, Kopili, Pare, Monarchak) & MePGCL has submitted protection performance indices for the month of June'25.

S1.	Name of	D=	S=	R=	
No	Transmissio	(Nc/	(Nc/	(Nc/	Remarks
•	n Licencee	Nc+Nf)	Nc+Nu)	Nc+Ni)	
1	NETC	-	-	_	No bay owned by NETC
2	MUML	-	-	-	No tripping during June'25
3	NBTL	-	_	-	No tripping during June'25
4	KMTL	1	1	1	
4	DoP Nagaland	1	1	1	
5	MePTCL	0.945	1	0.945	
	Mustem	0.5	1	0.5	At 14:00 Hrs of 19.06.2025, 132 kV Mustem-Khleihriat Line tripped. Operation of Z3 instead of Z2 from Mustem end.
	Lumshnong	0.857	1	0.857	Failed opening of CB at Lumshnong end for 132 kV Khleihriat line on 25.06.2025
6	POWERGRID	1	1	1	
7	DoP Arunachal Pradesh	-	-	-	Not Submitted
8	AEGCL	-	-	_	Not Submitted
9	NTL	-	-	-	Not Submitted
10	MSPCL	-	-	-	Not Submitted
11	P&ED Mizoram	-	-	-	Not Submitted
12	TSECL	-	-	-	Not Submitted

S1.	Name	of	D=	S=	R=	
No.	Generating		(Nc/	(Nc/	(Nc/	Remarks
NO.	Company		Nc+Nf)	Nc+Nu)	Nc+Ni)	

Minutes | 81st PCCM | 24th July 2025 | Shillong

1	NTPC	1	1	1	
2	OTPC	1	1	1	
3	NEEPCO	1	0.46	0.46	
	Panyor	1	1	1	
	Kameng	1	0.25	0.25	Unwanted tripping of 132 kV Bus coupler at Kameng on 12.06.2025 & 23.06.2025, unwanted tripping of 400/132 kV ICT at Kameng on 14.06.2025
	Kopili	1	0.2	0.2	On 26.06.2025, failure in the Station DC charger, which led to the interruption of DC supply to essential protection and control circuit leading to tripping of Kopili Unit-1,2,3,4
	Monarchak	1	1	1	
	Pare	1	1	1	
4	MePGCL	1	1	1	
5	NEEPCO(AGBPP, Doyang)	_	-	-	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**

Submitted by NETC, MUML, NBTL, KMTL, DoP Nagaland, MePTCL, POWERGRID, DoP Arunachal Pradesh, AEGCL, P&ED Mizoram, TSECL, NTPC, OTPC, NHPC, NEEPCO (Panyor, Kameng, Kopili, Monarchak, Pare) & MePGCL. Not received from

transmission utilities such as NTL, MSPCL. Also, not received from Generating companies such as APGCL, NEEPCO(AGBPP & Doyang)

Forum urged all utilities for timely submission of protection performance indices.

#### B.7 Time Drift issue of submitted Disturbance recorder during June 2025:

As per Regulation No. 17(1) of IEGC 2023- All users shall keep the recording instruments (disturbance recorder and event logger) in proper working condition. As per Regulation No. 17(3) of IEGC 2023, the time synchronization of the disturbance recorders shall be corroborated with the PMU data or SCADA event loggers by the respective RLDC. Disturbance recorders which are non-compliant shall be listed out for discussion at RPC.

List of elements with time drift issue in the submitted DRs for June 2025 are as follows:

S		Tripping				Remarks as on
L	Element	Date	SENDOW	RENDOWN	Time synch	81st PCC
N	Name	and	NER	ER	Time synch	meeting
0		Time				
	132 kV-					GPS rectified
	Myntdu	01-06-	MePGCL	MePTCL	13 min (lag)	on 16 <sup>th</sup> July'25
1	Leshka-	2025			at Mynkre	
	Mynkre 1	05:37:00			at Wylikic	
	Line					
	132KV-		MePGCL	MePTCL	13 min (lag)	GPS rectified
	Myntdu	01-06-				on 16 <sup>th</sup> July'25
2	Leshka-	2025			at Mynkre	
	Mynkre 2	05:37:00			at Wylikie	
	Line					
	132KV-	01-06- 2025 05:37:00	MePTCL	MePTCL		GPS rectified
3	Mynkre (ME)-				7 min (lag) at	on 16 <sup>th</sup> July'25
	Khliehriat(M		WICI TCL		Mynkre	
	E)-1	03.37.00				
	220 kV BTPS	03-06-	AEGCL	AEGCL	1 Hr (Main II	Cable issue in
4	- Rangia 2	2025			relay) at	GPS. Taken up
	Line	01:16:00			BTPS	with OEM for

S		Tripping				Remarks as on
L	Element	Date	SENDOW	RENDOWN	Time synch	81st PCC
N	Name	and	NER	ER		meeting
o		Time				
5	220 kV BTPS	06-06- 2025	AEGCL	AEGCL	1 Hr (Main II	rectification. Timeline: within 6 months  Cable issue in GPS. Taken up with OEM for rectification.
5	- Rangia 2 Line	12:38:00	AEGCL	AEGCL	relay) at BTPS	Timeline: within 6 months
6	220 kV Byrnihat - Misa 1 Line	08-06- 2025 11:39:00	MePTCL	POWERGR ID	6 min at Byrnihat	Line tripped at 11:33 Hrs
7	132 kV Dullavcherra - Hailakandi Line	10-06- 2025 10:16:00	AEGCL	AEGCL	28 min – Dullavchher a 4 min- Hailakandi	Cable issue in GPS. Taken up with OEM for rectification. Timeline: within 6 months
8	132 kV Dharmanaga r - P K Bari Line	10-06- 2025 18:45:00	TSECL	TSECL	5 min (lag) at PK Bari 20 min (lag) observed at Dharmanag ar	No GPS.  Manually  corrected.

S		Tripping				Remarks as on
L	Element	Date	SENDOW	RENDOWN		81st PCC
N	Name	and	NER	ER	Time synch	meeting
o		Time				
9	132KV- Mynkre (ME)- Khliehriat(M E)-1	19-06- 2025 14:00:00	MePTCL	MePTCL	9 min at Mynkre	GPS rectified on 16 <sup>th</sup> July'25
1 0	132KV- Mynkre (ME)- Khliehriat(M E)-2	19-06- 2025 14:00:00	MePTCL	MePTCL	9 min at Mynkre	GPS rectified on 16 <sup>th</sup> July'25
1 1	132 kV Hailakandi - Panchgram Line	22-06- 2025 21:52:00	AEGCL	AEGCL	5 min at Panchgram	Cable issue in GPS. Taken up with OEM for rectification. Timeline: within 6 months
1 2	132 kV Margherita - Tinsukia Line	22-06- 2025 22:59:00	AEGCL	AEGCL	4 min at Margherita	Cable issue in GPS. Taken up with OEM for rectification. Timeline: within 6 months
1 3	132 kV Along-Basar Line	23-06- 2025 16:52:00	DoP AP	DoP AP	1 Hr at Along	No GPS.  Manually  corrected on  monthly basis.
1 4	132 kV Panchgram -	23-06- 2025 21:05:00	AEGCL	MePTCL	5 min at Panchgram	Cable issue in GPS. Taken up with OEM for

S		Tripping				Remarks as on
L	Element	Date	SENDOW	RENDOWN	Time synch	81st PCC
N	Name	and	NER	ER	Time synch	meeting
0		Time				
	Lumshnong					rectification.
	Line					Timeline:
						within 6
						months
1	132 kV	28-06-			32 min at	No GPS.
5	Agartala -	2025	TSECL	TSECL	Rokhia	Manually corrected.
	Rokhia 1 Line	06:06:00				
1	132 kV	28-06-			3 min at	No GPS.
6	Agartala -	2025	TSECL	TSECL	Rokhia	Manually
0	Rokhia 2 Line	06:06:00				corrected
1	132 kV	28-06-			3 min at	No GPS.
$\begin{vmatrix} 1 \\ 7 \end{vmatrix}$	Monarchak -	2025	NEEPCO	TSECL	Rokhia	Manually
	Rokhia Line	06:06:00			Nokilia	corrected

Utilities should ensure that the submitted DR and EL files have correct time synchronization for proper analysis purposes.

As per 80<sup>th</sup> PCC minutes, Availability/healthiness of GPS needs to be ensured and time to be adjusted as per grid code.

#### **Deliberation**

Forum urged that utilities should ensure that the submitted DR and EL files have corrected time synchronization for proper analysis purposes. Utilities to ensure healthiness of GPS in all substations and expedite installation of GPS wherever GPS is not present.

#### B.8 Repeated tripping of 220 kV Misa-Kopili-II Line during July'25:

220 kV Misa-Kopili II line tripped multiple times (3 times) during July'25 which is a matter of serious concern.

The details of tripping are tabulated as below:

S1.	Name of Element	Tripping	Date	DR Analysis (End	DR Analysis (End
No.		& Time		<b>A</b> )	В)

1	220 kV Misa-Kopili	21:54 Hrs of 01-	DT received	CB tripped (DT
	II Line	07-2025	DI leceived	send as per FIR)
2	220 kV Misa-Kopili	23:32 Hrs of 01-	DT received	CB tripped (DT
	II Line	07-2025	Di Teceived	send as per FIR)
3	220 kV Misa-Kopili	01:49 Hrs of 03-	DT received	CB tripped (DT
	II Line	07-2025	Diffectived	send as per FIR)

As per DR signal, there was no fault observed in the system.

Spurious DT send from Kopili end to Misa end which resulted in tripping of 220 kV Misa-Kopili II Line.

NEEPCO is requested to thoroughly investigate the issue of DT send from Kopili end to prevent further recurrence of this event.

Also, NEEPCO is requested to conduct end-to-end relay testing in co-ordination with POWERGRID.

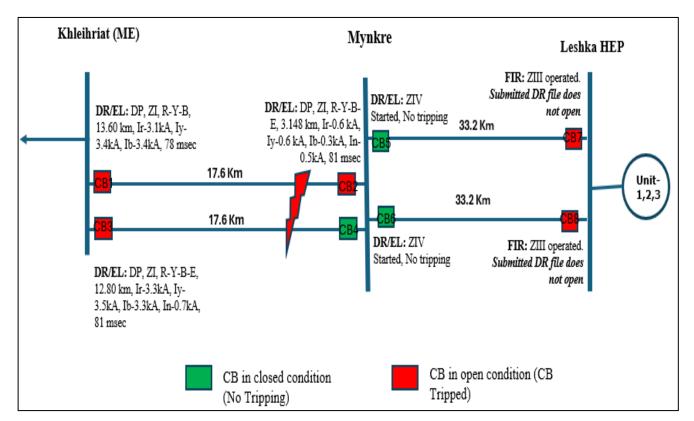
Similar event occurred at 11:21 Hrs of 16.04.2025.

#### **Deliberation**

Spurious hand trip command sent by relay to CB at Kopili end due to issue in BCU. Consequently, DT was sent from Kopili to Misa. BCU reset and issue rectified.

# B.9 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. <u>Deliberation</u>

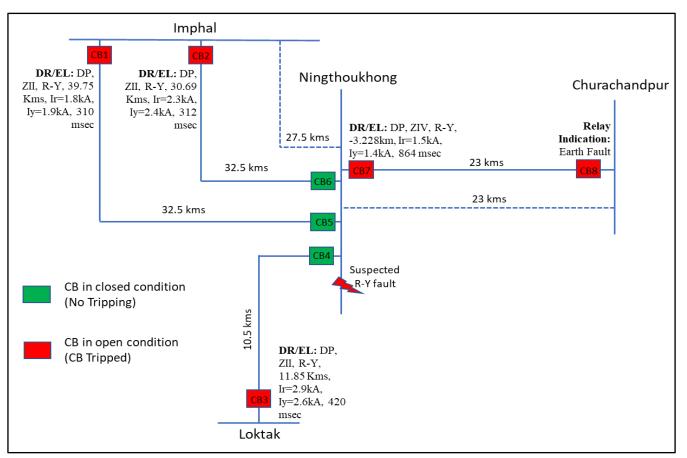
MePTCL informed that fault was due to lightning.

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.

# B.10 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 abovementioned issues.

#### **Deliberation**

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.

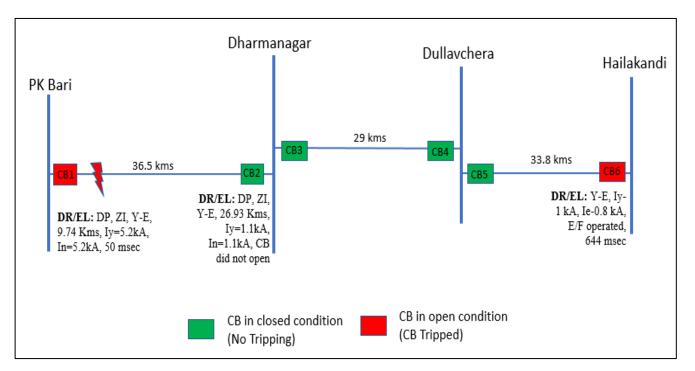
Forum asked Manipur to submit the DRs of CB4, CB5, CB6 & CB8 for facilitating complete analysis.

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

# B.11 Grid Disturbance in Dharmanagar area of Tripura Power System and Dullavchera area of Assam Power System on 10<sup>th</sup> 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.

TSECL may update the root cause and actions taken on the above mentioned issues.

#### **Deliberation**

Tripura informed that a high resistive fault occurred in the 132 kV P K Bari-Dharmangar 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.

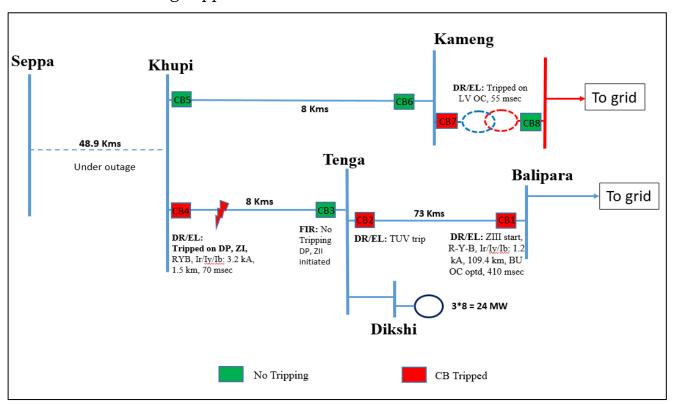
Forum also noted that EF operation at Hailakandi is aggressive and the settings have to be coordinated with EF of Dharamanagar and Dullavchera substations.

E/F setting at Hailakandi end for 132 kV Dullavchera line needs to be reviewed & coordinated with ZIII time delay. TMS to be changed.

# B.12 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).

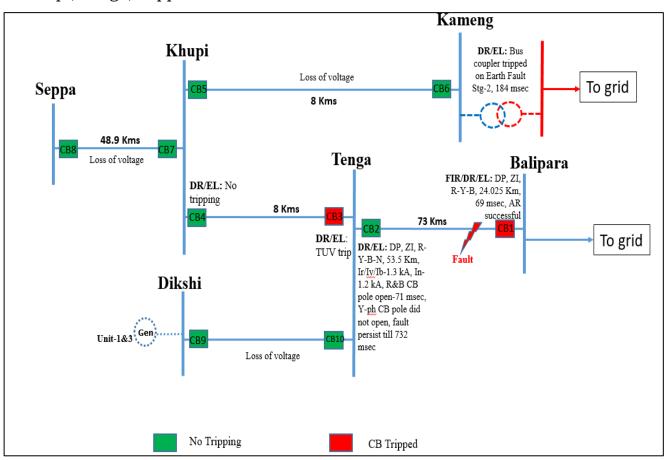
Tripping of 132 kV Balipara – Tenga line on operation of OC within 410 msecs. DPR detected the fault in ZIII.

#### 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.

#### Deliberation

## 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.

# B.13 <u>Tripping of 400 kV Bongaigaon-Byrnihat Line & 80 MVAR Bus Reactor at</u> Byrnihat on 12<sup>th</sup> June'25:

At 06:05 Hrs of 12-06-2025, 400 kV Bongaigaon-Byrnihat Line and 80 MVAR Bus Reactor at Byrnihat tripped.

As per submitted DR, at 06:04:43.888 Hrs, Main & Tie CB at Bongaigaon tripped. DT signal received at Byrnihat (as per FIR).

At the same time, 80 MVAR Bus Reactor at Byrnihat also tripped as 86 relay of Bus Reactor and 400 kV Bongaigaon-Byrnihat line are interconnected (as per FIR) POWERGRID/MePTCL is requested to furnish:

- Root cause of the event.
- Reason of DT receipt at Byrnihat end.
- Reason of interconnection of 86 relay of Bus Reactor at Byrnihat & 400 kV Bongaigaon-Byrnihat Line and rectification of the same to avoid further recurrence.

### **Deliberation**

PowerGrid informed, regarding tripping of main and Tie CB at Bongaigaon, that there was some issues with the Auxiliary relay and the same has been replaced.

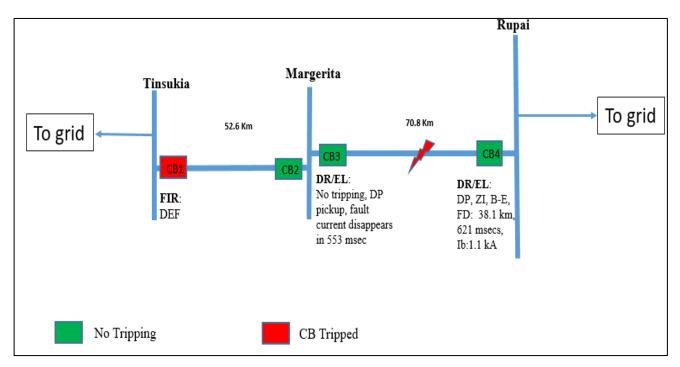
Regarding tripping of Bus reactor, Meghalaya informed that there was interconnection of 86 relay of Bus reactor & the 400 kV Bongaigaon-Byrnihat line. Forum asked Meghalaya to separate the 86 relay of both the elements at the earliest.

## B.14 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.

### Minutes | 81st PCCM | 24th July 2025 | Shillong



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).

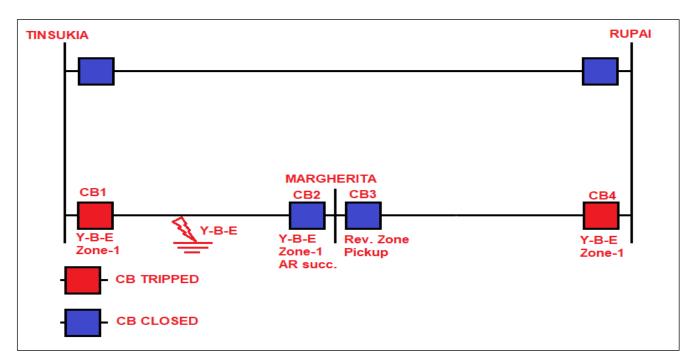
Fault cleared from Tinsukia end on operation of DEF (as per FIR, DR/EL not submitted)

### 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.

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

#### **Deliberation**

#### 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. Regarding time drift issue at Rupai, AEGCL informed there is cable issue in GPS. The same has been taken up with OEM for rectification.

### Event 2

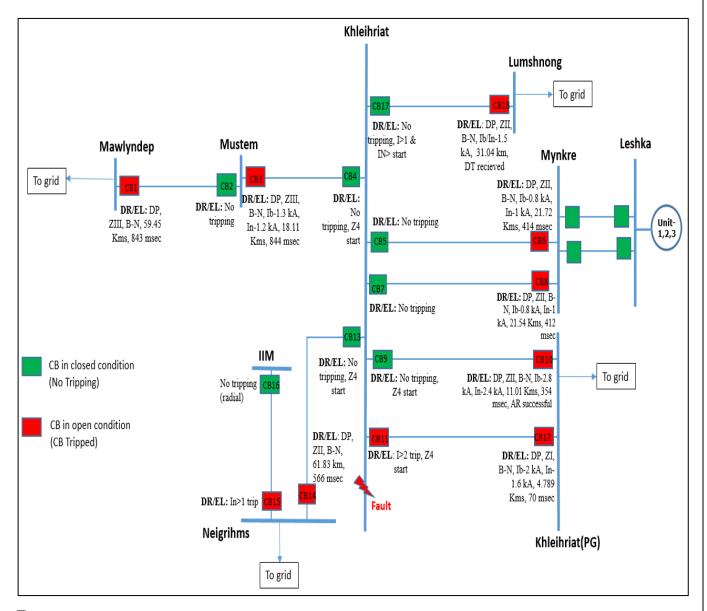
Forum noted that zone 1 at Rupai for 132 kV Margherita line is overreaching and requested AEGCL to revise the reach of Zone1 protection. AEGCL informed S/D will be taken for tesing of relay.

Regarding non-operation of AR at Tinsukia end, AEGCL informed AR not operated due to multi-phase fault. Single phase AR is enabled. Three phase AR to be enabled by AEGCL. Regarding time drift issue at Margherita, AEGCL informed there is cable issue in GPS. The same has been taken up with OEM for rectification.

# B.15 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.

# MePTCL may update the actions taken on the above mentioned issues. Deliberation

- 1. MePTCL informed that the Bus fault occurred at Khliehriat (ME) due to accidental contact of cables near the bus.
- 2. Protection Issues:

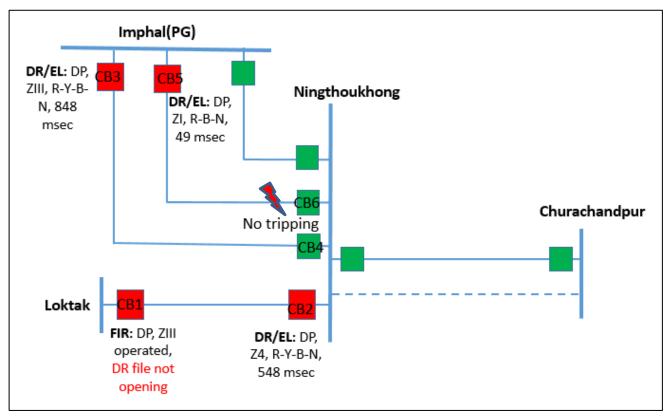
# Minutes | 81st PCCM | 24th July 2025 | Shillong

S1. No.	Issues	Remarks
1	132 kV Khleihriat-Khleihriat(PG) II	ZI overreaching issue. ZI reach
	line tripped on ZI from Khl(PG) end	setting to be reviewed.
	for fault in 132 kV Khleihriat Bus	
2	132 kV Khleihriat-Khleihriat(PG) II	Highset O/C setting to be disabled at
	line tripped on I>2 from Khl(ME)	Khl(ME)
	end	
3	AR operated successfully at	AR successful due to incorrect
	Khleihriat(PG) end for 132 kV	mapping which has been rectified.
	Khleihriat-Khleihriat(PG) I Line	
4	Tripping of 132 kV Mustem-	LFL of the feeder was carried out to
	Khleihriat line on Z3 from Mustem	ascertain the exact line length and
	end	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	To be checked by MePTCL
	132 kV Khleihriat Line	
6	Tripping of 132 kV Neigrihms-IIM	Rectified
	line on E/F from Neigrihms end for	
	fault in reverse direction is	
	unwanted	
7	Tripping of Umiam Stg-II Unit-2 for	GT O/C protection operated. To be
	fault in 132 kV Khleihriat Bus	checked by MePGCL. Forum directed
		MePGCL to review the settings of OC
		protection and coordinate it with
		downstream lines.
8	Time drift of 9 min observed at	GPS rectified on 16th July'25
	Mynkre end for Khleihriat line -	
	1&2 lines	

3. 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.

# B.16 <u>Multiple tripping in Ningthoukhong S/S of Manipur power system on 20<sup>th</sup></u> 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.

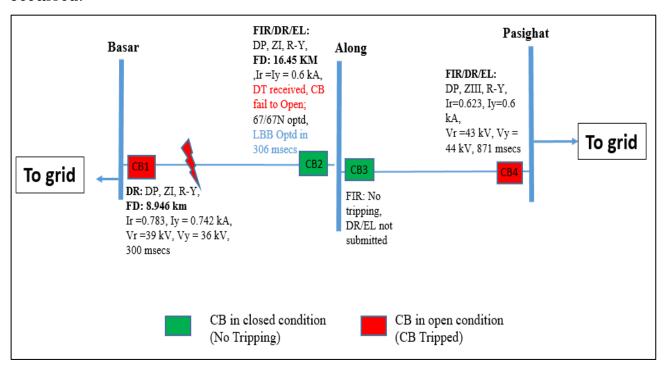
## **Deliberation**

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.

# B.17 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.

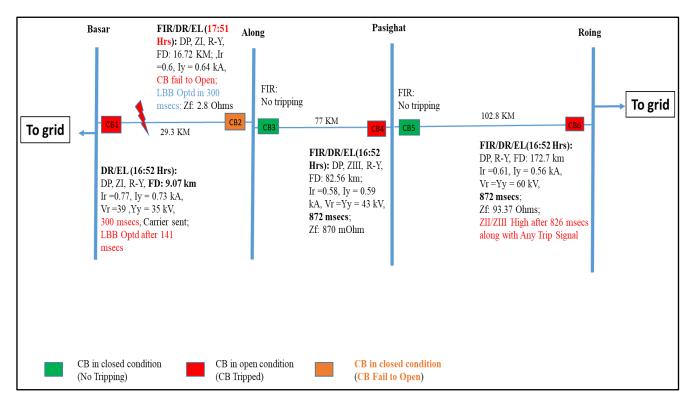
Following observations:

- **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.

### Minutes | 81st PCCM | 24th July 2025 | Shillong



### 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.

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

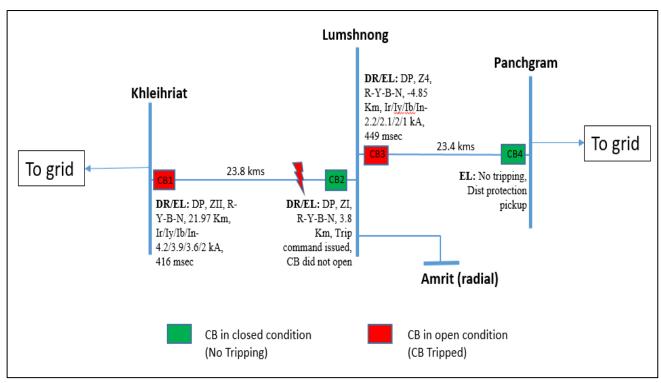
### **Deliberation**

- 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 Roing-Pasighat line to be carried out to ascertain the exact line length.

# B.18 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.

#### **Deliberation**

Regarding non operation of CB2, MePTCL informed that the CB was in lockout due to low SF6 gas pressure which has been refilled.

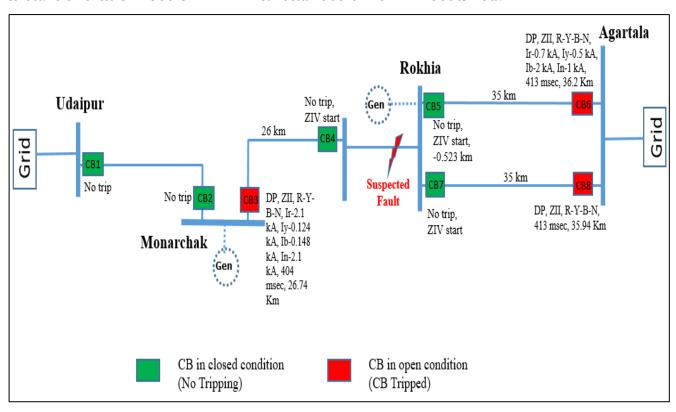
Regarding non-operation of CB4, forum asked AEGCL to check the issue.

ZIV time delay at Lumshnong end (CB3) for 132 kV Panchgram line needs to be reviewed and set as per protection philosophy.

# B.19 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.

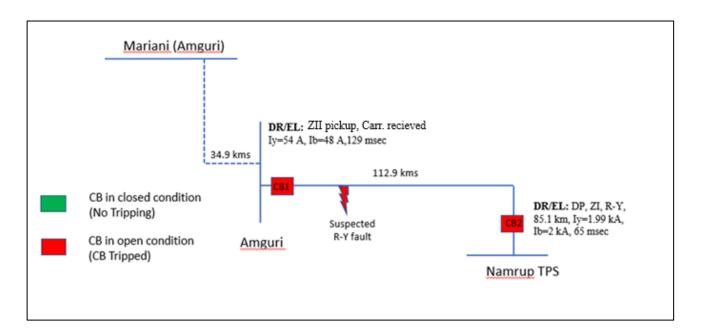
#### Deliberation

- 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 impelemented.

# B.20 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% 3<sup>rd</sup> 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.

### **Deliberation**

AEGCL suggested that Weak Infeed Echo scheme may be adopted at Amguri end. In the scheme, he explained, that whenever 220 kV Mariani-Amguri line will be under outage, on occurrence of a fault in the 220 kV Amguri-NTPC line, Namrup end will send a trip signal at Amguri end which will trip the CB at Amguri end.

Forum noted that the scheme may work and also noted that OPGW connectivity on the connected lines has to be present.

After detailed deliberation, forum approved the Weak Infeed echo scheme and requested AEGCL to implement at the earliest.

Also, LDP implementation to be looked into by AEGCL.

## **B.21** 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:

S1.	Name of SPS	Operation in	Tentative date of
No.		FY 2025-26	performing mock
			testing
1	SPS related to reliable power	-	To be reviewed
	supply to Arunachal Pradesh &		
	Assam through the 132 kV Roing-		
	Chapakhowa D/C line		

# $Minutes \,|\, 81^{st} \, PCCM \,\,|\, 24^{th} \, July \,\, 2025 \,\,|\, Shillong$

2	Overloading of any one of the	-	Nov'25
	400/132kV, 2x360 MVA ICTs at		
	Panyor LowerHydro Power Station		
3	Outage of 132 kV Panyor HPS-Ziro	Operated	
	Line	successfully on	
		30 <sup>th</sup> May'25	
4	SPS at Tezu substation related to	-	To be reviewed.
	prevention of Under Voltage		
	scenario in Arunachal Pradesh		
	power system		
5	SPS at Namsai substation related	-	To be reviewed.
	to prevention of Under Voltage		
	scenario in Arunachal Pradesh		
	power system		
6	Related to the safe evacuation of	-	Oct'25
	power from BgTPP(NTPC)		
	generation		
7	Outage/tripping of 400 kV New	-	Tentative date to be
	Kohima – Imphal D/C Line		intimated after
			discussion by NERTS.
8	Outage/ tripping of both circuits	-	Indigrid absent
	of 400 kV SM Nagar(NTL) -PK		
	Bari(NTL) D/C Line		
9	Outage/ tripping of both circuits	-	Indigrid absent
	of 400kV PK Bari (NTL) –		
	Silchar(PG) D/C Lines		
10	Outage/tripping of 400 kV	Operated	
	Palatana – Surajmani Nagar line	successfully on	
	(charged at 132 kV)	29 <sup>th</sup> May'25 &	
		11 <sup>th</sup> June'25	

# Minutes | 81st PCCM | 24th July 2025 | Shillong

11	Outage/tripping of both 400/132	-	Tentative date to be
	kV, 2x125 MVA ICTs at Palatana		intimated after
			discussion by NERTS.
12	Outage/tripping of 400kV	-	After the
	Palatana-Silchar D/C Line when		commissioning of the
	both modules of Palatana are in		400 kV Palatana–
	service		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:

S1.	Name of SPS	Actual	Tentative date of
No.		Operation	performing mock
			testing
1	Overloading of 220 kV BTPS -	-	To be reviewed
	Salakati D/C Line		
2	Outage of 220 kV BTPS (Salakati)	Operated	
	– Rangia I & II Line	successfully on	
		21st & 26 <sup>th</sup>	
		June'25	
3	Outage/tripping of 220 kV Azara-	-	Aug'25
	Sarusajai D/C Line		
4	SPS related to tripping of 220 kV	-	Aug'25
	Misa- Samaguri DC Line		

# $Minutes\,|\,81^{st}\,PCCM\,\,|\,24^{th}\,July\,\,2025\,\,|\,Shillong$

5	SPS related to Outage/tripping of	Operated	
	any one circuit of 220 kV Balipara-	successfully on	
	Sonabil D/C	9 <sup>th</sup> April'25	
6	SPS at Pasighat substation for	Operated	
	preventing Overloading of 132 kV	successfully on	
	Tinsukia-Rupai/132 kV Tinsukia-	11 <sup>th</sup> June'25	
	Ledo Lines		
7	SPS at BTPS(Assam) substation	-	Aug'25
	related to overloading of any of the		
	2x160 MVA ICTs at BTPS(Assam)		
8	SPS related to Outage/tripping of	-	Oct'25
	any one circuit of the 132 kV		
	Khliehriat (PG)- Khliehriat D/C		
	line		
9	SPS related to Outage/tripping of	-	Oct'25
	any one circuit of 132 kV Leshka –		
	Mynkre- Khliehriat D/C Line		
10	SPS related to Outage/tripping of	-	Aug'25
	any one circuit of 132 kV		
	Dimapur(PG)- Dimapur(NA) D/C		
	Line		
11	SPS related to secure evacuation of	Operated	-
	power from the Monarchak	successfully on	
	(NEEPCO) Power Plant	7 <sup>th</sup> July'25	
12	SPS related to Overloading of 132	-	TSECL informed SPS
	kV Surajmaninagar (TSECL)-		operated
	Surajmaninagar (NTL) Line		successfully. Report
			to be shared.

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

Minutes   81st PCCM	24 <sup>th</sup> July 2025   Shil	long	
	56		

# 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 80th PCCM as provided in the table below:

<b>C1</b>		Trippin				Remarks from
S1	Element	g date	Relay	Relay	A/R not	Utility (80th
N	Name	and	End1	End2	Operated	PCCM)
0		time				
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		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		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.

# Minutes | $81^{st}$ PCCM | $24^{th}$ July 2025 | Shillong

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 Successful ly	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 Successful ly	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 Sucessfull y	Pare(NEEP CO)	To be investigated. End-to-end testing will be conducted.

# Minutes | $81^{st}$ PCCM | $24^{th}$ July 2025 | Shillong

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(PO WERGRID)	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 Successfull y	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	E, FD: 7.34	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

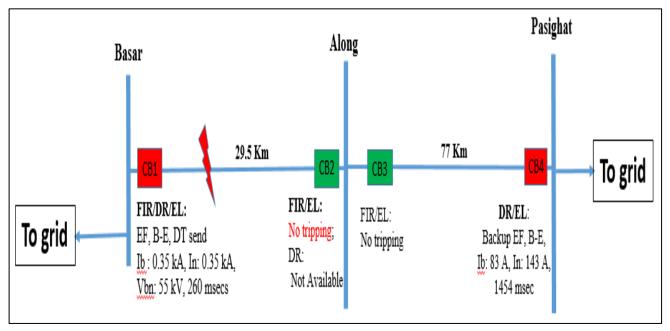
						checked jointly and S/D will be taken for its rectification
14	132 kV Ranganadi- Itanagar line	16-05- 2025 19:39	DP, ZI, Y-E, FD: 25.11 km, A/R Operated Unsuccessfully (due to persistent fault)	DP, ZI, R-Y-E, FD: 31.9 km, A/R Not Operated	Itanagar (DoP, Arunachal Pradesh)	To be investigated. End-to-end testing will be conducted.

## **Deliberation**

Forum requested the utilities to provide the update through email to NERPC.

# C.2 Grid Disturbance in Along area of Arunachal Pradesh Power system on 15-05-2025:

At 04:31 hrs & 04:32 hrs of 15-05-2025, 132 kV Basar-Along & 132 kV Along-Pasighat line tripped respectively resulting in grid disturbance in Along area of Arunachal Pradesh power system. Load loss of 2.5 MW.



As per DR/EL analysis, high resistive B-N fault (Ib- 325 A, In-325 A) initiated at 04:31:35.760 Hrs in 132 kV Along-Basar line which was cleared within 260 msec from Basar end on operation of E/F protection (DT send). There was no tripping from Along end due to which fault was continuously feeding from Pasighat end of 132 kV Along line which was cleared within 1.45 sec on operation of B/U E/F from Pasighat end (IN>2 trip observed at 04:31:22.552 hrs)

### Following observations:

- Vegetation fault occurred in 132 kV Basar-Along line.
- Relay at Along for 132 kV Basar line (CB2) failed to detect the fault in the line (DR not available) resulting in clearing of fault by tripping of healthy 132 kV Along-Pasighat line from Pasighat end.
- B/U E/F protection at Basar end for 132 kV Along line needs to be reviewed.
- Both 67/67N operated & IN>2 trip operated at Pasighat end for 132 kV Along line. The same needs to be checked. IN>2 Trip command seems unwanted and the same needs to be disabled as per NERPC protection philosophy.
- Time drift of 1-2 minutes observed at Along for both the lines.

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

## Deliberation of 80<sup>th</sup> PCCM

Regarding non-operation of Along CB, DoP Ar. Pradesh informed that new CB has come to the site and they will be installed shortly during shutdown.

Regarding tripping at Basar end, NERPC stated that EF tripping occurred very fast and TMS may been set a very less value. NERPC suggested to increase the TMS so that the tripping time becomes 800 msec for the same fault current. Also, NERPC asked DoP submit the settings of DOC/DEF relay as both relays operated for the fault.

Regarding tripping at Pashighat end, NERLDC informed that the IN>2 was enabled. NERPC advised Arunachal Pradesh to disable the IN>2 function.

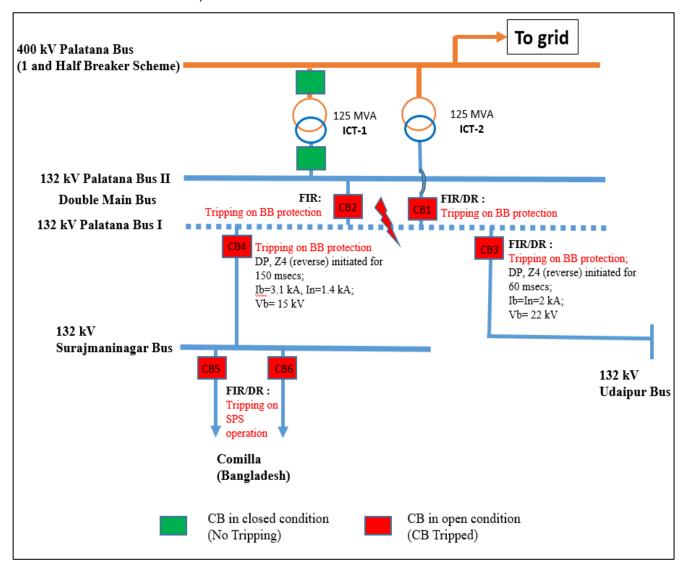
## **Deliberation**

Forum requested the utilities to provide the update through email to NERPC.

# C.3 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)

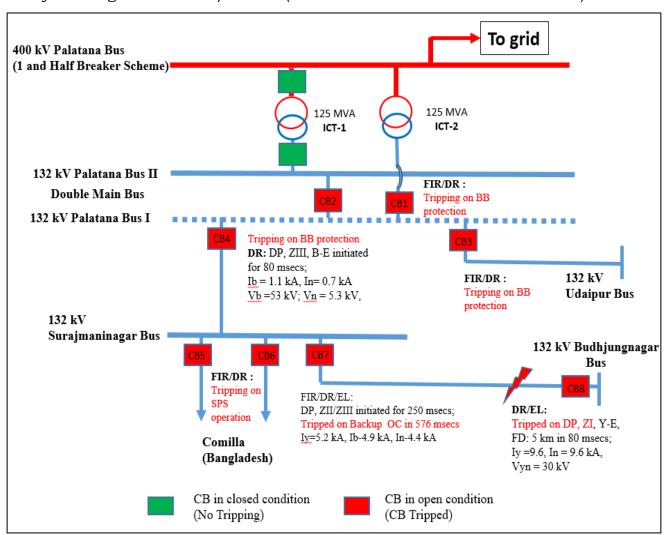


As per DR analysis, B-N fault of metallic nature initiated likely in the 132 kV Surajmaninagar Bus I which was cleared on operation Bus bar protection of 132 kV Main Bus I in 70-80 msecs.

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.

#### 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.

In 80<sup>th</sup> PCCM, 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 26<sup>th</sup> June to look into the issue.

Forum suggested to check the CT polarity and conduct the Bus Bar stability test during the Hitachi visit.

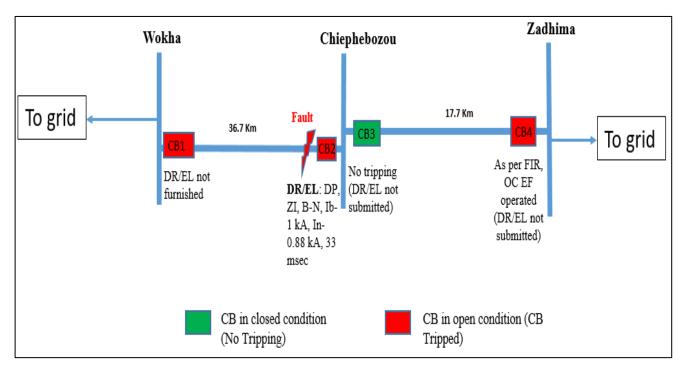
### Deliberation

Forum requested the concerned utilities to provide the update through email to NERPC.

### C.4 Grid disturbance in Nagaland Power System during May'25:

### Event 1: Grid disturbance in Chiephebozou area of Nagaland on 22-05-2025

At 16:42 Hrs of 22-05-2025, 132 kV Wokha - Chiephobozou and 132 kV Zhadima - Chiephobozou lines tripped resulting in grid disturbance of Chiepebozou area of Nagaland. Load loss of 1.2 MW occurred.



As per DR analysis of 132 kV Wokha-Chiephebozou line, solid B-N fault (Ib-1 kA, In-0.88 kA) initiated at 16:09:08.490 Hrs and cleared within 33 msec from Chiephebozou end on operation of DP, ZI. As per FIR, OC EF operated at Zadhima end for 132 kV Chiephebozou line.

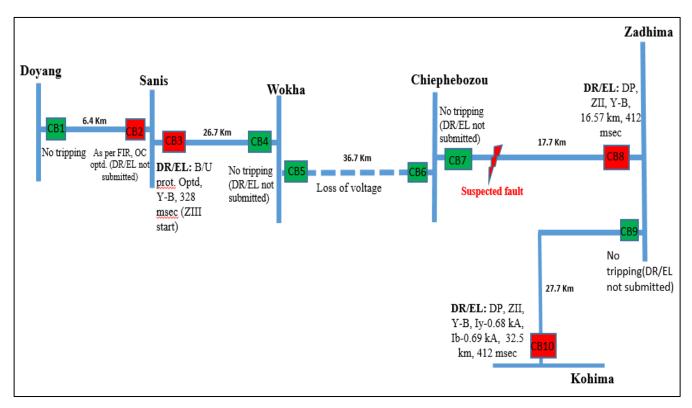
## Following observations:

- Tripping of 132 kV Zadhima-Chiephebozou line on operation of OC EF for fault beyond the line is inferred unwanted.
- DR/EL not submitted for tripping of 132 kV Zadhima-Kohima line & Wokha end for Chiephebozou line which is a violation of Clause 37.2 (c) of IEGC-23.

DoP Nagaland may share the root cause of the event and provide update on the above-mentioned issues.

# Event 2: Grid disturbance in Sanis, Wokha, Chiephebozou & Zadhima areas of Nagaland on 31-05-2025

At 01:32 Hrs of 31-05-2025, 132 kV Zadhima-Kohima, 132 kV Doyang-Sanis & 132 kV Sanis-Wokha lines tripped resulting in grid disturbance of Sanis, Wokha, Chiephebozou & Zadhima areas of Nagaland. Load loss of 2 MW occurred.



As per DR analysis, Y-B fault (Iy-0.68 kA, Ib-0.69 kA) initiated at 01:48:31.562 Hrs which was cleared within 412 msec from Kohima end on operation of DP, ZII. No tripping from Zadhima end.

132 kV Chiephebozou-Zadhima line tripped on ZII from Zadhima end within 412 msec. No tripping from Chiephebozou end.

132 kV Sanis-Wokha line likely tripped on B/U protection (ZIII start in main relay) within 328 msec. No tripping from Wokha end.

### Following observations:

- Suspected fault in 132 kV Zadhima-Chiephebozou line at a distance of 16.57
   Km (as per FIR)
- Non-opening of CB7 is a matter of concern.
- 132 kV Sanis-Wokha line tripped within 328 msec on B/U protection. B/U protection setting needs to be reviewed.
- Tripping of 132 kV Doyang-Sanis line on OC protection from Sanis end for fault in reverse direction seems unwanted. Directonality of B/U protection needs to be checked and kept forward direction.
- DR/EL not submitted for CB1, CB2, CB3(B/U protection), CB4, CB5, CB7 & CB9 which is a violation of Clause 37.2 (c) of IEGC-23.

 DR time drift of 16 min observed at Kohima end for Zadhima line, 26 min at Zadhima end for 132 kV Chiepebozou line, 13 min at Sanis end for Wokha line.

#### Similar incident occurred on 27.06.2024.

# DoP Nagaland may share the root cause of the event and provide update on the above-mentioned issues.

In 80<sup>th</sup> PCCM, DoP Nagland informed that there are multiple relay setting issues along the Doyang-Sanis-Wokha-Chiephebozou-Zadima-Kohima link and requested NERPC to help coordinate the settings. MS NERPC instructed to resolve the issue in coordination with NERPC and NERLDC at the earliest.

MS NERPC informed that a protection(relay) setting review committee to be formed to review the relay setting in NER. This committee members will impart training between 10 to 11:30 Hrs to all stakeholder before start of monthly PCC meeting.

All States/Utilities to bring relay setting at Substations including Nagaland. PRDC and State to check setting in data base and verify as per NER protection philosophy.

### **Deliberation**

Forum requested the concerned utilities to provide the update through email to NERPC.

# C.5 Status on resolution of protection issues as discussed in 80<sup>th</sup> and 79<sup>th</sup> PCCM

SN	Protection issues to	Concerned	Previous status	status
	be resolved as	Utility		(80 <sup>th</sup> PCCM)
	decided in previous			
	PCC meetings			
1.	LDP on Rokhia-	TSECL	RoW issue resolved.	Commissioning
	N.Rokhia link		Work to be completed	team will come
			by next PCC	on 27 <sup>th</sup> June'25
2.	BB protection stability	NEEPCO	Hitachi provided the	July'25
	test at Doyang		offer, but there is	
			issue with terms of	
			payment, will be	

			resolved by end of			
			May'25			
	ication of SPS	MePTCL		Configuration		
Scher	ne related to the		taken up with	ŕ		
outag	ge of 132 kV		NERPSIP. Also,	termination		
Leshl	xa –Khliehriat		Protection coupler is	done, SPS		
D/C	after LILO at 132		not present there, in	implementation		
kV M	ynkre S/S		talk with ABB	and testing to		
				be done after		
				high hydro		
				season		
4. Grid	Disturbance in	MIzoram	Mizoram to conduct	Relay testing to		
Tuiri	al S/S of		relay testing for	be done as		
NEEF	PCO & Kolasib		checking the	weather		
and :	Bairabi areas of		healthiness for 132	improves and		
Mizo	ram Power		kV Kolasib – Tuirial	settings		
Syste	em on 20-03-		and 132 kV Kolasib –	coordination		
2025	:		Bairabi line.	will be done		
Prote	ction system of			before next		
132 1	kV Kolasib-Turial			PCC.		
line fa	ailed to isolate the					
fault.	P&ED Mizoram					
needs	s to ensure					
healtl	niness of					
prote	ction system of					
132 k	v Kolasib-Tuirial					
line.						
5. <b>Grid</b>	Disturbance in	MePTCL	NERLDC highlighted	Protection		
Mawl	yndep area of		in 78th PCCM that	coupler at		
Megh	alaya Power		there was no carrier	Mustem is		
syste	m on 23-03-		aided tripping at	defective due to		
2025	:		Mustem despite	which carrier		

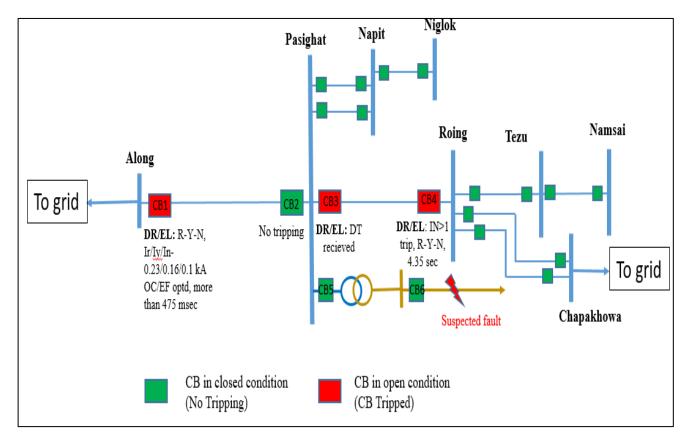
"Carrier send" signal	carrier	received	d from	aided	trij	pping
high at Mawlyndep	Mawly	ndep	end.	did no	ot occ	cur at
end. However, 132 kV	Forum	. di	irected	Muste	em.	that
Mustem-Mawlyndep	MePTC	CL to loo	k into	comm	unic	ation
line tripped after ZII	and	resolve	the	team	is t	rying
time delay. The same	matter	at the e	arliest	to re	place	the
needs to be checked by	and in	stall GPS		defect	ive	
MePTCL.				couple	er.	
				Hower	ver,	no
				spare		is
				availa	ble.	
				Spare		
				protec	ction	
				couple	er of	other
				subst	ation	s to
				be use	ed.	

## **Deliberation**

Forum requested the concerned utilities to provide the update through email to NERPC.

# C.6 Grid Disturbance in Pasighat and radially connected Napit & Niglok areas of Arunachal Pradesh on 22-04-2025:

At 00:37 Hrs of 22-04-2025, 132 kV Along-Pasighat & 132 kV Roing - Pasighat lines tripped resulting in grid disturbance in Pasighat and radially connected Napit & Niglok areas of Arunachal Pradesh. Load loss of 22 MW occurred.



As per DR analysis, R-Y-N fault with Ir-237 A, Iy-167 A, In-107 A observed which was cleared in more than 475 msec from Along end on operation of OC/EF protection. No tripping from Pasighat end as per submitted DR. Fault duration recorded at Pasighat EL - 3.726 sec.

For 132 kV Roing-Pasighat Line, R-Y-N fault initiated at 00:37:16.786 Hrs and cleared within 4.35 sec on operation of E/F from Roing end and DT recieved at Pasighat end.

### Following observations:

- Protection system of downstream feeder and HV side of transformer failed to isolate the fault resulting in clearing of fault by tripping of healthy 132 kV Along-Pasighat and 132 kV Roing-Pasighat Lines.
- For DR submitted for 132 kV Along-Pasighat & 132 kV Roing-Pasighat lines, pre-fault data is not visible which is the cause of concern. As per DR Standardisation report of FOLD Working Group 3, pre-fault data of 500 msec and post fault data of 2500 msec should be visible in the DR window.
- DR Time drift of 2 min observed at Pasighat for 132 kV Along Line and 13 min for 132 kV Roing Line.

• Non-submission of detailed report by DoP Arunachal Pradesh which is a violation of Clause 37.2 (e) of IEGC regulation 2023.

Similar kind of event occurred at 16:01 Hrs of 03-05-2025 in which tripping of 132 kV Along-Pasighat & 132 kV Roing - Pasighat lines led to loss of power in Pasighat, Napit & Niglok areas of Arunachal Pradesh. Such repeated grid disturbances are the cause of concern.

During 2024, similar incident occurred on 24.09.2024, 25.09.2024, 16.11.2024 and 08.12.2024.

As per 79th PCC minutes,

DoP Ar. Pradesh apprised that the fault was in downstream 33kV line and HV side of ICT at Pasighat which was not cleared by HV side Transformer due to faulty trip coil. The same has been replaced. Other 132/33 kV Transformer trip coil is faulty. The same will be kept isolated till the issue is rectified. NERLDC informed that such incident reoccurred on 3rd May'25. Forum opined that the downstream fault should have been cleared by 33 kV feeder itself or the HV side of the ICT and exhorted DoP Ar. Pradesh to resolve the issues at the earliest.

### Deliberation of 80th PCCM

DoP AR. Pradesh informed that 33kV Vacuum CB of the downstream line will be replaced shortly. Forum also instructed to check the protection settings of the downstream line and the 132/33kV ICT.

ED, NERLDC raised the concern that the protection protocol for 33kV feeders is not covered under NER protection protocol and therefore the settings of 33kV feeders are not standardized. Forum noted that protection protocol for 33kV feeders may be included in NER protection protocol. Assam informed that they follow a standard settings protocol for distribution feeders. Forum requested Assam to share the same with NERPC and NERLDC.

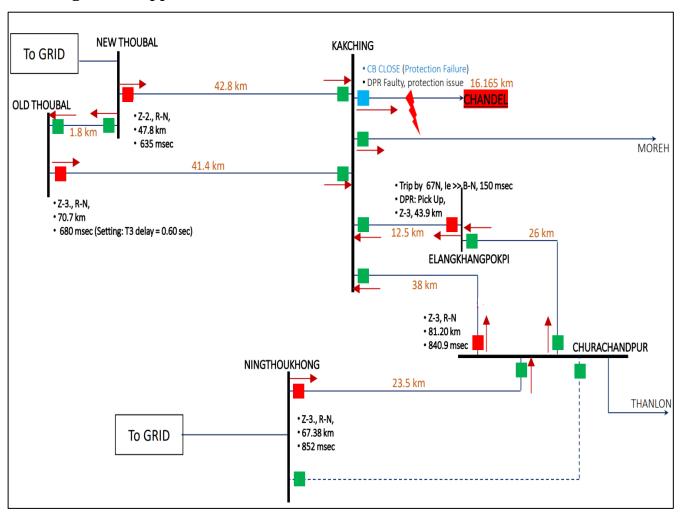
### **Deliberation**

Forum requested the concerned utilities to provide the update through email to NERPC.

# C.7 Grid disturbance in Churachandpur, Elangkankpokpi, Thanlon, Kakching, Chandel and Morey areas of Manipur and Tamu area Myanmar Power system on 28-04-2025:

Churachandpur, Elangkankpokpi, Thanlon, Kakching, Chandel and Morey areas of Manipur and Tamu area Myanmar Power system were connected to rest of NER grid through 132 kV Ningthoukhong-Churachandpur II, 132 kV Old Thoubal-Kakching & 132 kV New Thoubal-Kakching Lines. Prior to the event, 132 kV Ningthoukhong-Churachandpur I line is under outage since 13:48 Hrs of 04.08.2024.

At 13:43 Hrs of 28-04-2025, 132 kV Ningthoukhong-Churachandpur II, 132 kV Old Thoubal-Kakching, 132 kV New Thoubal-Kakching & 132 kV Churachandpur-Kakching Lines tripped. Load loss of 30 MW occurred.



As per DR analysis of 132 kV Ningthoukhong-Churachandpur II Line, R-N fault (Ir-1.26 kA, In-1 kA) initiated at 13:42:32.292 Hrs which was cleared within 852 msec from Ningthoukhong end on operation of DP, ZIII.

At 13:42:20.911 Hrs, 132 kV Old Thoubal-Kakching Line tripped from Old Thoubal end (as per EL, DR file not opening)

Suspected fault is beyond Churachandpur and Kakching Substations as fault distance of 67.38 Km from Ningthoukhong end.

## Following observations:

- Exact location of fault could not be concluded as DR/EL not submitted by MSPCL.
- It is unclear which protection system operated and cleared the fault from Old Thoubal end for 132 kV Kakching Line.
- SOE not recorded for tripping of 132 kV Churachandpur-Kakching Line & 132 kV Old Thoubal-Kakching Line. The same needs attention from MSPCL/SLDC Manipur team.
- Non-submission of flash report and detailed report by MSPCL which is a violation of Clause 37.2 (b) & 37.2 (e) of IEGC regulation 2023.

### Similar incident ocurred on 05.07.2024.

## As per 79th PCC minutes,

S1.	Observations	Remarks
No.		
1	Exact location of fault could not be	Vegetation fault was in 132
	concluded.	kV Kakching-Chandel Line
2	Protection system of 132 kV Kakching-	Protection Circuit checked
	Chandel line failed to isolate the fault.	and distance relay replaced,
		settings and PSL tested.
3	132 kV New Thoubal-Kakching line	Settings reviewed, will be
	tripped on ZII from New Thoubal end	updated once approved.
	within 635 msec. ZII time delay needs to	
	be revised as per protection philosophy.	
4	132 kV Old Thoubal-Kakching Line on	Settings reviewed, will be
	ZIII from Old Thoubal end within 680	updated once approved.
	msec. ZIII time delay needs to revised as	
	per protection philosophy.	

# Minutes | 81st PCCM | 24th July 2025 | Shillong

5	132 kV Elangkankpokpi-Kakching line	Settings reviewed, settings
	tripped on E/F from Elangkaknkpokpi	changed as per standard
	end within 150 msec. B/U E/F protection	template, testing yet to be
	needs to be coordinated with ZIII time	done.
	delay as per protection philosophy.	
	Phase sequence issue observed	
6	132 kV Churachandpur-Kakching line	Setting review yet to be done
	tripped on ZIII from Churachandpur end	
	within 841 msec which is inferred	
	unwanted. ZIII reach needs to be reviewed	
	and set as per protection philosophy.	
7	132 kV Ningthoukhong-Churachandpur II	Forum urged MSPCL to
	line tripped on ZIII from Ningthoukhong	review the ZIII reach at
	end within 852 msec	Ningthoukhong end.
8	DR/EL not submitted for tripping of 132	Forum asked MSPCL to
	kV New Thoubal-Kakching, 132 kV Old	submit all the DR/EL files
	Thoubal-Kakching, 132 kV	
	Churachandpur-Elangkankpokpi & 132	
	kV Elangkankpokpi-Kakching Lines	

NERPC highlighted that ZIII should not have operated at Ningthounkong end for Churanchandpur line and instructed Mizoram to check the reach of ZIII and limit it to the 100% of Main line + 100% of the longest line at remote end.

In 80<sup>th</sup> PCCM, MSPCL stated that the update on all the points will be provided within this month. MS NERPC instructed to discuss the agenda in next PCC meeting.

## **Deliberation**

Forum requested the concerned utilities to provide the update through email to NERPC.

\*\*\*\*\*

# $\frac{Annexure\text{-}I}{List\ of\ Participants\ in\ the\ 81^{st}\ PCC\ Meeting\ held\ on\ 24.07.2025}$

SN	Name & Designation	Organization	Contact No.
1	Sh. Hibu Bama, EE (E)	Ar. Pradesh	08119858317
2	Sh. Abhishek Kalita, Dy.Mgr, AEGCL	Assam	08486213068
3	Sh. Safir Ahmed, Dy.Mgr, AEGCL	Assam	09859472631
4	Sh. Shairem Anilkumar Singh, Mgr,MSPCL	Manipur	08798012496
5	Sh. Santosh Nongthombam, JE,MSPCL	Manipur	09900479198
6	Sh. Samuel Lalhriatzuala, SDO	Mizoram	08729982857
7	Sh.Lalramchhunga, AE, SLDC	Mizoram	09774251677
8	Sh. A.Shullai,AEE,GSPSD, MePGCL	Meghalaya	09436334458
9	Sh. Yuri Kharpuri, AEE,MePGCL	Meghalaya	09774507325
10	Sh. A.G.Tham, AEE, MRT, MePTCL	Meghalaya	09774664034
11	Sh. Kitbok Kynjing, AEE, MePTCL	Meghalaya	09485170070
12	Sh. Pulovi Sumi, SDO	Nagaland	08575748180
13	Sh. Namheu Khate, EE (T)	Nagaland	09436000800
14	Sh. Alex E.Ngullie, JE, SLDC	Nagaland	08837080321
15	Sh. Krishnadhan Biswas, Sr.Mgr, TPTL	Tripura	09862478930
16	Sh. Abir Deb, Sr.Mgr, TPTL	Tripura	09774306686
17	Sh. Anabik Shome, Mgr,TPTL	Tripura	09402143997
18	Sh. Babul Roy, GM	NERLDC	09436335377
19	Sh. Utpal Das, Dy.Mgr	NERLDC	07005504075
20	Sh. Subhra Ghosh, Asst.Mgr	NERLDC	08415857079
21	Sh. Manash Jyoti Baishya, Ch.Manager	PGCIL	09435555740
22	Smti. Mamami Talukdar, GM	NEEPCO	09435339690
23	Sh. Manas Pratim Sharma, Sr.Mgr	NEEPCO	08729901871
24	Sh. Sanjib Pal, Section Head-PME	OTPC	09436583737
25	Sh. Suraj Kumar Gupta, Dy.Mgr ( E)	NHPC	07903131843
26	Sh. G. Sonowal, DGM-EMD (O&M)	NTPC	08269609797
27	Sh.Basab Maity, Engineer	PRDC	09732416233
28	Sudip Chanda, Engineer	PRDC	07679364781
29	Sh. K.B.Jagtap, Member Secretary	NERPC	-
30	Sh. Veerandranath Muncha, Director	NERPC	07358529099
31	Smti Maya Kumari, Dy.Director	NERPC	09024334279
32	Sh. Vikash Shankar, Asst.Director	NERPC	09455331756