



सत्यमेव जयते

Agenda for 195th OCCM, NERPC



Govt. of India
Ministry of Power
North Eastern Regional Power Committee
Shillong

North Eastern Regional Power Committee

Agenda For

195th OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.
Date of meeting : 18th October 2022 (Tuesday)
Venue : “NERPC, Shillong”

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 194th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 194th meeting of Operation Sub-committee held on 15th September, 2022 at Shillong were circulated vide letter No. NERPC/SE (O)/OCC/2021/7537-7573 dated 30th September, 2022.

The Sub-committee may confirm the minutes of 194th OCCM of NERPC with the above modifications as no other comments/observations were received from the constituents.

B. FOLLOW UP AGENDA ITEMS

B.1. Operational Performance and Grid discipline during September, 2022:

NERLDC will present the Operational Performance and Grid Discipline in September '2022.

NERLDC may please deliberate.

B.2. Generation Planning (ongoing and planned outages)

a. Present per day MU and projected number of days of operation.

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopilistg II			0	
Kopili			0	Willbe“0”until further intimation.
Doyang	316.5	16	0.433	36
Loktak	766.63	16	1.82	8

The outage of other generating stations may be approved considering the present water levels in reservoirs and long-term outage of Kopili HEP.

The sub-committee may please deliberate.

B.3. Outage Planning Transmission elements

It was agreed in the 99thOCC meeting that shutdown will be availed only after approval is given by the OCC forum. It was also agreed that deferment/revision of outages elements other than already approved in OCC will be henceforth put/displayed in the website of NERPC (under Operational Activities/OCC Approved shutdown) as per CERC regulations/ CEA guidelines etc for ensuring smooth & secure grid operation.

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC:Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

It was decided in the previous OCCM that shutdown would be granted from the 1st day of the following calendar month to the 30th/31st day of the same month.

The sub-committee may please deliberate.

B.4. Estimated Transmission Availability Certificate (TAC) for the month of September, 2022:

Transmission Utilities have submitted the outage data for the month of September, 2022. So, the attributability of outage of the said elements is being finalized by NERLDC & NERPC. The Availability of the transmission elements of ISTS licensees for the month of August, 2022 is as follows-

Sl no	ISTS Licensee	Availability for August'22 (%)
1	NETC	99.9827
2	KMTL	99.9970
3	NER-II TL	99.8275
4	PGCIL	99.9265 (For July 2022)

The sub-committee may please deliberate.

B.5. Mock Black Start Exercise:

The previous mock black start & restoration exercise has been conducted at various generating stations in NER on the dates mentioned in the following table:

As per discussion in 177th OCC meeting on 22nd April 2021, schedule of Mock exercise at AGBPP and RHEP was to be finalized by NEEPCO after discussion with OEM. As per regulation 5.8 (b) of IEGC, mock black start shall be carried out by Users/CTU/STUs at least once in 6 months.

NEEPCO and NHPC informed the dates for testing as follows:

Plant Name	Performed On	Due Date	Schedule of Testing as per 194 th OCCM
AGBPP	after upgradation of DG under R&M
AGTCCPP	09.04.2019	09.10.2019	Sep'22 first week*
PareHEP	25.01.2020	25.07.2020	To be done in lean hydro season
Kopili HEP	10.05.2019	NA	NA
Kameng HEP	In Lean Hydro season
KopiliStg-II	-	-	Under prolonged shutdown

*In the 194thOCCM, NERTS informed that for 132kV AGTCCPP – 79Tilla Ckt #I the CB is operational, however synchronization cannot be done due to trolley issues. For 132kV AGTCCPP – 79Tilla Ckt #II, closing issue of CB shall be rectified in Oct'22 and shutdown has been applied for the same in Oct'22.

DGM, SLDC, TSECL stated that the trolley at 79Tilla S/S would be replaced by Sep'22. Further, the forum decided that Black Start at DHEP would be carried out by Oct'22
The sub-committee may please deliberate.

B.6. Status of ADMS:

Status for Automatic Demand Management Scheme in 7 states of NER. The SLDCs informed the latest status as follows:

Name of the utility	SAT Completion	DoCO
DoP Ar. Pradesh	27-01-2021	Enabled & in-operation
AEGCL/APDCL	07-12-2020	Enabled & in-operation
MSPCL	24-11-2020	Enabled & in-operation
MePTCL/MePDCL	31-08-2020	Enabled & in-operation
P&ED Mizoram	22-02-2021	Enabled & in-operation
DoP Nagaland	17-11-2020	To be enabled after stability of ICCP link
TSECL	24-12-2020	To be enabled by Oct'22

In the 194th OCCM, Member Secretary, NERPC informed that after Inspection by PSDF-CEA team the following points have been raised w.r.t. ADMS implementation in Assam:

- (a) ADMS implementation over ICCP protocol rather than with the approved OPC system
- (b) Go Live or DoCO post Cyber Security Audit certification
- (c) Non-communication of 5 out of 10 Sub-stations with ADMS Server

After detailed deliberation the forum decided the following:

- The detailed justification for Implementation using ICCP link will be prepared by NERPC after consultation with the respective utilities, M/s ORBIT and M/s GE.
- For revision of x Go Live or DoCO date the respective utilities (post Completion of Cyber Security Audit) shall discuss with the vendor (M/s ORBIT) for revision of Go Live/DoCO date.

DGM, SLDC, TSECL informed the forum that ADMS could not be enabled due to connectivity problems i.e. at present only 1 MODEM is working and 3 MODEMs are non-operational. The forum requested TSECL to enable the scheme ASAP.

States may kindly update

B.7. Violation of state wise TTC/ATC:

As per POSOCO KPI, NERLDC has to report the violation of import TTC/ATC of NER states in daily, weekly and monthly basis. It has been observed that most of the NER states are not N-1 secure causing violation of TTC/ATC limit although the actual drawl

remains within the schedule values. Violation has been observed in case of Assam, Meghalaya, and Tripura states.

The TTC/ATC calculation of States done by NERLDC is as follows:

State	Time Period	N-1 considered	Limiting element	TTC	RM	ATC
Arunachal Pradesh	Off-Peak	132kV Lekhi – Pare	132 kV Pare – Itanagar S/C	195	5	180
	Peak			195	5	180
Assam	Off-Peak	220kV Misa-Samaguri I or II	220 kV Balipara-Sonabil	1730	40	1690
	Peak			1600	40	1690
Manipur	Off-Peak	132kV Imphal MA-Imphal PG Ckt I	132 kV Imphal (MA)-Imphal (PG) II & III	320	5	315
	Peak			320	5	315
Meghalaya	Off-Peak	132 kV Umiam3 – Umiam Umiam 1 II	132 kV Umiam-Umiam Umiam 1 II	340	10	330
	Peak			260	10	250
Mizoram	Off-Peak	132 kV Melriat-Silchar I ORII	132 kV Aizawl-Luangmual S/C	160	5	155
	Peak			155	5	150
Nagaland	Off-Peak	220/132 kV ,100 MVA Dimapur ICT	220/132 kV ,30 MVA Mokokchung ICTs	255	5	245
	Peak			290	5	285
Tripura	Off-Peak	132 kV SM Nagar (ISTS) Budhjungnagar S/C	132 kV SM-Nagar (TR) – SM Nagar (ISTS) S/C	340	6	334
	Peak			315	6	304

In previous OCC meeting(s) it was decided that in the event of any major shutdown (approved/emergency) the state periphery ATC/TTC shall be calculated by respective SLDC and communicated to NERLDC. NERLDC conducted a training session on 29.06.2022 on calculating ATC, TTC for states at NERPC.

Calculation of state-wise TTC is only received from Assam and Meghalaya on continuous basis every month. Nagaland has sent its state-wise TTC calculation once.

Other utilities may share the progress of said report and send the same to NERLDC.

The sub-committee may please deliberate

B.8. Issues pertaining to Kopili & Khandong.

A. Load restriction in Meghalaya Power System due to planned outage of Khandong

HEP & KopiliStg-II:

The planned shutdown of Khandong HEP and Kopili Stage II has been approved from 10.01.2022 to 09.05.2022 in the 185th OCCM for the following activities:

- Inspection and repairing of Khandong Head Race Tunnel, Trash Rack Gate, Intake Gate, Surge Shaft Gates, Steel Liner of HRT etc.
- Acid Proof Coating of Stage-II Penstock
- Installation and commissioning of Penstock Protection BFV System of Khandong
- Annual Planned Maintenance of Khandong Unit# I & II.

Decisions as per previous meetings: (i) Meghalaya System shall be operated by opening of 132kV Mawngap-Nongstoin T/L right from the start of Khandong HEP shutdown. (ii)

In normal circumstances no load shedding is required and Meghalaya can continue to cater full demand based on present generation scenario. (iii) In event of tripping of any one circuit of 132kV UmiamStg-I to UmiamStg-III D/C SLDC Meghalaya shall swiftly shed load till loading of 132kV UmiamStg-I to UmiamStg-III S/C is within limit and also increase generation from UmiamStg-I HEP and Leshka HEP. (iv) based on Real Time Condition Mawphlang may be shifted to be fed from Agia side after concurrence of NERLDC, (v) Early restoration of Misa-Kopili-Khandong link by NERTS/NEEPCO.

In the 194th OCCM,

- NERPSIP informed the forum that 220kV Mawngap-Killing line is facing severe RoW problem in Ri-Bhoi district. The issue was raised in the Project Monitoring Group of DPIIT also and District administration has been directed to resolve the issue within two weeks.
- NERTS updated that back filling for Tower No. 1 and 2 of 132Kv Khliehriat-Khandong Ckt 2 is underway but due to excessive water retention in soil the Tower No. 1 has become unstable. In such scenario, some modifications in the towers near Loc. No.1 & 2 with possible replacement of two towers with one tower is being explored. Further, for connections at Khandong Switchyard continuous shutdown of 132kV Khliehriat-Khandong-Umrangso line for continuous 3 days is required. DGM, SLDC, AEGCL stated that shutdown may be accommodated after Puja. The forum requested NERTS/NEEPCO to intimate the schedule ASAP.

Regarding restoration of 132kV Jiribam –Haflong line, CGM(AM) NERTS informed the forum that the matter of wildlife clearance has been referred to the National Wildlife Board and it is expected to be restored by Nov'22.

After detailed deliberation, the forum requested NERTS to restore the 220kV Kopili, 132kV Kopili-Khliehriat link by Nov'22 subject to readiness of switchyard room (being constructed by NEEPCO) completion by Oct'22.

B. Station supply at Khandong and Kopili Power Station:

Following the discussions in the 189th OCC and in the special meeting held on 27.04.2022 in presence of representatives from NERPC, NERLDC, NEEPCO, NERTS and AEGCL, Khlerihat – Khandong – Umrangshu link was charged as an interim special arrangement.

1. As agreed in the special meeting, AEGCL was requested to extend the PLCC system from Umrangshu to Haflong by 15th May 2022.

2. Since all the CRPs at Khandong Control room are under debris now and it is doubtful for revival of the same, NEEPCO is planning to arrange following CRPs and 220V DC source to charge the Khandong bus radially from Umrongso Substation only.

It may kindly be noted that due to Khandong incident, the construction restoration activities of 4x50MW Kopili P.S, 2x25MW Khandong and 1x25MW Kopili Stage-II is badly hampered. Whatever activities are being carried out is based on DG Power only which is not the solution and progress of work has been severely hit.

As a stop gap arrangement following CRPs and 220V DC source shall be arranged by NEEPCO at the earliest.

- 132KV Umrongso bay – 1 No.
 - 132/33KV 7.5MVA & 3MVA – 2 Nos.
 - 33/0.4KV SAT 1MVA – 2 Nos.
 - 33KV Umrongso line – 1 No.
 - 33KV Kopili line – 1 No.
3. As discussed in 192nd OCC, NEEPCO has sent consent letter for becoming Bulk power consumer of APDCL for the consumption of construction power for restoration works of Khandong HEP. Further NEEPCO shall be sending weekly SEM reading to Assam/NERLDC. Also, NEEPCO requested for installation of 2 nos SEMs at the earliest so that restoration works can be started.
4. In 193rd OCC, GM, NEEPCO proposed space for 2 CRP in old kiosk room near Khandong stage 1 to PGCIL for Panel installation for 132kV Khliehriat-Khandong - 2 line and 132kV Khandong-Kopili line 2.
5. In 194th OCC, GM, NEEPCO informed the forum that for drawing of construction power from 132kV Bus at Khandong via the two 132/33kV Transformers CRPs are at site but 220V DC battery bank is unavailable, for which order has been placed and will be supplied by Sep'22. Thereafter, drawing of power from the Grid shall commence by 1st week of October'2022. Regarding Panel installation for 132kV Khliehriat-Khandong - 2 line and 132kV Khandong – Kopili - 2, NERTS assured the forum to complete the work before Feb'23.

C. Recommissioning of 1X25 MW Khandong Stage-II plant

NEEPCO is planning to re-commission and synchronize 1X25MW Khandong Stage-II unit within this current financial year. Since all the Control & relay panels are submerged and damaged beyond repair during the inundation on 26.03.2022, for successful

commissioning and evacuation of the generated power, the Khandong Switch Yard has to be adequately restored within February – 2023.

Present Status:

1. One CRP for Khandong-Umrongso feeder at Khandong end is procured and expected to be commissioned by NEEPCO before February 2022.
2. One Temporary KIOSK room has been identified and Cable trenches are under Construction and, cables are being re-routed.

Status of action being taken by NERTS, POWERGRID:

1. The matter for availability of one more 132KV line from Khandong SY to Khleirihat (PG) Sub-Station was discussed in the last OCC meetings, the availability of towers nearby Khandong Power Stations/new arrangement may be intimated to NEEPCO.
2. For the above, NERTS, POWERGRID was requested to install 1(one) BCU based CRP February-2023. Status of the same may kindly be shared with NEEPCO.
3. NERTS, POWERGRID was requested to ensure the installation of PLCC panel for Khandong – Khleirihat line along with FOTE panels for digital and analog data/voice, protection and communication to NERLDC before synchronization of the Khandong Stage-II.

Status of action taken by AEGCL:

1. AEGCL was requested to provide a PLCC Panel for Khandong-Umrongso line and NEEPCO was to provide the 48V battery bank with charger for PLCC. Status of the same may please be intimated to NEEPCO.

The sub-committee may please deliberate

B.9. Implementation of Guwahati Islanding Scheme:

In the 190th OCCM, DD, NERPC stated that in the Special Meeting on 13th May'22 it was decided that dedicated fiber is required in order to ensure Cyber Security. AEGCL intimated that Dedicated Fiber is available in the link SLDC – Sarusajai – Mirza – Boko – Agia – BTPS – BgTPP and offered the same for the Islanding Scheme. The forum requested NERTS to explore the availability of dedicated fiber. Member Secretary, NERPC stated that after budgetary offer is received from at least two vendors the DPR will be finalized.

In 194th OCC, DGM, SLDC, AEGCL informed that in the meeting with M/s GE at SLDC Assam on 25th Aug'22 all points have been clarified and the inputs have been submitted also forthwith.

The sub-committee may please deliberate

B.10. Furnishing details of upgraded UFR settings along with list of feeders and quantum of load:

Status as updated in the 194thOCC meeting:

Name of the state/utility	Submission of revised UFR list	Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	Stg-1 (49.4Hz)implementation in new feeders. UFR to be procured by July'22, implementation to be done by Mar'23**	Written to GE, will be done soon*
Assam	Submitted	Installation Completed. UFR to be shifted to Samaguri for 132kV Khaloigaon-Samaguri line.	Done
Manipur	Not submitted	No extra shedding required only Stage upward revision to be done.	To be done
Meghalaya	Submitted	17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA	One feeder of Stage IV left for mappingOther stages completed.
Mizoram	To be submitted	Completed	By Sep'22 subject to resolving of SCADA issues***
Nagaland	Submitted	Completed	Mapped except Stage-I feeders##
Tripura	Submitted	Stage-1(49.4Hz), Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. – Delivery at	To be done by the end of this month except

		site by Sep'22 and installation by Oct'22	for Non-RTU lines.
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*No RTUs available for the selected feeders, DPR being prepared. The forum requested to share the SLDC display with NERLDC.

**waiting for Guwahati Islanding scheme to come. UFR to be put into that scheme

***Forum requested to resolve the communication issue and meanwhile share the SCADA display with the RLDC.

The sub-committee may please deliberate

B.11. Primary Frequency Response testing plan of remaining units in NER:

Primary Frequency Response Testing of generator units is being carried out in line with the Clause no.5.2(g) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

Schedule as agreed in the 194th OCC meeting:

Region	Station	No. of generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	NEEPCO-Monarchak	1	26 th July'22	28 th July'22	done
NER	NEEPCO-Kameng	1 (by M/s Solvina)	Oct'22	Oct'22	2
NER	OTPCL-Palatana	2 (by M/s Solvina)	Oct'22	Oct'22	4
NER	Doyang-NEEPCO	2 (by M/s Siemens)	Sep'22	Sep'22	4 (water level to be sufficient enough to run the units at full capacity)

In the 194th OCC, the forum noted that conducting PFR testing of Doyang HPS might not be possible this year due to inadequate water level. After detailed deliberation, the forum asked NEEPCO to talk with M/S Solvina to conduct PFR for additional two units (i.e. Unit 2 & Unit 3 with 80% capacity in view of DGA issue) of Kameng HPS.

The sub-committee may please deliberate.

B.12. Regular furnishing of Patrolling report for all Important Lines to NERLDC/NERPC

There is a requirement of regular and proper maintenance of transmission lines. It is requested to carry out the patrolling activities as per Cl.No. 23 (2), (3) &(4) of CEAGrid Standards Regulation,2010on regular basis and submit the report to NERPC/NERLDC. It is requested to upload DR, EL& FIR outputs for transmission linesin the NERLDC tripping portal in line with Cl.5.2 R of IEGC 2010 Regulations.

In the 192nd/193rd /194th OCC, Member Secretary, NERPC took strong note of the non-submission of patrolling report by the utilities in spite of repeated persuasion. He directed all the utilities to submit the patrolling report for all Important Lines to NERLDC/NERPC periodically. The forum requested NERPC to send letters to states in order to urge them to submit patrolling reports.

The sub-committee may please deliberate

B.13. Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	July-22 (LGBR)	July-22 (Actual)	Aug-22 (LGBR)	Aug-22 (Actual)	Sept-22 (LGBR)	Sept-22 (Actual)
Arunachal Pradesh	155.75	119	162.00	154.72	163.00	144
Assam	1978.00	2231	2261.81	2378.85	2267.21	2308
Manipur	232.05	201	206.25	206.79	199.00	203
Meghalaya	343.84	332	332.97	348.369	340.69	354
Mizoram	107.29	119	106.81	118.68	113.30	127
Nagaland	159.58	159	184.99	161.8	170.00	161
Tripura (exc. Bangladesh)	307.22	319	310.49	323.95	305.00	333
NER DEMAND (exc. Bangladesh)	3019.86	3482	3258.70	3599.76	3309.56	3497

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	July-22 (LGBR)	July-22 (Actual)	Aug-22 (LGBR)	Aug-22 (Actual)	Sept-22 (LGBR)	Sept-22 (Actual)
Arunachal Pradesh	79.8	82.03	82.43	79.7	77.00	72.12
Assam	1132.23	1249.06	1187.80	1320.510	1159.35	1211.630
Manipur	84.93	82.37	84.96	83.090	82.09	79.7
Meghalaya	202.73	183.22	180.84	185.320	168.39	176.96
Mizoram	51.75	55.82	50.07	55.498	48.46	51.58
Nagaland	81.60	84.48	83.69	86.180	78.68	82.69
Tripura (excl. Bangladesh)	149.34	166.03	151.58	168.6	155.40	155.14
NER DEMAND (exc. Bangladesh)	1776.71	1903.873	1788.46	1979.643	1743.50	1830.5987

The sub-committee may please deliberate.

B.14. Installation of AWS by IMD Guwahati

It was informed in 158th OCCM that RMC, IMD, Guwahati would install Automatic Weather Station (AWS) in NER. As per the proposed list of stations by the constituents, IMD has surveyed the stations and has mentioned the requirement of NoC for the suitable stations.

As per minutes of 189th OCCM,

- a. MSPCL and P&ED Mizoram to submit the list of additional stations for installation of AWS. DoP, Nagaland has provided list of 14 stations for inspection. IMD is requested to plan inspection of site selection for the same.
- b. DoP AP, AEGCL and MePTCL to provide latest update on issuance of NoC for selected sites. NoC is received from Tripura for 6 stations so IMD may provide AWS installation schedule for the same.
- c. Further, IMD is requested to visit the stations of Mizoram, Nagaland, NEEPCO, POWERGRID and NTPC for site selection for AWS.

In 191st OCC some states had expressed the need for entering into MoUs with IMD in order to clarify on various issues.

In 194th OCC, DGM SLDC, TSECL informed the forum that installation of AWS at Bagafa, Budhjungnagar and Gournagar is completed and is nearly completed at Agartala. NERLDC intimated that Manipur and Mizoram have not submitted the list of additional locations for installation of AWS.

Regarding NoC and MoU, Assam and Arunachal Pradesh clarified that NOC will only be given after signing of MoU between IMD and individual states. After detailed deliberation the forum requested NERLDC to co-ordinate with IMD and request them to present the draft MoU in the next meeting.

The sub-committee may please deliberate

B.15. Outage of State-owned generating stations in Meghalaya System:

As per NERLDC records, many state-owned generators of Meghalaya are in outage since long as per following table.

Plant	Outage date	Reason	Expected revival date
Umtru Unit 1(2.8 MW)	2011	Not furnished	Not provided*
Unit 3 (42 MW) Leshka	27 th Jun'22	vibration in unit	6 months to 1 year

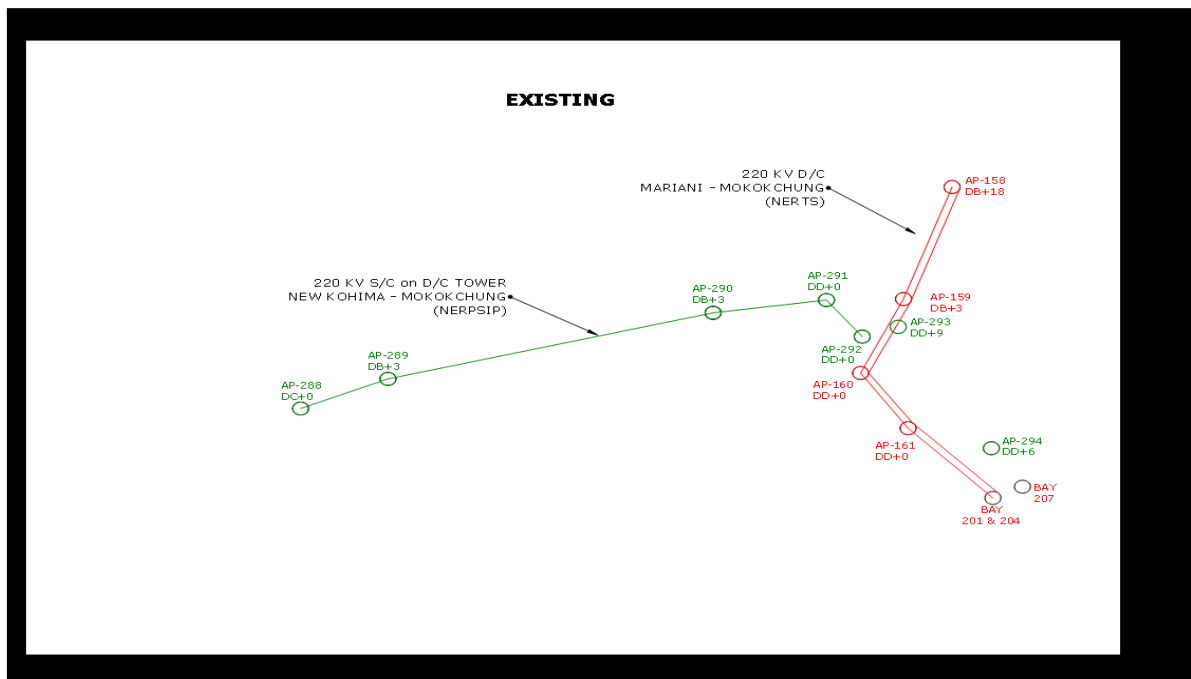
*DoCo of the unit is 1957, Head water level has increased due to raising of dam level. Machine design has to be changed and M/s WAPCOS has been engaged to carry out the study, report awaited.

The sub-committee may please deliberate

B.16. Requirement of shutdown for executing bay exchange and line swapping for 220kV New Kohima – Mokokchung TL under NERPSIP Nagaland:

Under the scope of NERPSIP, 220kV New Kohima GIS bay at 220/132kV Mokokchung GIS (POWERGRID) is completed and associated 220kV New Kohima – Mokokchung Transmission line on the verge of completion. However, due to non-availability of adequate corridor for crossing the existing 220kV Mariani – Mokokchung TL by the newly constructed line, swapping of the two lines near the substation and exchange of the bays at the substation is required. Matter has also been intimated to DOP.

The swapping of the transmission lines are proposed to be carried out from 07.09.2022 and since one number tower erection along with de-stringing and re-stringing of both the lines are required to be carried out only after obtaining shutdown of the existing 220kV D/C Mariani Mokokchung TL. The minimum shutdown requirement shall be of 18 days.



In the 193rd OCCM the forum had requested DoP Nagaland to intimate suitable timeline for the proposed shutdown of 220kV Mariani-Mokokchung D/C so that

swapping of the two lines near the substation and bay exchange work at 220/132kV Mokokchung substation can be carried out.

In the 194th OCC, EE, DoP Nagaland intimated the forum that the shutdown of 220kV Mariani-Mokochung D/C is contingent upon return of shutdown of 132kV Kohima-Meluri line which is under outage due to tower collapse, and can be taken from 23rd Sept to 10th October. However, Manager, NERPSIP expressed concern over the proposed schedule as it overlaps with Durga Puja and hence may encounter shortage of manpower. The forum requested NERPSIP to finalise the schedule by 20th September'2022 and intimate to NERPC thereafter.

DoP Nagaland may please update

B.17. OTPC Palatana unit 1 tripping due to oscillation

The OTPC Palatana U-1 was tripped on 11th June 22 and the same was discussed in 192nd OCC and it was decided to have special meeting to address the issue. On 18th Aug 22 at 23:52 LFO was again observed though its magnitude was low but 10 to 15 MW load variation in GT-1 & GT-2 was observed.

In the 194th OCC

NERLDC and OTPC presented their analyses regarding the incident and disagreements arose on whether the problem is in Governor Control System or PSS. After detailed deliberation, it was agreed in the next Sub-group meeting OTPC will present the study report of the OEM and detailed analysis will take place and exact reason will be ascertained.

The Sub-committee may deliberate.

C. NEW AGENDA ITEMS

Agenda from NERLDC

C.1. Synchronisation issue at Agartala

At 29/08/2022, ESD of 132 kV RC Nagar – Agartala II was to be availed by AGTCCPP to facilitate Hotspot in both bus side isolators of RC-Nagar line II. However, Breaker opening failed at Agartala end and the SD was delayed by around 1 and a half hours. Also, during return of S/D breaker closing issue was observed at Agartala end leading to delay in charging of line (charging done at 14:13 Hrs whereas charging code was initially given at 12:53 Hrs). Such delay in breaker operation is a major safety issue. During the period of the outage, Bangladesh Load was restricted to manage the loading of 132 kV SM Nagar (ISTS) – SM Nagar (TSECL).

As per the minutes of 194th OCCM of NER held on 15th September 2022, issue of CB at 79Tilla of 132 kV AGTCCPP – 79Tilla ckt II shall be rectified by Oct 2022.

It is requested to expedite the work to avoid such inordinate delays and intimate the present status of the same.

The sub-committee may please deliberate

C.2. Multiple trippings of 400 kV Silchar – Misa D/C:

In the past few months, 400 kV Silchar – Misa I tripped six times. Following are the relay details:

a) 400 kV Silchar – Misa I:

Date & Time	Silchar end details	Misa end Details
20-08-2022/08:01	Y-G ph,Z-1, 125.3km, 2.33kA	R-G ph, Z-1, 66.46km, 3.54kA
11-09-2022/12:55	Y-ph, Z-1, 137.78 km, 1.96kA	R-ph, Z-1, 70.7km, 2.76kA, A/R successful
24-09-2022/11:53	Y-N, Z-2, 146.78 km, A/R successful	R-N, Z-1, 79.10 km
01-10-2022/11:56	R-Nph,101.1km,Z-1,2.7kA	B-Nph,Z-1,76.6 km
06-10-2022/09:27	Y-ph, 102.6kM, 2.2 kA, AR lockout	R-ph, Z-1, 68.7kM, 3.07 kA

b) 400 kV Silchar – Misa II:

Date & Time	Silchar end details	Misa end Details
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03-10- 2022/13:46	Y-G ph, Z-1, 106.3KM, 1.7 kA, A/R successful	R-G ph, Z-1, 111.17 km, 3.13kA
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As per the DR analysis, lines tripped due to single phase fault which is mostly transient in nature. Also, it can be observed from the above that Single Pole Auto Reclose (SPAR) at Silchar and Misa S/Ss for the aforementioned lines are intermittently functional. Further, simultaneous operation on SPAR from both ends have also been an issue. Letter vide ref. NERLDC/SOII/2021/14/3835 dated 07/10/2022 have been issued by NERLDC in this regard. **(Attached as Annexure C2)**

It is requested to look into the following matter for corrective actions as these lines are vital for grid security of Southern part of NER:

- a) Vegetation Clearance to be done for 400 kV Silchar – Misa D/C by M/s IndiGrid and any other issue to be rectified forthwith to avoid frequent tripping of the lines.
- b) SPAR Issue for both ends to be rectified by NERTS, POWERGRID.

The sub-committee may please deliberate

C.3. Frequent tripping of 132 kV Loktak-Rengpang Line and 132 kV Rengpang-Jiribam Line

132 kV Jiribam-Rengpang and 132kV Loktak-Rengpang lines are vital links which cater the demand of Rengpang and Jiribam areas of Manipur Power System and also provides evacuation path of power from Loktak HEP. It has been observed that within a span of two months (From 1st Aug'22), there have been seven number(7) of trippings in 132 kV Loktak-Rengpang and twenty three(23) nos. of trippings in 132 kV Rengpang-Jiribam line.

The list of trippings of 132 kV Jiribam-Rengpang line during August'22 and September'22 is shown below:

	Tripping Time	Revival Time
06-08-2022	01:56	02:15
08-08-2022	12:35	13:04
12-08-2022	04:53	09:08
13-08-2022	15:20	15:35
14-08-2022	14:30	16:05
16-08-2022	11:35	08:13 (17-08-2022)
17-08-2022	14:00	18:10
21-08-2022	00:28	07:40
27-08-2022	05:42	06:26

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30-08-2022	12:42	13:12
01-09-2022	13:08	13:30
03-09-2022	10:36	11:30
05-09-2022	10:17	10:58
07-09-2022	12:43	15:12
08-09-2022	12:12	14:02
09-09-2022	12:01	13:21
11-09-2022	11:36	15:09 (16-09-2022)
17-09-2022	10:47	11:22
	11:36	16:19 (19-09-2022)
20-09-2022	09:25	11:02 (21-09-2022)
23-09-2022	10:45	17:15
25-09-2022	12:07	12:38
26-09-2022	11:20	17:09 (27-09-2022)
28-09-2022	09:46	Line faulty

Root cause of majority of the trippings could not be analysed due to non-submission of DR and EL outputs by MSPCL which is the violation of Cl 5.2 R of IEGC 2010 regulation. It is requested to regularly upload the DR EL files related to both the lines in NERLDC Tripping portal <https://tripping.nerlhc.in/Default.aspx> for proper analysis purpose. There is a requirement of proper patrolling & regular maintenance of these transmission elements by MSPCL

Hence, MSPCL is requested to look into the matter with utmost priority and ensure strict compliance of mandated O&M practices to ensure security and reliability of Manipur Power System.

The sub-committee may please deliberate

C.4. Frequent Tripping of Monarchak Units

Frequent Tripping of Monarchak Units has been observed during recent months.

Tripping details during September month is shown below:

No.	Tripping date	Tripping Time	Restoration Date	Restoration Time	Unit	Reason of Tripping
1	05.09.2022	18:02	05.09.2022	21:48	1	Rotor E/F

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2	14.09.2022	11:34	14.09.2022	15:03	Unit 1	Tripped due to communication error
3	14.09.2022	11:34	14.09.2022	16:05	Unit 2	Tripped due to communication error
4	16.09.2022	08:02	17.09.2022	22:06	Unit 1	Due to bleed valve problem
5	16.09.2022	08:02	19.09.2022	01:32	Unit2	Bleed valve problem
6	19.09.2022	09:30	20.09.2022	01:32	Unit 1	To facilitate PSD of 132 kV Monarchak - Rokhia& 132 kV Monarchak - Udaipur(Unit could not be revived due to GTG ignition problem)
7	19.09.2022	09:30	20.09.2022	03:55	Unit 2	To facilitate PSD of 132 kV Monarchak - Rokhia& 132 kV Monarchak - Udaipur(Unit could not be revived due to GTG ignition problem)
8	28.09.2022	10:24	28.09.2022	13:16	Unit 1	Tripped due to Thermocouple sensor issue
9	28.09.2022	10:24	28.09.2022	14:44	Unit 2	Tripped due to Thermocouple sensor issue

10	30.09.2022	13:57	30.09.2022	15:27	Unit 2	LP drum level low
11	03.10.2022	05:20	03.10.2022	07:14	Unit 1	Rotor E/F
12	03.10.2022	05:20	03.10.2022	08:22	Unit 2	Rotor E/F
13	03.10.2022	08:45	03.10.2022	11:06	Unit 2	Due to AVR tripped
14	07.10.2022	13:16	07.10.2022	16:56	Unit 1	Tripped due to miscommunication
15	07.10.2022	13:16	07.10.2022	17:23	Unit 2	Tripped due to miscommunication

Due to tripping of Monarchak Units, loading of 132kV SMNagar – SMNagar increases which leads to vulnerable situation in Tripura system and may lead to cascade trippings. Also due to tripping, Bangladesh drawal is reduced to 130MW to maintain the loading the 132kV SMNagar – SMNagar within limit.

NEEPCO may take all necessary measures to reduce such frequent tripping of units in future. Further in such contingency, SLDC Tripura is requested to take prompt action to reduce the loading of 132 kV SMNagar (ISTS) – SMNagar (TSECL) line as it can trigger Grid Disturbance in Tripura Power System at any moment. Also, the commissioning of the following approved elements may be expedited for strengthening the Tripura Power System:

- a) 132 kV Monarchak – SMNagar D/C
- b) HTLS reconductoring of 132 kV SMNagar(ISTS) – SMNagar(TSECL) line, 132 kV SMNagar(ISTS) – Budhjungnagar line, 132 kV PKBari(ISTS) – PKBari(TSECL) line and 132 kV PKBari(ISTS)-Ambassa line.

C.5. Bus Bar operation in 220/132kV Dimapur(PG) Bus on 22 September 2022

At 09:48 hrs, following elements tripped at 220/132kV Dimapur(PG):

- a. 220KV/132KV DIMAPUR-ICT-1 (master trip operated) and charged at 10:50 hrs
- b. 132KV-DIMAPUR(PG)-DOYANG-1 (master trip operated) and charged at 10:55 hrs
- c. 220KV/132KV DIMAPUR (PG)-ICT-3 (master trip operated).
- d. 132kV Bus Coupler and restored at 10:53 hrs

Again, at 11:44 hrs Busbar protection of 132kV Bus -1 operated at 220/132kV Dimapur(PG) S/S resulting in tripping of all the elements connected to Bus-1. It can be inferred from the above incident that after tripping of 220KV/132KV DIMAPUR (PG)-ICT-3(at 09:48 hrs), some work was carried out in ICT-3 without intimation to RLDC which resulted in operation of Busbar protection at 11:44 hrs. Also at 14:02hrs, Grid disturbance of Nagaland occurred due to tripping of 132 kV Dimapur(PG) - Dimapur(NL) I (as 132Kv Dimapur – Dimapur(NL) -2 had earlier tripped due to Bus Bar protection operation.) with load loss of 73MW. After several request by RLDC, no information was provided. At 23:40hrs reason of ICT 3 tripping was provided (DC Earth Fault) and charged during off peak hours.

The sub-committee may please deliberate

C.6. Outage of 132 kV Haflong – Jiribam line

132 kV Haflong – Jiribam line is crucial link for reliable power supply to Meghalaya and South Assam Grid during low hydro period. 132 kV Haflong -Jiribam line has been out of service since 11th May 2022. Also, Khandong HEP will take construction power from the Grid and will start generating from Mar 2023. 132 kV Haflong -Jiribam line is very crucial for reliable evacuation of Khandong HEP. In this context, Powergrid may intimate the exact status of work along with status of wildlife clearance issue for restoration of this important link. Further, the restoration may be expedited for reliability and security of the NER Grid.

The sub-committee may please deliberate

C.7. Reconductoring of 220 kV BTPS-Salakati D/C

220 kV BTPS- Salakati D/C are crucial in providing reliable power to Assam and the other states of NER. These two lines are also a major constraint limiting the NER-ER TTC/ATC Values. Upgradation of the 220 kV BTPS-Salakati I & II lines with HTLS conductor with requisite modification in bay equipment at both ends was agreed in the 2nd Meeting of NERSCT. It is expected that the import TTC/ATC values will increase by 100-150 MW after commissioning of the HTLS.

The shutdown of 220 kV BTPS- Salakati Line I have been approved from 6th Oct 2022 but the same was not availed.

It is requested to expedite the reconductoring of 220 kV Salakati – BTPS D/C on immediate basis as the shutdown has already been approved.

The sub-committee may please deliberate

C.8. Overloading of 220 kV Mariani (PG)-Mariani (AS) S/C

It has been observed that the loading in 220 kV Mariani (PG)-Mariani (AS) has reached beyond 180 MW on some instances while the maximum allowable loading of the line is 213 MVA.

SLDC, Assam vide letter no. AEGCL/CGM/SLDC/Tech-13/2022/33 dated 13.09.2022 has mentioned the overloading of 220 kV Mariani (PG) – Mariani (AS) line and sought for remedial measures from NERLDC that can be taken care the end of SLDC, Assam.

(Letter attached as Annexure C8.)

A joint visit was conducted by AEGCL and POWERGRID and the matter was discussed among NERPC, POWERGRID and AEGCL through a VC meeting on 06-10-2020. Based on the joint investigation of the matter, Triangular configuration of Mariani (POWERGRID) – Kathalguri (NEEPCO) – Mariani (AEGCL) at 220kV level with existing Twin Moose Conductor was recommended by NERPC. AEGCL vide letter dated 22.01.2021 requested for ‘in-principle’ approval of triangular configuration of the same. CEA, vide letter dated 09.02.2021, granted no objection in implementation of triangular configuration by AEGCL. The scheme was agreed in the 3rd NERPC-TP held on 19th July 2021.

AEGCL may look into the implementation of the downstream 220 kV system at New Mariani and plan for better evacuation of the generation in Upper Assam Power System.

It is also proposed for upgrading the conductor configuration of 220 kV Mariani (PG) – Mariani (AS) line from existing Zebra to Twin Moose Conductor, as no objection received from CEA, vide letter dated 09.02.2021. This will increase the capacity of the conductor from 213 MVA to more than 300 MVA.

It is also proposed to look into the possibility of commissioning of 2nd circuit of 220 kV Mariani (PG) – Mariani (AS) line so that under the N-1 contingency of 220 kV Mariani (PG) – Mariani (AS) one circuit, the other circuit will provide safe evacuation of generation of Upper Assam Power.

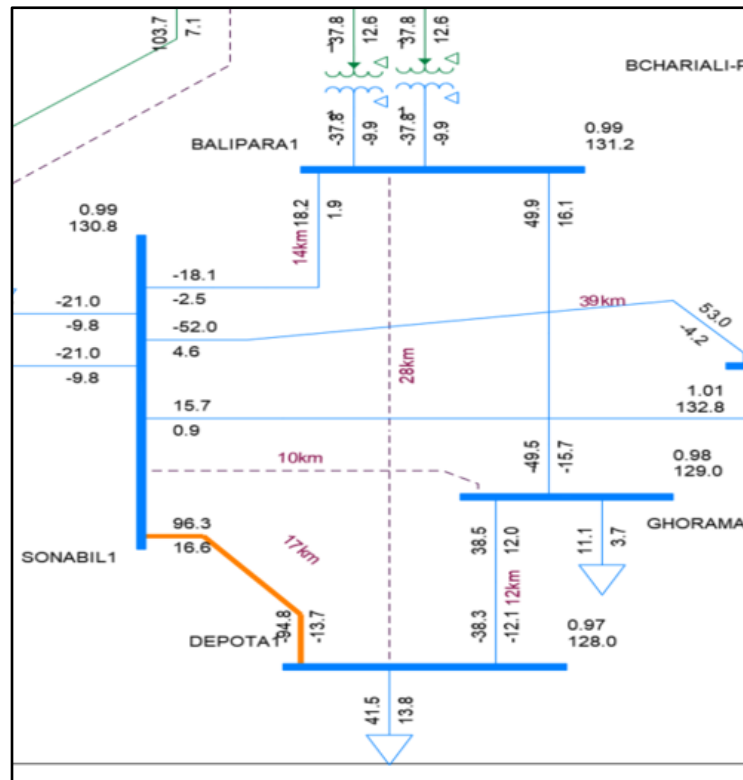
The sub-committee may please deliberate

C.9. Proper Utilisation of 220/132 kV,160 MVA ICT at Balipara

Before June 2018, the following 3 number of interconnections were available for utilization of the 220/132 kV Balipara ICTs viz. 132 kV Balipara – Ghoramari line, 132 kV Balipara – Sonabil line and 132 kV Balipara- Khupi line. Presently, as only one 132 kV connectivity is utilized for Khupi area of Arunachal Pradesh system (around 25 MW flow in peak hour) the 220/132 kV ICTs at Balipara remains underutilised (the ICTS

being loaded upto only 10% of their capacity). As per system study done by NERLDC, LILO of 132 kV BaliparaSonabil line at Depota would relieve congestion in 132 kV Sonabil-Depota S/C line and provide additional connectivity at 132 kV Depota station. It would also increase the capability of the system to cater more downstream loads of Depota area of Assam leading to better utilisation of 220/132 kV ICTs at Balipara. However, following lines must be restored before conversion to LILO of 132 kV Balipara-Sonabil line at Depota.

- a. 132 kV BaliparaSonabil line
- b. 132 kV Balipara-Ghoramari line
- c. 132kV Sonabil-Gohpur line
- d. 132 kV SonabilPavoi line



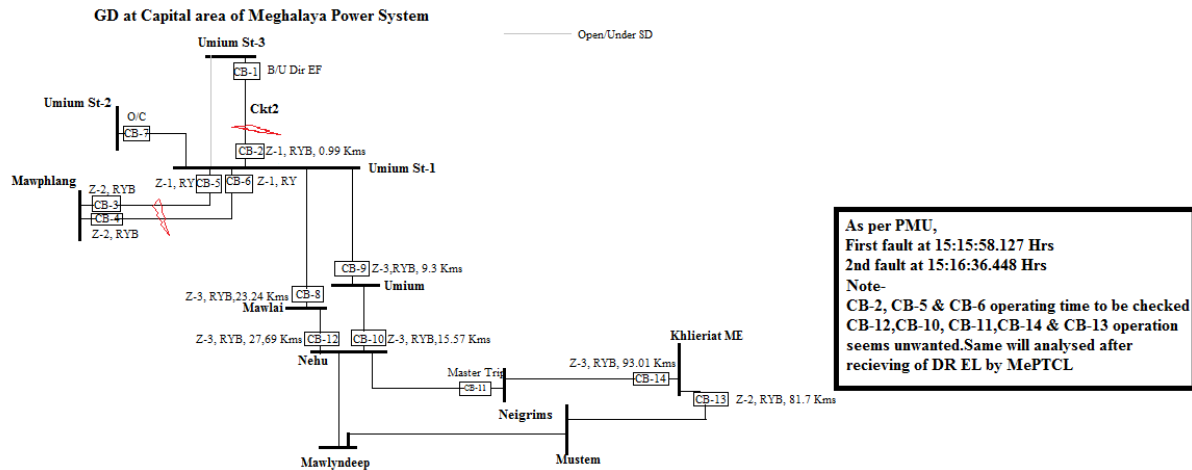
If the above solution of LILO at Depota is not agreeable by AEGCL, then the entire section of 132 kV Balipara- Ghoramari – Depota – Sonabil link is to be reconducted with HTLS.

The sub-committee may please deliberate

C.10. Grid Disturbance in Meghalaya Power System on 21st Sep'22

Grid Disturbance of Category GD-1 with a load loss of 50 MW and generation loss of 12 MW occurred in Capital area of Meghalaya Power System at 15:17 hrs on 21st Sep'22 due to tripping of multiple elements.

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Double phase to Earth fault were in 132 kV Umiam St I – Umiam St III 2 Line and was cleared within 85 msec from both ends on operation of Z-1. Also, another 3-Phase fault were in 132 kV Mawphlang - Umiam St I- 1&2 Line and was cleared within 75 msec from the Umiam St I on operation of Z-1 and cleared within 296 msec from the Mawphlang end in Z-2. The Z-2 time delay at Mawphlang seems low. **Also, The DP Z-III setting needs to be checked/reviewed by MePTCL at earliest as tripping of the following lines on Z-III seems to be mis-operation.**

- Tripping of 132 kV Mawlai - Umiam St I-1 from Mawlai (CB-8) on operation of Z-3 in 451 msec.
- Tripping of 132 kV NEHU - Mawlai Line from Nehu (CB-12) on operation of Z-3 within 475 msec.
- Tripping of 132 kV Umiam-Umiam St I-1 from Umiam (CB-9) on operation of Z-3 in 463 msec.
- Tripping of 132 kV Umiam- Nehu from Nehu (CB-10) on operation of Z-3 in 464 msec.

NERLDC vide letter dated 29th Sep'22 to MePTCL highlighted the issue and requested to find out the root cause along with sharing a copy of remedial measures that has been taken to resolve the issue. Time drift of about 14-15 minutes was observed in DR of all the tripped elements, which needs to be addressed by MePTCL immediately to get the exact sequence of events for proper analysis purpose. Also, most of the SOE of above events were not reported at NERLDC.

MePTCL is requested to take prompt action and resolve the issues at the earliest for healthy operation of the protection system.

C.11. Repeated tripping of 132 kV Along-Pasighat Line and 132 kV Balipara-Tenga Line

132 kV Along - Pasighat line and Balipara-Tenga lines are vital links which cater the demand of Pasighat/Roing/Tezu/Namsai and Khupi/Tenga areas of Arunachal Pradesh Power System. There have been a total of **6 (Six) numbers** of Grid Disturbance occurred in the Arunachal Pradesh system due to the tripping of the said lines on account of fault on line in the month of September'22.

As per DR analysis, the tripping of 132 kV Along-Pasighat line were mainly due to vegetation. Root cause of tripping of 132 kV Balipara-Tenga Line could not be analyzed due to non-submission of DR and EL outputs from Balipara (PG) end which is the violation of cl 5.2 R of IEGC Regulation-2010. NERLDC vide letter dated 29th Sep'22 to DoP, AP highlighted the same.

It is requested to regularly upload the DR EL files related to the tripping of 132 kV Balipara-Tenga in NERLDC Tripping portal <https://tripping.nerlhc.in/Default.aspx> for proper analysis purpose. Further, the frequent tripping of 132 kV Along - Pasighat line and 132 kV Balipara-Tenga Line signals that there is the requirement of proper patrolling & regular maintenance of these transmission elements by DoP Arunachal Pradesh.

Therefore, it is requested to look in to the matter on urgent basis and ensure strict compliance of mandated O&M practices as per CEA regulations to prevent frequent outage of the above-mentioned line. Also, a copy mentioning details of corrective and preventive measures may be shared.

The sub-committee may please deliberate

Agenda from NERTS

C.12. Requirement of Control & Relay panel for restoration of POWERGRID owned bays at Khandong S/s

During flooding incidence of the powerhouse on 26/03/22, complete powerhouse building got inundated with water and debris. Due to the same, related panels of aforesaid line got damaged and same are beyond repair.

NEEPCO has informed that by Feb'23 Khandong Stage#2 (25MW) generation shall be brought back in service. NEEPCO informed that there shall be requirement of at least one more 132kV Line for reliable evacuation of power.

POWERGRID is owning Line bays for following 132kV Lines at 132kV Khandong S/y of NEEPCO Khandong Powerhouse: -

1. 132kV Khlerihat Khandong#2
2. 132kV Khandong Kopill#2

As the Control & relay panel, PLCC and telecom equipment got damaged during flooding, hence to charge the line, there is requirement of 132kV SAS based Control & Relay panels. Availability of suitable spare panels have been explored, however, SAS based panels are not available and available conventional panel is requiring complex wiring modification.

Hence, matter has been discussed with AEGCL for availability of spare panels and it was informed that panels (02 sets) procured under PSDF is available. POWERGRID has requested AEGCL to provide 02 sets of Control & Relay panels.

The sub-committee may please deliberate

C.13. Upgradation of 132kV Badarpur & 132kV Khlerihat substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS

In NER, upgradation of 132kV Aizawl, Haflong, Jiribam, Kumarghat and Dimapur substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS done on completion of 25 Years.

In line with above, upgradation of 132kV Nirjuli and Imphal substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS also agreed 01st NERPC Transmission Planning meeting held on 08/11/19. However, upgradation of 132kV Khliehriat and Badarpur substations from Single Main and Transfer Bus Scheme to Double Main Bus Scheme by converting from AIS to GIS was kept in abeyance in said 01st NERPC TP meeting on 08.11.2019 due to considerable time was left out for completion of 25 years which is by February 2024. Now, considering minimum 2 years of lead time for detail engineering, tendering and implementation of the project it is proposed to approve the upgradation with conversion to GIS for Badarpur and Khliehriat Sub Station as less than 2 years left out for completion of 25 years of life.

The sub-committee may please deliberate

C.14. Upgradation of 33kV Indoor Switchgear at 132/33kV Ziro S/s from AIS based to GIS

132/33kV Ziro Substation was commissioned in the year 2004. On 33kV Side AIS type Indoor switchgear panel scheme is implemented. Substation is situated at an altitude of 1700 above msl. There are following feeders connected on 33kV Side: -

1. 33kV Ziro – Old Ziro
2. 33kV Ziro – KurungKumey
3. 33kV Ziro – Kimin

Now, due high altitude and humidity the 33kV AIS insulations and equipment are suffering frequent flashover / failure which is causing unwanted outage of power supply.

Presently, there is hardly any service support from OEM and also, OEM recommends for replacement of 33kV AIS system with GIS for trouble-free operation. It is understood that DoP, AP has already replaced the 33kV System with GIS in contemporary stations at Daporijo and Along.

In view of above, it is proposed that 33kV Indoor switchgear (AIS based) may be replaced with GIS based Indoor switchgear on POC Mechanism for reliable power supply to the downstream consumers at Ziro Sub Station. Approximate expenditure towards the same shall be INR 2 Cr.

The sub-committee may please deliberate

C.15. Requirement of 48V DC system at Kopili S/s

Under NERSS III, provision of providing 48 V supply was in scope of NEEPCO, hence, the same was not in the BOQ of ongoing GIS pkg. During last joint visit at Kopili on 26/09/22 by POWERGRID and NEEPCO, NEEPCO requested POWERGRID to provide new 48V DC system at Switchyard panel room for meeting the aux. power requirement of Telecommunication system.

The sub-committee may please deliberate

C.16. Frequent failure of Transformer at 132kV Ziro S/s

Since commissioning of 132/33kV system at Ziro S/s, repeated downstream faults are occurring in 33kV Lines at Ziro S/s. List of tripping of previous couple of years as given below: -

Sr. No.	Name of Line	Tripping Statistics	
		2021	2022 (upto Sep22)
1.	Kurung Kumey	433	353
2.	Kimin	437	318
3.	Old Ziro	73	106

04 Single phase units have been provided at Ziro S/s (03 Nos Main Units & 01 No as Cold Spare).

Due to frequent 33kV line tripping, there had been 05 instances of failure of Transformer units where the faulty units have been replaced with the spare unit.

As instances of repeated tripping is still ongoing, there are very high chances of breakdown of Transformer again at Ziro S/s.

There is only one bank of Transformer at Ziro S/s, in case of breakdown, all the connected areas through these 33kV Lines shall be without power till restoration.

Hence, it is proposed that 2nd ICT may be provided at Ziro S/s.

The sub-committee may please deliberate

D. ITEMS FOR STATUS

D.1. Implementation of projects funded from PSDF:

The status as informed in 194thOCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST* *	Line Differential Protection
Ar. Pradesh	Package-I (Diagnostic tools) Complete in all respects. P-II (for PLCC & communication) Supply completed. Erection WIP. 50% requisition submitted. P-III (Substation equipment) Agreement signed and 10% requisition submitted. Total 90% requisition by Apr'22. Completion by Dec'22. (Approval from TSA and Account opening in 3 months)	Project completed in all respects.	-	30% requisition submitted.	-
Nagaland	Completed in all respects.	Work completed in all respects. UC submitted .	-	30% requisition submitted	Lines identified. Under DPR preparation stage.
Mizoram	Final 10% disbursed. UC to be submitted.	Work completed in all respects. Remaining part of final 10% to be disbursed ASAP.	To reply to TEGS queries.	30% requisition submitted.	Revised DPR including both 132kV Aizawl-Luangmual and 132kV Khamzawl-Khawiva to be submitted.
Manipur	Package-II: completed Package-I: all stations complete except Ningthoukhong. By May'22.	Work completed in all respects. UC submitted in Oct'21.	WIP.	10% disbursed. 20% requisition sent.	Revised DPR for LDP of 132kV Imphal-Yurembam-III to be submitted by June'22.

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	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Completed. Final UC submitted on 04 th May'22.	Final 10% requisition submitted.	Not relevant in present scenario with commissioning of ISTS lines. Issue dropped	10% funds received. 20% requisition to be sent ASAP	For 132kv 79Tilla-Budhjungna gar line and for Rokhia link LDP at own cost. Tendering undergoing. DPR preparation for rest of the lines
Assam	Work completed except CRP, SAS work in 8stations which have been retendered and awarded to M/s SIEMENS. Completion by Dec'22	Project completed in all respects.	-	30% funds yet to be fully disbursed. 60% requisition sent.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL – completed in all respects. MePGCL – Completed in all respects.	Project completed in all respects.	-	30% funds yet to be fully disbursed. 60% requisition sent.	All works except OPGW done

In the 194th OCC, CGM, SLDC, AEGCL requested for extension of Milestone date for SAMAST. The forum unanimously decided that in view of the pandemic restrictions throughout NER in 2021 the extension is to be granted. Member Secretary, NERPC informed that originally the Project Completion deadline as per PSDF was 12 months, however in LoA target is completion by 18 months. The forum decided to extend the milestone date(s) and completion/Go Live/DoCO date(s) by 3 months, with target completion by 10th November'2022.

D.2. Status update of important grid elements under prolonged outage impacting system operation:

Sl. No	Element	Owner	Status as informed in the 194 th OCCM	Latest Status
1	132kV Mariani – Mokokchung (out since April'2008)	AEGCL	Non clearance due to persisting funding issue	
3	132kV Roing-Pasighat (charged through ERS tower)	NERTS	By Mar'23	
4	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(out since Oct'19)	NEEPCO/ NERTS	Nov 22	
5	132kV Srikona – Panchgram	AEGCL	DPR approved by the standing finance committee of Govt of Assam. However Administrative approval still awaited	
6	400kV Imphal – Thoubal-I and 315MVA 400/132kV ICT at Thoubal	MSPCL	RoW, litigation pending in court.	
7	63MVAR Bus Reactor at Byrnihat to be replaced with 80MVAR Reactor	MePTCL	Price resolution underway	
8	Main CB at Zuangtui for 132kV Melriat-Zuangtui	P&ED Mizoram	Applied for shutdown for CB replacement on 4 th and 7 th October	
9	Mawlyndep and Khliehriat CBs at Mustem	MePTCL	Oct'22	
10	400kV Silchar-Misack 2	NER-II TL	Restoration of ckt 2 through ERS underway. For the restoration work shutdown of ckt 1 approved by NERPC from 11.09.2022 to 15.09.2022	

D.3. Status of commissioning for upcoming projects:

Sl. No	Name of the element	Utility	Status as informed in 194th OCC meeting	Latest Status
1	132kV Monarchak-Surjamaninagar	TSECL	Oct'22. Meanwhile for evacuation of Monarchak, 132kV Monarchak-Rokhiackt is being provided	
2	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines)	MSPCL	For loktak-Ninthoukong line s/d for installing CVT is scheduled in August'22.For, Loktak-Rengpang line, by March'24	
3	Construction of 2 nd bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	OEM is awaited for SAS integration	
4	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	Material has reached the site. Tentative s/d in Oct'22.	
5	PLCC for 132kV Karong-Kohima. PLCC at Kohima	DoP Nagaland	PLCC panel at Karong has also to be changed as to ensure same make at both the substations	
6	132kV Loktak-Ningthoukhong-II	MSPCL	RoW issue at two spans, resolution underway	
7	132kV Roing-Chapakhowa	NERTS	FC obtained on 10.06.2022. Severe ROW issues. Targeted by Dec'22	
8	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	Applied for shutdown and awaiting for Shutdown approval against the same.	
9	420kV 80MVAR Bus Reactor	NEEPCO	By May'23	
10	220kV Killing – Mawngap	NERPSIP	Severe RoW in Zirang circle in RiBhoi district. Still un-resolved, Issue raised in PMG (DPIIT) also.	
11	220kV Samaguri – Mariani-I	AEGCL	FC still awaited in the Samguri-Khumtai section. While the Mariani-I	

Agenda for 195th OCC Meeting to be held on 18th October 2022

			to Khumtai section is charged	
12	Reconductoring of 132kV UmiamStg-III to UmiamStg-I by HTLS	MePTCL	Upgradation of Ckt 1 is underway, to be completed by early Nov and for forckt 2, by Dec'22	
13	PLCC/DTPC for 220kV Balipara- Sonabil	AEGCL	Will be commissioned along with charging of line 2	
14	220kV AGBPP -Namsai D/C	TBCB	REC (which is the BPC) is yet to issue Lol to Powergrid(L1). 36 months after issue of Lol	
15	Upgradation of 132kV Surjamaninagar-Surjamaninagar(ISTS), 132kV Bodhjungnagar-SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari-P.K.Bari(ISTS)	TSECL	WIP	
16	LILO of 132kV Leshka-Khliehriat-I at Mynkre and Mynkre SS and 33kV downstream at Mynkre.	NERPSIP	LILO completed. At Mynkre, at least one transformer will be installed by Sept'22 and the whole SS will be ready by Oct'22	
17	220kV Tinsukia-Behiating D/C	NERPSIP	One foundation left but water logging issue. Targeted by Oct'22	
18	LILO of 132kV Kamalpur-Kamakhya& 132kV Kamalpur-Sishugram at Amingaon	NERPSIP	No S/D approval by Assam yet. So, LILO to be done through ERS. Shutdown requirement will be Day time only	
19	220kV Rangia - Amingaon D/C and 220/132kV 2x160MVA Amingaon S/S	NERPSIP	Nov'22	
20	132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur	NERPSIP	Compensation disbursal issue at Tamenglong. By Nov'22	
21	132/33kV 2x20MVA Gamphazol at Manipur	NERPSIP	Testing ongoing. To be charged in 1 week	
22	132/33kV West Phaileng S/S at Mizoram	NERPSIP	Ready for charging	

Agenda for 195th OCC Meeting to be held on 18th October 2022

23	132/33kV 2x12.5MVA Marpara S/S at Mizoram	NERPSIP	Sep'22	
24	132/33kV 2x12.5MVA Lungsen S/S at Mizoram	NERPSIP	Sep'22	
25	132kV Lungsen- Chawngte S/C at Mizoram	NERPSIP	Sep'22	
26	132kV Chawngte - S.Bungtlang S/S at Mizoram	NERPSIP	Oct'22	
27	132kV W.Phaileng- Marpara S/C at Mizoram	NERPSIP	Work hampered due to Rain and malaria. By Nov'22	
28	220kV Zhadima - Mokokchung at Nagaland	NERPSIP	WIP. By Aug'22 subject to weather condition	
29	LILO of 132kV Wokha - Kohima at 132/33kV New Kohima at Nagaland	NERPSIP	Row at one location. By Sep'22	
30	132kV Wokha- Zunheboto - Mokokchung at Nagaland	NERPSIP	By Sep'22	
31	132kV Tuensang - Longleng at Nagaland	NERPSIP	Line by Sep'22, but Tuensang SS is not ready	
32	132/33kV Amarapur S/S at Tripura	NERPSIP	Sep'22	
33	132/33kV Manu(new) S/S at Tripura	NERPSIP	Sep'22	
34	132kV Dharmanagar- Kailashor	NERPSIP	RoW persisting, by Oct'22	
35	132kV Ziro-Yazali and 132/33kV Yazali S/S	POWERGRID- Comprehensive	Dec'22	
36	132kV Yazali - Palin and 132/33kV Palin S/S	POWERGRID - Comprehensive	Dec'23	
37	132kV Palin- Koloriang and 132/33kV Koloriang S/S	POWERGRID - Comprehensive	Dec'23	

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38	132kV Khonsa –Deomali and 132/33kV Khonsa S/S	POWERGRID - Comprehensive	Dec'23	
39	132kV Miao – Namsai and 132/33kV Miao S/S	POWERGRID - Comprehensive	Dec'23	
40	132kV Chimpu – Holongi and 132/33kV Holongi S/S	POWERGRID - Comprehensive	RoW issues at 5 locations resolved. Work resumed, expected by Sept'22	
41	Lower Subansiri HEP	NHPC	Unit 1 by Jan'23 and Unit 2 by Feb'23	
42	400kV Lower Subansiri-BNC line1	PGCIL	Nov'22	
43	400kV Lower Subansiri-BNC line2	PGCIL	Feb'23	
44	Conversion of MT to DM at (i)132kV Khliehriat, (ii)132kV Badarpur, (iii)132kV Nirjuli, (iv) 132kV Imphal	NERTS	(i)to be intimated (ii)to be intimated (iii)WIP completion by Oct'22 Completed	

D.4. Status of ISTS expansion scheme in NER:

A. Status of downstream 220kV or 132kV network by STUs from the various commissioned and under-construction ISTS substations inNER

	ISTS S/s	State	Voltage ratio, Trans. Cap	Down- stream Voltage level (kV)	Unutilized bays	Status of ISTS bay	STU Lines for unutilized bays	Status of Lines(as updated in 192 nd OCCM)	
								Date of Award	Completion schedule
1	New Mariani (POWERGRID)	Assam	400/220kV, 2x500MVA	220	2	Commissioned	New Mariani (POWERGRID) – Diphu (Assam) 220kV D/c line	Preliminary survey completed	By Jan'25
2	New Kohima (TBCB)	Nagaland	400/220kV, 2x500MVA	220	2	Commissioned	New Kohima (TBCB) – New Kohima (Nagaland) 220kV D/c line	LoA Feb'2021	Resolution of issue of high deviation angle at 1 st tower at New Kohima (TBCB) underway. Completion of the line after the said resolution

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3	Nangalbibra (TBCB)	Meghalaya	220/132kV, 2x160MVA	132	2	Under bidding	Nangalbibra (ISTS) – Nangalbibra (MePTCL) 132kV D/c (Single Moose) line	Survey awarded	Dec'23
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B. Status of 400kV substations and other important elements being implemented by STUs in NER under intra-state schemes to be connected through ISTS

Sl. No.	Substation/Location	Transformation Capacity/Element	Date of Award	Completion Schedule
A	Assam (to be implemented by AEGCL)			
I	Rangia	400/220kV, 2x500MVA	1. EPC Contract Award is Tentatively scheduled in the early half of Dec'2022. 2. Master Plan submitted for approval. 3. Tender under preparation 4. AIB points to be addressed	Dec'2025
a)	LILO of both circuits of Bongaigaon – Balipara 400kV D/c line at Rangia	400 kV, D/C	1. EPC Contract Award is expected by Dec'2022. 2. Tender preparation is completed and is to be reviewed by AIIB	Mar'26 (36 months form date of Award)
II	Khumtai	400/220/132kV, 2x500MVA + 2x160MVA	Survey work to be completed by June'2022. EPC tender to be floated on finalization of fund allotment. 220kV work will be constructed under ongoing AIIB scheme for which contract has already been award to M/S RS infra PVT tech ltd.	May'2026
a)	Khumtai (AEGCL) – BiswanathChariyali (PG) 400kV D/c line	400kV D/c	Survey work completion by July'22, tender floating after finalization of fund allocation.	220kV LILO part 60% complete. 400kV line by May'2026
III	Upgradation of Gohpur S/s from AIS to GIS	-	1. Notice of Award has been issued on 8 th June 2022 to M/S Sumaja Electro infra Pvt ltd.	June'2025
a)	2 no. 132kV GIS line bays at Gohpur for termination of LILO of one circuit of BiswanathChariyali – Itanagar 132kV D/c line (line works under ISTS through TBCB route)	132kV	1. LoA by Jun'22	June'2025

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IV	Upgradation of Sonapur S/s from AIS to GIS	-	1. Contract to be awarded by Jun'23. LoA by Jun'23	June'2026
a)	LILO of 400kV Silchar-Byrnihat at Sonapur	-	1. LoA by Jun'23	June'2026

Sl. No.	Substation/Location	Transformation Capacity/Element	Date of Award	Completion Schedule
B	Tripura (to be implemented by TSECL)			
I	Surajmaninagar (TSECL)	400/132kV, 2x315MVA	Award by Sep'22	12 months from Date of Award
a)	LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c line at Surajmaninagar (TSECL) S/s	400kV D/c	All works except 400kV termination at Surajmaninagar (TSECL) by POWERGRID to be done. Balance works under separate contract.	84% Line works complete by PGCIL, total completion subjected to Sub-station readiness at Surajmaninagar
C	NEEPCO (to be implemented by NEEPCO)			
I	Extension works at Ranganadi HEP end	Oct 22	Oct 22	Oct 22
II	Extension works at Pare HEP end	March'24	March'24	March'24
a)	Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi- Naharlagun / Nirjuli 132 kV S/c line			
b)	Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalent to ACSR Zebra) along with modification of 132kV bay equipment at Pare HEP			

D.5. Status Review for the Items Referred from previous OCCMs:

S.No	Item for Discussion	Status as per 194 th OCCM	Latest Status
1.	Installation of Capacitor banks in Upper Assam area of Assam (Agenda No. B19. of 189 th OCCM)	At Dhemaji funding issue. However, with coming of other lines like Pare-N. Lakhimpur voltage issue may be automatically rectified	
2.	Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189 th OCCM)	OEM has visited the site and proposed certain modifications in the original scheme. The finalised scheme will be submitted to the higher management in the following week.	
3.	Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189 th OCCM)	2 nd week of October'22	
4.	Non-availability of operational synchronization facility at 132kV Agartala Station (Agenda No. C10. of 189 th OCCM)	PGCIL has shared the required drawings, and wiring is completed also, but CVT issue occurred in the synchronization trolley. TSECL informed that a testing team to visit 79 Tilla to check the trolley	
5.	Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189 th OCCM)	Installation of CVTs done.	
6.	Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184 th OCCM)	RoW issue, litigation in court	
7.	Charging of 33kV Khupi-Kimi line at 132kV: Recommendations of the 187 th OCCM to be implemented: (a) Installation & Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188 th OCC meeting held on 16 th March, 2022 at Guwahati (b) Defective Relays at Khupi end to be repaired (NEEPCO) – By Mar'22 (c) PID testing and replacement of defective insulators (NEEPCO) – By Mar'22 (d) Infringement checking and vegetation clearance (NEEPCO) – By Mar'22 (e) Stringing of OPGW by POWERGRID Comprehensive – By Mar'22	(a) PLCC installed and testing done through existing battery bank (b) Rain related issues (c) PID testing done, replacement to take place after rainy season (d) to be done just before charging of the line (e) supply issues, to be done by Sep'22 (f) Procurement and installation of LDR by Aug'22 The option of charging the line without waiting for line differential protection to be explored, NEEPCO to replace defective insulators and clear vegetation infringements before charging	

Agenda for 195th OCC Meeting to be held on 18th October 2022

	(f) Procurement and installation of Line Differential Relays (NEEPCO) – By Mar'22 (Agenda B.15 of 188 th OCCM)		
8.	Synchronization issue of 220kv AGBPP – Tinsukia 1 & 2 at AGBPP end.(NEEPCO to update the status of CVT procurement and other relevant details.) Item B.24 of 190 th OCCM.	About to place the tender	
9.	Installation of second wave trap at Nirjuli SS for both N.lakhimpur and Pare circuits by PGCIL (B.14. Of 192 nd OCC)	To be installed along with charging of the LILO portion	
10.	Frequent breakdowns (BD) of Khuppi- Balipara transmission line (C2 of 191 st OCCM)	132kV Kimi –Khupi line to be commissioned by Sept'22	
11.	Proposed continuous shutdown of 132kV S/C Loktak Jiribam(PG) for HTLS reconductoring (C.5 of 191 st OCCM)	in view of frequent outage of 132 kV Loktak-Rengpang-Jiribam link, the shutdown may be availed in lean hydro season when the requirement of backing down of Loktak HEP shall be minimum. Also Shutdown can only be given after the return of 132kV Dimapur-Imphal line.	
12.	Issues faced during Mock Black Start exercise of Pare HEP on 27/05/2022 (C.7 of 191 st OCCM)	No report submitted	
13.	Implementation of Single Phase Auto-Reclosure for 132kV Rangia-Motonga and 132kV Gelephu-Salakati Line (C.14 of 191 st OCCM)	Oct'22	
14.	Non reporting of 132kV Mohanpur S/S under NERPSIP and Comprehensive projects (C.16 OF 191 st OCC)	Team on site, but not yet reporting	
15.	High level of dissolve gases on DGA report of Kameng U#3 R-phase GT: (C.17 of 191 st OCCM)	Continued DGA violation, but within manageable limits	
16.	Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191 st OCCM)	Estimate prepared and submitted to Disaster Risk reduction Works, 2022-2023, Govt of Assam	
17.	Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation) (B.18 OF 194 th OCC)	DoP,Nagaland to provide Line parameter details for relay setting to M/s KMTL.	
18.	400 kV STG-1 Main Bay at OTPC Palatana (C.6 of 194 th OCCM)	Persistent DC E/F problem in the bay to be resolved during shutdown of Block 1	
19.	400 kV Bongaigaon-Byrnihat L/R at 400 kV Bongaigaon (PG) (C.6 of 194 th OCCM)	Bushing of the L/R has developed the problem of oil leakage to be replaced	
20.	Occurrence of Multiple grid disturbance in Gohpur and radially	AEGCL updated the forum that corresponding bay is ready but RTU	

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	connected areas of Assam Power System (C.10 of 194 th OCC)	gateway related work has remained and by Sept'22 the work will be completed.	
21.	Status of Installation of TLSA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L (C.12 of 194 th OCCM)	Tendering process to be completed.	
22.	PLCC & protection related issues at 132kV Tipaimukh S/s (C.15 of 194 th OCC)	MSPCL to ensure healthiness of 48V DC System & Protection System by Sep'22.	
23.	48V System reliability at Pasighat end (C.16 of 194 th OCC)	Arunachal Pradesh intimated the forum that the matter will be referred to the transmission circle and a report on action taken in this regard will be provided to NERPC/NERLDC in the following week.	

E. METERING AGENDA ITEMS

E.1. SEMs to be procured for Sterlite& KMTL on-going projects (50 SEMs):

NERTS confirmed over mail regarding receipt of 50 Nos. SEM and 10 Nos. DCD at Misa Substation on 23.03.2021. NERLDC prepared a list of 30 nos. SEM and 07 nos. DCD on priority basis and sent to NERTS via mail on 29.04.21. As deliberated in 184th OCCM, installation/ replacement of SEMs and distribution of DCDs had almost been completed.

As per NERLDC record, newly procured defective DCD at Tinsukia is yet to be replaced. In 192nd OCCM, NERTS mentioned that presently three DCDs are in stock, out of which, forum requested one to be handed over to Tinsukia. NERTS requested Assam to collect the same from Misa S/s. Out of the remaining 2 DCDs, one to be given to NEEPCO for Khandong drawl and another to be handed over to Bhutan for Motanga. In the 193rd OCCM Assam updated that they have not received the DCD yet, but will receive at the earliest. Manager, NERLDC mentioned that DCD kept for Motonga, Bhutan shall not be required to be provided to them as the SEM data is being received from ERLDC for Motonga.

In the 194th OCCM, DGM(AM), NERTS informed that 40DCDs are under procurement and delivery is expected by Oct'22.

The sub-committee may please deliberate

E.2. Issues regarding SEM Data Processing:

- a. Mismatch in 220 kV Deomali (AP) - AGBPP (Kathalguri) power flow data: Pair-check mismatch has been observed for 220 kV Deomali (AP) - AGBPP (Kathalguri). Deomali end is reading 2/3rd of Kathalguri end. In 194th OCCM, SLDC A.P assured the forum to send expert form Itanagar to check the SEM at the earliest. Status may be reviewed.
- b. Non-receipt of SEM data from 220kV Mariani(As) & 132 kV Pailapool Substations: Weekly SEM data of 220kV Mariani(As) & 132 kV Pailapool(As) Substations is important for accounting of Assam drawal. However, SEM data from the said substations is not being received.
In 194th OCCM, SLDC AEGCL intimated the forum that regarding SEM at Mariani(As), USB to serial converter's driver is not available, for which PGCIL assured to ask Mariani(PG) to extend support. Regarding SEM at Pailapool it was informed that a new laptop is required which will be procured very soon.
Status may be reviewed.
- c. Sign reversal of Rengpang end of 132kV Loktak- Rengpang line: Sign Reversal problem exist in Rengpang end of 132kV Loktak-Rengpang line. In 194th OCCM,

SLDC MSPCL informed that a thorough evaluation of the meter was done but the problem still persists. The forum requested PGCIL to extend help to MSPCL. To which PGCIL concurred

Status may be reviewed.

- d. Erroneous reading of Tipaimukh end of 132kV Aizwal-Tipaimukh line: Tipaimukh end of 132kV Aizwal-Tipaimukh line is reading close to 0 (Zero). In 194th OCCM, SLDC, MSPCL informed that similar to problem with SEM at Rengpang SS, the problem with SEM at Tipaimukh still persists despite a thorough evaluation of the meter. The forum requested PGCIL to extend help to MSPCL. To which PGCIL concurred

Status may be reviewed.

The sub-committee may please deliberate

पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड
(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED
(A Government of India Enterprise)



उत्तर पूर्वी क्षेत्रीय भार प्रेषण केंद्र : लोअर नंगरा, लापालांग, शिलांग-793006, (मेघालय)

North Eastern Regional Load Despatch Centre: Lower Nongrah, Lapalang, Shillong - 793006, (Meghalaya)

Ph : 0364-2537470, 2537427, Fax - 2537486 Website : www.nerlhc.org, Email - nerlhc@posoco.in, CIN : U40105DL2009GOI188682

Ref: NERLDC/SOH/2021/14/3825

दिनांक/Date: 07.10.2022

सेवा में/To:

1. Chief Manager, NTL
2. Chief General Manager, AM, NERTS, Shillong-793006

प्रतिलिपि/Copy to:

1. Member Secretary, NERPC, Shillong- 793006

बिषय/Sub: Auto-Reclosure (A/R) operation issue of 400 kV Misa - Silchar D/C Lines - Reg

महोदया / महोदय,

As you are aware that 400 kV Misa - Silchar D/C Lines tripped 6 consecutive times from September 2021 to September 2022 due to Single-Phase faults. It has been observed that in 4 instances, A/R was not operated from both the ends which affects the transmission lines outage in the account of NTL. The tripping of both lines is a matter of concern. The event was analyzed based on submitted DR outputs data and is tabulated below.

Analysis Based on DR

SL No.	Element Name	Tripping Date & Time	Relay Indication Main(S) & A/R Status	Relay Indication Main(R) & A/R Status	DR Analysis from End A	DR Analysis from End B
1	400 kV Misa - Silchar 2 Line	24-11-2021 09:25	DP, ZI, B-E, FD: 49.3 Kms, A/R- not operated	DP, ZI, B-E, A/R- not operated	DR Output not submitted	DR Output not submitted

2	400 kV Misa - Silchar 2 Line	15-06- 2022 13:29	DP, ZI, R-E, FD: 43 kms, A/R- Operated Unsuccessfully	DP, ZI, Y-E, FD: 134.8 km, A/R- Operated Unsuccessfully	Fault inception at 13:29:07.418 Hrs with Ir=5.59, In=5.84, and Relay indication: DP, ZI, R-E, FD: 43 kms, Fault cleared within 44 msec from the System. Phase separation: -77 Degrees.	Fault inception at 13:29:07.421 Hrs with Iy= 2.21, In=2.17, and Relay indication: DP, ZI, Y-E, FD: 134.8 kms, Fault cleared within 44 msec from the System. Phase separation: -76 Degrees.
3	400 kV Misa - Silchar 1 Line	16-06- 2022 05:52	DP, ZI, R-E, FD: 4.32 km, A/R- Operated Unsuccessfully	DP, ZI, Y-E, A/R- Operated Unsuccessfully	DR not submitted	Fault inception at 05:57:18.669 Hrs with Iy=2.40, In=2.32, and Relay indication: DP, ZI, Y-E, Fault cleared within 41 msec from the System. Phase separation: -72 Degrees.
4	400 kV Misa - Silchar 1 Line	20-08- 2022 08:01	DP, ZI, R-E, FD: 66.46 kms, A/R- Not Operated	DP, ZI, Y-E, FD:125.3 kms, A/R- Not Operated	Fault inception at 08:01:21.931 Hrs with Ir=3.40, In=3.61 and Relay indication: DP, ZI, R-E, FD: 66.46 kms, Fault cleared within 52 msec, from the system. Phase	Fault inception at 08:01:21.933 Hrs with Iy=2.26, In=2.21 and Relay indication: DP, ZI, Y-E, FD: 125.3 kms, Fault cleared within 51 msec, from the system. Phase separation: -32 Degrees.

					separation: -47 Degrees.	
5	400 kV Misa - Silchar 1 Line	11-09- 2022 12:55	DP, ZI, R-E, FD: 70.7 km, A/R- Not Operated	DP, ZI, Y-E, FD: 137.78 km, A/R- Not Operated	Fault inception at 12:54:59.273 Hrs with Ir=2.54, In=1.56 and Relay indication: DP, ZI, R-E, FD: 70.7 Kms, Fault cleared within 81 msec, from the system. Phase separation: -36 Degrees.	Fault inception at 12:54:59.279 Hrs with Iy=1.94, In=1.86 and Relay indication: DP, ZI, Y-E, FD: 96.9 Kms, Fault cleared within 71 msec, from the system. Phase separation: -36 Degrees.
6	400 kV Misa - Silchar 1 Line	24-09- 2022 11:53	DP, ZI, R-E, FD: 70.7 km, A/R- Not Furnished	DP, ZI, R-E, 79.10 km, A/R- Not Furnished	Only .cfg file submitted	Only .cfg file submitted

As per the DR analysis, lines tripped likely due to single phase fault which is mostly transient in nature. Non-operation of Auto-reclosure of 400 kV Misa - Silchar D/C Lines greatly reduces the reliability of NER Grid and hence, POWERGRID is required to provide reason for non-operation of A/R from both the ends.

A copy of measures identified, and action taken in this regard may be shared with NERPC and NERLDC.

Cooperation is requested for ensuring secure and integrated grid operation.

धन्यवाद एवं सादर सहित।

भवदीय / Yours sincerely,

(एस सी डे / S.C. De)

वरिष्ठ महाप्रबंधक (एस.ओ-2) Sr.G.M. (S.O.-II)
उपक्षेत्राधिकारी, शिलांग / NERLDC, Shillong

07/10/2022



ASSAM ELECTRICITY GRID CORPORATION LIMITED
Regd. Office: (FIRST FLOOR), BIJULEE BHAWAN, PALTANBAZAR; GUWAHATI -
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आजादी का
अमृत महोत्सव

No.AEGCL/CGM/SLDC/Tech-13/2022/33

Date: 13.09.2022

To

The General Manager (SO-I),
NERLDC, Dongtiah, Lapalang, Shillong -793 006

Subject: Overloading issue of 220kV New Mariani(PG)- Mariani(AEGCL) line .

Ref: Letter no. AEGCL/AGM/MGSS/T-07/2022/934 dtd 26.08.2022 by the Assistant General Manager, 220kV Mariani GSS, AEGCL

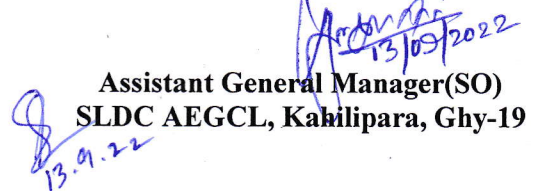
Sir,

With reference to the subject cited above, the undersigned would like to bring to your notice the issue of overloading of 220kV New Mariani(PG)- Mariani (AEGCL) line during summer peak season as the letter under reference indicates.

Therefore Sir, I request you kindly to look into the matter and suggest remedial measures if any, to be taken care of from our end.

Enclo:- As above

Yours Sincerely,

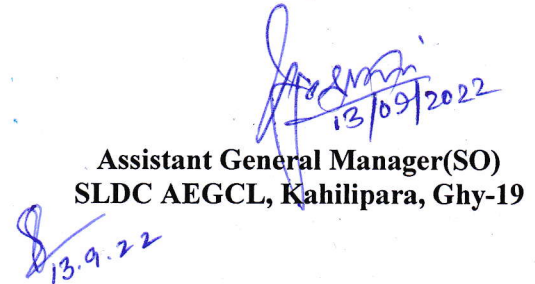

Assistant General Manager(SO)
SLDC AEGCL, Kahilipara, Ghy-19
13.9.22

Memo No.: AEGCL/CGM/SLDC/ Tech-13/2022/33 (a)

Date: 13 .09.2021

Copy to:

1. The Assistant General Manager, 220 kV Grid Substation, AEGCL, Mariani.- for kind information.
2. Relevant file.


Assistant General Manager(SO)
SLDC AEGCL, Kahilipara, Ghy-19
13.9.22

O/O Chief General Manager, SLDC, AEGCL, Kahilipara, Guwahati - 781019
Phone - 0361-2380539 (Office), 95312 06854 (Control Room)
E-mail:- sldcaseb@gmail.com, sldcassam@aegcl.co.in; Website: www.sldcassam.in



ASSAM ELECTRICITY GRID CORPORATION LIMITED

Regd. Office: 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati-781 001,

CIN: U40101 AS2003SGC007238,

Phone: 0361-2739520/ Fax : 0361-2739513 web: www.aegcl.co.in

No. AEGCL/AGM/MGSS/T-07/2022/934

Date. 26/08/2022

To,

The Assistant General Manager (System Operations)
SLDC, AEGCL
Kahilipara, Guwahati-19

Sub: Observation of overloading of 220kv AEGCL(Mariani)-POWERGRID(New Mariani) transmission line

Ref: PGCL letter No NEMRN/O&M/SS4/590 on dated 26.08.2022

Sir,

With respect to the subject cited above and as per the letter attached, which is self-explanatory, the undersigned would like to state that the interconnection of the portion of the Mariani(AEGCL)-New Mariani(PGCL) was executed by AEGCL to facilitate the reliability at 220kV line connectivity. The conductor used for the two spans was single Zebra AAAC, while the existing line was Twin Moose. During the last few weeks it is observed that the load flow through this line has increased abruptly reaching more than 1the load bearing capacity of Single Zebra conductor during peak hours. Therefore Sir, the undersigned would like to request you to kindly take necessary action to monitor the load flow and do the needful to prevent any unwanted situation.

This is for your kind information and necessary action.

Thanking you.

Yours Faithfully,

Assistant General Manager
220KV Grid Sub-Station,
AEGCL, Mariani.

Memo No: AEGCL/AGM/MGSS/T-07/2022/

Date.

Copy To

1. The Chief General Manager(O&M), UAR, AEGCL, Bijulee Bhawan for favour of kind information
2. The General Manager, UAZ, AEGCL, Dibrugarh.....for favour of kind information.
3. The Dy. General Manager, UAT&T Circle, AEGCL, Garmur..... for favour of kind information
4. Office Copy

Assistant General Manager
220KV Grid Sub-Station,
AEGCL, Mariani

North Eastern Region Transmission System

Ref: NEMRN/O&M/SS4/ 590

Date: 26.08.22

To,

The Dy. General Manager,
AEGCL,
Mariani 220/132/66/33kV Sub station
Mariani -785634

Sub: Observation of overloading of 220KV AEGCL(Mariani)—POWERGRID (New Mariani) Transmission line.

Dear Sir,

- 1.0.It may please be noted that in line with CEA letter dtd. 09.02.2021, AEGCL has executed Inter connection between 220KV AEGCL(Mariani S/S)—POWERGRID(New Mariani) S/S in December/2021 and the line was synchronized in January/2022.
- 2.0.While executing the said work, AEGCL has used Single Zebra conductor and hardware fittings for the stringing purpose.
- 3.0.It may be noted that the existing bays at AEGCL substation end is also having Single Zebra conductor for AEGCL (Mariani)- New Mariani & AEGCL(Mariani) –Kathalguri bays.
- 4.0.It is seen in last few weeks that Load flowing through AEGCL (Mariani)- POWERGRID(New Mariani) Line is reaching more than 172MW in Peak hours.
- 5.0.In view of above, it is requested to kindly look into the matter considering use of Single Zebra conductor in the 220kV AEGCL (Mariani)- POWERGRID(New Mariani) transmission line.

Yours faithfully


(A. J. Gogoi)
Sr. General Manager (Mariani SS)

देशीय मुख्यालय / उप-केन्द्र / साइट ऑफिस : दूरभाष

RHQ/Sub-station/Site Office : Tel :

केंद्रीय कार्यालय : "सौदामिनी", प्लॉट नं.: 2, सेक्टर-29, गुरुग्राम-122001, (हरियाणा), दूरभाष 0124-2571700-719

Corporate Office : "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel : 0124-2571700-719

पंजीकृत कार्यालय : बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110 016 दूरभाष : 011-26560112, 26560121, 26564812, 26564892, सीआईएन : L40101DL1989GOI038121

Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016. Tel: 011-26560112, 26560121, 26564812, 26564892, CIN : L40101DL1989GOI038121

Website : www.powergridindia.com



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत प्रणाली योजना एवं मूल्यांकन प्रभाग-II
Power System Planning & Appraisal Division-II

सेवा में To

The Managing Director,
Assam Electricity Grid Corporation Limited,
Bijulee Bhawan, Paltan Bazar,
Guwahati (Assam) - 781001

विषय : न्यू मरिबानी-मरिबानी इटरकनेक्शन |

Subject: New Mariani-Mariani Interconnection.

Ref. 1) AEGCL letter No. AEGCL/MD/Tech-878/NERPC(TP)/2020/29 dated
22.01.2021

2) Minutes of Joint System Study meeting of NER held on 23rd December 2020

महोदय/Sir,

This has reference to AEGCL letter dated 22.01.2021 requesting for 'in-principle' approval of triangular configuration of Mariani (POWERGRID) – Kathalguri (NEEPCO) – Mariani (AEGCL) at 220kV level with existing Twin Moose Conductor.

In this regard, the following is mentioned:

- (i) Construction of New Mariani (POWERGRID) – Mariani 220kV D/c line (with high capacity conductor) and Termination of Samaguri – Mariani 220kV 2xS/c lines at New Mariani (POWERGRID) S/s by AEGCL were agreed in the 05th Meeting of Standing Committee on Power System Planning of North Eastern Region held on 08.08.2015.
- (ii) In the 02nd meeting of NERPC-TP held on 25th September 2020, representative of Assam stated that construction of gantry from New Mariani-Mariani would be very difficult as most of the lines emanating from New Mariani are in same direction / area. In that meeting, it was decided that a group comprising of members from NERPC, POWERGRID and AEGCL will visit the Mariani / New Mariani substations and submit the report through NERPC on feasible options considering that maximum number of 220kV outlets from can be drawn from New Mariani (POWERGRID).
- (iii) Based on the report of the group, Establishment of New Mariani – Mariani 220kV S/c line (Twin Moose) using LILO portions of Kathalguri – New Mariani

