



सत्यमेव जयते

Government of India  
Ministry of Power  
North Eastern Regional Power Committee  
Lapalang, Shillong 793006



No. NERPC/SE (O)/OCC/2021/ **7537-7573**

Dated: 30<sup>th</sup> September, 2022

संलग्न सूची के अनुसार  
As per list enclosed.

**Sub: Minutes of 194<sup>th</sup> OCC Meeting.**

**Sir/Madam,**

Please find enclosed herewith the minutes of 194<sup>th</sup> OCC Meeting held at “**NERPC Conference Hall, Shillong, on 15<sup>th</sup> September, 2022**” for your kind information and necessary action. The minute 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.

**Encl: As above**


Yours faithfully,

(S.Mukherjee)

**Dy. Director**

List of Addressees:

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APDCL, Bijuli Bhawan, Guwahati – 781 001
3. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
4. Director (Generation), Me. PGCL, Lumjingshai, Short Round Road, Shillong – 793 001
5. Director (Distribution), Me. ECL, Lumjingshai, Short Round Road, Shillong – 793 001
6. Director (Transmission), Me. PTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
8. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
9. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
10. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
11. Chief Engineer (WE Zone),Department of Power ,Govt. of Arunachal Pradesh, Itanagar- 791111
12. Chief Engineer (EE 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. Engineer-in-Chief (P&E), Department of Power, Govt. of Mizoram, Aizawl – 796 001
15. Engineer-in-Chief (P), Department of Power, Govt. of Nagaland, Kohima – 797 001
16. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
17. Group General Manager, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar-783369
18. ED, NERTS, PGCIL, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
19. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
20. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
21. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
22. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
23. ED, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
24. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
25. Chief Engineer (NPC), GM Division, Central Electricity Authority, New Delhi – 110066
26. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
27. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
28. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
29. Head of SLDC, MeECL, Lumjingshai, SR Road, Umjarain, Shillong – 793022
30. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
31. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
32. Head of SLDC, MSPCL, Imphal – 795001
33. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
34. Head of SLDC, TSECL, Agartala – 799001
35. Chief Engineer(Elect), Loktak HEP,Vidyut Vihar, Kom Keirap, Manipur- 795124
36. DGM (O&M), OTPC, Badarghat Complex, Agartala, Tripura – 799014
37. Director,NETC,2C,3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-110077.



(S.Mukherjee)

**Dy. Director**



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# Minutes of Meeting of 194<sup>th</sup> OCCM, NERPC



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

# North Eastern Regional Power Committee

## MoMof

### 194<sup>th</sup>OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 15<sup>th</sup> September 2022 (Thursday)

Venue : "NERPC, Shillong"

The List of Participants in the 194<sup>th</sup>OCC Meeting is attached at **Annexure – I**

Shri B. Lyngkhoi, Member Secretary, NERPC welcomed the participants to the 194<sup>th</sup> OCC meeting. He noted the following:

- a. SAMAST project for Assam, Meghalaya is on the verge of completion and in the remaining five states the project is underway.
- b. Patrolling report is being submitted by Arunachal Pradesh, Assam, Meghalaya, Nagaland and Tripura. Other utilities especially State utilities and NERTS-POWERGRID should submit weekly.
- c. Charging of assets without the consent of NERLDC is not desired and such acts are in contravention of IEGC. Repetitive cases shall be brought to notice of Hon'ble CERC.

Thereafter, Member Secretary requested Sh. S. Mukherjee, Deputy Director to take up the agenda items for discussion.

#### A. CONFIRMATION OF MINUTES

#### **CONFIRMATION OF MINUTES OF 193<sup>rd</sup>MEETING OF OPERATION SUB-COMMITTEE OF NERPC.**

The minutes of 193<sup>rd</sup>meeting of Operation Sub-committee held on 12<sup>th</sup> August, 2022 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2021/6702-6738 dated 31<sup>st</sup>August, 2022.

CTU vide mail dated. 12<sup>th</sup> August'2022 has requested for modification of minutes of 192<sup>nd</sup> OCCM:

#### **Item No. E.1: Procurement of SEM & DCD/Laptop for future requirements**

**Recorded in MoM:** DGM, CTU intimated that framing of T&C will take place by Oct'22. DGM, CTU informed that order for 40 DCDs has been placed to PGCIL and shall be made available by Oct'22 and in case of emergency diversion from inventories in other regions can be done. Also, there will be no supply cost for existing inventory but installation may incur consultancy charges. Moreover, there will be separate billing for the charges incurred by the states as against the current

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022  
system of billing through PoC charges. The detailed presentation of CTU regarding  
Process of Procurement, Distribution and Installation of SEM/DCD alongwith Billing  
mechanism and charges is attached at Annexure-E.1

**Comments from CTU:** GM, CTU informed that CTU has authorized POWERGRID for  
procurement of IEMs/DCDs as an interim arrangement and order for 40 DCDs has  
been placed by PGCIL and the same shall be likely made available by Oct'22 and in  
case of emergency diversion from inventories in other regions can be done. Also,  
there will be no supply cost for existing inventory but installation may incur  
consultancy charges. Moreover, there will be separate billing for the charges incurred  
by the states as against the current system of billing through PoC charges for new  
procurement of IEMs/DCDs. The detailed presentation of CTU regarding Process of  
Procurement, Distribution and Installation of SEM/DCD alongwith Billing  
mechanism and charges is attached at Annexure-E.1 of 193<sup>rd</sup> OCC.

***The Sub-committee confirmed the minutes of 192<sup>nd</sup>&193<sup>rd</sup>OCCM of NERPC with  
the above modifications as noother comments/observations were received from  
the constituents.***

## **B. FOLLOW UP AGENDA ITEMS**

### **B.1. Operational Performance and Grid discipline during August,2022:**

NERLDC presented (**Annexure B.1**) the Operational Performance and Grid Discipline in August'2022.

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

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

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

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

### **Deliberation of the sub-committee**

After detailed deliberation the forum approved the outage of Generators in October'22

***The sub-committee noted as above***

***Action: all generating utilities***

### **B.3. Outage Planning Transmission elements**

It was agreed in the 99th OCC 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 10<sup>th</sup> of the month, the shutdown availing agency would reconfirm to NERLDC on 7<sup>th</sup> 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 1<sup>st</sup> day of the following calendar month to the 30<sup>th</sup>/31<sup>st</sup> day of the same month.

**Deliberation of the sub-committee**

After detailed deliberation the forum approved the shutdown of transmission elements for October'22 (attached at **Annexure-B.3**)

***The Sub-committee noted as above***

***Action: all transmission utilities***

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

Transmission Utilities have submitted the outage data for the month of August, 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 July, 2022 is as follows-

Sl no	ISTS Licensee	Availability for July'22 (%)
1	NETC	100.0000
2	KMTL	100.0000
3	NER-II TL	100.0000
4	PGCIL	99.8887 (June'22)

***The Sub-committee noted as above***

***Action: Transmission utilities, NERLDC, NERPC***

**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 177<sup>th</sup> OCC meeting on 22<sup>nd</sup> 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:

<b>Plant Name</b>	<b>Performed On</b>	<b>Due Date</b>	<b>Schedule of Testing as per 193<sup>rd</sup>OCCM</b>
AGBPP	.....	.....	after upgradation of DG under R&M
AGTTCCPP	09.04.2019	09.10.2019	Sept'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	.....	.....	By August'22
KopiliStg-II	-	-	Under prolonged shutdown

\*In the 193<sup>rd</sup> OCCM NERTS informed that CRP Scheme has been modified for Synchro-check purpose for both the lines and the copy of the scheme has been handed over to TSECL.

### **Deliberation of the sub-committee**

NEEPCO and NHPC informed the dates for testing as follows:

<b>Plant Name</b>	<b>Performed On</b>	<b>Due Date</b>	<b>Schedule of Testing as per 194<sup>th</sup>OCCM</b>
AGBPP	.....	.....	after upgradation of DG under R&M
AGTTCCPP	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

DGM(AM), NERTS stated 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.

NERLDC proposed that the exercise can be carried out at Doyang HEP as it is due for Mock black start as per relevant provisions of IEGC 2010.GM, NEEPCO agreed to conduct the exercise but expressed reservation about running of 3 units during testing due to low water level. NERLDC mentioned that low water level shall be helpful during Mock Black Start as no water spillage shall occur during the exercise. After detailed deliberation it was decided that Black Start at DHEP would be carried out by Oct'22.

**The Sub-committee noted as above**

**Action: all generating utilities**

**B.6. Status of ADMS:**

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

<b>Name of the utility</b>	<b>SAT Completion</b>	<b>DoCO</b>
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 by 20.8.22
TSECL	24-12-2020	To be enabled by 20.8.22

In the 193<sup>rd</sup> OCC JE, SLDC, DoP Nagaland informed that logics have been implemented but the scheme is not enabled as the ICCP link between ADMS and SCADA server is not stable. He requested assistance from NERLDC in this regard. DGM, SLDC, TSECL assured the forum that logics will be enabled at 4 out of 5 SSs (excepting Agartala) in one week time.

**Deliberation of the sub-committee:**

Status as updated in the 194<sup>th</sup> OCCM:

<b>Name of the utility</b>	<b>SAT Completion</b>	<b>DoCO</b>
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

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

Regarding the first two points which are common to all the States and might recur during Audit of ADMS project in other states, Member Secretary requested the views of the forum.

EE, SLDC, Meghalaya informed that at time of implementation by M/s ORBIT, the OPC protocol was ready and can still be put in service. However, M/s GE (SCADA vendor) citing vulnerability concerns allowed for integration only over ICCP.

He further informed that Cyber Security Audit was not in scope of the vendor (M/s ORBIT) which had executed the project. However, ADMS audit has been carried out subsequently as part of Cyber Security Audit of SLDC as a whole.

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 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.

Sr.GM(SO-II), NERLDC requested for uniform logic implementation of ADMS in all the states. DD(O&P), NERPC stated the agreed logic as recorded in the 189<sup>th</sup> OCC meeting:

- (i) Either Deviation against schedule greater than 150MW (48 MW for states with schedule less than or equal to 400 MW) OR
- (ii) Percentage Deviation greater than 12% OR
- (iii) Bus frequency less than 49.85Hz and Drawal greater than schedule

After detailed deliberation,it was decided that Implemented logic in all SLDCs need to be checked and the forum requested the utilities to revert back at the earliest so that the same may be discussed in the upcoming Sub-group meeting.

EE, SLDC, DoP Nagaland stated that data migration over the ICCP link is not functional and the requested assistance of the forum in this regard. EE, SLDC, Meghalaya informed that only few data points from SCADA database is required and the same can be configured easily. The forum requested NERPC to ensure participation of M/s GE in the next Sub-group meeting so that the matter may be resolved.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.

Regarding the sharing of data on ADMS operations in real time, NERLDC informed the forum that Assam, Arunachal Pradesh, Meghalaya and Mizoram have started sharing the required information as required by NERLDC. NERLDC also presented the data on ADMS operation as shared by Meghalaya for an incident of Low frequency on 29.08.2022.

***The Sub-committee noted as above***

***Action: all SLDCs, DoP Nagaland, TSECL***

**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	180	5	175
	Peak	Pare		180	5	175
Assam	Off-Peak	220/132 kV, 160 MVA	Other 220/132 kV, 160 MVA	1500	40	1460
	Peak	ICT at BTPS	ICT at BTPS	1580	40	1540
Manipur	Off-Peak	132kV Imphal MA-Imphal PG Ckt I	132 kV Imphal (MA)-Imphal (PG) II & III	210	5	205
	Peak			220	5	215
Meghalaya	Off-Peak	132 kV Umiam3 – Umiam	132 kV Umiam-Umiam	230	10	220
	Peak		Umiam 1 II	250	10	240
Mizoram	Off-Peak	132 kV Melriat-Silchar I	132 kV Aizawl-Luangmual	148	5	143
	Peak	ORII	S/C	152	5	148
Nagaland	Off-Peak	220/132 kV ,100 MVA Dimapur ICT	220/132 kV ,30 MVA Mokokchung ICTs	170	5	165
	Peak			180	5	175
Tripura	Off-Peak	132 kV SM-Nagar (TR) – SM Nagar (ISTS) S/C	132 kV PK-Bari (TR)- PK Bari (ISTS) S/C	310	6	304
	Peak			365	6	359

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.

**Deliberation of the sub-committee**

NERLDC presented the TTC/ATC calculation of States and the same shown below:

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 – Umiam1	132 kV Umiam-Umiam Umiam 1 II	340	10	330
	Peak			260	10	250
Mizoram	Off-Peak	132 kV Melriat-Silchar I or 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

NERLDC intimated the forum that Assam and Meghalaya are regularly calculating the ATC/TTC. Nagaland informed that they have calculated TTC once but need assistance of NERLDC. DGM, SLDC TSECL, informed the forum that Tripura have also started calculating and stated that TTC for Tripura should be revised to 349MW from the existing 365MW according to their calculation. The forum appreciated the efforts of Tripura and appealed to the remaining states to start calculating their ATC/TTC regularly and reiterated that any necessary support will be unconditionally extended by the NERLDC in this regard.

With Regard to violations of ATC observed in August, NERLDC informed that Assam and Tripura witnessed the violations. DGM, SLDC, AEGCL informed that violations may have occurred due to outage of Agia-BTPS DC. To mitigate the violations of Assam system, the forum mulled over short term and long-term measures viz. Commissioning of 220kV Balipara-SonabilCkt 2, 3<sup>rd</sup> ICT at BTPS, reconductoring of 220kV Misa-Samaguri D/C, 220kV BTPS-Salakati etc were some proposed long-term measures. Also, the idea of commissioning of SPS for load shedding in capital area was floated and referred to the upcoming Protection Sub Group.

***The Sub-committee noted as above***

***Action: all state utilities***

**B.8. 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 185<sup>th</sup> OCCM for the following activities:

- a. Inspection and repairing of Khandong Head Race Tunnel, Trash Rack Gate, Intake Gate, Surge Shaft Gates, Steel Liner of HRT etc.
- b. Acid Proof Coating of Stage-II Penstock
- c. Installation and commissioning of Penstock Protection BFV System of Khandong
- d. 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 193<sup>rd</sup> OCCM,

- NERPSIP informed that Mawngap-Killing line will be commissioned by October'22 subject to RoW clearance.
- NERTS presented the plan for revival of 132kV Khandong-Khleihriat II and shifting the Khleihriat-khandong-Umrangso link to Khandong-Khleihriat line2 from the line1. Also tower no 41 and 42 of Khandong-Kopili II will be disconnected from each other and tower no 133 of 132kV Khandong-Khleihriat I will be connected with tower no 40 and 41 of Khandong-Kopili II after some modifications in the tower.
- Regarding the shutdown requirement of the extant 132kV Khleihriat-Khandong-Umrangshu link for 3 days (continuous), AeGCL was in disagreement with NERTS.

**Deliberation of the sub-committee**

- 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.

***The Sub-committee noted as above***

***Action: NERTS, NEEPCO***

**B.9. Station supply at Khandong and Kopili Power Station:**

Following the discussions in the 189<sup>th</sup> 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 15<sup>th</sup> 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 Umrangso Sub-station 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 192<sup>nd</sup> 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 193<sup>rd</sup> 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.

**Deliberation of the Sub-committee:**

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 1<sup>st</sup> 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.

***The Sub-committee noted as above***

***Action: NERTS, NEEPCO***

**B.10. Implementation of Guwahati Islanding Scheme:**

In the 190<sup>th</sup> OCCM, DD, NERPC stated that in the Special Meeting on 13<sup>th</sup> 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 – BgTTP 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 193<sup>rd</sup> OCC, Member Secretary, NERPC informed the forum that in the Special Meeting on the 10<sup>th</sup> August'2022 the queries of M/s GE, M/s ABB, M/s SIEMENS were clarified by the Empowered Committee for DPR preparation. Further additional inputs from APGCL, AEGCL, NTPC are to be submitted immediately and thereafter estimates would be prepared by the vendors. It was expected that the inputs from the vendors would be received in time for finalization of DPR by 31<sup>st</sup> August'2022.

**Deliberation of the Sub-committee:**

DGM, SLDC, AEGCL informed that in the meeting with M/s GE at SLDC Assam on 25<sup>th</sup> Aug'22 all points have been clarified and the inputs have been submitted also forthwith. DD(O&P), NERPC stated that after receipt of budgetary offer by M/s GE the DPR may be finalised.

***The Sub-committee noted as above***

***Action: AEGCL, NERTS, NTPC, NERLDC, NERPC***

**B.11. Furnishing details of upgraded UFR settings alongwith list of feeders and quantum of load:**

Status as updated in the 193<sup>rd</sup> OCC meeting:

<b>Name of the state/utility</b>	<b>Submission of revised UFR list</b>	<b>Implementation of revised settings</b>	<b>Status of mapping</b>
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**	By July' 22*
Assam	Submitted	Completed except Mirza(UFR to be shifted to 33kV level from 132kV).**	To be modified by July'22
Manipur	Not submitted	No extra shedding required only	To be done

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		Stage upward revision to be done.	
Meghalaya	Submitted	17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA	Stage I mapped except one feeder, to be done as soon as possible
Mizoram	To be submitted	Completed	By Aug'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. – Procurement by Aug'22 and installation by Sept'22	To be done by the end of this month except for Non-RTU lines

\*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.

In 193<sup>rd</sup> OCC, the forum noted that visualization and data availability for Stage-I of UFR must be made available on priority in view of recent occurrences of low frequency events. Further, SCADA displays including SCADA data points being

implemented for UFRs must be promptly shared with NERLDC SCADA Team as soon as the displays are made available at all SLDCs.

**Deliberation of the sub-committee**

Status as updated in the 194<sup>th</sup> OCC meeting:

<b>Name of the state/utility</b>	<b>Submission of revised UFR list</b>	<b>Implementation of revised settings</b>	<b>Status of mapping</b>
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 mapping Other 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 site by Sep22 and installation by Oct'22	To be done by the end of this month except 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.

## For Stage-I implemented through ADMS new RTUs are required. DPR for same is under preparation.

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

**The Sub-committee noted as above**

**Action: all state utilities**

**B.12. 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 193<sup>rd</sup> OCC meeting:

Region	Station	No. of generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	NEEPCO-Monarchak	1	26 <sup>th</sup> July'22	28 <sup>th</sup> July'22	3(done)
NER	NEEPCO-Kameng	1 (by M/s Solvina)	Oct'22	Oct'22	2
NER	OTPC- Palatana	2	Oct'22	Oct'22	4
NER	Doyang-NEEPCO	2 (by M/s Siemens)	Aug'22	Aug'22	4 (water level to be sufficient enough to run the units at full capacity)

NEEPCO and OTPC may please update.

**NERLDC proposal:**

Replacing 2 units of Doyang HEP by 2 units of Kameng for PFR testing by M/s Siemens Limited

M/s Siemens Limited has been assigned for Primary Frequency Response Testing of 2 units of Doyang HEP. As informed by NEEPCO in the 192<sup>nd</sup> OCCM that water level at Dyang HEP is hovering around 311 mts only while for running units at full capacity the water head level required is 324 mts. Considering the rainfall patterns of the monsoon this year, probability of water level not reaching the desired level is profound. Hence NEEPCO requested for shifting of the PFR test at Doyang HEP to next year.

As per the procedure for PFR testing, tests are to be conducted at three load levels:

- At 90-100 % of Generating unit MCR (Maximum Continuous Rating)
- At 60 % of Generating unit MCR
- At 20% of Generating unit MCR

The issue was analysed at NLDC end as well. Further it was gathered from Doyang HEP that there is shortage of sufficient head at Doyang HEP and operation of even one unit at full load is not possible under existing circumstances. It was conveyed that the rated generation is not possible in ongoing monsoon season and same is not expected this year.

In view of the same and as per the discussion with NLDC, it is suggested to replace 2 units of Doyang HEP with other hydro units. In case of 4\*150 MW of Kameng (NEEPCO), one unit of Kameng has been allocated to M/s Solvina India Pvt Limited. It is suggested that 2 units of Doyang HEP allocated to M/s Siemens Limited may be replaced with 2 units of Kameng to M/s Siemens Limited. The testing of Kameng units of 150 MW size would also be a better option than 25 MW units of Doyang for primary response perspective.

### **Deliberation of the sub-committee**

Schedule as agreed in the 194<sup>th</sup> OCC meeting:

Region	Station	No.of generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	NEEPCO-Monarchak	1	26 <sup>th</sup> July'22	28 <sup>th</sup> July'22	done
NER	NEEPCO-Kameng	1 (by M/s Solvina)	Oct'22	Oct'22	2
NER	OTPCL-Palatana	2 (by M/sSolvina)	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)

The forum noted that conducting PFR testing of Doyang HPS might not be possible this year due to inadequate water level, so conducting PFR for other two units of Kameng was deliberated upon. GM NEEPCO informed the forum that Unit 1 is undergoing planned shutdown for 10 months starting from Nov'22. Also, GT of unit 3 is suffering from DGA violation issues, so the unit 3 cannot run above 80% of the full capacity. Out of the remaining two units one unit is already scheduled in Oct'22 and to be done by M/s Solvina. So, he requested to the forum to accept Unit 3 as eligible for conducting PFR with 80% capacity and also the testing to be conducted by M/S Solvina itself rather than M/S Siemens. After detailed deliberation, the forum agreed to both the requests and asked NEEPCO to talk with M/S Solvina to conduct PFR for additional two units of Kameng HPS.

***The Sub-committee noted as above***

***Action: NEEPCO, OTPC***

**B.13. 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, 2010 on regular basis and submit the report to NERPC/NERLDC.

It is requested to upload DR, EL& FIR outputs for transmission lines in the NERLDC tripping portal in line with Cl.5.2 R of IEGC 2010 Regulations.

In the 191<sup>st</sup>/ 192<sup>nd</sup>/193<sup>rd</sup> 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.

**Deliberation of the sub-committee**

NERLDC intimated the forum that MSPCL and P&ED Mizoram are not providing Patrolling reports. Member Secretary, NERPC stated that in spite of the repeated concerns regarding poor availability of 132kV Loktak – Rangpang-Jiribam corridor, MSPCL has failed to provide the patrolling report for the said lines. The forum took

strong note of the non-submission of the reports and strongly asked the states to submit the same.

**The Sub-committee noted as above**

**Action: all state utilities/NERTS/NETC/INDIGRID**

**B.14. Monthly Review of LGBR**

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	June 22 (LGBR)	June 22 (Actual)	July-22 (LGBR)	July-22 (Actual)	Aug-22 (LGBR)	Aug-22 (Actual)
Arunachal Pradesh	160.60	137	155.75	119	162.00	154.72
Assam	1970.07	2059	1978.00	2231	2261.81	2378.85
Manipur	226.60	198	232.05	201	206.25	206.79
Meghalaya	375.93	342	343.84	332	332.97	348.369
Mizoram	105.89	118	107.29	119	106.81	118.68
Nagaland	141.64	150	159.58	159	184.99	161.8
Tripura (exc. Bangladesh)	329.31	306	307.22	319	310.49	323.95
NER DEMAND (exc. Bangladesh)	2983.50	3193	3019.86	3482	3258.70	3599.76

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	June 22 (LGBR)	June 22 (Actual)	July-22 (LGBR)	July-22 (Actual)	Aug-22 (LGBR)	Aug-22 (Actual)
Arunachal Pradesh	64.37	76.5	79.8	82.03	82.43	79.7
Assam	1034.39	995.940	1132.23	1249.06	1187.80	1320.510
Manipur	80.42	76.95	84.93	82.37	84.96	83.090
Meghalaya	163.60	164.79	202.73	183.22	180.84	185.320
Mizoram	55.61	52.2	51.75	55.82	50.07	55.498
Nagaland	77.56	79.18	81.60	84.48	83.69	86.180
Tripura (excl. Bangladesh)	130.48	134.19	149.34	166.03	151.58	168.6
NER DEMAND (exc. Bangladesh)	1612.88	1580.46	1776.71	1903.873	1788.46	1979.643

**Deliberation of the sub-committee**

Director, NERPC informed the forum that for preparation of LGBR for 2023-24 outage schedule has to be submitted by the generators and load forecast by the state utilities. He requested NEEPCO, NHPC, NTPC & OTPC to submit the generation forecast ASAP.

**The Sub-committee noted as above**

**Action: all state utilities, NEEPCO, NHPC, NTPC, OTPC.**

**B.15. Installation of AWS by IMD Guwahati**

It was informed in 158<sup>th</sup> OCCM that RMC, IMD, Guwahati would install Automatic WeatherStation (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 189<sup>th</sup> 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 191<sup>st</sup> OCC some states had expressed the need for entering into MoUs with IMD in order to clarify on various issues.

192<sup>nd</sup> OCC, IMD agreed to enter into an MoU with the states. Forum asked IMD to prepare a draft MoU and send to the States for approval and designate a contact authority for each state. Also, Forum asked IMD to install AWS in Tripura early.

In the 193<sup>rd</sup> OCC, IMD informed that MoU preparation is under process. DGM, SLDC Tripura informed that two more sites have been accepted by IMD, i.e. Bagafa and Gournagar. He further informed that AWS equipments have reached the sites at Budhjungnagar and Bagafa and civil work will start next week.

Also, Meghalaya informed that NoC has been given to IMD for four more sites. After detailed deliberation, the forum requested IMD to expedite the process of MoU finalization and installation of AWS in Tripura.

**Deliberation of the sub-committee**

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. The forum noted the progress of work in Tripura and requested Manipur and Mizoram to submit the list of all remaining Substations to NERLDC at the earliest.

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 noted as above***

***Action: all state utilities, IMD***

**B.16. 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 within August 2022.
2. One Temporary KIOSK room has been identified and Cable trenches are under construction and, cables are being re-routed.

**Required Action at 132KV Khandong Switchyard:**

1. Present bypass system of Khlerihat – Umrongso feeder through Kopili Circuit-II bay bypass isolators to be withdrawn.
2. For reliable evacuation of Khandong Stage-II Unit power, in addition to 132KV Khandong-Umrongso feeder, at least one more feeder is required to be re-instated.
3. NEEPCO proposes connectivity between 132KV Khandong SY and 132 Khlerihat SY (PG) may kindly be established through 132KV Kopili Circuit-II bay of Khandong SY.
4. For the above, NERTS, POWERGRID is requested to install 1(one) BCU based CRP including data connectivity before February-2023.
5. PGCIL is requested to ensure the installation of FO panel for data transfer to NERLDC before synchronization of the Khandong Stage-II.
6. Commercial Energy meters & DCD meters are to be provided & installed prior to synchronization of the unit.
7. Since AEGCL is already having a PLCC system in Umrongso Substation, it is requested to AEGCL, if possible, to restore PLCC communication in Umrongso feeder after the commissioning of CRP at Khandong end.

8. The required space for the panels and auxiliaries like battery bank etc. are to be intimated well in advance to NEEPCO for arranging the same in a temporary kiosk room.

In the 192<sup>nd</sup> OCC DGM(AM), NERTS informed that to restore the original 132kV Khliehriat-Khandong-2 and 132kV Khandong-Umrangso lines two D/C towers are required for which the work is under way. The forum noted that for the commissioning of 132kV Khliehriat – Khandong -2 and 132kV Khandong – Umrangso CRP & Communication panels are to be installed and requested NERTS & NEEPCO/AEGCL respectively to take it up on priority. Regarding positioning of panels, cabling, construction of Kiosk etc. the forum requested NERTS, NEEPCO to undertake a Joint Survey and revert back in next OCC meeting.

In the 193<sup>rd</sup> OCC, the forum noted that 132kV Khliehriat-Khandong-Umrangso link is presently in service without telemetry/SCADA. AGM, SLDC, AEGCL committed that one PLCC panel for Umrangso line shall be shifted to Khandong by Aug'22.

Regarding, installation of CRP of Khlerihat Khandong#2 & Khandong Kopili#2, the issue has been deliberated and the status is as given in Item B.9

**Deliberation of the Sub-committee:**

DGM(AM), NERTS informed the forum that Panel installation at Khandong HEP for 132kV Khliehriat-Khandong - 2 line and 132kV Khandong – Kopili - 1, will be completed before Feb'23. The forum decided that integration of panels in the existing SAS of NEEPCO shall be done by NEEPCO, any support of relay files shall be provided by NERTS.

GM, NEEPCO informed that tender for the Khandong Switchyard shall be floated soon, however, Khandong Stg-II(1x25MW) shall be re-commissioned much earlier. He requested permission of the forum for evacuation of the same via One Bus (Bus B) and two outgoing lines(132kV Khandong –Khliehriat -2 and 132kV Khandong – Umrangso). The forum approved the same.

Regarding installation of PLCC Panels for 132kV Khandong-Umrangshu line, AEGCL informed that it is being explored to divert panels rendered spare after completion of R&U works and shall be completed in matching schedule by Feb'23.

***The Sub-committee noted as above***

***Action: NEEPCO, NERTS, AEGCL***

**B.17. 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 Units 2,3 & 4 (2.8 MW each)	2015	Not furnished	Report by 20 <sup>th</sup> August
Unit 3 (42 MW) Leshka	27 <sup>th</sup> 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.

**Deliberation of the sub-committee**

Meghalaya updated the forum that Umtru units 2, 3 and 4 are decommissioned and Unit 3 of Leshka is expected to be revived in 6 months to 1 year. The forum requested MePGCL to intimate de-commissioning details to CEA as well.

***The Sub-committee noted as above***

***Action: MePGCL***

**B.18. Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation)**

As per Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation) submitted by SLDC, DOP, Nagaland, it is observed by KMTL that:

“The deviation angle considered for 1st Tower installed near to 220 KV Gantry at Kohima Substation is having angle of 48°44'27", which is very much higher than as per CEA guideline. This need to be reviewed once again by DOP, Nagaland”.

In 192<sup>nd</sup> OCC EE, DoP Nagaland intimated that topography of the area poses restrictions in reducing the deviation at the 1<sup>st</sup> Tower installed near the Gantry. He conveyed that only option to reduce the deviation angle is to either modify the tower cross arm or modify the gantry, which can be finalized only after a joint survey is under taken by KMTL and concerned officials of DoP Nagaland. He requested KMTL to approach DoP Nagaland head office and conduct a joint survey. The forum then requested KMTL to approach DoP Nagaland for the same.

In 193<sup>rd</sup> OCC, SDO, DoP Nagaland informed the forum that no joint survey had taken place as KMTL had not approached them till then.

KMTL may update

**Deliberation of the sub-committee**

EE, DoP Nagaland intimated the forum that Joint survey has already taken place and DoP Nagaland has agreed to erect one additional tower between the existing Tower no 1 and gantry. This will reduce the deviation angle from more than 48 degrees to close to 0 degrees. Also, the corresponding work has been started and will be tentatively completed by next month.

Also, KMTL requested DoP, Nagaland to provide Line parameter details so that relay setting can be finalized early. DoP, Nagaland agreed to provide the data at the earliest.

***The Sub-committee noted as above***

***Action: DoP Nagaland, KMTL***

**B.19. Proposed shutdown of OTPC Palatana Unit 1**

OTPC has requested shutdown of UNIT 1 of OTPC Palatana plant for Annual Baroscopic inspection of GT-1 and annual NDT of GT-1 followed by line water wash of GT-1 from 10<sup>th</sup> October to 17<sup>th</sup> October 2022.

In the 193<sup>rd</sup> OCC, Tripura along with other beneficiaries of the Plant gave in principle consent to the proposed shutdown subject to strict adherence to the schedule but suggested to discuss again in next OCC meeting.

**Deliberation of the sub-committee**

After detailed deliberation the forum decided that the shutdown of OTPC unit 1 can be taken either from 28<sup>th</sup> Oct'22 to 4<sup>th</sup> Nov'22 or after the return of shutdown of Unit 1 of NTPC whose outage is scheduled between 5<sup>th</sup> Nov'22 to 20<sup>th</sup> Dec'22. Manager, OTPC agreed to revert back at the earliest.

***The Sub-committee noted as above***

***Action: OTPC***

**B.20. Proposed Deemed grant of GNA in line with CERC (Connectivity and General Network Access to the ISTS) Regulations, 2022**

As per Regulation 18.1(d) of CERC (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 notification dated 19-07-2022, CTU as a Nodal Agency has to bifurcate the Deemed GNA Quantum of STUs (as provided in Annexure-C3.1) within 30 days of notification of these regulations into two parts as:

- (i) GNA within the region
- (ii) GNA from outside the region.

This bifurcation has to be in proportion to contracts, within the region or outside the region, under Long Term Access and Medium term Open Access obtained in terms of Connectivity Regulation, 2009.

In this context CTU has prepared the bifurcation of Deemed GNA quantum of states and other entities within and outside the region based on LTA/MTOA contracts/CGS power allocation for the billing month Jul'22 under CERC Sharing regulation 2020

In the 193<sup>rd</sup> OCC the forum had requested the states to analyse their respective GNA quantum and its bifurcation and revert with feedback to CTU at the earliest. Also it was stated that any need of further clarification and discussion would be looked into and might be undertaken in the next OCC meeting.

#### **Deliberation of the sub-committee**

After detailed deliberation the forum decides to refer the matter to the upcoming CCM.

***The Sub-committee noted as above***

***Action: NERPC***

#### **B.21. Durga puja power scenario of Tripura**

It is experienced that this year Demand of Tripura during Durga Puja may touches 350 MW excluding Bangladesh drawal. The proposed availability, Demand and short fall during Oct,2022 are as follows:

##### Availability

ISGS 232MW, Monarchak 95 MW, State Generation 62 MW i.e. in total 389 MW

##### Demand

State Demand 350 MW, Bangladesh 160 MW Restricted i.e in total 510 MW.

##### Short fall

130 MW including Mizoram

TSECL is planning to Purchase power from Banking, DAM,RTM etc.

It is earnestly request to NERPC, NERLDC to look into the matter for healthiness of the Tripura system. Moreover, TSECL is requested Mizoram not to schedule Baramura Power during 17.00 hrs to 24.00hr and 00.00 hrs to 03.00 hrs i.e. 10 hrs in a day from 30<sup>th</sup> September, 2022 to 05<sup>th</sup>Oct,2022.The same quantum will be returned during December as convenient of Mizoram.

In the 193<sup>rd</sup> OCCM, the forum decided that Tripura cannot meet the projected 510MW demand and the same shall have to be restricted to 470MW (in order to avoid state periphery ATC/TTC violations and cascade tripping) and thus requested TSECL to pursue with Bangladesh for reduced drawl during Peak Period.

Subsequently, Tripura, via email dated 7.09.2022 informed NERPC the following-  
Present Availability

ISGS 232MW, Monarchak 90 MW, State Generation 62 MW i.e. in total 384 MW  
Demand

State Demand 350 MW, Bangladesh 160 MW Restricted i.e. in total 510 MW.

Short fall

130 MW

TSECL is planning to Purchase power from DAM, RTM etc.

In the last OCC it was discussed that Tripura cannot draw 510 MW and same shall be restricted 470 MW. TSECL has pursued the matter with Bangladesh for reduced drawl. Hence it is requested NERPC and NERLDC to restrict the Bangladesh drawl upto 110 MW during Puja Days from 30<sup>th</sup> September, 22 to 6<sup>th</sup> October, 22 during 17.00 hrs to 24 hrs and 00.00 hrs to 02.00 hrs.

**Deliberation of the sub-committee**

After detailed deliberation the forum asked TSECL to provide a copy of request letter to Bangladesh to restrict its load during the timings as provided by TSECL to 110MW to NERPC and NERLDC. After receiving the copy of the said letter, NERPC and NERLDC will request NLDC to enter into deliberation with Bangladesh regarding the issue.

***The Sub-committee noted as above***

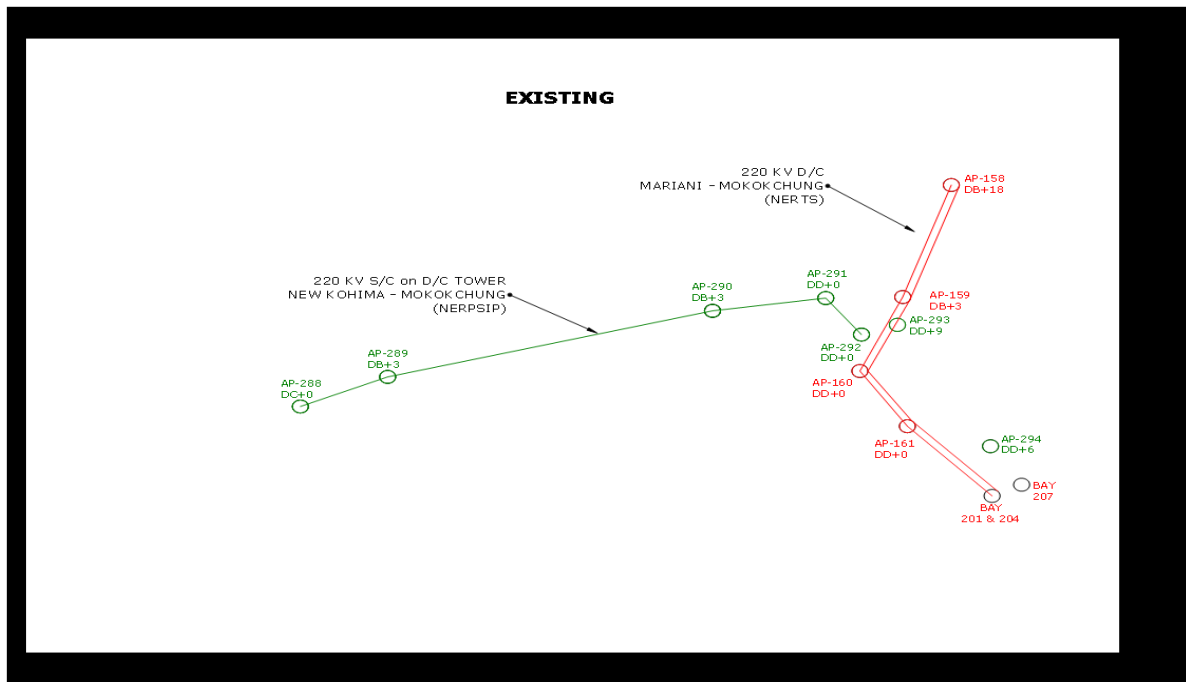
***Action: TSECL, NERPC, NERLDC***

**B.22. 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 MarianiMokokchung TL. The minimum shutdown requirement shall be of 18 days.



In the 193<sup>rd</sup> 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.

#### **Deliberation of the sub-committee**

EE, DoP Nagaland intimated the forum that the shutdown of 220kV Mariani-Mokokchung 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 23<sup>rd</sup> Sept to 10<sup>th</sup> 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 20<sup>th</sup> September'2022 and intimate to NERPC thereafter.

***The Sub-committee noted as above***

***Action: NERPSIP, DoP Nagaland***

#### **B.23. Status of 132kV Rokhia-Rabindranagr DC**

TSECL verbally informed in the 192<sup>nd</sup> OCC forum about the readiness of 132 kV Rokhia-Rabindra Nagar D/C but the line has not come into service till date.

TSECL is requested to update the present status of:

- Commissioning of 132 kV Rokhia-Rabindra Nagar D/C,

- Present status of telemetry at Rokhia and Rabindra Nagar substation.
- Following data may be provided prior to FTC:
  - 1) Downloadable Relay settings and undertaking in respect of Protective systems to be submitted.
  - 2) Single line diagram
  - 3) Undertaking in respect of Telemetry and communication to be submitted and data to be made available at NERLDC
  - 4) SAMAST metering details
  - 5) Technical parameters of the transmission element required for network modeling.

In the 193<sup>rd</sup> OCC TSECL assured the forum that all FTC requirements for state owned transmission elements as approved by OCC forum will be followed while charging the 132 kV Rokhia-Rabindra Nagar D/C. After detailed deliberation the forum asked NERLDC to pose the requirement of PDMS data compliance on TSECL for giving FTC clearance of the line.

Status update on charging of the lines is to be provided by Tripura.

\*Grid disturbance on 14:53 hrs of 05.09.2022 leading to blackout of 132kV Monarchak bus, 132kV Rokhiabus along with radial connected 132kV Rabindranagar S/S could have been averted if the lines were in available.

#### **Deliberation of the sub-committee**

DGM, SLDC, TSECL informed the forum that 132kV Rokhia-Rabindranagar-I was test charged on 17<sup>th</sup> July'2022 and 132kV Rokhia-Rabindranagar-II was test charged on 05<sup>th</sup> September'2022. However, ToC was not completed as DP relays are to be replaced by M/s SIEMENS. Manager, NERPSIP assured that the lines would be charged by Sep'22.

Sr.GM (SO-II), NERLDC informed that 132/33kV Mohanpur S/S (presently charged) is still not integrated with the SCADA system and no Protection, Communication data is available. Manager, NERPSIP stated that FOTE has been delivered, which shall be commissioned by Sep'22. DD(O&P), NERPC requested NERPSIP to intimate the shutdown schedule of 132kV Agartala-Dhalabil Communication link in advance so that shutdown planning may be done by NERLDC/NERPC.

***The Sub-committee noted as above***

***Action: TSECL, NERPSIP***

**B.24. Non-receipt of Quarterly RPO Compliance details from Arunachal Pradesh:**

As per MoP RPO Order vide 29<sup>th</sup> January 2021, POSOCO will maintain data related to compliance of RPOs. In line to that necessary communication had been sent to all SLDCs and we are receiving the data on regular basis from all SLDCs except SLDC, Arunachal Pradesh even after lots of persuasion. SLDC, Arunachal Pradesh is requested to furnish the desired data (from FY 2021-22 till date) at the earliest.

Because of non- availability of data, Arunachal data had been submitted based on available resources of NERLDC but the same has not been matching with CEA RE generation report (as verbally reported from MNRE). So, it is also requested to submit correct data to avoid such kind of mismatch in different reports.

In 193<sup>rd</sup> OCCM The forum requested Arunachal Pradesh to provide the name of contact person who is the nodal person assigned to collect RPO compliance data before next OCC meeting.

**Deliberation of the sub-committee**

EE(E), SLDC, DoP Arunachal Pradesh, informed the forum that as the nodal officer assigned to collect RPO compliance data, he will submit the required RPO compliance data by the coming week, and regularly after that.

***The Sub-committee noted as above***

***Action: DoP Arunachal Pradesh***

## **C. NEW AGENDA ITEMS**

### **Agenda from OTPC**

#### **C.1. 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.

#### **Deliberation of the sub-committee**

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 noted as above***

***Action: OTPC, NERLDC***

### **Agenda from Assam**

#### **C.2. Ampacity augmentation of 220kV Misa-Samaguri DC owned by PGCIL**

To avoid overloading of 220kV Balipara-Sonabil ckt.1 during peak hours, 220kV Sonabil-Samaguri D/C needs to be opened on regular basis as per instructions issued by NERLDC, POSOCO. Load catered by these lines (around 60MW) during such period gets transferred to 220kV Misa-Samaguri D/C. Thus, at times, it is observed that combined loading of 220kV Misa-Samaguri D/C reaches 280MW and beyond. In such a situation, tripping of any one of the 220kV Misa-Samaguri D/C may lead to cascade tripping in Samaguri area as well as Assam Capital area which will result in total blackout in these areas.

Therefore, our humble request to the forum is to instruct PGCIL for capacity augmentation of 220kV Misa-Samaguri D/C. PSDF may be considered as a source of funding for this proposed augmentation.

#### **Deliberation of the sub-committee**

After detailed discussion the matter was referred to the next CMETS meeting for taking up under any upcoming re-conductoring project.

***The Sub-committee noted as above***

***Action: NERPC, NERLDC, NERTS***

**C.3. Proposal for approval of new 132kV line connecting 132kV Behiating GSS and 132kV Chilapathar GSS**

In north bank of Upper Assam, Dhemaji and Silapathar GSS receives power in radial mode via 132kV N.Lakhimpur-Dhemaji line. Further, a new Grid Substation has been proposed by AEGCL at Jonai which has been cleared recently by CEA. Line from Silapathar GSS will have to be extended to Jonai. Jonai can be connected to Pasighat of Arunachal Pradesh at 132kV level. However, the North Lakhimpur-Dhemaji-Silapathar line section is single circuit as on date. Even after the commissioning of the proposed 132kV D/C North Lakhimpur-Dhemaji line, Dhemaji—Silapathar-Jonai will still have single circuit connectivity leaving Silapathar&Jonai without redundancy.

The state Discom, i.e., APDCL has requested AEGCL to plan for an alternative route for evacuation of power to the Northern bank of Upper Assam. APDCL has suggested that Silapathar GSS be connected with Behiating GSS through a new Transmission line over the river Brahmaputra. The line distance is of 25km approx. AEGCL therefore request the forum to offer its concurrence for the 132kV D/C Behiating-Silapathar TL.

**Deliberation of the sub-committee**

After detailed deliberation the matter was referred to CMeTS meeting.

***The Sub-committee noted as above***

***Action: NERPC, NERLDC***

**C.4. Request for support from OCC forum for extension of time for completion of R&U and BCU projects of AEGCL under PSDF**

The R&U, BCU and SAS part of PSDF project has remained incomplete at 8 Nos of Substation of AEGCL substations (Agia, Boko, Rangia, Sishugram, Mariani, Bokajan, Nazira and Jorhat). This is due to exit of M/s ERL following their bankruptcy and subsequent incorporation in NCLT. To complete the balance work, M/s Siemens was roped in and agreement was signed accordingly.

But, M/S Siemens has been apprising AEGCL that delivery timeline of major electronics devices like Ethernet switches, IPCs, Meters etc. has increased due to acute shortage of Semiconductors, Micro Controllers and miscellaneous other electronic devices throughout the globe. This has led to increase in time for manufacturing and deliveries. As such, M/s Siemens Ltd. is apprehensive about

completion of the project within the stipulated completion period and has informed AEGCL that project completion time derived will be around July, 2023. AEGCL signed contract with M/S Siemens for the work with completion time of May 2023. AEGCL therefore request the forum to kindly endorse AEGCL's request for time extension upto 31<sup>st</sup> July 2023, so that AEGCL can take further necessary steps.

**Deliberation of the sub-committee**

After detailed deliberation the forum endorsed the AEGCL's request for time extension upto 31<sup>st</sup> July 2023 in the light of situation beyond their control during COVID and post COVID scenario.

***The Sub-committee noted as above***

**Action: AeGCL**

**Agenda from Tripura**

**C.5. Fixed and energy charges of ISGS**

Fixed and energy charges of ISGS is required to be published every month.

**Deliberation of the sub-committee**

After detailed deliberation the forum referred the matter to the next CCM meeting of NERPC.

***The Sub-committee noted as above***

**Action: NERPC**

**Agenda from NERLDC**

**C.6. Long outage of Grid Elements**

1. 400 kV STG-1 Main Bay at OTPC Palatana: At 13:27 hrs of 11.06.2022, STG-1 main bay at Palatana tripped along with STG 1 and GTG 1, due to loss of flame of GTG 1. The module was revived at 20:19 hrs of 11.06.2022, however the mentioned bay was kept open since then. As per verbal communication with OTPC Palatana, reason of outage was mentioned as DC E/F in the bay. The bay is still under outage.
2. 400 kV Bongaigaon-Byrnihat L/R at 400 kV Bongaigaon (PG): Planned shutdown of 400KV Bongaigaon - Byrnihat TL along with L/R was availed by NERTS on 08:17 hrs of 25.07.2022 approved on daily basis. However, the line was charged without L/R and the same is out till date

3. 132 kV Kohima-Meluri T/L- The line is under outage since 17:45 hrs of 23.06.2022 due to tower collapse. Status of restoration of the line may please be updated by Nagaland.

**Deliberation of the sub-committee**

1. Sr. Manager OTPC intimated the forum that TSG-1 Main Bay circuit breaker was frequently opening and closing due to some persistent DC E/F problem in the bay, which may cause tripping of the unit 1, so the main bay has been kept open, as the resolution of the problem requires shutdown of unit-1. Subsequently, he impressed upon the forum that the problem will be resolved during the upcoming shutdown of OTPC Block- 1 as discussed in the item B.19.
2. NERTS informed the forum that Bushing of the L/R has developed the problem of oil leakage for which Bushing replacement is planned.
3. EE, DoP Nagaland intimated the forum that Kohima-Meluri T/L is planned to be restored by 22<sup>nd</sup> Sept'22.

***The Sub-committee noted as above***

***Action: OTPC, NERTS, DoP Nagaland.***

**C.7. Delay in charging of 132 kV AGTCCPP –PK Bari D/C on 28.08.2022**

On 28.08.2022, 132 kV PK Bari (TSECL) Bus shutdown was availed on daily basis in planned nature. On return of shutdown, charging of 132 kV Main bus of PK Bari (TSECL) S/S was permitted vide code 2022-23/08/6153 at 17:17 hrs. The bus was charged at 17:38 hrs. However, 132 kV AGTCCPP-PK Bari(TSECL) D/C lines were restored at 18:20 hrs.

Such delay in charging of lines during peak hours leads to vulnerable situation in the grid specially when the lines are connected to a generating station.

Concerned utilities may furnish the reason for such delay.

**Deliberation of the sub-committee**

GM, NEEPCO informed the forum that M/S NER-II TL is the O&M contractor of the AGTCCPP-PK Bari line, and according to arrangement between AGTCCPP and NER-II TL, in case of shutdowns, CB opening and closing work is to be done by personnel of the later. Further, he intimated the forum that the mentioned delay in charging was on account of delay on the part of NER-TL personnel in closing the CB at AGTCCPP end.

Matter could not be confirmed from NER-II TL side due to their absence. After detailed discussion, MS NERPC clarified that such arrangements, if in place, between any parties in NER power system, should be clearly informed to NERPC/NERLDC and operational code, as provided by NERLDC, should be treated as final permission by all constituents and it should be clearly provided to all the stakeholders. Further, any delay in restoration of elements after issuance of charging code must be avoided by smooth coordination between all involved agencies.

***The Sub-committee noted as above***

***Action: NER-II TL, NEEPCO***

**C.8. Low and high demand season declaration for NER for FY 2023-24:**

In compliance to clause: 42 of section: 3 in chapter: 11 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, High Demand and Low Demand season for FY 2023-24 are declared as follows based on the analysis of SEM based monthly energy consumption of NER beneficiaries in FY 2021-22:

High Demand season: July, August and September.

Low Demand season: April, May, June, October, November, December, January, February and March.

Monthly Energy Consumption of NER beneficiaries for FY 2021-22 (based on SEM data) is attached in **Annexure C.8.**

**Deliberation of the sub-committee**

After detailed deliberation the forum endorsed the classification.

***The Sub-committee noted as above***

***Action: NERLDC, NERPC***

**C.9. Availing Shutdown of Important Grid Elements of NER without prior Approval by Tripura:**

It has been observed that in the recent past, Tripura has availed planned shutdown of Important Grid Elements of NER without prior approval of the OCC forum and without following the outage procedure. Tripura has been advised several times in the past to refrain from such practices. In this regard, minutes of 181<sup>st</sup> OCC held on 20/08/2021. For your ready reference, shut down of important grid elements taken in the recent past without prior approval, is appended below:

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022

Sl.No.	Element Name	Outage date	Outage time	Revival date	Revival time	Reason of Outage/Remarks*
1	132KV-AGARTALA (79 TILLA)-ROKHIA-2	06-Sep-22	09:38	06-Sep-22	16:55	Pre-puja Maintenance *132 kV Dullavchera-Dharmanagar, 132 kV PK Bari(ISTS)-PK Bari (TSECL) &400/132 kV ICT -2 at Palatana were already approved S/D.
2	132 kV JIRANIA S/S MAIN BUS	04-Sep-22	11:25	04-Sep-22	16:45	Pre puja maintenance *132 kV Udaipur Bus, 132 kV Agartala-Dhalabil were already approved S/D
3	132KV-KAMALPUR-PK BARI	30-Aug-22	09:35	30-Aug-22	16:55	Pre puja maintenance *132 Budhjungnagar-SMNagar(ISTS) was already approved S/D
4	132KV-GAMAITILLA - AMBASSA	24-Aug-22	09:09	24-Aug-22	15:58	Pre puja maintenance *132 kV Monarchak-Udaipur, 132 kV Mission Tilla-Dullavcherra were already approved S/D
5	132KV-BARAMURA - GAMAITILLA	23-Aug-22	09:30	23-Aug-22	15:58	Pre puja maintenance *132 kV Monarchak-Rabindranagar was already approved S/D
6	132KV-KAMALPUR SS I/C ALL 11 KV FEEDER	21-Aug-22	09:39	21-Aug-22	16:05	Pre puja maintenance *132 kV Bus 1 of Grid S/S with 132 kV Agartala -Rokhi 1 & 2, 132 kV Gamaitila-Ambassa were already approved S/D
7	132KV-DHALABIL SS	21-Aug-22	10:08	21-Aug-22	15:14	Pre puja maintenance

	I/C ALL 11 KV & 33 KV FEEDER					*132 kV Bus 1 of Grid S/S with 132 kV Agartala-Rokhi 1 & 2, 132 kV Gamaitila-Ambassa were already approved S/D
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Thus, Tripura is once again requested to obtain prior approval of the planned outages of the important grid elements in OCC forum as per outage planning procedure so as to ensure secure & reliable grid operation. In this regard, NERLDC has issued letter to SLDC Tripura on Dated 07-09-2022.

**Deliberation of the sub-committee**

DGM, SLDC, TSECL clarified that urgent pre-puja maintenance works and some political exigencies compelled TSECL to take shutdown without prior approval from NERPC/NERLDC. The forum took strong note of such violations and asked TSECL to refrain from such misconducts in future, to which TSECL readily concurred.

***The Sub-committee noted as above***

***Action: TSECL***

**C.10. Occurrence of Multiple grid disturbance in Gohpur and radially connected areas of Assam Power System**

Repeated GDs of category GD I have occurred in Gohpur and radially connected North Lakhimpur, Dhemaji and Majuli areas of Assam Power System within a short span of time on 03.07.22, 14.08.22 and 03.09.22 with load loss 106 MW, 110MW & 44MW respectively due to tripping of 132kV-Gohpur-Pavoi D/C.

Assam may kindly intimate the present status of LILO of 132 kV BNC(PG)-Itanagar ckt 2 at Gohpur S/S.

**Deliberation of the sub-committee**

The forum noted with concern the non N-1 compliant nature of upper Assam Power system and the importance of LILO of 132kV BNC-Itanagr2 at Gohpur S/S in addressing the situation. Regarding the LILO work, AEGCL updated the forum that corresponding bay is ready but RTU gateway related work has remained and by Sept'22 the work will be completed.

***The Sub-committee noted as above***

***Action: AEGCL***

**C.11. Near miss incident at 400 kV Silchar Bus I at 10:00 Hrs on 03.09.22**

As you are aware that at 10:00 Hrs on 03rd September'22, a near miss incident causing threat to the security and reliability of the NER Grid occurred due to tripping of all the elements connected to 400 kV Silchar Bus I

From DR output analysis from Silchar end, R-Ph to E fault was observed in 400 kV Silchar- Killing line and fault was cleared from Silchar delayed by 563 msec (No carrier aided tripping) on Z-II. Only R & Y pole Main CB opening was observed from DR digital channels which are a cause of serious concern. Due to non-operation of B Pole Main CB, LBB Protection operated after a time delay of 1.059 sec.

At the same time, healthy 400 kV Misa - Silchar 1 Line tripped from Misa end on Directional E/F within 203 msec which seems to be mal-operation.

NERTS may kindly check the following:

- Time delay setting of LBB Protection at Silchar.
- ROT of DEF, TMS setting at Misa for Silchar I
- Root cause for B Pole CB stuck up and its remedial action
- Non received of carrier signal from Byrnihat

**Deliberation of the sub-committee**

After detailed deliberation the forum referred the matter to the upcoming PCC sub-group meeting.

***The Sub-committee noted as above***

***Action: NERPC***

**C.12. Status of Installation of TLISA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L**

A near miss incident occurred on 6th Sep'22 at 18:45 hrs due to tripping of 400 kV Silchar-Killing & Silchar-Azara line. 400 kV Silchar-Imphal DC and 400 kV Silchar-Misa line II were already under shutdown. The southern part of NER grid was connected with only 400 kV Silchar-Misa line I, 132 kV Badarpur-Khleihriat line & 132 kV Loktak-Jiribam line, thus causing threat to the security and reliability of the southern part NER Grid system.

During the 22nd TCC & 22nd NERPC Meeting deliberation held on 26th and 28th March 2022, RPC approved the installation of TLISA under Capital Expenditure on recommendation of TCC.

NETC may intimate the latest status of installation of TLISA.

**Deliberation of the sub-committee**

NETC intimated the forum that for TLSA, tendering process is underway and will be completed in 2-3 months. Considering the critical nature of the lines, NETC informed that it is undertaking regular patrolling of the line and has submitted the patrolling report to NERLDC and NERPC. After detailed deliberation, the forum requested NETC to expedite the process of installation of TLSA and maintain the healthiness of the line.

***The Sub-committee noted as above***

**Action: NETC**

**C.13. Participation in LDC excellence award through online portal**

As per deliberation in 193<sup>rd</sup> OCCM, the forum requested all the state SLDCs to actively participate in 2<sup>nd</sup> Edition LDC Excellence Award-2022 and submit their nomination. Also, it has been decided by Jury members to fill up the LDC Excellence Award Nomination form-2022 through online Portal. In view of this, the online portal has been developed by FOLD and demo for filling the Nomination Form has been given during FOLD Meeting held on 07.09.2022.

It was requested by NERLDC vide email dated 25.08.2022, to nominate at least two officials from respective SLDCs along with HR Person with contact details such as designation, WhatsApp contact number & email ID for necessary and smooth coordination.

It is requested to submit the details at the earliest.

**Deliberation of the sub-committee**

After detailed deliberation the forum requested SLDCs to submit the details at the earliest and participate actively in the award.

***The Sub-committee noted as above***

**Action: All SLDCs**

**C.14. Reconstruction of Residential and Non-Residential Building at various stations of NERTS due to very dilapidated/non-livable condition: - POWERGRID/NERTS**

Residential and Non-Residential buildings were constructed at Haflong, Jiribam, Aizawl, Kumarghat, Salakati, Misa, Dimapur&Imphal under Additional Transmission for GohpurItanagar (ATGI), Chukkha project, Transmission System associated with Doyang HEP (Combined Element) and Transmission system associated with Loktak HEP respectively. These buildings were constructed in year starting from 1983 and have completed around 28-39 years.

It is observed that due to ageing, these buildings have developed cracks and deteriorated and are not in liveable condition. In order to ascertain Structural Strength of these buildings, Structural Assessment of Residential & Non-residential buildings was carried out at Salakati, Haflong, Jiribam, Aizwal and Kumarghat through third party e.g. Bineswar Brahma Engineering College, Assam (Govt. institute AICTE approved).

Based on their assessment, it is found that the structures are quite unsafe and not in liveable condition. Further, it is mentioned that renovation may also not lead to any improvement in the strength of the buildings. In view of safety and security of employees (which are also a part of the system), it is not advisable to use these buildings for residential/non-residential use.

As manpower deployed in substations is an integral part of the system and since round the clock availability of manpower is essential for smooth O&M of these important Sub-stations, it is prudent that the residential/non-residential buildings are to be reconstructed as per present requirement.

Accordingly, as per present requirements, it is proposed for demolition and reconstruction of 16 nos quarters at Haflong, Jiribam, Aizawl & Kumarghat, 08 nos quarters at Salakati substation, 20 nos. Residential quarters at Misa, Dimapur and Imphal Substation under O&M ADDCAP 2019-24 tariff block. Moreover, 1 no Transit camp, and Admin building each at Haflong, Jiribam, Aizawl, Kumarghat, Dimapur and Imphal substation are also needs to be demolished and reconstructed under ADDCAP.

Accordingly, it is proposed for construction/demolition of buildings as per following details:

<b>Name of Substation</b>	<b>Const. Year</b>	<b>No of Quarters to be demolished</b>	<b>Nos of quarters to be Constructed</b>	<b>Estimated Cost (Rs. In Cr. )</b>
ATGI Project				
Haflong	1987	16	16	4.36
Jiribam	1985	16	16	4.52
Aizawl	1988	16	16	4.21
Kumarghat	1989	16	16	4.38
Transmission System associated with Doyang HEP				
Misa	1994	20	20	5.48
Dimapur	1995	20	20	5.48
Transmission system associated with Loktak HEP				
Imphal	1983	20	20	5.48
Chukkha TS				
Salakati	1987	08	08	2.12

Name of Substation	Year	No of Non Residential Building to be demolished	Nos of Non Residential Building to be Constructed	Estimated Cost (Rs. In Cr. )
ATGI Project				
Haflong	1987	1 each	1 each	1.4 Cr
Jiribam	1985	1 each	1 each	1.4 Cr
Aizawl	1988	1 each	1 each	1.4 Cr
Kumarghat	1989	1 each	1 each	1.4 Cr
Transmission System associated with Doyang HEP				
Dimapur	1996	1 each	1 each	1.4 Cr
Transmission system associated with Loktak HEP				
Imphal	1983	1 each	1 each	1.4 Cr

\*\* Non-Residential Building – 1 no Transit camp, and Admin building each

Estimated Cost for Demolition/Reconstruction for Residential & Non-Residential buildings under

- a) ATGI project: Rs.23.07 Crs
- b) Transmission System associated with Doyang HEP project: Rs.12.36 Cr
- c) Transmission system associated with Loktak HEP project: Rs.6.88 Crs
- d) Chukkha TS: Rs.2.12 Crs

The agenda has been taken up in 45<sup>th</sup> CCM meeting wherein it was discussed that issue may be put up in OCC meeting. Accordingly, the agenda item has been taken up in 192<sup>nd</sup> OCC meeting wherein it has been finalized that discussion shall be held with counterparts in other region and the forum shall be updated accordingly.

In view of above, it is requested to kindly accord consent for construction of new residential/non-residential buildings after demolition of existing ones at a financial implication as mentioned above in the respective stations/projects.

#### **Deliberation of the sub-committee**

After detailed deliberation the forum referred the matter to CCM for through discussion and further referral to TCC/RPC for final approval.

***The Sub-committee noted as above***

**Action: NERPC**

#### **C.15. PLCC & protection related issues at 132kV Tipaimukh S/s**

There had been instances of failure of PLCC channel of 132kV JiribamTipaimukh& 132kV Aizawl-Tipaimukh line. During tripping of 132kV Aizawl-Tipaimukh (Zone 2

fault from Aizawl end) on 01.09.2022, AR got failed at Aizawl end due to non-receipt of carrier signal. Similar issue has been observed in earlier tripping also. It was informed that 48 V DC System at Tipaimukh end is not healthy.

Further, on 07/09/2022, during fault in Jiribam-Tipaimukh, protection not operated at Tipaimukh end, which has resulted in Zone 3 operation at Aizawl end in Aizawl-Tipaimukh Line.

Thereby, the Healthiness of 48V DC System & Protection settings may kindly be ensured to maintain better Grid reliability.

**Deliberation of the sub-committee**

Manager, SLDC, MSPCL intimated the forum that 48V DC System is facing some issues, for which spare parts are being arranged at Tipaimukh but delayed due to logistics issues. CGM(AM), NERTS suggested that till loading at Sub-station is there the line may be restored to original configuration of 132kV Aizawl-Jiribam by appropriate connections at LILO point. After detailed deliberation the forum requested MSPCL to ensure healthiness of 48V DC System & Protection System by Sep'22 and decided to take up the matter of direct connection in the next OCC meeting.

***The Sub-committee noted as above***

***Action: MSPCL***

**C.16. 48V System reliability at Pasighat end**

48V System availability is must to attain better Grid reliability with the scope of Auto Reclosure during Transient Faults. However, the 48V Charger (new) though installed at Pasighatend, is connected to a Battery Bank with no Back-up.

Thereby, the Healthiness of 48V System may be ensured to ascertain successful AR attempt and closure on transient faults, to maintain better Grid reliability.

**Deliberation of the sub-committee**

EE (E), DoP, 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.

***The Sub-committee noted as above***

***Action: DoP Arunachal Pradesh***

**Agenda items from NEEPCO**

**C.17. Issues related Monarchak TGBPS**

- a. Very adverse effect on machine due to frequent tripping of evacuation feeders.
- b. Power evacuation through 132KV Monarchak - Rabindranagar- Rokhia line for reliability and stability of grid.
- c. Shutdown of Monarchak Plant from 05/12/2022 to 15/12/2022 for
  - Replacement of Air inlet filter of GTG
  - Recommended periodical Offline Water Wash of GTG
  - Statutory Hydro test of Boilers
  - Condenser cleaning of STG
  - General Maintenance

**Deliberation of the sub-committee**

NERLDC impressed upon the forum that important evacuating lines for Monarchak plant like 132kV Monarchak-Rokhia and 132kV Monarchak-Udaipur lines are not properly maintained despite multiple shutdowns taken for maintenance. After detailed deliberation, the forum urged TSECL to take necessary efforts to maintain the lines. Regarding the propose shutdown, the forum agreed after discussion.

***The Sub-committee noted as above***

***Action: TSECL***

**Agenda items from MePTCL**

**C.18. Installation of capacitor banks under PSDF funding**

MePTCL proposes for installation of of Capacitor banks under PSDF funding as follows-

S No.	Name of the substation	Required capacity of capacitor banks
1.	132kV Rongkhon	20MVAR
2	132kV Ampati	15MVAR
3	132kV NEHU	10MVAR

Due to low voltage problem during peak hours at these substations, installation capacitor banks is required at these substations.

**Deliberation of the sub-committee**

After detailed deliberation, the forum approved the project and asked MePTCL to submit corresponding DPR for PSDF funding.

***The Sub-committee noted as above***

***Action: MePTCL***

**C.19. LILO and Upgradation of 132kV ISTS lines**

ACE (Trans), MePTCL stated that LILO of 132kV Umtru-Kahelipara D/C is required at Killing alongwith upgradation of the entire line section with HTLS.

Member Secretary noted that many important 132kV lines have to upgraded and stated that a comprehensive proposal alongwith the above lines shall be put up in the OCC/CMETS meeting.

***The Sub-committee noted as above***

***Action: NERLDC/NERPC***

***Additional agenda form NERLDC***

**C.20. Proposal for new SPS in Assam Power System: reduction of load in case of tripping of important 220 kV DC corridor**

On 12th August 2022, Assam state maximum load has reached 2376 MW (as per SCADA) and the important 220 kV corridor which are providing power support to capital area of Assam are operating at above surge impedance loading (SIL). Thus, the capital area of Assam power system is not compliant under N-1 contingency. Study suggests that on tripping of 220 kV Azara-Sarusajai DC or 220 kV Misa-Samaguri DC, reduction of load in Assam system is required in order to secure the capital area of Assam power system from cascading tripping.

Thus, an SPS may be implemented for load reduction in Assam power system on tripping of 220 kV Azara-Sarusajai DC or 220 kV Misa-Samaguri DC.

**Deliberation of the sub-committee**

After detailed discussion the matter was referred to PCC sub-group meeting.

***The Sub-committee noted as above***

***Action: NERPC***

## D. ITEMS FOR STATUS

### D.1. Implementation of projects funded from PSDF:

The status as informed in 194<sup>th</sup>OCC:

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 TESG 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 <sup>th</sup> 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

**Deliberation of the sub-committee**

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 10<sup>th</sup> November'2022.

***The Sub-committee noted as above***

***Action: all utilities as above.***

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

Sl. No	Element	Owner	Status as informed in the 193 <sup>rd</sup> OCCM	Latest Status
1	132kV Mariani – Mokokchung (out since April'2008)	AEGCL	Non clearance due to persisting funding issue	Persisting funding issue
3	132kV Roing-Pasighat (charged through ERS tower)	NERTS	By Mar'23	Mar'23
4	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(out since Oct'19)	NEEPCO/ NERTS	October 22	Nov'22
5	132kV Srikona – Panchgram	AEGCL	DPR submitted to Govt of Assam for administrative approval. Approval awaited. Funding issue. NERPC to issue a letter to Govt of Assam requesting for approval	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. By Aug'22	RoW, litigation pending in court
7	63MVAR Bus Reactor at Byrnihat to be replaced with 80MVAR Reactor	MePTCL	Negotiation reached, Material dispatched, Price resolution underway	Price resolution underway
8	Main CB at Zuangtui for 132kV Melriat-Zuangtui	P&ED Mizoram	By Sept'22	Applied for shutdown for CB replacement on 4 <sup>th</sup> and 7 <sup>th</sup> October
9	Mawlyndep and Khliehriat CBs at Mustem	MePTCL	Oct'22	Oct'22
10	400kV Silchar-Misack 2	NER-II TL	Joint survey for restoration through ERS scheduled for sep'22	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

**The Sub-committee noted as above**

**D.3. Status of commissioning for upcoming projects:**

<b>Sl. No</b>	<b>Name of the element</b>	<b>Utility</b>	<b>Status as informed in 193rdOCC meeting</b>	<b>Latest Status</b>
1	132kV Monarchak-Surjamaninagar	TSECL	Oct'22. Meanwhile for evacuation of Monarchak, 132kV Monarchak-Rokhiact is being provided	Oct'22
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 <sup>nd</sup> bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	OEM is awaited for SAS integration	Same update,
4	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	Material has reached the site. Tentative s/d in Sept'22	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 Nov'22	FC obtained. Severe ROW issues still persists in Loc: 41-44, along with ROW in Forest Section, total-28 Nos. On visit, of Power Secretary with DOP, AP officials visited Line and Sub-station dated -09.09.22, & requested POWERGRID complete the same by Dec'22. Subjected to resolution of aforementioned Issue immediately, PGCIL targets to complete it by

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				given time (Dec'22).
8	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	Outage could not be provided due to high loading. NERLDC suggested to take the outage after High hydro season	Applied for shutdown and awaiting for Shutdown approval against the same.
9	420kV 80MVAR Bus Reactor	NEEPCO	By May'23	May'23
10	220kV Killing - Mawngap	NERPSIP	August'22 subject to resolution of RoW issue	Severe RoW in Zirang circle in RiBhoi district. Still un-resolved, Issue raised in PMG (DPIIT) also.
11	220kV Samaguri - Mariani-I	AEGCL	FC awaited	FC still awaited in the Samguri-Khumtai section. While the Mariani-I to Khumtai section is charged
12	Reconductoring of 132kV UmiamStg-III to UmiamStg-I by HTLS	MePTCL	Material reached the site. Tentative completion by Oct'22	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	Same update
14	220kV AGBPP -Namsai D/C	TBCB	REC (which is the BPC) is yet to issue LoI to Powergrid(L1). 36 months after issue of LoI	Same update
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	WIP
16	LILO of 132kV Leshka- Khliehriat-I at Mynkre and Mynkre SS and 33kV downstream at Mynkre.	NERPSIP	Sep'22	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 Sept 22	One foundation left but water logging issue. Targeted by Oct'22
18	LILO of 132kV	NERPSIP	Two towers and	No S/D approval by

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	Kamalpur-Kamakhya& 132kV Kamalpur-Sishugram at Amingaon		one span left. AeGCL has set up a high-level committee on the matter. No s/d approval by Assam	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	Sep'22	Nov'22
20	132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur	NERPSIP	Sep'22	Compensation disbursal issue at Tamenglong. By Nov'22
21	132/33kV 2x20MVA Gamphazol at Manipur	NERPSIP	All works except cable termination done, targeted by August'22	Testing ongoing. To be charged in 1 week
22	132/33kV West Phaileng S/S at Mizoram	NERPSIP	Ready for charging	Ready for charging, but no line
23	132/33kV 2x12.5MVA Marpara S/S at Mizoram	NERPSIP	Sep'22	Sep'22, but line delayed
24	132/33kV 2x12.5MVA Lungsen S/S at Mizoram	NERPSIP	Sep'22	Sep'22
25	132kV Lungsen-Chawngte S/C at Mizoram	NERPSIP	Aug'22	Sep'22
26	132kV Chawngte – S.Bungtlang S/S at Mizoram	NERPSIP	Sept'22	Oc'22
27	132kV W.Phaileng-Marpara S/C at Mizoram	NERPSIP	Sep'22	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	Agenda item B.22
29	LILO of 132kV Wokha – Kohima at 132/33kV New Kohima at Nagaland	NERPSIP	Row at one location still unresolved. By Aug'22	RoW at one location. By Sep'22
30	132kV Wokha-Zunheboto – Mokokchung at Nagaland	NERPSIP	By Aug'22	Sep'22
31	132kV Tuengsang – Longleng at Nagaland	NERPSIP	11 foundations left. By august'22	Line by Sep'22, but Tuensang SS is not

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				ready
32	132/33kV Amarpur S/S at Tripura	NERPSIP	Sep'22	Sep'22
33	132/33kV Manu(new) S/S at Tripura	NERPSIP	Sep'22	Sep'22
34	132kV Dharmanagar-Kailashor	NERPSIP	RoW persisting	RoW persisting, by Oct'22
35	132kV Ziro-Yazali and 132/33kV Yazali S/S	POWERGRID-Comprehensive	FC obtained. Compensation discussion in progress. By Dec'22	Dec'22
36	132kV Yazali – Palin and 132/33kV Palin S/S	POWERGRID - Comprehensive	Dec'23	Dec'23
37	132kV Palin- Koloriang and 132/33kV Koloriang S/S	POWERGRID - Comprehensive	Dec'23	Dec'23
38	132kV Khonsa – Deomali and 132/33kV Khonsa S/S	POWERGRID - Comprehensive	Dec'23	Dec'23
39	132kV Miao – Namsai and 132/33kV Miao S/S	POWERGRID - Comprehensive	Dec'23	Dec'23
40	132kV Chimpu – Holongi and 132/33kV Holongi S/S	POWERGRID - Comprehensive	Litigation in court. By 31 <sup>st</sup> August	RoW issues at 5 locations resolved. Work resumed, expected by Spet'22
41	Lower Subansiri HEP	NHPC	Unit 1 by Jan'23 and Unit 2 by Feb'23	Unit 1 by Jan'23 and Unit 2 by Feb'23
42	400kV Lower Subansiri-BNC line1	PGCIL	Nov'22	Nov'22
43	400kV Lower Subansiri-BNC line2	PGCIL	Feb'23	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 (iv) Completed

**The Sub-committee noted as above**

**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 in NER

Sl.	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 <sup>nd</sup> 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 <sup>st</sup> tower at New Kohima (TBCB) underway. Completion of the line after the said resolution
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

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
<b>A</b>	<b>Assam (to be implemented by AEGCL)</b>			
<b>I</b>	<b>Rangia</b>	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

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a)	LILO of both circuits of Bongaigaon – Balipara 400kV D/c line at Rangia (OPGW in scope)	400 kV, D/C	1. EPC Contract Award is expected by March'2023. 2. Tender preparation is completed and submitted to AIIB for review and approval of floating of tender	Mar'26 (36 months form date of Award)
<b>II</b>	<b>Khumtai</b>	400/220/132kV, 2x500MVA + 2x160MVA	Survey work to be completed by oct'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 Oct'22, tender floating after finalization of fund allocation.	220kV LILO part 60% complete. 400kV line by May'2026
<b>III</b>	<b>Upgradation of Gohpur S/s from AIS to GIS</b>	-	1. Notice of Award has been issued on 8 <sup>th</sup> 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 Sep'22	June'2025
<b>IV</b>	<b>Upgradation of Sonapur S/s from AIS to GIS</b>	-	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>B</b>	<b>Tripura (to be implemented by TSECL)</b>			
<b>I</b>	<b>Surajmaninagar (TSECL)</b>	400/132kV, 2x315MVA	Award by Sep'22	12 months from Date of Award

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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
<b>C</b>	<b>NEEPCO (to be implemented by NEEPCO)</b>			
<b>I</b>	<b>Extension works at Ranganadi HEP end</b>	Oct 22	Oct 22	Oct 22
<b>II</b>	<b>Extension works at Pare HEP end</b>	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:**

<b>S.No</b>	<b>Item for Discussion</b>	<b>Status as per 193<sup>rd</sup> OCCM</b>	<b>Latest Status</b>
1.	Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189 <sup>th</sup> 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. (item B.21)	
2.	Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189 <sup>th</sup> OCCM)	2 <sup>nd</sup> week of October'22	Oct'22
3.	Non-availability of operational synchronization facility at 132kV Agartala Station (Agenda No. C10. of 189 <sup>th</sup> 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 next week
4.	Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189 <sup>th</sup> OCCM)	Applied for s/d for installation. Expected to be done in August'22.	Installation of CVTs done
5.	Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184 <sup>th</sup> OCCM)	RoW issue, litigation in court	Same update

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6.	<p>Charging of 33kV Khupi-Kimi line at 132kV:                  Recommendations of the 187<sup>th</sup> OCCM to be implemented:                  (a) Installation &amp; Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188<sup>th</sup> OCC meeting held on 16<sup>th</sup> 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                  (f) Procurement and installation of Line Differential Relays (NEEPCO) - By Mar'22                  (Agenda B.15 of 188<sup>th</sup> OCCM)</p>	<p>(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</p> <p>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</p>	
7.	<p>Synchronization issue of 220kv AGBPP - Tinsukia 1 &amp; 2 at AGBPP end.( NEEPCO to update the status of CVT procurement and other relevant details.)                  Item B.24 of 190<sup>th</sup> OCCM.</p>	<p>About to place the tender</p>	
8.	<p>Installation of second wave trap at Nirjuli SS for both N.lakhimpur and Pare circuits by PGCIL                  (B.14. Of 192<sup>nd</sup> OCC)</p>	<p>To be installed along with charging of the line</p>	<p>To be installed along with charging of the LILO portion</p>
9.	<p>Frequent breakdowns (BD) of Khuppi-Balipara transmission line                  (C2 of 191<sup>st</sup> OCCM)</p>	<p>132kV Kimi -Khupi line to be commissioned by Sept'22</p>	
10.	<p>Proposed continuous shutdown of 132kV S/C LoktakJiribam(PG) for HTLS reconductoring                  (C.5 of 191<sup>st</sup> OCCM)</p>	<p>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.</p>	<p>After return of 132kV Dimapur -Imphal line</p>
11.	<p>Issues faced during Mock Black Start exercise of Pare HEP on 27/05/2022                  (C.7 of 191<sup>st</sup> OCCM)</p>	<p>No report submitted</p>	<p>same</p>
12.	<p>Implementation of Single Phase Auto-Reclosure for 132kV Rangia-Motongaand 132kV Gelephu-Salakati</p>	<p>Sept'22</p>	<p>Oct'22</p>

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022

	Line (C.14 of 191 <sup>st</sup> OCCM)		
13.	Non reporting of 132kV Mohanpur S/S under NERPSIP and Comprehensive projects (C.16 OF 191 <sup>ST</sup> OCC)	Team on site, by 25 <sup>th</sup> Aug'22	Team visited, but not yet reporting
14.	High level of dissolve gases on DGA report of Kameng U#3 R-phase GT: (C.17 of 191 <sup>st</sup> OCCM)	Continued DGA violation, but within manageable limits	Same status
15.	Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191 <sup>st</sup> OCCM)	Estimate prepared and submitted to Disaster Risk reduction Works, 2022-2023, Govt of Assam	Same status

## **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 192<sup>nd</sup> 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 193<sup>rd</sup> 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.

### **Deliberation of the sub-committee**

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

***The Sub-committee noted as above***

***Action: NERTS***

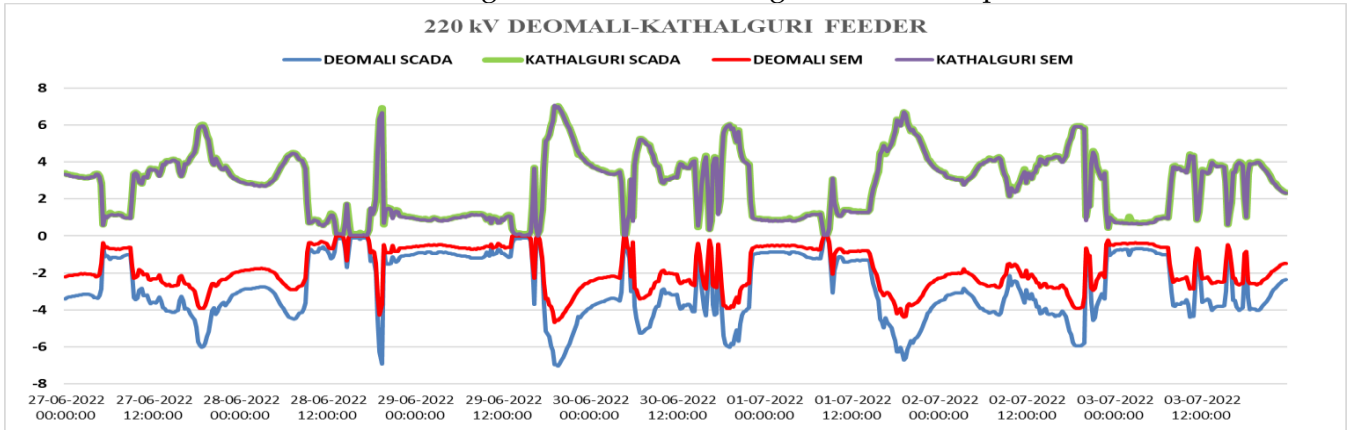
### **E.2. Issues regarding SEM Data Processing:**

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 around 50% lesser than that of Kathalguri end.

In 193<sup>rd</sup> OCCMSLDC A.P assured the forum to send expert form Itanagar to check the SEM at the earliest.

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022



b. High Time drift at 132 kV Ziro Substation:

Weekly SEM data of 132 kV Ziro-Ranganadi feeder is important for accounting of Arunachal Pradesh drawal. However, time drift of more than 5mins is observed in the SEM (NP-9704-A) installed at Ziro end of 132 kV Ziro-Ranganadi feeder.

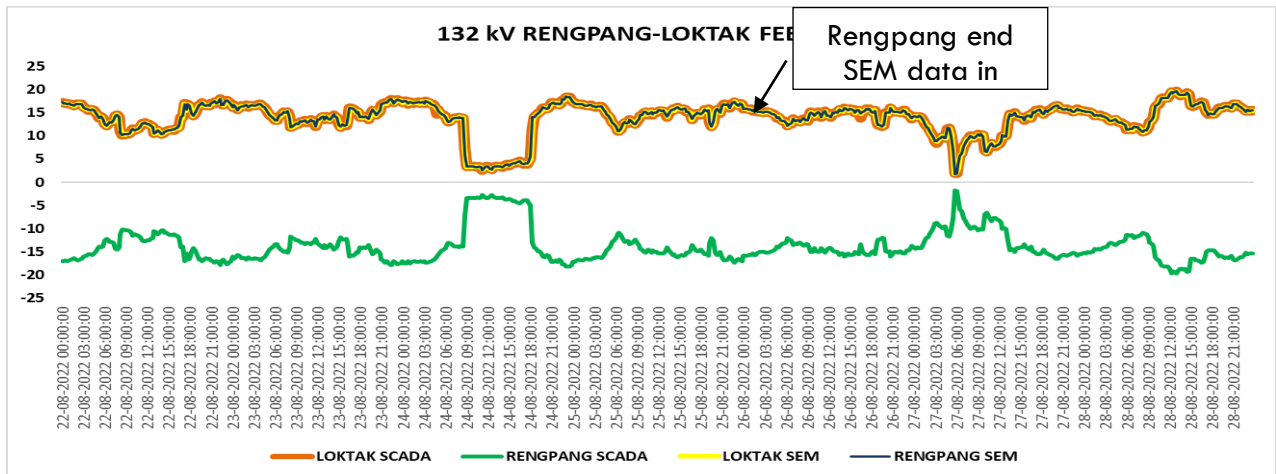
In the 193rd OCCM Due to high time drift, it was agreed by the forum that a new SEM has to be procured for which order is to be placed within one week.

c. 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.

d. Sign reversal of Rengpang end of 132kV Loktak- Rengpang line:

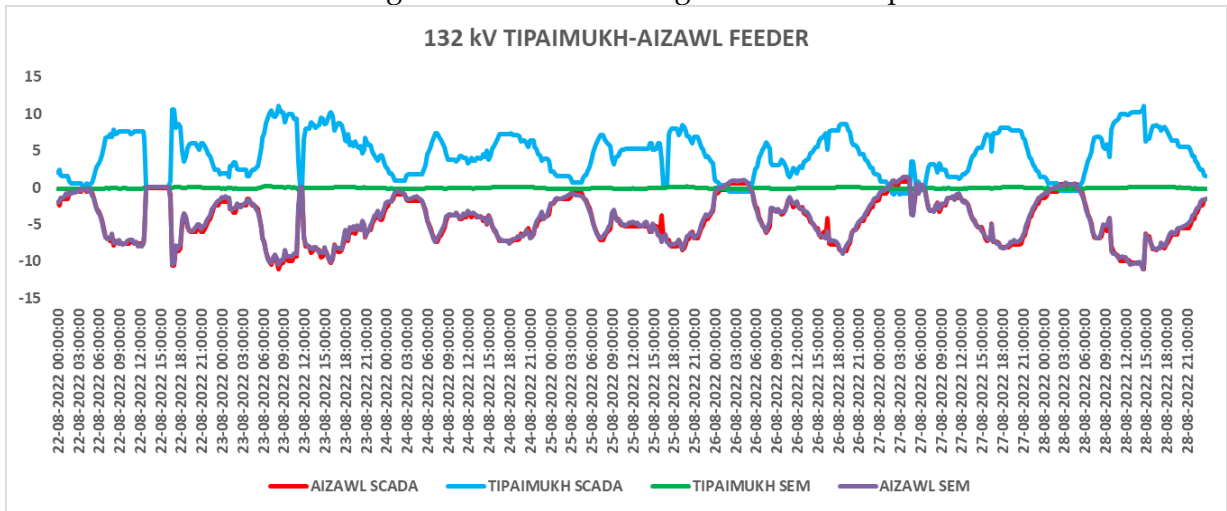
SCADA VS SEM plot comparison for the period 22.08.22-28.08.22 is given below:



e. Erroneous reading of Tipaimukh end of 132kV Aizwal-Tipaimukh line:

Tipaimukh end of 132kV Aizwal-Tipaimukh line is reading close to 0 (Zero). SCADA VS SEM plot comparison for the period 22.08.22-28.08.22 is given below:

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022



**Deliberation of the sub-committee**

- a. EE(E), DoP , A.P. assured the forum that experts will visit Deomali SS to check the SEM at the earliest.
- b. DGM(AM), NERTS intimated the forum that SEM at Ziro has been replaced.
- c. 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.
- d. 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
- e. 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

***The Sub-committee noted as above***

***Action: DoP A.P., AEGCL, NERTS, MSPCL***

**Date & Venue of next OCC meeting:**

It is proposed to hold the 195<sup>th</sup>OCC meeting of NERPC on second week of October, 2022. However, exact date and venue will be intimated in due course.

\*\*\*\*\*

**Annexure-I****List of Participants in the 194<sup>th</sup> OCC Meeting held on 15.09.2022**

SN	Name & Designation	Organization	Contact No.
1	Sh. Sange Phuntso, EE (E), SLDC	Ar. Pradesh	09436041217
2	Sh. P.Borah, CGM (SLDC)	Assam	08638174429
3	Sh. F.H.Hashmi, DGM (PP&D), APGCL	Assam	09435130555
4	Sh. Anjan Jyoti Choudhury, AGM, AEGCL (HQ)	Assam	08011881965
5	Sh. Rodali Khaund, DGM, SLDC	Assam	06901255808
6	Sh. Rachael Pakhumate, AM (SLDC)	Assam	09678863545
7	Smti. Jayela Wahengbam, DM (SO), SLDC	Manipur	09856875084
8	Smti. Haobam Memnaobi Chanu, Manager (IT), SLDC	Manipur	08131964667
9	Sh. H.Shangpliang, ACE (T&T), MePTCL	Meghalaya	09863315562
10	Sh. B.Wankhar, SE (SLDC)	Meghalaya	07005673697
11	Sh. M.Dkhar, SE (T&T), MePTCL	Meghalaya	09436164967
12	Sh. B.Narry, EE (SP), MePTCL	Meghalaya	07005298338
13	Sh. D.J.Lyngdoh, EE (SM), MePTCL	Meghalaya	-
14	Sh. P.Syiem, AEE, MePTCL	Meghalaya	09856065581
15	Sh. Alokesh Koch, AEE, SLDC	Meghalaya	-
16	Sh. Y.Iakai, AEE, SLDC	Meghalaya	09402133552
17	Sh. P.Liandika, AE, SLDC	Mizoram	08794948093
18	Sh. S.I. Asangba Tikhir, EE	Nagaland	07085508502
19	Sh. Arenlong, S.D.O	Nagaland	09366417813
20	Sh. Debabrata Pal, Sr.Manager (C&T)	Tripura	09436500244
21	Sh. Anil Debbarma, DGM (SLDC)	Tripura	09612589250
22	Sh. Joypal Roy, GM (E/M)	NEEPCO	08837200069
23	Sh. Nirup Sarma, DGM (E/M)	NEEPCO	09435339716
24	Sh. B.Sahu, Sr.GM	NERLDC	09402102354
25	Sh. S.C.De, Sr.GM	NERLDC	09436335369
26	Sh. Sachin kr. Singh, Dy.Manager	NERLDC	09436119794
27	Sh. Sourav Mandal, Manager	NERLDC	09402102354
28	Sh. U. Kataki, CGM (AM)	PGCIL	09435505418
29	Sh. H.Talukdar, GM (CTDS)	PGCIL	09436335237
30	Sh. Ankit Vaish, DGM, NERTS	PGCIL	09409305725
31	Sh. Raktim Konwar, Manager (NERPSIP)	PGCIL	09678682358

Minutes of the Meeting of 194<sup>th</sup> OCC Meeting held on 15<sup>th</sup> September 2022

32	Sh. D.Sarkar, Manager (RTAMC)	PGCIL	09957665341
33	Sh. Narendra Gupta, Head-Operation	OTPC	09774233426
34	Sh. Kangkan Paul, Manager, EEMG	NTPC	09435029230
35	Sh. N.Ramesh Kr. Singh,Engineer (O&M)	NETC	09101658046
36	Sh. Kishan Chand, Sr. Mgr (E), LOKTAK	NHPC	09800284593
37	Sh. Dhurjyoti Chaliha, Asst.Lead	KMTL	08011187572
38	Sh. G.Bhowmick, Associate	PWC	06295302377
39	Sh. Arnab Pratim Das, Exec.Director	PWC	09830087811
40	Sh. Manash Mahanta, Manager	PWC	09954089272
41	Sh. Jintu Boruah, Sr.Associate	PWC	07972961449
42	Sh. B. Lyngkhai, Member Secretary	NERPC	09436163419
43	Sh. S.M.Aimol, Director	NERPC	08974002106
44	Sh. S.Mukherjee, Dy.Director	NERPC	08794277306
45	Sh. A.Agarwal, Dy.Director	NERPC	09871266951
46	Sh. Rajib Das, AD-II	NERPC	-
47	Sh. Vikash Shankar, AD-I	NERPC	09455331756
48	Sh. Dinesh Kumar Singh, AD-I	NERPC	07042118261
49	Sh. Ashim Kumar Goswami, AD-II	NERPC	07086226919

उ.पू.क्षे गिड प्रदर्शन

# NER GRID PERFORMANCE

*For the month August 2022*

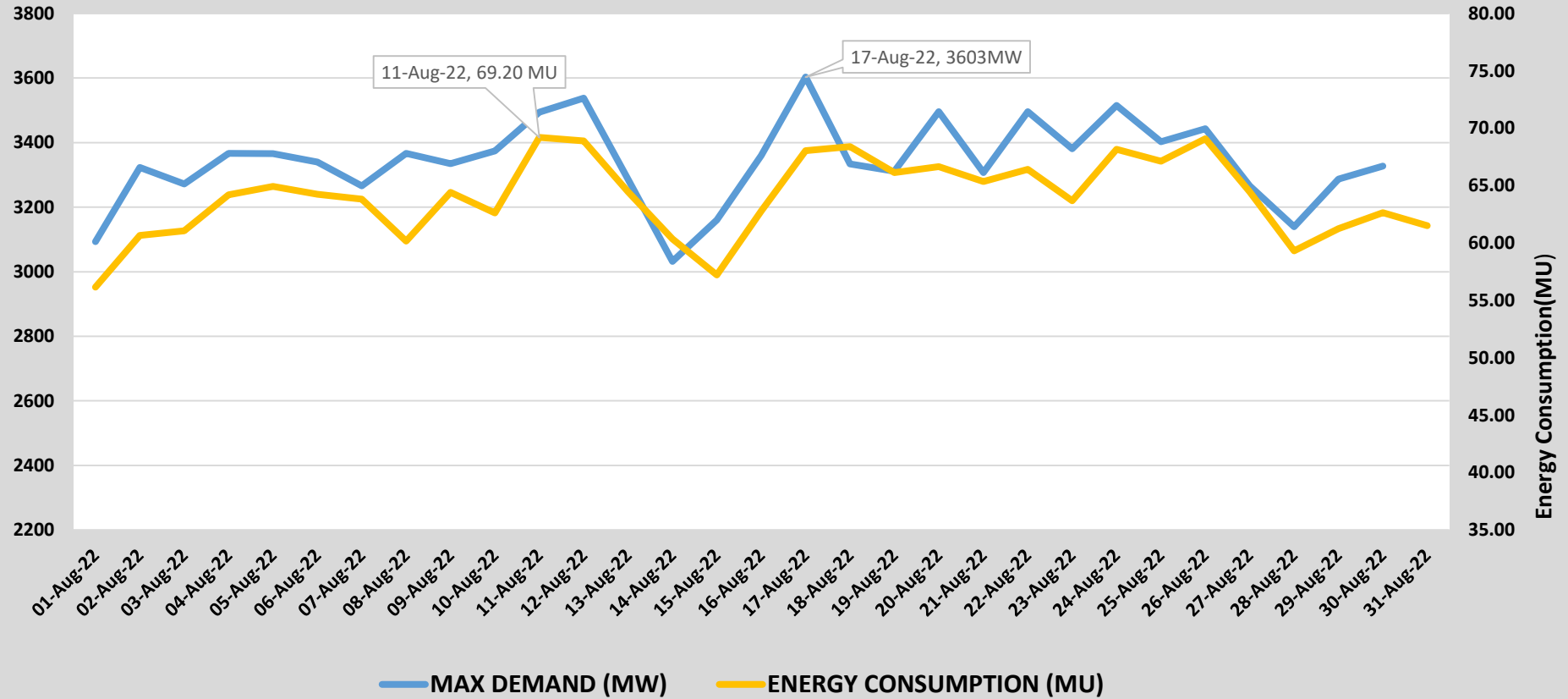


**North-Eastern Regional Load Despatch Centre**

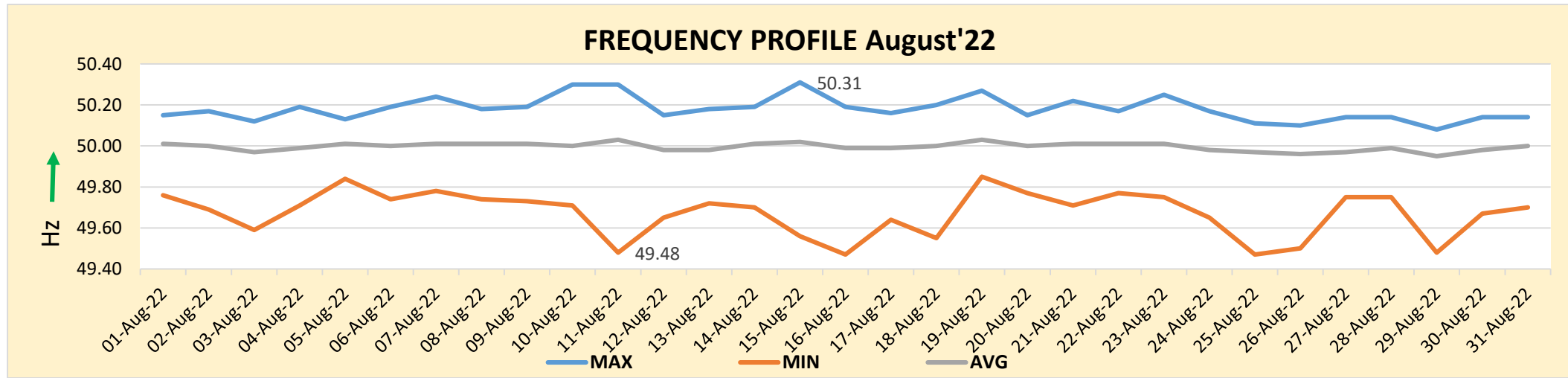
***POSOCO, Shillong***

# Maximum MW and MU in NER: August 2022

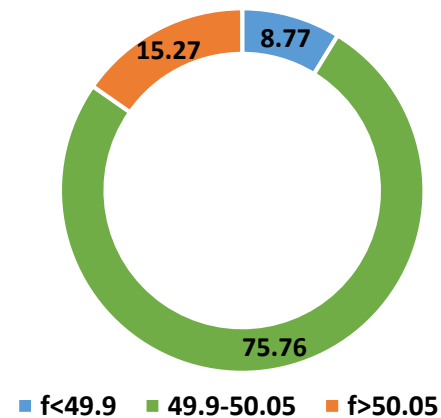
## Maximum Demand (MW) and Energy Consumption (MU)



# Frequency Profile

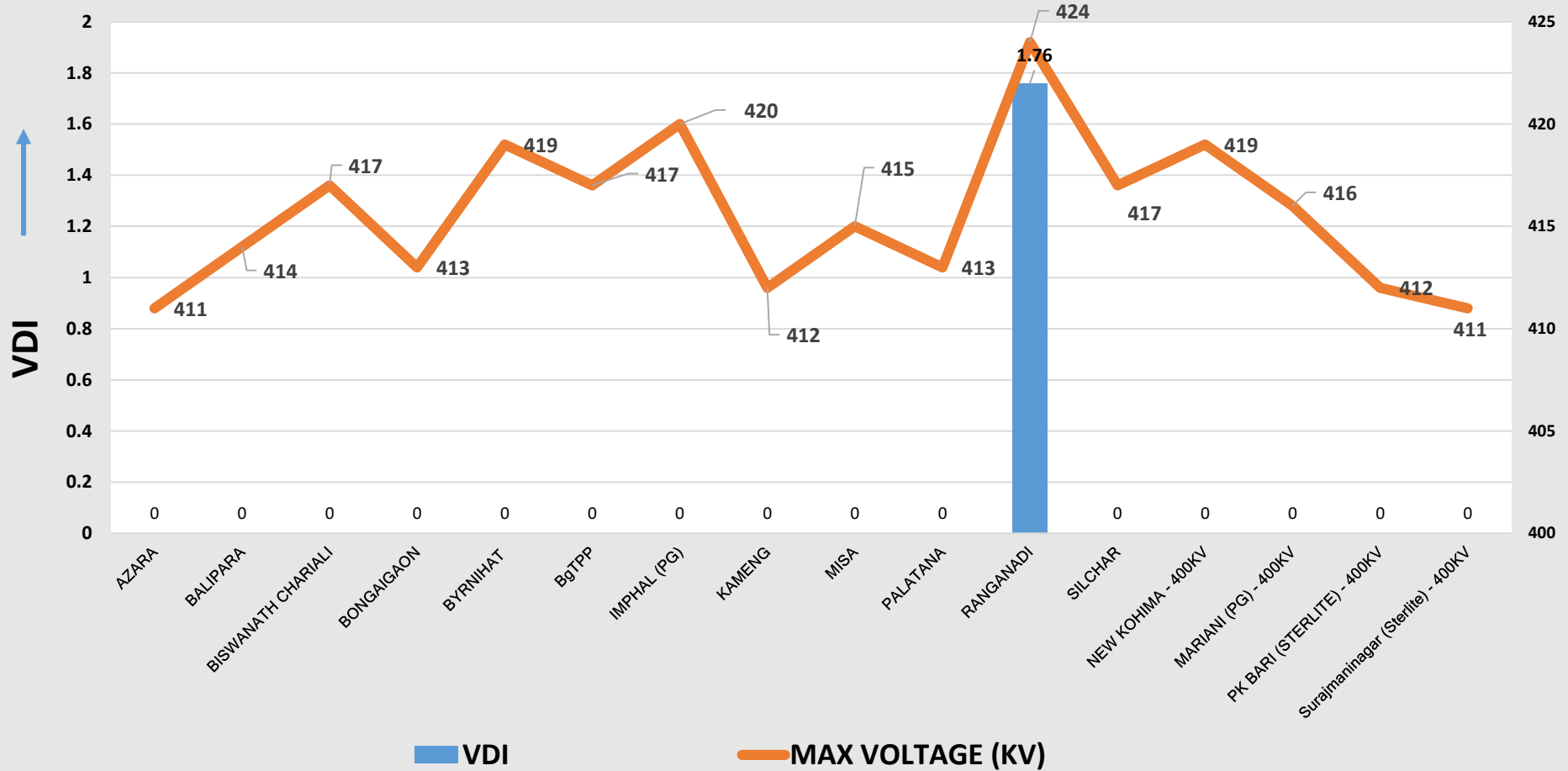


### FREQ PROFILE FOR Aug'22



## VDI (400 KV) FOR August 2022

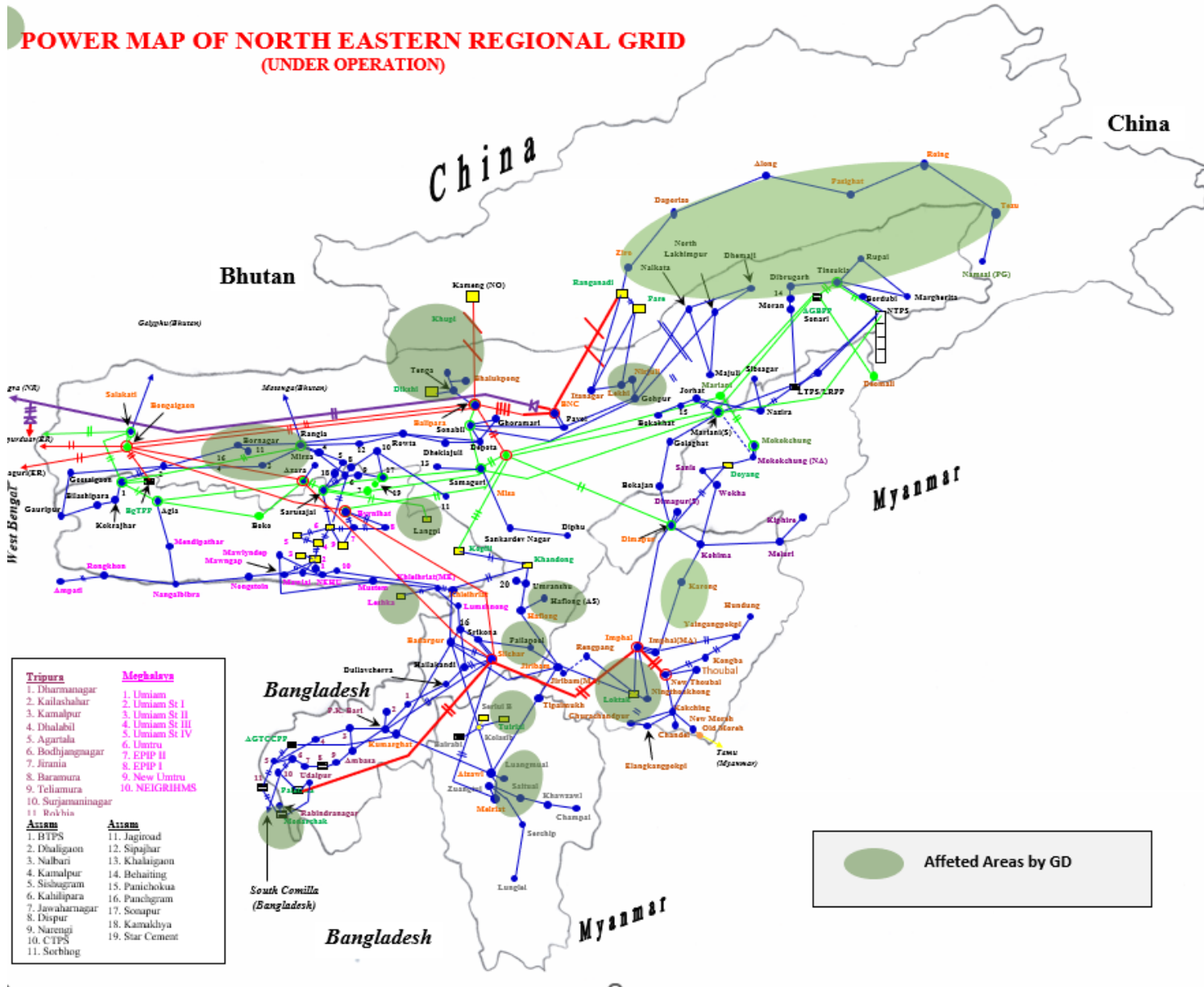
No. of 400 kV lines kept open for over voltage : NIL



# Grid Disturbance during August 2022



**POWER MAP OF NORTH EASTERN REGIONAL GRID  
(UNDER OPERATION)**

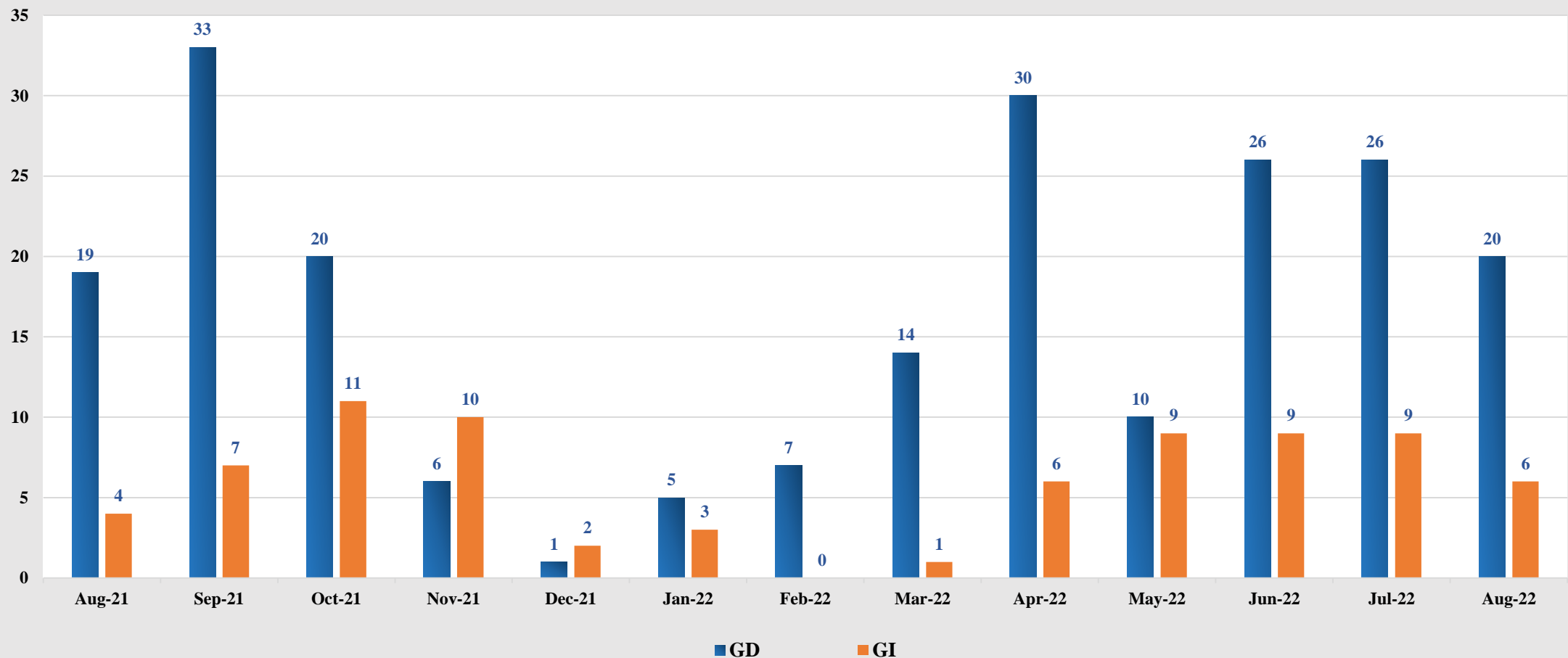


No. of GD	20
No. of GI	6

Sl. No.	Element	Number of times
1	132 kV Balipara-Tenga line	5
2	132 kV Ranganadi - Ziro	2
3	220 kV Karbi Langpi - Sarusajai D/C	2
4	132 kV Gohpur-BNC (Pavoi) D/C	1
5	132 kV Motonga (Bhutan) - Rangia line & 220/132 kV 100 MVA Rangia ICT-1 & 2	1
6	132 kV Along- Pasighat	1
7	132 kV Srikona - Pailapool	1
8	132 kV Loktak-Jiribam line, 132 kV Loktak-Imphal line, 132 kV Loktak-Ningthoukhong line, 132 kV Loktak-Rengpang line & Loktak Unit 1, 2 & 3	1
9	132 kV Imphal (MSPCL) - Karong line & 132 kV Karong - Kohima	1
10	132 kV Khandong- Umrangshu line. 132 kV Jiribam - Haflong	1
11	132 kV Aizawl(PG)-Lungmul	1
12	132 kV Tuirial-Kolasib line	1
13	132 kV Nirjuli-Lekhi line and 132 kV Nirjuli - Gohpur line	1
14	132 kV Monarchak - Udaipur	1

# Grid Disturbance/Incidences for last 12 Months

GD and GI : August 21 to August 22



# Projected Hydro Generation Availability

Plants	Reservoir Level in meters (as on 13/09/2022)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Kopili STG II	-	-	-	-
Kopili	-	-	-	-
Doyang	316.5	16	0.433	36
Loktak	766.63	16	1.82	8



# OCC approved shutdown availing status for the month of August 2022

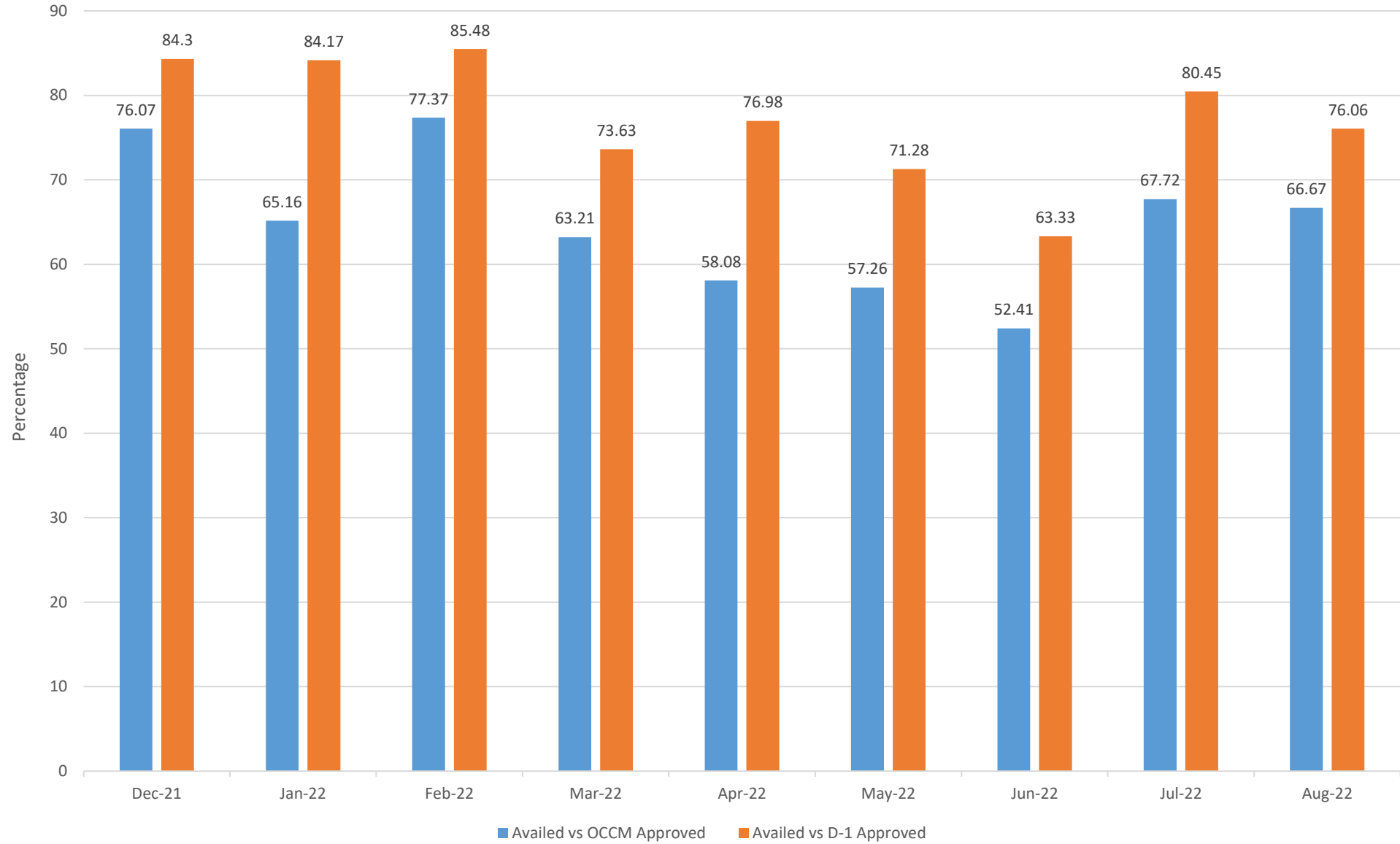
## SUMMARY OF NER OUTAGE

MONTH	PLANNED IN OCC	APPROVED IN D-1	AVAILED IN REAL TIME	AVAILED VS PLANNED	AVAILED VS APPROVED	DEFERRED BY RLDC DUE TO SYSTEM CONSTRAINT
August-22	162	142	108	66.67%	76.06%	14



	OCC Approved	D-1 Approved	Availed	Not Availed	RLDC Deferred
NER	162	142	108	34	7
NERTS	50	43	33	10	0
ASSAM	51	44	36	8	4
MANIPUR	0	0	0	0	0
MEGHALAYA	0	0	0	0	0
NAGALAND	0	0	0	0	0
MIZORAM	0	0	0	0	0
TRIPURA	54	48	32	16	3
Arunachal Pradesh	1	1	1	0	0
NETC	0	0	0	0	0
KMTL	0	0	0	0	0
NEEPCO	2	2	2	0	0
NTPC	4	4	4	0	0
OTPC	0	0	0	0	0
INDIGRID	0	0	0	0	0
NHPC	0	0	0	0	0

## Approved Shutdown availing trend in percentage



# RMSE of Load forecast for Aug'22



RMSE of the forecasted Demand by SLDCs Vs Actual Demand met as per SEM by SLDCs (as per IEGC c1.5.3):

$$RMSE = \sqrt{\frac{\sum_{i=1}^N (Predicted_i - Actual_i)^2}{N}}$$

Where,

**Predicted<sub>i</sub>** = Forecasted Value

**Actual<sub>i</sub>** = Actual value

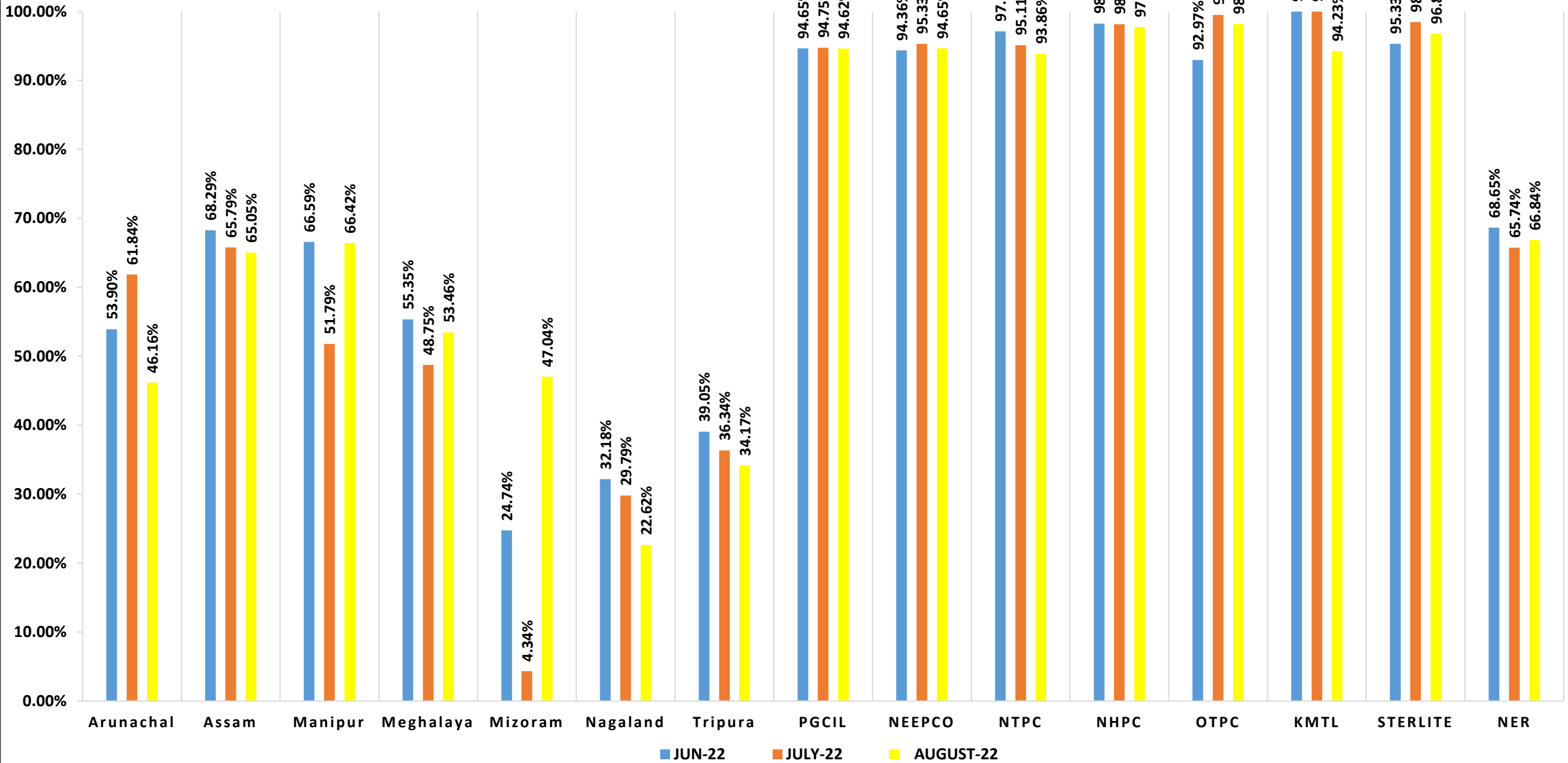
**N** = Total number of observations.

	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	13	9	7	13	19	12	10

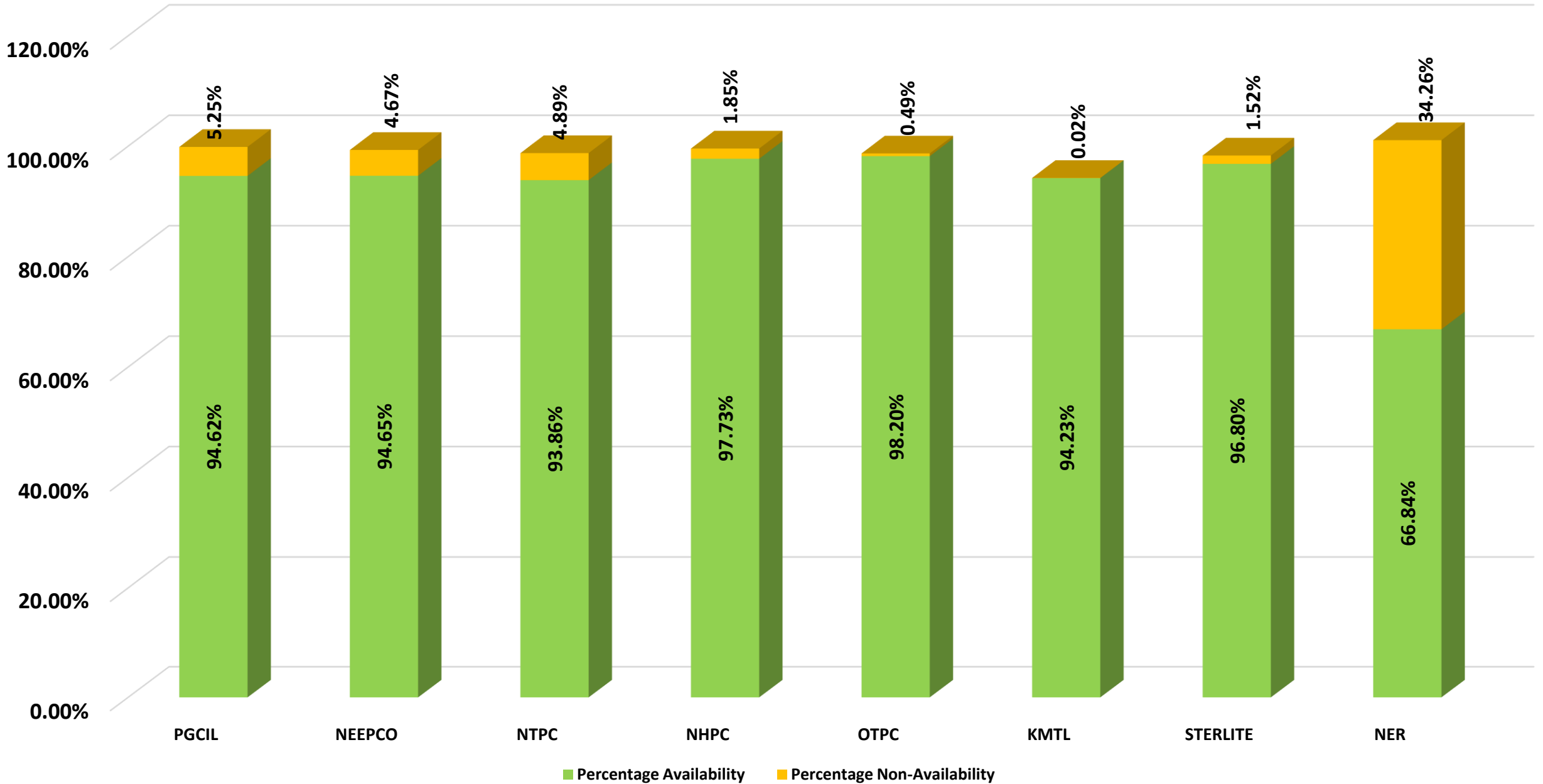


# Telemetry and Data Availability

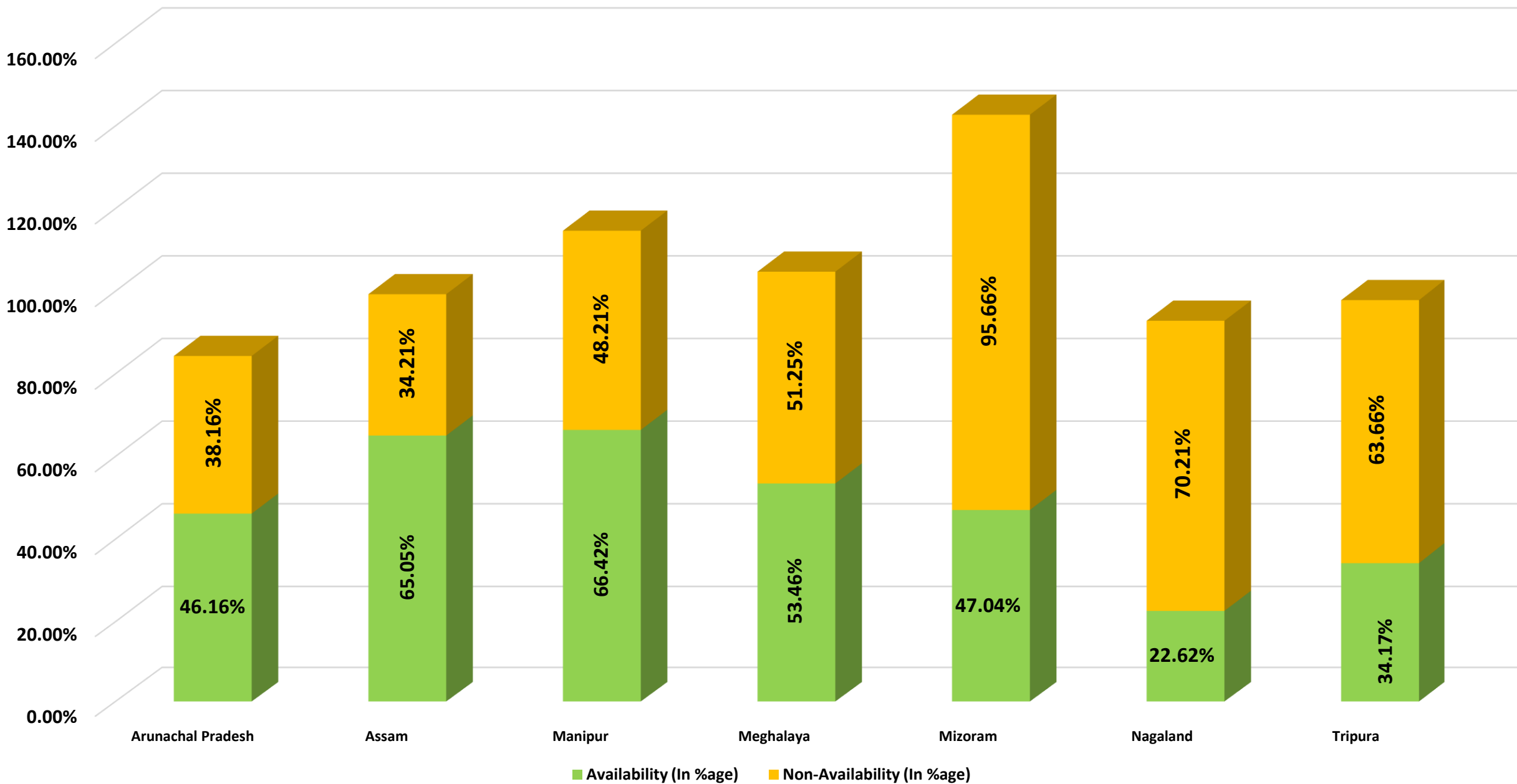
# Comparsion of Telemetry Availability Statistics (Average %age)



**Telemetry Statistics for Central Sector of NER (Average availability of data for the Month of August '22)**



**Telemetry Statistics for NER States (Average availability of data for the Month of August '22)**





*Thank You*

		Shutdown Proposed for the month of Oct 2022																												
S#	Name of Element	Oct-22																					Time	Reason	Category					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21				22	23	24	25	26
<b>SHUTDOWNS PROPOSED BY PGCIL</b>																														
<b>132kV Transmission lines</b>																														
1	132kV Lekhi - Nirjuli TL	Consent not received from Assam & AP																					CSD 0800Hrs to 1600Hrs	Dismantling of existing foundations of LA & CVT and construction of new foundation and erection of support structure for LA & CVT in 132KV Lekhi-Nirjuli at Nirjuli Substation under package-SS74 associated with (i) Extension of 132/33kV Nirjuli Substation under NERSS-IX & (ii) Augmentation of 132/33kV Nirjuli Substation under NERSS-XIII.	Construction Related Shutdown					
2	132kV Ranganadi - Ziro TL	Consent not received from AP																					0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.					
3	132kV Kolasib - Aizwal TL	Consent received from Mizoram																					0800Hrs to 1600Hrs	For clearing of critical vegetation infringements	Normal Maintenance related shutdown.					
4	132kV Aizwal - Tipaimukh TL	Consent received from Manipur																					0800Hrs to 1600Hrs	For clearing of critical vegetation infringements	Normal Maintenance related shutdown.					
5	132kV Palatana - SM Nagar - 1 TL	Consent received from Tripura																					0700Hrs to 1600Hrs	AMP of Bay Equipments at SM Nagar end	Normal Maintenance related shutdown.					
6	132kV Khlichriat - Badarpur TL	Consent received from Assam																					0800Hrs to 1600Hrs	LBB Relay retrofitting at both ends	Existing system improvement related shutdown.					
7	132kV Jiribam - Badarpur TL	Consent received from Assam																					0800Hrs to 1600Hrs	LBB Relay retrofitting at both ends	Existing system improvement related shutdown.					
8	132kV Badarpur - Khlichriat TL	Consent received from Assam																					0800Hrs to 1600Hrs	CC ring & Arcing horn removal work from tower end in all hilly areas	Normal Maintenance related shutdown.					
9	132kV Badarpur - Jiribam TL	Consent received from Assam																					0800Hrs to 1600Hrs	Conductor repairing work at Loc.201-202	Normal Maintenance related shutdown.					
10	132kV Badarpur - Karimganj TL	Consent received from Assam																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Badarpur end	Existing system improvement related shutdown.					
11	132kV Badarpur - Badarpur (Panchgram) TL	Consent received from Assam																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Badarpur end	Existing system improvement related shutdown.					
12	132kV Badarpur - Kolasib TL	Consent received from Mizoram																					0800Hrs to 1600Hrs	LBB Relay retrofitting at both the ends	Existing system improvement related shutdown.					
13	132kV Aizawl - Kolasib TL	Consent received from Mizoram																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Kolasib end	Existing system improvement related shutdown.					
14	132kV Ziro - Daparjo TL	Consent not received from AP																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Ziro end	Existing system improvement related shutdown.					
15	132kV Kherihat - Kherihat # 1 TL	Consent received from Meghalaya																					0800Hrs to 1600Hrs	LBB Relay retrofitting at both the ends	Existing system improvement related shutdown.					
16	132kV Kherihat - Umrangsho TL (bypassing Khandong#1 )	Consent not received from Assam																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Kherihat end	Existing system improvement related shutdown.					
17	132kV Ranganadi - Ziro TL	Consent not received from AP																					0800Hrs to 1600Hrs	LBB Relay retrofitting at Ziro end	Existing system improvement related shutdown.					
18	132 kV BNC - PAVOI - 1 TL	Consent received from Assam																					0600Hrs to 1530Hrs	for replacement of insulator string at various location that were damaged by lightning flash over at different locations, to prevent unwanted tripping.	Normal Maintenance related shutdown.					
19	132 kV BNC - PAVOI - 2 TL	Consent received from Assam																					0600Hrs to 1530Hrs	for replacement of insulator string at various location that were damaged by lightning flash over at different locations, to prevent unwanted tripping.	Normal Maintenance related shutdown.					
20	132kV Silchar - Melriat - 1 TL	Consent received from Assam																					0800Hrs to 1600Hrs	For installation and commissioning of Line differential relay	Existing system improvement related shutdown.					
21	132kV Silchar - Melriat - 2 TL	Consent received from Assam																					0800Hrs to 1600Hrs	For installation and commissioning of Line differential relay	Existing system improvement related shutdown.					
22	132kV Silchar - Badarpur - 1 TL	Consent received from Assam																					0800Hrs to 1600Hrs	For installation and commissioning of Line differential relay at both ends	Existing system improvement related shutdown.					
23	132kV Silchar - Badarpur - 2 TL	Consent received from Assam																					0800Hrs to 1600Hrs	For installation and commissioning of Line differential relay at both ends	Existing system improvement related shutdown.					
24	132kV Silchar - Hailakandi - 1 TL	Consent received from Assam																					0700Hrs to 1600Hrs	For installation and commissioning of Line differential relay	Existing system improvement related shutdown.					
25	132kV Silchar - Hailakandi - 2 TL	Consent received from Assam																					0700Hrs to 1600Hrs	For installation and commissioning of Line differential relay	Existing system improvement related shutdown.					
26	132kV Loktak - Jiribam TL	Consent not received from Assam																					CSD 0700Hrs to 1500Hrs (till Jan 2023)	For conductor restringing to HTLS under NERSS project.	Existing system improvement related shutdown.					
27	132kV Dimapur - Doyang - 1 TL	Intimation to NEEPCO																					0800Hrs to 1600Hrs	For product Warranty confirmatory test of bay equipments before completion of one year.	Normal Maintenance related shutdown.					
28	132kV Dimapur - Dimapur - 2 TL	Consent received from Nagaland																					0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.					
29	132 kV Melriat-Zemabawk TL	Consent received from Mizoram																					0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.					
30	132 kV Kamarghat - RC Nagar (AGPPP) TL	Intimation to NEEPCO																					0800Hrs to 1600Hrs	For product Warranty confirmatory test of bay equipments before completion of one year.	Normal Maintenance related shutdown.					
		Oct-22																												
<b>220kV Transmission lines</b>																														
31	220 kV Mariani-Mokokchung-2 TL	Consent received from Assam																					0800Hrs to 1600Hrs	AMP of Bay Equipments at both ends	Normal Maintenance related shutdown.					
32	220kV Salakati - BTPS - 1 TL	Consent received from Assam																					CSD 0900Hrs to 1600Hrs	For HTLS conductor upgradation under NERSS-xii	Existing system improvement related shutdown.					
33	220kV Salakati - BTPS - 2 TL	Consent received from Assam																					CSD 0900Hrs to 1600Hrs (upto 4th Nov 2022)	For HTLS conductor upgradation under NERSS-xii	Existing system improvement related shutdown.					
34	220kV Misa - Kopili 3 TL	Consent received from Assam																					0700Hrs to 1800Hrs	For OPGW installation works under reliable communication scheme	Existing system improvement related shutdown.					
<b>400kV Transmission lines</b>																														



400kV Balipara SS		Oct-22																															Time	Remarks	Category		
Name of Element		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
60	400kV 50MVAR Biswanath Chariali-2 L/R at 400kV Balipara SS	←																															CSD 0900Hrs to 1600Hrs (upto Nov 2022)	Rectification of the Existing Reactor. Already approved in 192nd OCCM upto Oct'22	Existing system improvement related shutdown.		
61	400kV 50MVAR Bus Reactor -1 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make REF relay with Micom P141	Existing system improvement related shutdown.
62	400kV 50MVAR BNC-1 LINE REACTOR at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make REF relay with Micom P141	Existing system improvement related shutdown.
63	400kV 80MVAR Bus Reactor -2 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make Differential and REF relay with Micom P643 and P141	Existing system improvement related shutdown.
64	33kV Tertiary Reactor - 1 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make Differential relay with Micom P643	Existing system improvement related shutdown.
65	33kV Tertiary Reactor - 4 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make Differential relay with Micom P643	Existing system improvement related shutdown.
66	33kV Tertiary Reactor - 2 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make Differential relay with Micom P643	Existing system improvement related shutdown.
67	33kV Tertiary Reactor - 3 at 400kV Balipara SS																																		0700Hrs to 1800Hrs	For upgradation of CAG type English electric make Differential relay with Micom P643	Existing system improvement related shutdown.
800kV BNC SS																																					
68	AC-FILTER-3_MAIN-BAY at 800kV BNC SS	Consent required from NLDC																															0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.		
69	400kV SUBANSIRI-1-MAIN-BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
70	400kV BUSREACTOR-1- MAIN BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
71	400kV RANGANADI-2-MAIN_BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
72	400kV RANGANADI 2-BR2_TIE_BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
73	400kV BUS-REACTOR-2-MAIN-BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
74	400kV RANGANADI-1-MAIN_BAY at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.
75	AC FLITER-2_SUB-BANK-1 at 800kV BNC SS	Consent required from NLDC																															0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.		
76	400kV 80MVAR,BUS REACTOR-1 at 800kV BNC SS																																		0800Hrs to 1600Hrs	AMP of Bus Reactor	Normal Maintenance related shutdown.
77	AC FLITER-2_SUB-BANK-3 at 800kV BNC SS	Consent required from NLDC																															0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.		
Interregional/International																																					
78	400kV Bongaigaon - N. Siliguri -1 TL along with LR																																		0800Hrs to 1800Hrs	For Retrofitting of CAG type English electric make Differential Relay with Micom P643.	Existing system improvement related shutdown.
79	400kV Bongaigaon - N. Siliguri -2 TL along with LR																																		0800Hrs to 1800Hrs	For Retrofitting of CAG type English electric make Differential Relay with Micom P643.	Existing system improvement related shutdown.
80	220kV Salakati - Aipurdwar -1 TL	←																															Consent required from NLDC	CSD 0800Hrs to 1800Hrs	For SAS upgradation works including rewiring of all substation equipments such as CB, isolater etc. under Add Cap	Existing system improvement related shutdown.	
81	220kV Salakati - Aipurdwar -2 TL	←																															Consent required from NLDC	CSD 0800Hrs to 1800Hrs	For SAS upgradation works including rewiring of all substation equipments such as CB, isolater etc. under Add Cap	Existing system improvement related shutdown.	
82	220kV Salakati - Aipurdwar -1 TL	←																															Consent required from NLDC	CSD 0800Hrs to 1800Hrs	For HTLS conductor upgradation under NERSS-XII	Existing system improvement related shutdown.	
83	A/R of 220KV-ALIPURDUAR (PG)-SALAKATI-2	←																															Consent required from NLDC	CSD 0800Hrs to 1800Hrs	For facilitating Re- Conductorng work under NERSS - XII package	Existing system improvement related shutdown.	
84	800KV AGRA BNC - I (S/D proposed by NR3)	Consent required from NLDC																															CSD 0800Hrs to 1800Hrs	For Stringing (tapping and crossing) and de-stringing of 800kV diverted section of new 800KV HVDC Agra-BNC line due to construction of Gorakhpur Link Expressway. S/D proposed by NR3. During shut down, all 04 poles will be out	Construction Related Shutdown		
85	800KV AGRA BNC - II (S/D proposed by NR3)	Consent required from NLDC																															CSD 0800Hrs to 1800Hrs	For Stringing (tapping and crossing) and de-stringing of 800kV diverted section of new 800KV HVDC Agra-BNC line due to construction of Gorakhpur Link Expressway. S/D proposed by NR3. During shut down, all 04 poles will be out	Construction Related Shutdown		

	Name of Element	Oct-22																															Time	Remarks	Category			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
<b>Assam</b>																																						
1	220 KV Rangia-Salakati Ckt-1																																		08:00-16:00	PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	
2	220 KV Rangia-Salakati Ckt-2																																		08:00-16:00	PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	
3	220KV AGIA-BTPS-I																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
4	220KV AGIA-BTPS-II																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
5	220KV AGIA-MIRZA																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
6	220KV AGIA-MIRZA																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
7	220KV AGIA-BOKO																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
8	220KV AGIA-BOKO																																		08:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	
9	132 KV Pallapool- Jiribam Line																																		08:00-16:00	Preventive maintenance of line & corridor cleaning works	Normal Maintenance related shutdown.	
10	132 KV HAILAKANDI-DULLAVCHERRA																																		08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.	
11	132 KV HAILAKANDI-DULLAVCHERRA																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
12	132 KV SRIKONA-PAILAPOOL																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
13	132 KV SRIKONA-PAILAPOOL																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
14	132KV PANCHGRAM- LUMSHNONG																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
15	132 KV PANCHGRAM-LUMSHNONG																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
16	132 KV PANCHGRAM-HAILAKANDI																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
17	132 KV PANCHGRAM-HAILAKANADI																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
18	132 KV DULLAVCHERRA-DHARMANAGAR																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
19	132 KV DULLAVCHERRA-DHARMANAGAR																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
20	132 KV DULLAVCHERRA-DHARMANAGAR																																			08:00-16:00	PREVENTIVE MAINTENANCE & INSPECTION WORK	Normal Maintenance related shutdown.
21	132KV MARIANI-GOLAGHAT																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
22	132KV GOLAGHAT-SARUPATHAR																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
23	132KV SARUPATHAR-BOKAIAN																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
24	132KV BOKAIAN-DIMAPUR																																			9:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
25	220KV TINSUKIA-KATHALGURI CKT 1																																			9:00-15:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.
26	220KV TINSUKIA-KATHALGURI CKT 2																																			9:00-15:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.
27	220KV TINSUKIA-NTPS																																			9:00-15:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.
28	220KV TINSUKIA-NRPP																																			9:00-15:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.
29	220KV SAMAGURI-JAWAHARNAGAR																																			6:00-15:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
30	220KV SAMAGURI-SONAPUR																																			6:00-15:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
31	220KV Samaguri - Mariani Ckt-2																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
32	220KV Samaguri - Mariani Ckt-2																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
33	220KV SONAPUR-SARUSAJAI																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
34	220KV NAMRUP-AMGURI																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
35	220KV AMGURI-MARIANI																																			08:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
36	220KV SARUSAJAI-MIRZA CKT 1																																			9:00-12:00	PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.
37	220KV SARUSAJAI-MIRZA CKT 2																																			9:00-12:00	PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.
38	220KV MIRZA-BOKO																																			8:30-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.
39	220KV SARUSAJAI-JAWAHARNAGAR																																			8:30-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING	Normal Maintenance related shutdown.

	Name of Element	Oct-22																															Time	Remarks	Category			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
<b>Meghalaya</b>																																						
1	132kV Agia Mendipathar line																																			09:00-14:00	Jungle clearing at tower loc 230 to 242	Normal Maintenance related shutdown.
2	400KV Bongaigaon Line at Killing S/S																																			09:00-15:00	Preventive Maintenance work of Terminal Equipments	Normal Maintenance related shutdown.
3	132kV and 33kV Khlebrhat Bus																																			09:00-16:00	Replacement of burnt Y-Pi Conductor of MLHEP Line II. Changing of Clamps of R-Pi main Bus and other preventive maintenance Works.	Normal Maintenance related shutdown.
4	160MVA 220/132KV ICT#2, Killing S/S																																			09:00-15:00	Preventive Maintenance work of Terminal Equipments ICT#2	Normal Maintenance related shutdown.
5	160MVA 220/132KV ICT#1, Killing S/S																																			09:00-15:00	Preventive Maintenance work of Terminal Equipments ICT#1	Normal Maintenance related shutdown.
6	220kV Misa-I, Killing S/S																																			09:00-15:00	Preventive Maintenance work of Terminal Equipments	Normal Maintenance related shutdown.
7	220kV Misa-II, Killing S/S																																			09:00-15:00	Preventive Maintenance work of Terminal Equipments	Normal Maintenance related shutdown.

	Name of Element	Oct-22																															Time	Remarks	Category			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
<b>Mizoram</b>																																						
1	132kV Badarpur-Kolash																																			07:00 to 17:30	for stringing of 132kV Bairabi-W Phalleng line	Construction Related Shutdown
2	132kV Melriat main bay at Zuangtui																																			07:30 to 17:30	for replacement of main CB at Zuangtui for the 132kV Melriat-Zuangtui line	Normal Maintenance related shutdown.

	Name of Element	Oct-22																															Time	Remarks	Category				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
<b>NER-II TL</b>																																							
1	400KV-SILCHAR-PK BARI (STERLITE)-1																																			08:00 to 16:00	Bay equipment AMP Work	Normal Maintenance related shutdown.	
2	400KV-SILCHAR-PK BARI (STERLITE)-2																																				08:00 to 16:00	Bay equipment AMP Work	Normal Maintenance related shutdown.
3	132KV-P K BARI-PK BARI (STERLITE)-1																																			08:00 to 16:00	Bay equipment AMP Work	Normal Maintenance related shutdown.	
4	132KV-PK BARI (STERLITE)-																																						



Monthly Energy Consumption of NER beneficiaries for FY 2021-22(based on SEM data)

