North Eastern Regional Power Committee

MINUTES OF THE 177thOPERATION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date :22/04/2021 (Thursday)

Time :10:30 hrs

Venue :NERPC Conference Hall, Shillong (Over VC).

The List of Participants in the 177thOCC Meeting is attached at **Annexure – I**

Shri A.K. Thakur, Member Secretary, NERPC welcomed the participants to the 177th OCC meeting. He informed that the OCC meeting is once again being held over the Video Conferencing platform due to renewed pandemic restrictions. He thanked the members for attending the OCC meeting and wished for the safety and good health of the members.

Thereafter Member Secretary requested Sh. B. Lyngkhoi, Director (O&P), NERPC to take up the agenda items for discussion.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 176thMEETING OF OPERATION COORDINATIONSUB-COMMITTEE OF NERPC.

The minutes of 176thmeeting of Operation Sub-committee held on 22ndMarch, 2021 at Tawang, Arunachal Pradesh were circulated vide letter No. NERPC/SE (O)/OCC/2019/2674-2711 dated 05th April, 2021.

The Sub-committee confirmed the minutes of 176th OCCM of NERPC as no other comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 177thOCC:

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) 50% of materials received on-site. Payment of 10% in process. P-III (Substation equipment) LoA by May'21	Work completed in all respects. Final 10% to be disbursed.	-	TESG approved.	-
Nagaland	Completed in all respects. 10% requisition to be sent alongwith UC.	Work completed in all respects. Final 10% to be disbursed.	-	TESG approved	Lines identified. Under DPR preparation stage.
Mizoram	Completed. 10% remaining claim to be submitted ASAP.	Work completed in all respects. Final 10% to be disbursed.	To reply to TESG queries.	TESG approved	DPR submitted.
Manipur	Package-II: completed Package-I: total quantity of material yet to be received at site	Work completed in all respects. Final 10% to be disbursed.	WIP.	TESG approved	DPR sent.**
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Work completed. 10% remaining claim to be sent ASAP.	60% requisition will be submitted by 31st March'21.	Study results to be submitted alongwith DPR	TESG approved	Only single line 132kV 79Tilla to Budhjangn agar. DPR to be prepared.
Assam	LOA issued. WIP, delayed due to COVID situation	Work completed in all respects. Second tranche of 60% yet to be received from AEGCL.	-	LoA issued	Lines identified. Under DPR preparation stage.

Meghalaya	MePTCL Completed in all respects. MePGCL – completed in all respects.	Project complete in all respects.	-	LoA issued.	WIP. Delayed due to COVID situation

Deliberation of the sub-Committee:

Director(O&P), NERPC stated that the draft NIT for Meter, AMR portion of SAMAST for the five states of Arunachal Pradesh, Manipur, Mizoram, Nagaland and Tripura would be shared with the nodal officers for their comments/alterations. He requested the respective utilities to confirm the name of the nodal officer:

- Arunachal Pradesh – Sh. Sange Phintso, E.E., SLDC, DoP, Ar.Pradesh
- Manipur – Smt. K. Steela, DGM(Comml.), SLDC Manipur, MSPCL
- Mizoram – Sh. Lalthangliana, S.E, SLDC, P&ED Mizoram
- Nagaland – Sh. Nitovi Wotsa, S.E(SLDC), DoP Nagaland
- Tripura – Sh. Anil Debbarma, DGM(SLDC), TSECL

**DGM, SLDC, MSPCL stated that OPGW Communication has not been included in the DPR for Line Differential Protection and requested the forum to suggest suitable source.

Director(O&P), NERPC requested all the utilities to submit their OPGW requirement for Power System Purpose viz. LDP, ULDC etc. so that the same can be included in the NERPSIP/Comprehensive Scheme.

The Sub-Committee noted as above.
Action: All state utilities/NERPC.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING MARCH, 2021

As per the data made available by NERLDC, the grid performance parameters for March, 2021 are given below:

NER PERFORMANCE DURING MARCH, 2021

	Energy Met (MU)		**w.r.t. Feb,21 % inc (+) /dec (-)**	Energy Reqr. (MU)		**w.r.t. Feb,21 % inc (+) /dec (-)**	**% surplus (+) /shortfall (-) of energy In Mar,21**
States	**Mar-21**	**Feb-21**		**Mar-21**	**Feb-21**		
Ar. Pradesh	67.71	63.11	7.29	68.31	63.39	7.76	-0.88
Assam	795.89	671.91	18.45	840.68	683.09	23.07	-5.33
Manipur	74.77	74.27	0.67	75.13	74.56	0.76	-0.48
Meghalaya	171.91	176.59	-2.65	186.14	180.72	3.00	-7.64

Mizoram	49.85	50.46	-1.21	50.2	50.76	-1.10	-0.70
Nagaland	66.26	61.04	8.55	66.68	61.32	8.74	-0.63
Tripura	123.64	159.2	-22.34	124.06	159.2	-22.07	-0.34
Region	**1350.03**	**1256.58**	**7.44**	**1411.2**	**1273.04**	**10.85**	**-4.33**

	Demand Met (MW)		**w.r.t. Feb,21**	Demand in (MW)		**w.r.t. Feb'21**	**% surplus (+) /shortfall (-) of demand In Mar,21**
States	**Mar-21**	**Feb-21**	**% inc (+) /dec (-)**	**Mar-21**	**Feb-21**	**% inc (+) /dec (-)**	
Ar. Pradesh	128	144	-11.11	143	156	-8.33	-10.49
Assam	1730	1485	16.50	1747	1485	17.64	-0.97
Manipur	216	231	-6.49	216	231	-6.49	0.00
Meghalaya	348	377	-7.69	348	377	-7.69	0.00
Mizoram	109	132	-17.42	109	132	-17.42	0.00
Nagaland	149	149	0.00	150	152	-1.32	-0.67
Tripura	256	241	6.22	256	241	6.22	0.00
Region	**2841**	**2664**	**6.64**	**2862**	**2680**	**6.79**	**-0.73**

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	**Mar-21**	**Feb-21**
Total Generation in NER (Gross)	1501.57	1166.43
Total Central Sector Generation (Gross)	1186.28	343.97
Total State Sector Generation (Gross)	315.29	1510.40
Inter-Regional Energy Exchange		
(a) NER-ER	270.65	268.31
(b) ER-NER	4.99	0
(c)NER-NR	0	0
(d)NR-NER	334.22	287.31
© Net Import	68.56	19

AVERAGE FREQUENCY (Hz)

Month---->	**Mar-21**	**Feb-21**
	% of Time	% of Time
Below 49.9 Hz	2.12	1.55
Between 49.9 to 50.05 Hz	90.34	89.53
Above 50.05 Hz	7.54	8.92
Average	49.99	49.99
Maximum	50.27	50.27
Minimum	49.98	49.97

Deliberation of the sub-Committee:

NER grid performance for the month of March'21was presentedby NERLDC.(Attached at **Annexure-B.2**)

NERLDC highlighted that Tripura has been overdrawing on a continuous basis during the month of Mar 2021even after issuance of multiple deviation violation messages. Tripura mentioned that the issue has aggravated due to outage of Palatana and Monarchak generating stations. NERLDC advised Tripura to participate in RTM for meeting the unavailability of power from any generating station.

The Forum requested Tripura to take necessary action in this regard in the future.

The Sub-Committee noted as above.

C. ITEMS FOR DISCUSSION

C.1 Generation Planning (ongoing and planned outages)

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

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II	718.4	22	**1.152**	19
Kopili	-	-	**0**	Will be "0" until further intimation.
Doyang	309.35	4.05	**0.105**	39
Loktak	767.09	34.75	**0.705**	49

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:

NERLDC highlighted that due to unavailability of Kopili HEP, constituents should plan for procurement of power for proper portfolio management.

NERLDC also highlighted that proper planning of Hydro Generation needs to be done Based on number of days of water availability.

The Sub-Committee discussed and approved the proposed shutdown by Generating Stations as given in Annexure – D.2 which is available in NERPC website.

C.2 Outage Planning Transmission elements

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

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

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

The sub-Committee discussed and approved the transmission line outages proposed by Constituents for May, 2021 which is available in the website of NERPC.

C.3 Estimated Transmission Availability Certificate (TAC) for the month of March,2021:

NETC and POWERGRID have submitted the outage data for the month of March, 2021. So, the attributability of outage of the said elements will be finalized.

The Sub-Committee noted as above.

Action: NERPC & NERLDC

C.4 Charging of 132kV Sihhmui S/S and related issues:

Decisions as per deliberation in previous meeting(s):

- Present condition of idle charging from Melriat end as anti-theft measure to remain in place.
- Charging of 132kV Sihhmui is essential and this would also enable utilization of 132kV Melriat-Sihhmui D/C. For this both NERTS and P&ED Mizoram to apply for charging clearance from NERLDC for a mutually convenient date at the earliest.
- NERTS-POWERGRID to apply afresh for charging clearance/First TimeCharging and Trial operation certificate for 132kV Melriat-Sihhmui includingbays at both ends after obtaining clarification from NERPCTP, CEA.
- NERTS to assist P&ED Mizoram for appeal process so that no burden is passed onto the state.

In 174th OCC meeting CGM(AM), NERTS informed that 3 nos CT have been supplied and 3 more nos are yet to be supplied for the swapped bays. The forum noted that it is essential to charge the 132/33kV Sihhmui Sub-station so that Mizoram can draw power. After detailed deliberation it was decided that in one week time frame both NERTS and P&ED Mizoram would apply for FTC of 132kV Melriat-Sihhmui D/C and 132kV Bus & ICT at Sihhmui respectively.

In 175th OCCM NERLDC informed the forum that P&ED Mizoram has not applied for FTC of 132kV Sihhmui Bus and ICT at Sihhmui yet. CGM(AM), NERTS informed that CT healthiness is being checked at Sihhmui and the application for FTC of 132kV Melriat-Sihhmui shall be done by Feb'21. The forum requested NERTS and P&ED, Mizoram to apply for FTC of the elements at the earliest.

The 176th OCC forum noted that energisation of 132kV Sihhmui S/Sn is essential and requested NERTS and P&ED Mizoram to charge 132kV Melriat-Sihhmui D/C and 132kV Sihhmui S/S at the earliest.

CGM(AM), NERTS stated that P&ED Mizoram is required to submit the necessary data for FTC to NERTS i.r.o. bays at Sihhmui. After detailed deliberation it was decided that NERTS shall apply for the FTC of bays pertaining to 132kV Melriat-Sihhmui D/C at Sihhmui and P&ED Mizoram shall apply for FTC of 132kV Sihhmui Bus and ICT simultaneously, so that 132kV Melriat-Sihhmui and 132kV Sihhmui S/Sn can be charged at the same time.

Member Secretary viewed the matter seriously about the delay of charging of Sihmuii S/S and urged upon NERTS to take action without further delay so that Mizoram can draw power from the substation.

Deliberation of the sub-Committee:

NERTS informed that FTC was applied on 06th April, 2021 and RIO clearance has also been applied.

CE(Trans.), P&ED Mizoram informed the following:

(i) As per the bilateral meeting on 24th Nov, 2020 each utility were supposed to complete the respective exchange bays.

(ii) P&ED Mizoram has accordingly installed 2 sets of CT on 18th Dec'2020

(iii) However, it has been noticed that NERTS is yet to complete the balance works like gravelling, cable trench covering etc.

CGM(AM), NERTS stated that ED, NERTS would be apprised about the pending works and would revert back with specific timeline for completion of the same.

After detailed deliberation it was decided that FTC of all elements including bays at Sihhmhui S/S of 132 kV Melrihat – Sihhmui D/C would be done after completion of balance works by NERTS.

The Sub-Committee noted as above.

Action: NERTS, P&ED Mizoram.

C.5 Charging of 33kV Khupi-Kimi line at 132kV:

The following were decided in the 54th PCC Meeting held on 22.01.2020 at Guwahati:

1. 132kV Khupi-Kimi line charged at 33kV presently, shall be converted to 132kV.
2. 132kV Seppa bay at Khupi to be used for 132kV Khupi-Kimi(Kameng).
3. Insulator, line inspection to be carried out by DoP, Arunachal Pradesh.

NEEPCO vide mail dated 31.08.2020 has expressed willingness to charge the line at 132kV level.

In this respect in addition to the completion of the above works at Sl.No.(1) to (3) the following are also pre-requisites:

(i) Availability of Distance Protection at both ends

(ii) Healthiness of PLCC system.

In 176th OCC meeting- for 33kV Khupi-Kimi line; Joint Inspection comprising of members from NERLDC, NEEPCO, DoP Ar. Pradesh and NERPC would be carried out in Mar'21.

Deliberation of the sub-Committee:

DGM, NEEPCO informed that presently testing works are being completed as pre-requisite for RIO inspection. Director (O&P), NERPC stated that the Joint Inspection would be completed after the pandemic situation improves and normalcy is restored.

The Sub-Committee noted as above.

Action: NEEPCO, DoP Ar. Pradesh, NERPC.

C.6 Review of Automatic Under Frequency Load Shedding Relay Settings in NER:

In the 19th NERPC Meeting held on 28th& 29th Nov'18, it was approved to revise the stages of the operation of UFR from existing frequency band of 49.2 – 48.6 Hz (100MW) to 49.4 – 48.8Hz (170MW) in four stages viz., 49.4 Hz, 49.2 Hz, 49.0 Hz, 48.8 Hz. Also, the issue was deliberated, and constituents agreed for implementation of revised band of frequency and quantum of load shedding during the 148th OCC Meeting. Constituents are requested to update the latest status on the same.

In 174th OCC meeting Director(O&P), NERPC stated that during protection audit in Arunachal Pradesh the feeders can be identified for installation of UFR. He further stated that following actions need to be taken by the states i.r.o. implementation of UFR as per 19th NERPC meeting:

1. Identification of feeders for additional installation of UFRs
2. Review the existing locations of UFR installation w.r.t. loading and connectivity.

After detailed deliberation the forum requested all the state utilities viz. SLDC, STU to plan and inform the detailed plan in the next OCC meeting.

Deliberation of the sub-Committee:

State utilities updated the status of the identification of feeders and review of existing UFR locations as below:

Name of the utility	Time period
DoP Ar. Pradesh	To be explore for implementation through ADMS
Assam	Submitted
Manipur	By May'21
Meghalaya	For 25MW relief, feeders identified
Mizoram	Setting to be changed by May'21
Nagaland	Submitted
Tripura	By Apr'21

The Sub-Committee noted as above.

Action: all state utilities.

C.7 <u>Mobile Substation for Emergency Restoration of EHV system in NER:</u>

In NER, it has been experienced that there are outages of substation/Generating Station/EHV element /s due to natural calamities. Recent such example is outage of generating station namely Kopili HEP, NEEPCO due to fresh flood/failure of penstock. Further, for restoration of EHV systems in time, insurmountable constraints are faced by utilities like tough terrain, poor response from vendors for supply & services in NER especially in remote locations within stipulated period.

Hence it is suggested that mobile substation may be kept as regional spare for critical central sector stations where the affected station (suffering outage) in part can be bypassed under urgency and Incoming & Outgoing TLs be directly connected/terminated to TL Towers through the mobile station solution) till the mainstation is restored to its shape. The Mobile substation with bay modules will have thefollowing facilities for emergency restoration of bays:

a) 1 no. 220kV Bay with all EHV equipment & protection system

b) 1no. 132kV Bay with all EHV equipment & protection system

Tentative Cost estimate is Rs.8.42 Crore (apx) excluding taxes & duties and F&I. The matter was discussed in 168th OCC where POWERGRID gave a presentation.

NERLDC & NERPC also stressed the need for mobile substation

In 174th OCC meeting SE, SLDC, Meghalaya opined that even though 400kV system is present 132kV level connectivity is essential for Meghalaya both for evacuation of Leshka generation and to cater the winter demand of Capital area. SE(SO&PSC), DoP Ar.Pradesh stated that capacity should be sufficient and portable enough to cater to the transfer of power in all cases. AGM, SLDC, Assam stated that enquired whether one 220kV bay and one 132kV bay would be sufficient or/not and how priority would be given for the usage by various utilities of NER. Regarding sufficiency of one bay CGM(AM), NERTS clarified that one 220kV bay can operate as line bay (Misa bay one

circuit) and one 132kV bay can operate as line bay(Khandong bay one circuit). He further informed that the ICT as well as ICT bays are in good condition and the same can be used during temporary restoration. After detailed deliberation the forum approved in-principle and referred the matter to TCC/RPC for approval.

In 176th OCCM Manager, NERTS intimated that offer has been received from ABB, however, detailed estimate has not been submitted. He also informed that offers from other vendors are still awaited.

Member Secretary, NERPC stated that DPR with tentative cost has to be submitted to PSDF at the earliest in order to restore Misa-Kopili-Khandong link before next lean hydro season.

Deliberation of the sub-Committee:

NERTS informed that the final offer has been received from ABB and DPR would be submitted to PSDF by Apr'21.

The Sub-Committee noted as above.

Action: NERTS.

C.8 Availing of Palatana Merchant Power by beneficiaries:

In 176th OCC meeting Director(O&P), NERPC informed the forum that Mizoram has already conveyed their assent for availing merchant power from OTPC.

DGM, SLDC, Assam informed that additional power from Palatana at RTC or long-term basis cannot be availed by Assam. However, the same if available during peak hours at competitive price, then power can be availed from Palatana GBPP.

SDO, DoP Nagaland informed that at present it has been agreed to avail additional 25MW power from Palatana on RTC basis. However, additional quantum has to be further discussed and decided upon by the Management.

Representatives from Arunachal Pradesh and TSECL informed that the matter is under examination by respective governments and decision would be conveyed at the earliest.

GM(Comml.), OTPC informed that MoP would allocate the power on RTC/long term basis. Also, plant cannot be scheduled for peak hours only, so RTC is only desired.

Deliberation of the sub-Committee:

Status as updated in the 177th OCC meeting:

Name of the state beneficiary	Additional quantum for which assent given
Arunachal Pradesh	3MW
Assam	NIL
Manipur	10MW
Meghalaya	57MW

Mizoram	3MW
Nagaland	25MW
Tripura	To be informed by 30th April, 2021

The Sub-Committee noted as above.

Action: TSECL.

C.9 Monitoring of Performance of TARA devices:

In 176th OCC the SLDCs informed the following status w.r.t reporting of TARA devices:

Name of the state/utility	Status
MePTCL	No TARA device reporting. State has to bear the recurring cost of GPRS unnecessarily.
TSECL	None out of the 8 installed are reporting. 2 additional TARA devices are required and 2 devices for 132kV Silchar-PKBari D/C have to be shifted upon upgradation of the line.

The forum requested NERPC to ensure the presence of CDAC in the next OCC meeting and also requested all the utilities to present the latest status of TARA devices.

Deliberation of the sub-Committee:

Status as updated in the 177th OCC meeting:

Name of the state/utility	Status
AEGCL	Though 26 out of 33 TARA devices were revived in Mar'20 presently none of them are reporting. 2 nos of SEMs not compatible with TARA .
MSPCL	Data being received regularly and used for preparation of daily report. CDAC has been providing remote support after completion of warranty period.
MePTCL	No TARA device reporting. State has to bear the recurring cost of GPRS unnecessarily.
DoP Nagaland	Devices in all 4 substations are giving inaccurate data.
TSECL	None out of the 8 installed are reporting. 2 additional TARA devices are required and 2 devices for 132kV Silchar-PKBari D/C have to be shifted upon upgradation of the line.

CDAC representative requested that the nodal officer details for the respective state utilities may be updated so that non-reporting of devices can be resolved at the earliest. The forum confirmed the following details:

Name of the utility	Name & Designation of the Nodal Officer	Contact Details
DoP Ar. Pradesh	Sh. P. Buchi, AE	9366118384
AEGCL	Sh. Mriganka Bhuyan, AGM	9101302916
MSPCL	Smt. K. Steela, DGM	8730831103
MePTCL	Sh. T. Gidon, EE	9774479956
P&ED Mizoram	Sh. Lalruatkima, EE	9862925462
DoP Nagaland	Sh. AsangbaTikhir, EE	7085508502
TSECL	Sh. Mrinal Paul, Sr. Manager	9436137022

EE, SLDC, Meghalaya stated that for some stations like Killing, Khliehriat, Lumshnong meters do not accept TARA devices and are prone to lightning strike with frequent adapter or card failure.

Members requested CDAC to visit personally few sites to resolve reporting issues. Further, CDAC was requested to prepare and share AMC cost of all TARA devices in NER along with per unit cost of new TARA devices.

The Sub-Committee noted as above.

Action: all utilities.

C.10 NIT for Meter, AMR part of SAMAST for five states:

PSDF has approved the SAMAST proposal for five states of Arunachal Pradesh, Manipur, Mizoram, Nagaland & Tripura. The NIT for SAMAST software solution and IT Infrastructure at SLDC was floated for the seven states on 12.12.2019 and subsequently evaluated. As per 19th TCC/NERPC approval and Hon'ble Chairman, NERPC approval common tendering shall have to be done for Meter, AMR portion of the five states. Respective nodal officers may please confirm the NIT on similar lines of that of Assam, Meghalaya.

Deliberation of the sub-Committee:

Pls refer to discussions in item **No. B.1**.

The Sub-Committee noted as above.

Action: all utilities.

C.11 Non Intimation to NERLDC regarding Generation Reduction:

It was observed that Monarchak Generation was taken under shutdown at around 08:00 Hrs of 05-04-2021 without prior intimation to NERLDC. It may be noted that prior to the shutdown, Monarchak generation was around 100 MW. This was in direct violation of IEGC clause 5.2 (j) which states that "Except under an emergency, or to prevent an imminent damage to a costly equipment, no User shall suddenly reduce his generating unit output by more than 20 MW in case of NER without prior intimation to and consent of the RLDC."

Deliberation of the sub-Committee:

NERLDC intimated that Monarchak generation reduction was done without intimation to NERLDC. DGM, NEEPCO informed that Monarchak GBPP is an embedded generation of Tripura and the operation/scheduling is handled by SLDC Tripura. The forum requested SLDC Tripura to intimate NERLDC regarding any generation reduction or outage for smooth system operation.

The Sub-Committee noted as above.

Action: SLDC Tripura.

C.12 Implementation of SPS for Bus Reactors at 400kV PKBari S/Sn:

Due to the integration of new 400 kV lines in Southern NER grid, the reliability of the Grid has increased manifold. However, at off-peak hours, due to the presence of lightly loaded lines, Voltage in the southern pocket is observed to be in the higher side. Due to the above situation, 400 kV Silchar-PKBari D/C lines are opened to control voltage. This in turn reduces the reliability of the grid and hence is undesirable. In order to avoid this Bus Reactors at PK Bari play an important role. Therefore, it is requested to expedite the implementation of SPS scheme at PK Bari (ST).

Deliberation of the sub-Committee:

NERLDC stated that frequent opening of 400kV Silchar-PKBari D/C is required to maintain the grid voltage and the same can be avoided by taking the Bus Reactors at P.K Bari into service. Further to ensure security & reliability of the grid, SPS is required to keep the reactors in service. CM, NERTS stated that frequent opening of CBs is not desired as it reduces their life span. CGM, NERLDC stated that subsequent to commissioning of 400kV Misa-Mariani D/C and 400kV Palatana-Surjamaninagar D/C the SPS related to Bus Reactors would not be required.

After detailed deliberation the forum referred the matter to the next Sub-Group for discussion.

The Sub-Committee noted as above.

Action: NERLDC, NERPC.

C.13 Regarding switching off SPS-4 for Bangladesh at SM Nagar end:

On multiple occasions, it was observed that switching of SPS-4 related to tripping of 132 kV SM Nagar – Comilla D/C at SM Nagar (TSECL) end was delayed by 2 to 3 hrs. This kind of delay may lead to grid instability. TSECL is requested to immediately take action in this regard.

Deliberation of the sub-Committee:

NERLDC informed that switching ON/OFF of SPS-4 at Surjamninagar takes 2-3 hours as physical wiring has been done. NERTS and TSECL confirmed that BCU/SAS facility is not available in 132kV Surjamningar (TSECL). The forum noted that after charging of 132kV Palatana – Surjamaninagar D/C at 400kV the SPS would be redundant. After detailed deliberation TSECL was requested to implement SAS at 132kV Surjamaninagar S/S at the earliest.

The Sub-Committee noted as above.

Action: TSECL.

C.14 Incomplete Dia operation during S/D of Palatana modules:

It has been observed that during the Planned Shutdown of Palatana Modules, OTPC keeps dia incomplete for the module which is under Shutdown. This results in insecure, unreliable operation and N-1 security violation as the outage of any main bay will lead to outage of that particular element. Moreover, this may affect the load fed to Bangladesh (Comilla) due to operation of SPS related to Bangladesh.

Deliberation of the sub-Committee:

NERLDC stated that when one GTG/STG is taken under shutdown then corresponding Main and Tie CB in the Dia are kept opened. This reduces the system reliability. Manager, OTPC stated that there is no Generator CB in Palatana and the generator protection is also interlocked with the Main & Tie CBs. Hence the same are opened. After detailed deliberation the forum noted that when any GTG/STG is under shutdown then the corresponding DIA will be incomplete and the main and tie bays pertaining to the GTG/STG will go under shutdown as well.

The Sub-Committee noted as above.

C.15 Blackout of 220/132kV Tinsukia and radially connected S/Sn of Assam on 08th April, 2021:

It was observed that at around 11:30 hrs of 08.04.21, 220 kV AGBPP - Tinsukia D/C tripped. At the same time, 220 kV Tinsukia Bus I and Bus II also tripped causing

blackout at 220/132 kV Tinsukia S/S of Assam and radially fed substations of 132 kV Rupai, Margherita, Dibrugarh, Behating and Bordubi.

It was informed that LBB operated for 220 kV AGBPP-Tinsukia Line 2 but the tripping of all the feeders connected to both the buses is unwarranted. AEGCL may clarify the sequence of events and reasons leading to this tripping so that a proper analysis can be made.

Deliberation of the sub-Committee:

AEGCL intimated that the blackout was due to an accident and investigation is on-going. The forum referred the matter to the Sub-group for deliberation.

The Sub-Committee noted as above.

Action: AEGCL, NERPC.

C.16 Renewal of Bangladesh power supply contract:

It was in discussion whether Comilla load of Bangladesh will be fed through Surajmani Nagar (TSECL) or Surajmani Nagar (ISTS) Substation of India. As, NLDC has also requested for the status of the contract of power supply to Bangladesh past March 2021, hence TSECL is requested for the same.

Deliberation of the sub-Committee:

After detailed deliberation the forum requested TSECL to clarify the status of the contract of power supply to Bangladesh prior to next OCC meeting..

The Sub-Committee noted as above.

Action: TSECL.

C.17 Load reduction of Tripura LILO of 132kV Budhjungnagar – SMNagar (TSECL) due to overloading of 132kV SMNagar - SMNagar:

High loading is being observed on regular basis in 132 kV SM Nagar(TSECL) - SM Nagar(ISTS) line for the past few months thus violating N-1 criteria. Tripura should either restrict load or make a LILO of other ckt. of 132 kV Budhjungnagar – SM Nagar (TSECL) at 400 kV SM Nagar (ISTS) S/S, pending decision of HTLS scheme.

Deliberation of the sub-Committee:

NERLDC informed that as per study it has been observed that with N-1 contingency of 132kV Surjamaninagar Bus-Coupler there is overloading of 132kV Surjamaninagar – Surjamaninagar. Also, with N-1 contingency of tripping of Monarchak there is overloading of 132kV Surjamaninagar – Surjamaninagar. NERLDC proposed for LILO of another circuit of 132kV Surjamaninagar (TSECL)- Budhjungnagar (TSECL) at Surjamaningar(ISTS), pending on upgradation of 132kV Surjamaninagar (TSECL) –

Surjamaninagar (ISTS) and 132kV Budhjungnagar (TSECL) – Surjamaninagar (ISTS) to HTLS. Sr. Manager, TSECL opined that if one circuit of 132kV Palatana-Surjamninagar D/C remains connected to 132kV Surjamninagar (TSECL) then there would be no overloading issue. The forum decided to refer the matter to the next NERPCTP for discussion.

The Sub-Committee noted as above.

Action: TSECL, NERPC.

C.18 Optimisation of AGBPP generation:

AGBPP low gas availability since 09:30 Hrs of 06.04.2021 has not been intimated to NERLDC. As per Day Ahead Declaration, generation of around 220 MW was scheduled but the actual value of generation in real time was around 110 MW which led to system constraint and high loading in Assam Power system.

Hence, AGBPP may plan the gas availability accordingly and also stick to their declared schedule to prevent over loading issues.

Deliberation of the sub-Committee:

DGM, NEEPCO stated that the gas supplier has no obligation to maintain the supply at a fixed rate. Thus, on that particular date when the pressure of gas started to reduce, the DC was revised accordingly. The forum decided that DC revision does not count as advance intimation and requested NEEPCO as well as all other generating companies to intimate reduction in generation to NERLDC well in advance.

The Sub-Committee noted as above.

Action: all generating companies.

C.19 Encouraging participation in the 9th International Conference on Power Systems (ICPS 2021):

The 9th International Conference on Power Systems,2021 (ICPS 2021) continues a series of the biennial conference and will be held at Indian Institute of Technology (IIT Kharagpur), Kharagpur, West Bengal, India from 16th-18th December 2021. It will be jointly organized by the Department of Electrical Engineering and the School of Energy Science and Engineering. The theme is "Developments towards Inclusive growth for Sustainable and Resilient Grid". NERLDC requests interested officials from all the NER utilities to participate in the conference. The brochure of ICPS 2021 is attached for reference.

The Sub-Committee noted as above.

C.20 List of Important Grid Elements:

Draft List of Important Grid Elements of NER for 2020-21 has been prepared and mailed to the constituents and comments may be shared till 5th May 2021. All the constituents are requested to kindly check and validate their data after which it shall be finalized.

The Sub-Committee noted as above.

C.21 Power supply to ONGC from Palatana GBPP:

ONGC, the fuel supplier of OTPC is planning to install a Gas Drying Unit (GDU) at ONGC Gas Monitoring Station (GMS) at Palatana to improve the quality of gas being supplied to OTPC. Accordingly, ONGC has requested for around 200 kW of power from Palatana Station Feeder at 3 phase 415 Volt.

It is requested to the forum to grant permission to provide the above requirement of power to the fuel supplier (ONGC) from Palatana Station.

Deliberation of the sub-Committee:

After detailed deliberation the forum noted that the proposal is not agreeable as it would increase the Auxiliary power consumption of the plant, thereby reducing beneficiary schedule. Further, it was advised to approach DISCOM for power supply.

The Sub-Committee noted as above.

ADDITIONAL AGENDA FROM NERTS:

C.22 Outage of 400kV Silchar-PKBari-I:

Due to high storm on 30.03.21 at early morning hours,03:50 Hrs , one conductor(top phase) of ckt #1 of 400kV D/C Silchar -PKBari line at Loc49 fell on ground due to failure of connector hardware arising out of severe galloping of conductor during severe stormy weather accompanied with thunderstorm resulting in outage of TL ckt#1. The incident occurred in the district of Hailakandi, Assam.

The 400kV D/C Silchar -PKBari line is routed through districts of Cachar, Hailakandi and Karimganj of Assam. It is further mentioned that due to severe ROWissues faced in the above transmission line, we are not able to carry out periodic maintenance work to the required extent at par with other transmission lines. This issue has also been discussed in 21st NERPC meeting (refer to Item No. A.02. c).

POWERGRID immediately attempted restoration activity, but due to severe ROW issues, rectification could not be done.

Matter was taken up with administration & police of district Hailakandi (Assam) but due to ongoing Legislative Assembly election in Assam, administration is also not able to provide required security measures / Magistrate at working site.

The matter was religiously taken up and with district administration and Assam Chief Secretary by our top officials. Finally, on POWERGRID's utmost persistence effort with the help of district administration, Assam police and CRPF, on 07.04.2021, @ 20:00 Hrs, we were able to restore the line 400kV D/C Silchar – PKBari # 1 line.

Now, considering the occurrence of the incident and delay in restoration of the line was due to severe ROW problem and inability of district administration for extending security support due to ongoing Legislative Assembly election in Assam, it is requested to consider the outage under "Forced Majeure due to miscreant activity" Category.

Deliberation of the sub-Committee:

After detailed deliberation the forum opined that NERPC/NERLDC will look into the matter and consider which deems fit.

The Sub-Committee noted as above.

ADDITIONAL AGENDA FROM NERLDC:

C.23 Validation of State wise ATC/TTC:

State wise ATC/TTC has been computed by NERLDC and uploaded in NERLDC website and emailed to all states**.** All SLDCs are requested to kindly check and validate their ATC/TTC values.

The Sub-Committee noted as above.

D. I T E M S FOR STATUS REVIEW

D.1 Status update of important grid elements under prolonged outage impacting system operation:

Sl. No	Element	Owner	Status as informed in the 176th OCCM	Status as informed in the 177th OCCM
1	132kV Rangia-Rowta	AEGCL	By 31.03.2021	Charged on 03-04-2021
2	132kV Mariani – Mokokchung (*out since April'2008*)	AEGCL	Joint survey by Apr'21	Survey started on 19-04-2021
3	FSC of 400kV Balipara – Bongaigaon-4(*out since 02nd Sep'20*)	NERTS	To be reviewed later on.	To be reviewed later on.

4	132kV Roing-Pasighat (*charged through ERS tower*	NERTS	2 piles completed. By 15th May'21.	2 piles completed. By 15th May'21.
5	220kV Mariani-Mokokchung - I	NERTS	By May'21	By May'21

The Sub-Committee noted as above.

Action: AEGCL, NERTS.

D.2Status of commissioning for Upcoming projects:

Sl. No	Name of the element	Utility	Status as informed in 176thOCC meeting	Status as informed in 177thOCC meeting
1	400kV Palatana-Surjamaninagar D/C	NERTS	By Mar'21	Delayed. Referred to MoP/CEA
2	400kV Silchar – P.K.Bari D/C	NERTS	Charged on 06.03.2021. To be dropped	Charged on 06.03.2021. **To be dropped**
3	132kV AGTCCPP-PKBari D/C	STERLITE	Charged on 09.02.2021. To be dropped.	Charged on 09.02.2021. **To be dropped.**
3	132kV Monarchak-Surjamaninagar	TSECL	By July'21	By July'21
4	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang	MSPCL	By June'21	By June'21
5	Construction of 2nd bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	Award delayed due to MCC.	Award delayed due to MCC.
6	Bay at 132kV Agia S/Sn for 132kV Agia-Nangalbibra-II	AEGCL	By Mar'21	Bay ready from Assam end. MePTCL to apply for FTC.
7	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	PSDF approval awaited. To prepare NIT documents.	PSDF approval awaited. To prepare NIT documents.
8	Diversion of 132kV Bawktlang-Sihhmui	NERTS	By Jul'21	By Jul'21
9	PLCC for 132kV Karong-Kohima	MSPCL	By May'21	By May'21
10	400/220kV 500MVA ICT at Mariani	NERTS	completed	completed

11	132kV Loktak-Ningthoukong-II	MSPCL	Delayed due to RoW issues. By May'21	Delayed due to RoW issues. By May'21
12	132kV Roing-Chapakhowa	NERTS	Retendering done. By Dec'21	Retendering done. By Dec'21
13	132kV Rupai-Chapakhowa&Chapakhowa S/Sn	POWERGRID	By Dec'21	By Dec'21
14	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	To be executed under NERSS-XII	March, 2023
15	220kV Balipara-Sonabil-II	AEGCL	-	-

The Sub-Committee noted as above.

Action: all utilities as above.

D.3 Testing of Primary Governor response of NER Generating units as per IEGC Cl.5.2(g):

Schedule as agreed in the 176th OCC meeting

Region	Station	No. of generators	Schedule	Duration (days)	Remarks
NER	NEEPCO Tuirial	2	Tentatively during Jun-Jul 2021	4	In high hydro
NER	NEEPCO-Monarchak	2	07th Apr'21 to 13th Apr'21	8	-
NER	NEEPCO-Kopili	1	Under long shutdown	2	-
NER	OTPCL-Palatana	2	In May'21	4	-
NER	NTPC Bangaigaon TPP	3	Last week of Apr'21 or May'21	6	-
NER	NHPC Loktak	3	22nd Feb'21 to 27th Feb'21	6	-

Deliberation of the sub-Committee:

Region	Station	No. of generators	Schedule	Duration (days)	Remarks
NER	NEEPCO Tuirial	2	Tentatively during Jun-Jul 2021	4	In high hydro
NER	NEEPCO-Monarchak	2	May'21. Dates to be approved by TSECL	8	-
NER	NEEPCO-Kameng	1	High hydro season	2	-
NER	OTPCL-Palatana	2	In Oct'21/Nov'21	4	-
NER	NTPC Bangaigaon TPP	3	Last week of May'21 or June'21	6	-
NER	NHPC Loktak	3	completed	6	-

The Sub-Committee noted as above.

Action: NEEPCO, NHPC, NTPC, OTPC.

D.4 Restoration of Assets damaged at Kopili HEP due to failure of Penstock:

In 176th OCC meeting DGM, NEEPCO informed that permanent restoration which was earlier proposed to be executed by NERTS will now be done by NEEPCO. The forum noted and requested NEEPCO to apprise the NERPCTP.

Deliberation of the sub-Committee:

After detailed deliberation the forum referred the matter to NERPCTP.

The Sub-Committee noted as above.

Action: NERPC.

D.5 Palatana Units MVAR absorption/injection:

On 03.02.2021, Tap position of UAT-1 was increased from 3 to 4 on 03.02.2021 after the issue of high MVAR injection was informed by NERLDC. The same could not be done for UAT-2 as diverter switch for the same is not operational (as informed by OTPC via email dated 01.02.2021). Presently, GTG-1, STG-1 and STG-2 are seen to be absorbing MVAR in high voltage scenarios. However, GTG-2 is seen to be injecting MVARmost of the time (even in high voltage scenarios). Appropriate setting change of UAT-2 is to be done expeditiously. Also, till the rectification of UAT-2 diverter switch, OTPC is requested to take necessary corrective action so that net MVAR injection by OTPC plant becomes zero when bus voltage at Palatana is 400 kV.

In 175th OCC meeting, OTPC informed that during the shutdown of the units of Palatana in the upcoming months, the issue of diverter switch of UAT-2 will be rectified. NERLDC requested that till the time UAT-2 is rectified, net MVAR injection by the Palatana plant above 400 kV should be maintained zero when bus voltage at Palatana is 400 kV. ED, NERLDC requested OTPC to intimate the OEM so that absorption by the units will be according to the capability curve.

Deliberation of the sub-Committee:

Manager, OTPC informed that GT tap position for each of the GTG-1, STG-1, GTG-2 & STG-2 has been changed from 9 to 12 in Feb'21. The tap position of UAT-1&2 has been changed from 3 to 4 on 19th Apr'21after rectification of diverter switch of UAT-2. The forum decided to drop the agenda item.

The Sub-Committee noted as above.

D.6 Status of Actual Effective Thermal Capacity of Assam, Tripura:

The All India Demand Met is increasing rapidly since October 2020. The peak demand met had touched around 189 GW on 30.01.2021. It is also envisaged that the peak demand is likely to touch around 210 GW during 2021-22.

To cater to this increasing trend in demand, it has become essential to assess the actual availability of conventional generating stations. As per information available with CEA, around 15 GW capacity of conventional generating station was out of bar since last one year.

Ministry of Power, Govt. of India vide enclosed letter no: 5/1/2021-OM dated 10.02.2021 had written to Principal Secretary (Power), Govt of Assam and Principal Secretary (Power), Govt of Tripura to furnish the details of the actual effective thermal capacity which can be utilized to meet the power demand on National level and the State level.

It is requested to intimate the status regarding furnishing of the required details.

Deliberation of the sub-Committee:

AGM, SLDC, AEGCL informed that mail has been sent on 26th Mar'21. DGM, SLDC, TSECL informed that intimation would be sent from the Commercial Wing.

The Sub-Committee noted as above.

Action: APGCL, TPGL.

D.7 Category-wise consumption of electricity in state/UTs:

The monthly category wise consumption data for 2019-20 and April'20 to Jan'21 has been urgently desired by Hon'ble MoS(Power). States may include any other category not mentioned explicitly in the sample.

Further in this regard, it has been advised by CEA that henceforth the monthly data of category-wise consumption of electricity in the States be discussed regularly in OCC with comparative analysis of the same for corresponding monthly data of previous year.

In 176th OCCM Director(O&P), NERPC requested all the SLDCs to submit 2020-21 data at the earliest & henceforth submit the same on a monthly basis to NERPC. SE(SO&PSC), DoP Ar. Pradesh stated that the data is not readily available with SLDCs and same has to be requested from Distribution Wing. The forum requested NERPC to write to DISCOMs so that the data is made available to SLDCs periodically.

Deliberation of the sub-Committee:

Member Secretary, NERPC urged the state utilities to submit the category-wise consumption report periodically as the data would be perused for the islanding schemes.

The Sub-Committee noted as above.

Action: all SLDCs, DISCOMs.

D.8 Black Start & Restoration Procedure:

Schedule for mock black start & restoration exercise as decided in the 176th OCC meeting:

Plant Name	Date/Period for testing
AGBPP	June'21
AGTTCCPP	July'21
RHEP	Mar'21
PareHEP	To be reviewed
Kopili HEP	NA
Khandong HEP	To be reviewed
DHEP	To be reviewed
Kameng HEP	After 10.04.2021
OTPC	NA
BGTPP	NA
Loktak HEP	To be reviewed

Deliberation of the sub-Committee:

DGM, NEEPCO informed that for AGBPP & RHEP the OEM is being co-ordinated and the schedule may be reviewed later on.

The Sub-Committee noted as above.

Action: NEEPCO, OTPC, NHPC, NTPC.

D.9 Reactive Power Capability Testing:

Schedule as agreed in the 176th OCCM:

Plant Name	Date/ Period for testing
AGBPP	June'21
AGTTCCPP	July'21
RHEP	May'21
PareHEP	PG test report available
Kopili HEP	NA
KhandongHEP	End of Apr'21
DHEP	June'21
Kameng HEP	20.01.2021

OTPC	To be reviewed
BGTPP	To be reviewed
Loktak HEP	To be reviewed

Deliberation of the sub-Committee:

DGM, NEEPCO informed that due to current pandemic situation, OEM, is not able to confirm the schedule of their visit to plants.

Forum noted that wherever support of OEM is required by the plant operators for conducting the testing, the same shall have to be done after COVID-19 restrictions are withdrawn.

NERLDC requested NEEPCO to provide detailed report from OEM regarding capability curve of Pare HEP as agreed in 176th OCC Meeting.

The Sub-Committee noted as above.

Action: NEEPCO, OTPC, NHPC, NTPC.

D.10 Status of synchronizing trolley at 220kV Kathalguri S/Sn:

On 07-04-2021, 08-04-2021 and 09-04-2021 while returning Planned Shutdown of 220 kV Mariani(PG) – Kathalguri line, line was extended from Mariani(PG) end but could not be synchronised at Kathalguri end due to issue with synchronizing trolley at Kathalguri end (as reported by AGBPP personnel). Due to this, the line had to be opened and charged from Kathalguri end and synchronized at Mariani end. This is undesirable as Kathalguri is a generation hub.Similar event occurred while returning E/S/D of 220 kV AGBPP – Mariani(PG) TL on 08-03-2021 (was discussed in 176th OCC) and while charging 220 kV Kathalguri – Tinsukia D/C on 08-04-2021.

Deliberation of the sub-Committee:

DGM, NEEPCO informed that synchronizing trolley is available at AGBPP. He further intimated that on 08-04-2021, the 220KV Mariani (PG) couldn't synchronize at AGBPP end due to voltage difference of Running voltage and Incoming voltage which was beyond the allowable limit of synchroscope. Accordingly the Shift i/c of AGBPP has extended aforesaid line from AGBPP end. Moreover, M/S PGCIL (NERTS) had availed the 220KV Mariani (PG)-AGBPP line continuously from 07-04-2021 to 10/04/2021 and the aforesaid line has synchronized (within allowable limit for synchronization) at AGBPP end all the days (i.e. 07/04/2021, 09/04/2021 and 10/04/2021) except on 08/04/2021.

NERLDC requested NEEPCO to re-check the event details at their end. As per the records of NERLDC, the aforesaid line could not be synchronized at AGBPP after charging from Mariani (PG) on all three occasions i.e. 07-04-2021, 08-04-2021 and 09-04-2021 while returning Planned Shutdown of 220 kV Mariani(PG) – Kathalguri line. Further, the issue of voltage mismatch could have been managed by AGBPP by controlling their MVAR injection/absorption to control bus voltage at AGBPP end.

After detailed deliberation the forum referred the matter to the next Sub-Group for discussion.

The Sub-Committee noted as above.

D.11 Status of special tripping logic at 400kV Mariani S/Sn:

POWERGRIDconfirmed of the implementation of the Tripping Logic on 11-03-2021 at 18:12 hrs. However, on25-03-2021, at 12:34 hrs, 400 kV Kohima- New Mariani II tripped from both ends. However, as per Special tripping logic implemented at 400 kV New Mariani (PG), 125 MVAR B/R-1 at New Mariani (which was in service at the time of tripping) should have tripped. This however did not happen in the event of tripping of the line.

Deliberation of the sub-Committee:

Chief Manager, NERTS informed that as per special tripping logic Bus Reactor did not trip because Group Trip Relay contact was only used for building the logic. The logic has been modified and AR-LO contact has been included as AND logic. He confirmed that the Special tripping logic implemented at New Mariani shall operate as expected in future.

The Sub-Committee noted as above.

Metering Agenda:

D.12 Faulty SEM replacement and SEM installation at new locations

100 SEMs and 20 DCDs had been procured. List for replacement of faulty SEMs and location for new SEM installation had been submitted by NERLDC vide earlier OCCMs. All locations as per the list could not be considered due to the requirement of SEMs for the Sterlite & KMTL on-going projects and hence some priority basis locations were decided, and work is under progress.

As on date the status of completion of SEM replacement/installation and DCD distribution as per record of NERLDC is attached (**Annexure.D.12**) for discussion of any kind of issue.

Deliberation of the sub-Committee:

Chief Manager, NERTS informed that all faulty SEMs have been replaced and new SEMs at KMTL and STERLITE locations have been installed. No utility raised any issue on the record submitted by NERLDC, therefore agenda may be dropped and **Annexure.D.12** is considered as final record for the 1st phase of completion.

The Sub-Committee noted as above.

D.13 SEMs to be procured for STERLITE and KMTL on-going projects:

It was decided that additional 50 nos. of SEMs needed to be procured before completion of Sterlite & KMTL projects. However, that couldn't be done and SEMs required for those projects handed over from earlier procured 100 SEMs on need basis.

NERTS placed quantity variation order for procurement of 50nos. of SEMs and 10 nos. of DCDs based on the decision of the Forum.

NERTS confirmed over mail regarding receipt of 50 Nos. SEMs and and 10 Nos. DCDs at Misa Substation on 23.03.2021.

List of second phase of SEM replacement/installation and DCD distribution is attached (**Annexure.D.13**) for discussion.

Deliberation of the sub-Committee:

NERLDC informed that as per the requirement as listed above, shortage for spare SEM & DCD will be there considering the up-coming projects. Forum decided to retain 20 nos SEMs as spare and advised NERLDC to submit another priority list for utilization of SEM considering the spare.

Heavy shortage of DCD is still there and therefore NERLDC will submit another priority list for distribution of DCD. It is also decided that NERTS/Sterlite will continue to support for sending data and time drift correction activities for all those sites as per present practice.

In most of the cases DCDs are procured along with SEM where the process got delayed due the testing related activities of SEMs. Forum advised NERTS to procure additional 40 nos. of DCD separately as early as possible considering all the requirements like for present, for projects under pipeline & for spare. The priority list for 2nd phase of SEM & DCD prepared by NERLDC is attached as **Annexure.D.13.**

The Sub-Committee noted as above.

Action: NERTS

D.14 Procurement of SEM/DCD laptop for future requirements:

In 170th OCCM NERLDC presented the estimation 125 nos. SEMs and 15 nos. CMRIs shall be required for future projects and maintaining spare. List of SEMs and CMRIs was presented by NERLDC. The forum also decided that procurement will be done on single tender basis from L&T to synchronize with the existing metering system

In 176th OCCM NERTS informed that LoA would be placed by Apr'21 after CC approval.

Deliberation of the sub-Committee:

NERTS informed that the procurement is under progress. As decided in Agenda D.13, another 40 nos. DCD procurement would be done separately on urgent requirement basis.

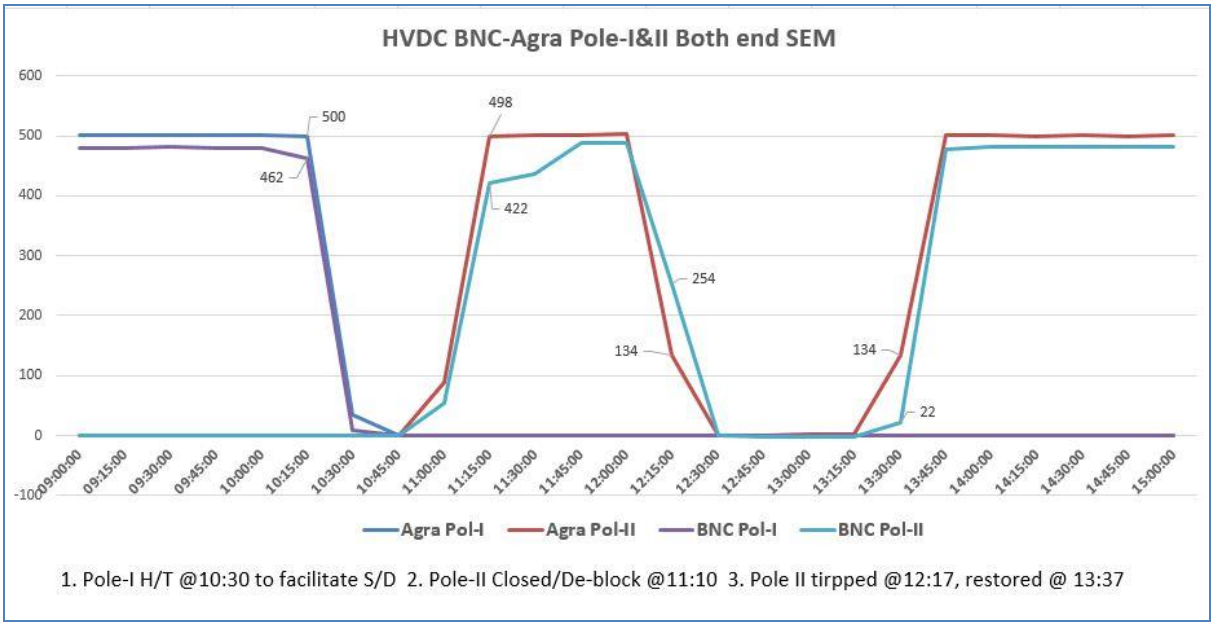
The Sub-Committee noted as above.

Action: NERTS

D.15 SEM time drift:

Time drift more than 5mins observed in BiswanathChariali Substation, SEM no. NP-9678-A, NP-8801-A, NP-7601-A (Pole-1), NP-5798-A (Pole-2) and other meters also having time drift. It is requested to take necessary action as these SEMs are very important for accounting of Inter-regional exchanges.

In 176th OCCM, Chief Manager, NERTS informed that time drift of SEMs at BiswanathChariali Substation has been corrected. However, it is observed that mismatch of energy accounting of NER-NR HVDC link by comparing with Agra end data in few blocks on 24.03.2021 where changeover/Blocking/De-blocking of Poles was done due to some s/d & requirement. Graphical representation is given below:



Deliberation of the sub-Committee:

After detailed deliberation it was decided that NP-5798-A having time drift beyond 5 min would be replaced and all the other SEMs would be corrected.

NERLDC inform that huge mismatch in inter regional (NER-NR) observed due to the time drift, as power flow in HVDC system is quite high. This is causing high erroneous inter-regional DSM account.

NERTS informed that time drift in most of the SEMs associated with HVDC BNC had been corrected and around 5 minutes drift is still existed in Pole-II SEM (NP-5798-A) and correction is under progress.

The Sub-Committee noted as above.

Action: NERTS

D.16 Collection of SEM data:

1. Budhjungnagar (TSECL) end of 132kv Budhjungnagar (TSECL)-SM Nagar (Sterlite) line,
2. SM Nagar (TSECL) end of 132kV SM Nagar (TSECL)- SM Nagar (Sterlite),
3. PK Bari (TSECL) end of 132kV PK Bari (TSECL)- PK Bari (Sterlite) line,
4. Ambassa (TSECL) end of 132kV Ambassa (TSECL)-PK Bari (Sterlite) line

Data of the above mentioned newly charged lines not received from TSECL (SLDC, Agartala).

As per regulations SLDC, Agartala should take necessary action for sending the data to NERLDC. However, due to non-availability of DCDs in most of the Substations of Tripura SEM data is being sent to NERLDC by NERTS. Forum may find out suitable solutions for sending SEM data to NERLDC of the above-mentioned lines.

Deliberation of the 175th OCCM:

Due to existing shortage of DCDs, same cannot be provided to Tripura for some time for new locations. This creates difficulty in getting SEM data from Budhjungnagar, Ambassa, PK Bari and SM Nagar. Matter was discussed and it was decided that during the interim period POWERGRID, NERTS will provide readings for all the SEMs installed at PK Bari S/s and SM Nagar S/s of Tripura and Sterlite will provide readings for all the SEMs installed at Budhjungnagar S/s and Ambassa S/s of Tripura.

Issues related to data collection at 132kV Ambassa S/s for Ambassa (TSECL) end of 132kV PK Bari (Sterlite)

In 176th OCCM Chief Manager (AM), NERTS informed that at Ambassa 5A CT secondary is available and existing SEMs procured by NERTS can be connected to 1A secondary only. AGM, TSECL intimated the forum that M/s STERLITE has procured SEM (5A Type B) which has same specification as(1A type A) as provided by CTU and same can be installed at Ambassa end. Further, TSECL informed that under ongoing upgradation works in Tripura, all CTs having 5A secondary shall be replaced with CTs with 1A secondary at Ambasa.

The forum agreed for installation of the 5A SEMs procured by M/s STERLITE after getting certification from CTU/POWERGRID at Ambassa S/Sn till the CTs are replaced with 1A secondary CTs by TSECL at the earliest. After installation NERLDC shall verify the reading by comparing with the other end reading.

Deliberation of the sub-Committee:

NERTS informed that their personnel had visited Ambasa S/S for checking and installation of the 5A SEM, but the SEM was not available at the site.

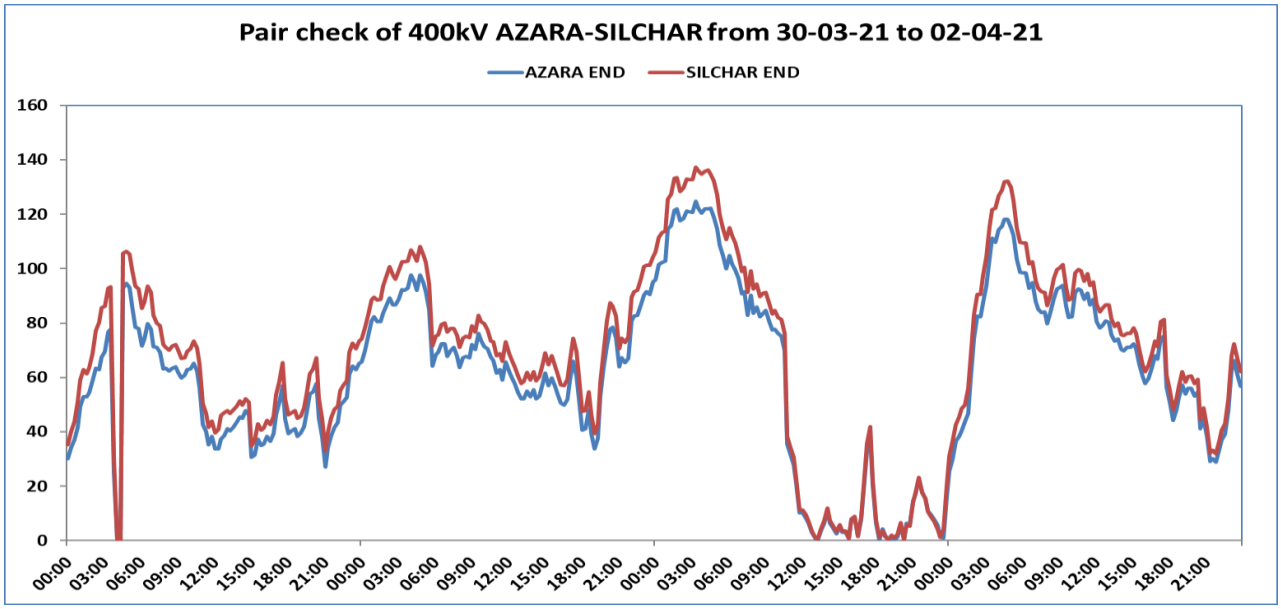
Tripura mentioned that there was some miscommunication as the SEM was kept in another location. Tripura requested NERTS for revisit the site for installation of the SEM in co-ordination with SLDC (Agartala). Chief Manager, NERTS agreed to accomplish the task accordingly at the earliest.

Further, he highlighted the issues being faced by POWERGRID, NERTS in providing readings for SEMs installed at PK Bari S/s and SM Nagar S/s of Tripura. After detailed deliberations, the forum agreed that readings for SEMs installed at PK Bari S/s and SM Nagar S/s of Tripura shall be provided by Sterlite along with the readings for SEMs installed at Budhjungnagar S/s and Ambassa S/s.

The Sub-Committee noted as above.

Action: NERTS

D.17 Pair check mismatch of 400kV Silchar-Azara:



Above line is very important for Energy accounting of Assam. Both end SEM vs. SCADA data was also compared and found to be matching for individual end as same CT core is being used for both SCADA and SEM. But, for both end data, the difference is persisting with higher value of Silchar end (export). Though, Azara end SEM has to be considered as main meter but since high regional loss has been observed, Silchar end data is being considered for accounting. It is also to mention that CT ratio of both end is different (Silchar: Azara= 1000: 2000).

Moreover, at Azara S/s AEGCL energy meter may also be there connected to the same CT core. If meter existed, connection may be checked.

Corrective actions may be taken at respective ends.

Deliberation of the sub-Committee:

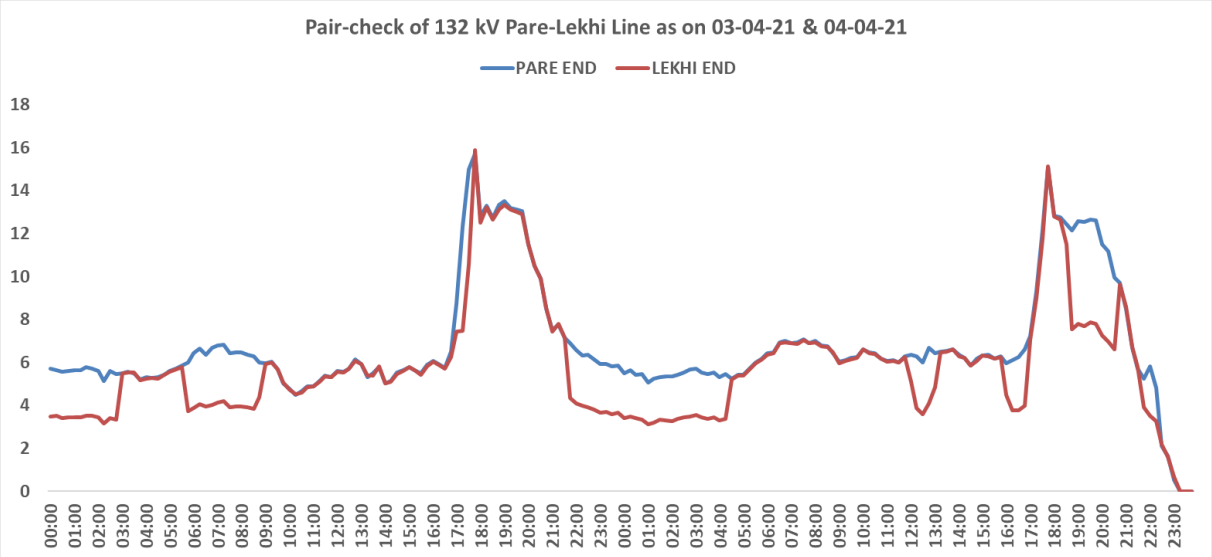
NERLDC informed that regional loss become high while considering the Azara SEM data, as the loading of the line is high. Forum advice to consider Silchar SEM data for energy accounting till correction of the mismatch. Azara side corrective action will be carried by SLDC(Assam) in co-ordination with NERLDC & NERTS. Silchar end SEM will be also checked by NERTS.

NERLDC also informed that probability of error is there while SEM connected to both end of the line with different CT ratio, particularly when loading is quite low as compared to the rating of the element and one side SEM connected with higher CT ratio. Therefore, provision for lowest possible CT ratio for connection to SEM should be consider in general and Azara end SEM may be connected with CT ration of 1000:1. Forum agreed for the same.

The Sub-Committee noted as above.

Action: AEGCL

D.18Pair check mismatch of 132kV Lekhi-Pare:



From the above graph, mismatch in power flow is observed which may be due to time drift, different CT ratio (Pare :Lekhi = 400: 600), etc.

Corrective actions may be taken at respective ends.

Deliberation of the sub-Committee:

The forum requested DoP Ar. Pradesh to investigate the reasons for mismatch at Lekhi.

The Sub-Committee noted as above.

Action: DoP Ar. Pradesh

D.19Meter Starting current:

400/220kV, 500MVA New Mariani ICT #1, 0 (zero) reading has been observed (which is due to very low power flow and reversal of flow direction. Similar issue was also observed in case of 400kV Silchar-PK Bari(Sterlite) #2.

As per IS.14697.1999 standards, the starting current (the meter shall start and continue to register) is 0.1% of basic current (Ib) and current value above 0.05*Ib gives less erroneous result. Now, SEM connected in above mentioned elements have very high CT ratio (for ICT 3000:1; for transmission line 2000:1) but loading is very low.

Based on the above, it is better to connect the SEMs at the least possible CT core for better reading accuracy where possibility of power flow is less. It is also to mention that in some 400 kV lines SEMs are connected with CT ratio of 2000:1 (eg, Azara S/s) where maximum thermal loading is quite low in comparison to maximum CT current rating.

Again, as per the IS.14697.1999 standards "the rated maximum currents shall be 1.2 times of basic current" and "Short-Time Over Current rating 20 times the maximum current for 0.5 seconds". Therefore, SEM has the ability to handle high current during emergency situation.

Forum may discuss and recommend for requirement of necessary changes of CT ratio for better accuracy of energy accounting.

Deliberation of the sub-Committee:

NERLDC informed that this agenda is being put in the forum as lots of system strengthening works are going on in the Region where very high-capacity elements like 500 MVA, 315 MVA ICT, 400 kV lines etc. are planned, considering the future need, but the present load is quite low and will take long time for the load enhancement.

Newly commissioned 500 MVA ICT at Mariani is highlighted, where "0" SEM reading observed due to very low loading and connection with high CT ratio (3000:1). Similar case also observed at 400 kV Silchar-PK Bari(Sterlite) #2, where SEM connected to CT ration of 2000:1. This is happening due to inability to sense the CT secondary current by the meter due to very low loading and other side accuracy of the reading is also low because of very low CT secondary current. Therefore, lowest suitable CT ratio should be considered for connection to SEM for those elements where probability of much lower reading is there in comparison to the rating of the elements.

Similar cases may also occur with the accuracy of CT secondary current reading, SCADA telemetry etc.

Forum agreed with the deliberation of NERLDC and advice the utilities for appropriate action.

The Sub-Committee noted as above.

Action: NERTS

Date & Venue of next OCC meeting:

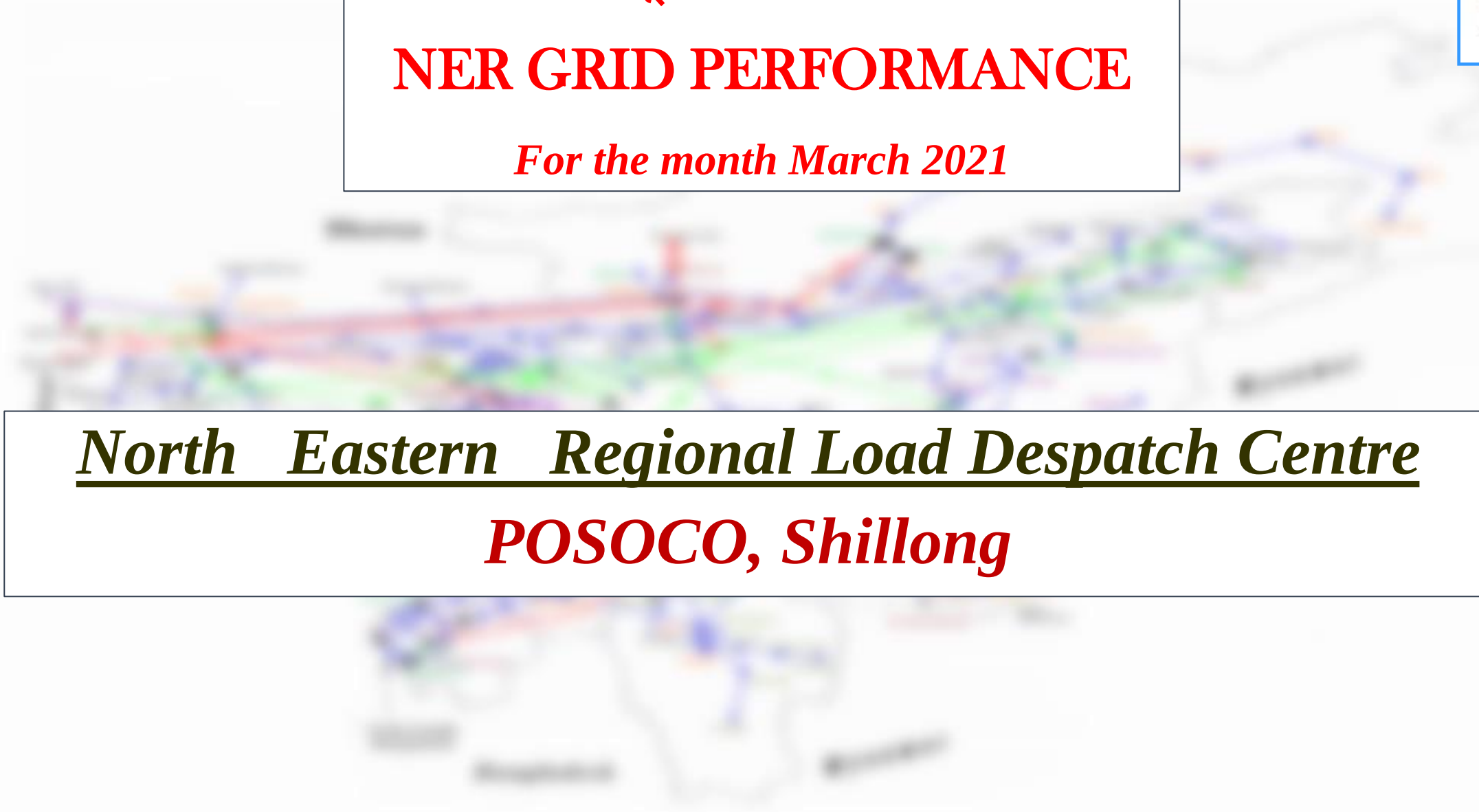
It is proposed to hold the 178thOCC meeting of NERPC on second week of May, 2021. However, exact date and venue will be intimated in due course.

*****

उ.पू.क्षे ग्रिड प्रदर्शन

NER GRID PERFORMANCE

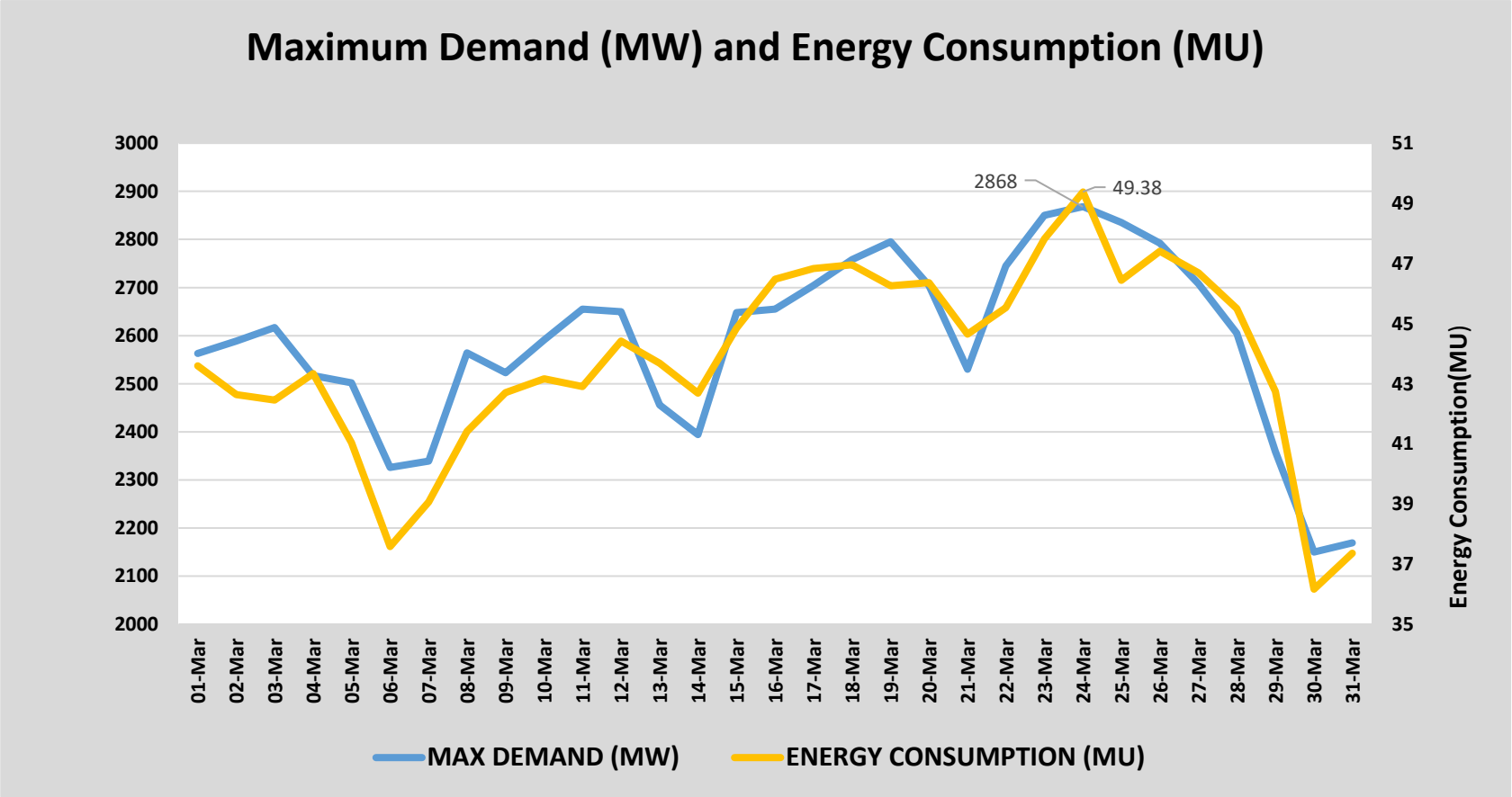
For the month March 2021



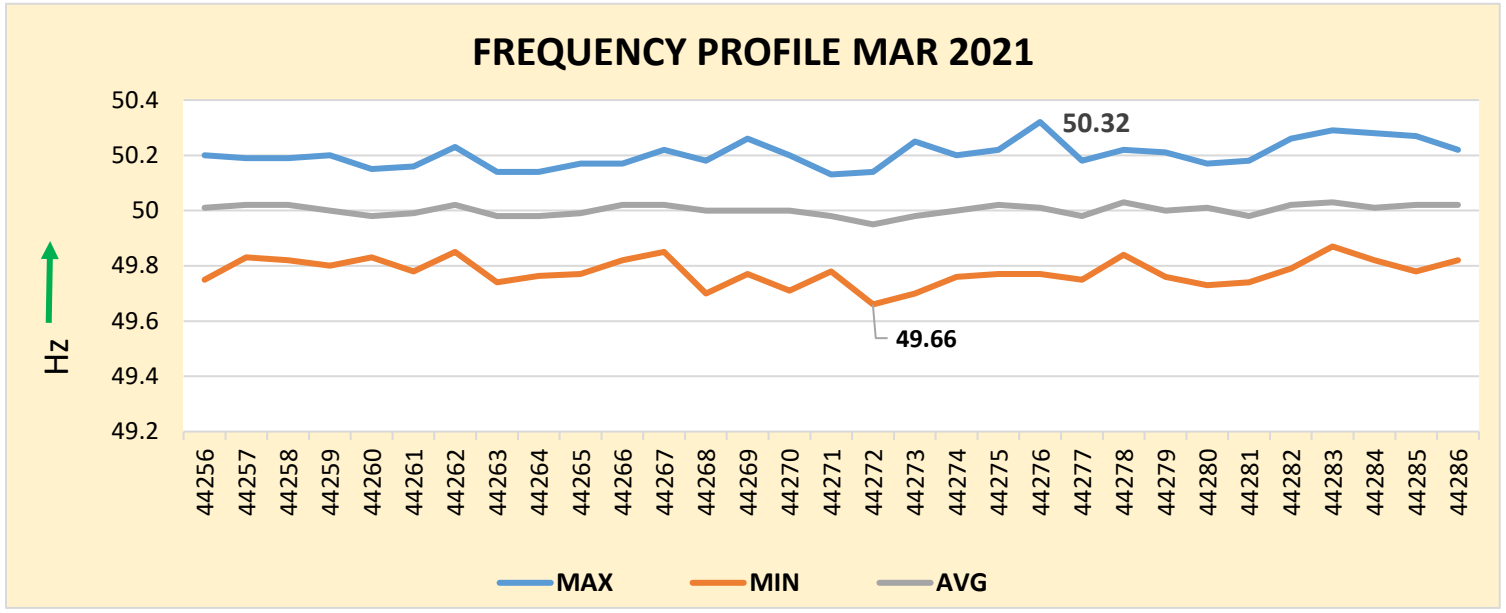
North Eastern Regional Load Despatch Centre

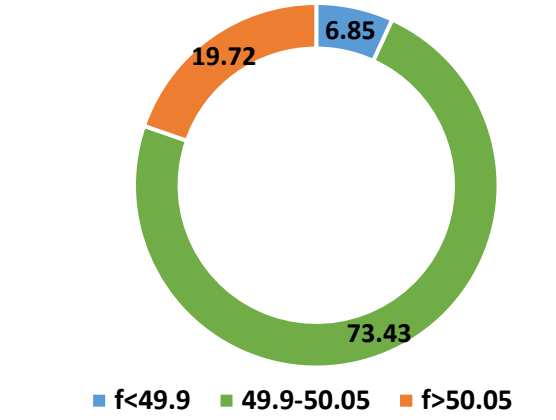
POSOCO, Shillong

Maximum MW and MU in NER: Mar’ 2021



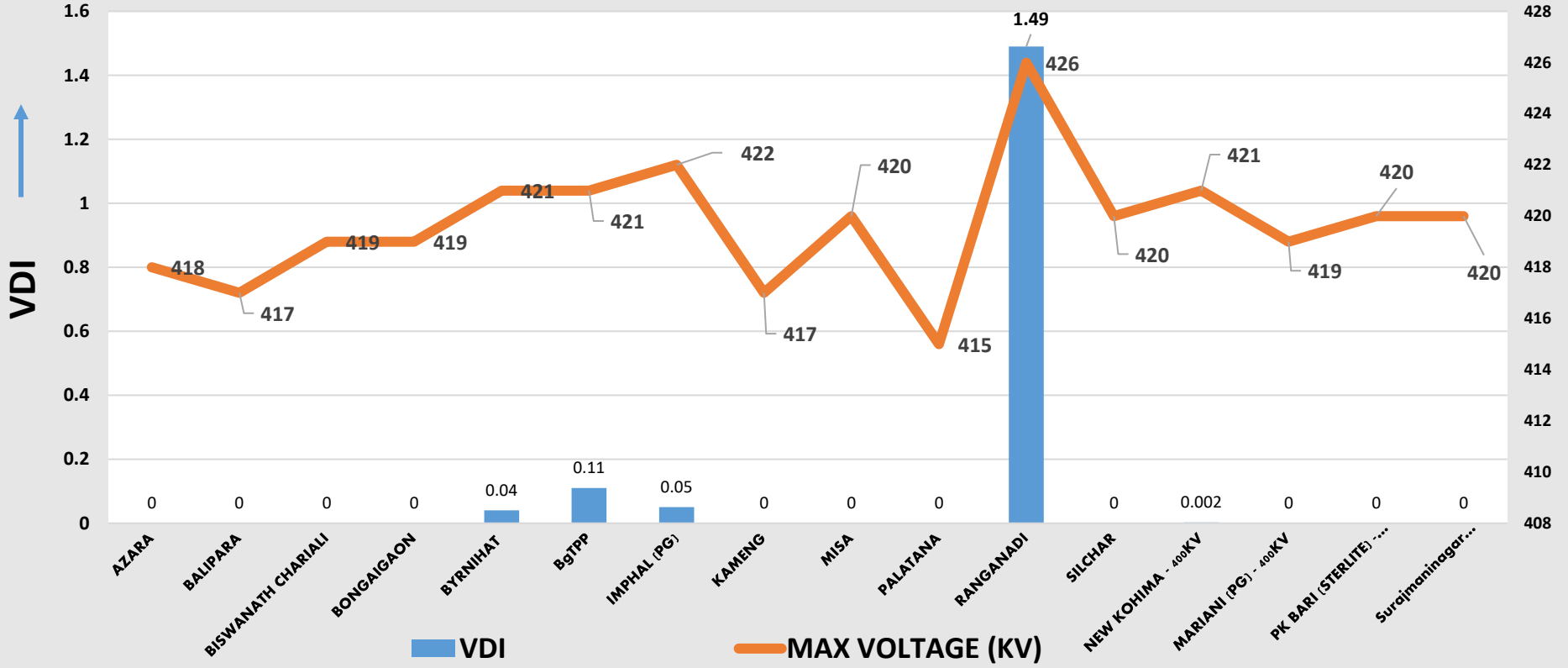
Frequency Profile



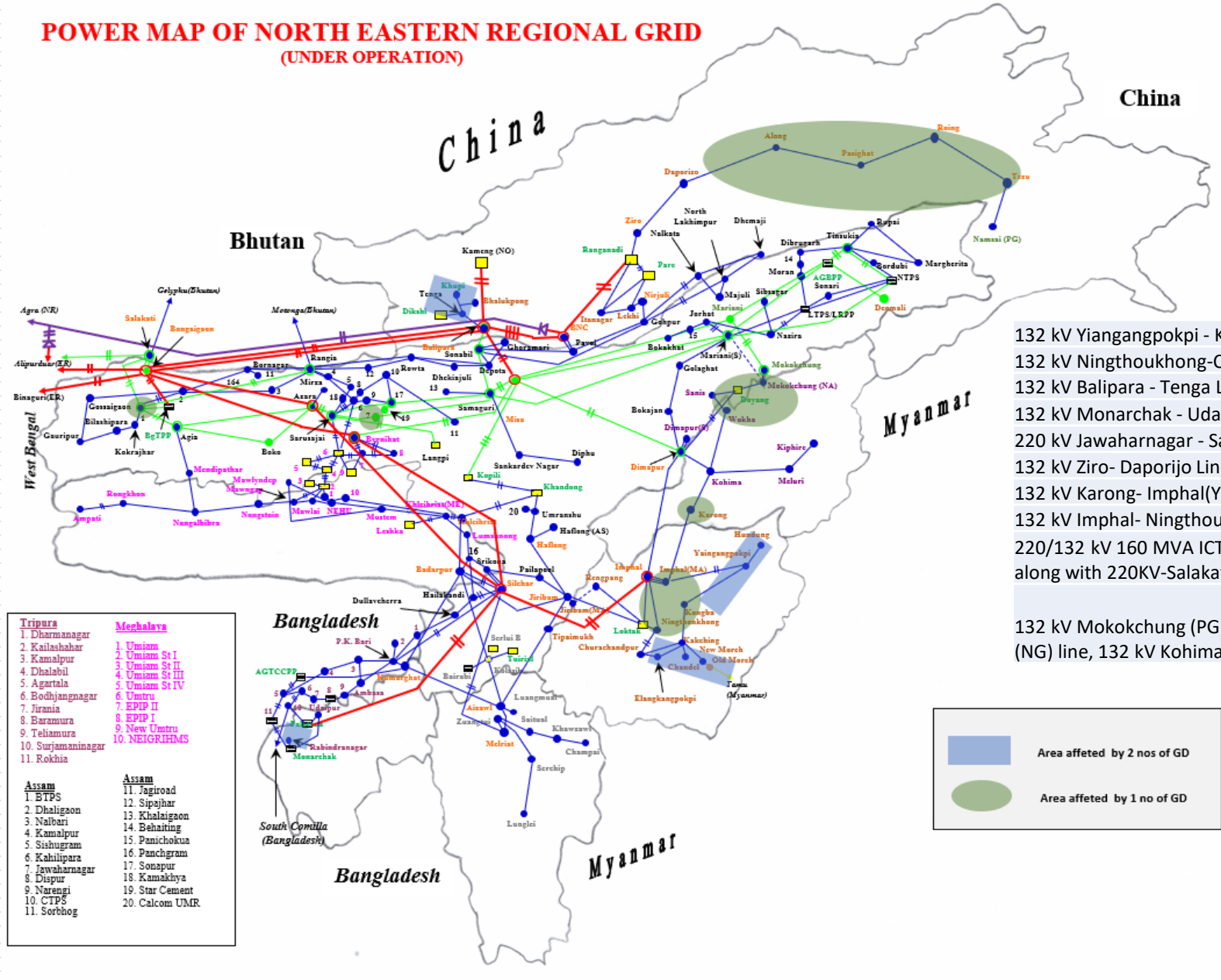


VDI (400 KV) FOR Mar 2021

No. of 400 kV lines kept open for over voltage : 2



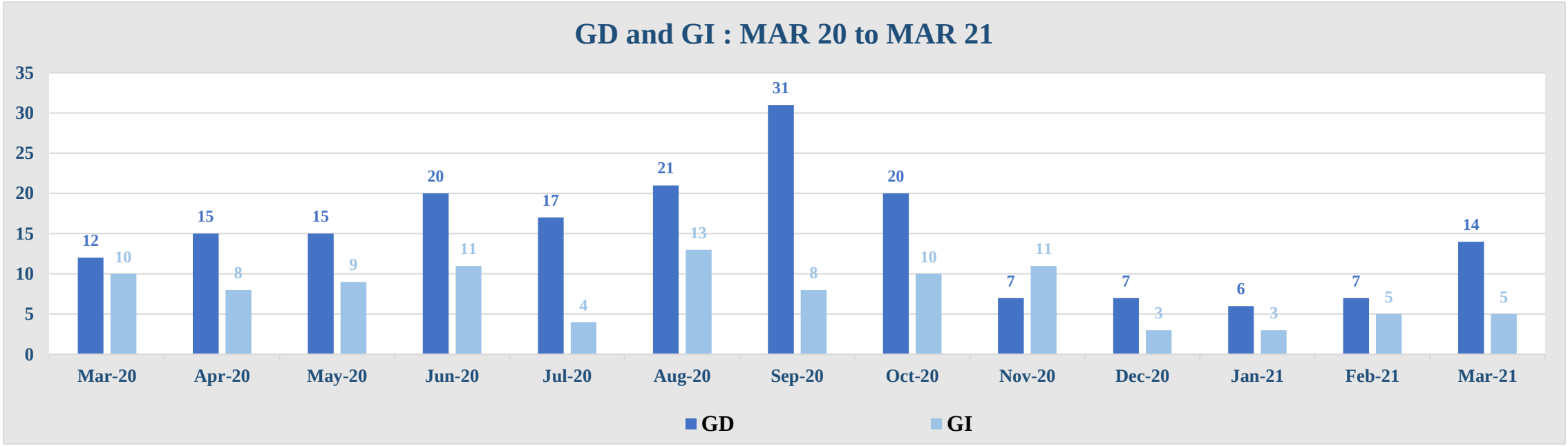
Grid Disturbance during Mar 2021



No. of GD	14
No. of GI	5

132 kV Yiangangpokpi - Kongba line and 132 kV Imphal-Yiangangpokpi D/C Line	caused GD 2 times
132 kV Ningthoukhong-Churachandpur D/C lines	caused GD 2times
132 kV Balipara - Tenga Line	caused GD 2times
132 kV Monarchak - Udaipur line and 132 kV Monarchak - Rokhia line	caused GD 2 times
220 kV Jawaharnagar - Sarusajai Line and 220 kV Jawaharnagar - Samaguri Line	caused GD 1 times
132 kV Ziro- Daporijo Line.	caused GD 1 times
132 kV Karong- Imphal(Yurembam) & 132 kV Karong-Kohima	caused GD 1 times
132 kV Imphal- Ningthoukong Line and 132 kV Loktak- Ningthoukong Line	caused GD 1 times
220/132 kV 160 MVA ICT I at BTPS (AS), 220/132 kV 100 MVA ICT II at BTPS (AS) along with 220KV-Salakati-BTPS D/C	caused GD 1 times
132 kV Mokokchung (PG) - Mokokchung (NG) D/C, 132 kV Doyang - Mokokchung (NG) line, 132 kV Kohima-Wokha line & 132kV Doyang-Sanis line	caused GD 1 times

Grid Disturbance/Incidences for F.Y. 2020-2021



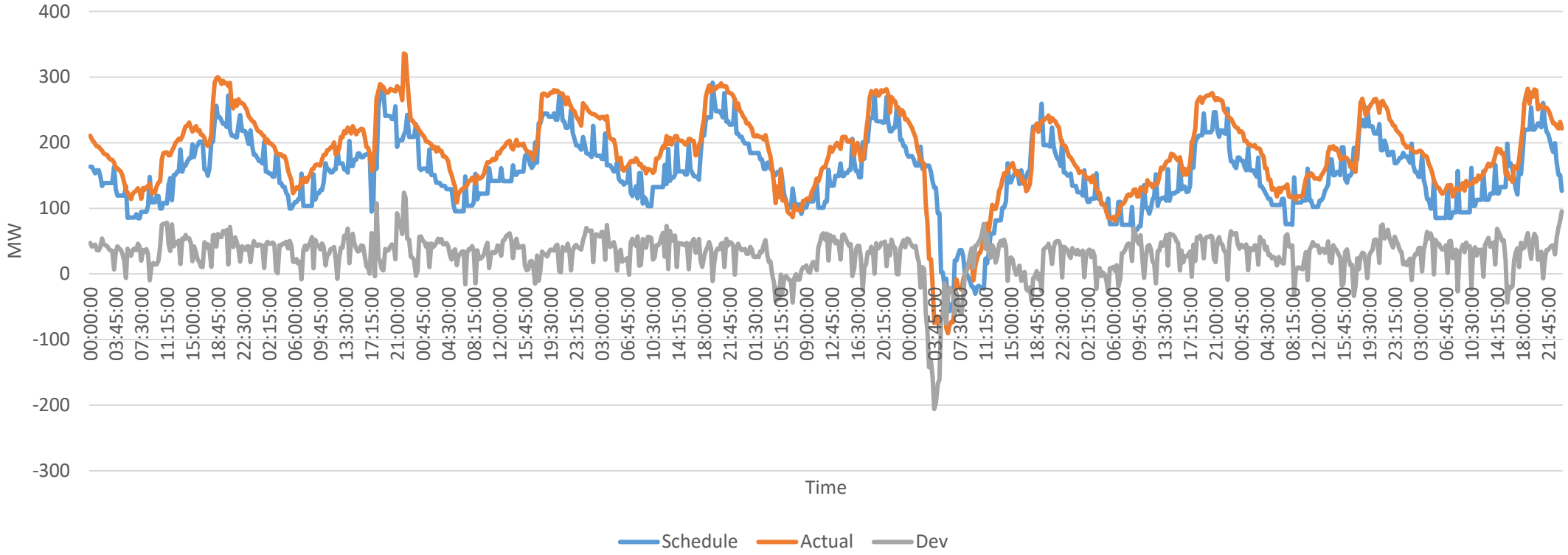
Number of Days as per Current Hydro Generation

Plants	Reservoir Level in meters (as on 20/04/2021)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Kopili STG II	718.4	22	1.152	19
Kopili	-	-	-	
Doyang	309.35	4.05	0.105	39
Loktak	767.09	34.75	0.705	49

176th OCC approved shutdown availing status

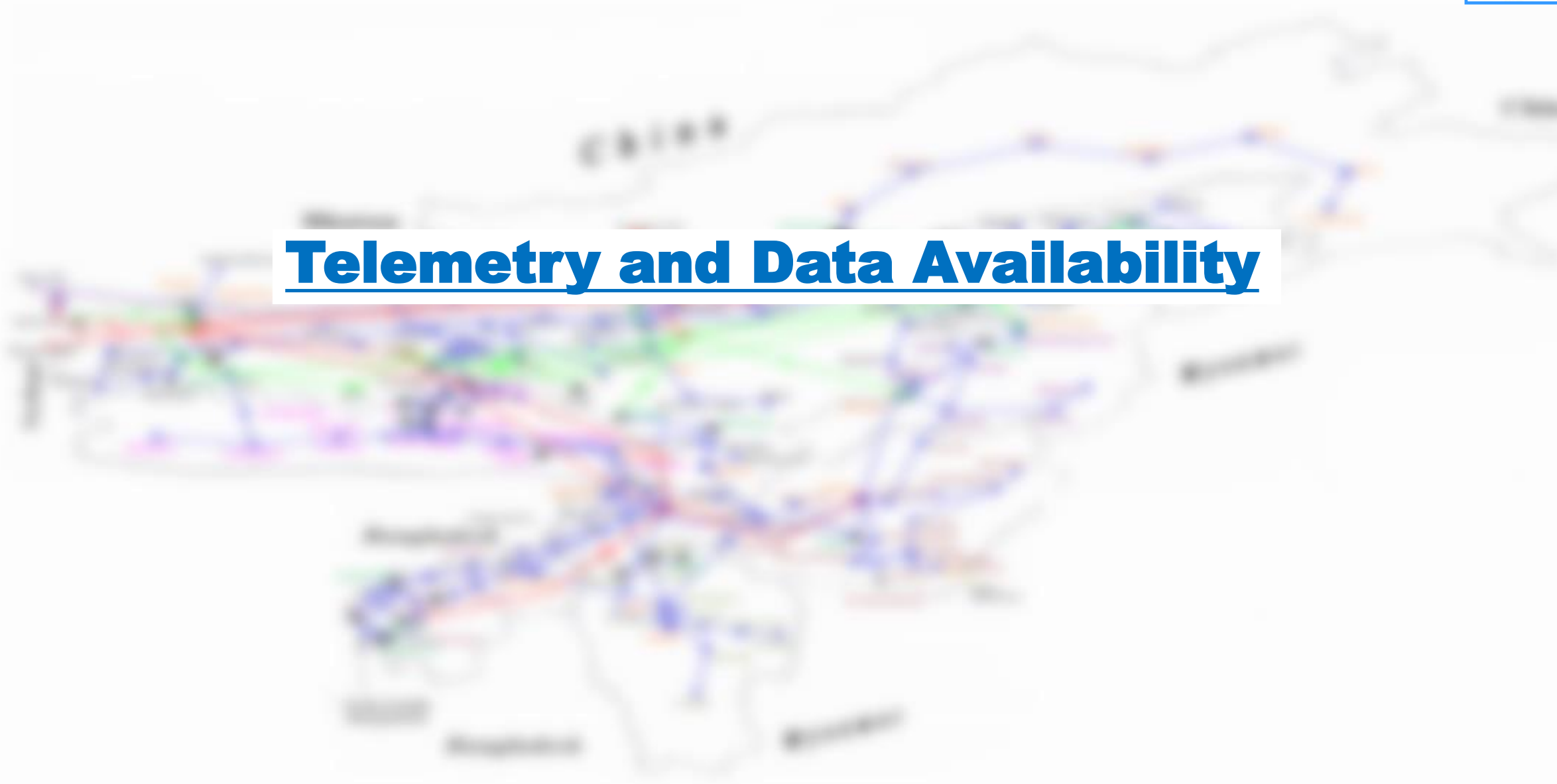
SUMMARY OF NER OUTAGE						
MONTH	PLANNED IN OCC	APPROVED IN D-1	AVAILED IN REAL TIME	AVAILED VS PLANNED	AVAILED VS APPROVED	DEFFERED BY RLDC DUE TO SYSTEM CONSTRAINT
Mar-21	213	180	125	59%	69%	6

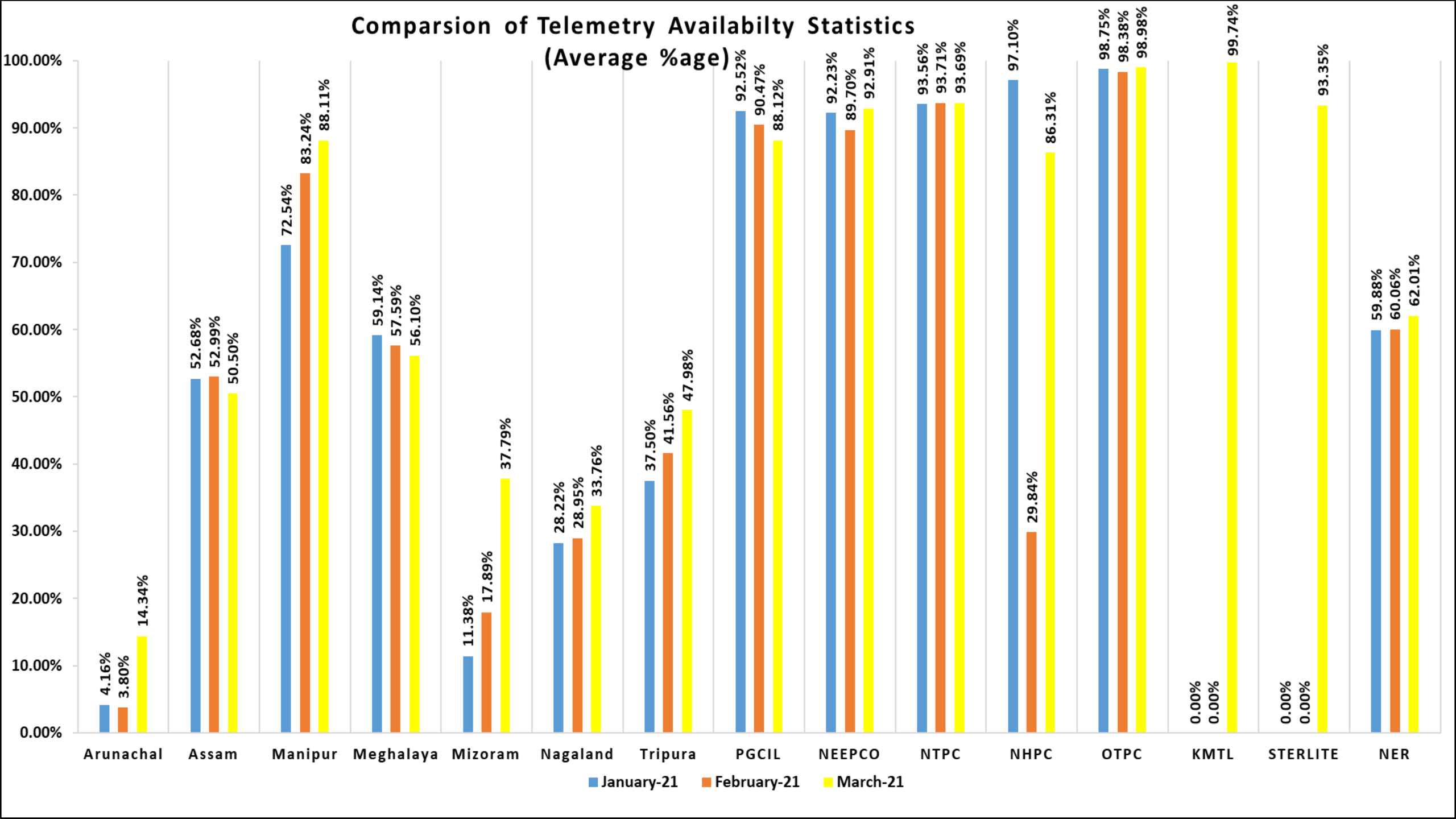
Tripura Deviation as per SCADA data



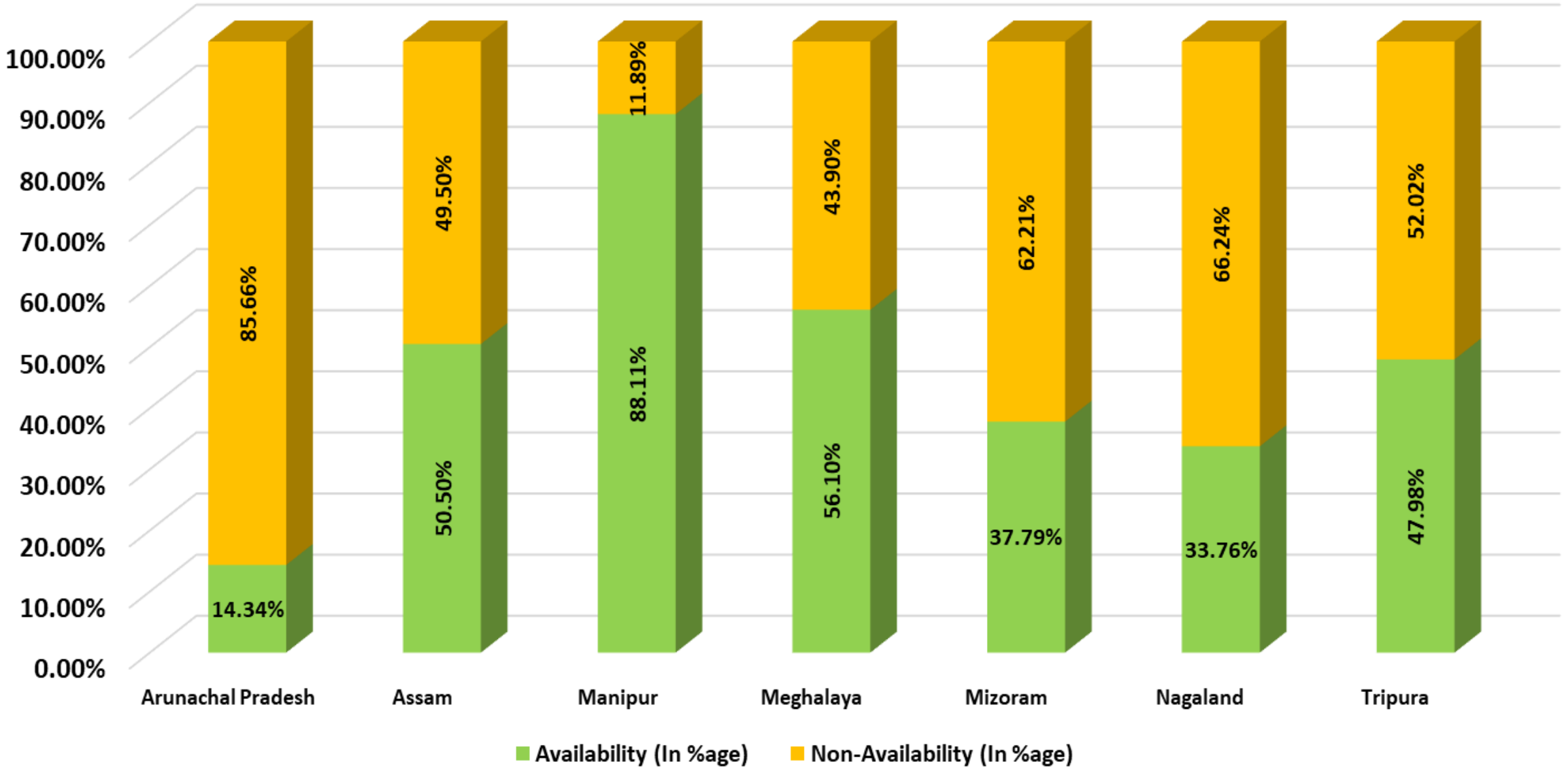
Continuous over drawal done by Tripura can be seen in the plot above, violation messages were issued by NERLDC during the period regarding the deviation .

Telemetry and Data Availability

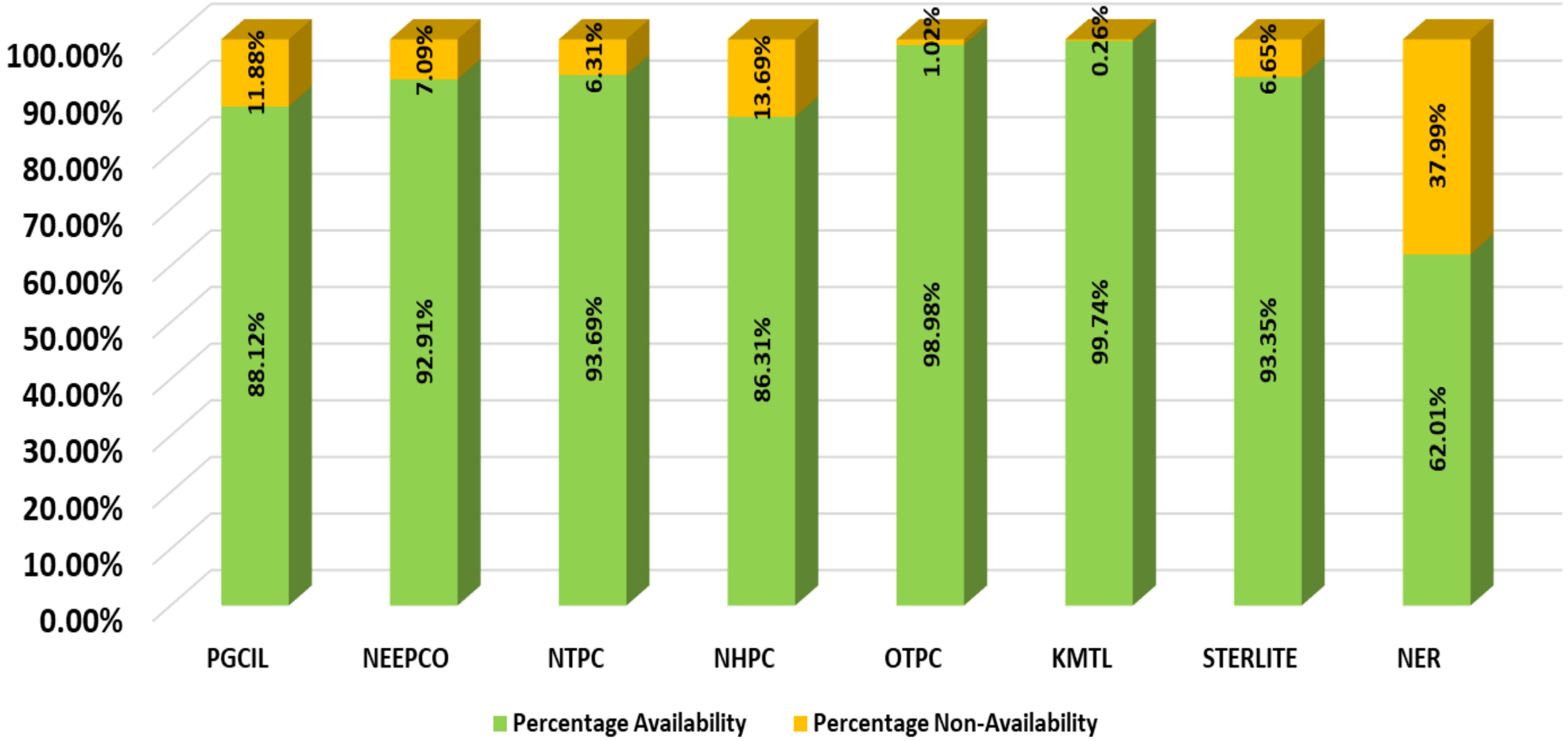



Comparsion of Telemetry Availabilty Statistics
(Average %age)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
4.16%
3.80%
14.34%
52.68%
52.99%
50.50%
72.54%
83.24%
88.11%
59.14%
57.59%
56.10%
11.38%
17.89%
37.79%
28.22%
28.95%
33.76%
37.50%
41.56%
47.98%
92.52%
90.47%
88.12%
92.23%
89.70%
92.91%
93.56%
93.71%
93.69%
97.10%
29.84%
86.31%
98.75%
98.38%
98.98%
0.00%
0.00%
99.74%
0.00%
0.00%
93.35%
59.88%
60.06%
62.01%
Arunachal
Assam
Manipur
Meghalaya
Mizoram
Nagaland
Tripura
PGCIL
NEEPCO
NTPC
NHPC
OTPC
KMTL
STERLITE
NER
January-21
February-21
March-21

Telemetry Statistics for NER States (Average availability of data for the Month of Mar'21)

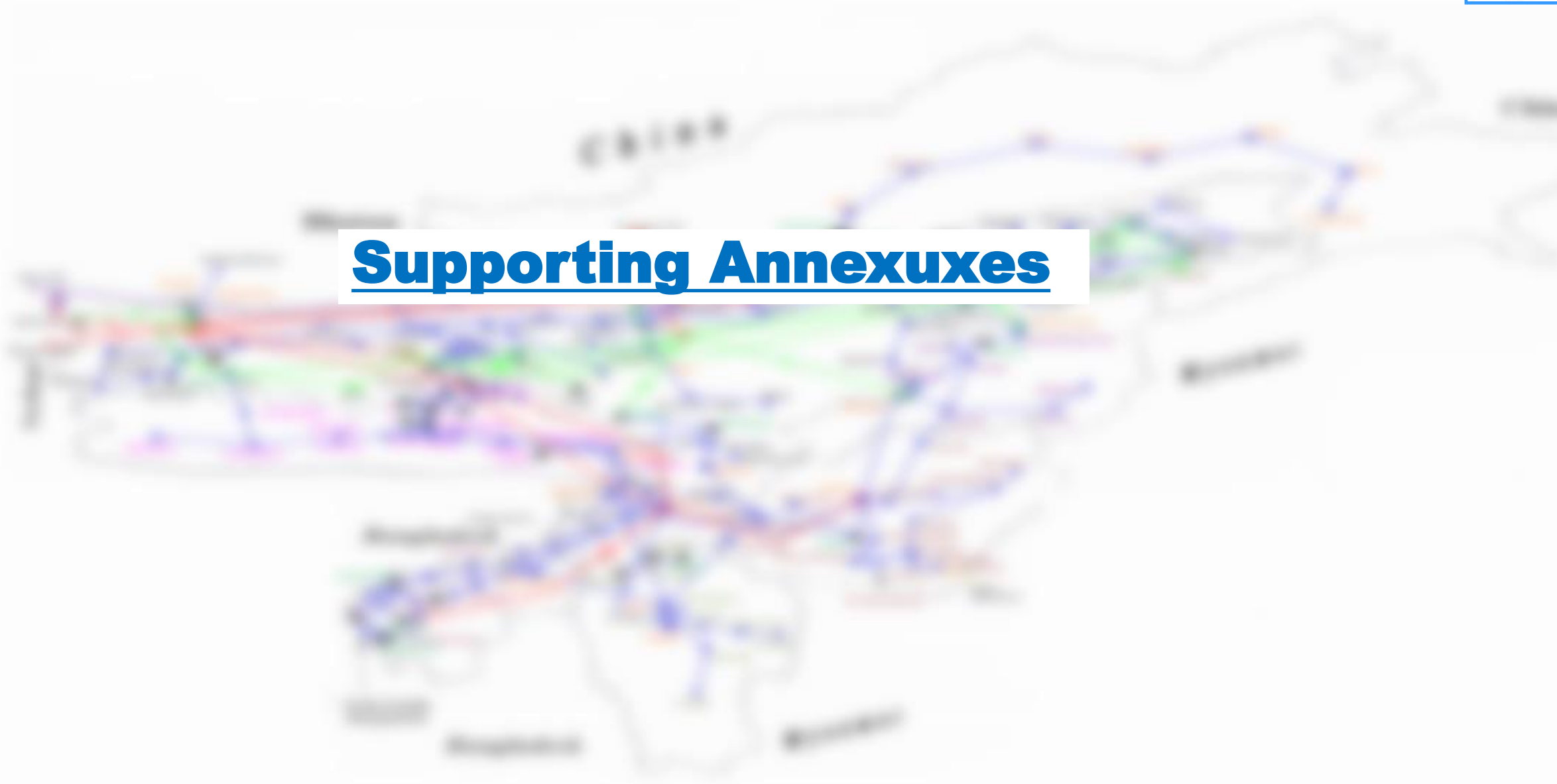


Telemetry Statistics for Central Sector of NER (Average availability of data for the Month of Mar'21)

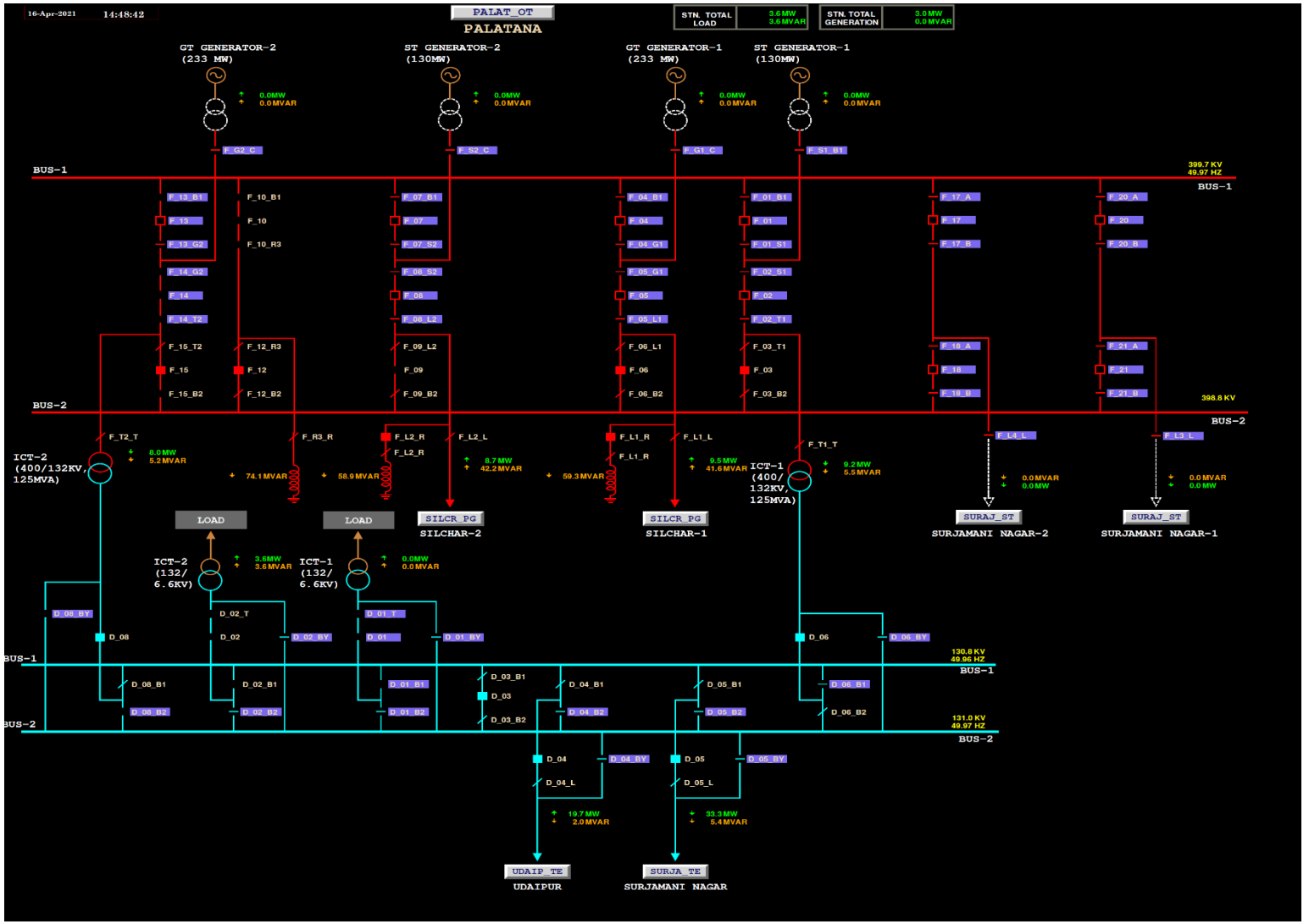


Thank You

Supporting Annexuxes



Palatana SLD post S/D of Modules



Opening of 400 kV Silchar – PK Bari T/Ls

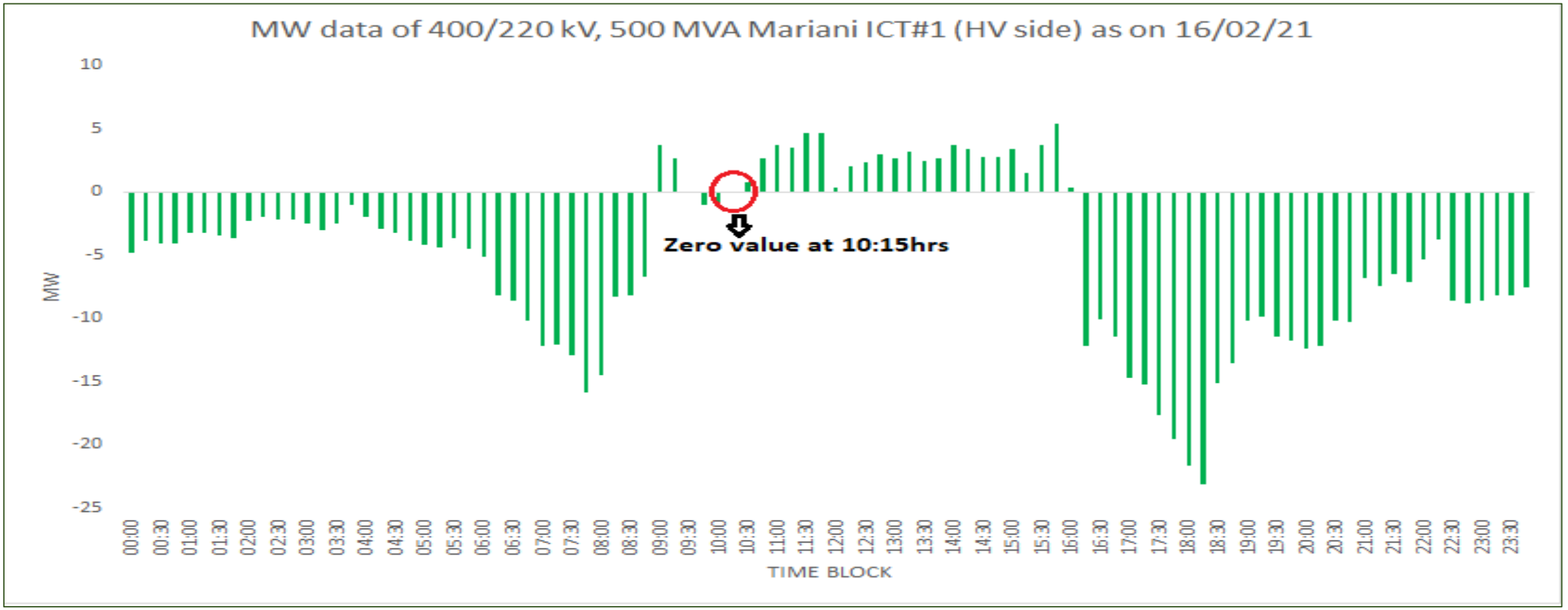
Sl No.	Name of Element	Date	Time of Opening	Reason for Opening
1	400 KV SILCHAR - P K BARI 1	27-03-2021	01:15	Due to High Voltage Scenariao
2	400 KV SILCHAR - P K BARI 1	29-03-2021	00:15	
3	400 KV SILCHAR - P K BARI 2	29-03-2021	23:40	
4	400 KV SILCHAR - P K BARI 1	11-04-2021	00:06	
5	400 KV SILCHAR - P K BARI 1	12-04-2021	03:31	
6	400 KV SILCHAR - P K BARI 1	16-04-2021	04:24	

Opening of 220 kV Samaguri - Sonabil D/C

Opening of 220 kV Samaguri-Sonabil I			
Sl No.	Date	Time of Opening	Reason for Opening
1	10-03-2021	18:01	To prevent Over Loading of 220 kV Balipara - Sonabil T/L
2	11-03-2021	17:50	
3	12-03-2021	17:56	
4	14-03-2021	18:20	
5	22-03-2021	17:49	
6	23-03-2021	17:40	
7	26-03-2021	18:03	
8	06-04-2021	18:02	
9	07-04-2021	17:56	
10	09-04-2021	19:03	
11	10-04-2021	18:19	
12	11-04-2021	18:11	
13	13-04-2021	18:37	

Opening of 220 kV Samaguri-Sonabil II			
Sl No.	Date	Time of Opening	Reason for Opening
1	10-03-2021	18:01	To prevent Over Loading of 220 kV Balipara - Sonabil T/L
2	11-03-2021	17:50	
3	12-03-2021	17:56	
4	19-03-2021	17:53	
5	20-03-2021	17:40	
6	22-03-2021	18:06	
7	23-03-2021	17:48	
8	24-03-2021	17:52	
9	25-03-2021	18:01	
10	06-04-2021	18:02	
11	07-04-2021	18:18	

Annex: Meter starting current



1ST PHASE REPLACEMENT OF SEM AS PER NERLDC RECORD						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	NEW METER NO	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
1	ASSAM	SARUSAJAI	NP-8489-A	NP-9921-A	S'SAJAI END OF 132kV UMTRU FDR-1	
2	ASSAM	SARUSAJAI	NP-8492-A	NP-9922-A	S'SAJAI END OF 132kV UMTRU FDR-2	
3	ASSAM	DULLAVCHERRA	NP-9438-A	NP-9904-A	DULLAVCHERRA END OF D'NGAR FDR	
4	ASSAM	AZARA	NP-9456-A	NP-9983-A	AZARA END OF 400 KV BONGAIGAON	
5	ASSAM	AZARA	NP-9457-A	NP-9981-A	AZARA END OF 400 KV SILCHAR	
6	MANIPUR	NINGTHOUKHONG	NP-9521-A	NP-9946-A	NINGTHOUKHONG END OF IMPHAL (PG)	
7	MANIPUR	YUREMBAM	NP-6951-A	NP-9948-A	YUREMBAM END OF KARONG FDR	
8	MANIPUR	JIRIBAM	NP-8645-A	NP-9902 A	JIRIBAM(MAN) END OF JIRIBAM(PG)FDR	
9	NAGALAND	KOHIMA	NP-9703-A	NP-9947-A	KOHIMA END OF KARONG FDR	
10	POWERGRID	SILCHAR	NP-8666-A	NP-9898-A	SILCHAR END OF HAILAKANDI-II	
11	POWERGRID	SILCHAR	NP-8667-A	NP-9900-A	SILCHAR END OF HAILAKANDI-I	
12	POWERGRID	SILCHAR	NP-8664-A	NP-9895-A	SILCHAR END OF SRIKONA-I	
13	POWERGRID	SILCHAR	NP-8665-A	NP-9897-A	SILCHAR END OF SRIKONA-II	
14	POWERGRID	HAFLONG	NP-8656-A	NP-9956-A	HAFLONG END OF JIRIBAM	
15	POWERGRID	IMPHAL	NP-8672-A	NP-9949-A	IMPHAL (PG) END OF LOKTAK-2	
16	POWERGRID	IMPHAL	NP-4520-A	NP-9982-A	IMPHAL END OF NEW KOHIMA 1	
17	POWERGRID	IMPHAL	NP-4504-A	NP-9985-A	IMPHAL END OF NEW KOHIMA 2	
18	POWERGRID	JIRIBAM	NP-8623-A	NP-9903 A	JIRIBAM(PG) END OF BADARPUR FDR	
19	POWERGRID	MOKOKCHANG	NP-4518-A	NP-9923-A	220/132KV,30 MVA ICT-1 AT MOKOKCHANG LV-SIDE	
20	POWERGRID	MOKOKCHANG	NP-4515-A	NP-9938-A	220/132KV,30 MVA ICT-2 AT MOKOKCHANG LV-SIDE	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	METER NO	UTILITY INVOLVED	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
1	AR PRADESH	ITANAGAR (CHIMPU)	NP-9935-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 1	
2	AR PRADESH	ITANAGAR (CHIMPU)	NP-9939-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 2	
3	ASSAM	KARIMGANJ	NP-9690-A	ASSAM	132 kV KARIMGANJ END OF BADARPUR	
4	ASSAM	KARIMGANJ	NP-9937-A	ASSAM	132 kV KARIMGANJ END OF KUMARGHAT	
5	MANIPUR	THOUBAL	NP-9668-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-1	
6	MANIPUR	THOUBAL	NP-9603-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-2	
7	TSECL	PK BARI	NP-9933-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR1	
8	TSECL	PK BARI	NP-9932-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR 2	
9	TSECL	PK BARI	NP-9919-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-PK BARI (STERLITE)	
10	TSECL	PK BARI	NP-9934-A	STERLITE / TRIPURA	132 kV AMBASSA(TSECL)-PK BARI (STERLITE)	
11	TSECL	BUDHJUNGNAGAR	NP-9943-A	STERLITE / TRIPURA	132 kV BUDHJUNGNAGAR END OF 132 kV SM NAGAR (STERLITE)	
12	TSECL	SM NAGAR	NP-9942-A	STERLITE / TRIPURA	SM NAGAR (TSECL) END OF SM NAGAR (STERLITE)	
13	NEEPCO	RC NAGAR	NP-9940-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1	
14	NEEPCO	RC NAGAR	NP-9457-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1 CHECK METER	
15	NEEPCO	RC NAGAR	NP-9941-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	METER NO	UTILITY INVOLVED	FEEDER NAME	REMARKS TO BE NOTED IN OCCM
16	NEEPCO	RC NAGAR	NP-9456-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2 CHECK METER	
17	OTPC	PALATANA	NP-9944-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-1	CHECK METER REQUIRED
18	OTPC	PALATANA	NP-9977-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-2	CHECK METER REQUIRED
19	POWERGRID	MISA	NP-9928-A	STERLITE	400 kV MISA-SILCHAR 1	
20	POWERGRID	MISA	NP-9929-A	STERLITE	400 kV MISA-SILCHAR 2	
21	POWERGRID	MISA	NP-9892-A	KMTL	400 kV MISA-NEW MARIANI I	
22	POWERGRID	MISA	NP-9894-A	KMTL	400 kV MISA-NEW MARIANI II	
23	POWERGRID	MARIANI	NP-9959-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II LV SIDE	
24	POWERGRID	MARIANI	NP-9950-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II HV SIDE	
25	POWERGRID	MARIANI	NP-9958-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I LV SIDE	
26	POWERGRID	MARIANI	NP-9951-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I HV SIDE	
27	POWERGRID	MARIANI	NP-9974-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-1	
28	POWERGRID	MARIANI	NP-9980-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-2	
29	POWERGRID	IMPHAL	NP-9547-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 1	
30	POWERGRID	IMPHAL	NP-9543-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 2	
31	POWERGRID	IMPHAL	NP-9982-A	KMTL	400 kV Imphal end of New KOHIMA_1	
32	POWERGRID	IMPHAL	NP-9985-A	KMTL	400 kV Imphal end of New KOHIMA_2	
33	POWERGRID	SILCHAR	NP-9925-A	STERLITE	400 kV SILCHAR- MISA-1	
34	POWERGRID	SILCHAR	NP-9896-A	STERLITE	400 kV SILCHAR- MISA-II	
35	POWERGRID	SILCHAR	NP-9901-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE)I	
36	POWERGRID	SILCHAR	NP-9899-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE) II	
37	POWERGRID	BNC	NP-9961-A	STERLITE	132 kV BNC END OF ITANAGAR BNC FDR 1	
38	POWERGRID	BNC	NP-9962-A	STERLITE	133 kV BNC END OF ITANAGAR BNC FDR 1	
39	KMTL	NEW KOHIMA	NP-9972-A	KMTL	400 kV NEW KOHIMA END OF MARIANI FDR I	
40	KMTL	NEW KOHIMA	NP-9973-A	KMTL	40 kV NEW KOHIMA END OF MARIANI FDR II	
41	KMTL	NEW KOHIMA	NP-9986-A	KMTL	400 kV/ 220 kV ICT I HV SIDE KOHIMA SS	
42	KMTL	NEW KOHIMA	NP-9988-A	KMTL	400 kV/ 220 kV ICT I LV SIDE KOHIMA SS	
43	KMTL	NEW KOHIMA	NP-9987-A	KMTL	400 kV/ 220 kV ICT II HV SIDE KOHIMA SS	
44	KMTL	NEW KOHIMA	NP-9989-A	KMTL	400 kV/ 220 kV ICT II LV SIDE KOHIMA SS	
45	KMTL	NEW KOHIMA	NP-9970-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR I	
46	KMTL	NEW KOHIMA	NP-9971-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR II	
47	STERLITE	PK BARI	NP-9931-A	STERLITE	132 kV PK BARI (STERLITE)-PK BARI (TSECL)	
48	STERLITE	PK BARI	NP-9930-A	STERLITE	132 kV PK BARI (STERLITE)-AMBASSA(TSECL)	

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS						
SL. NO	**UTILITY NAME**	**LOCATION/ SUBSTATION**	**METER NO**	**UTILITY INVOLVED**	**FEEDER NAME**	**REMARKS TO BE NOTED IN OCCM**
49	STERLITE	PK BARI	NP-9917-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) I	
50	STERLITE	PK BARI	NP-9918-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) II	
51	STERLITE	PK BARI	NP-9905-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 HV SIDE	
52	STERLITE	PK BARI	NP-9906-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 LV SIDE	
53	STERLITE	PK BARI	NP-9907-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 HV SIDE	
54	STERLITE	PK BARI	NP-9908-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 LV SIDE	
55	STERLITE	PK BARI	NP-9916-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR I	
56	STERLITE	PK BARI	NP-9915-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR II	
57	STERLITE	SM NAGAR	NP-9893-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF BUDHJUNGNAGAR	
58	STERLITE	SM NAGAR	NP-9890-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF SM NAGAR (TSECL)	
59	STERLITE	SM NAGAR	NP-9978-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 1 (sterlite)	
60	STERLITE	SM NAGAR	NP-9979-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 2 (sterlite)	
61	STERLITE	SM NAGAR	NP-9965-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 HV SIDE	
62	STERLITE	SM NAGAR	NP-9966-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 LV SIDE	
63	STERLITE	SM NAGAR	NP-9967-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 HV SIDE	
64	STERLITE	SM NAGAR	NP-9968-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 LV SIDE	
65	STERLITE	SM NAGAR	NP-9975-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 1	
66	STERLITE	SM NAGAR	NP-9976-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 2	
NOTE: TOTAL SEM USED OUT OF 100 = 86 SEMs. (REPLACED = 20 SEM; STERLITE = 42 SEM; KMTL = 18; ASSAM=2 SEM;						

AS PER NERLDC RECORD FOR 1ST PHASE DCD DISTRIBUTION				
SL. NO	**UTILITY NAME**	**LOCATION/ SUBSTATION**	**DATE OF RECEIPT**	**REMARKS (TO BE NOTED IN OCCM)**
1	Ar. PRADESH	LEKHI	02.09.2020	
2	ASSAM	AGIA	26.12.2020	
3	ASSAM	AZARA	26.12.2020	
4	ASSAM	BTPS	08.10.2020	
5	ASSAM	SARUSAJAI	07.01.2021	
6	ASSAM	KAHILIPARA	07.01.2021	
7	MANIPUR	YUREMBAM	RECEIVED	
8	MEGHALAYA	UMTRU	05.11.2020	
9	MEGHALAYA	MENDIPATHAR	05.11.2020	Not capable of Time Drift correction. To be replaced as decided in 176th OCCM
10	TRIPURA	AGARTALA(79 ILLA)	01.01.2021	
11	TRIPURA	UDAIPUR	01.01.2021	
12	TRIPURA	DHARMANAGAR	18.11.2020	
13	POWERGRID	JIRIBAM	18.11.2020	
14	POWERGRID	DIMAPUR	18.11.2020	
15	ASSAM	DULLAVCHERA	NOT RECEIVED	Will be supplied after procurement as intimated by NERTS
16	ASSAM	TINSUKIA	NOT RECEIVED	
17	MEGHALAYA	BYRNIHAT	NOT RECEIVED	
18	STERLITE	PK BARI	NEW PROJECT	
19	STERLITE	SM NAGAR	NEW PROJECT	
20	KMTL	NEW KOHIMA	NEW PROJECT	

NOTE: out of 20 Nos. of DCDs, 17 Nos. distributed and rest 3 Nos. will be clubbed with 2nd phase of distribution list

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	METER TYPE	FEEDER NAME	REMARKS	REMARKS TO BE NOTED AT OCCM	REFERENCE
1	ASSAM	SONABIL	NP-5795-A	LNT	SONABIL END OF 220 kV BALIPARA-1 FDR	SEM OUT OF ORDER		170th OCC-New meter list
2	ASSAM	HAFLONG	NIL		HAFLONG (AS) END OF HAFLONG PG	NO METER		170th OCC-New meter list
3	MANIPUR	TIPAIMUKH	NP-8615-A		TIPAIMUKH END OF AIZAWL	DATA NOT SEND		
4	MANIPUR	TIPAIMUKH	NP-8618-A		TIPAIMUKH END OF JIRIBAM	DATA NOT SEND		
5	MIZORAM	ZUANGTUI	NIL		ZUANTUI END OF 132 kV MELRIAT	NO METER		170th OCC-New meter list
6	MIZORAM	LUNGMUAL	NIL		LUNGMUAL END OF 132 kV AIZAWL	NO METER		170th OCC-New meter list
7	OTPC	PALATANA	NP-8382-A	LNT	PALATANA ICT-HV SIDE	MALFUNCTION		170th OCC-2nd list
8	OTPC	PALATANA	NP-7602-A	LNT	PALATANA ST-1	MALFUNCTION		170th OCC-2nd list
9	OTPC	PALATANA	NP-7584-A	LNT	PALATANA ST-2	MALFUNCTION		170th OCC-2nd list
10	OTPC	PALATANA	NP-6855-A	LNT	PALATANA END OF 400 KV SILCHAR-2 FEEDER	MALFUNCTION		
11	OTPC	PALATANA	NP-5799-A	LNT	PALATANA GT-1	MALFUNCTION		
13	POWERGRID	JIRIBAM	NIL		JIRIBAM_PG TRF FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
14	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 1 HV SIDE	NO STANDBY METER		170th OCC-New meter list
15	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 2 HV SIDE	NO STANDBY METER		170th OCC-New meter list
16	POWERGRID	IMPHAL	NIL		IMPHAL TRF 1 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
17	POWERGRID	IMPHAL	NIL		IMPHAL TRF 2 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		170th OCC-New meter list
18	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-1	NO STANDBY METER		170th OCC-New meter list
19	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-2	NO STANDBY METER		170th OCC-New meter list
20	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 1 HV SIDE	NO STANDBY METER		170th OCC-New meter list
21	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 2 HV SIDE	NO STANDBY METER		170th OCC-New meter list
22	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 HV SIDE	NO BOTH MAIN & STANDBY METER		
23	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 LV SIDE	NO BOTH MAIN & STANDBY METER		
24	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 HV SIDE	NO BOTH MAIN & STANDBY METER		
25	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 LV SIDE	NO BOTH MAIN & STANDBY METER		
26	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-3 LV SIDE	NO STANDBY METER		
27	POWERGRID	SILCHAR	NP-8661-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-I	LINE METER		170th OCC-2nd list
28	POWERGRID	SILCHAR	NP-8561-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-II	LINE METER		170th OCC-2nd list
29	POWERGRID	SILCHAR	NP-8571-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-1	LINE METER		170th OCC-2nd list
30	POWERGRID	SILCHAR	NP-8570-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-2	LINE METER		170th OCC-2nd list
31	POWERGRID	SILCHAR	NP-8659-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -1	STANDBY METER		170th OCC-2nd list
32	POWERGRID	SILCHAR	NP-8660-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -2	STANDBY METER		170th OCC-2nd list
33	POWERGRID	SILCHAR	NP-8662-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-1	LINE METER		170th OCC-2nd list
34	POWERGRID	SILCHAR	NP-8663-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-2	LINE METER		170th OCC-2nd list
35	POWERGRID	MISA	NIL		400/220 kV MISA ICT-2 HV SIDE	NO STANDBY METER		
36	POWERGRID	MISA	NP-8608-A	ELSTER	MISA END OF 220kV MARIANI(PG) FDR	LINE METER		170th OCC-2nd list
37	POWERGRID	MISA	NP-8643-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -1	LINE METER		170th OCC-2nd list
38	POWERGRID	MISA	NP-8640-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -2	LINE METER		170th OCC-2nd list
39	POWERGRID	MISA	NP-8599-A	ELSTER	MISA 400/220kV 315MVA ICT-I (LV SIDE)	STANDBY METER		170th OCC-2nd list
40	POWERGRID	MISA	NP-8638-A	ELSTER	MISA 400/220kV 315MVA ICT-II (LV SIDE)	STANDBY METER		170th OCC-2nd list
41	POWERGRID	BALIPARA	NP-8655-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -1	LINE METER		170th OCC-2nd list
42	POWERGRID	BALIPARA	NP-8653-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -2	LINE METER		170th OCC-2nd list
43	POWERGRID	BALIPARA	NP-8654-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -3	LINE METER		170th OCC-2nd list
44	POWERGRID	BALIPARA	NP-8585-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -4	LINE METER		170th OCC-2nd list
45	POWERGRID	BALIPARA	NP-8594-A	ELSTER	BALIPARA END OF MISA FDR-1	LINE METER		170th OCC-2nd list
46	POWERGRID	MARIANI	NP-4524-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-1	LINE METER		170th OCC-2nd list
47	POWERGRID	MARIANI	NP-4509-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-2	LINE METER		170th OCC-2nd list
48	POWERGRID	MARIANI	NP-8591-A	ELSTER	MARIANI(PG) END OF 220kV MISA FDR	LINE METER		170th OCC-2nd list
49	POWERGRID	MARIANI	NP-8596-A	ELSTER	MARIANI(PG) END OF 220 KV KATHALGURI	STANDBY METER; DATA NOT CONVERTED		169TH OCCM-1st LIST
50	POWERGRID	MOKOKCHUNG	NP-4510-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-1	LINE METER		170th OCC-2nd list
51	POWERGRID	MOKOKCHUNG	NP-4516-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-2	LINE METER		170th OCC-2nd list

LIST OF 2nd PHASE OF DCD DISTRIBUTION FROM NEWLY PROCURED 10 NOS. DCDs				
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	REMARKS	REMARKS (TO BE NOTED IN OCCM)
1	ASSAM	DULLAVCHERA	As decided in 1st phase of DCD distribution	
2	ASSAM	TINSUKIA		
3	MEGHALAYA	BYRNIHAT		
4	Ar. PRADESH	TENGA	170TH OCC-NEW METER/DCD LIST	
5	Ar. PRADESH	DEOMALI	NEVER SEND DATA	
6	ASSAM	UMRANGSOO (UMR)	NEVER SEND DATA	
7	ASSAM	MARIANI (AS)	NERTS NEW MARIANI SENDS DATA	
8	ASSAM	HAILAKANDI	NERTS BADARPUR SENDS DATA	
9	ASSAM	SRIKONA	NERTS SILCHAR SENDS DATA	
10	ASSAM	PANCHGRAM	NERTS BADARPUR SENDS DATA	
11	ASSAM	BOKAJAN	NERTS DIMAPUR SENDS DATA	
12	ASSAM	PAVOI	NERTS BNC SENDS DATA	
13	ASSAM	PAILAPOOL	NERTS JIRIBAM SEND DATA	
14	MEGHALAYA	LUMSHNONG	NERTS KHLEIRIAT SENDS DATA	
15	MEGHALAYA	KHLEIRIAT	NERTS KHLEIRIAT SENDS DATA	
16	NAGALAND	SANIS	NEVER SEND DATA	
17	MIZORAM	SIHMUI	NEW LOCATION	
18	MANIPUR	THOUBAL	NEW LOCATION	
19	MANIPUR	TIPAIMUKH	NEVER SEND DATA	
20	TRIPURA	PKBARI	NERTS KUMARGHAT SEND DATA	
21	TRIPURA	SM NAGAR	NERTS SENDS DATA	
22	TRIPURA	AMBASSA	METER NOT AVAILABLE	
23	TRIPURA	BUDHJUNGNAGAR	STERLITE SENDS DATA	
NOTE: Out of 23 Nos. of DCD requirement, 11 Nos. of Locations covered by NERTS & 1 No. location covered by Sterlite.				