भारत सरकार Government of India
विद्युत मंत्रालय Ministry of Power
उत्तर पूर्वी क्षेत्रीय विद्युत समिति
North Eastern Regional Power Committee
एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

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Website: www.nerpc.nic.in

No. NERPC/SE (O)/OCC/2020/***444-480*** Dated: 28th August, 2020

To,

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. Chief Engineer (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. GM, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
24. Member Secretary, ERPC, 14 Golf Club Road, Tollygunge, Kolkata-700033
25. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
26. Chief Engineer (NPC), NRPC Complex, Katwaria Sarai, SJSS Marg., New Delhi - 110016

Sub: Minutes of 169th OCC Meeting.

Sir/Madam,

Please find enclosed herewith the minutes of 169th OCC Meeting held at "NERPC Conference Hall", Shillong on the **14th August, 2020** for your kind information and necessary action. The minute is also available on the website of NERPC, **www.nerpc.nic.in**.

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

Encl: As above

भवदीय / Yours faithfully,

B. Lyngkhoi
Director/ SE

Copy to:

1. CGM, AEGCL, Bijuli Bhavan, Guwahati - 781001
2. CGM, APGCL, Bijuli Bhavan, Guwahati - 781001
3. CGM, DISCOM, Bijuli Bhavan, Guwahati - 781001
4. Head of SLDC, Me.ECL, Lumjingshai, Short Round Road, Umjarain, Shillong – 793 022
5. Head of SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
6. Head of SLDC, Department of Power, Dimapur, Nagaland
7. Head of SLDC, Electricity Department, Govt. of Manipur, Keishampat, Imphal – 795 001
8. Head of SLDC, Department of Power, Govt. of Mizoram, Aizawl – 796 001
9. Head of SLDC, TSECL, Agartala – 799 001
10. Chief Engineer(Elect), Loktak HEP,Vidyut Vihar, Kom Keirap, Manipur- 795124
11. Addl. GM (EED), NTPC Ltd., Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
12. DGM (C&M), OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi – 110019.

Director/ SE

North Eastern Regional Power Committee

MINUTES OF THE 169th OPERATION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date : 14/08/2020 (Friday)

Time : 10:30 hrs

Venue : "NERPC Conference Hall", Shillong.

The List of Participants in the 169th OCC Meeting is attached at **Annexure – I**

Shri A.K. Thakur, Member Secretary, NERPC welcomed the participants to the 169th OCC meeting. He congratulated the members for completing crucial works inspite of insurmountable difficulties due to Covid19. He informed the forum that the next co-ordination between RPCs & Hon'ble CERC will be held on 26.08.2020 and requested constituents to send their agenda to NERPC Secretariat at the earliest. He wished all the members to actively participate in the meeting for fruitful deliberation.

He then requested Shri B. Lyngkhoi, Director(O&P), NERPC to take up the agenda items for discussion.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 168th MEETING OF OPERATION COORDINATION SUB-COMMITTEE OF NERPC.

The minutes of 168th meeting of Operation Sub-committee held on 20th July, 2020 at Shillong were circulated vide letter No. NERPC/SE (O)/OCC/2019/2674-2711 dated 03rd August, 2020.

The following comments were received from NERTS:

Item D.24: Payment against "Supply and installation of SEMs, DCDs & Laptops to POWERGRID by NER states as decided in various forum of NERPC."

The following was recorded in the minutes of the 168th OCC meeting.

" After detailed deliberation it was decided that:

a. Present bill (raised as per mechanism already decided) to be cleared by all the state utilities.

b. NERTS to immediately resolve any SEM data collection issues i.e. faulty DCD, optical cable, laptop issues.

c. In foreseeable future the entire cost of SEMs, laptop, DCDs and associated items alongwith O&M costs to be booked under PoC mechanism."

Remarks from NERTS for Amendment:

Against decision in item No. **b**

It is stated in Cl.No.6(1)(a) of Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 that - "All interface meters installed at the points of interconnection with Inter-State Transmission System (ISTS) for the purpose of electricity accounting and billing shall be owned by CTU."

As per the mentioned clause, SEMs come under the purview of it. Therefore, SEMs are the property of CTU(POWERGRID) and to be maintained by CTU. Now, DCDs & Laptops alongwith accessories were supplied to NER states as finalized in various NERPC forums on reimbursement basis and no O&M cost was charged/included. Further. during supply of DCDs & laptops to NER states, the materials were in good working condition and taking over/handing over certificate was obtained from each state.

As noted in the minutes, Meghalaya had informed out that few DCD/optical cables were defective and the same were not in working condition. It is to state here that since the ownership of DCD and laptop (& related accessories) lies with the state itself, they are liable to take care of the materials and it is not fair to ask POWERGRID to maintain the same. Hence, it is suggested that this point may be omitted from the minutes.

Clarification of the 169th OCC forum:

CGM, NERLDC clarified that SEMs should not be considered as a standalone item, rather SEM, DCD, laptop, optical cable are composite items as part of metering solution. However, collection and sending of SEM data is the responsibility of the concerned utility in whose premises the SEM resides. The forum requested NERTS to replace the faulty accessories (supplied as part of the raised bill) at the earliest.

Remarks from NERTS:

Against decision in item No. **c**

It is to inform that the bills raised were for the procurement during the period from FY 2011-12 to 2016-17 only. Subsequently, POWERGRID has procured and supplied few

more batches of SEMs, DCDs & Laptops to NER states. Hence, the exact period from when the cost (including O&M charges) will have to be booked under PoC mechanism may be mentioned so that there is no problem during filing petition to CERC.

Clarification of the 169th OCC forum:

The forum clarified that the bills already raised to the state utilities is not to be included in PoC. However, all subsequent SEMs and accessories (including maintenance, replacement cost) shall be billed under PoC mechanism. The cutoff period for replacement of laptops shall be 5yrs.

The Sub-committee confirmed the minutes of 168th OCCM of NERPC with the above modifications as no other comments/observations were received from the constituents.

I T E M S F O R D I S C U S S I O N

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 169th OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**	Line Differential Protection
Ar. Pradesh	Package-I (Diagnostic tools) Materials supplied. P-II (for PLCC & communication) LOA issued. P-III (Substation equipment) Under tendering stage Work delayed due to COVID situation. Station-wise status to be updated	Requisition for second tranche of 60% submitted in June'20.	-	TESG approval awaited	-
Nagaland	All completed except for PLCC package. Delayed due to COVID situation Station-wise status to be updated.	Requisition for second tranche of 60% submitted. Associated documents like CA certificate to be sent.	-	Reply against TESG queries sent except BoD approval.	Lines identified. Under DPR preparation stage.

Mizoram	Completed. 10% remaining claim to be submitted ASAP.	2nd tranche of 60% funds to be disbursed. Final 10% requisition to be submitted immediately.	To reply to TESG queries.	TESG approval awaited.	Lines identified for installation of DPR viz. 132kV Aizawl - Luangmual and 132kV Kawmzawl - Khawiva.
Manipur	Package-II: completed Package-I: WIP Delayed due to COVID situation Station-wise status to be updated.	60% disbursed. Final 10% requisition to be sent immediately.	PSDF approved. NIT to be floated.	TESG approval awaited.	Lines identified. LDP for 132kV Imphal-Imphal and 132kV Jiribm-Jiribam proposed. Under DPR preparation stage.
	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. Station wise status to be updated.	BoD approval for A/obtained. A/C to be opened by 21st August. Requisition for first tranche of funds to be sent immediately.	Study results to be submitted alongwith DPR	TESG approval awaited.	Only single line 132kV 79Tilla to Budhjangn agar. DPR to be prepared.
Assam	LOA issued. WIP, delayed due to COVID situation Station-wise status to be submitted.	First 30% requisition submitted.	-	Under finalization stage for LOA.	Lines identified. Under DPR preparation stage.

Meghalaya	MePTCL Completed in all respects** MePGCL – 10% claim to be submitted ASAP. Station-wise status to be updated.	Final tranche of 10% received.	-	Under finalization stage for LOA.	WIP. Delayed due to COVID situation

Deliberation of the sub-Committee:

Director(O&P), NERPC pointed out the abysmal performance of DoP Ar. Pradesh (R&U scheme), Assam and Tripura (ADMS) i.r.o. requisitioning funds from PSDF. He implored the respective utilities to submit fund requisition at the earliest to avoid diversion of already sanctioned amount.

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

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JULY, 2020

As per the data made available by NERLDC, the grid performance parameters for July, 2020 are given below:

NER PERFORMANCE DURING JULY, 2020

	Energy Met (MU)		w.r.t. Jun,20 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Jun,20 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of energy In Jul,20
States	**Jul-20**	**Jun-20**		**Jul-20**	**Jun-20**		
Ar. Pradesh	56.66	59.77	-5.20	57.01	60.03	-5.03	-0.61
Assam	940.12	873.48	7.63	985.45	896.04	9.98	-4.60
Manipur	83.63	77.27	8.23	84.06	77.67	8.23	-0.51
Meghalaya	163.27	176.46	-7.47	163.27	176.46	-7.47	0.00
Mizoram	56.02	54.58	2.64	56.31	54.97	2.44	-0.52
Nagaland	72.1	67.76	6.40	72.41	68.13	6.28	-0.43
Tripura	240.88	226.5	6.35	240.89	226.56	6.33	0.00
Region	**1612.68**	**1535.82**	**5.00**	**1659.4**	**1559.86**	**6.38**	**-2.82**

	Demand Met (MW)		w.r.t. Jun,20 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Jun'20 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of demand In Jul,20
States	**Jul-20**	**Jun-20**		**Jul-20**	**Jun-20**		
Ar. Pradesh	127	119	6.72	155	145	6.90	-18.06
Assam	1758	1798	-2.22	1839	1798	2.28	-4.40
Manipur	197	201	-1.99	225	220	2.27	-12.44
Meghalaya	321	335	-4.18	321	335	-4.18	0.00
Mizoram	102	101	0.99	102	101	0.99	0.00
Nagaland	147	143	2.80	147	151	-2.65	0.00
Tripura	288	287	0.35	288	287	0.35	0.00
Region	**2828**	**2884**	**-1.94**	**2965**	**2937**	**0.95**	**-4.62**

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	**Jul-20**	**Jun-20**
Total Generation in NER (Gross)	1950.38	1739.31
Total Central Sector Generation (Gross)	1551.66	1387.42
Total State Sector Generation (Gross)	398.722	351.894
Inter-Regional Energy Exchange		
(a) NER-ER	11.96	0.00
(b) ER-NER	189.51	311.06
(c)NER-NR	452.59	470.80
(d)NR-NER	0.00	0.00
© Net Import	-275.04	-159.74

AVERAGE FREQUENCY (Hz)

Month---->	**Jul-20**	**Jun-20**
	% of Time	% of Time
Below 49.9 Hz	2.75	3.50
Between 49.9 to 50.05 Hz	78.20	75.40
Above 50.05 Hz	19.05	21.10
Average	50.01	50.01
Maximum	50.20	50.20
Minimum	49.96	49.72

Deliberation of the sub-Committee:

NER grid performance for the month of July'20 was presented by NERLDC. (Attached at **Annexure-B.2**)

The Sub-Committee noted as above.

C. ITEMS- STATUS REVIEW

C.1 Auto-reclosure issues at Azara:

In 168th OCCM, AEGCL informed that the communication channel mismatch issues still persist. It was decided that shutdown would be availed by AEGCL & NERTS in July'20.

Deliberation of the sub-Committee:

AM, AEGCL informed that the carrier channel link between 400kV Mirza (AEGCL) and 400kV Silchar (PGCIL) was tested on 05.08.2020 jointly by AEGCL and PGCIL during the planned shutdown by NETC and AEGCL.

Carrier Send and Receive wirings have to be rechecked at our end as some issues were found as below:

a. If Silchar sends a carrier, mirza receives it but send a carrier back to silchar as seen by the increment in counter.

b. There are two channels and two codes per channel (Channel 1 code 1 and code 2. Channel 2 code 1 and code 2). Carrier is sent from Mirza end and received at silchar end but it is not being sent by all the codes per channel simultaneously by main 1 and main 2.

The following need to be checked:

(i) The PLCC panel wirings,

(ii) Channel 1 going into disabled mode at times

Subsequently thorough testing of the carrier communication channel has to be done jointly by AEGCL & NERTS.

Sr. DGM (AM), NERTS informed that AEGCL may enlist the support of ALSTOM and any cost involved shall be reimbursed by NERTS.

After detailed deliberation it was decided that NERTS & AEGCL would complete testing by Aug'20.

The Sub-Committee noted as above.

Action: AEGCL, NERTS

C.2 Implementation of SPS-2&4 related to Bangladesh

It was agreed during the special meeting held on 20.02.20 that for SPS 2 and SPS 4 related to Bangladesh, the tripping can be done at Indian side. The issue was also discussed during the outage coordination meeting held on 22.05.20 via VC.

It was expected that these two schemes out of the four schemes can be implemented on immediate basis. This would also facilitate in availing the shutdowns of 400 kV Silchar – Palatana I or II without reduction in generation of Palatana by keeping SPS-2 (India) in operation.

In 167th OCCM, Sr.DGM(AM), NERTS informed that cabling for SPS-2 & 4 has been completed at Surjamaninagar and Palatana. The final connection and testing shall be done during Shutdown proposed by Bangladesh on 22.06.2020/23.06.2020.

In 168th OCC meeting, Sr.DGM(AM), NERTS informed that testing personnel were deputed from Kumarghat to Agartala but testing could not be done as scheduled on 22.06.20 / 23.06.20 due to some labour strike at Palatana. Testing engineer shall again be deputed on 20.07.20.

Deliberation of the sub-Committee:

Sr.DGM(AM), NERTS informed that the scheme was implemented on 8th August,2020. NERLDC informed that on 10th August,2020 SPS-4 for Bangladesh successfully operated upon tripping of the two ICTs at Palatana GBPP and avoided Grid Disturbance in Tripura System. The brief sequence of events as narrated is given below:

Event	Time(hr:min:sec:ms)
Opening of 132kV Palatana-Udaipur	19:23:19:000
Tripping of ICT-2 at Palatana	19:23:29:160
Tripping of ICT-1 at Palatana	19:23:34:560
Disconnection of Bangladesh load due to SPS operation	19:23:34:680

Director(O&P), NERPC congratulated NERTS-POWERGRID, TSECL and OTPC for successful implementation of the scheme. After detailed deliberation it was decided that SPS-1&3 for Bangladesh would be taken up for discussion in the next Sub-group meeting.

Further, NERLDC informed that delayed opening of Y-pole at Udaipur for 132 kV Udaipur-Palatana line may have been the reason for tripping of the 220/132 kV ICT-2 at Palatana. Also, it was informed that continuous SPS-4 signal was received at Surjamaninagar from Palatana due to which restoration of Bangladesh Load was possible only after switching off SPS-4 for Bangladesh. Regarding deficiencies/lacunae in SPS-2&4 the forum referred the matter to the next Sub-group meeting for detailed analysis.

The Sub-Committee noted as above.

Action: NERPC.

C.3 <u>Restoration of Assets damaged at Kopili HEP due to failure of Penstock:</u>

As per decisions in previous meeting(s):

(i)Detailed ownership and scope of work finalized in the 168th OCC meeting

(ii)Immediate restoration of one 220kV line, one 132kV line and 160MVA ICT at Kopili S/S via AIS by NERTS.

<u>Deliberation of the sub-Committee:</u>

Sr. Manager, TSECL stated that for the benefit of beneficiaries the ownership of bays/elements at Kopili Sub-station should not change. He opined that the restoration works may be completed by NERTS with corresponding amount reimbursed by NEEPCO.

DGM, NEEPCO stated that the following:

(i) The present handing over of ownership of switchyard bays (except unit bays) was decided by the Special Task Force and 167th OCC, 168th OCC.

(ii) Since Kopili system has become very complicated w.r.t. ownership due to varying timeline of commissioning of different bays/elements, the present simplified arrangement has been agreed upon.

After detailed deliberation the following were decided:

(i) Restoration works of at least one 220 kV Line, one 132 kV Line and one 160 MVA ICT to commence immediately.

(ii) Cost estimation for restoration of entire switchyard with booking in PoC vis-à-vis deposit work booked to tariff to be deliberated in next CCM of NERPC.

The Sub-Committee noted as above.

Action: NERTS, NERPC.

C.4 Difficulties faced in management of high voltage scenario in Upper Assam System

Decisions regarding measures to control over voltage in Upper Assam System is difficult due to non-availability of real time MVAR support from Namrup and Lakwa. This causes opening of 220 kV AGBPP-Mariani (AS) and 220 kV Mariani- Namrup lines as a precautionary measure. SLDC Assam is requested to take necessary actions regarding the following:

a. Real time SCADA data availability from state owned generating stations

b. Namrup and Lakwa should deliver maximum MVAR support as per capability curve limit

In 168th OCCM AGM, SLDC, AEGCL informed that Old LTPS and NTPS generating station data will be reporting through old RTUs as they are not part of SAS upgradation project. Also for additional analog/digital data integration as demanded by NERLDC additional MFM and RTU installation at Generating station control room (both LTPS and NTPS) is required and also to bring the RTU data to PLCC room located at switchyard control room RS232 to RS485 converters will be required (zpc proposal already submitted for procurement of the converters). Communication Division Jorhat shall carry out the works with assistance from APGCL authority. The above works are hindered due to prevailing lockdown.

For LRPP and NRPP the commissioning of Remote SAS gateway is pending which is under the scope of APGCL. These works are also hindered by lockdown due to virus outbreak as per APGCL. He assured that both the works are being expedited and tentative completion is Aug'20.

Deliberation of the sub-Committee:

AGM(Communications), AEGCL informed that the SAS gateway commissioning works is ongoing, however the same has been delayed of late due to the COVID situation. He further informed that the tentative completion is Oct'20.

The Sub-Committee noted as above.

Action: AEGCL.

C.5 Status update of important grid elements under prolonged outage impacting system operation:

The status as updated in the 169th OCC meeting as follows:

Sl. No	Element	Owner	Remarks	Latest status
1	63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	-	10% funds received. Tendering in process.
2	132kV Dimapur - Imphal	NERTS	Out since 25.07.2018	Pending works: 2 nos foundation, 2 nos tower erection, 2 span conductor stringing. By 40 days.
3	220kV Sonabil-Samaguri-I	AEGCL	Out since 14.01.2019	Sep'20
4	132kV Srikona-Panchgram	AEGCL	Out since 14.01.2019	Sep'20
5	63MVAR L/R for 400kV Palatana-SilcharCkt-I	OTPC	Out since Apr'19	Oct'20
6	132kV Jiribam – Rengpang	MSPCL	-	Oct'20
7	220KV-Agia-BTPS-I	AEGCL	Out since 15.03.2020	Aug'20
8	132KV-Pare-Itanagar-1	Ar Pradesh	Out since 12.07.2020	By 15.10.2020
9	132KV-Ranganadi-Itanagar-1	Ar Pradesh	Out since 12.07.2020	By 15.10.2020

The Sub-Committee noted as above.

Action: All utilities as above.

D. I T E M S FOR DISCUSSION

D.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	719.6	25	**0**	-
Kopili			**0**	Will be "0" until further intimation.
Doyang	322.75	32	**1.172**	27
Loktak	768.51	250	**2.487**	101

The outage of other generating stations may be approved considering the present water levels in reservoirs.

Deliberation of the sub-Committee:

NERLDC highlighted that due to unavailability of Kopili HEP and Khandong 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.

D.2 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:

In 160th OCCM NERLDC presented a report on the shutdown approval timeline(s) followed in OCC of other regions. It was observed that M+2 month's shutdown was

approved in Mth month. For eg. shutdowns from 01.11.2019 to 30.11.2019 is approved in the OCC of September, for which requisition has to be submitted by 5th of September,2019 i.e. 5th day of the Mth Month, M being the month in which OCC Meeting is held. By following this practice there will be no overlapping of shutdown dates as happening at present. Members unanimously agreed to the practice in other RPCs. In order to further ease the process of shutdown planning by the constituents, it was agreed in subsequent OCC meetings that shutdown should be discussed and approved for month of M+1 (instead of M+2) in Mth Month OCC meeting.

Deliberation of the sub-Committee:

The sub-Committee discussed and approved the transmission line outages proposed by Constituents for September, 2020 which is available in the website of NERPC.

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

D.3 Estimated Transmission Availability Certificate (TAC) for the month of July,2020:

NETC and POWERGRID have submitted the outage data for the month of July,2020. So the attributability of outage of the said elements may please be finalized.

The Sub-Committee noted as above.

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

In the Special meeting held on 24.07.2020 with participation of NERLDC, P&ED Mizoram, NERTS at NERPC Shillong the following were decided regarding charging of 132kV Sihhmui S/S:

- Present condition of idle charging from Melriat end as anti-theft measure to remain in place. For charging of 132 kV Bays of Melriat – Sihhmui D/C at Sihhmui Substation, 132 kV Sihhmui Bus and 132/33 KV, 12.5 MVA Transformer at Sihhmui Substation, fresh application is to be applied to NERLDC and approval to be obtained.
- NERTS-POWERGRID to apply afresh for charging clearance/First Time Charging and Trial operation certificate for 132kV Melriat-Sihhmui including bays at both ends after obtaining clarification from NERPCTP, CEA.

Deliberation of the sub-Committee:

Director(O&P), NERPC informed the forum that NERTS, P&ED Mizoram are yet to submit the conclusions of their discussions regarding tariff. He requested both P&ED Mizoram and NERTS to kindly expedite the process. The forum deferred the item for discussion in the next OCC meeting.

The Sub-Committee noted as above.

Action: P&ED Mizoram, NERTS.

D.5 Continuous shutdown of 220 kV Bus Coupler & 4 x 33 MVA 220/132kV ICT-1 along with associated bays w.e.f 06/09/2019 and shifting of 01 set of 220 kV Bus PT at Dimapur w.e.f 02/09/2019 at Dimapur Substation.

Decisions/deliberation in previous meeting(s) and Special meeting with Engineer-in-Chief, DoP Nagaland & Chairman, TCC on 19.03.2020:

- Continuous Shutdown of the 220kV/132kV 4x 33 MVA ICT – 1, 220 kV Bus coupler and ICT-1 bays (Bay No.203 & 204) till erection, testing and commissioning of the new GIS system - required by NERTS
- Upgradation of 132kV Karong-Mao completed and presently upgraded 132kV Karong-Kohima (panther conductor) available.
- Pre-requisites for shutdown approval: 132kV Imphal-Kohima-Dimapur connectivity (Breaker NO at 132kV Imphal-PG), requirement of 85-90MW for Dimapur load center.
- No SPS shall be implemented for the shutdown.

Deliberation of the sub-Committee:

Director(O&P), NERPC through a presentation addressed the issues concerning the shutdown of 132kV Dimapur-Kohima and associated cross-jumpering at Kohima. He further stated that this would enable a redundant path for power supply to Dimapur. It was agreed that at any point of time only Two Breakers (either Dimapur & Kohima or Dimapur & Imphal) shall be in closed condition post the cross-jumpering works of 132 kV Dimapur - Kohima. This new configuration will remain for approximate 18 months or till completion of Dimapur S/s upgradation works or till completion of restoration works for 132 kV Dimapur – Imphal whichever is earlier. NERLDC stated that 132 kV Dimapur – Kohima is not a stable line as per recent tripping records. Thus, restoration of the original 132 kV Dimapur – Imphal line should be done at the earliest. NERTS assured that until the restoration of the original 132 kV Dimapur – Imphal line, transmission availability shall not be claimed for the line.

NERLDC appreciated the PPT of NERPC and finally agreed to allow the shutdown of Dimapur ICT-1 & Bus- Coupler.

After detailed deliberation the forum approved the shutdown of 132kV Dimapur-Kohima on 16.08.2020 and the continuous shutdown of ICT-I & 220kV Bus-Coupler at Dimapur subsequently.

The Sub-Committee noted as above.

Action: NERTS.

D.6 RGMO analysis for events dated 11th June, 2020

In 168th OCC meeting, NERLDC presented the RGMO Analysis for event dated 11th June 2020 and the following was highlighted by NERLDC:

- Palatana GTGs gave positive response initially but could not sustain the same
- Palatana STGs response reduced immediately after oscillation
- BgTPP Unit 2 response immediately reduced after initial positive response
- RHEP unit -1 gave a negative response
- Very less or negligible response from all generators except Loktak Unit-2 which provided response equal to desired response

Deliberation of the sub-Committee:

AGM, BgTPP, NTPC informed that all the three units have been tuned in July'20.

Sr. Manager, OTPC informed that presently discussions are ongoing with OEM for anomaly in unit response.

DGM, NEEPCO informed that BHEL was checking the AGC online for Unit I of RHEP and so the RGMO was kept off. NERLDC stated that prior to doing any such activities; all generating stations must inform NERLDC control room.

NERLDC informed that the DAS data are not being obtained from all generating stations after request email from NERLDC. The forum requested all generating stations to promptly furnish DAS data as and when it is solicited by NERLDC.

The Sub-Committee noted as above.

Action: OTPC.

D.7 Shutdown of OTPC Module-I:

It is proposed to have shutdown of OTPC Palatana Unit-1 in the first week of Oct'20 for 8 days for HRSG-1 license renewal. In 168th OCCM Sr. Manager, TSECL requested that the shutdown be deferred by one month in view of Puja. Sr. Manager, OTPC informed

that since license renewal is a periodic activity and is completed in a short time frame, the shutdown may be allowed in the proposed time frame so that uninterrupted power supply can be ensured in the Puja period.

Deliberation of the sub-Committee:

Sr. Manager, TSECL once again reiterated the request of TSECL to defer the shutdown after Puja if the work cannot be completed in first week of Oct'20 firmly. Sr. Manager, OTPC informed that further consultation would be required with Boiler Inspector. He agreed to revert back in the next OCC meeting.

The Sub-Committee noted as above.

Action: OTPC

D.8 Status of NERPSIP, Comprehensive Scheme of Transmission & Distribution System in Arunachal Pradesh & Sikkim and TBCB projects:

The disturbances due to weak connectivity and radial transmission systems of NER grid may be avoided with the completion of various transmission projects which are being implemented in NER under NERPSIP, Comprehensive Scheme of Transmission & Distribution System in Arunachal Pradesh & Sikkim and TBCB projects. Implementation of these projects may be expedited in order to reduce occurrences of these disturbances.

In 168th OCCM, ED, NERLDC stated that under NERPSIP and Comprehensive Scheme many transmission elements shall be integrated into the grid, so monitoring the status of such projects are essential. He requested POWERGRID-NERPSIP to submit the quarterly status report to NERLDC/NERPC. It was decided that representative(s) from NERPSIP-POWEGRID and respective state utilities (dealing with the project) shall be invited henceforth to OCC meeting for updating the forum about progress of works.

Deliberation of the sub-Committee:

Director(O&P), NERPC informed the forum that POWERGRID-NERPSIP could not attend the meeting due to lockdown measures. He further informed that quarterly report for Comprehensive Scheme i.r.o. Arunachal Pradesh has been received by NERPC. The state utilities unanimously deplored the delay in completion of NERPSIP and Comprehensive Scheme. The forum decided to keep this as an agenda item for subsequent meetings and requested presence of representatives from POWERGRID-NERPSIP in the next OCC Meeting.

The Sub-Committee noted as above.

Action: POWERGRID.

D.9 Capitalization of 80MVAR Bus Reactor at Misa.

In 168th OCCM CGM(AM), NERTS informed that 420kV 80MVAR Bus Reactor has been installed and charged at 400kV Misa S/Sn as part of Misa-Mariani line upgradation. However, the 220kV line is yet to be upgraded. He stated that the reactor may be capitalized if there is grid requirement. After detailed deliberation the forum requested NERLDC to assess the present requirement of the Bus Reactor.

Deliberation of the sub-Committee:

NERLDC informed that after detailed studies it has been found that 400kV Misa Bus voltage is 424kV in Lean Hydro and 421kV in Peak Hydro season without Bus Reactor. However, with 80MVAR Bus Reactor at Misa there is 8kV reduction in both the cases.

The forum agreed in-principle to the commissioning and capitalization of the Bus Reactor. The matter was referred to the next NERPCTP for approval.

The Sub-Committee noted as above.

Action: NERPC/NERTS.

D.10 SEMs to be Procured.

In 168th OCCM NERTS informed that M/s L&T has confirmed completion of manufacturing of all the SEMs and has submitted the test reports. Based on the test reports, POWERGRID is proposing waiver of pre-dispatch inspection.

Deliberation of the sub-Committee:

Sr.DGM(AM), NERTS informed that 50 out of the total 100SEMs have been received. The balance SEMs alongwith DCDs to reach Misa by Aug'20.

The Sub-Committee noted as above.

Action: NERTS.

D.11 SEM time drift:

NERLDC may please present the time drift report.

Deliberation of the sub-Committee:

NERLDC informed that present SEMs having time drift cannot be corrected manually and have to be replaced. List of 22 SEMs has been provided to POWERGRID for replacement. The list is also attached as **Annexure D.11**.

The Sub-Committee noted as above.

Action: NERTS.

D.12 Accurate Load forecasting by SLDCs as per IEGC c1.5.3 for better system operation:

RMSE for actual data in comparison to that forecasted data by the states for the month of Jun'20is as follows:

Day	Ar. Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median (Jun'20)	14	12	8	23	27	10	17

Deliberation of the sub-Committee:

NERLDC requested all the utilities to take necessary action for reduction in RMSE error below 5%.

The Sub-Committee noted as above.

Action: all SLDCs.

D.13 Status of commissioning for Upcoming projects:

(a) Kalpataru Power Transmission Limited (KPTL) was selected based on tariff based competitive bidding to execute the transmission system for Kohima – Mariani Transmission Limited in respect of NERSS-VI on BOOM basis. The scope of the project was (a) Establishment of 400/220 kV, 7X167 MVA (Single Phase including one spare) S/S at New Kohima, (b) Imphal-New Kohima 400 kV D/C line, (c) New Kohima-New Mariani 400 kV D/C line. In the 5th SCM of NER, it was decided that New Kohima (400/220 kV TBCB) – New Kohima (220/132kV - Nagaland) 220 kV D/c line would be implemented by Nagaland, CTU (POWERGRID) would provide 2 no. 400 kV line bays at New Mariani S/s for termination of New Kohima – New Mariani 400 kV D/C line and CTU (POWERGRID) would up-grade New Mariani substation to 400/220 kV with 2x500 MVA transformer along with associated bays.

NERLDC vide letter no NERLDC/SOII/343 dated 23.07.20 requested POWERGRID to intimate the status of upgradation of New Mariani Substation to 400/220 kV with 2x500 MVA Transformer along with associated bays & elements. Also, NERLDC vide letter NERLDC/SOII/344 dated 23.07.20 to the Commissioner, Power and Information Technology & Communication had requested to intimate the status of 220 kV New Kohima (KMTL)- New Kohima (DoP Nagaland) D/C & 220/132/33 kV New Kohima S/S.

(b) M/S Sterlite selected based on tariff based competitive bidding is constructing several transmission lines which would provide alternate evacuation path for Palatana GBPP and also connectivity of Silchar S/S with Misa S/S.

Certain elements not under the scope of Sterlite are crucial for enabling proper utilization of upcoming system.

Some such elements are:

132kV SM Nagar (Sterlite)-SM Nagar (TSECL)

132kV PK Bari (Sterlite)-PK Bari (TSECL)

400 KV Connectivity between Palatana-SM Nagar

Deliberation of the sub-Committee:

CGM, NERLDC stated that as per discussions of NERLDC with M/s STERLITE and M/s KPTL, TBCB projects are under advanced stage of completion. In this respect if 400kV Imphal-New Kohima-Mariani link and 400kV P.K.Bari-Surjamaninagar is commissioned then the assets would remain unutilized without commissioning of downstream links by DoP Nagaland and TSECL respectively.

Director(O&P), NERPC informed that 220kV New Kohima-Zhadima is under review by the Govt. of Nagaland.

Sr. Manager, TSECL informed that 132kV Surjamaninagar-Surjamaninagar D/C and 132kV P.K.Bari-P.K.Bari D/C is to be constructed by TSECL and agreed to revert back with the latest status at the earliest.

Also, NERTS assured that latest status of works pertaining to 400 kV Palatana – Surjamaninagar (Sertlite) and 400 kV Silchar – P.K bari (Sterlite) D/C shall be furnished at the earliest.

The Sub-Committee noted as above.

Action: DoP Nagaland, TSECL, NERTS.

D.14 Idle Charging of Transmission Element and Request for Issuance of Trial Operation Certificate

As per Clause no 5(2) (b) of CERC (Terms and Conditions of Tariff) Regulations, 2019, it is mentioned about Trial operation certificate issued by the concerned RLDC for charging an element with or without electrical load.

However, as per Clause no 6.3 A (5) of CERC (Indian Electricity Grid Code) Regulations, 2010, Trial run and Trial operation in relation to a transmission system or an element thereof shall mean successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power, and communication signal from the sending end to the receiving end and with requisite metering system, telemetry and

protection system in service enclosing certificate to that effect from concerned Regional Load Despatch Centre.

It may be mentioned that TBCB projects are under commissioning stage in NER where the ownership of a transmission line along with associated bays belongs to more than one utility (Say, 400 kV Imphal – New Kohima D/C, 400 kV Silchar(PG) - Misa(PG) Ckt-D/C, etc). If all concerned utilities are not ready at their respective ends, there will be no active power flow and communication signal from sending end to receiving end. On application by the concerned utility who has completed his part to charge the respective asset as per provision in CERC (Terms and Conditions of Tariff) Regulations, 2019, RLDC may issue the certificate of idle charging of the concerned asset for the requested period after verification of the submitted documents.

Deliberation of the sub-Committee:

NERLDC stated that for upcoming projects in NER under TBCB esp. 400kV Imphal-New Kohima- New Mariani project is in advanced stage of completion but bays at Mariani is not yet ready. In this scenario if M/s KPTL applies charging clearance/ToC then NERLDC would be compelled to give ToC without electrical load.

Members were of the opinion that for 400kV Imphal-New Kohima D/C line there is no impediment for giving ToC, however for 400kV New Kohima- New Mariani D/C line, completion of line construction for all sections cannot be verified without data availability from New Mariani. In this event the forum requested NERLDC to desist from giving ToC, however idle charging permission as anti-theft measure may be accorded. Further all the beneficiary states in unison stated that giving ToC would enable the transmission utility to file tariff under PoC mechanism, which is undesirable as without completion of New Kohima downstream and bays at New Mariani the entire 400kV Imphal-New Kohima- New Mariani D/C line would remain unutilized.

NERLDC clarified that due to non-completion of downstream and bays at New Mariani, tariff for 400kV Imphal-New Kohima-New Mariani D/C will not be recovered through PoC mechanism and the element(s) will not be included in PoC unless there is actual power flow.

The Sub-Committee noted as above.

Action: NERLDC.

D.15 First Time charging of Intra-state elements:

NERLDC vide Letter no: NERLDC/SOII/353 dated 29.07.2020 had mentioned the requirements of NERLDC during First Time Charging of Intra- State Elements.

It was mentioned in the letter that SLDCs may follow the procedure issued by NLDC which is available at NERLDC website (https://www.nerldc.org/first-time-charging-procedure/)for Intra – state elements as well for bringing uniformity throughout the region for smooth operation of power system and the interest of grid security.

In addition, SLDCs must ensure telemetry data and communication system and also ensure healthiness of the protection system in line with various provisions in the Regulations**.**

In view of the same, all the SLDCs are requested to submit the documents as per the Letter **NERLDC/SOII/353 dated 29.07.2020** in FTC portal (http://103.7.131.237:8080/FTC_NERLDC/) for confirmation from NERLDC prior to issue of first time charging clearance by SLDC in order to ensure availability of real time data for smooth grid management and also ensure grid security and reliability.

Deliberation of the sub-Committee:

NERLDC mentioned the importance of telemetry data and healthiness of protection system in line with various regulatory provisions for real time grid management and for ensuring system security. Further, NERLDC stated that only minimum requirement pertaining to telemetry and protection shall be requested from state prior to FTC in comparison to several annexure/documents requested from regional entities.

Sr. Manager, TSECL opined that intra-state elements are in the jurisdiction of respective SLDCs, so requirement of consent from NERLDC is not necessary.

After detailed deliberation it was decided that FTC of intra-state elements would be as per procedure decided by respective SLDCs. However, data may be shared with NERLDC.

The Sub-Committee noted as above.

Action: all SLDCs, NERLDC.

D.16 Regarding – Ensuring healthiness of transmission network involving Eastern region and North Eastern region for safe and reliable evacuation of high hydro generation during ongoing monsoon season:

Due to heavy rainfall in northern part of Bihar, 400/220 kV Dharbanga substation has flooded since morning hours of 28th Jul'20. For safety purpose, all lines from aforesaid

substation have been manually switched off since 11:31 Hrs on 28.07.20. Any contingency in the nearby substation may endanger the connectivity of North Eastern Region, Bhutan, Sikkim and Northern part of West Bengal state and rest of the system.

All planned shutdown related to Alipurduar S/S may be differed and all the concerned utilities are advised to be in alert mode to take swift action in case of any further tripping and depletion of network.

Deliberation of the sub-Committee:

NERLDC informed that the Present Situation is normal at Dharbanga substation. Hence, the above warning has been withdrawn.

The Sub-Committee noted as above.

D.17 Tripping of 220kV BTPS-Salakati D/C on 05.08.2020:

220 kV BTPS – Salakati 2 line tripped due to unbalance current at 20:33 Hrs on 05.08.20. Subsequently, 220 kV BTPS – Salakati1 line tripped on over current.

- AEGCL is requested to intimate the status of SPS related over loading of 220 kV BTPS – Salakati D/C
- Reconductoring of BTPS- Salakati 220kV D/c line with HTLS conductor (ampacity of single HTLS shall be 1596A, which is equivalent to Twin ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature) along with requisite modification in bay equipment at both ends was agreed in 2nd NERSCT. Status of this project may be updated.

Deliberation of the sub-Committee:

After detailed deliberation the forum deferred the analysis of the tripping to the next Sub-group meeting. Regarding reconductoring of 220kV BTPS-Salakati D/C, CGM(AM), NERTS informed that it has to be bundled with some other project. He agreed to revert back with exact details in the next OCCM. Further it was informed that SPS related over loading of 220 kV BTPS – Salakati D/C will be implemented by Sep 2020.

The Sub-Committee noted as above.

Action: NERTS, NERPC, AEGCL.

D.18 Details of upcoming Renewable Energy Sources (RES) in NER:

In view of the penetration of the Renewable Energy Sources (RES) in the NER grid as per upcoming projects, proper planning and system study becomes critical from grid operators point of view for ensuring the grid security and reliability. To facilitate the

same, it is requested to furnish the following details of planned RE generation interfacing in your respective states latest by 31.08.2020.

a) Nodal Person for RE Project (Name, Designation, Email ID, Communication Address Phone number)
b) Details of Implementing Agency
c) Name and Voltage level of node at which RES will be connected
d) Type of Renewable Source and Installed Capacity
e) Locations (Latitude and Longitude) and
f) Target date of completion

Deliberation of the sub-Committee:

NERLDC informed that P&ED Mizoram has already furnished the details and requested all the state utilities to submit the details at the earliest.

The Sub-Committee noted as above.

Action: all generating utilities.

D.19 Furnishing of D-2 generation forecast on daily basis:

In 164th OCC Meeting (Agenda D.22) it was approved that all ISGS of NER shall furnish their generation availability on D-2 basis i.e. 2 days ahead basis. This has been useful not only for calculation of TTC/ATC but also for pre-planning of grid operation. Thus, for better planning it is now proposed that all other generating stations of NER should also furnish the D-2 generation forecast on daily basis. SLDCs may kindly coordinate and provide the said generation data on D-2 basis daily.

Deliberation of the sub-Committee:

NERLDC requested all the generating utilities to submit generation forecast on D-2 basis.

The Sub-Committee noted as above.

Action: all generating utilities.

D.20 Swapping of unit under RSD with on-bar unit:

As per guidelines issue by NERLDC regarding taking unit of ISGS generating station under RSD, draft guidelines have been discussed in OCC and most of the procedure has been agreed by all stakeholders in line with CERC guidelines. In this guideline, NERLDC has also proposed the procedure of swapping of unit under RSD with on-bar unit. In this regard trial swapping of units also performed by BgTPP. Meanwhile, RLDC has issued a final guideline for the same. However, as a generating station we have few

limitations in terms of machine reliability for extra startups. Hence, we would like to discuss our concern regarding unit swapping in your forum.

Deliberation of the sub-Committee:

GM, NTPC informed that each swapping entails additional cold startup of the machine, this affects life of the machine which may lead to early overhauling/replacement of the machine. He requested that Swapping of units may be dropped from the RSD procedure as per prevalent practice in other regions.

The forum also noted the additional cost to the beneficiaries as part of Compensation Mechanism due to additional RSDs.

After detailed deliberation it was decided that(i)NTPC would write to NERPC with a detailed description of the technical difficulties, (ii)Thereafter beneficiary states would submit comments, (iii)matter would be taken up in the next OCCM for deliberation, (iv)present RSD procedure and guidelines as approved by the forum in the 168th OCCM to remain in force till further discussion in next OCCM.

The Sub-Committee noted as above.
Action: NTPC, all DISCOMS, all SLDCs.

D.21 Imposition of load restriction on Tripura:

On 29th July NERLDC imposed sudden restriction on drawal of Tripura i/c Bangladesh to 300-320 MW (Bangladesh- 120 MW & rest 180-200 MW for Tripura) considering the flow of 125 MVA 400/132 KV ICT only 73 MW each when state demand was 261 MW (on 28th July Peak & commitment to Bangladesh is 160 MW). Later, modified to 140 MW for Bangladesh on 30th July. However, same restriction again imposed on 5th August 120 MW to Bangladesh instead of 120 MW with a view that arrangement of load restriction will continue till the Bangladesh SPS-2 & 4 implemented & functional.

It is surprising from the part of Tripura that the SPS -2 & 4 relating to Bangladesh is a long pending case since 2017. In last two summer state & Bangladesh demands were met without any issue. But, in the present sensitive scenario of Covid-19 era where load reduction is hardly possible as health care set up distributed among the states how only 73 MW of ICT load is considered to restrict the state demand to 180-200 MW.

Moreover, Govt. India & Govt. Tripura has commitment to maintain the supply of agreed 160 MW quantum of Power to Bangladesh but due to this restriction cross border commitment also distorted. Whereas there was no contingency in the Grid, this

is a serious issue and has major consequences. Matter may discuss to avoid any further interruption of supply in specific contingency free Grid.

Deliberation of the sub-Committee:

CGM, NERLDC informed that as per Study (considering N-1 contingency of one 400/132 kV 125 MVA ICT at Palatana), in the event of tripping of one ICT at Palatana the other ICT would also trip due to overloading. In the event of Bangladesh remaining connected to the Tripura system, there would be Grid Disturbance in Southern NER grid specifically in Tripura System. Also keeping in view sudden decrease in generation of Monarchak and Rokhia, a restriction of 140MW (which was later curtailed to 120MW) was imposed on Bangladesh Supply in consultation with SLDC, Tripura.

Sr. Manager, TSECL opined that the restrictions on Bangladesh drawal and on ICT drawal after implementation of SPS is uncalled for and not as per any procedure. This has led to dishonouring of international power supply agreements decided at the apex level.

NERPC stated that:

a. Study was based on tripping of one ICT on overloading which is hypothetical since peak recorded load on one ICT was 118MW which is less than 100% loading of the ICT (overcurrent settings at 110% normative).

b. SPS schemes for Bangladesh power supply has been under discussion in various RPC forums and national/international forums for the last two years. Suddenly linking operational issues to SPS implementation was unwarranted.

The Sub-Committee noted as above.

D.22 Testing & Calibration of SEMs installed at ISTS points:

Tripura Grid has 8(eight) nos. of ISTS connectivity with NER Grid and through all these boundary points states is drawing power from NER and accordingly paying the energy bills. As per our records since the commissioning of all the meters at boundary locations no testing & calibration so far has done. As per CEA Metering Regulations clause 18© testing & calibration of meters to be carried out by owner of the meters, here CTU and to be done at presence of seller & buyers of energy.

In this regard SLDC has communicated with PGCIL on 26th June via email & Director Technical, TSECL wrote a letter to ED, in charge PGCIL on 27 July but reply still awaiting.

From TSECL part requested for two things-

a. Latest calibration reports, if done.
b. For sharing of raw meter data monthly basis from all boundary locations so that TSECL also can do and maintain energy accounting properly and accurately on monthly basis.

Deliberation of the sub-Committee:

Sr.DGM(AM), NERTS informed that SEMs accuracy may be checked prior to discarding them altogether. He also stated that presently doubtful meters are being replaced as per NERLDC instructions. CGM, NERLDC opined that every three years SEM calibration has to be done. However no accredited laboratory could be identified by NERTS.

The Sub-Committee noted as above.

ADDITIONAL AGENDA FROM NERLDC:

D.23 Commercial settlement during onsite testing of generators for primary response:

The Hon'ble Central Electricity Regulatory Commission (CERC), vide notification dated 12th April 2017, had notified Indian Electricity Grid Code (Fifth Amendment) Regulations, 2017. As per this notification, following proviso has been added at the end of Regulation 5.2 (g) of Part 5 of the Principal Indian Electricity Grid Code (IEGC) Regulations: "*Provided that periodic checkups by third party should be conducted at regular interval once in two years through independent agencies selected by RLDCs or SLDCs as the case may be. The cost of such tests shall be recovered by the RLDCs or SLDCs from the Generators. If deemed necessary by RLDCs/SLDCs, the test may be conducted more than once in two years.*"

The regulations specify that the onus of testing lies with generators. In compliance of the regulation mentioned above, POSOCO has carried out necessary actions. The requirements of the onsite testing are mentioned in the Expression of Interest (EoI) documents. The onsite testing of primary response is to be carried out at three different generation levels. The generation of unit may be required to vary from its antecedent generation. This means that unit would be required to operate at three different levels and its output would vary further in response to frequency input injection.

The test is one of various tests which are carried out by plants e.g. Performance Guarantee (PG) Tests, Reactive Power Capability tests, PSS tuning etc. The modalities to handle this change in output of generating units may be same as being done for similar tests as mentioned above. Following could be the alternatives for scheduling and accounting during the above period:

1. Generators themselves arrange for the schedule as being done for all other tests such as PG tests etc.
    a. Through their long term and medium term beneficiaries and beneficiaries agree for such scheduling by RLDCs during testing period.
    b. Through sale in Real Time Market by generators.
2. Generators are given schedule through RRAS mechanism. RRAS Regulations do not allow such scheduling.
3. Generators are totally dependent on DSM with normal scheduling.

In all above cases normal Deviation settlement Mechanism (DSM) Regulations can be appliable.

There has been request from some of generators that DSM during such testing period may be relaxed i.e. Actual Generation (AG) is made equal to Scheduled Generation (SG).

However, it needs to be kept in mind that this testing is to be done for all generators including Independent Power Producers (IPP), merchant plants etc. and therefore the option of RRAS is not available to all the generators. Similarly, making SG=AG would be difficult for generator selling only under Short-Term Open Access (STOA). Therefore, in order to be non-discriminatory, Alternative-1 given above seems to be best suited. The similar methodology may also be adopted to carry out tests on generating units when they are on Reserve Shutdown or get tripped during the testing.

Further, in order to avoid centralised interference and affecting the schedule, any centralised dispatch instruction would not be given to the plant. Thus, the unit shall be excluded from AGC during the testing and time blocks of testing would not be considered for ramping assessment. The plant shall be excluded from RRAS/SCED to manage their schedules.

Deliberation of the Sub-Committee:

The matter was discussed in detailed and the following were decided w.r.t modus operandi for testing:

a. The schedule during testing period shall be modified by NERLDC /SLDCs in consultation with the generating stations. The beneficiary states agreed for providing the required schedules during the testing period to ISGSs in which they have shares. Generators may sell any additional power via RTM.

b. During period of testing; generators shall be excluded from AGC, SCED, RRAS.

The Sub-Committee noted as above.

Action: NERLDC/SLDCs, all ISGS.

D.24 Ratification of PoC data

Ratification of Technical and Commercial data for computation of PoC Charges and Losses for Oct'20 to Dec'20 (Q3 of 2020-21).

Deliberation of the sub-Committee:

PoC Data was displayed to the forum. All data were agreed. The Ratified values for Oct to Dec'20 (Q3 of 2020-21) is attached as **Annexure D.24**.

The Sub-Committee noted as above.

ADDITIONAL AGENDA FROM NEEPCO:

D.25 Integration of SEMs with laptop/PC for data downloading:

DGM, NEEPCO informed that previously a system was in place at Khandong PS for Single Push Data downloading from all SEMs. This was enabled by connecting all SEMs over RS-485 and a dedicated PC. He requested the forum to implement the same for large stations to enable speedier data collection. After detailed deliberation the forum decided the following:

i. Implementation of RS-485 scheme for data downloading in one station preferably a generating station
ii. If trial operation is successful then the scheme is to be extended to all stations where SEM quantity is greater than 10.

NERTS was requested to implement the trial at AGBPP.

The Sub-Committee noted as above.

Action: NERTS.

ADDITIONAL AGENDA FROM NERPC:

D.26 Mapping of NERLDC Tripping portal and PDMS tripping portal:

Director(O&P), NERPC informed that as per discussions in the Sub-group meeting held on 10th July,2020 and 11th August, 2020 it has been accepted that a mapping of the existing NERLDC tripping portal and PDMS tripping portal is required. This would enable the full utilization of the PDMS suite and proper audit trail of the analysis/recommendations of all trippings/disturbances in a common database. M/s PRDC representative that as per preliminary discussions with NERLDC API based mapping is being explored with tentative expenditure to the tune of INR 15 lakhs (maximum). NERLDC stated that discussion with M/s Kreate Technologies, who has developed the NERLDC Tripping Portal shall be required to understand requirements from their end. It was agreed that a separate meeting shall be organized between M/s PRDC and M/s Kreate Technologies in presence of NERPC and NERLDC for discussion regarding the requirements and finalizing procedure for implementation of the work.

The forum approved the scheme in-principle and requested NERPC to revert back with the exact details.

The Sub-Committee noted as above.
Action: NERPC.

Date & Venue of next OCC meeting:

It is proposed to hold the 170th OCC meeting of NERPC on second week of September 2020. However, exact date and venue will be intimated in due course.

*****

Annexure-I

List of Participants in the 169th OCC Meeting held on 14.08.2020

SN	Name & Designation	Organization	Contact No.
1	Sh. P.Buchi, AE	Ar. Pradesh (VC)	-
2	Sh. G.Yinyo, JE	Ar. Pradesh (VC)	-
3	Sh. Bimal Borah, DGM (O)(SLDC)	Assam (VC)	
4	Sh. R. Goswami, AGM (SLDC)	Assam (VC)	-
5	Smti.Toushita Jindung, AGM	Assam (VC)	-
6	Sh. Luhit Borah, AGM	Assam (VC)	-
7	Sh. Anup Sharma, DM(Comm)	Assam (VC)	-
8	Sh. Pranab Saha, AGM (Comm)	Assam (VC)	
9	Sh. I. Tahbildar, DM, APDCL	Assam (MS Team)	
10	Smti. Khoisnam Steela, DGM(SLDC),	Manipur (VC)	-
11	Smti. Steffi Okram, Manager (E) (SLDC)	Manipur (VC)	-
12	Sh. TH. Sushanta Singh, Manager (E), (SLDC)	Manipur (VC)	-
13	Sh. Rokobeito Iralu, SDO	Nagaland (VC)	
14	Sh. Lengminlal Singson,SDO	Nagaland (MS Team)	
15	Sh. Tia Kava, JE	Nagaland (VC)	
16	SH. G.Taka, JE	Nagaland (VC)	
17	Sh. B.Saibon, SE(SLDC)	Meghalaya (VC)	
18	Sh. Pynshngain, JE, MePTCL	Meghalaya (VC)	-
19	Sh. D.J. Lyngdoh, EE	Meghalaya (VC)	-
20	Sh. Benjamin L. Tlumtea, Sr. EE (SLDC)	Mizoram (VC)	-
21	Sh. Jacob Lalrinfela, AE (SLDC)	Mizoram (VC)	-
22	Sh. L. Sailo, JE	Mizoram (VC)	-
23	Sh. Anil Debbarma, DGM (SLDC)	Tripura (VC)	09612589250
24	Sh. Debabrata Paul, Sr. Manager	Tripura (VC)	-
25	Sh. Mrinal Paul, Manager	Tripura (MS Team)	-
26	Sh. R. Sutradhar, CGM	NERLDC (VC)	

27	Sh. S.C. De, Sr.GM	NERLDC (VC)	09436335369
28	Sh. Sourav Mandal, Dy. Mgr. (SO-I)	NERLDC (VC)	09402102354
29	Sh. Jerin Jacob, Dy. Manager	NERLDC (VC)	-
30	Sh. Kritika Debnath, Engineer	NERLDC (VC)	09436930830
31	Sh. Palash Jyoti Borah, Dy. Manager	NERLDC (VC)	08761093397
32	Smti. Chitra Thapa, SO-II	NERLDC (VC)	-
33	Sh. Bimal Swargiary, Mgr.	NERLDC (VC)	-
34	Sh. U. Kataki, CGM	PGCIL	09435505418
35	Sh. H. Talukdar, Sr.DGM (AM)	PGCIL	09436335237
36	Sh. P.Kanungo, Sr.GM-Misa	PGCIL (Through Phone)	
37	Sh. Joypal Roy, DGM	NEEPCO	-
38	Sh. Dibyendu Goswami, PSS E	PRDC	
39	Sh. Narendra Kumar Gupta, Sr. Manager (O)	OTPC (MS Team))	09774233426
40	Sh. Kangkan Paul, DM (EEMG)	NTPC (MS Team)	-
41	Sh. S.Pait, AGM	NTPC (MS Team)	-
42	Sh. Susovan Das, AGM (EEMG)	NTPC (MS Team)	-
43	Sh. Thallapeli Ravinder,	NTPC (MS Team)	
44	Sh. Sanjay Sharma,	NHPC (MS Team)	
45	Sh. C.L.Khayuingam, Sr. Mgr (Elect)	NHPC (MS Team)	-
46	Sh. D.K.Sarma, DM	NETC (MS Team)	-
47	Sh. Ratan Singh Basnet, Sr. Mgr.	NETC (MS Team)	-
48	Sh. Vivek Karthikeyan, Manager	STERLITE (MS Team)	08966903034
49	Sh. A.K. Thakur, Member secretary	NERPC	-
50	Sh. B. Lyngkhoi, Director (O&P)	NERPC	09436163419
51	Sh. S. Mukherjee, Dy. Director	NERPC	08794277306
52	Sh. Rajib Das, AE	NERPC	-
53	Sh. S. Chatturvedi, AE	NERPC	-

उ.पू.क्षे ग्रिड प्रदर्शन

NER GRID PERFORMANCE

For the month July 2020

North Eastern Regional Load Despatch Centre

POSOCO, Shillong

Highlights of the Month

Frequency Profile

Voltage Related Issues

Transmission Element Issues

Operational Issues

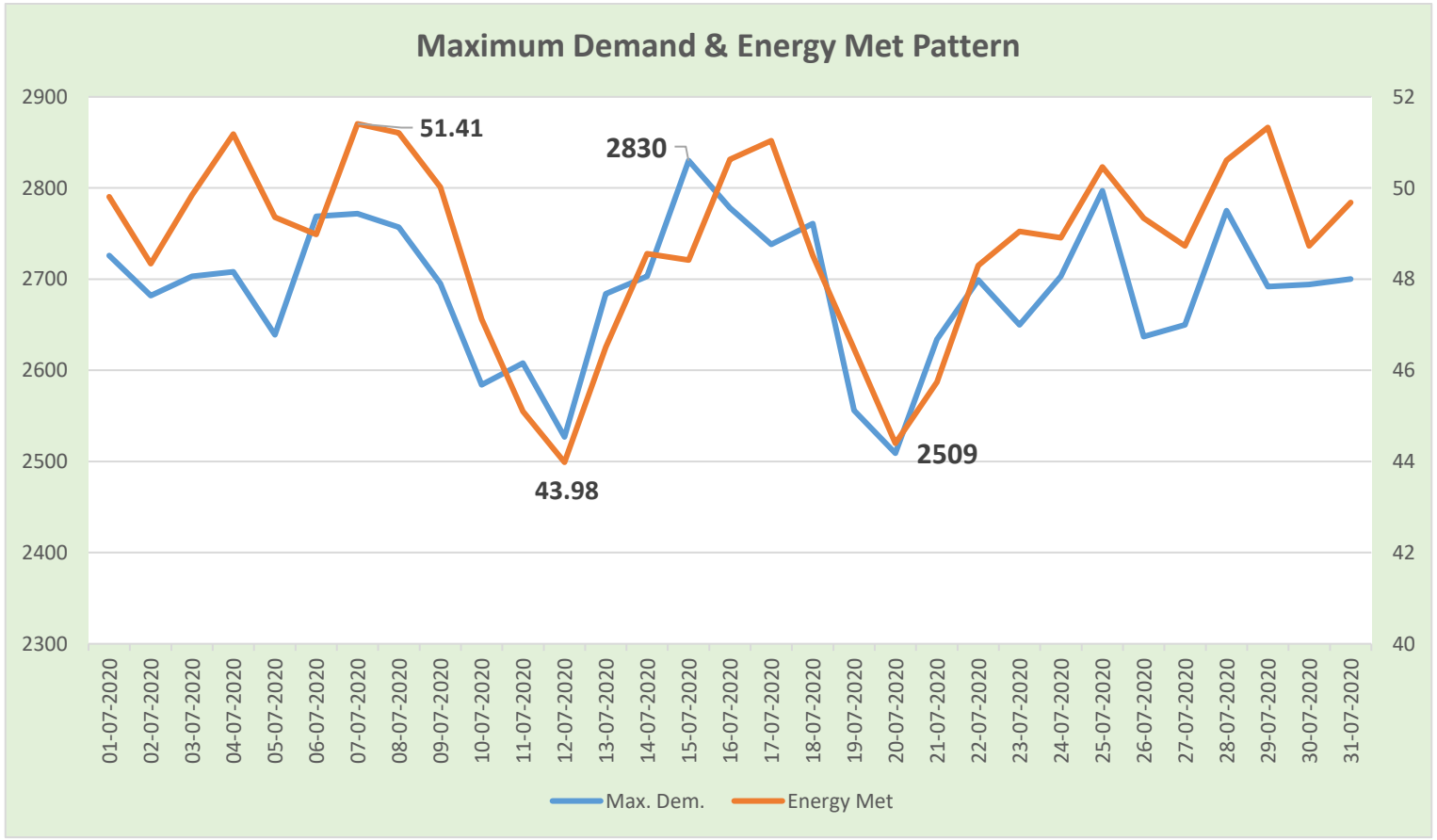
Hydro Reservoir Levels

Additional Agenda items

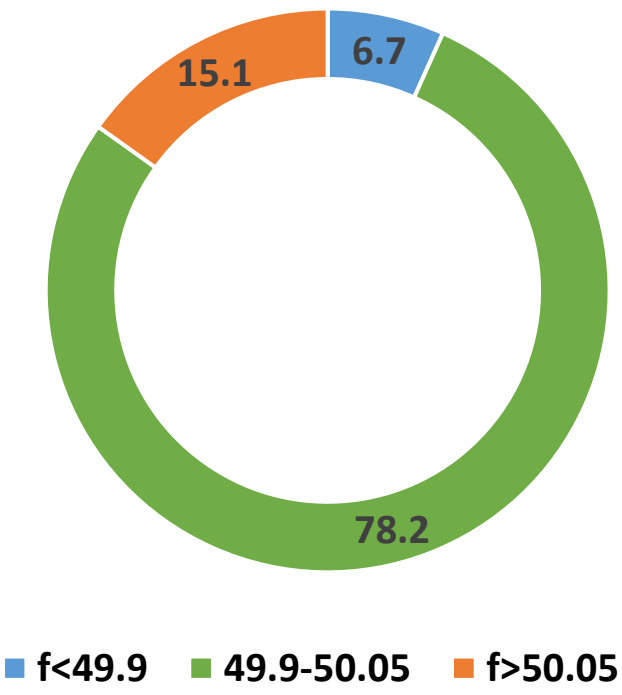
Telemetry Availability Status

Metering Status Review

Highlights of the Month: July 2020



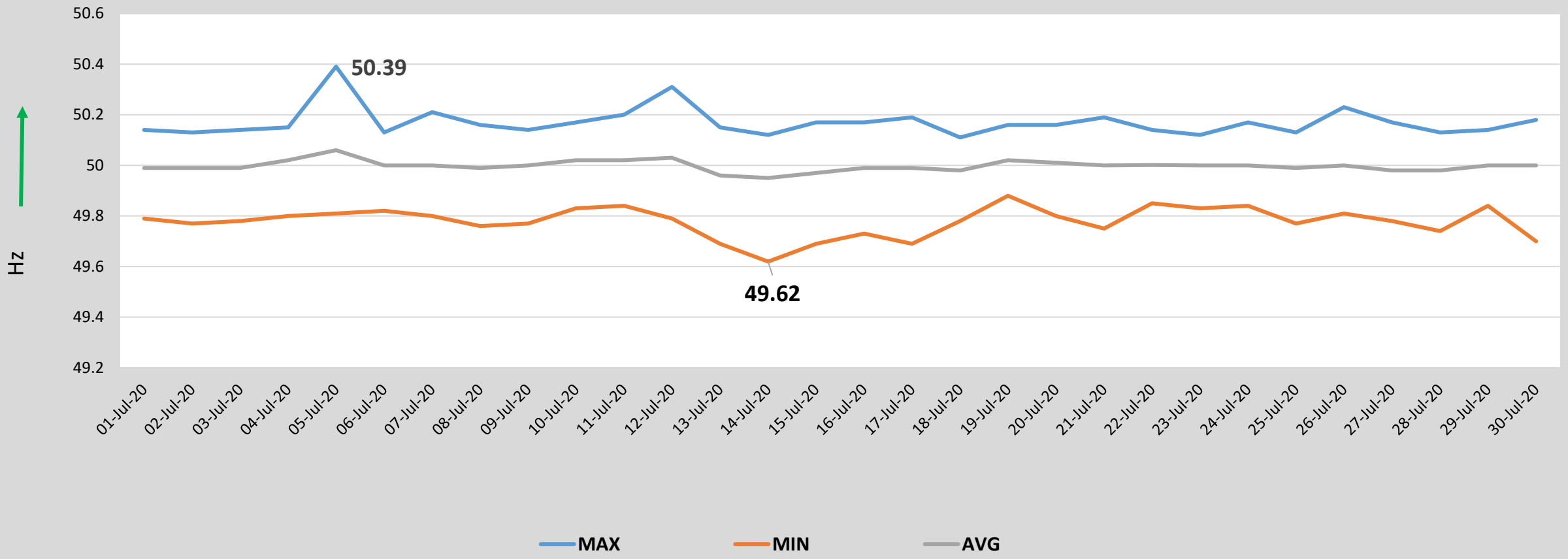
FREQ PROFILE FOR JULY'20



No. of GD	17
No. of GI	4

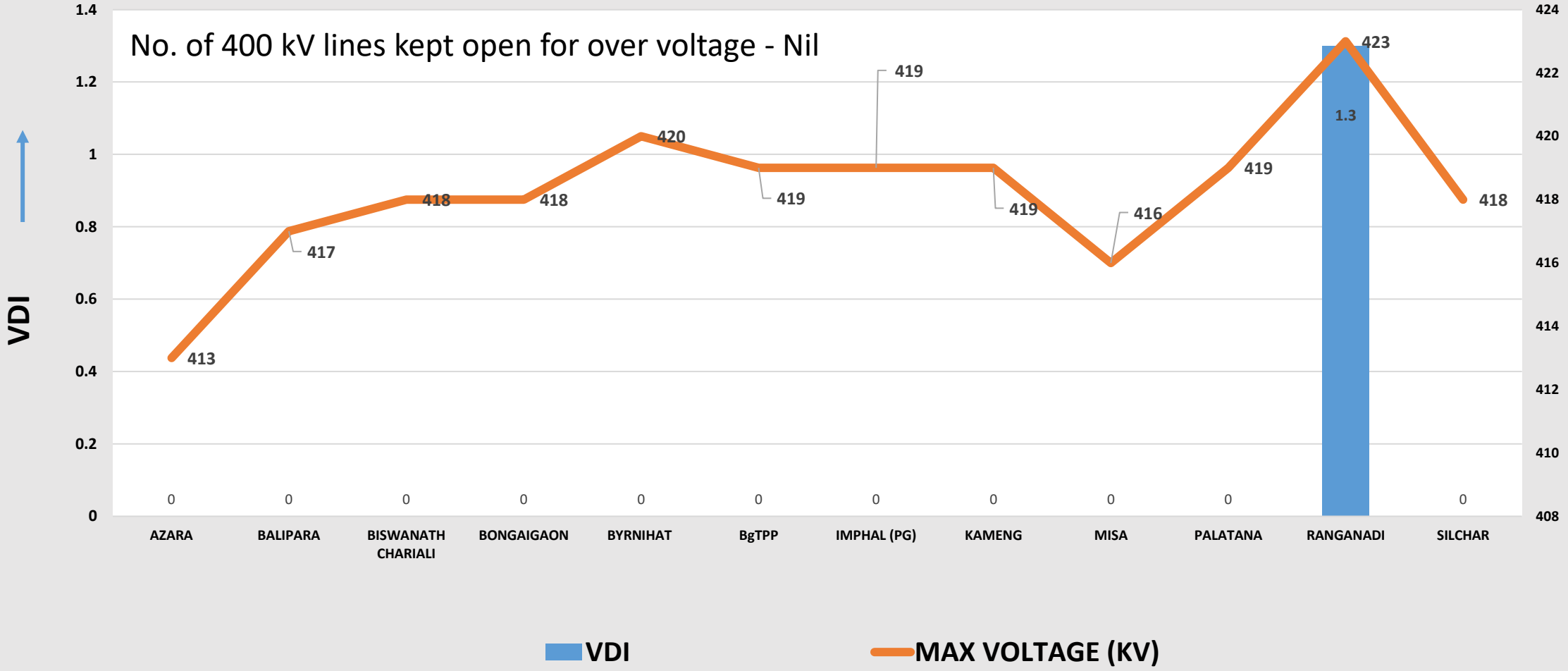
Return to Index

Frequency Profile



Return to Index

VDI (400 KV) FOR JULY 2020



Voltage Issues

C.4.Difficulties faced in management of high voltage scenario in Upper Assam System :

- SLDC Assam was requested to take necessary actions regarding the following in 168th OCC Meeting:
  - a. Real time SCADA data availability from state owned generating stations
  - b. Namrup and Lakwa should deliver maximum MVAR support as per capability curve limit

Status of works to be furnished by Assam:

I. Status of data transfer through old RTUs at LTPS and NTPS

II. Status of data transfer through remote SAS gateway from LRPP and NRPP

C.5. Status update of important Reactors under prolonged outage:

- 63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor- By MePTCL
- 63MVAR L/R for 400kV Palatana-Silchar Ckt-I (Out since Apr'19) – by OTPC

D.9 Capitalization of 80MVAR Bus Reactor at Misa: DETAILS

Return to Index

Transmission Elements Issues

C.1. Auto-reclosure issues at Azara:

- In 167th OCCM, it was decided that signal mismatch between Silchar & Azara would be resolved in June'20. Further in 168th OCC meeting the target date was revised as July'2020- STATUS REVIEW

C.5. Status update of important grid elements under prolonged outage impacting system operation

Sl. No	Element	Owner	Remarks	Latest status
2	132kV Dimapur - Imphal	NERTS	Out since 25.07.2018	
3	220kV Sonabil-Samaguri-I	AEGCL	Out since 14.01.2019	
4	132kV Srikona-Panchgram	AEGCL	Out since 14.01.2019	
6	132kV Jiribam – Rengpang	MSPCL		
7	220KV-Agia-BTPS-I	AEGCL	Out since 15.03.2020	
8	132KV-Pare-Itanagar-1	Arunachal Pradesh	Out since 12.07.2020	
9	132KV-Ranganadi-Itanagar-1	Arunachal Pradesh	Out since 12.07.2020	

Transmission Elements Issues

D.8 Status of NERPSIP, Comprehensive Scheme of Transmission & Distribution System in Arunachal Pradesh & Sikkim and TBCB projects:

- Status may be furnished by respective transmission utilities

D.13 Status of commissioning for Upcoming projects:

- **For effective utilization of 400 kV Imphal-New Kohima-New Mariani (KPTL) Line**
  - New Kohima (400/220 kV TBCB) – New Kohima (220/132kV - Nagaland) 220 kV D/c – Status update by Nagaland
  - 2 no. 400 kV line bays at New Mariani S/s for termination of New Kohima – New Mariani 400 kV D/C line- Status update by NERTS
  - Up-gradation of New Mariani substation to 400/220 kV with 2x500 MVA transformer along with associated bays - Status update by NERTS
- **For effective utilization of 400 kV PK Bari (Sterlite)- SM Nagar (Sterlite) Line**
  - 132kV SM Nagar (Sterlite)-SM Nagar (TSECL)
  - 132kV PK Bari (Sterlite)-PK Bari (TSECL)
  - 400 KV Connectivity between Palatana-SM Nagar
  - Diverting the present Silchar - P.K Bari (TSECL) to P.K Bari (Sterlite) and charging it in 400 kV

Transmission Elements Issues

D.14 Idle Charging of Transmission Element and Request for Issuance of Trial Operation Certificate:

- TBCB projects are under commissioning stage in NER where the ownership of a transmission line along with associated bays belongs to more than one utility (Say, 400 kV Imphal – New Kohima D/C, 400 kV Silchar(PG) - Misa(PG) Ckt-D/C, etc)
- If all concerned utilities are not ready at their respective ends, there will be no active power flow and communication signal from sending end to receiving end.
- RLDC may issue the certificate of idle charging after verification of the submitted documents as per provision in CERC (Terms and Conditions of Tariff) Regulations, 2019

D.15 First Time charging of Intra-state elements:

- SLDCs may follow the procedure issued by NLDC for First Time Charging
- In addition, SLDCs must ensure telemetry data and communication system and also ensure healthiness of the protection system in line with various provisions in the Regulations.
- SLDCs are requested to submit documents as per the Letter NERLDC/SOII/353 dated 29.07.2020 (specially confirmation of Telemetry and Protection setting) in FTC portal for confirmation from NERLDC prior to issue of first-time charging clearance by SLDC in order to ensure availability of real time data for smooth grid management and to ensure grid security and reliability.

Return to Index

Operational Issues

C.2 Implementation of SPS-2&4 related to Bangladesh

- SPS-2 & 4 has been implemented and taken into service at 12:36 Hrs on 8th August 2020.
- SPS-4 (disconnection of Bangladesh load at Surajmaninagar on tripping of both ICTs of 400/132 kV Palatana GBPP) successfully operated on 10th August 2020 and prevented major Grid Disturbance in NER Grid, especially in Tripura System.
- At 19:23 Hrs on 10.08.20, both ICTs at Palatana tripped on HV side Earth Fault Protection operation. Power flow through ICT - 1 & 2 prior to tripping was 107 MW & 101 MW respectively.
- Subsequently, SPS-4 operated successfully and disconnected the Comilla load of Bangladesh (155 MW) from Surajmaninagar. SPS operation time: in 120 msec.

Opening of **132 kV Palatana – Udaipur line** to prevent overloading of 132 kV Palatana - Udaipur line as per request of Tripura SLDC at **19:23:19.000 Hrs**.

- **Unbalance current in Y-phase** observed in system since then. This is reflected in PMUs at Agartala too.
- It was learned that during manual opening of the said line at Udaipur substation at 19:23:34 Hrs, Y-pole did not open.
- As per the DAS report from Palatana for Udaipur line, Y-Phase current of 156.84A was observed which resulted flow of imbalance current.

↓ 10,160 milli seconds

Tripping of 125 MVA, 400/132 kV ICT-2 at Palatana at **19:23:29.160 Hrs**

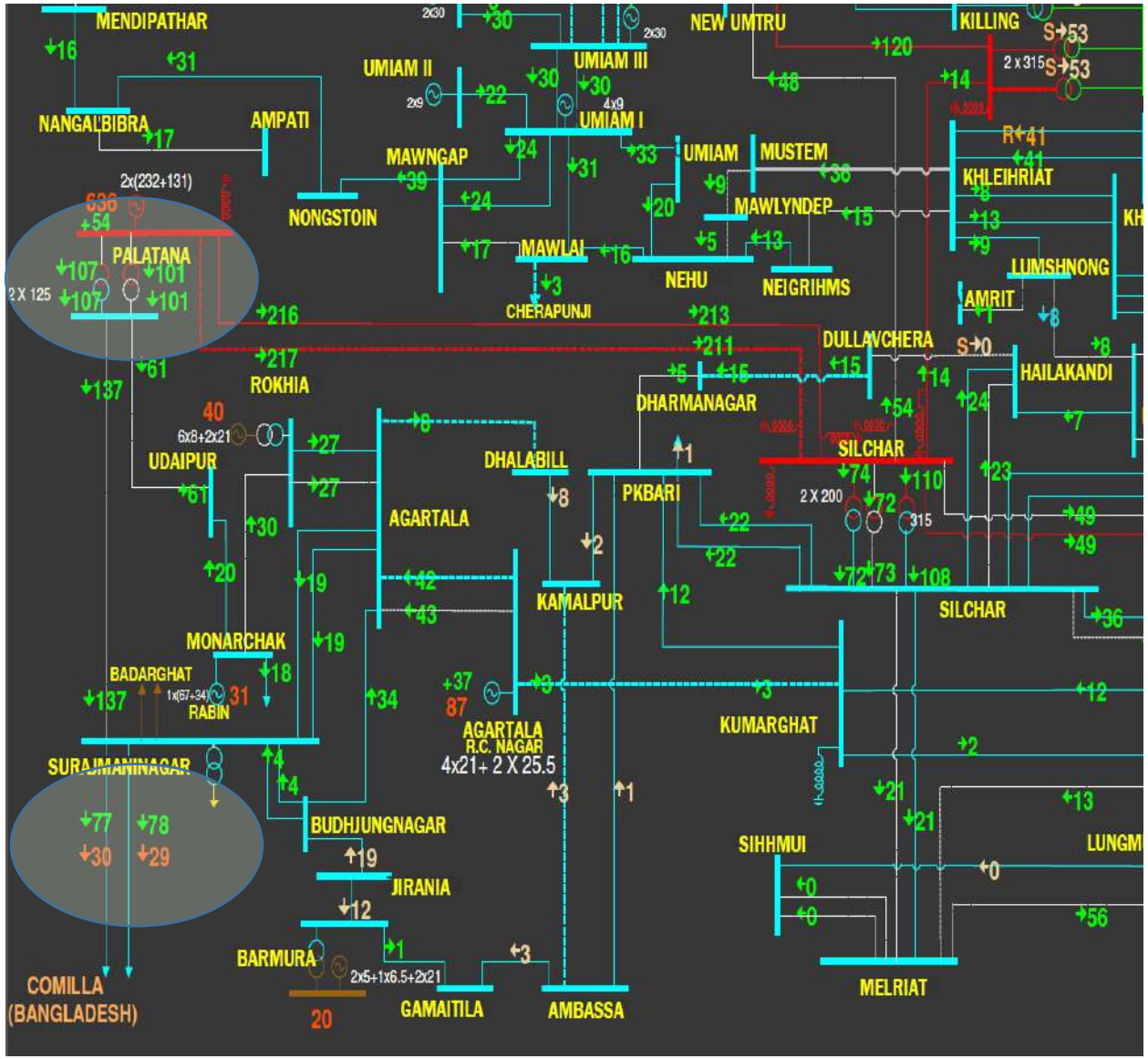
↓ 5,400 milli seconds

Tripping of 125 MVA, 400/132 kV ICT-1 at Palatana at **19:23:34.560 Hrs**

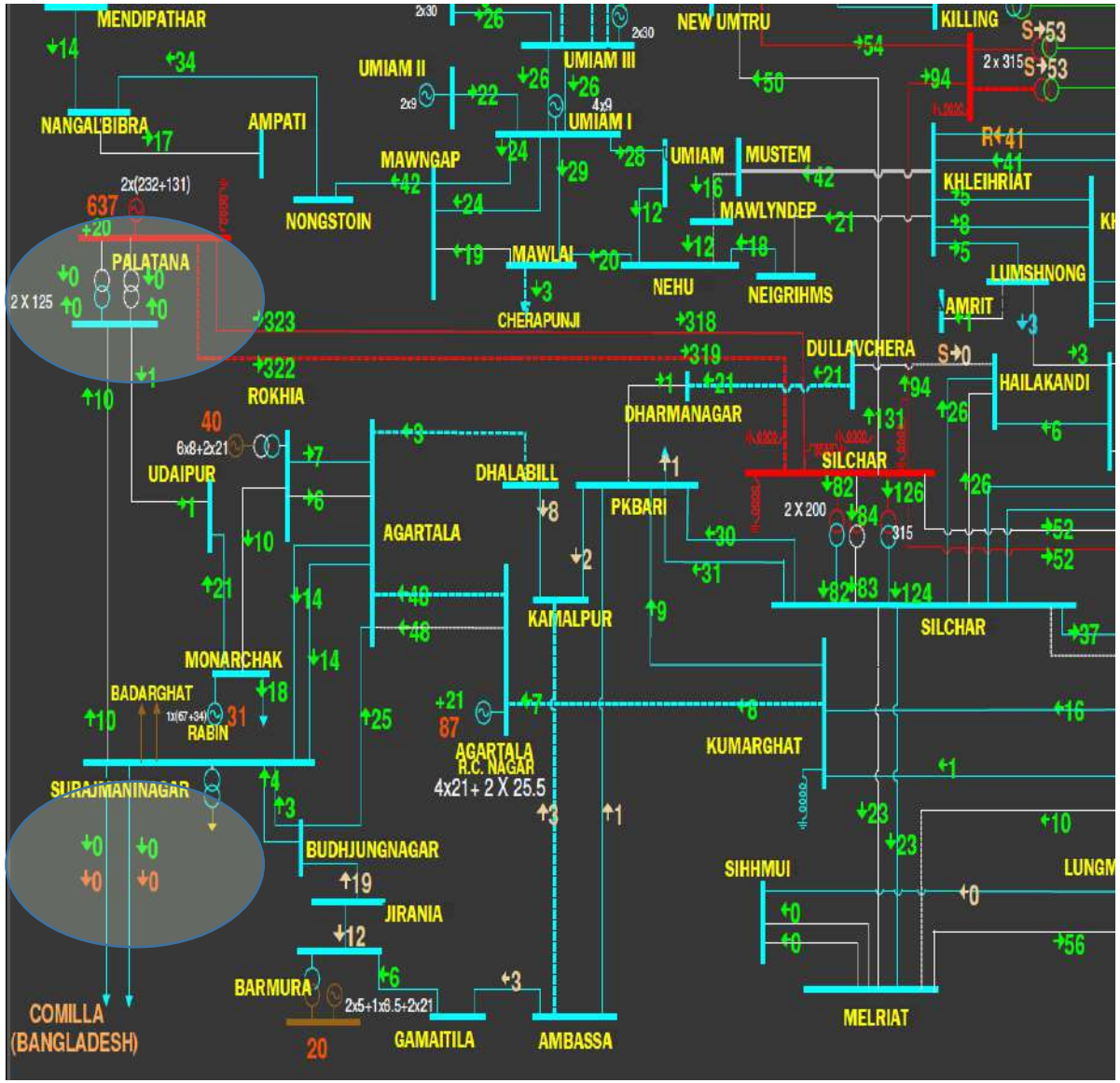
↓ 120 milli seconds

SPS-4 operation & disconnection of Comilla load at **19:23:34.680 Hrs**

Operational Issues



Pre ICT Tripping



Post ICT Tripping

Operational Issues

C.2 Implementation of SPS-2&4 related to Bangladesh

- Minimum voltage observed at Agartala was 125 kV
- **Observations & Suggestions**:
  - Delayed opening of Y -pole at Udaipur for Palatana line needs further investigation.- *Healthiness of circuit breaker at Udaipur for 132 kV Palatana line needs to be checked and Timing test of this CB may be done on urgent basis by TSECL.*
  - Implementation of remaining SPS (SPS-1 & SPS-3) related to Bangladesh power supply needs to be expedited for avoiding tripping of ICT at Palatana on overloading (post outage of one ICT)and for reliable operation of Tripura Power System.
  - Continuous SPS-4 signal was received at Surjamaninagar from Palatana due to which restoration of Bnagladesh Load was possible only after switching off SPS-4- *Issue of Continuous SPS-4 signal from Palatana needs to be attended by OTPC urgently to facilitate quick restoration of Comilla load in case of SPS operation.*

Operational Issues

D.9 Regarding – Ensuring healthiness of transmission network involving Eastern region and North Eastern region for safe and reliable evacuation of high hydro generation during ongoing monsoon season:

- Due to heavy rainfall in northern part of Bihar, 400/220 kV Dharbanga substation has flooded since morning hours of 28th Jul'20. For safety purpose, all lines from aforesaid substation have been manually switched off since 11:31 Hrs on 28.07.20
- All planned shutdown related to Alipurduar S/S may be differed and all the concerned utilities are advised to be in alert mode to take swift action in case of any further tripping and depletion of network.
- Present Situation is normal at Dharbanga substation. Hence, the above warning has been withdrawn.

D.17 Tripping of 220kV BTPS-Salakati D/C on 05.08.2020:

- 220 kV BTPS – Salakati 2 line tripped due to unbalance current at 20:33 Hrs on 05.08.20. Subsequently, 220 kV BTPS – Salakati1 line tripped on over current.
- AEGCL is requested to intimate the status of SPS related over loading of 220 kV BTPS – Salakati D/C
- Reconductoring of BTPS- Salakati 220kV D/c line with HTLS conductor along with requisite modification in bay equipment at both ends was agreed in 2nd NERSCT. Status of this project may be updated.

Operational Issues

D.18 Details of upcoming Renewable Energy Sources (RES) in NER:

- SLDCs are requested to furnish the following details of planned RE generation interfacing in your respective states:
  - Nodal Person for RE Project (Name, Designation, Email ID, Communication Address Phone number)
  - Details of Implementing Agency
  - Name and Voltage level of node at which RES will be connected
  - Type of Renewable Source and Installed Capacity
  - Locations (Latitude and Longitude) and
  - Target date of completion

D.19 Furnishing of D-2 generation forecast on daily basis:

- In 164th OCC Meeting (Agenda D.22) it was approved that all ISGS of NER shall furnish their generation availability on D-2 basis i.e. 2 days ahead basis.
- For better pre-planning of grid operation, it is now proposed that all other generating stations of NER should also furnish the D-2 generation forecast on daily basis.
- SLDCs may kindly coordinate and provide the said generation data on D-2 basis daily.

Operational Issues

D.12. Accurate Load forecasting by SLDCs as per IEGC c1.5.3 for better system operation:

- RMSE for actual data in comparison to that forecasted data by the states for the month of Jun'20 are as follows:

Day	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	14	12	8	23	27	10	17

Return to Index

Number of Days as per Current Hydro Generation

Plants	Reservoir Level in meters (as on 12/08/2020)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Kopili STG II	719.6	25	0	-
Kopili	-	-	-	-
Doyang	322.75	32	1.172	27
Loktak	768.51	250	2.487	101

Return to Index

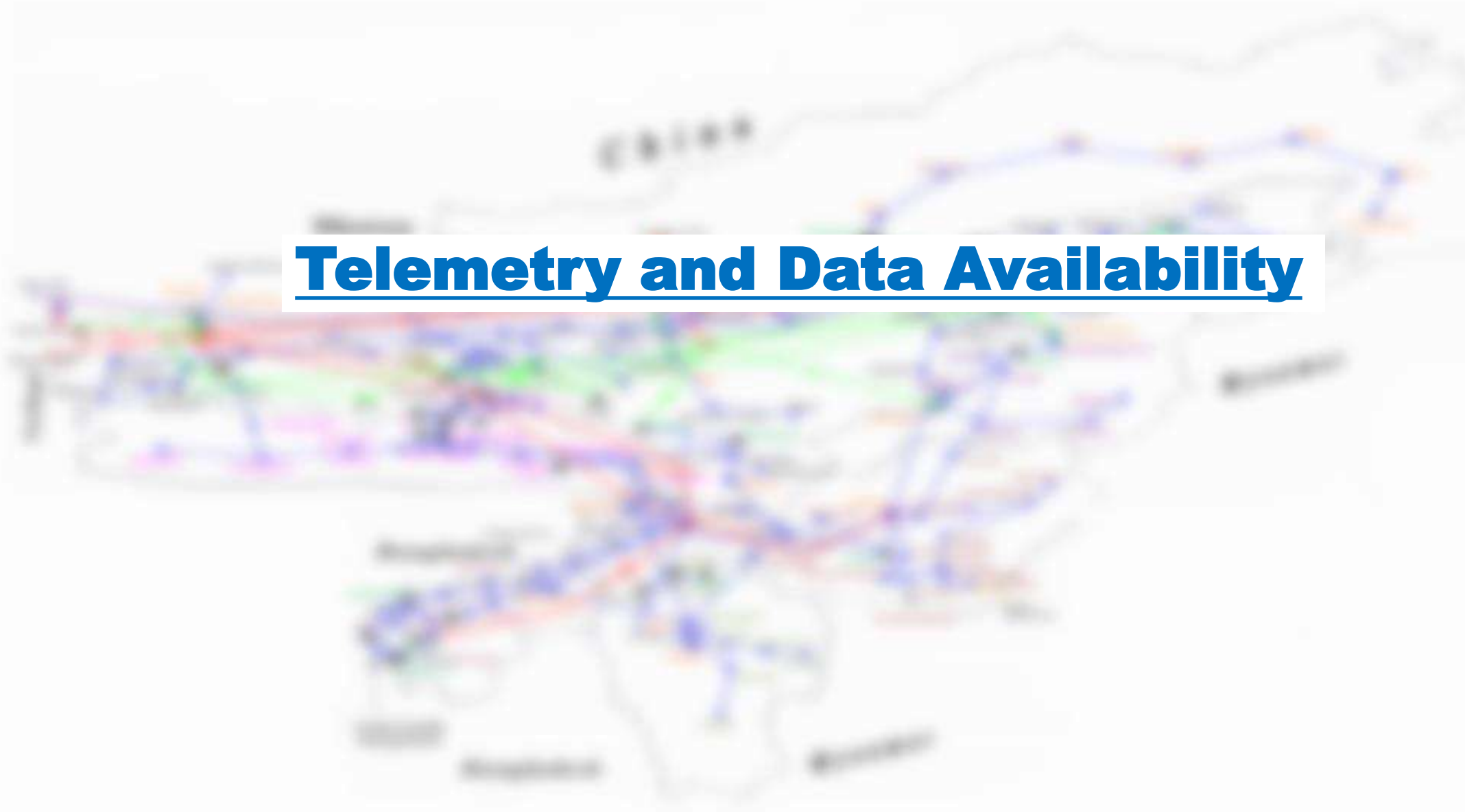
Additional Agenda items

Commercial Settlement during onsite Third Party testing of generators for Primary Response:

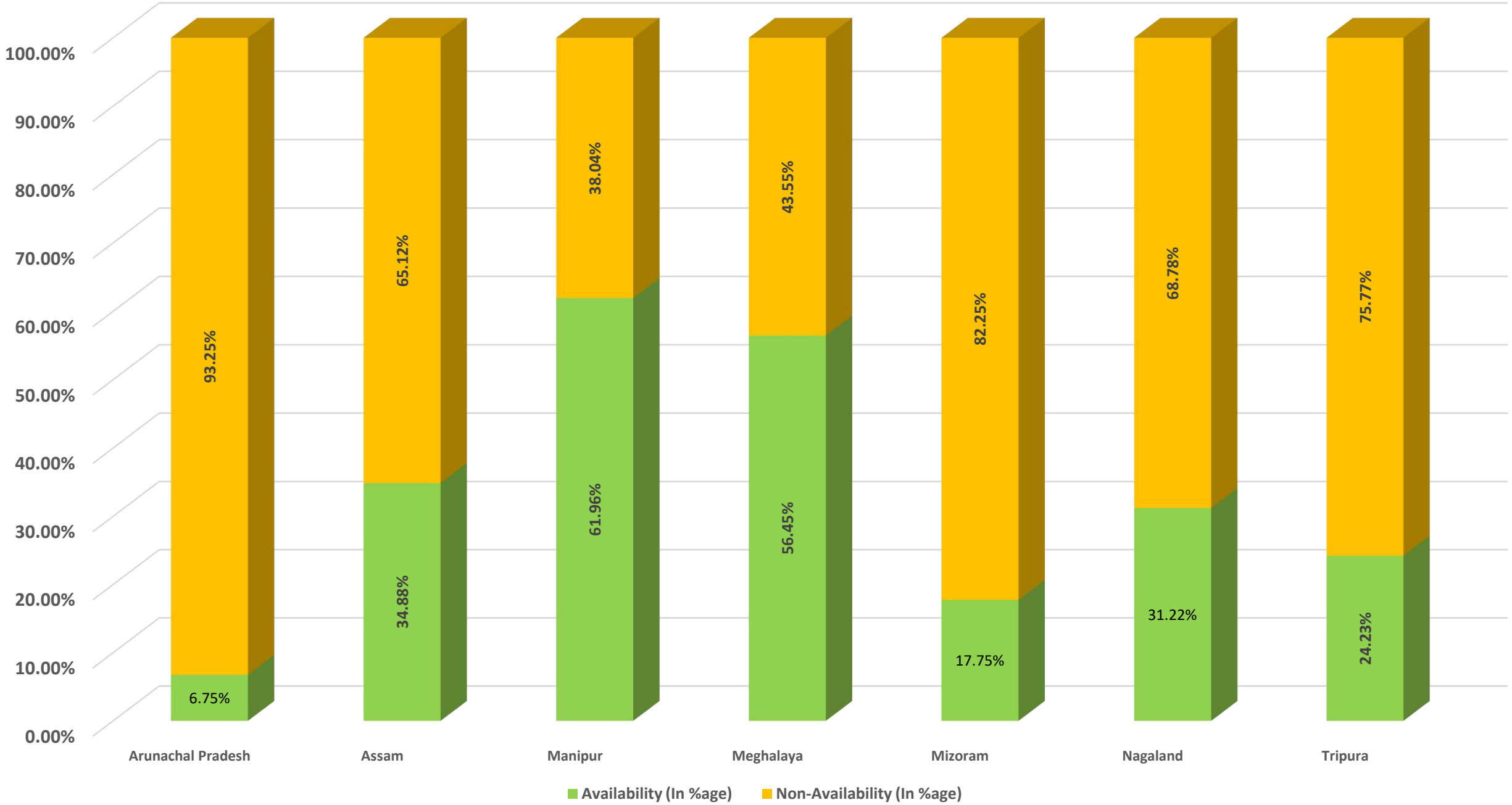
- Generators themselves arrange for the schedule as being done for all other tests such as PG tests etc.
  - a. Through their long term and medium-term beneficiaries and beneficiaries agree for such scheduling by RLDCs during testing period.
  - b. Through sale in Real Time Market by generators.
- As far as possible actual generation must be kept equal to schedule by balancing unit-wise generation.
- Generating station will be excluded from AGC & RRAS
- Time blocks of testing would not be considered for ramping assessment

Return to Index

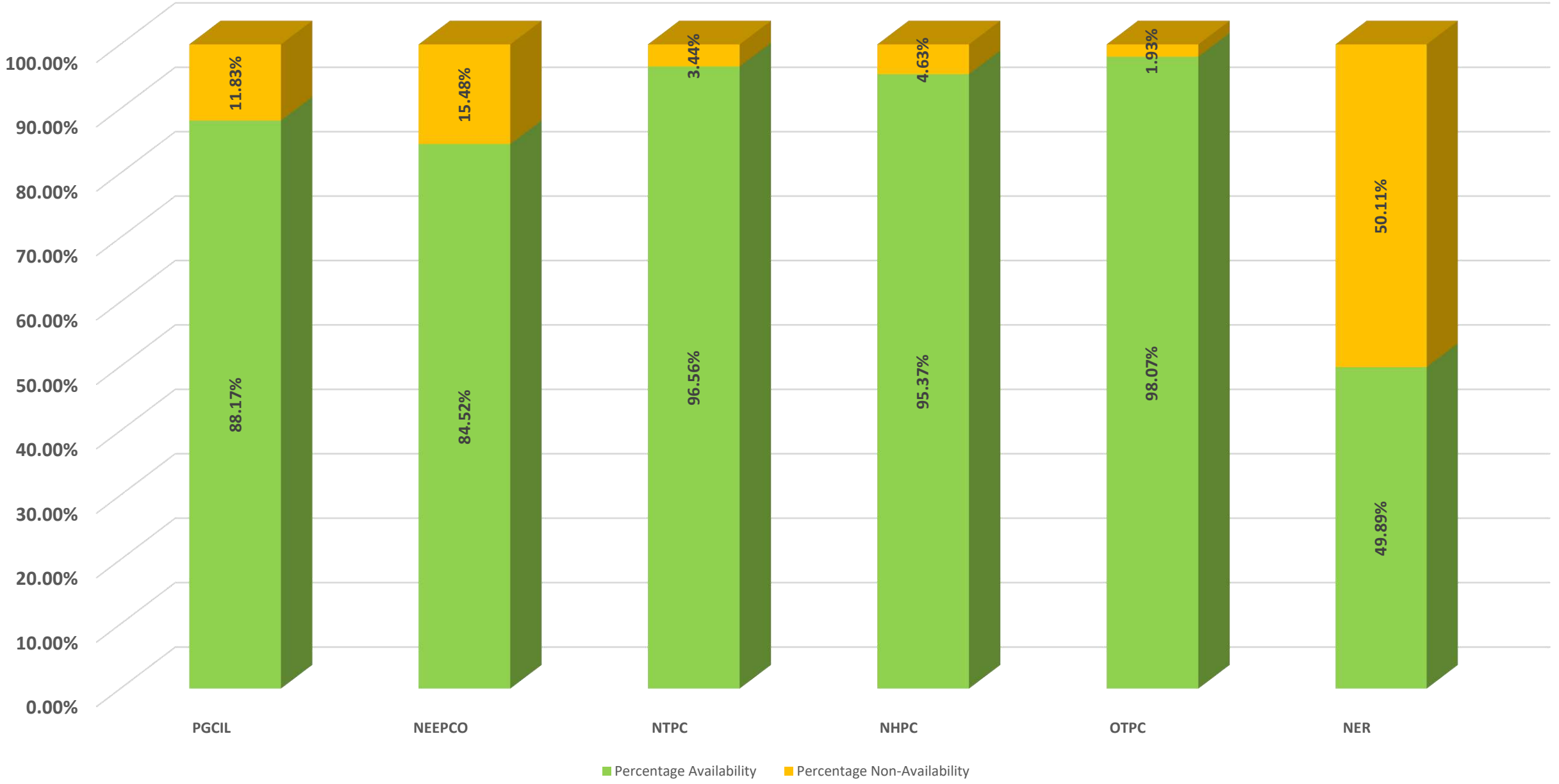
Telemetry and Data Availability



Telemetry Statistics for NER States (Average availability of data for the Month of July'20)



Telemetry Statistics for Central Sector of NER (Average availability of data for the Month of July'20)



Return to Index

METERING STATUS REVIEW

D.13 SEMs to be Procured

- In 168th OCCM NERTS informed that M/s L&T has confirmed completion of manufacturing of all the SEMs and has submitted the test reports. Based on the test reports, POWERGRID is proposing waiver of pre-dispatch inspection.

D.14 SEM time drift:

- **Status Review**

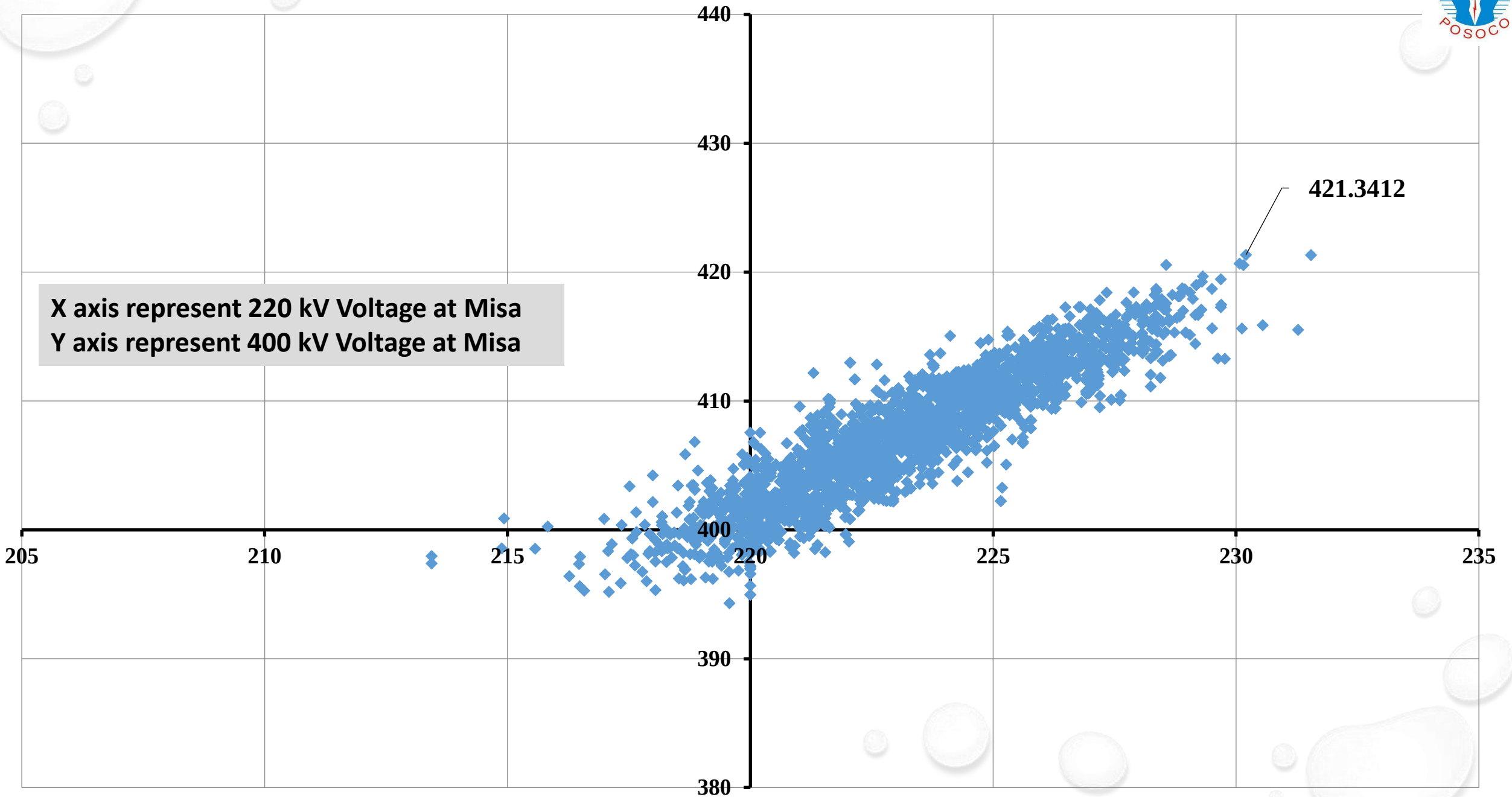
Return to Index

Thank You

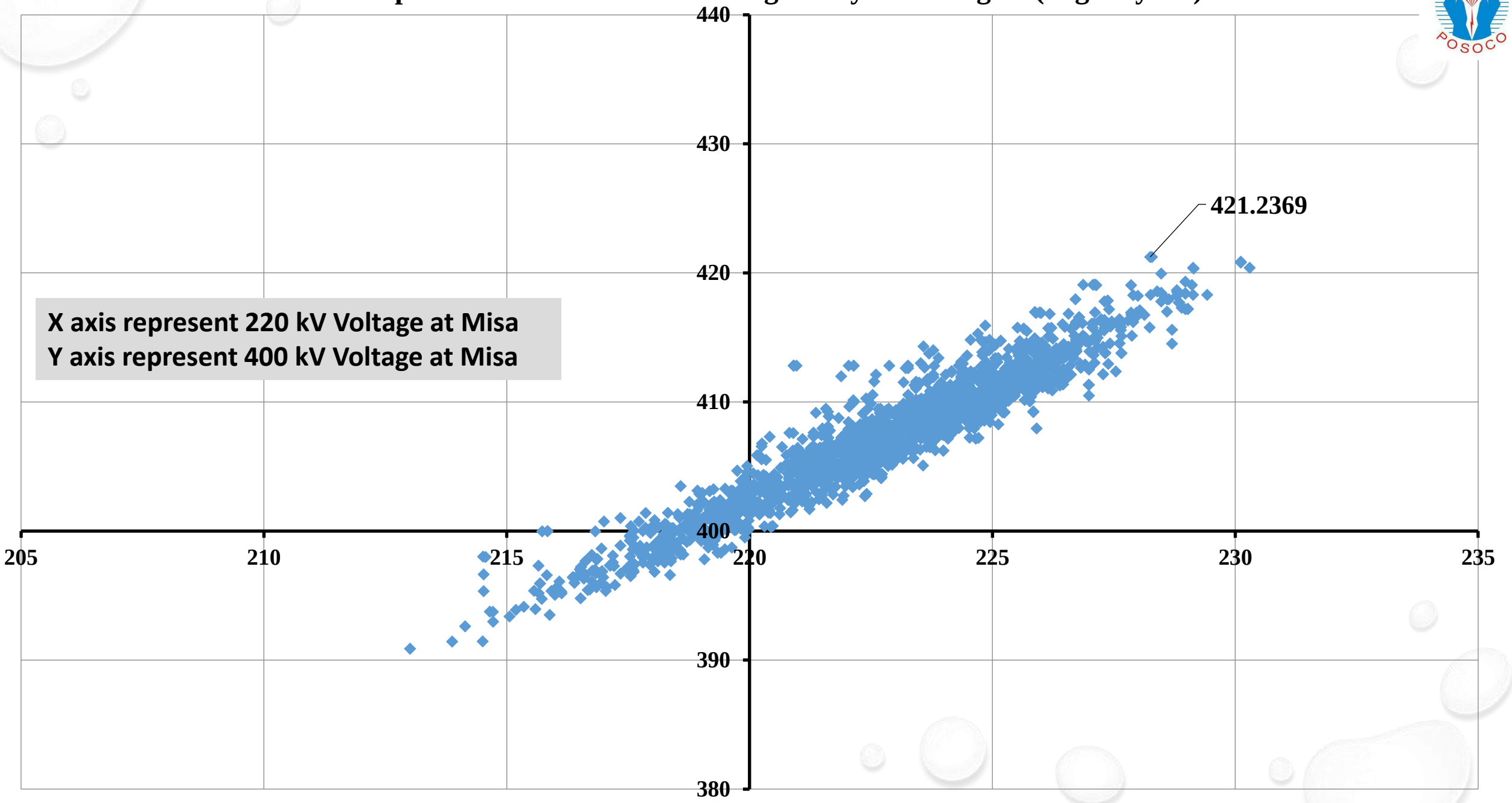
charging of 420 kV 80 MVAR Bus Reactor at Misa

NERLDC, POSOCO

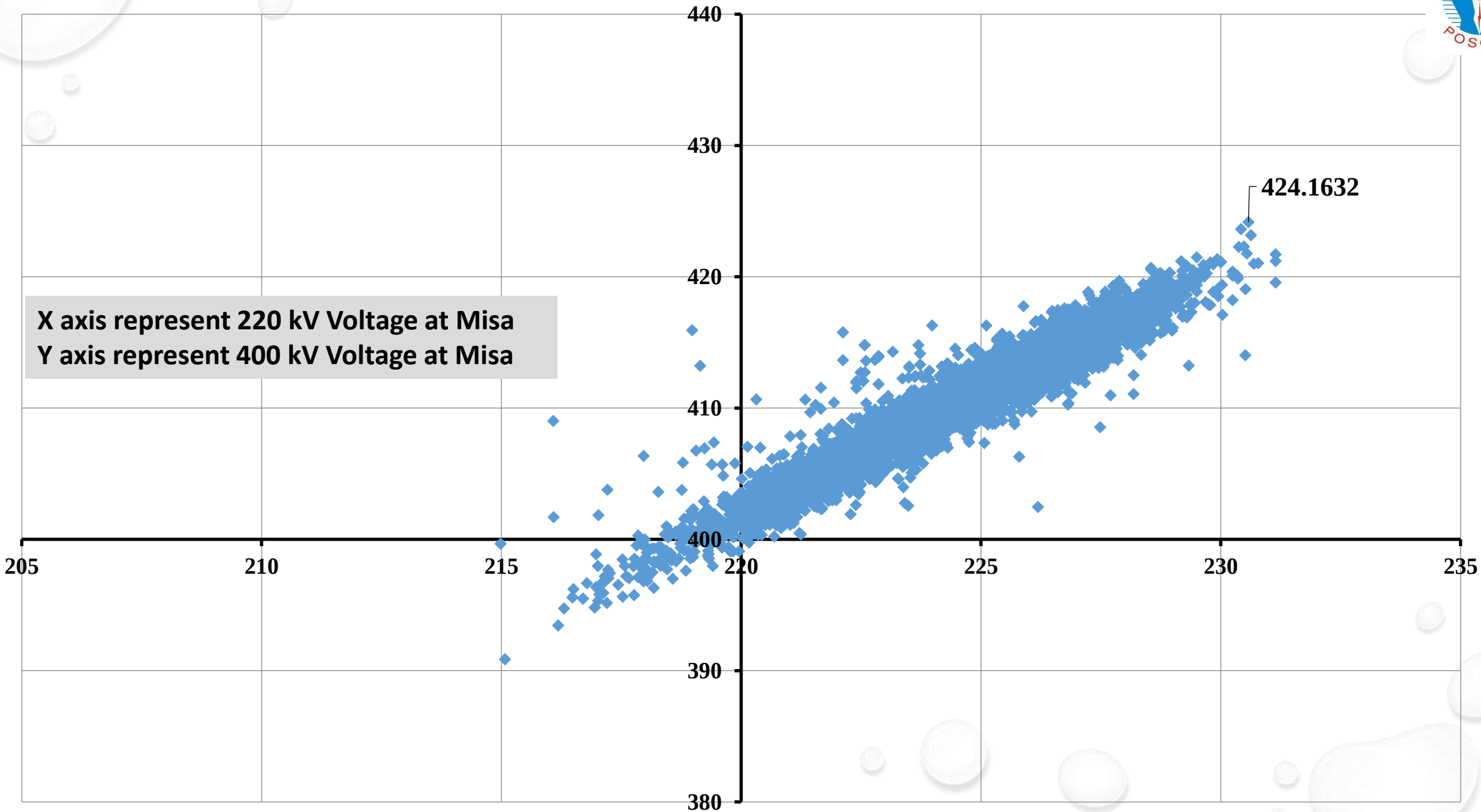
Scatter plot of Misa 400/220 kV Voltage: May 19 to Aug 19 (High Hydro)



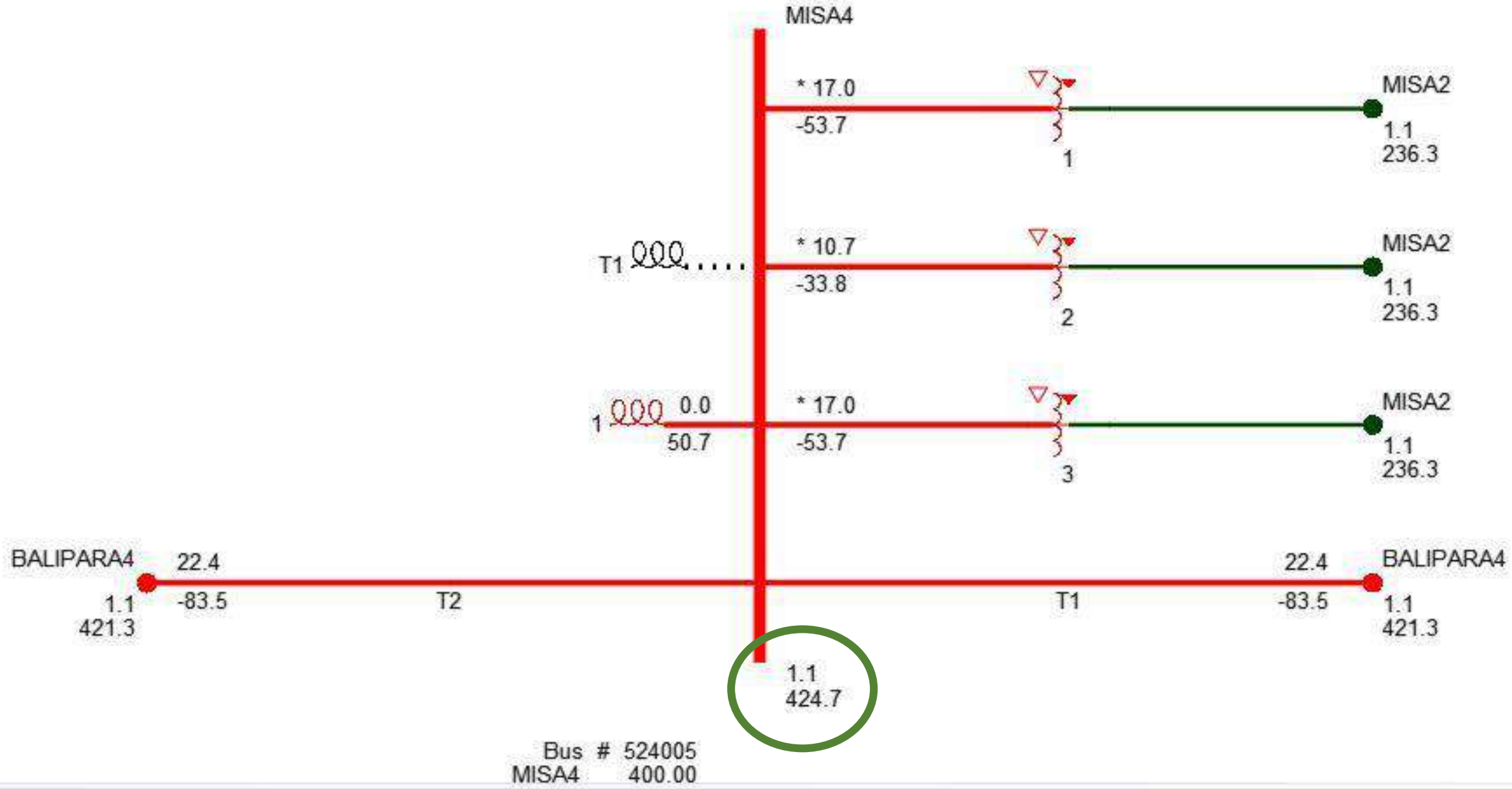
Scatter plot of Misa 400/220 kV Voltage: May 20 to Aug 20 (High Hydro)



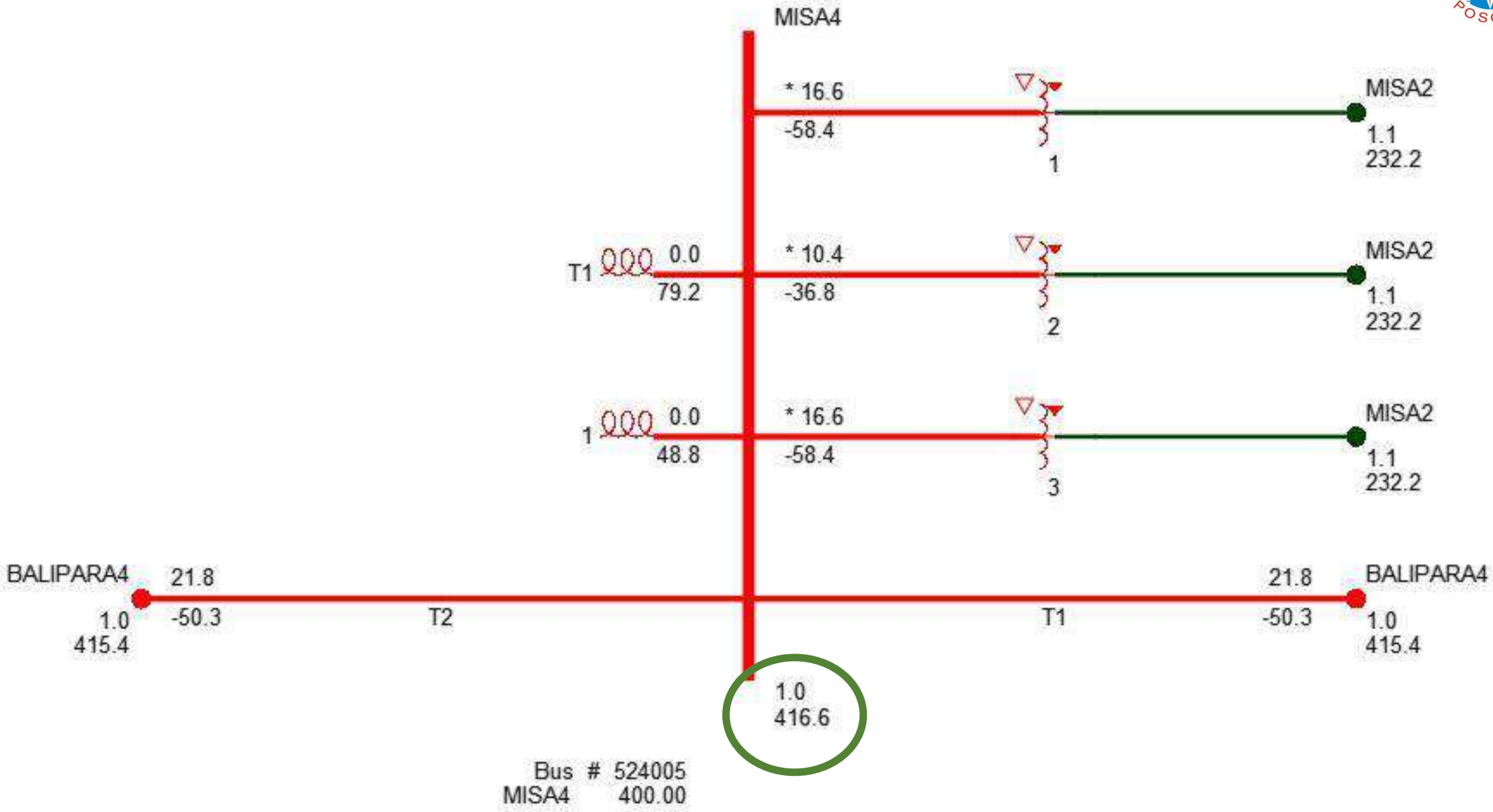
Scatter plot of Misa 400/220 kV Voltage: Sep 19 to Apr 20 (Lean Hydro)



Voltage at 400 kV Misa Before charging the 420 kV 80 MVAR BR at Misa



Voltage at 400 kV Misa After charging the 420 kV 80 MVAR BR at Misa



Conclusion

- The max voltage observed during the High Hydro period for the year 2019 is about 421 kV
- The max voltage observed during the High Hydro period for the year 2020 is about 421 kV
- The max voltage observed during the Lean Hydro period for the year 2019 is about 424 kV
- As per system study, a reduction of about 8 kV at 400 kV Misa Bus has been observed after charging the 420 kV 80 MVAR Bus Reactor at Misa.
- Hence, 420 kV 80 MVAR Bus Reactor at Misa is desired and helpful for voltage control in NER Grid.

BACK

ASSAM					
SL NO.	**SUBSTATION**	**METER NUMBER**	**FEEDER NAME**	**METER TYPE**	**REMARKS**
1	AZARA	NP-9456-A	AZARA END OF 400 KV BONGAIGAON	LNT	Approx 7 min retard
2	AZARA	NP-9457-A	AZARA END OF 400 KV SILCHAR	LNT	Approx 6 min retard
3	SARUSAJAI	NP-8489-A	(132kV Sarusajai-Umtru) feeder	LNT	Approx 8 min retard
4	SARUSAJAI	NP-8492-A	S'SAJAI END OF 132kV UMTRU FDR-2	LNT	defective meter
5	DULLAVCHERRA	NP-9438-A	DULLAVCHERRA END OF D'NGAR FDR	LNT	APPROX 6 MINS RETARD
6	MISA	NP-8605-A	MISA END OF 220kV MARIANI(AS) FDR	ELSTER	
7	MISA	NP-8641-A	MISA END OF 220kV KOPILI FDR -1	ELSTER	
8	MISA	NP-8603-A	MISA END OF 220kV KOPILI FDR -3	ELSTER	
9	MISA	NP-8636-A	MISA END OF 220kV KOPILI FDR -2	ELSTER	
10	MARIANI	NP-8596-A	MARIANI(PG) END OF 220kV KATHALGURI FDR	ELSTER	(RAW DATA DOES NOT CONVERT)
11	SILCHAR	NP-8664-A	SILCHAR(PG) END OF 132kV SRIKONA (ASEB) FDR -1	ELSTER	
12	SILCHAR	NP-8665-A	SILCHAR(PG) END OF 132kV SRIKONA (ASEB) FDR-2	ELSTER	
13	SILCHAR	NP-8666-A	SILCHAR(PG) END OF 132kV HAILAKANDI-II (D'CHERA) FDR	ELSTER	
14	SILCHAR	NP-8667-A	SILCHAR(PG) END OF 132kV HAILAKANDI-I (P'GRAM) FDR	ELSTER	
15	SILCHAR	NP-8563-A	SILCHAR END OF 132 KV PK'BARI-2	ELSTER	
16	KOHIMA	NP-9703-A	KOHIMA END OF KARONG FDR	LNT	ERRATIC READING
17	JIRIBAM	NP-8645-A	JIRIBAM(MAN) END OF JIRIBAM(PG)FDR	ELSTER	21 Mins retard
18	JIRIBAM	NP-8623-A	JIRIBAM(PG) END OF BADARPUR FDR	ELSTER	12 MINS RETARD
19	IMPHAL	NP-8672-A	Imphal(PG) end Of Loktak-2	LNT	approx 9 mins retard
20	BGTPP*	NP 9646-A	NTPC ICT-1 HV SIDE CHECK	LNT	APPROX 16 MIN RETARD
21	LEKHI	NP-9652-A	LEKHI END OF 132KV PARE FDR	LNT	HEAVY ERROR
22	HAFLONG*	NP-8656-A	HAFLONG(PG) END OF JIRIBAM(PG) FDR	ELSTER	Not Important

RATIFICATION OF TECHNICAL AND COMMERCIAL DATA FOR POC Q3 2020-21

NERLDC, POSOCO

DEMAND FORECAST USING PAST 3 YEARS DATA (Oct- Dec 2020)

	Comments	Data given by DICs	Ratification at 169th OCCM
Arunachal Pradesh	As per data given by Arunachal Pradesh	**137**	**137**
Assam	As per data given by Assam	**1700**	**1700**
Manipur	As per data given by Manipur	**242**	**242**
Meghalaya	As per data given by Meghalaya	**385**	**385**
Mizoram	As per data given by Mizoram	**135**	**135**
Nagaland	As per data given by Nagaland	**156**	**156**
Tripura	As per data given by Tripura	**420**	**420**

Generation Projection (Oct- Dec 2020)

Sl. No.	Entities	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratification at 169th OCCM
1	AGTPP, NEEPCO	As per data given by NEEPCO	128	128
2	Doyang, NEEPCO		72	72
3	Kopili, NEEPCO		0	0
4	Kopili 2, NEEPCO		22	22
5	Khandong, NEEPCO		44	44
6	Ranganadi, NEEPCO		401	401
7	AGBPP_Kathalguri		220	220
8	Loktak, NHPC	As per data given by NHPC	105	105
9	Palatana GBPP	As per data given by OTPC	680	680
10	Bongaigaon_NTPC	As per data given by NTPC	615	615
11	Pare	As per data given by NEEPCO	112	112
12	Kameng	As per data given by NEEPCO	300	300

Generation Projection (Oct- Dec 2020)

Sl. No.	Entities	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratification at 169th OCCM
13	Arunachal Pradesh	As per data given by AP	9.5	9.5
14	Assam	As per data given by Assam	296	296
15	Manipur	No Generation	No Generation	No Generation
16	Meghalaya	As per data given by Meghalaya	238	238
17	Mizoram	As per data given by Mizoram	59	59
18	Nagaland	As per data given by Nagaland	16	16
19	Tripura	As per data given by Tripura	141	141

THANK YOU