सत्यमेव जयते

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
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No.: No. NERPC/SE (O)/OCC/2021/987-1025 June 02, 2023

To
As per list attached

Sub: Minutes of 202nd OCC Meeting.

Sir/Madam,

Please find enclosed herewith the minutes of the 202nd OCC Meeting held at "Hotel Soolin Grand", Guwahati on 18th May, 2023 for your kind information and necessary action. The minutes is also available on the website of NERPC: www.nerpc.gov.in.

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

भवदीय / Yours faithfully,

(एस. एम. आइमोल / S. M. Aimol)
निदेशक / Director

Encl: As above

Distribution List:

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
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4. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
5. Managing Director, MSPDCL, Secure Office Bldg. Complex, South Block, Imphal – 795 001
6. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Director (Generation), MePGCL, Lumjingshai, Short Round Road, Shillong – 793 001
8. Director (Distribution), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
9. Director (Tech.), TSECL, Banamalipur, Agartala -799 001.
10. Director (Generation), TPGCL, Banamalipur, Agartala -799 001.
11. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
12. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Chief Engineer (Commercial) -cum- CEI, DoP, Govt. of Arunachal Pradesh, Itanagar- 791111
14. Engineer-in-Chief, P&E Department, Govt. of Mizoram, Aizawl – 796 001
15. Engineer-in-Chief, Department of Power, Govt. of Nagaland, Kohima – 797 001
16. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
17. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
18. Group GM, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
19. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
20. ED, PGCIL/NERTS, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
21. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
22. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi – 110066
23. Dy. COO, CTUIL, “Saudamini”, 1st Floor, Plot No. 2, Sector-29, Gurugram, Haryana – 122001
24. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066
25. Chief Engineer, NPC Division, Central Electricity Authority, New Delhi – 110066
26. ED, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
27. CGM, AEGCL, Bijuli Bhawan, Guwahati – 781001
28. CGM, APGCL, Bijuli Bhawan, Guwahati – 781001
29. CGM, DISCOM, Bijuli Bhawan, Guwahati – 781001
30. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar – 791111
31. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
32. Head of SLDC, MSPCL, Imphal – 795001
33. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
34. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl – 796 001
35. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur – 797103
36. Head of SLDC, TSECL, Agartala – 799001
37. Chief Engineer (Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
38. DGM (O&M), OTPC, Badarghat Complex, Agartala, Tripura – 799014
39. Director, NETC, 2C, 3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-77.

(एस. एम. आइमोल / S. M. Aimol)
निदेशक / Director

सत्यमेव जयते

Minutes of 202nd OCCM

Azadi Ka Amrit Mahotsav

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

North Eastern Regional Power Committee

Minutes of the

202nd Operation Coordination Sub-Committee Meeting

Time of meeting : 10:00 Hrs.
Date of meeting : 18-05-2023 (Thursday)
Venue : "Hotel Soolin Grand, Guwahati"

The list of participants attached as **Annex-I**

Member Secretary, NERPC welcomed all the participants. He apprised the forum that the long pending Jiribam- Halflong Transmission line is now in service and one redundant path is available for Assam state and it will improve system reliability. He congratulated all concerned stake holders for taking pain to bring the line in service. He also congratulated NEEPCO and NER states for the soon to be revived Kopili-II (25 MW) plant of NEEPCO.

He requested NER states to nominate suitable officer for AMC tendering committee of Pilot ADMS system in NER. He also stated that as per present progress of SAMAST project, the ASSAM and Meghalaya state will go live by June 2023 and requested other states to expedite.

He then requested Director NERPC to take over further discussion on agenda.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 201st MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 201st meeting of Operation Sub-Committee held on 25th April 2023 at Hotel the Lily, Guwahati was circulated vide letter No. NERPC/SE (O)/OCC/2021/515-553.

Following comment(s)/observation(s) were received from the constituents:

Utility	Agenda Item	Recorded in MoM	Comments (To be modified)
MePTCL	C.9	MePTCL provided in principle approval for conversion of 132 KV Khliehriat 2 bay to GIS under ISTS. However, final approval will be provided after analyzing financial implications of handing over the ownership to PGCIL and obtaining administrative approval	MePTCL agreed in principle for conversion 132 KV Khliehriat 2 bay at 132 KV Khliehriat (PG) S/S to GIS. POWERGRID was enquired about the implications for conversion to GIS under ISTS as funding by MeECL might be a problem. It was informed that ownership and maintenance of the bay (which belongs to MePTCL) will be with the executing agency, i.e., POWERGRID. The line will, however, continue to be under MePTCL. Modalities in respect of operation and maintenance of the bays at both ends, associated financial implications and disposal of original bay equipment will be deliberated separately between CTU and MePTCL before a decision can be finalized.
MePTCL	C.11	MePTCL apprised the forum that the 220kV Killing-Misa D/C line has already been approved as Deemed ISTS line in the 17th TCC/RPC meeting….	MePTCL apprised the forum that the 220kV Killing-Misa D/C line and LILO of 400 KV D/C Palatana-Bongaigaon at 400/220 KV Killing S/S as ISTS lines have already been approved as Deemed ISTS line in the 17th TCC/RPC meeting….

The Sub-committee confirmed the minutes of 201st OCCM of NERPC with above modifications as requested by MePTCL.

B. FOLLOW UP AGENDA ITEMS

B.1. Operational Performance and Grid discipline during April, 2023:

NERLDC presented the Operational Performance and Grid Discipline for the month of April, 2023. (**Annexure B.1**)

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

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

Plants	Reservoir level in meter (as on 24/04/2023)	MU content	Present DC (In MU)	No of days as per current generation
Khandong + Kopilistg II	Under outage and restoration process going on	Under outage and restoration process going on	**0**	Will be "0" until further intimation.
Kopili	Under outage and restoration process going on	Under outage and restoration process going on	**0**	Will be "0" until further intimation.
Doyang	**306.55**	**1**	**0.05**	**20**
Loktak	**766.52**	**13**	**0.21**	**62**

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

Deliberation of the sub-committee

The outage of other generating stations was approved considering the present water levels in reservoirs and long-term outage of Kopili and Khandong HEPs. The list of outages of generating stations is provided in **Annexure B.2**

Shutdown of Palatana Unit-2 was proposed by OTPC from 24.06.2023 to 8.07.2023 for GT-2 Boroscopic inspection and HRSG -2 License renewal & annual maintenance. After detailed discussion, the forum approved the shutdown with schedule as given.

The sub-committee noted as above

B.3. Outage Planning Transmission elements

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

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC: Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 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 list of shutdowns approved for transmission elements is provided at **Annexure B.2**.

The sub-committee noted as above

B.4. Estimated Transmission Availability Certificate (TAC) for the month of March, 2023:

Transmission Utilities have submitted the outage data for the month of March, 2023. The attributability of outage of the said elements has been finalized by NERLDC and NERPC. The Availability percentage of the transmission elements of ISTS licensees for the month of March, 2023 is as follow:

SN	ISTS Licensee	Availability for March'23(%)
1	NETC	99.8390
2	KMTL	99.9737
3	NER-II TL	99.8844
4	PGCIL	99.7940

The sub-committee noted as above

B.5. Mock Black Start Exercise:

As per regulation 5.8 (b) of IEGC, mock black start shall be carried out by Users/CTU/STUs at-least once in 6 months.

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

Status as updated in 201st OCCM

Plant Name	Last testing date	Due date	Schedule of Testing as per 201st OCCM
AGBPP	.....	.....	after upgradation of DG under R&M*
AGTTCCPP	04.02.2023	04.08.2023	04.08.2023
RHEP	28.11.2022	28.05.2023	28.05.2023
Pare HEP	15.02.2023	15.08.2023	15.08.2023
Kopili HEP	10.05.2019	Under prolonged shutdown	Under prolonged shutdown
Khandong HEP	09.12.2021	Under prolonged shutdown	Under prolonged shutdown
DHEP	21.10.2022	21.04.2023	12.05.2023
Kameng HEP	.....	.....	**
Loktak HEP	16.12.2021	20.06.2022	Date to be finalized in consultation with NERLDC

*Regarding AGBPP, GM, NEEPCO updated that R&M of the plant has been approved and procurement process will start soon.

**Regarding Kameng HEP, GM, NEEPCO intimated that M/s BHEL has still not responded to the concerns raised by NEEPCO regarding the changes in circuitry as proposed by M/s BHEL. The forum requested NERPC to write a letter to the OEM to expedite the process.

Deliberation of the sub-committee

Status as updated in 202nd OCCM

Plant Name	Last testing date	Due date	Schedule of Testing as per 202nd OCCM
AGBPP	.....	.....	after upgradation of DG under R&M*
AGTTCCPP	04.02.2023	04.08.2023	04.08.2023
RHEP	28.11.2022	28.05.2023	28.05.2023
Pare HEP	15.02.2023	15.08.2023	15.08.2023
Kopili HEP	10.05.2019	Under prolonged shutdown	Under prolonged shutdown
Khandong HEP	09.12.2021	Under prolonged shutdown	Under prolonged shutdown
DHEP	21.10.2022	21.04.2023	Done on 12th May 2023

Kameng HEP	…….	…….	**
Loktak HEP	16.12.2021	20.06.2022	NHPC will confirm the dates once the water level improves

*Regarding AGBPP, GM, NEEPCO updated that R&M of the plant has been approved and procurement process will start soon.

**Regarding Kameng HEP, Sr. GM NERLDC intimated the forum that as per a study on feasibility of Mock black start exercise on Kameng Machine the MVAR required to be absorbed by the machine for idle charging of 400kV Balipara-Kameng single circuit is 34 MVAR while the corresponding capability of the machine, as per the capability curve, is 67MVAR. So, the machine is capable for the exercise. GM, NEEPCO requested Member Secretary NERPC to write a letter to the OEM, M/s BHEL to expedite the process.

The sub-committee noted as above

Action: NEEPCO, NERPC

B.6. Status of ADMS:

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

Name of the utility	SAT Completion	DoCO
DoP Ar.Pradesh	27-01-2021	Enabled & in-operation
AEGCL/APDCL	07-12-2020	Enabled & in-operation
MSPCL	24-11-2020	Enabled & in-operation
MePTCL/MePDCL	31-08-2020	Enabled & in-operation
P&ED Mizoram	22-02-2021	Enabled & in-operation
DoP Nagaland	17-11-2020	Enabled & in-operation
TSECL	24-12-2020	Enabled for three substations while yet to be enabled for other three substations

As updated in the 201st OCCM:

DGM, SLDC, TSECL stated that shifting works at the Takerjhala, Bishalgarh and Badarpur substations is completed, however, some issue related to handing over etc remain to be settled. He further informed that ADMS is expected to be installed by August'23.

ED, NERLDC highlighted that event wise reports on operation of ADMS is not being received from any state except Assam. On few occasions, reports have been received from SLDC Meghalaya and SLDC Mizoram. He clarified that a report has to be

generated at every SLDC when ADMS tripping condition is satisfied, irrespective of tripping of the feeders. The same has to be then submitted to NERPC/NERLDC.

Deliberation of the sub-committee

NERLDC informed that Assam, Meghalaya and Mizoram send ADMS reports on event basis. SLDC Nagaland mentioned that reports are being sent on monthly basis. NERLDC clarified that reports regarding ADMS operation must be sent for each event basis apart from monthly reports.

Further, NERLDC mentioned that during the low frequency event on 15-05-2023 when all India grid frequency touched 49.40 Hz, ADMS operation was expected only from Tripura as among all states of NER only Tripura was overdrawing during the aforementioned event. But as the ADMS is not fully operational in Tripura, the same did not operate. SLDC Tripura mentioned that implementation of ADMS is underway in the state.

The sub-committee noted as above

Action: Tripura

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

At present NERLDC is reporting the violation of import TTC/ATC of NER states in daily, weekly and monthly basis. It has been observed that most of the NER states are not N-1 secure causing violation of TTC/ATC limit although the actual drawl remains within the schedule values. Violation has been observed in case of Assam, Meghalaya, and Tripura states.

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

State	Time Period	N-1 considered	Limiting element	TTC	RM	ATC
Arunachal Pradesh	Off-Peak	132kV Lekhi – Pare	132 kV Pare – Itanagar S/C	195	5	190
	Peak			195	5	190
Assam	Off-Peak	220kV Misa-Samaguri I or II	220 kV Balipara-Sonabil	1730	40	1690
	Peak			1600	40	1560
Manipur	Off-Peak	132kV Imphal MA-Imphal PG Ckt I	132 kV Imphal (MA)-Imphal (PG) II & III	320	5	315
	Peak			320	5	315
Meghalaya	Off-Peak	132 kV Umiam3 – Umiam1	132 kV Umiam-Umiam Umiam 1 II	340	10	330
	Peak			260	10	250
Mizoram	Off-Peak	132 kV Melriat-Silchar I ORII	132 kV Aizawl-Luangmual S/C	160	5	155
	Peak			155	5	150
Nagaland	Off-Peak	220/132 kV ,100	220/132 kV ,30	255	5	250

	Peak	MVA Dimapur ICT	MVA Mokokchung ICTs	290	5	285
Tripura	Off-Peak	132 kV SM Nagar(ISTS) Budhjungnagar S/C	132 kV SM-Nagar (TR) – SM Nagar (ISTS) S/C	340	6	334
	Peak			315	6	309

In previous OCC meeting(s) it was decided that in the event of any major shutdown(approved/emergency) the state periphery ATC/TTC shall be calculated by respective SLDC and communicated to NERLDC.

As agreed in previous OCCMs, all the states are requested to provide the respective ATC/TTC to NERLDC on monthly basis.

In 201st OCCM, NERLDC informed that ATC/TTC reports are being sent by all States except Arunachal Pradesh and Manipur. The forum once again requested all States to furnish the ATC/TTC reports to NERLDC on monthly basis.

Deliberation of the sub-committee

NERLDC highlighted that the state-wise TTC/ATC report has not been submitted by Arunachal Pradesh, Manipur and Nagaland for the Month of April'23. Further, NERLDC informed that Arunachal Pradesh has not sent the TTC/ATC report since beginning. Forum suggested Arunachal Pradesh to consult NERLDC and start sending the said reports at the earliest.

B.8. Issues pertaining to Kopili & Khandong.

A. Load restriction in Meghalaya Power System due to outage of Khandong HEP & KopiliStg-II:

Khandong & Kopili Power Stations have been under forced outage due to which there has been vulnerabilities in the Meghalaya Power system. The following lines are critical for removing the vulnerabilities-

- Restoration of Misa-Kopili-Khandong link
- Restoration of Jiribam -Haflong line
- Reconductoring of 132kV Lumshnong-Panchgram line
- Commissioning of 220kV Mawngap-Killing line

Status may be updated

B. Restoration works at Khandong and Kopili substations

Following the discussions in the 189th OCCM and in the special meeting held on 27.04.2022 in presence of representatives from NERPC, NERLDC, NEEPCO, NERTS

and AEGCL, Khliehriat – Khandong – Umrangshu link was charged as an interim special arrangement.

Efforts are being taken to restore the following lines on permanent basis-

- 132kV Kopili-Khandong D/C
- 132kV Khliehriat-Khandong D/C
- 132kV Khandong-Umrangshu line

Status may be updated

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

NEEPCO is planning to re-commission and synchronize 1X25MW Khandong Stage-II unit soon. For reliable evacuation, any of the Khandong-Khleihriat ckt1 or ckt 2 along with 132kV Khandong-Umrangshu line (with full protection system) is required. And for evacuation of 2 units of Kopili, which are poised to come in May'23, either 220kV Misa-Kopili D/C or Kopili-Khandong D/C is required.

In previous OCC meetings following points were discussed

i) Regarding restoration of Jiribam-Haflong line, DGM, NERTS updated that the line is ready for charging which will be done after getting RIO clearance. He further added that RIO inspection is scheduled along with inspection of POWERGRID & NEEPCO assets at Khandong.

ii) Regarding Mawngap-Killing line, NERPSIP updated that the ROW issue at Nongpoh section was being taken up at the highest level in the government.

iii) Regarding revival schedules, GM, NEEPCO updated that Khandong stg II will come by 30th April'23 subject to RIO and FTC clearance, and Kopili 1st unit by 1st June'23 and 2nd unit by end of June'23.

iv) Regarding permanent restoration of Khandong-Khlieihriat ckt II, GM, NEEPCO updated that PLCC for Khlieihriat and Umrangshu feeder have been commissioned and data telemetry will be established in the next 3-4 days. Regarding OPGW connectivity of the Khandong station, DGM, NERTS updated that OPGW rerouting at Khandong substation will be done on 27th April '23 and there will be telemetry outage of the Umrangshu feeder.

v) Regarding restoration of Kopili-Khandong D/C, NERTS updated that procurement of SAS based panel from OEM is involved and the restoration work may go up to September'23.

vi) Regarding restoration status of 220kV Misa bays at Kopili, GM NEEPCO updated that bay equipment is ready, but cabling termination work is still left. He further added that restoration of 220/132kV ICTs has to be ensured by the PGCIL at the earliest so that reliable station and auxiliary power supply can be ensured through the 132/33kV SST and SAT.

vii) NERLDC and SLDC Meghalaya raised concern that restoration of Misa-Kopili-Khandong link in totality is essential for ameliorating the power supply scenario in Meghalaya, specially before the onset of next winter season.

Deliberation of the sub-committee

i) DGM, NERTS updated that 132kV Jiribam-Haflong line has been successfully charged on 17th May 2023.

ii) Regarding Mawngap-Killing line, NERPSIP intimated that there is some development in resolution of RoW issue at Nongpoh and erection work will be done in 1st week of June, 2023. Further, the line will be tentatively charged by 1st week of July, 2023.

iii) Regarding revival schedule of generating units, GM NEEPCO updated that Khandong stg 2 (Kopili stg 2) will be charged within 1 or 2 days, while revival of two units of Kopili may go upto July'23.

iv) Regarding restoration of 132kV Khandong-Khleihriat D/C, GM, NEEPCO updated that ckt 2 and Khandong-Umrangshu line have been restored on permanent basis but the restoration of bay of 132kV Khandong-Khleihriat Ckt 1 will take longer time (more than 1 year). Regarding restoration of Ckt 1, DGM, NERTS proposed to charge the ckt through Kopili 2 bay at Khandong substation till the permanent restoration of 132kV Kopili-Khandong D/C line is done. Forum noted that this shall improve reliability of the corridor and supply of power to Meghalaya and thus the proposal was approved till readiness of Khleihriat-1 bay at Khandong.

v) Regarding restoration status of 132kV Kopili-Khandong D/C, DGM, NERTS updated that GIS works are underway at Kopili and SAS based panels for the lines are under procurement. He stated that the line will tentatively be charged by September 2023. He further proposed that after restoration of the Kopili-Khandong D/C, the Khliehriat

Khandong ckt 1, which would have been charged through Kopili 2 bay at Khandong till then, may be connected directly to Kopili-Khandong ckt 2 through a bypass arrangement at Khandong S/Y using Transfer Bus, thus making a direct Kopili-Kliehriat link. The arrangement will work till the bay restoration work at Khandong is completed by NEEPCO. NERTS opined that this arrangement will not only avoid keeping the Khliehriat-Khandong ckt 1 idle, but also provide necessary redundancy to the Meghalaya Grid.

vi) Regarding restoration of Khandong Bus B, GM, NEEPCO apprised that the restoration will take a longer time frame (more than one year) as tender has not yet been finalized. He also highlighted that till the restoration of Bus B, the whole Khandong substation will be working with singe bus only, thus redundancy at khandong station will remain compromised.

vii)NERLDC and SLDC Meghalaya reiterated that Misa-Kopili-Khandong link must necessarily be revived before the onset of next winter season in Meghalaya to cater safely to the peak demand of Meghalaya.

The sub-committee noted as above

Action: NERTS, NEEPCO

B.9. Implementation of Guwahati Islanding Scheme:

As per Clause 10 of the Central Electricity Authority (Grid Standards), Regulations, 2010: "Islanding Schemes- (1) The Regional Power Committees shall prepare Islanding schemes for separation of systems with a view to save healthy system from total collapse in case of grid disturbance. (2) The Entities shall ensure proper implementation of the Islanding Schemes"

Pursuant to the above regulation, NERPC through an empowered committee, has finalized the Guwahati Islanding scheme and prepared the DPR. The DPR was presented in 23rd NERPC/TCC meeting to get approval for funding through PSDF.

In 196th OCCM, Member Secretary NERPC updated that the finalized DPR was discussed in 23rd NERPC meeting and issue of high cost was flagged. So, re-estimation of project cost will be done at the earliest.

In the 198th OCCM, AEGCL was requested to re-examine the cost estimates in the DPR and intimate the subcommittee.

In the 199th OCCM, AEGCL updated that the substations identified under the Guwahati islanding scheme are mostly devoid of OPGW connectivity with the SLDC and thus OPGW requirement is high. However, other OPGW suppliers are being consulted to reduce the cost implication.

After detailed deliberation, the forum decided that the empowered committee on islanding scheme will reassemble and explore the option of using existing fiber optic links, wherever present (on bandwidth sharing basis) and mull over the ways to reduce total cost of the islanding scheme. The report of the committee will be regularly discussed in the NeTEST meetings.

In the 200th OCCM, Director, NERPC stated that in the 24thNETeST meeting, Assam has informed that there are no OPGW links on existing lines covered under the proposed Guwahati Islanding Scheme.

It was suggested in the meeting that AEGCL may apply for PSDF funding under Reliable communication scheme state sector for installing OPGW and include these lines which are covered in the proposed Islanding scheme.

In 201st OCCM, Director, NERPC apprised the forum that an online meeting was organized to discuss the ways and means to reduce the cost of the proposed scheme. To further resolve the issues, an offline meeting will be organized with the concerned stakeholders soon.

Deliberation of the sub-committee

MS, NERPC informed that physical meeting for Implementation of Guwahati Islanding Scheme will be conducted in the 2nd week of June 2023.

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

Status as updated in the 201st OCC Meeting

Name of the state/utility	Submission of revised UFR list	Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	Stg-1 (49.4Hz) implementation in new feeders. UFRs have been procured and the same have reached the site. Installation will	Coordination with M/S GE is ongoing, tentative completion by May'23

		be completed by 1st week of May'23	
Assam	Submitted	Installation Completed.	Done
Manipur	Not submitted	No extra shedding required only Stage upward revision to be done. ADMS and UFR feeder segregation to be done for Stage-I by next OCCM	To be done
Meghalaya	Submitted	17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA	Done
Mizoram	submitted	Completed	SCADA display has been made at SLDC but real time data is not reporting as no communication link is available for most of the substations where UFRs are installed. The SCADA display is to be shared with NERLDC.
Nagaland	Submitted	Completed	Completed
Tripura	Submitted	Stage-1(49.4Hz), Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. Stg I UFR installed	Mapping by May'23 for P K Bari and Ambassa. For Badarghat(33kV SS), mapping not possible as no RTU available

SLDC Mizoram intimated that visibility of most of the UFR enabled feeders is not available in SLDC SCADA as no RTUs are available at 33kV substations. The forum requested Mizoram to ensure the visibility of UFR enabled feeders connected at 132kV substations, which have RTUs and communication link, in the SCADA at SDLC. Mizoram agreed.

NERPC requested all the state utilities to send monthly UFR reports to NERPC and NERLDC in compliance with IEGC regulations.

Member Secretary NERPC exhorted the States to avail PSDF funding for establishing communication links for 66kV and above substations.

Deliberation of the sub-committee

Status as updated in the 202nd OCC Meeting

Name of the state/utility	Submission of revised UFR list	Installation of UFRs and Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	Stg-1 (49.4Hz) implementation in new feeders. UFRs have been procured and the same have reached the site. Installation to be completed by June'23	Coordination with M/S GE is ongoing. Shifting works underway. Mapping to be done after the work
Assam	Submitted	Installation Completed.	Done. NERLDC intimated that 132 kV Azara – Mirza line has been mapped in UFR SCADA display by Assam in place of 33kV Mirza feeder at Azara sub-station.
Manipur	Not submitted	No extra shedding required only Stage upward revision to be done. ADMS and UFR feeder segregation to be done for Stage-I by next OCCM	To be done
Meghalaya	Submitted	17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA	Done. NERLDC informed that the feeder load data (MW) and CB status data of Stage-1 UFR is suspect in Meghalaya UFR SCADA display

Mizoram	submitted	Completed	SCADA display has been made at SLDC but real time data is not reporting as no communication link is available for most of the substations where UFRs are installed. The SCADA display is to be shared with NERLDC.
Nagaland	Submitted	Completed, time delay(30sec) in tripping logic has to be removed	Completed
Tripura	Submitted	Stage-1(49.4Hz), Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. Stg I UFR installed but physical verification is yet to be done.	Mapping by May'23 for P K Bari and Ambassa. For Badarghat(33kV SS), mapping not possible as no RTU available

The forum noted that during the incident as mentioned in item C.8, UFR responses of the NER region is not satisfactory as UFRs operated at only 2 out of 7 states of NER. NERPC suggested that in line with regulation 5.2.n of the IEGC 2010, inspection of UFR of the states should be carried out at the earliest in order to ensure functionality of the same. Further he suggested that UFR inspection may be clubbed with Protection Audits to save time. The forum agreed to the suggestion.

Further, NERLDC mentioned that Assam, Nagaland and Meghalaya are providing UFR report on monthly basis. Rest of the states are required to submit as per IEGC. The forum suggested that all SLDCs must send monthly and event basis UFR operation reports to NERLDC and NERPC.

The forum also requested Assam and Meghalaya to correct the UFR SCADA display issues at the earliest.

The sub-committee noted as above

Action: all state utilities, NERPC

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

Primary Frequency Response Testing of generator units is being carried out in line with the Clauseno.5.2(g) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

Schedule as agreed in the 201st OCC meeting:

Region	Station	No. of Generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	NEEPCO-Monarchak	1	26th July'22	28th July'22	done
NER	NEEPCO-Kameng	1 (by M/s Solvina)	Oct'22	Oct'22	Done on 20th, 21st Oct, 2022
NER	OTPCL-Palatana	2 (by M/s Solvina)	Nov'22	Nov'22	To be done*
NER	Doyang-NEEPCO	2 (by M/s Siemens)	Oct'22	Oct'22	4(water level to be sufficient enough to run the units at full capacity)**

Regarding PFR testing at Palatana, OTPC intimated that a meeting was held with NERLDC on 4th April 2023 in presence of NLDC and testing agencies (M/s Solvina and M/s Seimens) regarding the additional software block which has been developed by OEM (M/s BHEL) for injecting simulated frequency signals during the PFR Test. Further, OTPC highlighted that once the aforementioned logic block is approved, the same has to be configured in the machine Controller. In this regard, the OEM has stated that such configuration in the controller cannot be done online and hence requires the shutdown of the machine. OTPC stated that a meeting will be organized shortly with NERPC, NERLDC, NLDC, BHEL, Solvina, Seimens and OTPC to finalize the PFR testing procedure along with approval of the additional software logic block and utilization of the facilities available in controller for injection of simulated frequency signals in place of the external test kit of the testing agencies.

Deliberation of the sub-committee

Regarding PFR testing at Palatana, OTPC intimated that the additional software logic block has been discussed with the NERLDC and logics have been finalized. The same will be discussed with NLDC and will be inserted in the machine controller during shutdown of individual machines after consent of NLDC is obtained. The PFR test will be conducted via the aforementioned in-built software logic blocks in the control

system. OTPC informed that test will be conducted tentatively in June'23 and July'23 for Unit-1 and Unit-2 respectively after completion installation of software logic block during shutdown of the said units.

Regarding PFR testing at Doyang HEP, GM, NEEPCO intimated that the testing will be done once the available water level becomes sufficient.

The sub-committee noted as above

Action: OTPC, NERLDC, NLDC

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

There is a requirement of regular and proper maintenance of transmission lines. It is requested to carry out the patrolling activities as per ClNo.23(2), (3) & (4) of CEA Grid Standards Regulation,2010on regular basis and submit the report to NERPC/NERLDC.

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

In 201st OCCM, NERLDC informed that most of the States are regularly submitting the Patrolling report. However, few States like Arunachal Pradesh, Manipur and Mizoram are still not following the same. MS, NERPC strongly advised all SLDCs to seriously take-up the matter of regular line patrolling with their respective state utilities and submit the patrolling reports to NERLDC/NERPC on regular basis.

Deliberation of the sub-committee

NERLDC highlighted that Ar. Pradesh, Mizoram and Manipur are still not furnishing the reports. MS, NERPC exhorted the states to follow the exercise and submit the reports regularly to NERLDC/NERPC.

The sub-committee noted as above

Action: all state utilities

B.13. Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	Feb-23 (LGBR)	Feb-23 (Actual)	Mar-23 (LGBR)	Mar-23 (Actual)	Apr-23 (LGBR)	Apr-23 (Actual)
Arunachal Pradesh	164.59	159	153.31	172	153.93	154.980
Assam	1550.00	1572	1680.00	1670.32	1885.80	2013.100

Manipur	239.00	225	227.00	212.32	208.06	212.700
Meghalaya	381.00	394	354.00	373.99	366.18	335.859
Mizoram	143.49	139	119.27	128.82	122.72	126.870
Nagaland	160.00	148	155.00	156.4	147.66	150.100
Tripura (exc. Bangladesh)	227.80	252	250.00	263.9	322.32	337.500
NER DEMAND (exc. Bangladesh)	2709.00	2801	2686.32	2915	3073.35	3332

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	Feb-23 (LGBR)	Feb-23 (Actual)	Mar-23 (LGBR)	Mar-23 (Actual)	Apr-23 (LGBR)	Apr-23 (Actual)
Arunachal Pradesh	65.79	68.87	71.99	77.54	71.30	74.28
Assam	713.23	735.650	862.52	837.76	813.63	913.960
Manipur	88.92	78.24	79.03	81.08	77.94	75.32
Meghalaya	185.66	190.97	191.76	193.22	175.14	192.69
Mizoram	56.55	53.02	55.48	53.45	53.42	49.06
Nagaland	61.70	59.19	66.11	70.54	70.83	65.83
Tripura (excl. Bangladesh)	100.63	108.86	118.05	122.97	151.41	149.91
NER DEMAND (exc. Bangladesh)	1264.84	1295.493	1473.94	1437.192	1413.67	1521.775

Deliberation of the sub-committee

The sub-committee noted the LGBR projected demand vis-à-vis actual demand as above.

The sub-committee noted as above

B.14. Installation of AWS by IMD Guwahati

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

NERLDC vide emails dated 10.01.2023 to all the states requested to facilitate for signing of MoU with IMD Guwahati for installation of AWS in NER substations.

In 198th OCCM, NERLDC intimated that modified MoU by IMD has been shared with all the States by e-mail.

Arunachal Pradesh mentioned that the draft MoU has been sent to Government of Arunachal Pradesh for approval. The forum requested all States to sign the MoUs at the earliest.

In 201st OCCM, NERLDC stated that as updated by the IMD, the MoU has been signed from their end and the same is pending from Assam end.

After detailed deliberation, the forum decided that a special VC/online meeting will be held by NERLDC with the presence of all concerned States and stakeholders.

Deliberation of the sub-committee

AEGCL intimated that IMD has not yet signed the MoU. NERLDC apprised the forum that an MoU has already been signed between APGCL and IMD, and AEGCL should pursue the matter with the IMD to facilitate signing of the MoU early.

Regarding IMD stations in Nagaland, NERLDC informed that 360-degree view pictures of the 14 substations are required by IMD. EE, DoP, Nagaland intimated that pictures for 2 substations have already been sent, rest will be sent soon.

EE, DoP Arunachal Pradesh informed that concerned official form Pashighat transmission circle has been directed to provide update on availability of land in nearby township area.

After detailed discussion the forum decided that NERLDC will convene a meeting with IMD to expedite the matter and early resolution of hurdles.

The sub-committee noted as above

Action: AEGCL, Ar. Pradesh, Nagaland

B.15. Status of implementation of SPS in Assam Power System:

As per the minutes of Sub-group meeting held on 27.09.22, SPS for load reduction in capital area of Assam power system on tripping of 220 kV Azara-Sarusajai D/C or 220 kV Misa-Samaguri D/C was recommended for safe and reliable operation with the following tripping conditions:

Triggering condition 1: Tripping of 220kV Azara – Sarusajai D/C SPS action: Tripping of 132kV Kahilipara – Kamalpur and 132 kV Sarusajai – Kamakhya lines. For tripping of 132 kV Kahilipara – Kamalpur line, OPGW connectivity between Sarusujai and Kahilipara will be used to send the tripping signal for tripping Kamalpur feeder at Kahilipara.

Triggering condition 2: Tripping of 220kV Misa - Samaguri D/C SPS action: Tripping of 132kV Samaguri-Sankardevnagar Line.

AEGCL may update on the latest status regarding implementation status of the proposed SPS.

In previous OCC meetings, AEGCL updated that distribution feeders for disconnection of 20MW at Sarusajai/Kahilipara has been identified and logic is being finalized for tripping condition 1. AEGCL further informed that, in order to implement the SPS, some communication equipment would be required at Kahilipara. Regarding tripping condition 2, AEGCL agreed to implement the scheme without any modification and the work will start after obtaining their administrative approval.

In 201st OCCM, AEGCL updated that for tripping condition 1, administrative approval is awaited and for tripping condition 2, SPS will be implemented by May, 2023.

Deliberation of the sub-committee

Regarding tripping condition 1, AEGCL updated that BOQ has been prepared regarding procurement of communication equipment at Kahilipara. The same has been put up for administrative approval. AEGCL further updated that hard wiring at substations will be done by the end of June'23.

Regarding tripping condition 2, AEGCL updated that the SPS has been commissioned at Samaguri substation on 10th May'23 (load disconnection of 50MW). However, the DT reception logic (DT signal to be sent from Misa end) has not yet been incorporated in the SPS. DGM, NERTS intimated that DT sent logic has been finalized at Misa end but no spare PLCC code is available at Samaguri end. He, therefore, requested AEGCL to free up code 3 or code 4 in order to receive the DT signal from Misa to Samaguri. AEGCL assured to do the work at the earliest.

The sub-committee noted as above

Action: AEGCL

B.16. Installation of 10 MVAR Bus Reactor at 132 kV Meluri S/S for Closed loop formation of Kohima-Meluri-Kiphire-Tuensang-Mokokchung link

132 kV Kohima S/S is presently connected with the rest of the NER grid via 132kV Karong-Kohima line,132 kV Kohima-Chiephobozou-Wokha-Sanis-Doyang link,132 kV Dimapur-Kohima line & 132 kV Kohima-Meluri line but Kohima-Meluri-Kiphire-Tuesang-Mokokchung link is generally kept open from Kiphire end. Kohima S/S caters to the load of Capital area of Nagaland Power System; hence the availability of Kohima

S/S is very important. However, this area is prone to frequent grid disturbances due to its geographical location.

On 2nd Nov'22 at 13:52 hrs during the visit of Hon'ble President of India, Grid disturbance occurred in Kohima area of Nagaland Power System with a load loss of 19MW and generation loss of 8MW making it a critical situation.

Forming closed loop connection of Kohima-Meluri-Kiphire-Tuesang-Mokokchung will strengthen the connectivity of Kohima S/S and upgradation of 66kV Kiphire-Tuensang-Mokokchung link to 132 kV will enhance the reliability and security of the Capital area of Nagaland Power System. However, high voltage issue at Meluri S/S (upto 145 kV) is observed in the present condition. As per system study, installation of Bus reactor of 10 MVAR capacity at Meluri S/S will resolve the issue. Hence, the Kohima-Meluri-Kiphire-Tuesang-Mokokchung link at 66kV or 132 kV can be kept in closed loop only after installation of 10MVAR Bus Reactor otherwise high voltage condition will persist in Meluri and Kohima S/S.

DoP, Nagaland is requested to install the reactor at 132 kV Meluri S/S for closed loop operation of the above-mentioned link and expedite the upgradation works of the same to 132 kV.

In 196th OCCM, the forum had approved for installation of 10MVAR switchable line reactor at Meluri s/s to address high voltage scenario as highlighted by NERLDC and requested Nagaland to complete the upgradation of 66kV Mokokchung-Tuensang-Kiphire link to 132kV at the earliest. Also, the matter was referred to CMETS meeting, but CTU pointed out that concerned substations and lines are intra-state elements, so planning related to these elements is beyond its ambit. Therefore, the matter is referred to sub-committee for further deliberation.

In 200th OCCM, DoP Nagaland updated that proposal for installation of Bus Reactor will be proposed for PSDF funding and for upgradation of bay equipment at Mokokchung and Kiphire substations, funding will be requested from North Eastern Council (NEC).

In 201st OCCM, SE, DoP Nagaland intimated that installing 10MVAR reactor at Meluri substation is practically challenging owing to manpower and space issues. Instead, installing 5MVAR reactors at Kiphire and Kohima each can be looked into.

NERLDC to present the results of system study for the alternate arrangement as suggested by Nagaland.

Deliberation of the sub-committee

Sr. GM NERLDC intimated that installation of 5MVAR (or 10MVAr) reactors at Kiphire and Kohima has favorable effect on the voltage profile of the Kohima-Meluri-Kiphire link.

CGM, NERTS stated that the effects of reactors may be favorable owing to presence of weak source of reactive power in the region, which might not be the case with addition of new networks which are under construction under NERPSIP or state projects. He therefore suggested that to ensure long term stabilization of voltage profile of Nagaland power system, a system study has to be conducted incorporating the upcoming elements in the state.

NERLDC agreed to do the study and will present the study in next OCC meeting.

Regarding upgradation of Tuensang bay equipment from existing 66kV level to 132kV level, Manager, NERPSIP intimated that the upgradation work is under the scope of NERPSIP and tender will be awarded in the next one month. He further stated that the upgradation will be completed in next one year.

The sub-committee noted as above

Action: NERLDC, NERPSIP

B.17. Regarding construction Power 132KV line for upcoming TATO -I, II and HEO Hydro Electric Power Project.

NEEPCO is all set to start the Project activity of Tato - I, II and Heo H.E Project at Shi Yumi district of Arunachal Pradesh from this financial year. In order to execute the following point may be looked into.

1 Power Evacuation point: NEEPCO shall initially harness 1125 MW from these three projects and two more project namely Naying and Hirong is in pipeline. Therefore, power evacuation point for all the project may be located at Tato-II Power Site.

2 Initially to start the project activity it is required to have 132 KV at Tato Shi Yumi district which will be initially utilized for construction power and after that it can be utilized for power evacuations.

It is understood that there is one 132KV line under construction from Kamba to Mechoka via Tato under the Comprehensive Scheme. One sub-station either at Heo or Tatao I power house can also be planned under that Scheme. Else, the line please be constructed at a faster pace and NEEPCO can make a LILO at a suitable location at Tato Shi Yumi district to cater the construction power of the said upcoming H. E. Projects in coordination with DoP, Arunachal Pradesh.

In 199th OCCM, GM, NEEPCO requested DoP Ar. Pradesh to set up one substation at Tato II area at Tato under the scope of comprehensive scheme or make a LILO of the Kamba Mechoka line at Tato II so that construction power can be provided for the upcoming HEP projects of NEEPCO in the area. SE SLDC, DoP Ar. Pradesh apprised the forum that Kamba Mechoka line will be initially charged at 33kV as load requirement is low in the Mechoka area and suggested that LILO of the line would be a better option. He asked GM NEEPCO to write a request letter to CE (Transmission) DoP Ar. Pradesh for LILO of the line at Tato.

The forum appreciated the need for timely provision of the dedicated feeder for construction power to NEEPCO and exhorted PGCIL Comprehensive Scheme to expedite the commissioning of Kamba-Mechoka line.

In 201st OCCM, GM, NEEPCO updated that the matter is under consideration of DoP Arunachal Pradesh, however, Comprehensive Scheme (PGCIL) has not provided the timeline for construction and commissioning of the 132kV Kamba-Mechoka line.

Member Secretary, NERPC stated that a review meeting for NERPSIP and Comprehensive Scheme will be held on regular basis to monitor the progress of the projects under the schemes.

Deliberation of the sub-committee

After brief deliberation, the forum requested PGCIL Comprehensive to expedite the construction work of 132kV Along-Kamba-Mechoka line, so that construction power may be provided to upcoming Tato and HEO Hydro Electric Projects at the earliest.

The sub-committee noted as above

Action: PowerGrid Comprehensive

B.18. RPCs are requested to consider following agenda in the OCC/RPC meeting(s) to popularize and explain the PUShP portal to the constituents/stakeholders.

PUShP portal (For Flexibilization of PPA for Optimal Utilization of Resources and Reduction in cost of Power for Consumers) has been launched on 09th March, 2023 by Hon'ble Minister of Power and NRE.

The Portal would be a single window system providing services to diverse domains of all the entities involved and to reallocate and transfer the power in minimum time from one surplus entity to deficit entity. In recent past years, difficulties are observed in meeting the demand and some states do resort to power cuts, especially during April, May, September and October months the crisis is observed while other states have surplus power capacity. The States which have surplus power continue to bear the fixed charge burden without using it which leads to high cost of power to the consumers. Regional diversity makes some states surplus. Like Peak in Northern region is during summer whereas Peak in Southern region is during winter. Similarly, there is diversity in the time at which the peak occurs in the States. Such regional diversity in the load demand was not able to address even though the generation capacity is available in the country. The reasons behind were many like one-to-one Power Purchase Agreements, some procedural constraints, non-availability of easy match making arrangements etc.

This portal will provide a platform for optimal utilization of generating capacity and will resolve the above issues. The scheme will not disturb the existing arrangements rather an additional avenue shall be provided to stakeholders for optimal use of generating capacity. The scheme envisages paperless working for temporary allocation/transfer of power from surplus (Seller) entity to deficit (buyer) entity. The benefits of the portal also include Flexibilization of Power Purchase Agreement, Availability of power to DISCOMs, reduction in power cuts, reduction in fixed charge burden on the states having surplus power, Allocation /Transfer of Power at regulated tariff in a minimum time.

Key Benefits of the scheme: -

i. Flexibilization of Power Purchase Agreement

ii. Optimal Utilization of Power due to regional diversity and their increased availability.

iii. Availability of power to DISCOMs improves and reduction in power cuts.
iv. Meet the power demand of the country especially during the crisis situation in the month of April, May, September and October.
v. Reduction in fixed charge burden on the states having surplus power.
vi. Allocation /Transfer of Power at regulated tariff.
vii. Reallocation of power in minimum time with automated process.
viii. The scheme envisages a paperless working.
ix. None of the existing arrangements shall be disturbed, rather an additional avenue has been provided.
x. The portal envisages temporary allocation/transfer of power; subjected to willingness of seller and Buyer, confirmation of transmission corridor by concerned agencies and confirmation of payment security on portal by the new Buyer/Gencos before scheduling of such power.

In 200th OCCM, Member Secretary, NERPC briefly explained the benefit of the Scheme and requested all concerned constituents to participate and fully utilize the portal. He also informed that further training or workshop can be organized (if necessary) in the coming days.

In 201st OCCM, Member Secretary NERPC exhorted the utilities to actively participate on the PUShP portal and avail the benefits provided by it. Also, the forum decided that any utility surrendering power on this platform should inform all other utilities in NE region about the same to help ensuring early requisition of the surrendered power.

Deliberation of the sub-committee

The forum noted that in the NER region only Mizoram is participating in the portal. Member Secretary, NERPC stated that a special meeting with state Discoms will be organized by NERPC in order to sensitize them about the portal and associated benefits.

The sub-committee noted as above

Action: NERPC

B.19. Preparedness for implementation of Resource Adequacy Framework and requirement of Data

As per the draft resource adequacy guidelines published in September 2022, CEA is required to prepare long term National Resource Adequacy Plan (LT-NRAP). For

preparing the LT-NRAP, State-wise information Viz: Demand, Installed Capacity, Generation (both RE and Conventional), Financial data, etc. are required to be furnished (as per the format circulated by NERPC through mail dated 21.03.2022)
In previous OCC meetings, Member Secretary NERPC strongly urged the state utilities to provide required data for preparing Resource Adequacy Plan in the format as shared by NEPRC.

Deliberation of the sub-committee

The forum strongly urged the state utilities to provide required data at the earliest.

The sub-committee noted as above

Action: all state utilities

B.20. Annual Maintenance Contract for ADMS:

The "Go Live" dates in ADMS implementation for NER states is as below:

Sl.No.	Name of SLDC	System "Go Live"
1	Meghalaya SLDC	04.09.2020
2	Manipur SLDC	24.11.2020
3	Nagaland SLDC	01.12.2020
4	Arunachal Pradesh SLDC	01.02.2021
5	Mizoram SLDC	01.03.2021
6	Assam SLDC	10.03.2021
7	Tripura SLDC	16.03.2021

It may be mentioned that ADMS scheme is having a three (3) year Warranty Period following which, there is a provision for an Annual Maintenance Contract after the Warranty Period. Given the regulatory mandate for compliance of ADMS and the benefits of its continued operation, it becomes imperative for a collective Annual Maintenance Contract which among other things would bring about a reduction in the financial involvement vis-à-vis higher rates with separate / individual AMCs. Since the timelines mentioned are spread over a few months only, the SLDCs may deliberate on a collective Annual Maintenance Contract which can be approved (with same terms and conditions immediately on expiry of individual Warranty Periods) given the collective reduced charges and lack of expertise in maintaining the system.

In 200th OCCM, Director, NERPC informed that considering the regulatory mandate for compliance of ADMS and the benefits of its continued operation, all the State

Utilities have agreed to have a combined AMC for ADMS during the 24th NETeST meeting for cost effectiveness vis-à-vis individual AMC. Member Secretary NERPC stated that AMC of the ADMS, after the warranty period, may not be covered under PSDF funding and States have to pay for the same. The State Utilities requested NERPC to take up with original vendor M/s Orbit Techsol India Private Limited regarding the matter.

In 201st OCCM, all the States requested NERPC to initiate tendering for combined AMC of ADMS for all the states. Director, NERPC suggested that a tendering committee may be formed that will look into tendering and related work of the AMC. The forum agreed and decided that members would be nominated from all States, NERLDC & NERPC and coopted members if necessary.

Deliberation of the sub-committee

Director, NERPC informed that nomination for constituting a committee for procurement of AMC of ADMS has been received from Meghalaya and Mizoram.

The forum requested other state utilities and NERLDC to nominate respective member for constituting the committee at the earliest.

The sub-committee noted as above

Action: all concerned state utilities, NERLDC

B.21. Methodology to determine the Ex-Bus calculation of 1x25MW Khandong Stage-II Unit after its synchronization to the grid.

1x25MW Khandong Stage-II Unit is expected to be synchronised at the end of this month. At present NEEPCO is in agreement with APDCL for drawing construction power for 4x50MW Kopili P.S and 2x23MW Khandong Power Station R&M activities. This construction power is being drawn through 7.5MVA, 132/33KV Station Supply Transformer installed at Khandong 132KV/33KV SY. The power is being distributed to Kopili PS &Umrongso Colony and Khandong PS construction activity through 33KV lines charged from 33KV PS-I & PS-II Lines and downstream network.

In view of the above, NEEPCO desires to device the methodology for calculation of Ex-Bus calculation after synchronization of the 1x25MW Khandong Stage-II Unit.

In 201st OCCM, the forum advised NEEPCO to convene a special meeting with the members from NERPC and NERLDC for deliberation and finalization. NEEPCO may update.

Deliberation of the sub-committee

GM, NEEPCO apprised the forum that the methodology has been finalized in consultation with NERLDC and required SEMs have been received.

The forum decided to drop the agenda.

B.22. Long Outage of 400/220 kV ICT-3 at Byrnihat S/S:

400/220 kV 315 MVA ICT-3 at Byrnihat is under outage since 13:32 Hrs of 02-02-2023 due to SF6 gas leakage in Y-phase line chamber on HV side of said ICT. The Outage of said ICT has decreased reliability of Meghalaya system considerably.

MePTCL is thereby requested to furnish the timeline for restoration of the aforementioned ICT for maintaining reliability and security of Meghalaya system and expedite the same for meeting the increased power demand smoothly in the upcoming months ahead.

In 201st OCC, MePTCL stated that consultation with the OEM and PGCIL, to rectify the issues related to the ICT, is underway and the same is expected to be restored by 15th May'23.

Deliberation of the sub-committee

Regarding rectification of the ICT, MePTCL stated that the vendor has provided the quotation and the same has been sent for approval of higher management.

Underlining the urgency of the situation, Sr. GM, NERLDC highlighted that the outage of the said ICT has rendered the Meghalaya power system non-compliant for N-1 contingency. He further stated that in case of tripping of the other 400/220kV ICT at Byrnihat, there will be partial or total blackout of the Meghalaya grid. Hence, the 400/220kV ICT-3 has to be brought into service at the earliest.

Member Secretary, NERPC opined that the issue can be taken up in the upcoming TCC/RPC meeting for early resolution.

The sub-committee noted as above

Action: MEPTCL, NERPC

B.23. **Upgradation of 132kV Badarpur & 132kV Khliehriat (PG) substations from single main and transfer bus scheme to double main bus scheme by converting from AIS to GIS**

Upgradation of 132kV Badarpur & 132kV Khliehriat (POWERGRID) Substations from single main and transfer bus scheme to double main bus scheme by converting from AIS to GIS was approved in 23rd NERPC meeting

Subsequently agenda was discussed in 16th CMETS of NER wherein the project was approved in NERES XXI with Badarpur & Khlerihat (POWERGRID) S/s as Double Bus GIS.

In this regard, it is to mention here that at 132KV Khlerihat (POWERGRID) Sub Station, the ownership of 132kV Khliehriat (MeECL) # 2 Bay of 132kV Khliehriat (POWERGRID) – Khliehriat (State) # 2 Line lies with MeECL.

As the complete Khlerihat (POWERGRID) Station is to be upgraded to GIS, hence, 132kV Khliehriat (MeECL) # 2 Bay also need to be converted to GIS. Modalities in this regard viz. under ISTS or by MeECL may be deliberated.

In 201st OCCM, MePTCL agreed in principle for conversion 132 KV Khliehriat 2 bay at 132 KV Khliehriat (PG) S/S to GIS. POWERGRID was enquired about the implications for conversion to GIS under ISTS as funding by MeECL might be a problem. It was informed that ownership and maintenance of the bay (which belongs to MePTCL) will be with the executing agency, i.e., POWERGRID. The line will, however, continue to be under MePTCL. Modalities in respect of operation and maintenance of the bays at both ends, associated financial implications and disposal of original bay equipment will be deliberated separately between CTU and MePTCL before a decision can be finalized.

Deliberation of the sub-committee

The forum agreed for conversion of Khliehriat line 2 bay at Khliehriat(PG) substation to GIS under ISTS regime as agreed in previous OOCM. Any other issues related to this shall be resolved bilaterally by POWERGRID & MePTCL

The sub-committee noted as above

Action: MEPTCL & POWERGRID

B.24. Declaration of the following lines of Meghalaya as Deemed ISTS lines:

1. 220 KV Killing-Misa D/C line.

2. 132 KV Mendipathar-Agia S/C line
3. 132 KV Nangalbibra-Agia S/C line
4. 132 KV Khliehriat-Khliehriat (PG) line 2

It may be mentioned that 132 KV Umtru-Sarusajai D/C line, 132 KV Umtru-Kahilipara D/C line and 132 KV Lumshnong-Panchgram S/C line had earlier been declared as Deemed ISTS lines.

The forum may please deliberate on inclusion of the above lines listed as Sl.no.1 to 4.

In 201st OCCM, MePTCL apprised the forum that the 220kV Killing-Misa D/C line and LILO of 400 KV D/C Pallatana-Bongaigaon at 400/220 KV Killing S/S as ISTS lines have already been approved as Deemed ISTS line in the 17th TCC/RPC meeting. Member Secretary, NERPC stated that if deemed ISTS line is approved in RPC meeting based on study, State may file petition to Hon'ble CERC citing the relevant portion of the Minutes of the meeting.

Director, NERPC highlighted that after the sharing regulation of 2020, deemed ISTS certification by NERPC has been discontinued and the utility may directly approach implementing agency and CERC for inclusion under PoC tariff. However, for truing up of lines for 2014-19 tariff block, NERPC can consider for according certification as per the relevant regulations, pertaining to the said period. For certification, NERLDC was requested to ascertain the power flow pattern on the line for the relevant period in consultation with NLDC.

Member Secretary, NERPC asked MePTCL to approach the Implementing Agency i.e. NLDC to establish the power flow pattern on the lines in respect of tariff period covered under Sharing Regulations 2020.

Deliberation of the sub-committee

MePTCL intimated that NERLDC has been requested to establish the power flow pattern on the 132kV Nagalabibra-Agia line for the period 2014-19, so that the ISTS status of the line can be verified and presented to Honorable CERC and truing up for the 2014-19 tariff block can be done.

Sr. GM NERLDC stated that the software tool, used for conducting such study, is possessed by NLDC and the study will be conducted in consultation with the same. He further sought clarification from the NERPC about the time frame for which the data

on power flow should be submitted. He stated that the quarterly data is available with NERLDC. Forum suggested that study may be based on the data availability with NERLDC i.e. quarterly basis. The quarterly data for utilization of the lines should be averaged out for the whole year and finally year wise data for the five years (2014-19) can to be submitted.

The sub-committee noted as above

Action: NERLDC

C. NEW AGENDA ITEM

Agenda from KMTL

C.1 Regional ERS

As per 192nd OCCM, KMTL wanted to know if any regional ERS system is available under NERPC. Referring to the recent flood situation in NE region, incidents causing damage to transmission assets is inevitable. To mitigate such risk, a regional ERS system might be available under NERPC in emergency. Member Secretary noted that previously regional ERS was abandoned as individual utilities required ERS. After detailed deliberation, it was decided that DPR would be prepared and referred to TCC/RPC.

Deliberation of the sub-committee

Sr. GM NERLDC stated that according to CEA Grid standard regulation, 2010, "Each transmission licensee shall have an arrangement for restoration of transmission lines of 400 kV and above and strategic 220 kV lines through the use of Emergency Restoration System in order to minimize the outage time of the transmission lines in case of tower failures".

NERPC added that according to 'Guideline for Planning, Procurement and Deployment of Emergency Restoration System" of CEA (**Annexure C.1**), 'the funding for procurement of ERS could be considered from PSDF for North Eastern States and a proposal could be submitted by Member Secretary NERPC'.

After detailed deliberation, the transmission utilities decided to make arrangements for individual ERS as per the pertinent regulation and guidelines as mentioned above.

The sub-committee noted as above

Action: all transmission utilities

Agenda from NERLDC

C.2 Overloading of critical transmission lines in Tripura system:

Overloading of transmission lines in Tripura system has become a cause of serious concern and a threat to grid security and reliability. In particular, 132 kV SM Nagar (ISTS) - SM Nagar line and 132 kV PK Bari (ISTS) - PK Bari line are getting critically loaded and experiencing significant over loading for prolong period of time causing

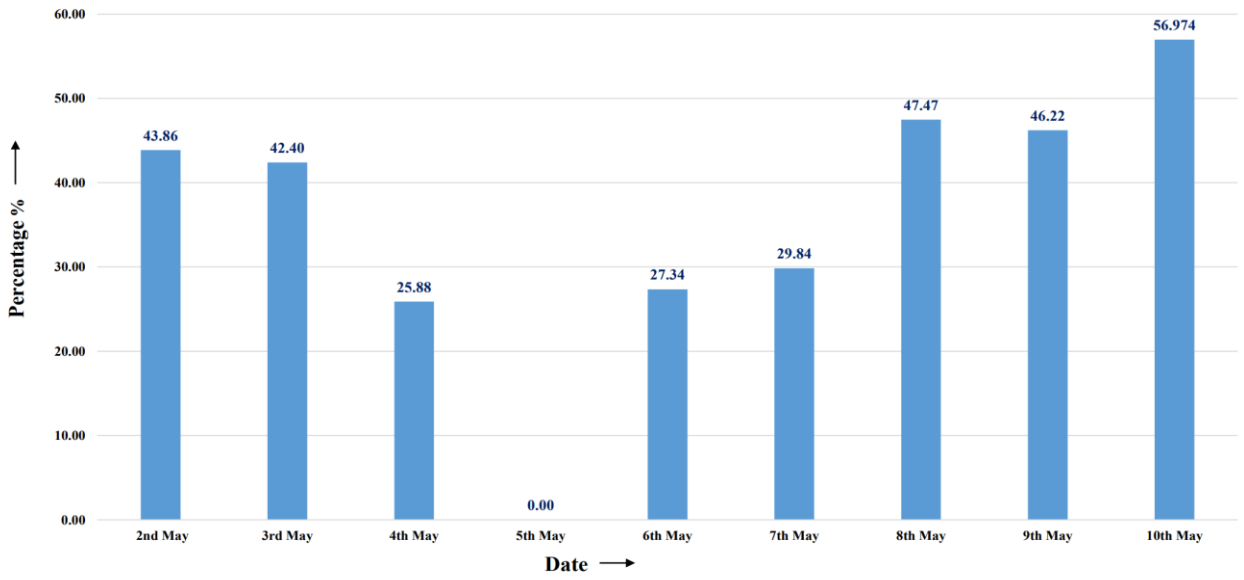
venerability in the Tripura system. Few instances of overloading of these lines are tabulated below:

Date	Max. Loading of 132kV SM Nagar(ISTS)-SM Nagar line (in MW)	Time (in Hrs)	Max. Loading of 132kV PK Bari (ISTS)– PK Bari line (in MW)	Time (in Hrs)
02/05/2023	93.12	18:15	86.89	18:24
08/05/2023	90	13:00	81.79	18:11
09/05/2023	93.35	17:59	85.56	18:03

The issue of overloading of the aforementioned lines was also discussed in 189th OCC meeting, wherein Tripura was advised by the forum to limit their power export to Bangladesh to 160 MW till the completion of re-conductoring of 132 kV SM Nagar (ISTS) - SM Nagar, 132 kV PK Bari – PK Bari (ISTS), 132 kV SM Nagar-Budjungnagar and 132 kV PK Bari – Ambassa lines with HTLS conductor. NERLDC has issued two letters in this regard to SLDC Tripura, these are enclosed as **Annexure C.2.1** and **Annexure C.2.2**.

Tripura is requested to take all necessary measures to strictly avoid any over loading of the above lines for safe, secure and reliable grid operation.

Percentage of time for which Bangladesh load was greater than 160 MW



Deliberation of the sub-committee

Regarding limiting the power export to Bangladesh to 160MW, TSECL updated that regular communication with Bangladesh is underway to limit their loading to 160MW till the aforementioned re-conductoring works are completed.

NERLDC expressed serious concern over the frequent and sustained overloading observed on 132kV SM Nagar (ISTS)-SM Nagar line and 132kV P K Bari (ISTS)-P K Bari line as tripping of any of the lines on overloading may lead to partial or total collapse of the Tripura grid. NERLDC informed that Bangladesh export by Tripura remains above 160 MW for substantial period of time in-spite of instruction of the 189th OCC forum to limit the same to 160 MW till re-conductoring of the aforementioned lines.

Regarding re-conductoring of the aforementioned lines, TSECL updated that DPR has been submitted and TESG has approved the same. The work will start as soon as the funds are disbursed.

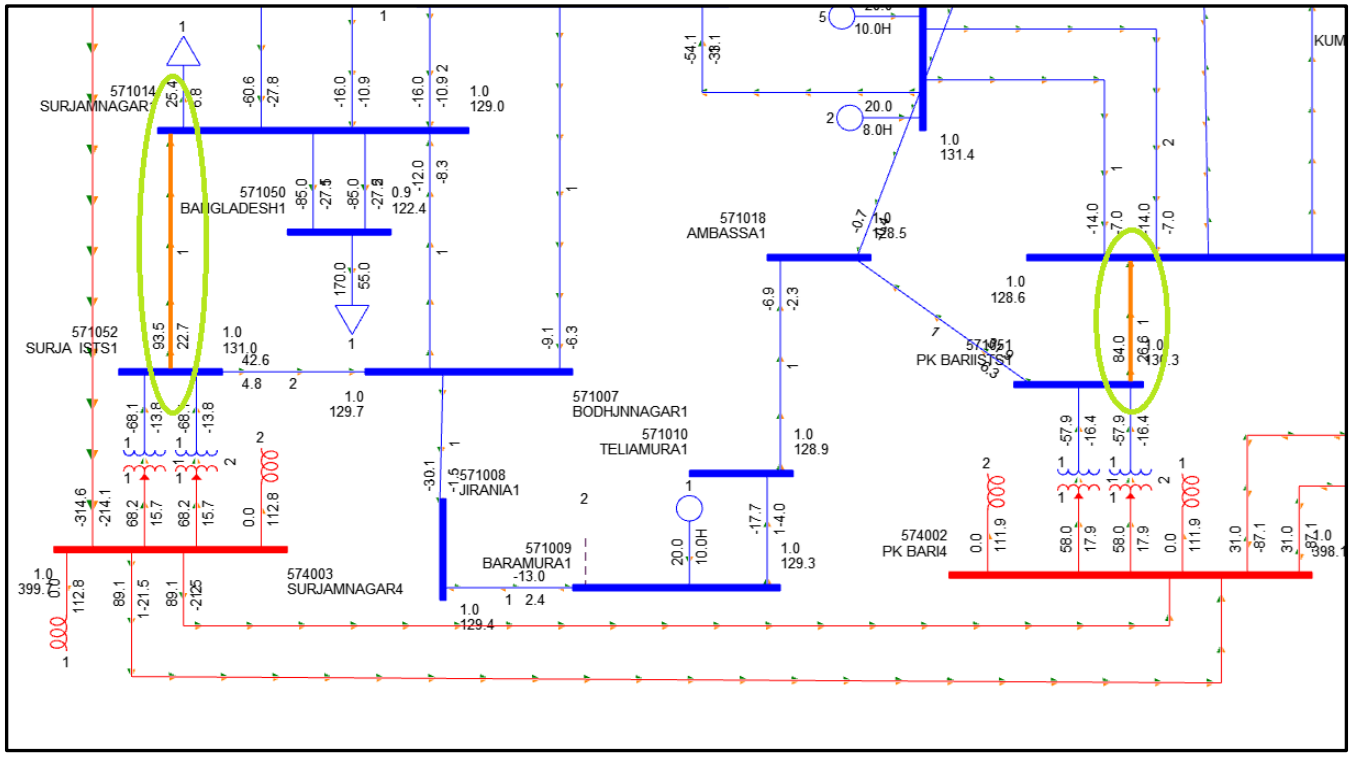
Forum expressed displeasure on insecure operation of Tripura System by SLDC Tripura and instructed SLDC Tripura to comply with the decision of the forum in 189th OCCM to limit the Bangladesh export to 160 MW till re-conductoring of the said lines.

The sub-committee noted as above

Action: TSECL, NERPC

C.3 Proposal of SPS Scheme to disconnect Bangladesh load on overloading of 132 kV Surajmaninagar (ISTS) - Surajmaninagar(TSECL) line.

In 189th OCC Meeting held on 19th April 2022, the forum had advised implementation of SPS for controlling overloading of critical lines in Tripura system. In the recent past overloading of the 132 kV SM Nagar (ISTS) – SM Nagar (TSECL) transmission line is being observed frequently for prolonged period of time rendering the power system vulnerable.



Considering the escalating loading trend of both Bangladesh and Tripura, the situation will only be aggravated.

In 3rd NERPC-TP held on 19th July'2021, re-conductoring of following 132kV intra-state lines/section by TSECL with HTLS conductor having ampacity of 800A were proposed:

a. 132kV Surjamaninagar (TSECL) to LILO point of Surjamaninagar (ISTS) – 5.493km
b. 132kV Bodhjungnagar (TSECL) to LILO point of Surjamaninagar (ISTS) – 12.867km
c. 132kV Surjamaninagar (TSECL) to Bodhjungnagar (TSECL) – 18.36km
d. 132kV Ambassa (TSECL) to LILO point of P.K. Bari (ISTS) – 35.45km along with LILO portion at 132kV Manu S/Sn.

The above proposed reconductoring projects of the transmission lines has been discussed in numerous meetings; however, the project remains pending. Out of the mentioned lines, HTLS reconductoring of 132 kV SM Nagar (ISTS) – SM Nagar (TSECL) transmission line is the most critical and to be carried out urgently for safe and secure operation of Tripura Power System. NERLDC vide letter dated 05/05/23 to TSECL highlighted the issue.

NERLDC proposes to implement a SPS scheme in Tripura Power System to disconnect the Bangladesh load by tripping 132 kV Surajamaninagar-South Comilla D/C lines in

the event of loading in 132 kV Surajmaninagar(ISTS)- Surajmaninagar(TSECL) line crosses 85 MW as a temporary measure till the re-conductoring works of these 132kV intra-state lines/section by TSECL is completed to ensure reliable grid operation in Tripura Power System.

Deliberation of the sub-committee

In order to ensure security and reliability of Tripura System NERLDC proposed to implement a SPS scheme in Tripura Power System to disconnect the Bangladesh load by tripping 132 kV Surajamaninagar-South Comilla D/C lines in event of loading in 132 kV Surajmaninagar(ISTS)- Surajmaninagar(TSECL) line crosses 85 MW as a temporary measure till the re-conductoring works of these 132kV intra-state lines/section by TSECL.

After detailed discussion, the forum instructed SLDC Tripura to write a letter to Bangladesh highlighting the present constraints in Tripura System and limitation to export power to Bangladesh in this scenario till re-conductoring works of these 132kV intra-state lines/section by TSECL.

C.4 Commissioning of 132 kV Monarchak-Surajmaninagar D/C

Commissioning of 132 kV Monarchak-Surajmaninagar D/C will enhance the reliability of Tripura Power System by providing safe evacuation of generation from Monarchak Power Station and relieving the high loading of 132 kV Surajmaninagar(ISTS)-132 kV Surajmaninagar(TSECL) line during high demand scenario of Tripura and Bangladesh load. As per the minutes of 201st OCCM, expected date of commissioning of the line is furnished to be July'23, however, the line was initially expected to be commissioned in 2016. TSECL is requested to expedite the commissioning works for secure and reliable grid operation.

Deliberation of the sub-committee

DGM, TSECL intimated that RoW and funding related issues are hampering the growth of the project.

After detailed deliberation the forum decided that matter can be taken up in upcoming TCC and RPC meeting for early resolution.

The sub-committee noted as above

Action: TSECL, NERPC

C.5 Regarding reconductoring of 132 kV Jiribam-Loktak line

As we know, 132 kV Jiribam-Loktak line has been re-conductored with HTLS conductor and charged on 30th Mar'23. The ampacity of the re-conductored 132 kV Jiribam-Loktak line is 600A and the CT rating at Jiribam (PG) end is also 600 A. However, the conductor between CT to Busbar of Loktak-Jiribam Line at Loktak Sub-station is 132 kV panther conductor and the thermal capacity for the same is 366 Amp. As per the existing configuration of panther conductor at Loktak sub station, the maximum line loading of 132 KV Loktak-Jiribam line can be limited to thermal range i.e., 366 A and 83 MVA so the re-conductoring feature of the line could not be utilized in present condition. NHPC may look into the matter and may upgrade the jumper conductor to facilitate the maximum utilization of HTLS re-conductoring.

Further, as informed by NHPC, the available CT ratio at Loktak is 200-400-600/1 but there is no metering core in 600/1.

Deliberation of the sub-committee

PGCIL informed that CT rating at Jiribam end is 800/1. Thus, the CT of the same rating must also be made available at Loktak. After detailed discussion, the forum strongly recommended NHPC to upgrade the jumper conductor to suitable ampacity and install CT of corresponding ratio so that reconductoring feature of the upgraded line can be utilized.

The sub-committee noted as above

Action: NHPC

C.6 Readiness of end bay equipment for re-conductored 132 kV Umiam III-Umiam I D/C lines

132 kV Umiam III-Umiam I D/C lines have been reconductored with Casablanca HTLS and now each circuit is capable of carrying 600 A, or 137 MVA (130 MW at a power factor of 0.95), as the end equipment for the line has been changed as per discussions of NERLDC with SLDC Meghalaya, however, there is no official confirmation of the readiness of end equipment at Umium Stg-1 and 3 by SLDC Meghalaya. Moreover, there is also a possibility of upgrading the end equipment rating from 600 A to 750 A further enhancing the transfer capacity of these lines.

SLDC Meghalaya is requested to confirm the rating of the end equipment of 132 kV Umiam III-Umiam I D/C so that 137 MVA can flow smoothly as on when required.

Deliberation of the sub-committee

SE, SLDC, Meghalaya apprised that present CT installed rating is 600 /1 which can carry up to 137.17 MVA and further enhancement of overcurrent pick up to 110 % is under discussion with MRT team. He further updated that the existing CT will be replaced with CT of ratio 800/1 after diverting from other substations and overload limit shall be kept at 10% (i.e 143 MW) and 15% (i.e. 160 MW).

The sub-committee noted as above

Action: MEPGCL

C.7 SCADA/EMS upgrade project of NER SLDCs

During the 18th Meeting of the PSDF Monitoring Committee, a provision for 40% funding through TOTEX mode was kept. Also, it was communicated that NER constituents may get 100 % PSDF funding for upgradation/replacement of SCADA/EMS system. The same was again discussed during the 19th Meeting of the PSDF Monitoring Committee, the decision was taken for not extend funding of SCADA projects through PSDF (in any mode).

The relevant extracts of the MOM are reproduced below and a copy of the approved MOM is also attached herewith for information.

Extract of 18th Meeting of the monitoring committee of PSDF

"Monitoring Committee decided that partial funding (up to 40%) could be considered in the case of implementation through the TOTEX model. Execution may be considered by PGCIL on the basis of specifications prepared by POSOCO. The remaining cost will be recovered through SLDC fees. States will have option to use CAPEX model at their level."

Extract of 19th Meeting of the monitoring committee of PSDF.

Para 3. (iv). POSOCO to submit the proposal for the implementation of the SCADA EMS project for SLDC in TOTEX mode with partial funding up to 40% from PSDF. PGCIL to execute the project based on specifications provided by POSOCO: - It has been decided that SR & WR projects will be executed by Grid-India through the respective LDC funding and ER & NR by POWERGRID through tariff mode. No support of PSDF is envisaged.

During the 74th TESG meeting held on 17th March 2023 the SCADA proposal submitted by NER states were discussed and the decision of TESG was as per below.

Extract of 74th Meeting of the Techno-Economic Sub Group of PSDF.

Deliberations in the 74th TESG Meeting:

- *It was observed that entities of NER states have sent DPRs for upgradation of SCADA-EMS system at their SLDCs. In this regard, TESG informed the entities of North-Eastern Region that the SCADA projects are not being funded through PSDF. Also, there is no specific direction is received from the Ministry of Power for the same.*

Therefore, TESG has decided to consider these SCADA proposals (Proposal nos. 376 to 381) of all the NER states as deemed returned till further direction received from the Ministry of Power in this regard. Entities agreed for the same. NLDC is requested to communicate the above decision to the entity.

Now, NER states via NERPC have approached the MOP for funding of their SCADA/EMS projects through PSDF or any other scheme considering the financial condition of the NER states. MoP will be conducting a meeting with stakeholders for final decision on funding.

Meanwhile, forum is requested to formulate the alternative solutions in event of unfavorable outcome of the afore mentioned MoP meeting.

Deliberation of the sub-committee

MS, NERPC apprised the forum that the matter is already with MoP and the decision of MoP is awaited on the matter.

The sub-committee noted as above

C.8 Operation of ADMS/UFR in North-Eastern region during very low frequency at 11:52 hrs of 15th May 2023 (NERLDC)

The all-India grid frequency dipped to around 49.40 Hz at 11:52 hrs on 15th May 2023. NERLDC had requested all SLDCs of NER to furnish ADMS/UFR operation report pertaining to their respective states. The said reports have been furnished by all SLDCs except SLDC Arunachal Pradesh. The consolidated report is given below:

Sl. No.	States	UFR operation (MW & Area)	ADMS
1	Arunachal Pradesh	Data not received	Data not received
2	Assam	• 28 MW (132kV Samaguri-Khaloigaon D/C at Samaguri) • 11.4 MW (132kV Sankardevnagar - Diphu line tripped at Sankardevnagar)	Nil

		• 6 MW (33kV Mirza Feeder at 132kV Azara GSS)	
3	Meghalaya	• 8 MW at Garopaba • 4 MW at Ampati	Nil
4	Tripura	Nil	Nil
5	Manipur	Nil	Nil
6	Nagaland	Nil	Nil
7	Mizoram	Nil	Nil

As mentioned in the above table, Stage-1 of UFR has operated only in 2 out of 7 states of NER, resulting in inadequate load relief due to UFR operation. Further, the following observations have been made in UFR SCADA displays of Assam and Meghalaya:

i. SLDC Assam has mapped the 132 kV Azara – Mirza line in place of 33kV Mirza Feeder at 132kV Azara GSS in their UFR SCADA display

ii. The feeder load data (MW) and CB status data of Stage-1 UFR is suspect in Meghalaya UFR SCADA display.

ADMS operation was expected only from Tripura as among all states of NER only Tripura was overdrawing during the aforementioned event. But as the ADMS is not fully operational in Tripura, the same did not operate.

Deliberation of the sub-committee

The forum observed non-operation of UFR in 5 out of 7 states and inquired about the reason for the same. NERLDC apprised that expected load shedding under Stg 1 for NER region is 170MW, while actual load shedding was 57 MW only.

Ar. Pradesh- UFR for stg.1 not yet installed

Manipur- no representative

Mizoram – UFR not operated. Will be checked by Mizoram

Nagaland- NERLDC apprised the forum that in the tripping logic of UFR, time delay of 30 second has been inserted. DoP Nagaland assured to remove the delay at the earliest

Tripura – Stg1 UFR has been installed but not yet operational. All other stages UFRs are yet to be installed.

Regarding Mapping error for Mirza feeder at Azara, AEGCL assured to rectify the error at the earliest

Regarding erroneous data related to mapping of stg 1 feeders, SLDC Meghalaya assured to look into the matter.

After detailed deliberation, the forum requested the states to ensure functionality of UFR stg1 at the earliest and correct mapping of the feeders under the UFR.

The sub-committee noted as above

Action: all state utilities

C.9 Additional Agenda: Regarding implementation of Green Energy Open Access Rules,2022

As you might be aware that Green Energy Open Access Rules have been notified by the Ministry of Power (MOP) on 6th June 2022.Subsequently, Grid-India has developed the Green Open Access Registry (GOAR) portal on the Green Energy Open Access Rules, 2022 and the amendment thereof.

Hon'ble Minister of Power has taken a review meeting on 12.05.2023 with present and prospective Green Energy Open Access users to understand the various difficulties associated with green energy open access. Various regulatory aspects are also being monitored in connection with this rule at the highest level. In this regard, the RCM Division, MOP has sought periodic reports regarding the implementation of Green Energy Open Access Rules.

Therefore, All SLDCs are requested to kindly

1. Nominate one nodal person for co-ordination purpose.
2. Share the periodic details as per Annexure-1 & Annexure-2:

   Timeline for data submission as per Annexure-2 is as follows:

   The weekly period will be from Monday to Sunday (say 1 to 7th)

   SLDCs to provide the data by next Monday (say 8th)

   RLDCs to provide consolidated data to NLDC by Tuesday first half (say 9th)

   NLDC will provide the data by Tuesday EOD to Ministry of Power (say 9th)

E-mail communication in this regard has already been sent to all SLDCs on 16th May and 17Th May,2023

Annexure-1

1	**Whether SERC has issued Regulations for Green Energy?**	Yes/ No
2	**Whether OA Regulations amended to provide GEOA to consumers above 100 kW**	Yes/ No/ NA
3	**No. of registered users**	
4	**No. of Green Open Access Applications received in a month**	
5	**No. of applications approved (to be applied within 15 days) in a month**	
6	**Quantum of transactions in a month**	
7	**Green Tariff- Component-wise cost where available**	

Annexure-2

For the period : .....

State Name	Banking Period	Banking Charges	Banking settlement period	Treatment of unutilized energy by RE generator	Quantum of Energy Banked by DISCOM on weekly basis (Mus)

Deliberation of the sub-committee

After detailed deliberation, the forum requested all state SLDCs to provide details of Nodal officers to NERLDC and also provide the required data in the formats as provided.

The sub-committee noted as above

Action: all state SLDCs

Agenda from APDCL

C.10 Frequent shutdown of 132 KV Khleirihat-Khandong-Umrangso Line by NEEPCO.

NEEPCO has taken shutdown of 132 KV Khleirihat-Khandong-Umrangso Line for 4 (four) nos. of times since April, 2023 which details are given below:

Sl. No.	Date of Shut down	Proposed Period of Shut Down	Actual period of shut down	Reason of Shut down
1	13.04.2023	10.00 hr to 14.00 hr	10.35 hr to 14.10 hr	For commissioning of the link between Khandong-Umrangso S/S Line section.
2	30.04.2023	11.00 hr to 15.00 hr	12.10 hr to 15.30 hr	For normalization of Khandong-Khleirihat and Khandong-Umrangso Feeders with all bay equipments and C&R Relay panels
3	04.05.2023	11.00 hr to 15.00 hr	11.25 hr to 18.30 hr	For normalization of Khandong-Khleirihat and Khandong-Umrangso Feeders with all bay equipments and C&R Relay panels
4	14.05.2023	11.00 hr to 14.00 hr	11.00 hr to 14.25 hr	For detailed system study report for synchronising the Khandong Stage II Machines

This shutdown results in total black out of 4 (four) numbers of Electrical Sub- Divisions namely Haflong, Umrangso, Maibang and Mahur, covering around 90% of the Dima Hasao District of Assam since presently there is no other alternate feeders to these areas. APDCL is facing numerous complaints from the general public as well as administration regarding this Black Out.

As such, it is requested to the forum to discuss the need of such frequent shutdowns and if the shutdown can be avoided or reduced to provide uninterrupted power supply to the consumers of such large area and also to ask NEEPCO if there is any need of more shutdown in future.

Deliberation of the sub-committee

The forum noted that after charging of the 132kV Haflong-Jiribam line, necessary power supply redundancy for Haflong and Umrangshu area of Assam has been ensured.

Agenda form NERTS

C.11 Shutdown requisition: 132kV Bus Reactor at Aizawl Sub-station for Pilot project on Retro-filling of Mineral Oil with Ester Oil

The Work as per the agenda as was discussed in 200th OCCM, is being planned from mid-June 2023, with materials in Transit. The Timeline may please be taken as tentative, and the Shutdown is planned to be started from 15/06/2023 to 31/07/2023 with prepping the Reactor and Gaskets for the needful work, and then going in with the Retro-filling works on availability of Materials at Site.

Deliberation of the sub-committee

After detailed deliberation, the forum agreed to the shutdown proposal of NERTS and requested NERTS to apply on D-3 basis for further processing by NERPC and NERLDC.

The sub-committee noted as above

C.12 Extension of Shutdown: Replacement of 50MVAr Bus Reactor-1 at Bongaigaon Sub-station under O&M Add Cap 19-24.

50MVAr 400KV BHEL Make, 3 Ph Bus Reactor, installation Date: 24.07.1999. Approval granted by Forum for outage of 400kV 50MVAr Bus Reactor#1 at Bongaigaon under O&M Add cap 19-24 Tariff block up till 31/05/2023.

Owing to non-receipt of OEM Manpower, and requisite materials at Site, it is requested that the extension be granted up till 30.06.2023.

Deliberation of the sub-committee

After detailed deliberation, the forum agreed for extension of the shutdown as requested and advise NERTS to apply on D-3 basis for further processing by NERPC and NERLDC.

The sub-committee noted as above

Action: NERTS

Agenda from NEEPCO

C.13 Issue related to 4x50MW Kopili Power station

1. As one unit of 4X50MW Kopili HE Plant is expected shortly, Total 20(Twenty) nos. of energy meters will be required which are marked in the attached SLD.

2. The power flow through 33KV Khandong Kopili is to be measured at Khandong end only as was being done earlier.

Notes for your kind information:

(a) Panels of 5 MVA Station transformer & 220/132KV ICT at Kopili are in PGCIL's scope.

(b) In the EMS system to be supplied by AHPL, provisions of meters are also there for one no. meter each for i) 220 kV feeder (3 Nos.) ii) 220/132 kV ICT (2 Nos) iii) one no. for SST is shown (i.e., total 6 meters).

Annexure C.13

Deliberation of the sub-committee

After detailed deliberation the forum agreed on the number of SEMs required at the Kopili HEP and requested NEEPCO to provide a letter to NERLDC regarding requisition of SEMs. The requirement will be examined by NERLDC and meters will be issued accordingly.

The sub-committee noted as above

Action: NEEPCO

C.14 Shutdown required M/s Sterlite

i) 132 kV Nirjuli-Lekhi & Nirjuli- Gohpur Transmission Line for crossing between Loc. 136-137 along with at location 132-133 of Nirjuli-Gohpur line on 10.06.2023. The necessary power line crossing approval has already been obtained from POWERGRID.

ii) 132 kV S/C Ranganadi-Pare and Pare-Lekhi lines along with associated bays at Pare w.e.f. 20.06.23 to 30.06.23 (continuous shutdown). Shutdown of those bays and lines are required to straighten Ranganadi Lekhi/Nirjuli line disconnecting from Pare LILO and commissioning of new Pare-Nirjuli & Pare North Lakhimpur line.

Kindly refer to **Annexure C.14**

Deliberation of the sub-committee

The forum requested M/s Sterlite to apply on D-3 basis for further processing by NERPC and NERLDC.

The sub-committee noted as above

Action: NERPC, NERLDC

D. ITEMS FOR STATUS

D.1. Implementation of projects funded from PSDF:

The status as informed in 201st OCCM:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**	Line Differential Protection
Ar. Pradesh	Package-I (Diagnostic tools) Complete in all respects. P-II (for PLCC & communication) Supply completed. Erection WIP. 50% requisition submitted. P-III (Substation equipment) Agreement signed and 10% requisition submitted. Total 90% requisition by Apr'22. Completion by Dec'22. (Approval from TSA and Account opening in 3 months)	Project completed in all respects.	-	30% requisition submitted. Amount not received in the TSA account.	-
Nagaland	Completed in all respects.	Work completed in all respects. UC submitted	-	30% requisition submitted	Lines identified. Under DPR preparation stage.
Mizoram	Final 10% disbursed. UC to be submitted.	Work completed in all respects. Remaining part of final 10% to be disbursed ASAP.	To reply to TESG queries.	30% requisition submitted.	Revised DPR including both 132kV Aizawl-Luangmualand 132kV Khamzawl-Khawiva to be submitted.
Manipur	Package-II: completed Package-I: all	Work completed in all	WIP.	10% disbursed for IT portion, no	Revised DPR for LDP of 132kV

	stations complete except Ningthoukhong. By May'22.	respects. UC submitted in Oct'21.		disbursement for Meter, AMR portion. 20% disbursement for IT portion after completion of 3rd milestone. 30% to be disbursed for Meter, AMR portion	Imphal-Yurembam-III to be submitted by June'22.
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Completed. Final UC submitted on 04th May'22.	Final 10% requisition submitted.	Not relevant in present scenario with commissioning of ISTS lines. Issue dropped	10% successfully disbursed. 20% fund reversed back from vendor account. Will be resolved soon.	For 132kv 79Tilla-Budhjungnagar line and for Rokhia link LDP at own cost. Tendering undergoing. DPR preparation for rest of the lines
Assam	Work completed except CRP, SAS work in 8stations which have been retendered and awarded to M/s SIEMENS. Completion by Dec'22	Project completed in all respects.	-	30% funds yet to be fully disbursed. 60% requisition sent.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL – completed in all respects. MePGCL – Completed in all respects.	Project completed in all respects.	-	90% works completed. Communication pending.	All works except OPGW done

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

Sl. No	Element	Owner	Status up to the 201st OCCM	Latest Status
1	132kV Mariani – Mokokchung (*out since April'2008*)	AEGCL	Non clearance due to persisting funding issue	Same status
2	132kV Roing-Pasighat (*charged through ERS tower*	NERTS	1st tower by April'23 while 2nd tower requires tendering, tentative completion by Nov'23	Nov'23
3	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(*out since Oct'19*)	NEEPCO/ NERTS	Refer to item B.8 (September'23)	Item B.8 (Kopili-Khandong by September'23 and Misa-Kopili by June'23)
4	132kV Srikona – Panchgram	AEGCL	LOA issued on 18.02.2023, Work in progress, tentative completion within 8 months	LOA issued on 18.02.2023, Work in progress, tentative completion within 8 months
5	400kV Imphal – Thoubal-I and 315MVA 400/132kV ICT at Thoubal	MSPCL	RoW, litigation pending in court.	RoW, litigation pending in court.
6	63MVAR Bus Reactor at Byrnihat to be replaced with 80MVAR Reactor	MePTCL	Coordination issues with the vendor. WIP	Waiting for PSDF fund

D.3. Status of commissioning for upcoming projects:

Sl. No	Name of the element	Utility	Status up to the 201st OCCM	Latest Status
1	132kV Monarchak-Surjamaninagar	TSECL	July'23	RoW and Funding issue hampering the progress. To discussed in 24th TCC/RPC meeting
2	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines)	MSPCL	Under R&M by NHPC. July'23	Under R&M by NHPC. July'23

3	Commissioning of 220kV Balipara-Sonabil-2ckt 2	AEGCL	Auto-recloser integration work is pending at Sonabil end. Assam shall coordinate regarding SIO clearance for potion of the line owned by AEGCL. Forum advised NERTS to apply for FTC for the whole line to NERLDC. AEGCL intimated to M/s Siemens for Auto-Reclosure integration work.	AEGCL- Ckt 2 bay at Sonaibil will be ready within one month as M/s is yet to do A/R integration. PGCIL-applied for PTCC clearance of the line.
4	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	Work has started, tentative completion by June'23	Work has started, tentative completion by July'23
5	PLCC for 132kV Karong-Kohima. PLCC at Kohima	DoP Nagaland	Awaiting sanction from PSDF	Awaiting sanction from PSDF
6	132kV Loktak-Ningthoukhong-II	MSPCL		
7	132kV Roing-Chapakhowa	NERTS	Foundation completed. 14kM Stringing left. Tentative charging by end of May'23.	Charging by 30th May
8	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	Final reconductoring of ckt-2 scheduled on 28th to 30th April'23. Reconductoring of ckt-1 in May'23	Ckt 2 done. For ckt 1, WIP, shutdown taken
9	420kV 80MVAR Bus Reactor	NEEPCO	Dec'23	Dec'23
10	220kV Killing – Mawngap	NERPSIP	Refer to item B.8. June'23	June'23
11	220kV Samaguri – Mariani-I	AEGCL	Same status	FC for Samaguri-Khumtai section is still awaited.
12	PLCC/DTPC for 220kV Balipara- Sonabil	AEGCL	WIP	Equipment procured, to be commissioned after rectification of SAS
13	220kV AGBPP –Namsai D/C	TBCB	Oct'25	Oct'25
14	Upgradation of 132kV Surjamaninagar-Surjamaninagar(ISTS),	TSECL		TSECL updated that DPR has been submitted

	132kV Bodhjungnagar-SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari-P.K.Bari(ISTS)			and TESG has approved the same. The work will start as soon as the funds are disbursed.
15	LILO of 132kV Leshka-Khliehriat-I at Mynkre and Mynkre SS and 33kV downstream at Mynkre.	NERPSIP	LILO ready, Substation WIP - June'23	LILO ready, Substation WIP - June'23
16	220kV Tinsukia-Behiating D/C	NERPSIP	WIP - May'23 due to ROW	WIP - May'23 due to ROW
17	LILO of 132kV Kamalpur-Kamakhya& 132kV Kamalpur-Sishugram at Amingaon	NERPSIP	Completed. Ready for charging.	Completed. Ready for charging.
18	220kV Rangia – Amingaon D/C and 220/132kV 2x160MVA Amingaon S/S	NERPSIP	May'23 due to ROW	May'23 due to ROW
19	132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur	NERPSIP	May'23 due to ROW	May'23 due to ROW
20	132/33kV 2x20MVA Gamphazol at Manipur	NERPSIP	Test charged in Dec'22.	Test charged in Dec'22.
21	132/33kV West Phaileng S/S at Mizoram	NERPSIP	Ready for charging. Line WIP.	Ready for charging. Line WIP.
22	132/33kV 2x12.5MVA Marpara S/S at Mizoram	NERPSIP	May'23	May'23
23	132/33kV 2x12.5MVA Lungsen S/S at Mizoram	NERPSIP	May'23	May'23
24	132kV Lungsen-Chawngte S/C at Mizoram	NERPSIP	Ready for charging.	Ready for charging.
25	132kV Chawngte – S.Bungtlang S/S at Mizoram	NERPSIP	May'23	May'23
26	132kV W.Phaileng-Marpara S/C at Mizoram	NERPSIP	June'23 subject to RoW clearance in Pukzing village in Mamit district	June'23 subject to RoW clearance in Pukzing village in Mamit district

27	220kV Zhadima – Mokokchung at Nagaland	NERPSIP	Completed in Mar'23	Ckt 1 charged in Mar'23. Other ckt waiting for finalization of MoU
28	LILO of 132kV Wokha – Kohima at 132/33kV New Kohima (Zhadima) at Nagaland	NERPSIP	Ready for charging.	Line ready, jumpering not yet done
29	132kV Wokha-Zunheboto – Mokokchung at Nagaland	NERPSIP	May'23	Stringing in 2 or 3 spans left, by June'23
30	132kV Tuengsang – Longleng at Nagaland	NERPSIP	Tuensang SS upgradation under tendering.	Line ready, Tuensang substation upgradation under progress
31	132/33kV Amarpur S/S at Tripura	NERPSIP	June'23	June'23
32	132/33kV Manu(new) S/S at Tripura	NERPSIP	June'23	June'23
33	132kV Dharmanagar-Kailashor	NERPSIP	May'23	May'23
34	132kV Ziro-Yazali and 132/33kV Yazali S/S	POWERGRID-Comprehensive		
35	132kV Yazali – Palin and 132/33kV Palin S/S	POWERGRID - Comprehensive	132kV Yazali - Palin Line - Stage I Forest Clearance Obtained a) 3 foundation work completed . 132/33kV Palin S/s- a) CRB WIP. b) Electrical Works to be started.	Same status
36	132kV Palin- Koloriang and 132/33kV Koloriang S/S	POWERGRID - Comprehensive	132 kV Palin - Koloriang Line - No Forest Clearance Obtained a) Not Yet Charged. 132/33kV Koloriang S/s- a) CRB First Slab (to be completed within this month)	Same status

37	132kV Khonsa – Deomali and 132/33kV Khonsa S/S	POWERGRID - Comprehensive	132 kV Khonsa - Deomali Line - a) Foundation, Erection and Earthing WIP. 71/87 Foundation Complete 50/87 Erection Complete Target for completion: June 2023 132/33kV Khonsa S/s- a) CRB Finishing Work b) Cabling , Foundation, Retaining Wall WIP	Same status
38	132kV Miao – Namsai and 132/33kV Miao S/S	POWERGRID - Comprehensive	132kV Miao - Namsai - a) No Work due to ROW issue at Miao. b) No Work due to sand boiling and ROW issue at Namsai. 132/33kV Miao S/s- a) Gravel Spreading b) Water Proofing for exposed area of Transit Camp first Floor c) Testing of Isolators Completed d) Electrification WIP e) Site Levelling WIP.	Same status
39	132kV Chimpu – Holongi and 132/33kV Holongi S/S	POWERGRID - Comprehensive	Waiting for Electrical Inspection Clearance	Ready for charging
40	Lower Subansiri HEP	NHPC	Unit 1 and 2 by June'23	Unit 1 and 2 by June'23
41	400kV Lower Subansiri-BNC line2	PGCIL	June'23	June'23
42	Conversion of MT to DM at (i)132kV Khliehriat, (ii)132kV Badarpur, (iii)132kV Nirjuli, (iv) 132kV Imphal	NERTS	Nirjuli - May'23 Imphal – Badarpur & Khlerihat – Cost estimate under preparation by CTUIL	Nirjuli - May'23 Imphal – Badarpur & Khlerihat – Cost estimate under preparation by CTUIL

43	Construction of Pare-N.Lakhimpur DC along with LIO at Nirjuli	Sterlite (TBCB)		Shutdown requested for 20th June to 30th June'23 to complete the work
44	LILO of BNC-Chimpuckt II at Gohpur	Indigrid	Signing of the agreement under process	Signing of the agreement under process
45	220kV New Shillong-NangalBibra(ISTS 220/132kV) TL	MEPTCL	Same status	Survey completed, tendering to start soon
46	400kV Bongaigaon-Nangalbibra (ISTS) DC (to be charged at 220kV initially)	Sterlite	Dec'23	Dec'23

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

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

	ISTS S/s	State	Voltage ratio, Trans. Cap	Down- stream Voltage level (kV)	Unutilized bays	Status of ISTS bay	STU Lines for unutilized bays	Status of Lines (as updated in 202nd OCCM)	
								Date of Award	Completion schedule
1	New Mariani (POWERGRID)	Assam	400/220kV, 2x500MVA	220	2	Commissioned	New Mariani (POWERGRID) – Diphu (Assam) 220kV D/c line	Preliminary survey completed	By Jan'25
2	New Kohima (TBCB)	Nagaland	400/220kV, 2x500MVA	220	2	Commissioned	New Kohima (TBCB) – New Kohima (Nagaland) 220kV D/c line	LoA Feb'2021	Line stringing completed, PLCC works to be completed by May'23. For OPGW, PGCIL is requested to Install it. Matter referred to 24th TCC/RPC
3	Nangalbibra (TBCB)	Meghalaya	220/132kV, 2x160MVA	132	2	Under construction (Dec'23)	Nangalbibra (ISTS) – Nangalbibra (MePTCL) 132kV D/c	DPR prepared and survey completed. Approval	Dec'23

							(HTLS,800A) Line:about 5km	awaited.	

B. Status of 400kV substations and other important elements being implementedby STUs in NER under intra-state schemes to be connected through ISTS

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

	BiswanathChariali – Itanagar 132kV D/c line (line works under ISTS through TBCB route)			
IV	**Upgradation of Sonapur S/s from AIS to GIS**	-	1. Contract to be awarded by Jun'23. LoA by Jun'23	June'2026
a)	LILO of 400kV Silchar-Byrnihat at Sonapur	-	1. LoA by Jun'23	June'2026

Sl. No.	Substation/Location	Transformation Capacity/ Element	Date of Award	Completion Schedule
B	**Tripura (to be implemented by TSECL)**			
I	**Surajmaninagar (TSECL)**	400/132kV, 2x315MVA	JV formation, between PGCIL and STU by Mar'23	12 months from Date of Award
a)	LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c lineatSurajmaninagar (TSECL) S/s	400kV D/c	All works except 400kV termination at Surjamaninagar(TSECL) by POWERGRID to be done. Balance works under separate contract.	LILO completed for 400kV ckt 2 (by PGCIL) without bay readiness, LILO has been charged. Total completion subjected to Sub-station readiness at Surajmaninagar
C	**NEEPCO (to be implemented by NEEPCO)**			
I	**Extension works at RanganadiHEPend**			
a)	420kV 80MVAR Bus Reactor at Ranganadi Generation Switchyard		LOA on 11.01.2022	Dec'23 (Logistics and Transportation issue)
II	**Extension works at PareHEP end**			
a)	Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi-Naharlagun / Nirjuli132	132kV	Regarding bypassing of LILOat (a), work has been awarded in Dec, work to be completed in 4 months from LoA, The LILO portion is	The work is being undertaken by M/s Sterlite. Shutdowns have been availed, tentative

	kV S/c line		about2.2km & the cost estimates have been received by NEEPCO. Work awarded to M/s Serlite	completion by June'23. The work is undertaken by M/s Sterlite. Tentative completion by May'23
b)	Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalentto ACSR Zebra) along with modification of 132kVbay equipment at Pare HEP	132kV		

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

SL. No.	Item for Discussion	Status as per 201st OCCM	Latest Status
1.	Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189th OCCM)	Communication with M/s Hitachi underway	M/s Hitachi not responding, NERTS to help bridge the communication gap
2.	Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189th OCCM)	Discussion with OEM M/s BHEL is underway	
3.	Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189th OCCM)		
4.	Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184th OCCM)	RoW, litigation pending in court	RoW, litigation pending in court
5.	Charging of 33kV Khupi-Kimi line at 132kV: Recommendations of the 187th OCCM to be implemented: (a) Installation & Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188th OCC	End equipment for OPGW communication to be installed. The OPGW communication will be ready by 15th May'23	OPGW WIP by Comprehensive

	meeting held on 16th March, 2022 at Guwahati (b) Defective Relays at Khupi end to be repaired (NEEPCO) – By Mar'22 (c) PID testing and replacement of defective insulators (NEEPCO) – By Mar'22 (d) Infringement checking and vegetation clearance (NEEPCO) – By Mar'22 (e) Stringing of OPGW by POWERGRID Comprehensive – By Mar'22 (f) Procurement and installation of Line Differential Relays (NEEPCO) – By Mar'22 (Agenda B.15 of 188th OCCM)		
6.	Synchronization issue of 220kv AGBPP – Tinsukia 1 & 2 at AGBPP end. (NEEPCO to update the status of CVT procurement and other relevant details.) Item B.24 of 190th OCCM.	Tender floated in the month of August'2022.	Tender floated in the month of August'2022.
7.	Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191st OCCM)	Work for replacement and repairing of damaged earthing will start from 2nd week of May.	Work for replacement and repairing of damaged earthing will start from 2nd week of May.
8.	Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation) (B.18 OF 194TH OCC)	Will be provided before OPGW installation in N Kohima -Zhadima Line.	Will be provided before OPGW installation in N Kohima - Zhadima Line.
9.	Occurrence of Multiple grid disturbance in Gohpur and radially connected areas of Assam Power System (C.10 of 194th OCC)	SEM meters provided by PGCIL, both lines bays commissioned from AEGCL end. AEGCl scope of work done, Sterlite scope of work remaining	
10.	Status of Installation of TLSA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L (C.12 of 194th OCCM)	LoA placed, expected completion of the delivery by June'23	LoA placed, expected completion of the delivery by June'23
11.	PLCC & protection related issues at 132kV Tipaimukh S/s	PLCC engineer to visit the SS. (MSPCL)	PLCC engineer to visit the SS. (MSPCL)

	(C.15 of 194th OCC) & (C.8 of 197th OCC)		
12.	48V System reliability at Pasighat end (C.16 of 194th OCC)	April'23	May'23
13.	Construction of Anchor tower at location 433 by PGCIL and reconductoring of 220kV Mariani-Mariani SC with Moose conductors (B.16 of 196th OCCM)	Shutdown taken, WIP	Shutdown taken, WIP
14.	Commissioning of 400kV Bus-B at Ranganadi Power Station (C.14 of 192ndOCCM)	In 193rd OCCM, forum requested NEEPCO to put forth agenda for upgradation of 400 kV switchyard to GIS and implementation of 400 kV Bus–B together. Status of the same may be provided by NEEPCO	To be done under R&M of the station, after 2027.
15.	Implementation of Bus Bar Protection at 132 kV Kahilipara (AEGCL) Substation (C.8 of 196th OCCM)	Estimate submitted for procurement of CT available with core for Bus bar protection.	Same status
16.	Furnishing of data as per Detailed Procedure on interim methodology for estimation of Reserves under CERC (Ancillary Services) Regulations, 2022(item C.4 pf 198th OCCM)	NERLDC thanked SLDC Nagaland for furnishing the data for estimation of reserves. Other NER states assured to provide the data at the earliest. NERLDC mentioned that the states may contact Manager NERLDC for clarifications (if any).	
17.	TLSA installation on 132kV Leshka-Khleihriat DC	DPR prepared, to be submitted by MEPTCL, for PSDF sanction	DPR to be submitted
18.	Long Outage of 132KV Agartala-RC Nagar-1 since 18.12.2022due to severe SF6 leakage from CB at RC Nagar end (C.11 of 200th OCCM)	GM, NEEPCO intimated the forum that the OEM, M/s Hitachi has been communicated for procurement of CB spares and it will be supplied by the end of April, 2023. Spare delivered on 28th March. Tentative restoration be 1st week of May'23	Charged
19.	400 kV GT-1 &Silchar 1 Tie Bay at OTPC is under outage from 31/12/2022. 400 kV GT-2 & 400/132 kV ICT 2 Tie Bay at OTPC is under outage from 10/02/2023	Faulty LBB relays, under procurement, tentatively restoration by end of June'23	June'23
20.	Installation of Line differential protection in Rokhia-N.Rokhia line	CBs for LDP of Rokhia- N. Rokhia line has to be procured. Further, estimate has been prepared and tendering will take place in May'23	DPR prepared, Tender to be floated soon.

E. METERING ITEMS

E.1. Issues regarding SEM Data Processing:

a. Non-receipt of SEM data from 132 kV Pailapool Substation:

Weekly SEM data of 132 kV Pailapool (As) Substation is important for accounting of Assam drawl. However, SEM data from the said substation is not being received.

In 201st OCCM, Assam requested for support from OEM for rectification of DCD issues.

b. Non-receipt of SEM data from 132 kV Rengpang (Man) Substation:

Weekly SEM data of 132 kV Rengpang (Man) Substation is important for accounting of Manipur drawl. However, SEM data from the said substation is not being received. Issue with CMRI has been reported by the concerned substation.

Deliberation of the sub-committee

a. Assam representative informed that PGCIL has taken the DCD from 132 kV Pailapool Substation for rectification and will be delivered within 15 days.
b. No representative was present from Manipur

The sub-committee noted as above

E.2. High Time Drifted SEMs:

Time drift in SEMs may result in computational errors in regional energy accounts & Weekly Loss. All constituents in whose premises the meters are installed are required to take corrective action for the same.

Time drift of more than 4 mins observed in the following meters.

S.No	ENTITY	FEEDER NAME	METER NO	TIME DRIFT
1	ASSAM	220 kV TINSUKIA END OF KTG FDR-I	NP-9654-A	Time drift display not functional
2	ASSAM	220 kV TINSUKIA END OF KATHALGURI FDR-II	NP-9658-A	16 mins
3	ASSAM	132 kV UMRANGSOO END OF KHLEIRIAT (PG)	NP-5290-A	16 mins
4	ASSAM	132 kV UMRANGSOO END OF HAFLONG	NE-0019-A	4 mins

Deliberation of the sub-committee

Assam informed that all SEM time drift corrected except 132 kV Umrangshu SEM of Khlieriat(PG) which is to be replaced.

The sub-committee noted as above

E.3. Procurement of SEMs for future requirements:

As per 201st OCCM, re-estimation of SEM requirement for the Upcoming Transmission lines has been listed below based on the inputs received from CTU and Assam:

As per record received from CTU (upto schemes approved in 17th CMETS-NER)

Sl. No.	Name of Elements	SEMs reqd.	Tentative COD Schedule
1	400 kV LOWER SUBANSIRI – BNC 2 x D/C	6	2nd D/c line to be charged in Jul 23
2	132 kV ROING (PG) – CHAPAKHOWA D/C	4	Jun-23
3	400 kV BONGAIGAON (PG) – NANGALBIBRA D/C (initially operated at 220kV)	4	Dec-23
4	132 kV HATSINGHMARI (ASM) – AMPATI (MEG) D/C	4	Dec-23
5	2x160MVA ICTs at 220 kV NAMSAI (PG) SS	4	Oct-25
6	220 kV AGBPP - NAMSAI (PG) D/C	6	Oct-25
7	400/220kV, 2x500MVA ICTs at 400/220/132kV GOGAMUKH	4	(Tentative Dec-26)
8	220/132kV, 2x200MVA ICTs at 400/220/132kV GOGAMUKH	4	(Tentative Dec-26)
9	LILO of one D/C of 400 kV LOWER SUBANSIRI – BNC 2x D/C at GOGAMUKH	4	(Tentative Dec-26)
10	132kV GOGAMUKH – GERUKAMUKH (A.P) D/C	4	(Tentative Dec-26)
	Total	44	

As per Ongoing discussions in OCC Forum

Sl. No.	Name of Elements	SEMs reqd.	Tentative COD Schedule
1	LOWER SUBANSIRI UNITS & SATs & 132 kV FEEDERS	16	On-going
2	Restoration of KHANDONG & KOPILI HEP	23	On-going
	Total	39	

As per Minutes of Transmission Planning (NERPC-TP/ NERSCT/ SCPSP-NER)

Sl. No.	Name of Elements	SEMs reqd.	Tentative COD Schedule
1	220 KV ALIPURDUAR - GOSSAIGAON D/C	2	2026
2	220 KV SALAKATI - GOSSAIGAON D/C	2	2026
3	132 KV RANGIA (ISTS)- NALBARI (ASM) S/C	1	2026
4	132 KV RANGIA (ISTS)- AMINGAON (ASM) D/C	4	2026
5	2x500 MVA 400/220 kV ICTs at RANGIA (ISTS)	4	2026
6	400 KV BALIPARA- RANGIA (ISTS) D/C	2	2026
7	400 KV BONGAIGAON - RANGIA (ISTS) D/C	2	2026
8	400 KV SONAPUR - SILCHAR	2	2026
9	400 KV SONAPUR - KILLING	2	2026
12	220 KV MISA - SHANKARDEB NAGAR D/C	4	2025
13	400 KV BNC- KHUMTAI D/C	4	2026
14	220 KV NEW MARIANI - DIPHU D/C	4	2026
	Total	33	

Total SEM estimated	116
Spare estimation	14
Total SEM required	130
Availability at Storage	70 (appx)
Total SEM to be Procured	60

Deliberation of the sub-committee

After detailed deliberation the forum approved the proposal of procurement of 60 SEMs to fulfil the requirement for the upcoming transmission elements. Further the forum noted that the new meters, to be procured, should be compatible with the existing DCDs.

The sub-committee noted as above

Action: CTU

F. ADDITIONAL ITEMS

F.1. Standard Operating Procedure for shifting of Transmission line for other infrastructure projects:

NERPC informed that a standard Operating Procedure for shifting of Transmission line for other infrastructure projects has been issued by CEA after duly approved by the Ministry of Power. The SOP is attached at **Annexure F.1** for information and wider circulation to all concerned.

The sub-committee noted as above

F.2. Implementation of line differential protection of 400 kV New Thoubal-Imphal D/C

As per 47th PCC meeting, the following criterion was decided for adoption for identification of short line for differential protection: -

- All 132 kV transmission lines of length < 5 Kms.
- All 220 kV transmission lines of length < 10 Kms
- All 400 kV transmission lines of length < 50 Kms
- All 132 kV & above dedicated transmission lines of Generators with installed capacity > 50 MW

The distance of 400 kV Imphal (PG) - Thoubal D/C lines is 45.11 km. Hence, differential protection scheme is required.

The clearance for FTC of the lines was given by NERLDC based on consent from NERPC that MSPCL has submitted undertaking for installation of differential relay and the 400 kV Imphal-Thoubal D/C may be presently made operational with distance relays.

The latest status of commissioning of Line Differential Protection in 400 kV Imphal – Thoubal D/C was discussed in 23rd TCC/NERPC meeting. In 23rd TCC/NERPC meeting, ED, MSPCL informed that the existing infrastructure has been studied and the Line Differential Protection can be implemented, however Thoubal-Imphal Fiber connectivity is not there. After availability of OPGW, the LDP can be implemented. After detailed deliberation, the TCC/NERPC forum recommended for a review of the philosophy of Line Differential Protection for 400kV line and referred to Sub-Committee of NERPC.

Deliberation of the sub-committee

The forum reviewed the requirement of LDP and noted that as per 'Protection Details of Transmission Lines, Transformers, Reactors and Bus Bars' under schedule V, sub-regulation 3, regulation 48, CEA construction regulation, 2022-

"For short line (less than 10 km) or cable or combination of overhead line and cable, line differential protection shall be used with built-in backup distance protection for 66kV, 110 kV, 132 kV, 220 kV, 230 kV, 400 kV and 765kV voltage levels"

Meeting ended with thank to Chair.

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Annexure-I

List of Participants in the 202nd OCC Meeting held on 18.05.2023

SN	Name & Designation	Organization	Contact No.
1	Sh. Gyati Atto, EE	Ar. Pradesh	08974351527
2	Sh. Sange Phuntso, EE (E)	Ar. Pradesh	09436041217
3	Sh. Pranab Kr. Bordaloi, CGM, AEGCL	Assam	09435064494
4	Sh. Jayashree Devi, GM, AEGCL	Assam	09854076553
5	Smt. Rodali Khaund, DGM, SLDC	Assam	06901255808
6	Sh. Tridip Baruah, AGM, AEGCL	Assam	09864602779
7	Sh. Indrajit Tahbildar, AGM, APDCL	Assam	08761049486
8	Sh. Pankaj Bikash Sarmah, AGM, APGCL	Assam	09435358402
9	Sh. Himangshu Das, AGM, APGCL	Assam	09435477842
10	Sisrikiaya Dutta, Dy. Mgr, APDCL	Assam	08876747201
	No Representative	**Manipur**	-
11	Sh. T. Gidon, SE, SLDC	Meghalaya	06009094044
12	Sh. J.A.W. Pariat, EE, MePGCL	Meghalaya	09856005898
13	Sh. D.J.Lyngdoh, EE (SM), SLDC	Meghalaya	-
14	Sh. H.Lalruatkima, Sr.EE, SLDC	Mizoram	09862925462
15	Sh. Lalremruata Sailo, JE, SLDC	Mizoram	09612614372
16	Sh. S.I.Asangba Tikhir, EE	Nagaland	07085508502
17	Sh. Rokobeito Italu, SDO	Nagaland	09436832020
18	Sh. Anil Debbarma, DGM (SLDC)	Tripura	09612589250
19	Sh. Joypal Roy, GM (T)	NEEPCO	08837200069
20	Sh. M. Talukdar, DGM (E/M)	NEEPCO	09435339690
21	Sh. Sandipan Sarkar, Sr. Manager	NEEPCO	07005294807
22	Sh. Biswajit Sahu, Sr.GM (SO-I)	NERLDC	09425409539
23	Sh. S.C.De, Sr.GM (SO-II)	NERLDC	09436335369
24	Chitrankshi, DGM (MO)	NERLDC	09869004892
25	Sh. Bimal Swargiary, CM	NERLDC	09435499779
26	Sh. Sourav Mandal, Manager	NERLDC	09402102354
27	Smt. Tanaya Rakshit, Asst. Manager	NERLDC	08414927822
28	Sh. Prashant Kanungo, CGM	PGCIL	09436302822
29	Sh. Ankit Vaish, DGM, NERTS	PGCIL	09409305725
30	Sh. Raktim Konwar, Manager, (NERPSIP)	PGCIL	06901261814
31	Sh. Soubhik Choudhury, Head-Operation	OTPC	08837008091
32	Sh. Jawaid, Sr. Mgr	NTPC BgTPP	09650995441

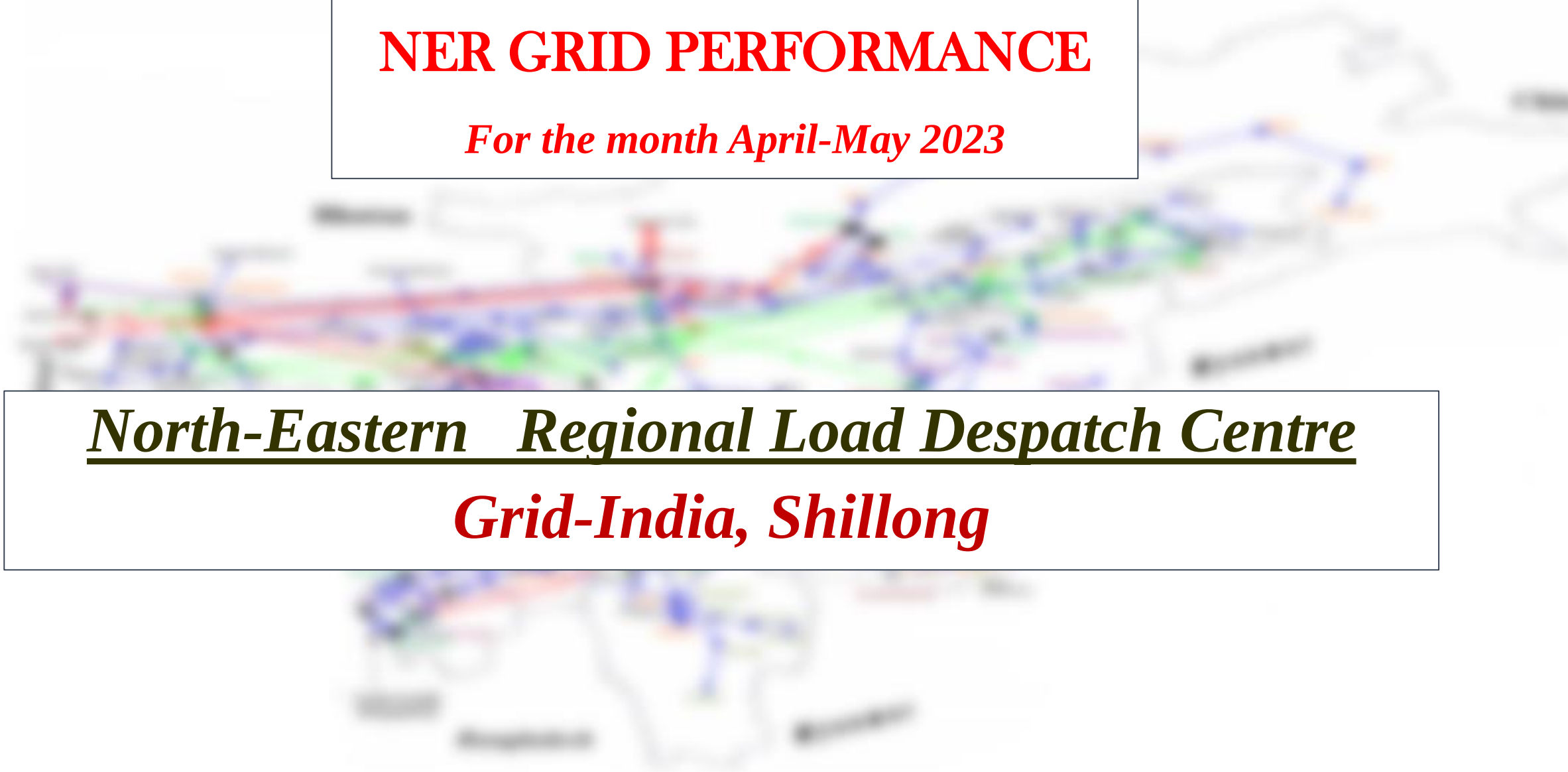
33	Sh. K.B. Jagtap, Member Secretary	NERPC	-
34	Sh. S. M. Aimol, Director	NERPC	08974002106
35	Sh. Vikash Shankar, AD-I	NERPC	09455331756
36	Sh. Somraj, AD-I	NERPC	08890766838
37	Sh. Ashim Kumar Goswami, AD-II	NERPC	08638966481

Annexure B.1

उ.पू.क्षे ग्रिड प्रदर्शन

NER GRID PERFORMANCE

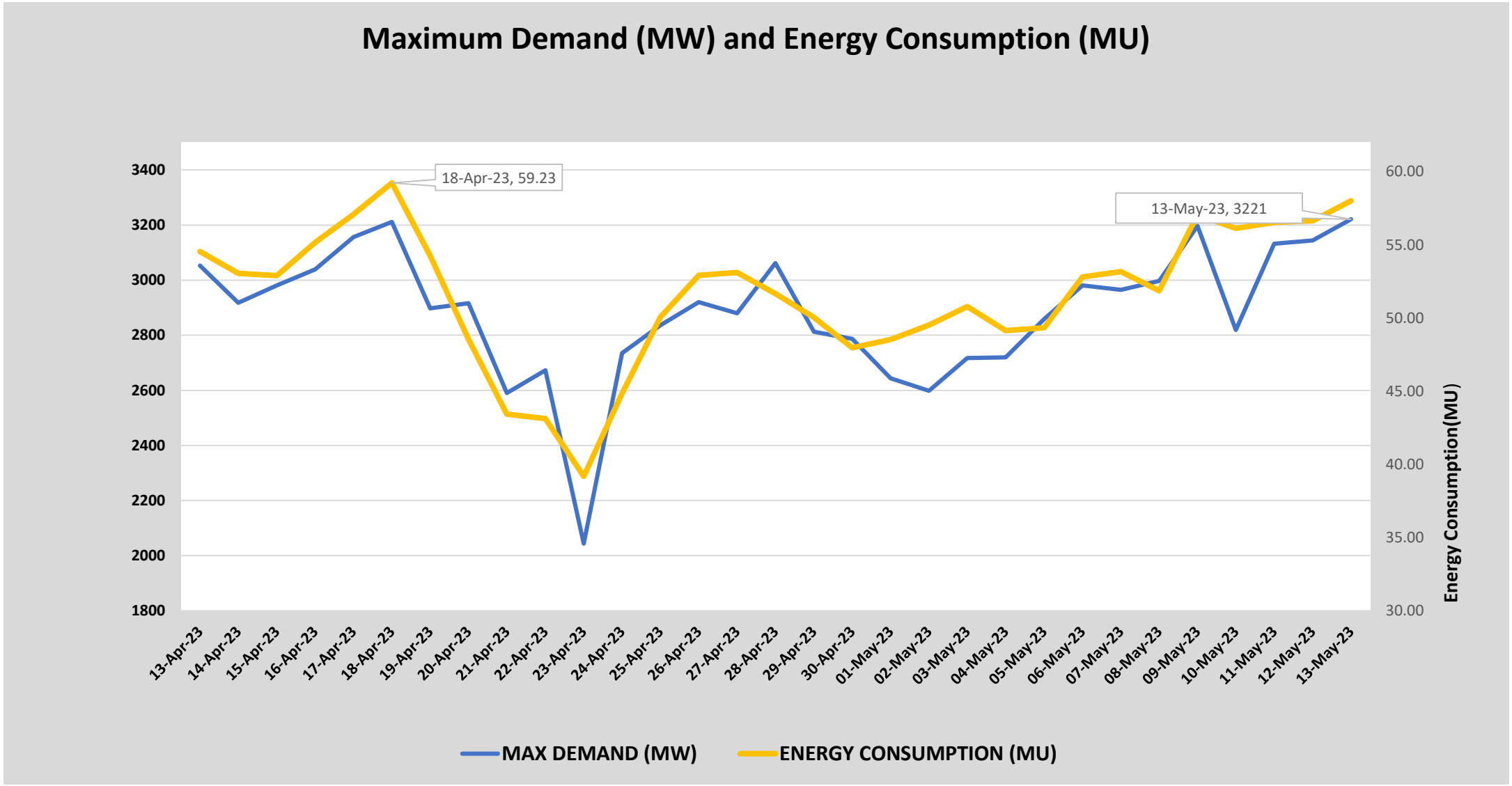
For the month April-May 2023



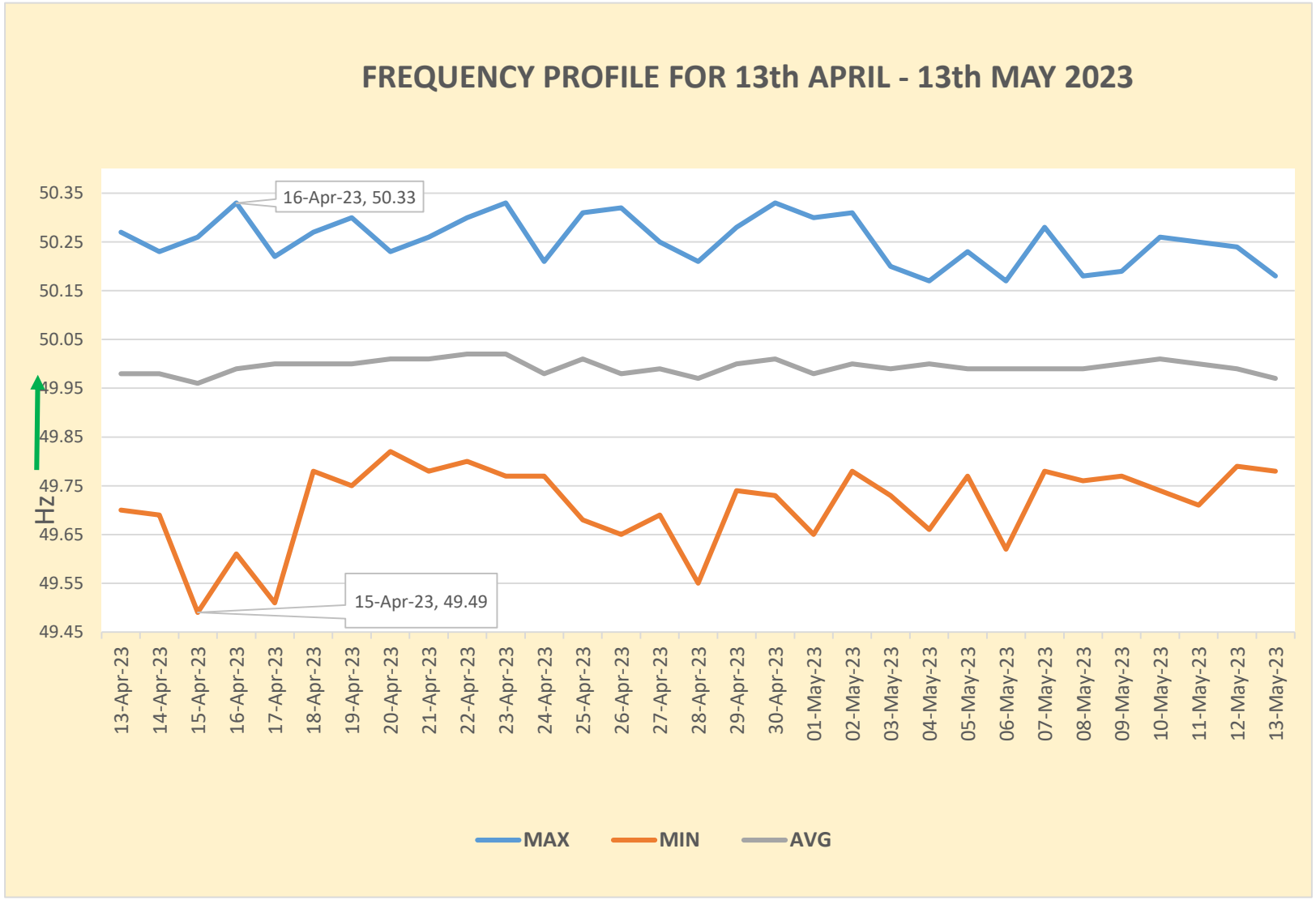
North-Eastern Regional Load Despatch Centre

Grid-India, Shillong

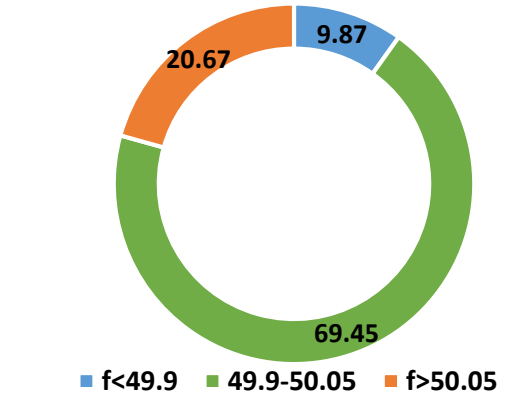
Maximum MW and MU in NER: 13th Apr – 13th May 2023



Frequency Profile

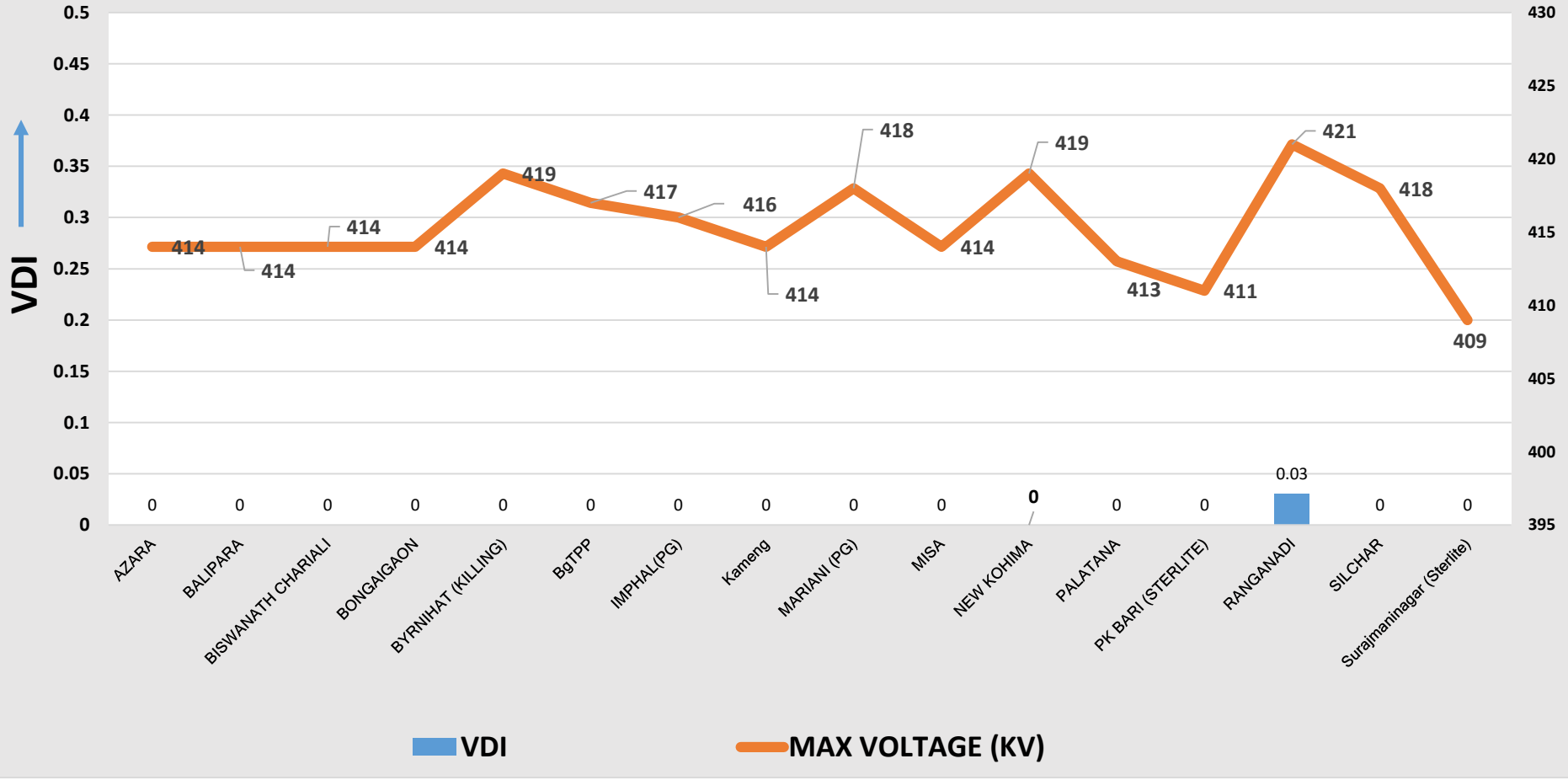


FREQ PROFILE FOR APR-MAY'23

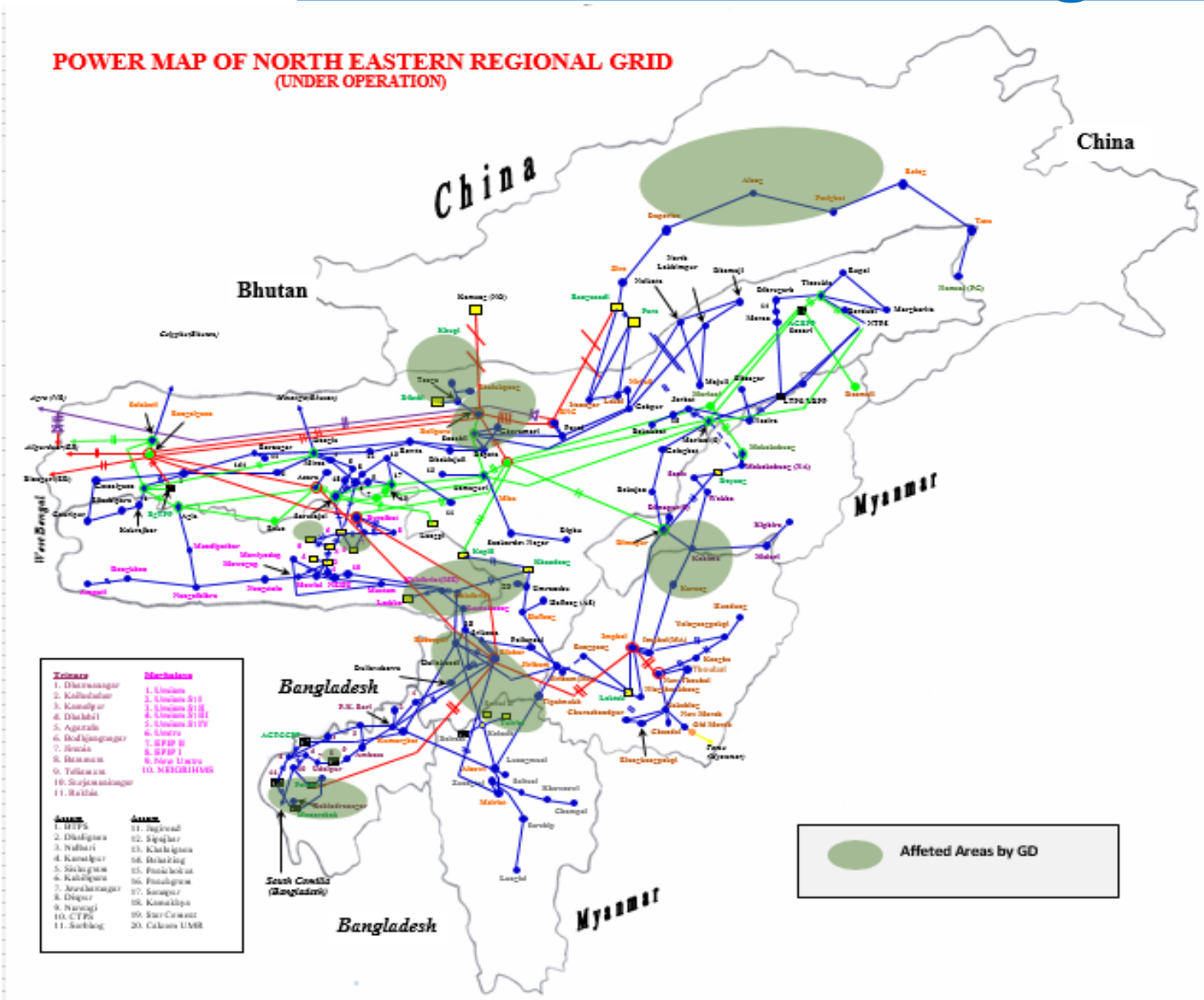


VDI (400 KV) FOR 13th Apr - 13th May 2023

No. of 400 kV lines kept open for over voltage : 0



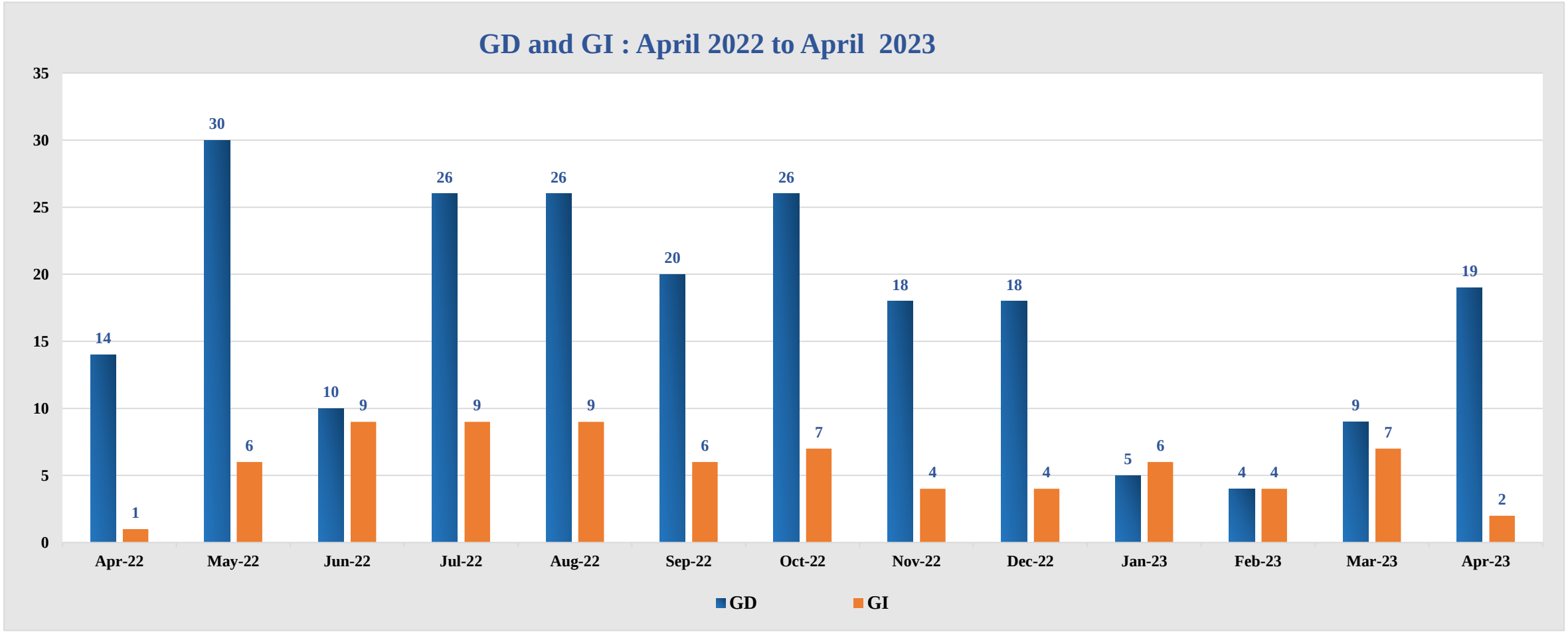
Grid Disturbance during APRIL 2023



No. of GD	19
No. of GI	2

Sl. No.	Element	Number of times
1	132 kV Along - Daporijo Line	caused GD 2 time
2	132 kV Along - Pasighat Line.	caused GD 1 time
3	132 kV Panchgram-Lumshnong Line	caused GD 1 time
4	132 kV Karong-Kohima & 132 kV Dimapur (PG) - Kohima Lines	caused GD 2 time
5	132 kV Ziro - Daporijo Line	caused GD 2 time
6	132 kV Sonabil - Depota and 132 kV Sonabil -Ghoramari Lines	caused GD 1 time
5	132 kV BTPS(AS) - Dhaligaon D/C Lines	caused GD 1 time
6	132 kV Balipara - Tenga Line	caused GD 4 time
7	132 kV Ranganadi - Ziro Line.	caused GD 1 time
8	132 kV Monarchak - Rokhia Line	caused GD 1 time
9	132 kV Badarpur-Kolasib, 132 kV Kolasib-Aizawl and 132 kV Kolasib - Turial Lines	caused GD 1 time
10	132 kV Myntdu Leshka - Khleihriat D/C Lines	caused GD 1 time
11	132 kV Khleihriat-Lumshnong Line	caused GD 1 time

Grid Disturbance/Incidences for last 12 Months



Projected Hydro Generation Availability

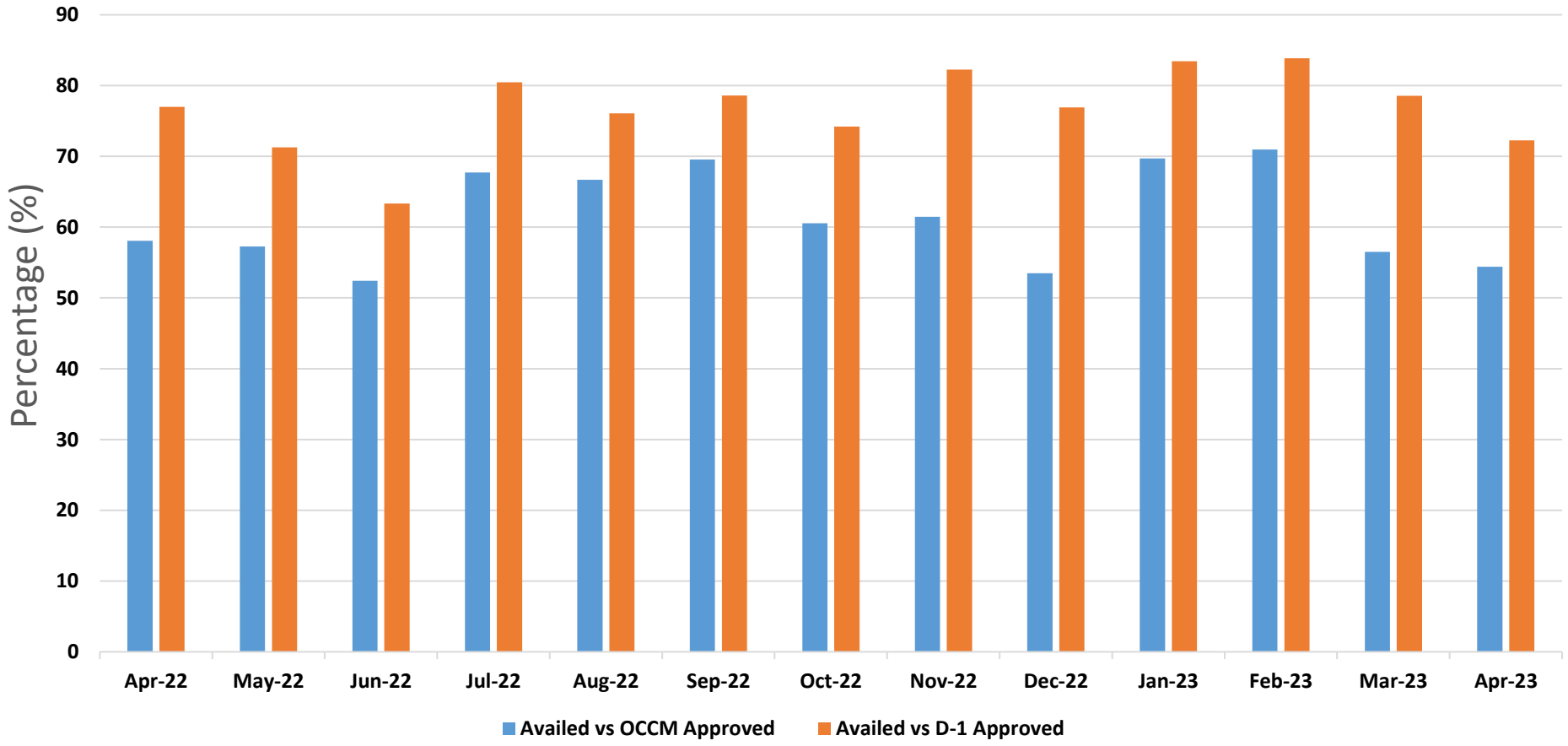
Plants	Reservoir Level in meters (as on 24/04/2023)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Kopili STG II	-	-	-	-
Kopili	-	-	-	-
Doyang	306.55	1	0.05	20
Loktak	766.52	13	0.21	62

OCC approved shutdown availing status for the month of April 2023

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
Apr-23	182	137	99	54.40%	72.26%	1

	OCC Approved	D-1 Approved	Availed	Not Availed	RLDC Deferred
NER	182	137	99	37	14
NERTS	75	47	28	19	8
ASSAM	55	47	41	6	4
MANIPUR	0	0	0	0	0
MEGHALAYA	1	1	0	1	0
NAGALAND	9	9	6	3	0
MIZORAM	0	0	0	0	0
TRIPURA	36	31	23	7	2
ARUNACHAL PRADESH	0	0	0	0	0
NETC	0	0	0	0	0
KMTL	0	0	0	0	0
NEEPCO	1	1	1	0	0
NTPC	1	1	0	1	0
OTPC	0	0	0	0	0
INDIGRID	0	0	0	0	0
NHPC	4	0	0	0	0

Approved Shutdown availing trend in percentage



RMSE of Load forecast for Apr'23

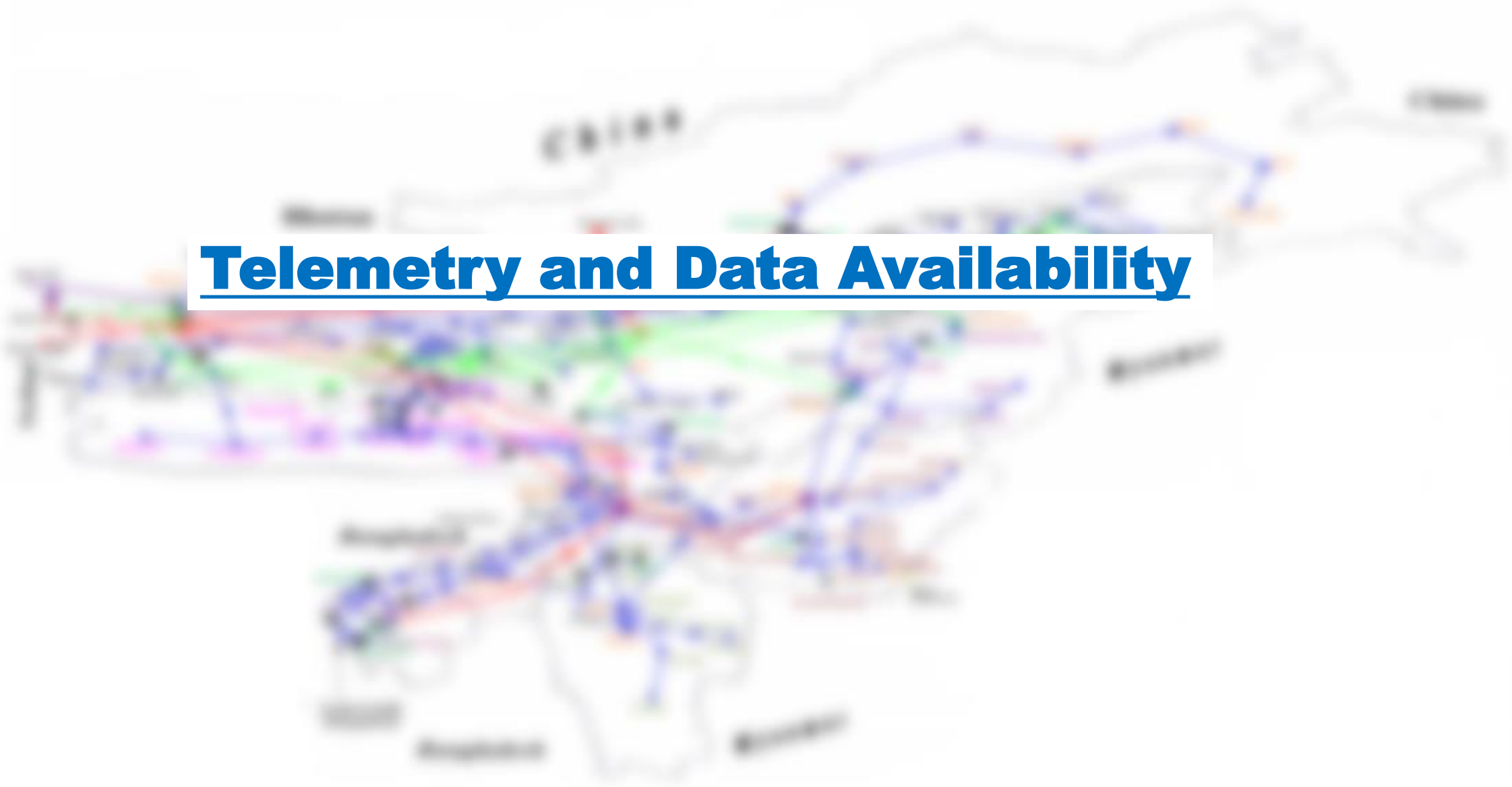
RMSE of the forecasted Demand by SLDCs Vs Actual Demand met as per SEM by SLDCs (as per IEGC c1.5.3):

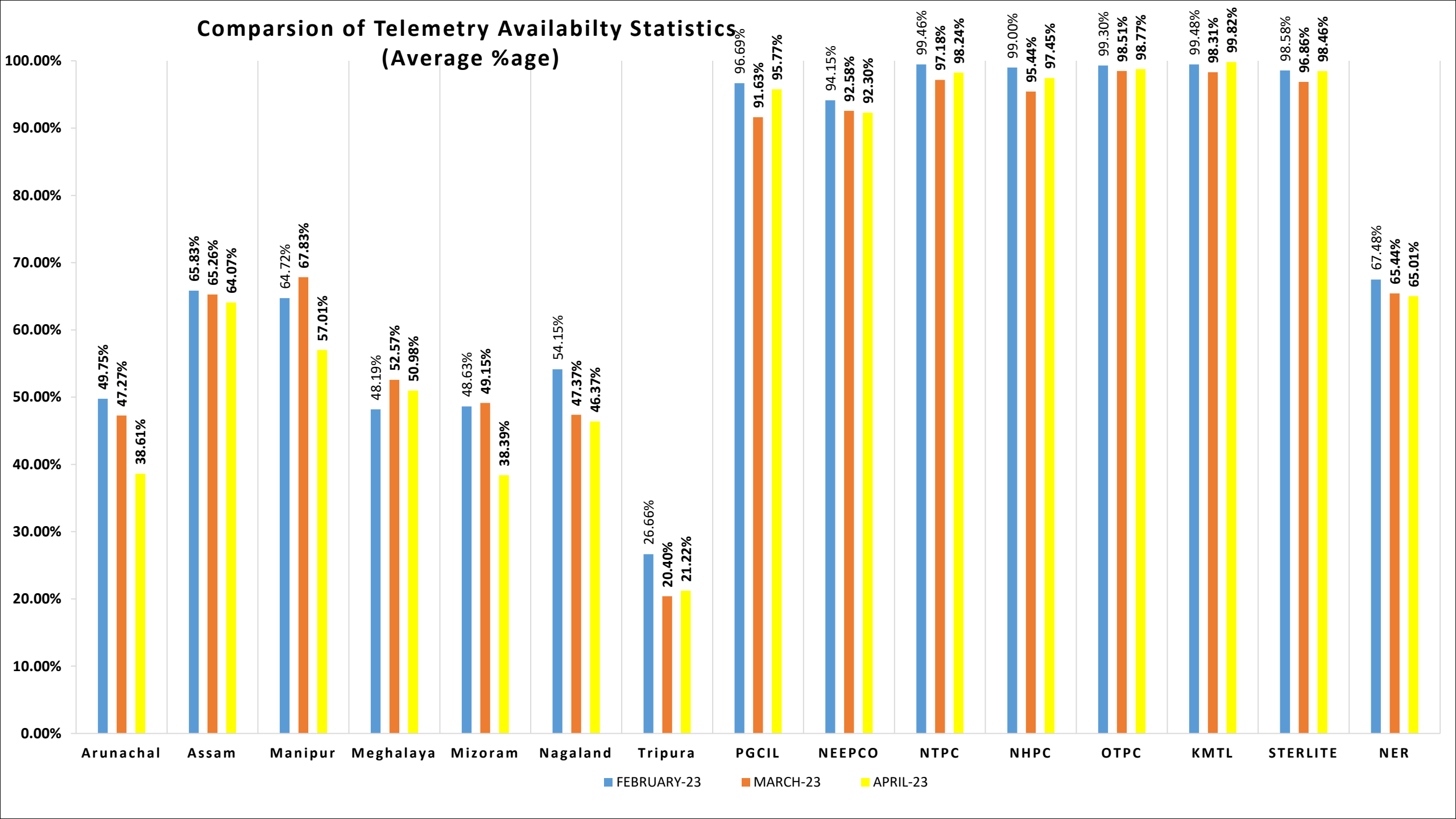
$$RMSE = \sqrt{\frac{\sum_{i=1}^{N} (Predicted_i - Actual_i)^2}{N}}$$

Where,
Predicted$_i$ = Forecasted Value
Actual$_i$ = Actual value
N = Total number of observations.

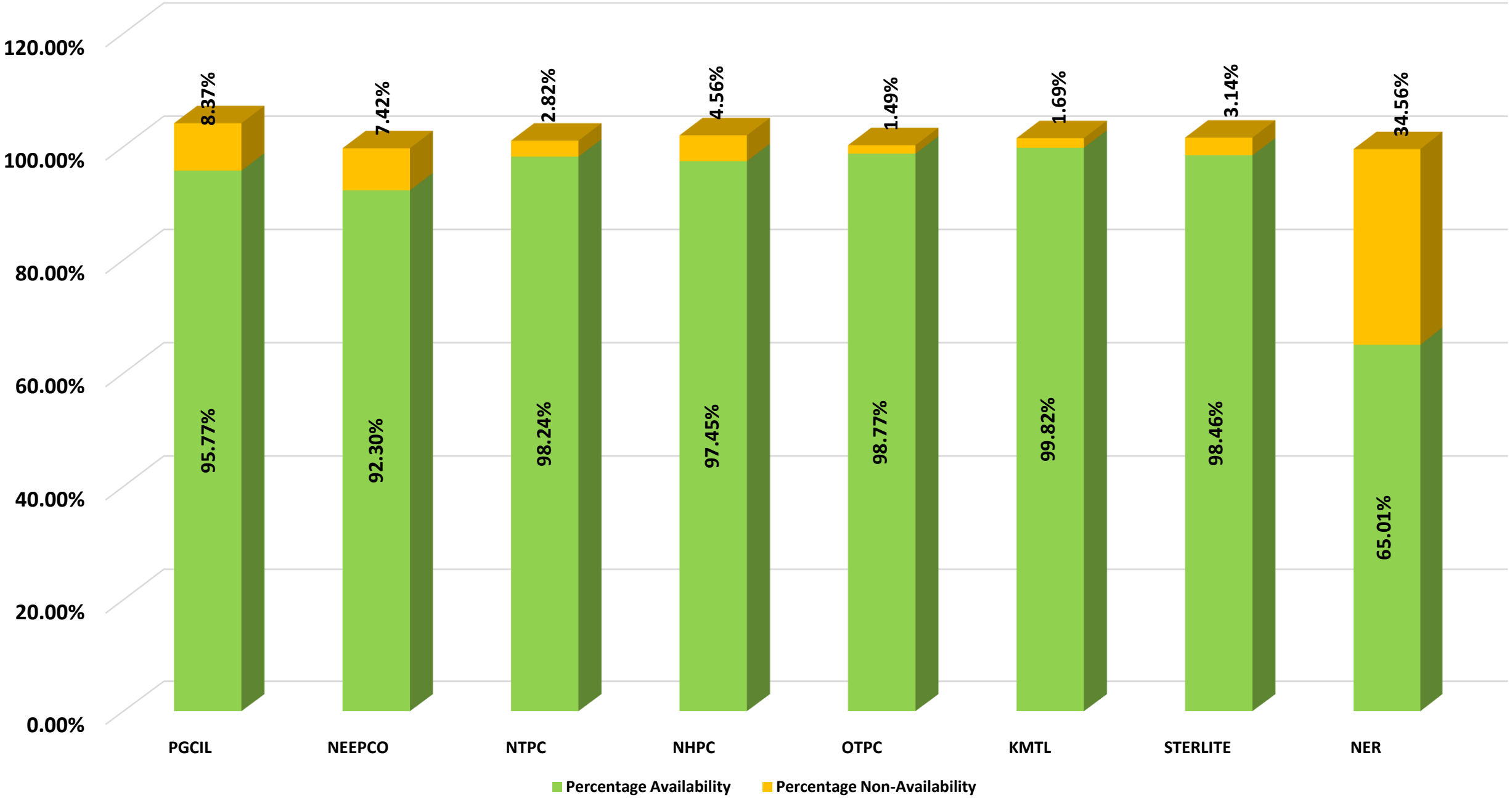
	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	13	7	12	10	16	12	14

Telemetry and Data Availability

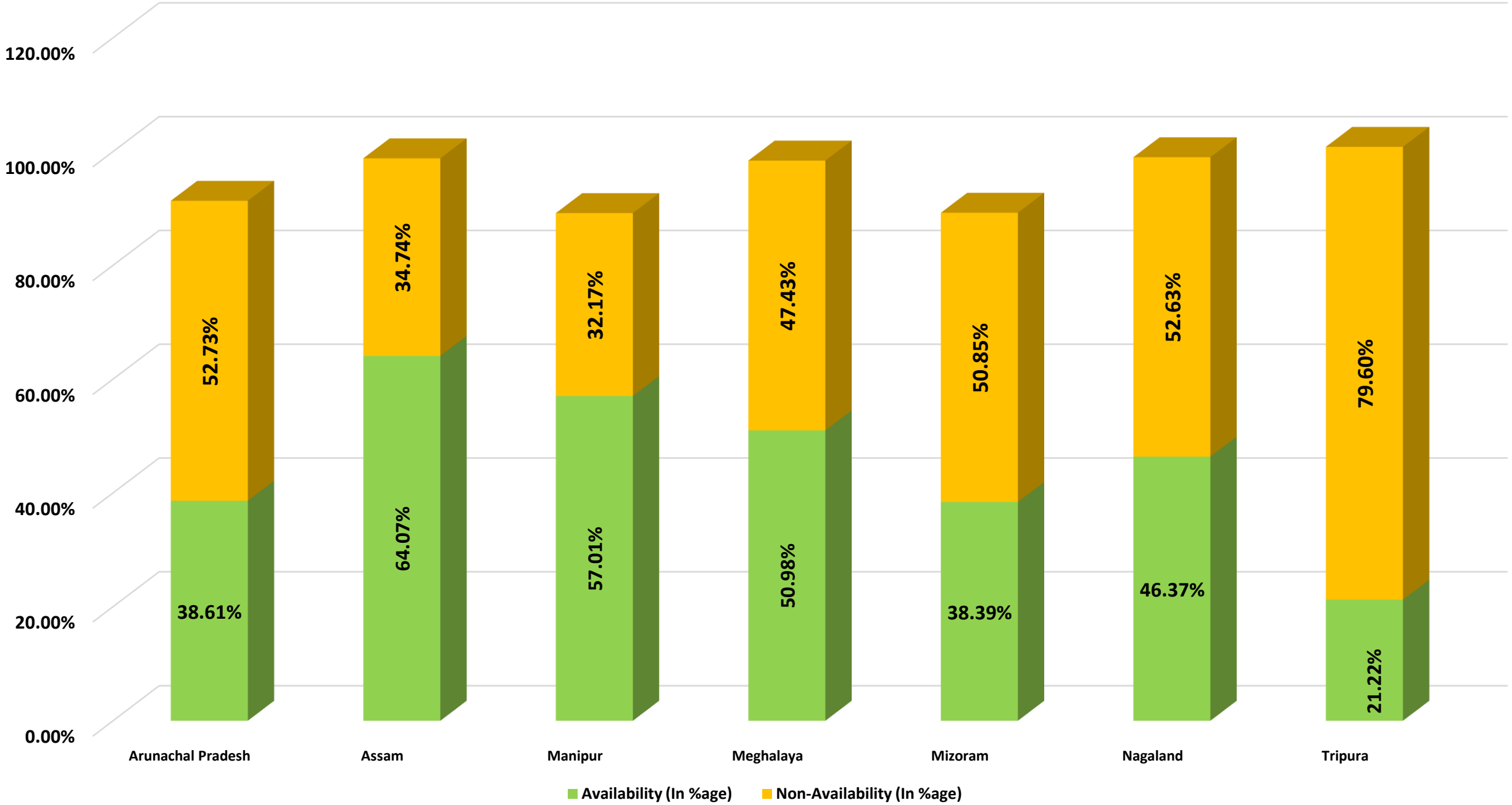



Comparsion of Telemetry Availabilty Statistics
(Average %age)
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
49.75%
47.27%
38.61%
65.83%
65.26%
64.07%
64.72%
67.83%
57.01%
48.19%
52.57%
50.98%
48.63%
49.15%
38.39%
54.15%
47.37%
46.37%
26.66%
20.40%
21.22%
96.69%
91.63%
95.77%
94.15%
92.58%
92.30%
99.46%
97.18%
98.24%
99.00%
95.44%
97.45%
99.30%
98.51%
98.77%
99.48%
98.31%
99.82%
98.58%
96.86%
98.46%
67.48%
65.44%
65.01%
Arunachal
Assam
Manipur
Meghalaya
Mizoram
Nagaland
Tripura
PGCIL
NEEPCO
NTPC
NHPC
OTPC
KMTL
STERLITE
NER
FEBRUARY-23
MARCH-23
APRIL-23

Telemetry Statistics for Central Sector of NER (Average availability of data for the Month of APRIL '23)



Telemetry Statistics for NER States(Average availability of data for the Month of APRIL '23)



Thank You

Shutdown Approved for the month of June 2023

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	SHUTDOWNS PROPOSED BY PGCIL					
	132kV Transmission lines					
1	132kV Badarpur - Kolasib TL	Consent received from Mizoram	0800Hrs to 1600Hrs	Missing birdguard fixing work at Loc.66-70, 90-94 of the line.	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 132 kV Aizawl-Kolasib, 132 kV Aizawl - Melriat line, 132 kV Aizawl - Tipaimukh-Jiribam link and 132 kV Aizawl - Kumarghat line. Consent from SLDC Mizoram required.
2	132kV Badarpur - Karimganj TL	Consent received from Assam	0800Hrs to 1600Hrs	Critical infringement clearing work from Loc.25-26 of the line	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Kumarghat-Karimganj line.
3	132kV Badarpur - Khliehriat TL	Not Approved in 202nd OCCM	0800Hrs to 1600Hrs	Firmware upgradation of Micom P442 distance relay.	Existing system improvement related shutdown.	SD may be deferred till restoration of Misa - Kopili - Khandong link.
4	132kV Jiribam - Loktak TL	Intimation to Manipur and loktak	0800Hrs to 1600Hrs	Removal of arcing horn ring for 134 Nos Tower of the line	Existing system improvement related shutdown.	SD may be availed. Consent from SLDC Manipur may be taken. Loktak generation to be maintained within 70 MW during the shutdown period.
5	132kV Khliehriat - Badarpur TL	Not Approved in 202nd OCCM	0800Hrs to 1600Hrs	Removal of balance (109 to 127 loc) arcing horn	Existing system improvement related shutdown.	SD may be deferred till restoration of Misa - Kopili - Khandong link.
6	132 kV Salakati - Gelephu TL	Consent required from NLDC/Bhutan	1000Hrs to 1600Hrs	TLA installation at dead end tower of Gelephu SS.	Existing system improvement related shutdown.	SD may be availed. Consent from NLDC and Bhutan to be taken
7	132kV Silchar - Melriat I		CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Melriat II.
8	132kV Silchar - Melriat II		CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Melriat I.
9	132kV Srikona-Silchar II	Consent received from Assam	CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Srikona I.
10	132kV Srikona-Silchar I	Consent received from Assam	CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Srikona II

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
11	132kV Silchar - Badarpur I		CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed. Other circuit to be kept in service. Leshka generation to be maximized.
12	132kV Silchar - Badarpur II		CSD: 0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	SD may be availed. Other circuit to be kept in service. Leshka generation to be maximized.
13	132kV Melriat- Zemabawk	Consent received from Mizoram	0800 Hrs to 1600 Hrs	Dismantling of Old Relay , Installtion, wiring Testing & Integration of New P546 Relay with Existing SAS & NTAMC	Existing system improvement related shutdown.	Consent from SLDC Mizoram required.The SD may be availed subject to availability of 132 kV Aizawl-Lungmual-Melriat(Mz) link. The Mizoram load may be limited to 65 MW as low voltage issue may arise during the SD period.
14	132kV Silchar – Melriat 2 TL		0900Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Melriat 1
15	132kV Silchar-Badarpur#1 TL		0900Hrs to 1200Hrs	Rectification of Bus Isolator and replacement of Bus jumper	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Badarpur 2
16	132kV Silchar-Srikona #1 TL	Consent received from Assam	1300Hrs to 1600Hrs	Rectification of Bus Isolator and replacement of Bus jumper	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Srikona 2
17	132kV Silchar-Badarpur#1 TL		0900Hrs to 1600Hrs	Tower side arching horn removal	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Badarpur 2
18	132kV Silchar-Badarpur#2 TL		0900Hrs to 1600Hrs	Tower side arching horn removal	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Badarpur 1
19	132kV Silchar-Hailakandi #1 TL	Consent received from Assam	0900Hrs to 1600Hrs	Tower side arching horn removal	Existing system improvement related shutdown.	SD may be allowed on 11.06.23 as 132 kV Silchar-badarpur 1 and 132 Kv Silchar-Srikona 1 lines are also propsed on 09.06.23
20	132kV Silchar-Hailakandi #2 TL	Consent received from Assam	0900Hrs to 1600Hrs	Tower side arching horn removal	Existing system improvement related shutdown.	SD may be availed subject to availability of 132 kV Silchar-Hailakandi 1
21	132kV Ranganadi - Ziro	SD WILL BE ALLOWED SUBJECT TO AVAILABILITY OF 132 Kv TINSHUKIA-RUPAI-CHAPAKHWA-ROING LINK	CSD 0900Hrs to 1600Hrs	for replacement of tower parts and legs of tower no. 10, 37, 55.	Existing system improvement related shutdown.	Consent from SLDC AP required. No power supply to 132 kV Ziro, Daporijio, Along, Pasighat, Roing, Tezu and Namsai area of AP sytem during the SD period.

		Jun-23			Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	220kV Transmission lines					
22	220kV BALIPARA SONABIL LINE 1 TL	Consent received from Assam	0700Hrs to 1500Hrs	LINE DIFFERENTIAL RELAY TESTING AND COMMUNICATION TESTING	Existing system improvement related shutdown.	The SD may be availed subject to availability of 220 kV Misa-Samguri-Sonabil DC link.
23	220 kV Misa-Dimapur #1 TL		0800Hrs to 1600Hrs	Rectification of Protection error observed in scheme checking	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220kV Misa - Dimapur - 2 and 132 kV Dimapur-Imphal line.
24	220kV Salakati - Bongaigaon - 1 TL along with Bus-1 @ Salakati		0700Hrs to 1500Hrs	Attending hotspot in Main Bay and Line Bay	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Salakati-Bongaigaon 2.All elements connected to Bus 2 to be in service.
25	220kV Salakati - Bongaigaon - 2 TL along with Bus-1 @ Salakati		0700Hrs to 1500Hrs	For reversing the direction of Bus#2 (214-89B) tandem isolator	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Salakati-Bongaigaon 1.All elements connected to Bus 2 to be in service.
26	A/R of 220 kV Misa-Kopili #1 TL		0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for PID scanning works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
27	A/R of 220 kV Misa-Dimapur #1 TL		0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for PID scanning works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
28	A/R of 220 kV Misa-Dimapur #2 TL		0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for PID scanning works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
29	A/R of 220kV Kathalguri - New Mariani TL (PG) (CKT-2)		0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for PID scanning works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
30	A/R of 220kV Kathalguri - Old Mariani TL (AEGCL) (CKT-1)		0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for PID scanning works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode

		Jun-23			Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	400kV Transmission lines					
31	400kV Silchar - AZARA Line along with Line Reactor		0900Hrs to 1600Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation and Bird guard fixing in Wave Trap	Existing system improvement related shutdown.	SD may be availed.400 kV Silchar-Byrnihatline and 220 kV Salakati-BTPS-Agia-Azara link to be krpt in service.RELIABILITY OF THE SYSTEM IS REDUCED.
32	400kV Silchar - PALATANA -1 Line & Line Reactor		0900Hrs to 1600Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation and Bird guard fixing in Wave Trap	Existing system improvement related shutdown.	SD may be availed.400kV Silchar-Palatana 2 to be in service.
33	400 kV Misa-Balipara #1 TL		0900Hrs to 1700Hrs	Rectification of Protection error observed in scheme checking	Normal Maintenance related shutdown.	SD may be availed subject to availability of 400 kV Misa-Balipara 2.400/220 kV ICTs at Misa to be in service.
34	400kV Misa-Silchar #2 Line with Line Reactor		0900Hrs to 1700Hrs	SCADA modification for implementation of A/R close interlock	Existing system improvement related shutdown.	The SD may be availed subject to availability of 400kV Misa - Silchar- I line.
35	400kV Misa-Silchar #1 Line with Line Reactor		0900Hrs to 1700Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation	Existing system improvement related shutdown.	The SD may be availed subject to availability of 400kV Misa - Silchar- II line.
36	400kV Misa-New Mariani 1 with Line Reactor		0900Hrs to 1700Hrs	SCADA modification for implementation of A/R close interlock	Existing system improvement related shutdown.	The SD may be availed subject to availability of 400kV Misa - New Mariani- II line.
37	400kV Misa-New Mariani 2 with Line Reactor		0900Hrs to 1700Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation	Existing system improvement related shutdown.	The SD may be availed subject to availability of 400kV Misa - New Mariani- I line.

38	A/R of 400 KV Bongaigaon-Byrnihat TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
39	A/R of 400 KV Azara-Silchar TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
40	A/R of 400kV New Mariani - Misa - 1 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
41	A/R of 400kV New Mariani - Misa - 2 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
42	A/R of 400 KV Silchar-Brynihat TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
43	A/R of 400KV BALIPARA-BONGAIGAON CKT-1 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
44	A/R of 400KV BALIPARA-BONGAIGAON CKT-2 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
45	A/R of 400 KV Silchar-Palatana - 1 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode
46	A/R of 400 KV Silchar-Palatana - 2 TL	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode

		Jun-23			
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		Category	
	132 kV Aizwal SS				
47	132kV TBC Bay at Aizawl	0800Hrs to 1600Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed subject to no outage of elements
	132 kV Badarpur SS				
48	132kV Main Bus at Badarpur	0800Hrs to 1600Hrs	AMP of Bus	Normal Maintenance related shutdown.	SD may be deferred until Misa - Kopili - Khandong link is available and 132 kV Jiribam(PG) - Haflong (PG) link is brought back into service.
	220 kV Salakati SS				
49	220/132 kV, 50 MVA ICT#2 with Bus#2 at Salakati	0800Hrs to 1700Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation and Mechanism and Linkage rod isolation of Bus Isolator of ICT-2	Existing system improvement related shutdown.	The SD may be availed subject to no outage of elements. All elements at 220 kV level must be shifted to 220 kV Bus 1 during the SD period.
	400kV Silchar SS				
50	400/132kV 200MVA ICT-2 at Silchar	0800Hrs to 1700Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation	Existing system improvement related shutdown.	SD may be availed. 400/132 kV ICT 1 & 3 are to be in service.
51	132kV Bus-1 at Silchar	0900Hrs to 1500Hrs	For jumper change in 132 kV Srikona 1 and AMP of Bus. All lines will be in service through Bus-2	Normal Maintenance related shutdown.	SD may be deferred until Misa - Kopili - Khandong link is available and 132 kV Jiribam(PG) - Haflong (PG) link is brought back into service.
52	63 MVAR Bus Reactor -1 at Silchar	0900Hrs to 1500Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation & Tie Bay CSD Tuning and testing. g.	Existing system improvement related shutdown.	SD may be availed. About 2 kV voltage change is observed in Silchar S/s
53	132kV Buscoupler at Silchar	0900Hrs to 1500Hrs	Panel wiring checking after removal of 132 kV PK Bari and Imphal bays	Existing system improvement related shutdown.	SD may be availed subject to no outage of elements.
	400kV Misa SS				
54	400kV ICT-1 Main Bay at Misa	0900Hrs to 1700Hrs	CSD Fine Tuning and Testing	Existing system improvement related shutdown.	400 kV ICT-1 AT Misa shares dia with 400 kV Balipara 2.SD may be availed subject to no outage of elements.
55	400kV ICT-1 & Balipara-2 Tie bay at Misa	0900Hrs to 1700Hrs	CSD Fine Tuning and Testing	Existing system improvement related shutdown.	SD may be availed subject to no outage of elements.400 kV ICT-1 shares dia with 400 kV Balipara-2
56	500 MVA ICT-1 at Misa	0900Hrs to 1700Hrs	Modification in OTI/WTI and PRV circuit to improve relaibility in operation and thus to reduce maloperation	Existing system improvement related shutdown.	SD may be availed subject to availability of ICT II & III at Misa .
57	33 kV Incomer bay at Misa	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed.
	400kV Mariani SS				
57	220kV Bus A at Mariani	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed.All elements to be kept in service via Bus B
59	220kV Bus B at Mariani	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed.All elements to be kept in service via Bus A

		Jun-23			
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		Category	
	400kV Balipara SS				
60	400KV BONGAIGAON -1 AND BNC-3 TIE BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed subject to no outage of elements.400 kV Bongaigaon-1 shares dia with 400 kV BNC-3.
61	400KV MISA-1 AND BNC-1 TIE BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed subject to no outage of elements..400 kV Misa-1 shares dia with 400 kV BNC-1.
62	400KV ICT-1 AND BUS REACTOR-1 TIE BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed subject to no outage of elements..400 kV ICT-1 shares dia with 400 kV Bus Reactor
63	400KV BNC-4 MAIN BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	400 kV BNC-4 shares dia with 400 kV Bongaigaon 2.SD may be availed subject to no outage of elements.
64	220/132KV 160MVA ICT-2 HV SIDE at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments. ICT will remain in service via TBC bay	Normal Maintenance related shutdown.	SD may be availed
65	400KV 80 Mvar BUS REACTOR-2 at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed.About 2kV voltage change is observed at 400 kV Balipara S/S
66	400KV BONGAIGAON-3 AND KAMENG-2 MAIN BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed
67	400KV BONGAIGAON-4 MAIN BAY at Balipara	0900Hrs to 1700Hrs	AMP of Bay Equipments	Normal Maintenance related shutdown.	SD may be availed.400KV BONGAIGAON-4 AND KAMENG-1 is sharing dai at 400 kV Balipara substation.
68	A/R of 400KV BYRNIHAT-MIRZA LINK at Balipara	0700Hrs to 1900Hrs	Auto Reclosure switch to be kept in Non-Auto Mode for OPGW stringing works	Existing system improvement related shutdown.	A/R may be kept in Non-Auto Mode

	Name of Element	Jun-23	Time	Remarks	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	Interregional/International					
69	400KV BINAGURI-BONGAIGAON - 1 TL	Consent required from NLDC	CSD 0800Hrs to 1800Hrs	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	SD may be availed. 400 kV Bongaigaon-Alipurduar DC and 220 kV Salakati-Alipurduar DC must be kept in service. Consent from NLDC may be obtained.
70	400KV BINAGURI-BONGAIGAON - 2 TL	Consent required from NLDC	CSD 0800Hrs to 1800Hrs	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	SD may be availed. 400 kV Bongaigaon-Alipurduar DC and 220 kV Salakati-Alipurduar DC must be kept in service. Consent from NLDC may be obtained.
71	A/R of 400KV BINAGURI-BONGAIGAON - 1 TL	Consent required from NLDC	0800Hrs to 1800Hr	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	A/R may be kept in Non-Auto Mode
72	A/R of 400KV BINAGURI-BONGAIGAON - 2 TL	Consent required from NLDC	0800Hrs to 1800Hr	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	A/R may be kept in Non-Auto Mode
73	400KV BINAGURI-BONGAIGAON - 1 TL	Consent required from NLDC	CSD 0800Hrs to 1800Hrs	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	SD may be availed. 400 kV Bongaigaon-Alipurduar DC and 220 kV Salakati-Alipurduar DC must be kept in service. Consent from NLDC may be obtained.
74	400KV BINAGURI-BONGAIGAON - 2 TL	Consent required from NLDC	CSD 0800Hrs to 1800Hrs	Re- Conductoring work under NERSS - XII pakage	Construction Related Shutdown	SD may be availed. 400 kV Bongaigaon-Alipurduar DC and 220 kV Salakati-Alipurduar DC must be kept in service. Consent from NLDC may be obtained.

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	SHUTDOWNS PROPOSED BY ARUNACHAL PRADESH					
1	132 kV Ziro-Daporijo transmission line		08:00 HRS TO 16:30 HRS	Removal of vegetation from tower no. ZRO-DRJ 69 to 76	Normal Maintenance related shutdown.	SD may be availed.Blackout will occur in Daporijo,Along,Pasighat,Roing,Tezu and Namsai araes of Arunachal Pradesh.

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
	SHUTDOWNS PROPOSED BY ASSAM					
1	132KV MARIANI-GOLAGHAT		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. 132 kV Dimapur - Bokajan - Sarupathar - Golaghat link to be kept in service.
2	132KV GOLAGHAT-SARUPATHAR		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. 132 kV Dimapur - Bokajan - Sarupathar link and 132 kV Mariani - Golaghat line to be kept in service.
3	132KV BOKAJAN-DIMAPUR		9:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	SD may be availed. 132 kV Mariani - Golaghat - Sarupathar - Bokajan link to be kept in service.
4	132KV BOKAJAN-SARUPATHAR		9:00-16:00	CORRIDOR CLEARANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Golaghat - Sarupathar line and 132 kV Dimapur - Bokajan line. RELIABILITY OF THE SYSTEM IS REDUCED.
5	132 KV Pailapool – Jiribam Line		9:00-17:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Srikona-Pailapool.Consent from Manipur to be obtained
6	133 KV Pailapool – Jiribam Line		9:00-17:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Srikona-Pailapool.Consent from Manipur to be obtained
7	220kv AMGURI-NAMRUP		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	Considering N-1 contingency of 220 kV AGBPP - Mariani (PG) line, Upper Assam Power Flow is to be maintained within 230 MW (during solar period) and 225 MW (during non-solar period)
8	220kv AMGURI-NAMRUP		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	Considering N-1 contingency of 220 kV AGBPP - Mariani (PG) line, Upper Assam Power Flow is to be maintained within 230 MW (during solar period) and 225 MW (during non-solar period)
9	220KV MARIANI-AMGURI		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	Considering N-1 contingency of 220 kV AGBPP - Mariani (PG) line, Upper Assam Power Flow is to be maintained within 240 MW (during solar period) and 235 MW (during non-solar period)
10	220KV MARIANI-AMGURI		8:00-16:00	CORRIDOR CLEANING & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	Considering N-1 contingency of 220 kV AGBPP - Mariani (PG) line, Upper Assam Power Flow is to be maintained within 240 MW (during solar period) and 235 MW (during non-solar period)
11	132 KV SRIKONA-PAILAPOOL		8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Jiribam-Pailapool.
12	132 KV HAILAKANDI-DULLAVCHERRA		8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Dullavcherra-Dharmanagar-PK Bari link.
13	132 KV PANCHGRAM-HAILAKANDI		8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed.132 kV Badarpur-Panchgram line to be in service

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
14	132 KV PANCHGRAM-LUMSHNONG	Consent received from Meghalaya	8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed. 132 kV Khliehriat - Lumshnong line to be kept in service.Internal generation from Leshka to be maximised
15	132 KV SRIKONA-PAILAPOOL		8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed subject to availability of 132 kV Jiribam(PG)-Pailapool line.
16	132 kV DULLAVCHERRA-DHARMANAGAR	Consent received from Tripura	8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	Consent from SLDC Tripura is required. SD may be availed. 132 kV PK Bari - Dullavcherra line and 132 kV Hailakandi - Dharmanagar line to be kept in service.
17	133 kV DULLAVCHERRA-DHARMANAGAR	Consent received from Tripura	8:00-16:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	Consent from SLDC Tripura is required. SD may be availed. 132 kV PK Bari - Dullavcherra line and 132 kV Hailakandi - Dharmanagar line to be kept in service.
18	220 KV Tinsukia-Kathalguri Feeder no 1	Intimation to NEEPCO	9:00-15:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. 220 kV Tinsukia-Kathalguri 2 to be in service.
19	220 KV Tinsukia-Kathalguri Feeder no 2	Intimation to NEEPCO	9:00-15:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Tinsukia-Kathalguri 1.
20	220 KV Tinsukia-NTPS Feeder		9:00-15:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. 220 kV Tinsuka - NRPP - NTPS link to be kept in service
21	220 KV Tinsukia-NRPP Feeder		9:00-15:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. 220 kV Tinsukia - NTPS line and 220 kV NTPS - NRPP line to be kept in service.

SN	Name of Element	Jun-23	Time	Reason	Category	
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30				
22	220 KV Samaguri-Mariani Ckt-2	Intimation to NEEPCO	8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. At present, the Upper Assam power system is connected with 220 kV Samaguri-Mariani(AS) line, 220 kV Mariani(AS) - Mariani (PG) line, 220 kV AGBPP-Mariani(PG) line and
23	220 KV Samaguri-Mariani Ckt-2	Intimation to NEEPCO	8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed. At present, the Upper Assam power system is connected with 220 kV Samaguri-Mariani(AS) line, 220 kV Mariani(AS) - Mariani (PG) line, 220 kV AGBPP-Mariani(PG) line and
24	220 KV Samaguri-Sonabil Ckt-1		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Samaguri-Sonabil-2 line. RELIABILITY OF THE SYSTEM IS REDUCED.
25	220 KV Samaguri-Sonabil Ckt-2		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Samaguri-Sonabil-1 line. RELIABILITY OF THE SYSTEM IS REDUCED.
26	220kv SAMAGURI-JAWAHARNAGAR		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link, 220 kV Sarusajai - Jawaharnagar line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM
27	220kv SAMAGURI-JAWAHARNAGAR		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link, 220 kV Sarusajai - Jawaharnagar line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM
28	220kv SAMAGURI-JAWAHARNAGAR		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link, 220 kV Sarusajai - Jawaharnagar line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM
29	220KV JAWAHARNAGAR-SARUSAJAI		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link, 220 kV Samaguri- Jawaharnagar line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM
30	220KV SARUSAJAI-SONAPUR		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Jawaharnagar-Samaguri link, 220 kV Samaguri - Sonapur line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM IS
31	220KV SARUSAJAI-SONAPUR		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Jawaharnagar-Samaguri link, 220 kV Samaguri - Sonapur line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM IS

SN	Name of Element	Jun-23	Time	Reason	Category	
32	220KV SONAPUR-SAMAGURI		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be allowed on 10.06.23 as 220 kV Sarusajai-Azara D/C also proposed on same date. 220 kV Sarusajai-Jawaharnagar-Samaguri link, 220 kV Sarusajai - Sonapur line and 220 kV Sarusajai-
33	220KV SONAPUR-SAMAGURI		8:00-16:00	CORRIDOR CLEARANCE & PREVENTIVE MAINTENANCE	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Jawaharnagar-Samaguri link, 220 kV Sarusajai - Sonapur line and 220 kV Sarusajai-Azara DC. RELIABILITY OF THE SYSTEM IS
34	220KV AGIA-BTPS-I		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220 kV BTPS -Salakati DC and 220kV Agia-BTPS 2 line.
35	220KV AGIA-BTPS-I		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220 kV BTPS -Salakati DC and 220kV Agia-BTPS 2 line.
36	220KV AGIA-BTPS-II		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220 kV BTPS -Salakati DC and 220kV Agia-BTPS 1 line.
37	220KV AGIA-BTPS-II		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220 kV BTPS -Salakati DC and 220kV Agia-BTPS 1 line.
38	220KV AGIA-BOKO		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Mirza - Boko line and 132 kV Agia - Mirza line to be kept in service.
39	220KV AGIA-BOKO		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Mirza - Boko line and 220 kV Agia - Mirza line to be kept in service.
40	220KV AGIA-MIRZA		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Agia - Boko - Mirza link to be kept in service.
41	220KV AGIA-MIRZA		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Agia - Boko - Mirza link to be kept in service.
42	220KV MIRZA-BOKO		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Agia - Boko and 220 kV Agia-Mirza to be in service.
43	220KV MIRZA-BOKO		9:00-16:00	CORRIDOR CLEANING	Normal Maintenance related shutdown.	SD may be availed. 220 kV Agia - Boko line to be kept in service.
44	220KV SARUSAJAI-MIRZA CKT 1		9:00-11:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link and 220 kV Sarusajai - Jawaharnagar-Samaguri link. RELIABILITY OF THE SYSTEM IS REDUCED.
45	220KV SARUSAJAI-MIRZA CKT 2		11:00-13:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed subject to availability of 220 kV Sarusajai-Sonapur-Samaguri link and 220 kV Sarusajai - Jawaharnagar-Samaguri link. RELIABILITY OF THE SYSTEM IS REDUCED.
46	132KV SARUSAJAI-UMTRU CKT 1		9:00-11:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed
47	132KV SARUSAJAI-UMTRU CKT 2		11:00-13:00	PREVENTIVE MAINTENANCE & CORRIDOR CLEANING WORK	Normal Maintenance related shutdown.	SD may be availed

SN	Name of Element	Jun-23	Time	Reason	Category	
	SHUTDOWNS PROPOSED BY NAGALAND					
1	132kV Dimapur(PG) - Kohima TL		9:00-16:00	Vegetation Clearing.	Normal Maintenance related shutdown.	SD may be availed.132 kV Karong-kohima,132 kV Kohima-Chiephobozou and 132 kV Kohima-Wokha to be in service.

SN	Name of Element	Jun-23	Time	Reason	Category	
	SHUTDOWNS PROPOSED BY MIZORAM					
1	132 kV Main Bus at Luangmua| (Mz)		9:00-14:00	Replacement of 132 kv mainbus conductor with HTLS'	Existing system improvement related shutdown.	The SD may be availed subject to availability of 132 kV Melriat-Zuangtui -Saitual-Serchip-Lunglei link. The Mizoram load may be limited to 65 MW as low voltage issue may arise during the SD period.
2	132kVAizawl(PG) to Luangmua|(Mz) Line		9:00-14:00	Replacement of ACSR Panther conductor with HTLS conductor	Existing system improvement related shutdown.	The SD may be availed subject to availability of 132 kV Melriat-Zuangtui -Saitual-Serchip-Lunglei link. The Mizoram load may be limited to 65 MW as low voltage issue may arise during the SD period.

SN	Name of Element	Jun-23	Time	Reason	Category	
	SHUTDOWNS PROPOSED BY OTPC					
1	UNIT 1 at OTPC		01st JUNE 15th JUNE (15 days) 00:00 Hrs to 23:59 HRS	For IBR Inspection & license renewal of HRSG-1 and GT-1 CDC bore-plug removal	Normal Maintenance related shutdown.	
2	UNIT 2 at OTPC		24th JUNE 8th JULY (15 days) 00:00 Hrs to 23:59 HRS	GT-2 Boroscopic inspection and HRSG -2 Licence renewal & annual maintenance.	Normal Maintenance related shutdown.	The SD may be availed subject to availability of 220 kV BTPS-Salakati DC. Consent required from all SLDC.
3	125 MVA ICT-1 at OTPC		CSD 00:00 hrs to 24:00 hrs (15 days)	To attend heavy oil leakage in 125 MVA ICT 1 from Y and B phase of HV and LV winding	Normal Maintenance related shutdown.	In view of planned outage of GTG 3 at AGTCCPP and low generation from Tripura system, Bangladesh load may be limited to 120 MW during peak hours. SD may be availed subject to availability of ICT-2.

SN	Name of Element	Jun-23	Time	Reason	Category	
	SHUTDOWNS PROPOSED BY NEEPCO					
1	GTG 3 at AGTCCPP		CSD of 24 HRS for 45 days (22nd July)	Major Inspection(MI) of GTG 3 at AGTCCPP	Normal Maintenance related shutdown.	SD may be availed
2	132 kV Bus 1 at AgGBPP (AGTCCPP)		CSD from 00:00 HRS TO 23:59 HRS	Bay inspection and maintenance	Normal Maintenance related shutdown.	SD may be availed.All elements are to be connected vis Bus-2 at AGTCPP
3	132 kV Bus 2 at AgGBPP (AGTCCPP)		CSD from 00:00 HRS TO 23:59 HRS	Bay inspection and maintenance	Normal Maintenance related shutdown.	SD may be availed.All elements are to be connected vis Bus-1 at AGTCPP

APPROVED
REJECTED

Type text here

Annexure C.1

Annexure-D

प्रदीप कुमार सिन्हा
सचिव
भारत सरकार

PRADEEP K. SINHA
Secretary
Government of India

सत्यमेव जयते

Ministry of Power
Shram Shakti Bhawan
New Delhi - 110001

विद्युत मंत्रालय
श्रम शक्ति भवन
नई दिल्ली–110001
Tele : 23710271/23711316
Fax : 23721487
E-mail : secy-power@nic.in

D.O. No.20/6/2014-OM

05.12.2014

Dear Shri Negi,

As you are aware, India has one of the largest A.C. Synchronous Transmission Grids in the world with more than 3 lakhs circuit kms of 220kV and above lines which form the backbone of the Indian Power System.

2. However, this huge network needs to be operated in a sustained and secure manner, particularly, during the time of natural disasters. Failure to do so leads to severe constraints not only in meeting the power demand but also poses serious problems in maintaining safety and security of the Grid. Difficult situations came to light in the wake of recent natural disasters, such as, floods in J&K and Phailin as well as Hud-Hud cyclone in Odisha and Andhra Pradesh. These disasters caused extensive damage to transmission networks resulting in wide spread disruption of many important transmission links and substations affecting power supply for long periods due to the time taken in restoration.

3. You would appreciate that under such adverse situations, the availability of an effective mechanism for emergent restoration of transmission lines in the shortest possible time is of utmost importance. Immediate and temporary restoration of transmission networks is possible by deploying the "Emergency Restoration Systems (ERS)." Grid Standards notified by the Central Electricity Authority(CEA) stipulate that every Transmission Licensee shall have an arrangement for restoration of transmission lines of at least 220kV and above through the use of ERS. However, presently the States do not possess such ERS infrastructure. Consequently, POWERGRID becomes the last resort whose ERS infrastructure is also limited.

4. Therefore, deployment of adequate ERS infrastructure with the States is necessary. In this connection, CEA had recently convened a meeting of the representatives from State Utilities, CTUs and RPCs to deliberate and review their preparedness to effectively restore transmission networks in times of emergency. Based on the inputs received, an indicative requirement of ERS for States has been assessed which is at Annex-I. Further, CEA has also formulated guidelines for planning, deployment and procurement of such ERS infrastructure (Annex-II).

5. I would, therefore, request you to please issue necessary directives to Transmission Utilities/ Transmission licensees operating in your State to take stock, procure appropriate number of ERS infrastructure and place them at strategic locations. Action taken by the Utilities in this regard may be informed to the CEA and the Ministry of Power, at the earliest.

With regards,

Yours sincerely,

(Pradeep K. Sinha)

Encl : as above

Shri Ramesh Negi
Chief Secretary
Govt of **Arunachal Pradesh**
Itanagar

Dist:- As per list attached.

RIGHT TO INFORMATION

स्वच्छ भारत
एक कदम स्वच्छता की ओर

ANNEX-I

Availability and Proposed Plan for deployment of ERS

Sl. No.	Region	State Utilities / PGCIL	Availability of ERS sets	Additional ERS set to be procured	Remark
I	Northern Region				
	PGCIL	NR1	3	1	
		NR2	1		
	1	Haryana	-	1	
	2	HP	-	1	Hilly terrain
	3	J&K	-	1	-do-
	4	Punjab	-	2	
	5	Rajsthan	-	3	
	6	Uttar Pradesh	-	3	
	7	Uttarakhand	-	1	
	8	Chandigarh	-	-	
	9	Delhi	-	1	DTL is procuring 2 ERS sets
	10	POWERLINKS	2		1 set each is located in NR and ER; each setting having 14 towers of 400 kV
	Total		6	14	
II	Western Region				
	PGCIL	WR1	2	1	
		WR2	2		
	10	Gujarat	-	3	

	11	MP	1	2	
	12	Chhattisgarh	-		
	13	Maharashtra	2	2	
	14	Goa	-	1	
	15	D&NH	-	-	
	16	Daman& Diu	-	-	
	Total		7	9	
III	Southern Region				
	PGCIL	SR1	1	2	
		SR2	1		
	17	AP	-	3	(To be located at Vishakahapatnam, Vijawada, Nellore)
	18	Telengana	-	1	
	19	Karnataka	-	2	
	20	Kerala	-	1	
	21	Tamil Nadu	-	2	
	22	Lakshadweep	-	-	
	23	Puducherry	-	-	
	Total		2	11	
IV	Eastern Region	PGCIL			
	PGCIL	ER1	1	-	
		ER2	2		
	24	Bihar	2	2	
	25	Jharkhand	-	1	
	26	Orissa	3	2(comprising of 12 nos. of 400kV towers which is in the process of procurement)	Existing ERS located at Bhubaneswar, Chatrapur and Budhipada (each with 14 ERS towers)
	27	West Bengal	-	2	
	28	DVC	-	1	

	29	A&N Island	-	-	
	30	Sikkim	-	-	
	Total		8	8	
V	North Eastern Region		-		
	PGCIL	NER	1		
	31	Assam	4	2	
	32	Manipur	-		
	33	Meghalaya	-		
	34	Nagaland	-		
	35	Tripura	-		
	36	Ar. Pradesh	-		
	37	Mizoram	-		
	Total		5	2	
	Total All India		28	44	

Note: POWERGRID has informed that they are procuring 6 additional sets of ERS for different regions.

Strategy adopted

1. The primary criterion for deciding number of ERS to be arranged by a transmission utility has to be the length of transmission line (ckt-kms) at different voltage levels (e.g 220 kV, 400 kV, 765 kV and +/- 500kV HVDC). Other factors to be taken into account while deciding the number of ERS are

   - Importance of the line considering security of Grid
   - Areas prone to tower failure and failure pattern in different areas
   - Command area of the transmission utility and transportability across the command area

2. For any transmission utility, one set of ERS has been planned to cater to failure of towers for transmission line lengths of up to 5000 Ckt. Kms.. Accordingly, two (2) sets of ERS have been planned for transmission line lengths of about 5000 to 10,000 Ckt. Kms. and three (3) sets for more than 10,000 Ckt. Kms and so on.

3. The transmission Utility with line length less than 500 ckt kms (of 400kV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises.

ANNEX-II

GUIDELINES FOR PLANNING, PROCUREMENT AND DEPLOYMENT OF EMERGENCY RESTORATION SYSTEM (ERS)

1. One set of ERS should include all accessories [structures (Aluminum Alloy), polymer insulators & hardware, anchor assembly, guy wires, foundation plates, guy plate, other equipment & fittings, special Tools & Plants required for erection & stringing of ERS and trailer mounted detachable containers (without engine) for storage & transportation of ERS hardware / material etc.] and associated software.

2. One set of ERS shall be capable of restoring few numbers of suspension towers and tension towers of the transmission line corresponding to the highest transmission voltage in operation in the utility with required type of conductors. The same ERS can be used for lower voltage lines as well. The number of suspension, tension towers, insulators and associated hardware etc., to be included under one set of ERS, may be decided by the utilities at the time of procurement depending on their requirement.

3. Proper management of ERS and training of personnel for erection of towers on ERS and use of associated software is essential. A dedicated and specialized erection & commissioning gang, which is properly trained to execute such work, would be required.

4. ERS should be utilized only for emergency purposes and the line should be restored on normal towers as early as possible. It should not be a practice to run transmission line on ERS for a long time instead of shifting to normal towers. Moreover, ERS should not be used in new lines under construction. Otherwise, the very purpose of ERS will be defeated.

5. The deployment of ERS by any transmission utility / licensee should be reported to concerned RLDC and RPC.

6. The transmission utilities may approach Appropriate Commission for approval and initiate procurement process on urgent basis to comply with Grid Standards. Utilities may also approach State Disaster Management Authorities for funding.

7. The funding for procurement of ERS could be considered from PSDF for North Eastern States and a proposal be submitted by Member Secretary, NERPC.

Annex

List of Chief Secretaries of State and UTs

S. No.	State	Name and Address	Telephone/ Fax/Email
1.	Andhra Pradesh	Shri I.Y.R. Krishna Rao Chief Secretary Government of Andhra Pradesh, Secretariat, Hyderabad-500022	Tel: 040-23453620 040-23455340 Fax: 040-040-23453700, 23451133, 23451144
2.	Arunachal Pradesh	Shri Ramesh Negi Chief Secretary & Principal Secretary (Relief & Rehabilitation & Disaster Management) Arunachal Pradesh Civil Secretariat, Government of Arunachal Pradesh, Itanagar- 791 111	Tel: 0360-2212595 Fax: 0360-2212446, 2215719 M: 9436040035
3.	Assam	Shri Jitesh Khosla Chief Secretary Government of Assam, Assam Sachivalaya, Block C, 3rd Floor, Dispur, Guwahati-781006	Tel: 0361-2261120, 2261403 Fax:-0361-2260900
4.	Bihar	Shri Anjani Kumar Singh Chief Secretary Government of Bihar Old Secretariat, Patna-800015	Tel: 0612-2215804 Fax: 0612-2217085
5.	Chattisgarh	Sh. Vivek Kumar Dhand Chief Secretary Government of Chattisgarh, DKS Bhawan, Mantralaya, Raipur-492001	Tel: 0771-2221207/8 Fax: 0771-2221206
6.	Goa	Shri R.K. Srivastava Chief Secretary Govt. of Goa Secretariat Porvorim	Tel: 0832-2419402 Fax: 0832-2415201
7.	Gujarat	Shri D.J. Pandian Chief Secretary Government of Gujarat New Sachivalaya Gandhingar-382010	Tel: 079-23220372, 079-23250301-3 Fax: 079-23250305
8.	Haryana	Shri. P.K. Gupta Chief Secretary Government of Haryana, Room No.-4, 4th floor, Harayana, Civil Secretariat, Sector-1, Chandigarh-160009	Tel: 0172-2740118 Fax: 0172-2740317
9.	Himachal Pradesh	Shri P. Mitra Chief Secretary Government of Himachal Pradesh Secretariat, Shimla- 171002	Tel: 0177-2621022 Fax: 0177-2621813

10.	Jammu & Kashmir	Sh. Mohammad Iqbal Khandey Chief Secretary Government of J &K Jammu Secretariat, Jammu	Tel: 0191-2546773, 2544338 (Jammu) Fax: 0191-2546188
11.	Jharkhand	Shri Sajal Chakrabarty Chief Secretary Government of Jharkhand Secretariat, Ranchi-834004	Tel: 0651-2400240, 2400250 Fax: 0651-2400255
12.	Karnataka	Shri Kaushik Mukherjee Chief Secretary Government of Karnataka 3rd Floor, R. No. 320, Vidhan Sauda, Secretariat, Bangalore-560001	Tel: 080-22252442, 22092476 Fax: 080-22258913
13.	Kerala	Ms E K Bharat Bhushan Chief Secretary Government of Kerala Secretariat, Thiruvananthapuram-695001	Tel: 0471-2333147, 2327376 Fax: 0471-2327176
14.	Madhya Pradesh	Shri Anthony J C Desa Chief Secretary Government of Madhya Pradesh Mantralaya, Vallabh Bhawan, Bhopal-462004	Tel: 0755-2441370, 2441848 Fax: 0755-2441521
15.	Maharashtra dscsoffice @gmail.com	Shri Swadheen S Kshatriya Chief Secretary Government of Maharashtra Mantralaya, Mumbai-400032	Tel: 022-22852626 22025042,22028762 22793762 Fax: 022-22028594
16.	Manipur	Shri P.C. Lawmkunga Chief Secretary Government of Manipur Manipur Secretariat, Imphal-790001	Tel: 0385-2451144, 2450064 Fax: 0385-2452629
17.	Meghalaya	Shri P B O Warjri Chief Secretary Government of Meghalaya,Meghalaya Civil Secretariat, Shillong-793001 Email: barkos.warjri@nic.in	Tel: (O)0364-2224801, 222250, Mob:-9774033922 (R)-0364-2534629 Fax: 0364-2225978
18.	Mizoram	Shri Lalmalsawma Chief Secretary Government of Mizoram, Block C, Civil Secretariat, Aizwal- 796001	Tel: 0389-2322411 Fax: 0389-2322745
19.	Nagaland	Shri M.T. Aier Chief Secretary Government of Nagaland Nagaland Civil Secretariat, Kohima-790001	Tel: 0370-2270082, 2270076 Fax: 0370-2270057
20.	Orissa	Shri Gokul Chandra Pati Chief Secretary Government of Orissa Secretariat, Bhubaneshwar- 751001	Tel: 0674-2534300, 2536700 Fax: 0674-2536660
21.	Punjab	Shri Sarvesh Kaushal Chief Secretary Government of Punjab Punjab Secretariat, Chandigarh-160017	Tel: 0172-2740156, 2740860 Fax: 0172-2742488, 2740936

22.	Rajasthan	Shri C.S. Rajan Chief Secretary Government of Rajasthan Secretariat, Jaipur-302001	Tel: 0141-2227254 Fax: 0141-2227114
23.	Sikkim	Smt. Rinchen Ongmu Chief Secretary Government of Sikkim Secretariat, Gangtok- 737101	Tel: 03592-202315, 204323 (fax) Fax: 03592-222851 03592-204323
24.	Tamil Nadu	Shri. K. Gnanadesikan Chief Secretary Government of Tamil Nadu Secretariat, Chennai-600009	Tel: 044-25671555 Fax: 044-25672304
25.	Tripura	Shri G. Kameswara Rao Chief Secretary Government of Tripura Civil Secretariat, Agaratala-799001	Tel: 0381-2323200, 2324392 Fax: 0381-2324013
26.	Uttar Pradesh	Shri Alok Ranjan Chief Secretary Government of Uttar Pradesh Secretariat, Lucknow-226001	Tel: 0522-2621599 0522-2238212 0522-2238212 Fax: 0522-2239283
27.	Uttarankhand	Shri N. Ravi Shanker Chief Secretary Government of Uttarakhand 4, Subhash Road, Secretariat, Dehradun-248001	Tel: 0135-2712094 0135-2712100, 2712200 Fax: 0135-2712113 0135-2712500
28.	West Bengal	Shri Sanjay Mitra Government of West Bengal Secretariat, Writers Building Kolkata-700001	Tel: 033-22145858 Fax: 033-22144328
29.	Andaman & Nicobar	Sh. Anand Prakash Chief Secretary Secretariat & Administration, Government of Andaman & Nicobar Islands, Port Blair	Tel: 03192-233110, 234087 Fax: 03192-231100, 03192-232656
30.	Chandigarh	Shri K.K. Sharma Advisor to Administrator Union Territory of Chandigarh, Punjab Raj Bhawan, Sector – 6 Chandigarh-160017	Tel: 0172-2740154 Fax: 0172-2740317 0172-2740165
31.	Dadra & Nagar Havelli	Shri Ashish Kundra Administrator Government of Dadra & Nagar Havelli, Secretariat, Silvassa-396230	Tel: 0260-2230700 2642777 Fax: 0260- 2230775 0260-2642702
32.	Daman & Diu	Shri Ashish Kundra Administrator Secretariat Daman, Government of Daman & Diu, Daman & Diu	Tel: 0260-2230770, 2230700 Fax: 0260-2230775

33.	Delhi	Shri D.M. Spolia Chief Secretary Govt of NCT Delhi, Delhi Secretariat, I.P. Estate, New Delhi- 110002	Tel: 011-23392100 Fax: 011-23392102
34.	Lakshadweep	Shri H. Rajesh Prasad Administrator Union Territory of Lakshadweep, Kavaratti, Lakshadweep-682555	Tel: 04896-262255, 262279 Fax: 04896-262184
35.	Puducherry	Shri Chetan B Sanghi Chief Secretary Puducherry Administration, Chief Secretariat, 1 Beach Road, U.T. of Puducherry, Puducherry- 605001	Tel: 0413-2334145 0413-2335512 Fax: 0413-2337575

36. Telangana Dr. Rajiv Sharma,
Chief Secretary,
Govt. of Telangana,
Hyderabad.

ग्रिड-इंडिया GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केन्द्र / North Eastern Regional Load Despatch Centre
कार्यालय : लोवर, लापालांग, शिलांग -793006
Office : Lower Nongrah, Lapalang, Shillong- 793006
CIN : U40105DL2009GOI188682, Website : www.nerldc.in, E-mail : nerldc@grid-india.in, Tel.: 0364-2537470/427, Fax: 03642537486

संदर्भ : उपक्षेभाप्रेके/एस.ओ-II/34/4687 *दिनांक/Date:05/05/2023*

सेवा में/To:

Chairman and Managing Director, TSECL, Agartala-799001

प्रतिलिपि/Copy to:

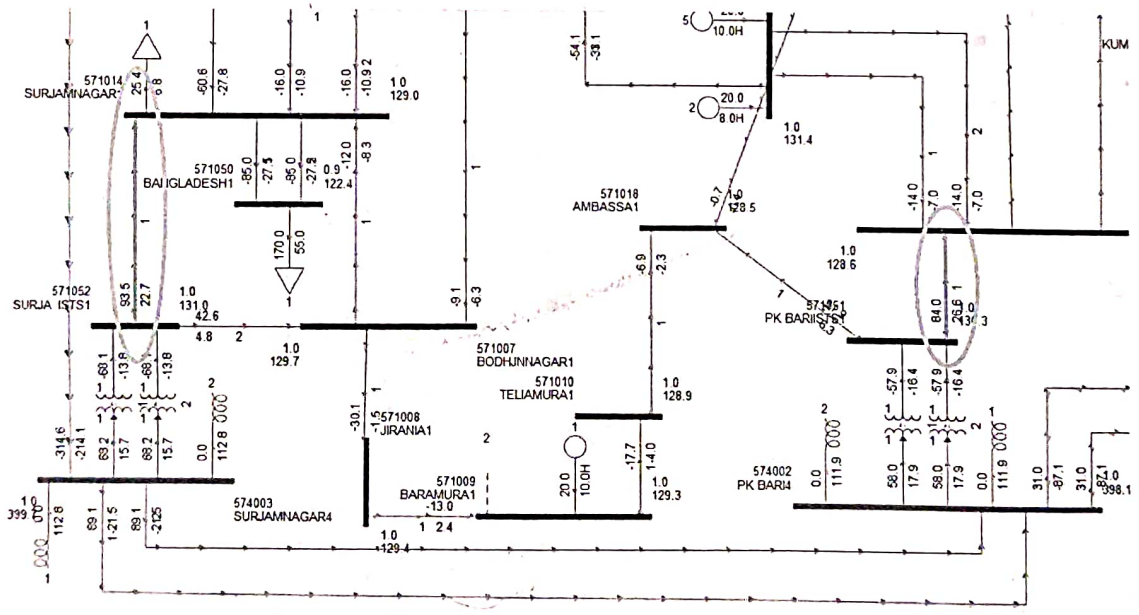
Member Secretary, NERPC, Shillong- 793006

***विषय/*Sub: Request for Prompt Reconductoring of 132 kV SM Nagar(ISTS) - SM Nagar(TSECL) Transmission Line**

महोदया / महोदय,

This is in regards to the overloading of Tripura's power grid on May 2nd, 2023. The total load of Tripura Power System was 480 MW, out of which 170 MW was being consumed by Bangladesh, resulting in overloading of the 132 kV SM Nagar (ISTS) – SM Nagar (TSECL) transmission line and rendering the power system vulnerable.

The study regarding the incident is shown below: -



As per the practical scenario, the load of Bangladesh and Tripura Power System is taken 170 MW and 310 MW respectively for the study.

And as shown in the study, 132 kV SM Nagar – SM Nagar and 132 kV PK Bari- PK Bari circuits got overloaded with 94 MW and 84 MW loading respectivily.

And the thermal capacity of different lines as given by Tripura control room is given below:

S. No.	Name of Element	Loading
1	132 kV PK Bari- PK Bari	75
2	132 kV PK Bari- Ambassa	65
3	132 kV SM Nagar - SM Nagar	85
4	132 kV SM Nagar - Budhjungnagar	75

As per the above table, it can be noticed that real time loading has crossing the thermal loadings of 132 kV SM Nagar – SM Nagar and 132 kV PK Bari- PK Bari circuits.

In 3rd NERPC-TP held on 19th July'2021, re-conductoring of following 132kV intra-state lines/section by TSECL with HTLS conductor having ampacity of 800A were proposed:
a. 132kV Surjamaninagar (TSECL) to LILO point of Surjamaninagar (ISTS) – 5.493km
b. 132kV Bodhjungnagar (TSECL) to LILO point of Surjamaninagar (ISTS) – 12.867km
c. 132kV Surjamaninagar (TSECL) to Bodhjungnagar (TSECL) – 18.36km
d. 132kV Ambassa (TSECL) to LILO point of P.K. Bari (ISTS) – 35.45km along with LILO portion at 132kV Manu S/Sn.

The above proposed reconductoring projects of the transmission lines has been discussed in numerous meetings; however, as per the latest 200th OCC meeting of NER, the project remains pending.

Considering the escalating load of both Bangladesh and Tripura, the situation will only be aggravated. As per our analysis, we have found that out of all the Transmission Lines approved for HTLS reconductoring, 132 kV SM Nagar (ISTS) – SM Nagar (TSECL) transmission line is the most critical and therefore initial focus must be diverted to the said line.

To prevent recurrence of issues like the one that occurred on May 2nd, 2023, we respectfully request that the reconductoring of the 132 kV SM Nagar-SM Nagar transmission line be carried out immediately for safe and secure operation of Tripura Power System.

We appreciate your attention to this matter and look forward to your prompt response.

धन्यवाद एवं सादर सहित|

Encl: As stated above

एस सी डे / S C De
वरिष्ठ महाप्रबंधक (एस ओ II) / Sr. GM (SO-II)
उपूक्षेभाप्रेके, शिलांग / NERLDC, Shillong

ग्रिड-इंडिया GRID-INDIA
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)
[formerly Power System Operation Corporation Limited (POSOCO)]
उत्तर पूर्वी क्षेत्रीय भार प्रेषण केन्द्र / North Eastern Regional Load Despatch Centre
कार्यालय : लोवर, लापालांग, शिलांग -793006
Office : Lower Nongrah, Lapalang, Shillong- 793006
CIN : U40105DL2009GOI188682, Website : www.nerldc.in, E-mail : nerldc@grid-india.in, Tel.: 0364-2537470/427, Fax: 03642537486

सदंर्भ/Ref: NERLDC/SO-1/Tripura/2023/4699

दिनांक/Date :09-05-2023

To,

Dy. General Manager,
System Operation Division, SLDC Tripura
79 Tilla, Agartala, Tripura - 799006

विषय/SUB: त्रिपुरा पावर सिस्टम प्रणाली में ट्रांसमिशन लाइनों पर ओवरलोडिंग के संबंध में/Regarding overloading of Transmission Lines in Tripura system.

Ref.: Para B.25 of Minutes of 189th OCC meeting held on 19/04/2022 at Guwahati.

महोदय/ Sir,

This has reference to the discussion self had with you on date (09-05-2023) on the subject matter. As already intimated, recently overloading of transmission lines in Tripura system has become a cause of serious concern and a threat to grid security and reliability. In particular, 132 kV SM Nagar(Sterlite) - SM Nagar line and 132 kV PK Bari (Sterlite) - PK Bari line are getting critically loaded and experiencing significant over loading for prolong period of time causing venerability in the Tripura system. As you may be aware that, loading of 132 kV SM Nagar - SM Nagar line and 132 kV PK Bari - PK Bari line reached upto 90 MW and 80 MW respectively on 08-05-2023 during evening peak hours which may endanger the security and reliability Tripura system and the grid. Earlier also similar instances of overloading of the above lines have been observed.

The issue of overloading of the aforementioned lines was also discussed in 189th OCC meeting, wherein Tripura was advised by the forum to limit their power export to Bangladesh to 160 MW till the completion of re-conductoring of 132 kV SM Nagar (Sterlite) - SM Nagar, 132 kV PK Bari – PK Bari(Sterlite), 132 kV SM Nagar-Budjungnagar and 132 kV PK Bari – Ambassa lines with HTLS conductor. Relevant excerpts from minutes of 189th OCC meeting is produced below for your ready reference.

Quote

After detailed deliberation the following were decided:

पंजीकृत कार्यालय : बी- 9, प्रथम तल, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016
Registered Office : B-9, 1st Floor, Qutab Institutional Area, Katwaria Sarai, New Delhi- 110016
Website : www.grid-india.in

a. Till completion of re-conductoring of 132kV Surjamaninagar-Surjamaninagar, 132kV PKBari- PKBari, 132kV SM Nagar – Budhjungnagar and 132kV PKBari – Ambassa with HTLS; Tripura to desist from selling in the Power Market and limit Bangladesh power supply at 160MW

b. Expedite the construction of 132kV SMNagar – Monarchak D/C

c. A SPS will be designed for all the non-fulfillment of N-1 in Tripura System.

Unquote

In view of the above, you are once again requested to take all necessary measures so as to strictly avoid any over loading of the above lines for safe, secure and reliable grid operation. Your co-operation in this regard is requested.

Thanking You.

Yours sincerely,

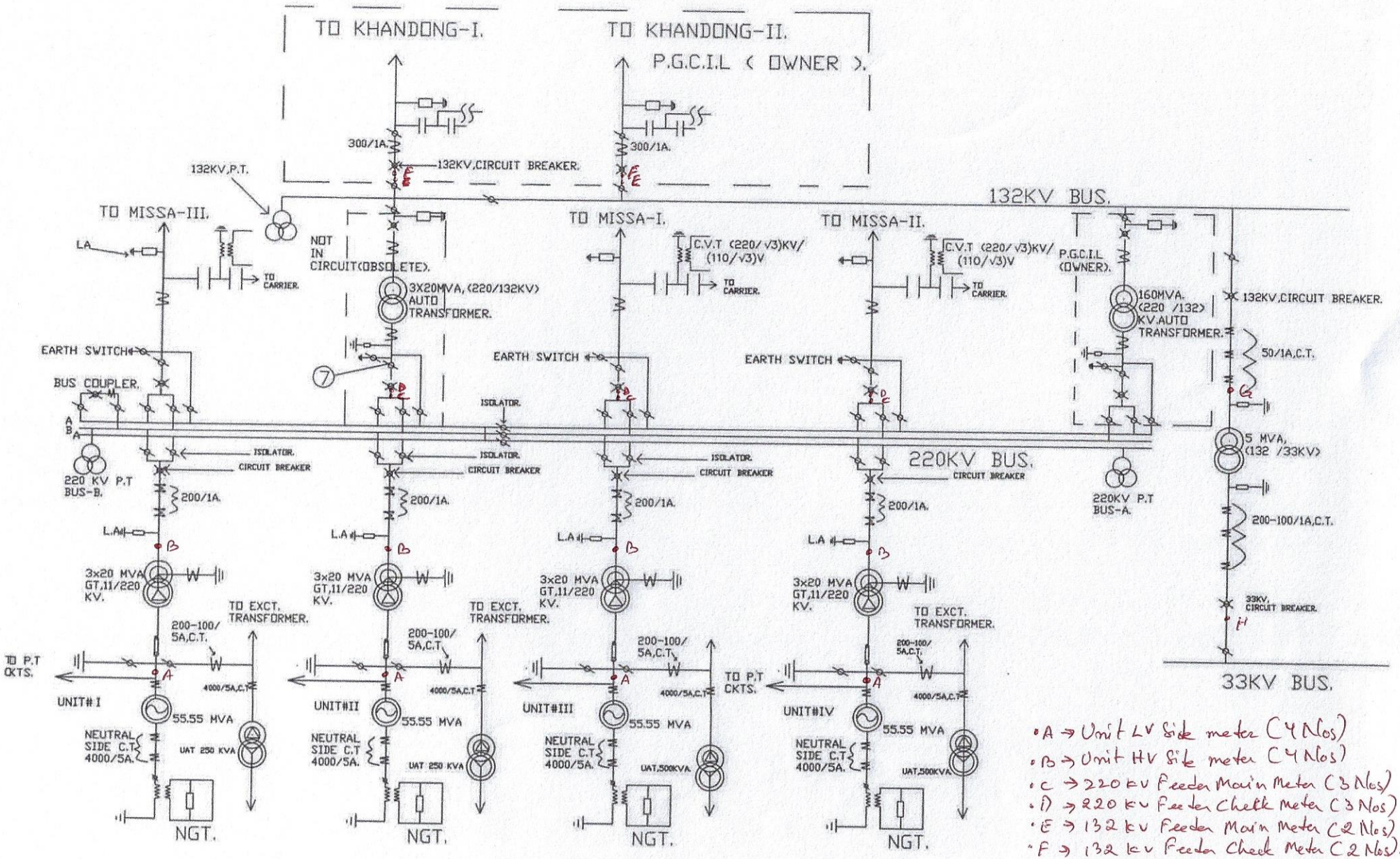
बि साहू

(बिस्वजीत साहू /Biswajit Sahu)
वरिष्ठ महाप्रबंधक (एस.ओ-1)/ Sr. GM (S.O-1)
उ.पू.क्षे.भा.प्रे.के/NERLDC.

Copy : 1) सदस्य सचिव, एनईआरपीसी/ MS, NERPC

2) कार्यपालक निदेशक, एन.ई.आर.एल.डी.सी/ ED, NERLDC

Annexure C.13



SWITCHING DIAGRAM OF KOPILI POWER HOUSE.

- A → Unit LV Side meter (4 Nos)
- B → Unit HV Side meter (4 Nos)
- C → 220 kV Feeder Main Meter (3 Nos)
- D → 220 kV Feeder Check Meter (3 Nos)
- E → 132 kV Feeder Main Meter (2 Nos)
- F → 132 kV Feeder Check Meter (2 Nos).
- G → SST HV Side Meter (1 No)
- H → SST LV Side Meter (1 No).

20 Nos. Meter

Mumbai Urja Marg Limited
(Erstwhile Vapi II-North Lakhimpur Transmission Ltd.)
Project Office: House No. 95, 2nd Floor, C. D. Road, Ward No- 4,
North Lakhimpur, Assam- 787001

MUML/Part D/2023-24/197 Date: 16th May 2023

To,
The Member Secretary
North Eastern Regional Power Committee
NERPC Complex, Dong Parmaw, Lapalang
Shillong - 793006, Meghalaya.

Sub: Construction of 132 KV D/C Pare HEP to North Lakhimpur Transmission line & LILO of one circuit at Nirjuli along with bypassing of Ranganadi-Naharlagun/Nirjuli line by Mumbai Urja Marg Limited {"MUML"): ***Requirement of Shutdown for completion and commissioning of scope.***

Dear Sir,

1. With reference to the subject cited above MUML would like to inform you that construction of the subject elements of transmission project is going on in full swing. As of now we have charged 2 Nos. 132 bays in North Lakhimpur substation on 10.05.23, fully completed construction work of 132 KV D/C Pare HEP - North Lakhimpur line and about 90% of Nirjuli LILO line.
2. We are expecting to complete entire scope by -mid June'2023 and the Scheduled Commercial Operation date ("SCOD") of the elements as per TSA is June' 2023. We have applied for early communicating of the system in 199th OCC meeting but due to some challenges of right of way in Papumpare district of Arunachal Pradesh as well as destabilization of one tower due to massive hill cutting by landowner work could not be completed as expected.
3. For completion of work and commissioning of the new lines we need shutdown of below lines:
   i) 132 kV Nirjuli-Lekhi & Nirjuli- Gohpur Transmission Line for crossing between Loc. 136-137 along with at location 132-133 of Nirjuli-Gohpur line on **10.06.2023.** The necessary power line crossing approval has already been obtained from POWERGRID.
   ii) 132 kV S/C Ranganadi-Pare and Pare-Lekhi lines along with associated bays at Pare **w.e.f. 20.06.23 to 30.06.23 (continuous shutdown)**. Shutdown of those bays and lines are required to straighten Ranganadi-Lekhi/Nirjuli line disconnecting from Pare LILO and commissioning of new Pare-Nirjuli & Pare North Lakhimpur lines.
4. In view of the above, we request you to provide the shutdown of the aforementioned lines to complete the works defined under the scope of the project under WRNER, Pard-D.

Assuring best of our services.
Thanking you.

For Mumbai Urja Marg Limited

Narottam Chakraborty
Project Head – MUML
Mobile: +91 7896022335
Email: narottam.chakraborty@sterlite.com

CC:
1. The Chief General Manager (E/M), HOPS, Pare HPS for information necessary action please.
2. The Sr. Dy. General Manager, POWERGRID, Nirjuli 132 kV substation for information necessary action please.

सत्यमेव जयते

भारत सरकार / Government of India

विद्युत मंत्रालय / Ministry of Power

केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority

विद्युत प्रणाली अभियांत्रिकी एवं प्रौद्योगिकी विकास प्रभाग

Power System Engineering & Technology Development Division

दिनांक /Date:10.03.2023

To,

As per the Attached List

विषय: Procedure for shifting of Transmission Lines involving works by other Infrastructure Developers-regarding

महोदय/महोदया,

Several infrastructure projects of National Highways Authority of India (NHAI), Indian Railways, Airports Authorities, Border Roads Organization (BRO), Irrigation Departments, etc. are going on in various parts of the Country and many times, construction/development projects like roads, railways, airports, mines, flood banks/dam etc. come across existing/under construction transmission lines in their route alignment, leading to the need for shifting of such lines for construction of these projects. However, due to lack of coordination between the Infrastructure Developers and the transmission line Owner, the safety of the transmission lines was sometime compromised during the construction and also construction of these infrastructure projects were delayed substantially.

To ensure smooth coordination between the infrastructure developing agencies and transmission licensees while developing infrastructure projects Ministry of Power vide its letter No. 34-3/18/2022-TRANS(MoP) dated 18th May, 2022 requested Central Electricity Authority (CEA) to prepare a consolidated Standard Operating Procedure for shifting of Transmission lines while developing infrastructure projects. Accordingly, CEA prepared a consolidated Standard Operating Procedure for shifting of Transmission lines after deliberations/discussion with

सेवा भवन, आर. के. पुरम-I, नई दिल्ली-110066 टेलीफैक्स: 011-26732304 ईमेल: ce-psetd@nic.in वेबसाइट:www.cea.nic.in
Sewa Bhawan, R.K Puram-I, New Delhi-110066 Telefax: 011-26732304 Email: ce-psetd@nic.in Website: www.cea.nic.in

I/26656/2023

various stakeholders, in various meetings and submitted to Ministry vide CEA's letter no. CEA-PS-1477/4/2022-PSETD Division dated 11.11.2022. Ministry of Power Vide its letter no. 34-3/18/2022-TRANS(MoP) dated 03.03.2023 conveyed approval of the Hon'ble Minister of Power and NRE for **"Procedure for Shifting of Transmission Lines involving in work by other Infrastructure Developers"**.

A copy of the approved document is attached herewith for compliance of all the stakeholders in addition to the existing regulatory provisions of Central Electricity Authority (CEA) and other Authorities such as Environment & Forest, Defence, Airport, NHAI, BRO, etc., to ensure smooth coordination between the infrastructure developing agencies and transmission licensees while developing infrastructure projects.

भवदीय,

10/03/2023

(भंवर सिंह मीना/ Bhanwar Singh Meena)

निदेशक/ Director

Copy to:

1. Joint Secretary (Trans), Ministry of Power, Shram Shakti Bhawan, New Delhi (Email: afzal_mdp@nic.in; transdesk-mop@nic.in)
2. PPS to Member (PS), CEA (Email: memberpscea@nic.in)
3. Chief Engineer, PSPM division (Email: ceapspm@gmail.com)
4. Chief Engineer, CEI division (Email: cea.eidivision@gmail.com)

F. No. 34-3/18/2022-TRANS (MoP)
भारत सरकार / Government of India
विद्युत मंत्रालय / Ministry of Power
(पारेषण प्रभाग / Transmission Division)
*****

श्रम शक्ति भवन, रफी मार्ग, नई दिल्ली- 110001
Shram Shakti Bhawan, Rafi Marg, New Delhi-110001

दिनांक: 03.03.2023

To,

Chairperson
Central Electricity Authority
Sewa Bhawan, R.K. Puram
New Delhi – 110 066

Subject: Procedure for Shifting of Transmission Lines involve in work by other Infrastructure Developers – regarding

Sir,

I am directed to refer to CEA's letter No. CEA-PS-14-77/4/2022-PSETD Division dated 11.11.2022, therein, sharing the Standard Operating Procedure (SOP) for shifting of Transmission lines by various infrastructure developers, and to say that SOP as approved by the Hon'ble Minister of Power and NRE is enclosed..

2. It is, therefore, requested to circulate the said SOP to all the States/UTs Government and all the concerned Ministries / Department.

3. This issues with approval of the Competent Authority.

Yours Sincerely,

Enclosure: As stated.

3/3/23.

(बिहारी लाल)
अवर सचिव, भारत सरकार,
टेलीफैक्स: 2332 5242
ई-मेल: transdesk-mop@nic.in

Standard Operating Procedure for shifting of Transmission line for other infrastructure projects

Several infrastructure projects of National Highways Authority of India (NHAI), Indian Railways, Airports Authorities, Border Roads Organization (BRO), Irrigation Departments, etc. are going on in various parts of the Country and many times, construction/development projects like roads, railways, airports, mines, flood banks/dam etc. come across existing/under construction transmission lines in their route alignment, leading to the need for shifting of such lines for construction of these projects. However, due to lack of coordination between the Infrastructure Developers and the transmission line Owner, the safety of the transmission lines was being often compromised during the construction and also construction of these infrastructure projects were delayed substantially. Therefore, in addition to the existing regulatory provisions of Central Electricity Authority (CEA) and other Authorities such as Environment & Forest, Defence, Airport, NHAI, BRO, etc.,the following Standard Operating Procedure (SOP) for shifting of Transmission lines needs to be observed while developing infrastructure projects.

STANDARD OPERATING PROCEDURE:

1. Subsequent to the erection of a transmission line (overhead line or underground cable),if any entity, including but not limited to BRO, NHAI, Indian Railways, Airports Authority, Irrigation Departments, etc.(hereinafter called Infrastructure Developer), proposes to carry out construction of road, railway track, airport, dam, flood bank, etc. or addition/alteration of existing infrastructure or similar type of work, whether permanent or temporary, which may affect the safety, reliability, availability, and clearances of the existing transmission lines or which may require shifting of whole or part of the transmission lines, such Infrastructure Developer or it's contractor employed to carry out such construction/addition/alteration, shall give intimation in writing to the Owner of the affected transmission line and to the Member (Power System), CEA and shall furnish therewith a detailed proposal including coordinates, scale drawing of the proposed work, finished level of Road/Rail, KMZ/KML file of the route etc.

2. Except for Projects of National Importance, all other requests for the diversion of transmission lines for other infrastructure projects shall be considered by the Owner of the transmission line, only if such diversion proposal for infrastructure projects serves wider public interest and is

recommended by the concerned State Government or the concerned Central Ministries. After getting the recommendations of the State Government or the concerned Central Ministry, such diversion proposal for ISTS lines, excluding Projects of National Importance, shall be taken up after approval by the Ministry of Power. For the Projects of National Importance, no such approval is required. Individual request for diversion shall not be considered.

3. On receipt of an intimation for the shifting of transmission line, the Owner of the transmission line shall examine the proposal for compliance of existing regulations and any other law for the time being in force, technical feasibility of the proposal, Right of Way (RoW) compliance and requirement of shifting or alteration of the transmission line and compensation required as per regulation, if any. The Owner shall carry out a joint survey with Infrastructure Developer to assess the ground conditions and collect relevant information. The Owner shall intimate its views/queries to the Infrastructure Developer, if any or its concurrence on the proposal within 30 days from the date of receipt of the proposal.

4. The Infrastructure Developer shall furnish clarificationsto the queries, if any,to the Owner of the affected transmission line within 15 days of receipt of queries/views.Any further communication, if any, among the parties in this regard shall be replied within 07 days from the receipt of the correspondence.

5. Both the parties will mutually decide whether the Owner of the transmission linewill carry out shifting/alteration of the transmission line or this responsibility will be taken up by the Infrastructure Developer.

6. If shifting or alteration work is executed by theInfrastructure Developer:

   (a) He shall submit the design documents and drawings relevant for the construction of transmission line to the Owner of the transmission line. The Owner shall examine/raise queries, if any, and provide its final approval of drawings within 3 Weeks from the date of receipt of documents.If required, the existing design documents and drawings available with the Owner may be provided to the Infrastructure Developer. No work of shifting of transmission line shall be executed before getting the final approval of drawings/documents by the Owner.

(b) All relevant cost incurred for shifting/alteration shall be borne by the Infrastructure Developer.

(c) The Infrastructure Developer shall be responsible for RoW compensation, forest clearances, wild life clearance etc.

(d) Both the parties may sign a Memorandum of Understanding (MoU) which will include mutually agreed terms and conditions.

(e) The Infrastructure Developer shallpay supervision charges, as specified in this SOP, to the Owner before commencement of work of shifting/altering the line.

(f) The Infrastructure Developer shall intimate the requirement of shutdown of existing transmission line for work of shifting or altering to the Owner of the transmission line for further necessary action in this regard. The shifting or alteration work shall be initiated only after the approval of RPC/SLDC.

7. If shifting or alteration work is executed by the Owner of the transmission line, the following provisions shall be followed:

(a) The Owner shall work out the cost implication of the shifting/alteration of the transmission line on the basis of the cost of material used after crediting the depreciated cost of the existing material which is being replaced and the wages of labour employed in effecting the shifting/alteration and intimate the same along with the time required for shifting/altering the transmission line to the Infrastructure Developer, within 30 days. The estimate may also include all statutory charges, supervision charges, amount for compensation of RoW/Forest Clearance/Wild life Clearance etc., as applicable.

(b) The Infrastructure Developer, shall deposit the amount of the estimated cost to the Owner, within30 days of the receipt of the cost estimate.

(c) If there is any dispute regarding the cost of alteration of the transmission line estimated by the Owner or the responsibility to pay such cost, the dispute may be referred to the Member (Power System), CEA which shall after hearing both parties decide upon the issue.

(d) Both the parties may sign an MoU which will include mutually agreed terms and conditions.

(e) The work of shifting/alteration shall be awarded through a tender, by the Owner and the price discovered through the tender and other charges as mentioned above shall be reimbursed by the Infrastructure Developer. In case the shifting project is of small size and/or the project is of urgent nature, and the Owner awards the

work on Rate Contract or cost plus basis, the reimbursement of cost of works, in such case, shall be as per actuals.

8. The Infrastructure Developer shall make a payment of supervision charges at the following rates to the Owner of the transmission line:

Infrastructure Project	**Shifting works by Infrastructure developers**	**Shifting works by the Owner**
Projects Under BharatmalaPariyojana	2.5%	Not Applicable
Other Infrastructure Projects	2.5%	15%

[Note:Supervision charges may be calculated as the percentage of estimated cost of material (after crediting the depreciated cost of the existing material) & wages (exclusive of GST) and then GST may be separately applied on the supervision charges.]

9. The shifting/alteration work shall normally be completed within 10 months from the date of first request of the infrastructure developer. In case the shifting project is of small size or the project is of urgent nature, a shorter time frame may be mutually decided between the Owner & the infrastructure developer.

10. The design, testing, construction and erection/laying of transmission line shall be in accordance with Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, Central Electricity Authority (Measures Relating to Safety and ElectricSupply) Regulations and relevant Standards. In addition, the applicable Regulations/Guidelines/Procedures of other Authorities such as NHAI, BRO, Airport, Defense, Forest, etc., shall be followed.

11. It shall be ensured that the reliability and safety of the transmission line is not compromised during or after the diversion work.

12. No cutting of soil within ten meters from the tower structure of 110 kV and above voltagelevel shall be permitted without the written permission of the Owner of tower structure.For towers located on hill slope, extra precautions shall be taken to ensure that any cutting/excavation on that hill does not compromise the safety and integrity of the tower structure and if it is expected that the stability of hill may be compromised due to cutting/excavation work, even for distance beyond 10 m, the written

permission of the Owner of tower structure shall be taken before commencing any such activity.

13. Before commencement of work upon road, rail, airport, flood bank, dam etc.,Infrastaructure Developer shall ensure that the provisions of Regulations 58, 60, 61 and 76 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010(as amended up to date)are not contravened either during or after the aforesaid construction.

14. The request for requirement of shutdown of existing transmission line for work of shifting or altering shall be submitted to the respective Regional Power Committee (RPC) or State Load Dispatch Center (SLDC), as applicable, well in advance by the Owner of the transmission line.

15. As per Ministry of Power's OM No. 34-311812022-Trans dated 03.08.2022, the RPC Secretariat shall provide deemed availability certificate for the shutdown period availed by transmission licensee (both RTM and TBCB) for shifting of their ISTS lines for all National Infrastructure Projects of NHAI, Railways, BRO etc., provided transmission customers are not affected by the shutdown of the line.All such applications for deemed availability shall be considered irrespective of date of application. However, deemed availability for past shifting of lines, where the diversion work has already been completed, shall not be considered

16. For the cases where deemed availability certificate for the shutdown period is not issued to transmission licensee for the shutdown period or part thereof, then in such cases, charges towards loss of availability due to such shutdowns shall be borne by Infrastructure Developer.

17. **Requirement for Overhead Transmission Lines Crossing of Road/highways :**

(a) At all road crossings, except National Highways, the towers/ poles shall be fitted with normal suspension or tension insulator strings depending on the type of towers. However, for all National Highways crossings, tension type towers/ poles with tension insulator stringsshall be used.
(b) A minimum of two sets of long rod insulators or two sets of disc insulator strings per phase per circuit shall be used.
(c) The crossing span shall not be more than 250 meters, unless higher span is permitted by NHAI.

(d) No joints in conductors or earth wire(s) shall be permitted, in crossing span.

(e) Theoverhead line crossing shall normally be at right angle as far as possible.

पतों की सूची:

Sl. No.	Address	Tele/Fax No./Email
1.	Member Projects, National Highway Authority of India, Ministry of Road, Transport & Highways , Govt. of India, G 5&6, Sec-10, Dwarka, New Delhi-110075	Email: chairman@nhai.org; mk.projects@nhai.org:
2.	Secretary (RT&H) Ministry of Road Transport & Highways Transport Bhawan, 1, Parliament Street New Delhi-110001	Email: secy-road@nic.in; as-morth@gov.in; dgrdss-rth@nic.in;
3.	Secretary (EF&CC), Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan Jorbagh Road New Delhi – 110 003, INDIA.	Email: secy-moef@nic.in tanmay.kumar-rj@gov.in
4.	Secretary (HUA), Ministry of Housing And Urban Affairs, Nirman Bhawan New Delhi	Email: secyurban@nic.in; cpwd_dgw@nic.in
5.	Director General, Bureau of Indian Standards Manak Bhavan, Bureau of Indian Standards, 9, Bahadur Shah Zafar Marg, New Delhi – 110002.	Email: dg@bis.gov.in adg@bis.gov.in
6.	Chairman & Managing Director, Powergrid Corporation of India Ltd., SAUDAMINI, Plot No.2, Sector-29, Gurgaon, Haryana-122001.	Email: cmd@powergrid.in; abhaychoudhary@powergrid.in ; rajesh.kumar2@powererid.in; vivek.joshi@powergrid.in; vikas@powergrid.in
7.	CMD, Grid Controller of India Limited	cmd@grid-india.in
8.	Chief Operating Officer, CTU India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon-122001 (Haryana)	Email: pcgarg@powergrid.in;
9.	Chairman BBMB, sector-19 B Madhya Marg, Chandigarh-160019	Email: cets@bbmb.nic.in; power@bbmb-nic.in; spsecy@bbmb.nic.in; secy@bbmb.nic.in;

10.	Head- Corporate Affairs & Business Devpt. Sterlite Grid Limited, The Mira Corporate Suite, Plot No. 1 & 2, C Block, 2nd Floor,Ishwar Nagar, Mathura Road, New Delhi 110 065	harshit.guptal @sterlite.com; nilotpal.mallick@sterlite.com; balaji.sivan@sterlite.com; jeetendra.bisht@sterlite com;
11.	Sr. Vice President M/s Adani Power Limited, 7th Floor, Sambhav Building, Judges Bunglow Road, Bodakdev, Ahmedabad, Gujarat-380015	sameer.ganju@adani.com; praveen.tamak@adani.com;
12.	Sekura Energy Ltd CEO, Windsor, 504 & 505, Off, CST Road, Kalina, Santacruz (E, Mumbai, Maharashtra 400098	Email: Neeraj.Verma@energy-sel.com; Nimish.Sheth@energy-sel.com;
13.	Essar Power Sh. Partha Bhattacharya, 27th KM, Surat Hazira Road, District Surat, Hazira, Gujarat 394270	Email: Tamendra.Kumar@essarpower.co.in; Rajive.Tiwari@essarpower.co.in; Rajat.Bajpai@essarpower.co.in; khilendra.pant@essarpower.co.in
14.	Sh. Jigish Mehta, Executive Director, Torrent Power Limited, SUGEN Mega powerProject, Village Akhakol, Taluka Kamrej; Dist:Surat Gujarat	Email: jigishmehta@torrentpower.com; jaydipchudasama@torrent power.com;
15.	CEO, Suzlon Energy Ltd Suzlon House, 5 Shrimali Society, Navrangpura, Ahmedabad 380009, India.	Email: mca@suzlon.com; info-india@suzlon.com;
16.	Chairman & Managing Director, Delhi Transco. Ltd., Shakti Sadan, Kotla Marg, New Delhi-110002	md@dtl.gov.in, gmom1.dtl@gmail.com
17.	Chief Engineer (Elect.) Goa Electricity Department Vidyut Bhawan, Panaji, Goa	cee-elec.goa@nic.in, ee1-elec.goa@nic.in,
18.	Chairman Haryana Vidyut Prasaran Nigam Ltd. Shakti Bhawan,Sector No. 6 Panchkula – 134 109, Haryana	chairman@hvpn.org.in,
19.	Managing Director Himachal Pradesh State Electricity Board VidyutBhawan, Shimla-171 004	cmd@hpseb.in,

20.	Managing Director, Jammu & Kashmir Power Development Corporation Ltd. Exhibition Ground, Srinagar(J&K)-190 009	md@jkspdcl.com,
21.	Chairman Karnataka Power Corporation Ltd. Shakti Bhawan, 82 Race Course Road Bangalore-560 001.	mdkpcl@gmail.com,
22.	Chairman Kerala State Electricity Board Board, Secretariat, Vidyuthi Bhavanam, Pattom Thiruvananthapura m- 695 004	cmdkseb@kseb.in,
23.	Chairman & Managing Director Maharashtra State Electricity Transmission Company Ltd., C-19, E-Block, Prakashganga, Bandra-Kurla Complex Bandra(E), Mumbai 400051	md@mahatransco.in,
24.	Chief Engineer (P) Manipur Electricity Department Govt. of Manipur, Manipur Sectt. South Block, Imphal, Manipur- 795 001.	snandei@ymail.com,
25.	Chairman & Managing Director, Meghalaya Energy Corporation Ltd.. Lumjingshai Short Round Road Shillong- 793 001	meecl.webportal@gmail.com,
26.	The Engineer-in-Chief, Power and Electricity Deptt., Govt. of Mizoram, Power House, Bara Bazar, Aizwal- 796 001, Mizoram	eincpower@gmail.com,
27.	Chief Engineer, Nagaland Deptt. of Power, Kohima 797 001. Nagaland	secyit-ngl@nic.in, vizo123@gmail.com,
28.	Chairman & Managing Director Punjab State TransmissionCorporation Ltd., The Mall, Mall Road, Patiala- 147 001, Punjab	cmd@pstcl.org,
29.	Chairman & Managing Director Rajasthan RajyaVidyutPrasara n Nigam Ltd. VidyutBhawan, Janpath Jaipur (Rajasthan)- 302 005	cmd.rvpn@gmail.com,
30.	Managing Director Sikkim Power Development Corporation Ltd. 31-A, N.H. Way, Gangtok- -737 101	sikkim.serc@gmail.com,

31.	Chairman & Managing Director Tripura State Elecy. Corporation Ltd. Govt. of Tripura, Bidyut Bhawan Agartala- 799 001.	cmd.tsecl@rediffmail.com,
32.	Chairman & Managing Director Uttar Pradesh Power Transmission Corporation Ltd. Shakti Bhawan, 14- A, Ashok Marg, Lucknow- 226001	cmd@upptcl.org,
33.	Chairman & managing Director West Bengal Power Development Corporation Ltd. Bidyut Unnayan Bhaban, Plot 3/C, LA-Block, Sector- III, Salt Lake City, Kolkata- 700 098	wbpdcl@wbpdcl.co.in,
34.	Commissioner- cum-Secretary (P) Andaman and Nicobar Electricity Department, Secretariat, Andaman and Nicobar Islands, Port Blair- 744 101	secyship14@gmail.com,
35.	Secretary Dadra & Nagar Haveli Electricity Department, Dadar Nagar Secretariat, Silvassa- 396230	tapasyaraghav@gmail.com,
36.	Secretary, Daman & Diu Electricity Department, Dadar Nagar Secretariat, MotiDaman- 396220	secretarypower2020@gmail.com,
37.	Secretary Lakshyadeep Elecy Department, U.T. of Lakshyadeep Kavaratti- 682555	lk-ktelect@nic.in,
38.	Secretary Puducherry Elecy. Department Secretariat, Puducherry- 605001	secycs.pon@nic.in,
39.	Chairman & Managing Director Orissa Power Transmission Corporation Ltd. Janpath, Bhubaneswar- 751022.	cmd@optcl.co.in,
40.	Chairman Jharkhand, Urja Sancharan Nigam Ltd. Engineering Building, HEC, Dhurwa, Ranchi- 834 004	mdjusnl@gmail.com,

41.	Chairman West Bengal State Electricity TransmissionComp any Ltd (WBSETCL) Vidyut Bhawan, Block-DJ, Sector-II, Bidhan Nagar, Kolkata- 700 091.	md@wbsetcl.in,
42.	Managing Director Bihar State Power Transmission Company Limited, 4thFloor, VidyutBhawan, Baily Road, Patna-800 021	mdcellbsptcl@gmail.com,
43.	Chairman and Managing Director Gujarat Energy Transmission Corporation Ltd. Sardar Patel Vidyut Bhawan, Race Course , Vadodara- 390 007	md.getco@gebmail.com,
44.	Managing Director Madhya Pradesh, Power Transmission Company Ltd. Block No. 2, Shakti Bhawan, Rampur, P.O. Vidyut Nagar Jabalpur-482 008(MP)	md@mptransco.nic.in,
45.	Managing Director Chhattisgarh State Power Generation Company Ltd., Vidyut Seva Bhawan, P.O. Sunder Nagar, Danganiya, Raipur- 492013. (Chhattisgarh)	mdgenco@cspc.co.in,
46.	Chairman & Managing Director Punjab State Transmission Corporation Ltd., The Mall, Mall Road, Patiala-147 001, Punjab	cmd@pstcl.org,
47.	Managing Director Himachal Pradesh Power Transmission Corporation Ltd. Near, Shimla Bypass (below Old MLA Quarters, Tutikandi, Panjari, Himachal Pradesh 171005.	md@hpptcl.in,
48.	Chairman & Managing Director Uttar Pradesh Power Transmission Corporation Ltd. Shakti Bhawan, 14- A, Ashok Marg, Lucknow- 226001	cmd@upptcl.org,
49.	Chief Engineer (Power) Department of Power Govt. of Arunachal Pradesh Itanagar (Arunachal Pradesh) – 791 111.	vidyutarunachal@rediffmail.com,vidyutarunachal@gmail.com,

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