Agenda

for

225th OCC MEETING

Time of meeting: 10:30 Hrs.

Date of meeting: 22nd April, 2025 (Tuesday)

Venue: NERPC Conference Hall, Shillong

Contents

NORTH EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR 225TH OCC MEETING TO BE HELD ON 22.04.2025 (TUESDAY) AT 10:30 HRS

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 224th Meeting of OCC Sub-Committee of NERPC

The minutes of 224th meeting of OCC Sub-committee held on 25.03.2025 at NERLDC Conference Hall, Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2025/329-371 dated 9th April, 2025.

No comments were received from the constituents

The sub-committee may confirm the minutes of 224th OCC meeting.

2. PART-B: ITEMS FOR DISCUSSION

AGENDA FROM NERPC

2.1. Outage planning

I. Generation Planning (ongoing and planned outages)

a. In 217th OCCM, NEEPCO informed that they would provide daily inflow data for storage-type Hydro PS. NHPC also agreed to provide inflow data as per the NER operational data format. Based on that data provided from NEEPCO and NHPC present per day MU and projected number of days of operation.

Plants	Reservoir Level in meters (as on 28/02/2025)	MU Content	Present DC (MU)	No of days as per current Generation
Khandong + Khandong STG II	716.63	21.93	Under SD	
Kopili	607.65	86	1.60	54
Doyang	314.3	12	0.16	75
Loktak	767.02	30	1.00	30

The outage of other generating stations may be approved considering the present water levels in reservoirs. CEA has approved the generation outage plan for FY 2025-26. All the utilities may take note of it and in case of any modification from the Approved Planned Outages, the same may be finalized in consultation with GM Division

b. Outage Planning of Transmission elements

As per the Outage planning procedure of NER the planned outages approved in the OCC forum has to be reconfirmed by the availing utilities on 10:00hrs. of D-4 to 12:00 hrs. of D-3) to NERLDC in order to either avail the approved shutdown or cancel it.

If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC between 10 hrs. of 6th of the month to 1200 hrs. of 7th of the month. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

Subsequently NER stakeholders have provided shutdown request for transmission elements for the month of May-2025. That is attached as **Annexure 2.1**

Sub-committee may deliberate

AGENDA FROM NERLDC

2.2. Operational Performance and Grid discipline during March 2025:

NERLDC may present the Operational Performance and Grid Discipline Report for the month of March 2025.

2.3. Non-Functionality of online transfer of elements at Kameng HEP

It has been observed that Kameng HEP reported the inability to perform online transfer of elements at their 400 kV substation, which operates under a Double Main Bus cum Transfer bus scheme, this issue came to light during an emergency shutdown for attending a hotspot on the Bus Coupler isolator connected to Bus-B.

As per the standard protocol, NERLDC Control Room instructed Kameng HEP to carry out the online transfer of all associated elements and proceed with the shutdown of the affected isolator on Bus-B R-phase. However, Kameng HEP expressed its inability to execute the transfer online, citing safety concerns due to high sparking observed in previous attempts. In view of the above, Kameng HEP requested a complete shutdown of both 400 kV buses to facilitate the maintenance activity. induction voltage of approximately 2.2 kV was reported, further reinforcing the safety risk to personnel and equipment.

It is important to note that the Kameng HEP switchyard is configured under a Double Main Bus cum Transfer Bus scheme, which is typically designed to allow seamless transfer of elements between buses without compromising the continuity of supply to healthy elements. The current limitation in transferring elements online is a cause for concern and needs to be addressed promptly.

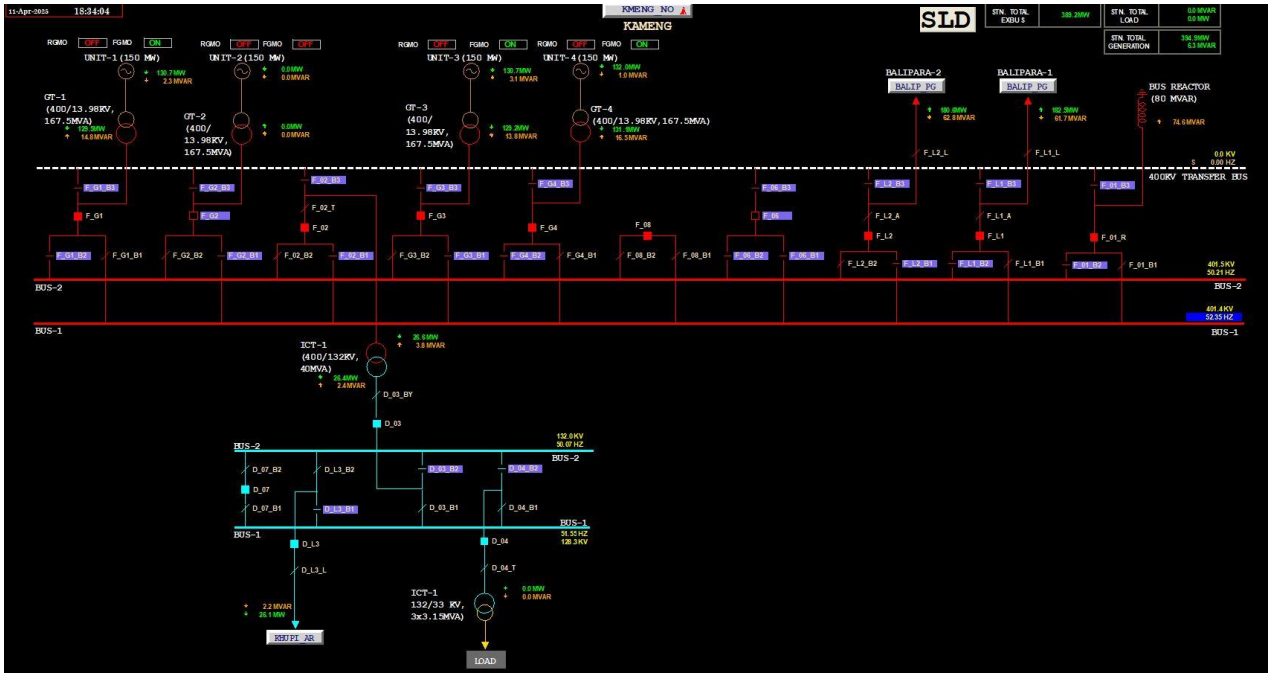


Fig: Kameng HEP Switchyard

Therefore, we request Kameng HEP to take appropriate corrective measures to ensure the reliable and secure operation of the Kameng 400/132 kV switchyard. Given that the Khupi area of the Arunachal Pradesh power system is interconnected with the Kameng system, any unplanned or forced outages at Kameng HEP could severely affect the reliability and stability of the entire North Eastern Region (NER) power grid.

2.4. Submission of Machine Model Data for Subansiri HEP – Requirement for FTC Activities

It is to be noted that, as informed during the 224th OCC Meeting, the units of Subansiri HEP are scheduled to begin synchronization from May 2025.

In view of the above, and to facilitate smooth coordination and execution of First Time Charging (FTC) activities, it is requested that Subansiri HEP kindly initiate the submission of detailed machine models at the earliest, in accordance with the GRID-INDIA FTC procedure available on the NLDC website.

Early submission of the required data will provide sufficient time for model validation, analysis, and coordination, thereby ensuring preparedness well in advance of the commissioning schedule.

Your prompt attention to this matter is highly appreciated.

2.5. Grading of median Frequency Response Performance (FRP) of each control area for FY 2024-25:

IEGC Reg. 30(10) (q) mandates that "*NLDC, RLDCs and SLDCs shall grade the median Frequency Response Performance annually, considering at least 10 reportable events. In case the median Frequency Response Performance is less than 0.75 as calculated as per Annexure2, NLDC, RLDCs, SLDCs, as the case may be, after analyzing the FRP shall direct the concerned entities to take corrective action. All such cases shall be reported to the concerned RPC for its review.*"

Annexure-2 provides that "*Each control area shall be graded based on median Frequency Response Performance annually (at least 10 events) as per following criteria:*

TABLE C: FREQUENCY RESPONSE CRITERIA

Performance	***Grading***
FRP≥ 1	*Excellent*
0.85 ≤ FRP < 1	*Good*
0.75 ≤ FRP	*Average*
0.5≤ FRP < 0.75	*Below Average*
FRP	*Poor*

**Provided that for wind/solar generating stations and state control areas with internal generation less than 100 MW or annual peak demand less than 1000 MW, the FRP grading shall be indicative only.*

NERLDC has graded the median FRP of each Regional control areas for the 20 reportable events notified by NLDC in FY 2024-25.

	BGTPP	**Palatana**	**Doyang**	**Kameng**	**Khandong Stg-2**	**Kopili**	**Loktak**	**Panyor**	**Pare**
Median FRP	3.38	0.57	0.32	0.2	0.16	4.6	0.5	1.7	-0.26
Grading	Excellent	Below Average	Poor	Poor	Poor	Excellent	Below Average	Excellent	Poor

Table 1: Median FRP of Generator Control Area

	Arunachal Pradesh	**Assam**	**Manipur**	**Meghalaya**	**Mizoram**	**Nagaland**	**Tripura**	**NER**
Median FRP	0.07	0.71	NA	0.39	0.91	0.93	0.23	1.33
Grading	Poor	Below Average	NA	Poor	Good	Good	Poor	Excellent

Table 2: Median FRP of State Control Area

The detailed grading of median FRP for all the control areas is attached in Annexure-1. Generators and States are requested to take corrective actions to improve the FRP.

Sub-committee may deliberate

2.6. Status of DCS at Loktak and Doyang HEP

As per the approved Methodology for computation of Average Monthly Frequency Response Performance, Beta 'β', generators have to submit high resolution data (1 second or better resolution) for computation of Monthly Frequency Response Performance (FRP - Beta) and Frequency Response Characteristic (FRC).

At present, NERLDC is computing the FRP of Loktak HEP (NHPC) and Doyang HEP (NEEPCO) using SCADA data available at the RLDC.

In view of the above, it is requested that NHPC and NEEPCO may update the status of DCS availability at Loktak and Doyang HEP respectively, and explore the feasibility of sharing high resolution data with NERLDC.

2.7. Collection of Bulk Load Information from States

In accordance with the provisions of IEGC 2023 and in pursuit of enhancing operational planning and ensuring secure and reliable grid operation, it is deemed essential to establish and maintain a comprehensive, standardized database of bulk consumers across all constituent states of the region.

Bulk consumers, defined as those availing power supply at 33 kV and above, exert a substantial influence on the grid due to the magnitude and concentration of their demand. Accordingly, the availability of accurate information pertaining to their connected voltage level, demand characteristics, and real-time monitoring status is critical for informed decision-making in both operational and planning.

In view of the above, all State Load Despatch Centres (SLDCs) are requested to kindly submit the requisite details of bulk consumers within their respective states as per Annexure-II.

2.8. Traction loads information of NER states

As part of a coordinated effort to improve load visibility and planning accuracy across the grid, it is essential to compile and regularly update information pertaining to traction loads of railways systems within each state.

Traction loads, due to their high and often fluctuating demand characteristics, have an impact on load profiles and voltage/reactive power management.

Accordingly, all State Load Despatch Centres (SLDCs) are requested to furnish the details of traction loads within their jurisdiction as follows:

- Location and feeding substation details
- Connected voltage level
- Maximum and average daily demand
- SCADA availability and status of real-time monitoring

Sub-committee may deliberate

2.9. Airport Load Information: Connectivity and Reliability Considerations

Airports, being critical infrastructure, represent strategic and high-priority loads in the power system. Given their operational sensitivity and the need for uninterrupted power supply, it is essential to assess and document the electrical connectivity and reliability measures associated with each airport across the region.

In this context, all State Load Despatch Centres (SLDCs) are requested to provide the following details for each airport within their jurisdiction:

- Name and location of the airport
- Voltage level and point of grid connectivity
- Nature of connectivity (single source / dual source / dedicated feeder / redundant path)
- Maximum demand and average daily demand

Sub-committee may deliberate

2.10. Status Update and Revival Plan for Long-Outage NER Generators & Transmission Lines

The following NER generators & transmission lines have been under outage since long time. Considering the increasing demand trend and reliable power supply in the Region, respective utilities are requested to intimate the updated expected date of revival & take necessary action to restore the mentioned units & lines at earliest:

Generating Units:

S. No.	Element Name	Outage time	Reason	Expected date (as updated in 224th OCCM)
1	Khandong Unit I	10:45 Hrs of 26-03-2022	Flash flood of reservoir causing submergence of the Khandong station	31-May-25
2	Khandong Unit II	10:45 Hrs of 26-03-2022		
3	LTPS Unit 7	17:08 hrs of 08-04-2024	Due to high vibration	May'25
4	Baramura Unit 5	20:17 Hrs of 26-03-2024	Gas fuel hydrolic trip low.	Unit Ok. Non- availability of gas
5	Baramura Unit 4	23:20 Hrs of 05-06-2024	Manually opened as there is issue in display, erroreous data was coming.	
6	Rokhia Unit 8	22:13 Hrs of 02-05-2024	Hand Tripped due to low Gas Pressure	-
7	Rokhia Unit - 7	14:06 Hrs of 06-11-2024	Leakage in Heat Chamber	-
8	Kameng Unit 2	07:31 Hrs of 17-06-2024	Damage in the stator core & bar, and also on rotor poles due to dislodging of 1no. V-block	May'25

Transmission Lines:

S. No.	Element Name	Outage time	Reason	Expected date (as updated in 224th OCCM)
1	400 kV Imphal - Thoubal I	18-10-2021	Tripped on DP, ROW issue.	RoW issue
2	132 kV Kohima - Meluri	27-09-2023	S/D taken by Kohima trans. Div. for dismantling of Tower no. AP 130	Expected revival By April/May'25
3	132 kV Jiribam-Rengpang	17-11-2023	Tripped on Earth fault	Tower shifting required due to NHIDCL work
4	132kV Ningthoukhong-Churachandpur ckt 1	04-08-2024	Z-1, 18.5 km, O/C	-
5	132 kV Imphal-Ningthoukhong line 1	13-02-2025	Stringing and termination of diverted SC 132kV Leimatak-Mao line (MSPCL) from existing tower no. 83 to tower no. 101 (to avoid infringement with proposed Imphal Railway Station under Jiribam-Imphal New Railway line on turnkey basis). The Railway diversion reference is for the old line namely 132kV Leimatak-Ningthoukhong-Yurembam-Mao which is now 132kV	-

			Leimatak-Ningthoukhong-Imphal PG-Yurembam-Karong line. The diversion portion presently considered is from tower loc no. 83 to 101 of 132kV Imphal PG - Ningthoukhong line ckt 1.	
6	132kV Srikona – Panchgram	14-01-2019	-	-

Sub-committee may deliberate

Agenda items referred from NETeST meetings

2.11. Request to integrate DoP, Arunachal Pradesh Stations over OPGW.

As informed by the POWERGRID-COMPREHENSIVE Arunachal Pradesh team, installation of OPGW, FOTE and commissioning of FOTE in the OPGW communication path from Pasighat to Ziro i.e Niglok-> Napit-> Pasighat-> Along-> Basar->Daporizo-> Ziro has been completed and commissioned.

NERLDC requested DoP, Arunachal Pradesh via email dated 11th March 2025, to integrate the following stations over OPGW also apart from the available VSAT:

Along

Pasighat

Daporizo

This will help in increasing reliability of real time telemetry of Arunachal Pradesh.

DOP, Arunachal Pradesh may update the status.

In 31st NETEsT Meeting, ERPC requested NERLDC to communicate with the working level executive to rectify the issue. NERLDC informed that the same

has been already communicated to the concerned person on multiple occasions, however no improvement has been observed.

Further discussion could not be elaborated due to absence of DOP-Arunachal Pradesh representative. The forum noted that update will be taken from DOP-Arunachal Pradesh over mail before 224th OCC meeting to be held in April 2025.

DoP Ar. Pradesh may update

2.12. Request to integrate data of Panyor and Pare in Chimpu S/s RTU.

NERLDC observed that the data (MW, MVAR, CB, and isolators) for Panyor and Pare bays at Chimpu S/s is not being reported. Upon further analysis, it has come to NERLDC's attention that MFTs and CMRs for the mentioned bays are yet to be installed. Since the above-mentioned lines are connected to ISGSs, monitoring of the same is imperative from Chimpu end also.

NERLDC requested DoP, Arunachal Pradesh to carry out the following actions to enable data reporting for the mentioned bays via email dated 17th February 2025 and reminder mail on 11th March 2025:

Installation of MFTs:

MFTs need to be installed for both bays.

Appropriate CT and PT connections must be completed.

MFTs should then be integrated with the Chimpu RTU.

Installation of CMRs:

CMRs need to be installed for both bays.

CB and isolator status should be integrated with the Chimpu RTU.

DOP, Arunachal Pradesh may update the status.

3. PART-C: METERING ITEMS

3.1. Comparative study of Deviation Accounts (SEM vs SCADA data) for NER States:

As per 15th NPC and further deliberation in 223rd OCCM, a comparative study for Deviation accounts taking SCADA data was done by NERLDC. The differences found in DSM Accounts among all States for the period 27.01.2025 to 23.02.2025 with day wise differences Plots. As can be observed from the plots, there exist large deviations in SEM and SCADA DSM Accounts.

In 224th OCCM, NERLDC presented the comparative DSM accounts (SCADA data vs SEM data) and day wise difference plots. Forum noted that there is large deviation in the DSM accounts calculated from SCADA data and from SEM data.

Forum requested PGCIL to explore the option of data transfer from additional port of SEM (RS 232 port) to SLDC at the ISTS points till new AMR system is procured by CTU.

Sub-committee may deliberate

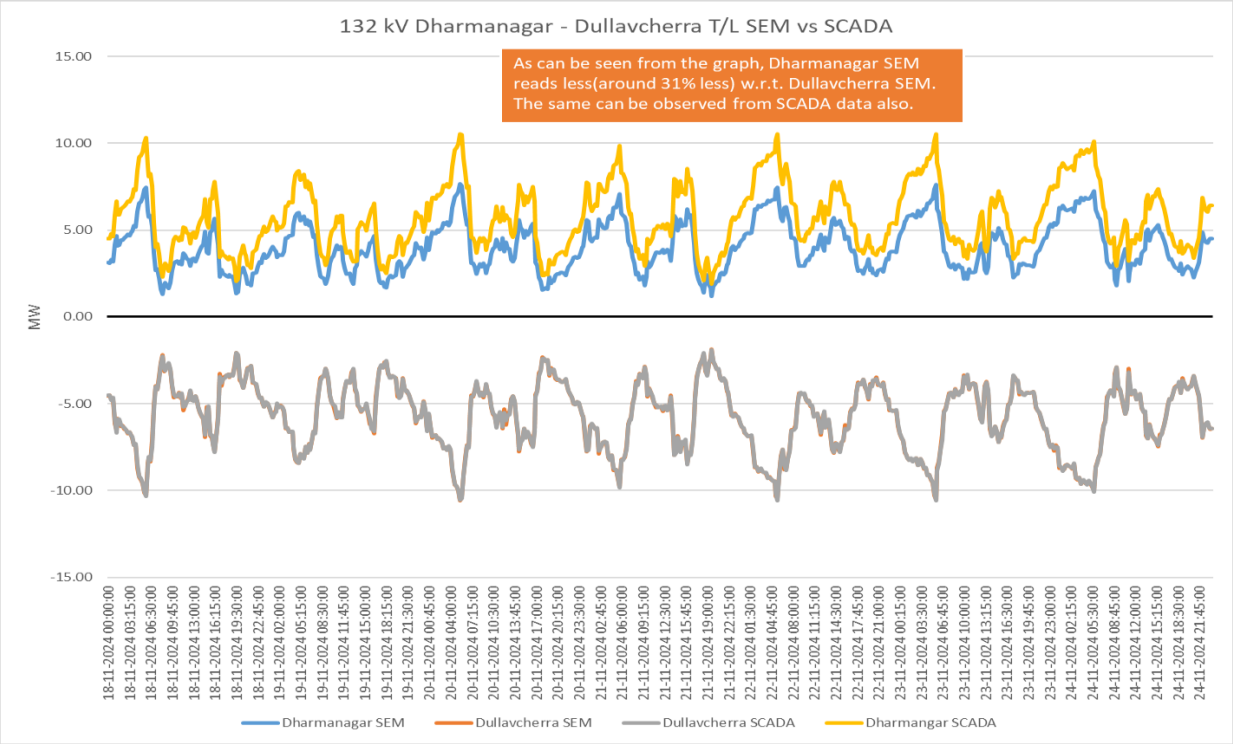
3.2. Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder:

It has been observed that the data received from Dharmanagar end is erroneous and the same neither matches with SCADA data nor with data from Dullavcherra end. Several follow ups have been initiated regarding the matter with utility, however, matter is yet to be resolved.

It is also to be noted that since 222nd OCCM, data from Dharmanagar S/S has not been received by NERLDC from said substation. Issue with Vinplus Software had been mentioned by Tripura in the previous OCCM.

In the 224th OCCM, TSECL updated that the matter will be looked into and will provide update shortly. Forum urged Tripura to sort the matter on urgent and priority basis. Tripura is hereby requested to provide updates on the issue

and also provide contact details of personnel stationed at Dharmanagar S/S for future communication.



Forum may please Discuss.

3.3. Issue in receipt of data from 132 kV Tipaimukh S/S

Weekly SEM data from 132 kV Tipaimukh (Manipur) S/S is essential for accounting of Manipur Drawal. However, SEM data for said substation is not being received. On query, downloading data from DCD to laptop has been failing.

In 222nd OCCM, Manipur apprised the forum that the problem in downloading data from DCD
to laptop still persists. PGCIL agreed to help Manipur in resolving the issue.

In 223rd OCCM, Forum requested Powergrid to assist Manipur to rectify the issue. Manipur to send Laptop along with DCD available at Tipaimukh to Aizawl PG S/S for the same.
In the 224th OCCM, Manipur informed that the equipment is ready to be dispatched but due to Law-and-Order condition in the state, movement is

restricted. They are unable to send laptop along with DCD to Aizawl S/S. Manipur agreed to do the same as soon as possible.

Status of the same may be reviewed.

3.4. Issue in Receipt of Data data from Udaipur S/S:

Weekly SEM data from 132 kV Udaipur(Tripura) Substation is not being received since replacement of old LnT Meter with Secure Make Meter on 23-12-2024(for 132 kV Udaipur end of Palatana T/L). In 222nd OCCM, the forum advised Tripura to resolve the issue by next OCC meeting. Data from the replaced meter is yet to be received by NERLDC. Tripura may intimate present status of the same.

3.5. Receipt of SEM data from 132 kV Budhjungnagar, 132 kV Ambassa, 132 kV Dharmanagar, 132 kV PK Bari & 132 kV SM Nagar (TSECL) Substations:

As per 175th OCCM dated 18th Feb 2021 agenda D.12, Indigrid and Powergrid NERTS were given responsibility to collect and send SEM data on weekly basis for Tripura owned substations viz 132kV Ambassa S/s,132kV Budhjungnagar S/s, 132 kV PK Bari S/s and 132 kV SM Nagar S/s for the interim period, due to shortage of DCDs. The relevant extracts are furnished below

Quote:

“The forum noted that due to the existing shortage of DCDs, the same cannot be provided to Tripura for some time for new locations. This creates difficulty in getting SEM data from Budhjangnagar, Ambasa, PK Bari and SM Nagar. The Matter was discussed and it was decided that during the interim period Powergrid NERTS will provide readings from PK Bari and SM Nagar of Tripura and Sterlite will provide readings from Budhjangnagar and Ambassa of Tripura."

Unquote

As per IEGC 2023 Clause 49(12)(e) entity shall be responsible to send weekly meter data to RLDC. The relevant extracts are furnished below

Quote:

"Entities in whose premises the IEMs are installed shall be responsible for (i) monitoring the healthiness of the CT and PT inputs to the meters, (ii) taking weekly meter readings for the seven day period ending on the preceding Sunday 2400 hrs and transmitting them to the RLDC by Tuesday noon, in case such readings have not been transmitted through automatic remote meter reading (AMR) facility (iii) monitoring and ensuring that the time drift of IEM is within the limits as specified in CEA Metering Regulations 2006 and (iv) promptly intimating the changes in CT and PT ratio to RLDC."

Unquote

In 221st OCCM, Tripura confirmed the receipt of 3 nos. of DCDs and that the same have been dispatched to Dharmanagar, Ambassa and SM Nagar(State) S/Ss. Tripura further intimated that the remaining works shall be completed by 21/12/2024 and the meters shall be reporting successfully from 23/12/24.

In 222nd OCCM, forum requested Tripura to resolve the issue by next OCC meeting.

However, data is yet to be received from concerned utilities on weekly basis.

Tripura may Update Status.

4. PART-D: ITEMS FOR UPDATE/FOLLOW-UP

4.1 Implementation/Review of Islanding schemes of NER:

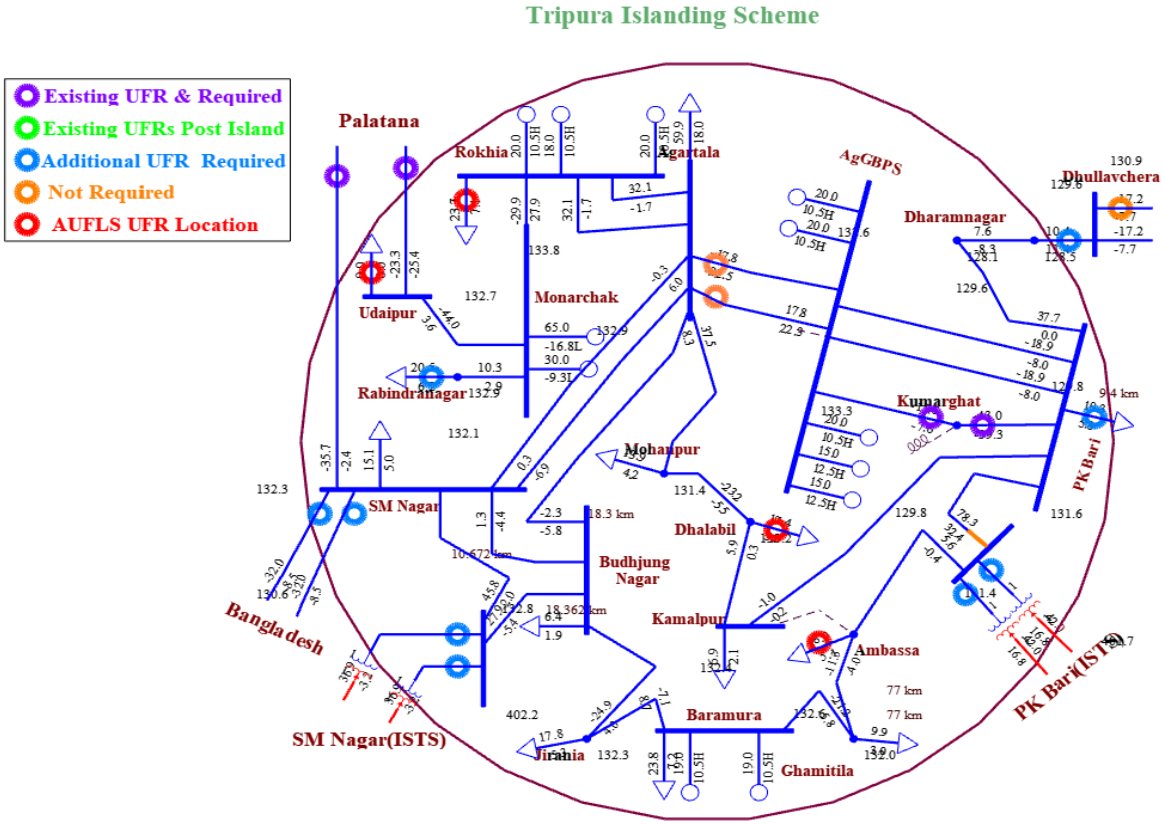
As per Clause 10 of the Central Electricity Authority (Grid Standards), Regulations, 2010: "Islanding Schemes- (1) The Regional Power Committees shall prepare Islanding schemes for separation of systems with a view to save healthy system from total collapse in case of grid disturbance. (2) The Entities shall ensure proper implementation of the Islanding Schemes". In this regard the Islanding schemes which are being planned/have been implemented in NER are mentioned below, along with the updates from 224th OCCM.

A. Guwahati Islanding Scheme

Assam updated that modified DPR has been sent to PSDF.

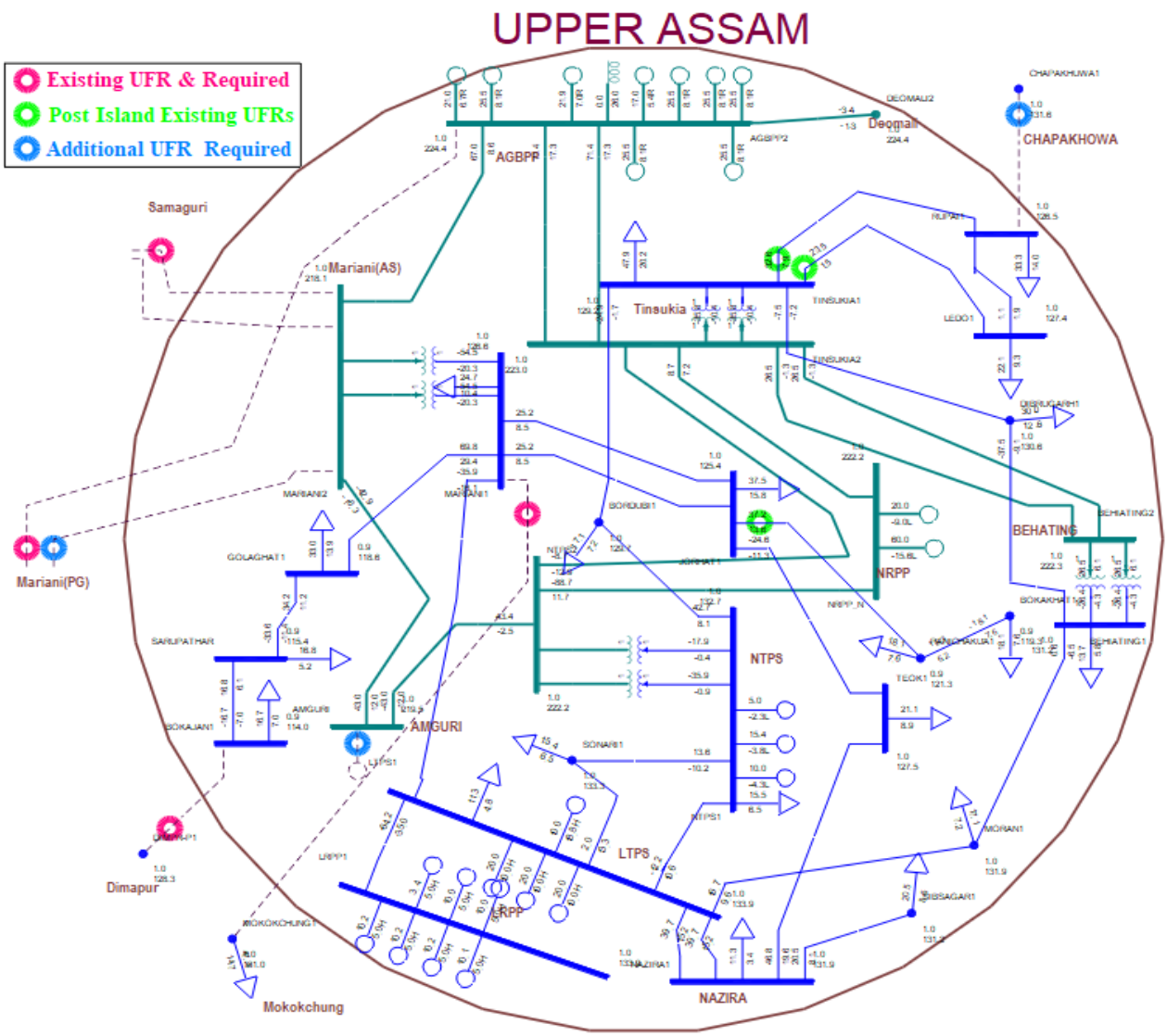
B. Tripura/Agartala Islanding Scheme

NERLDC informed forum that required format was shared with Tripura. NERLDC have also apprised forum that generation data form Tripura along with load data yet to be received from Tripura. Forum requested Tripura to provide all the required data at earliest.



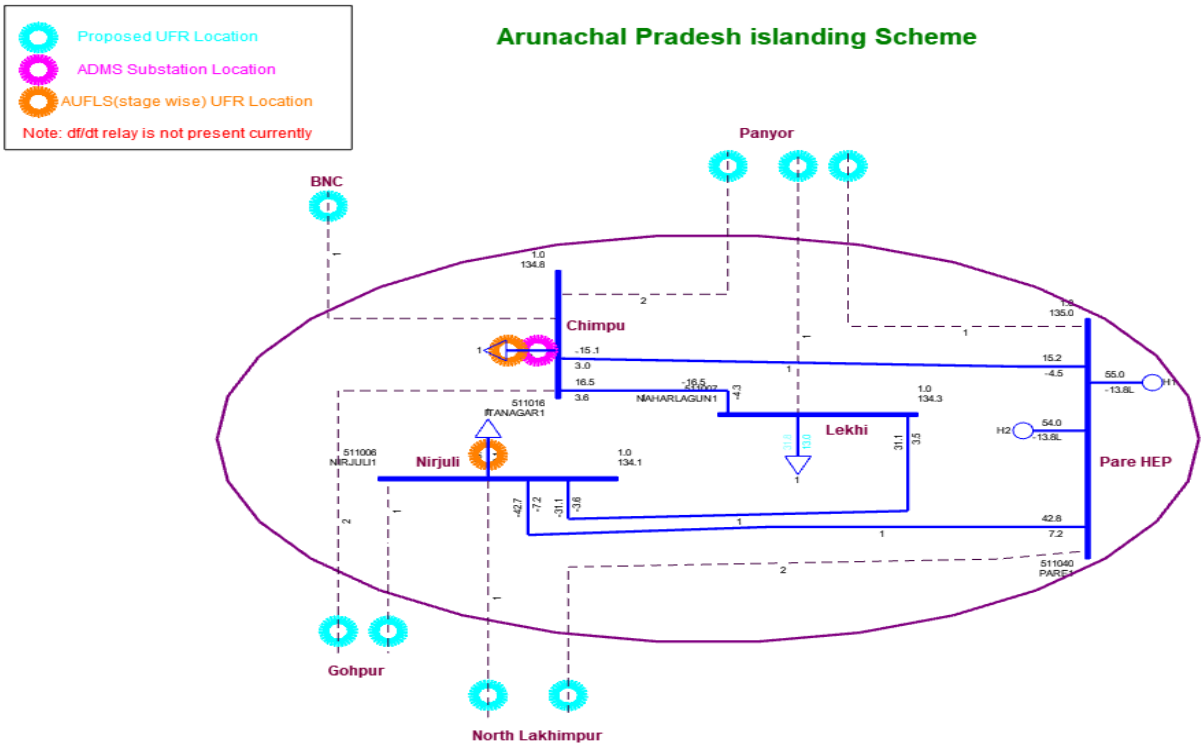
C. <u>Upper Assam Islanding Scheme</u>

Assam informed forum that NTPS was a very old power station and they did not have the data as required for updation for islanding scheme. For LTPS, regarding change in frequency settings, communication has been done with BHEL and we are awaiting response from their end. For LRPP, Stage I frequency setting is alarm and Stage II frequency setting is Trip. Forum asked NEEPCO and AEGCL to make the necessary changes and update their settings in consultation with their respective OEMs.



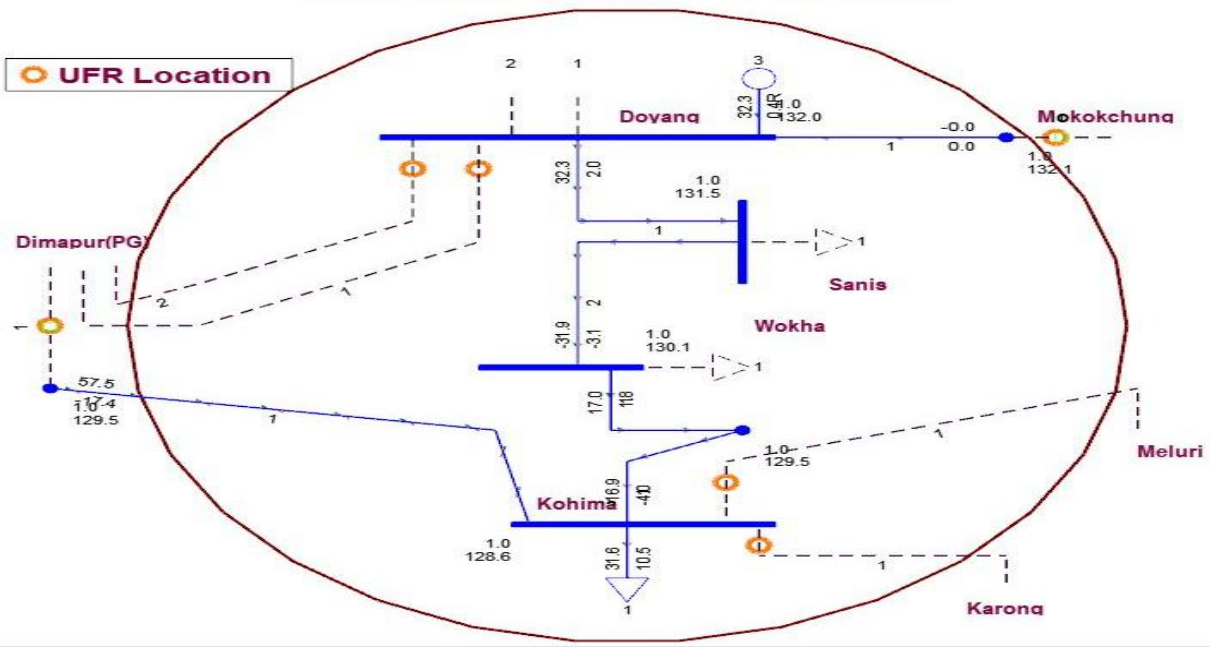
D. <u>Itanagar Islanding Scheme</u>

Arunachal Pradesh informed that the required load data had been submitted to NERLDC.



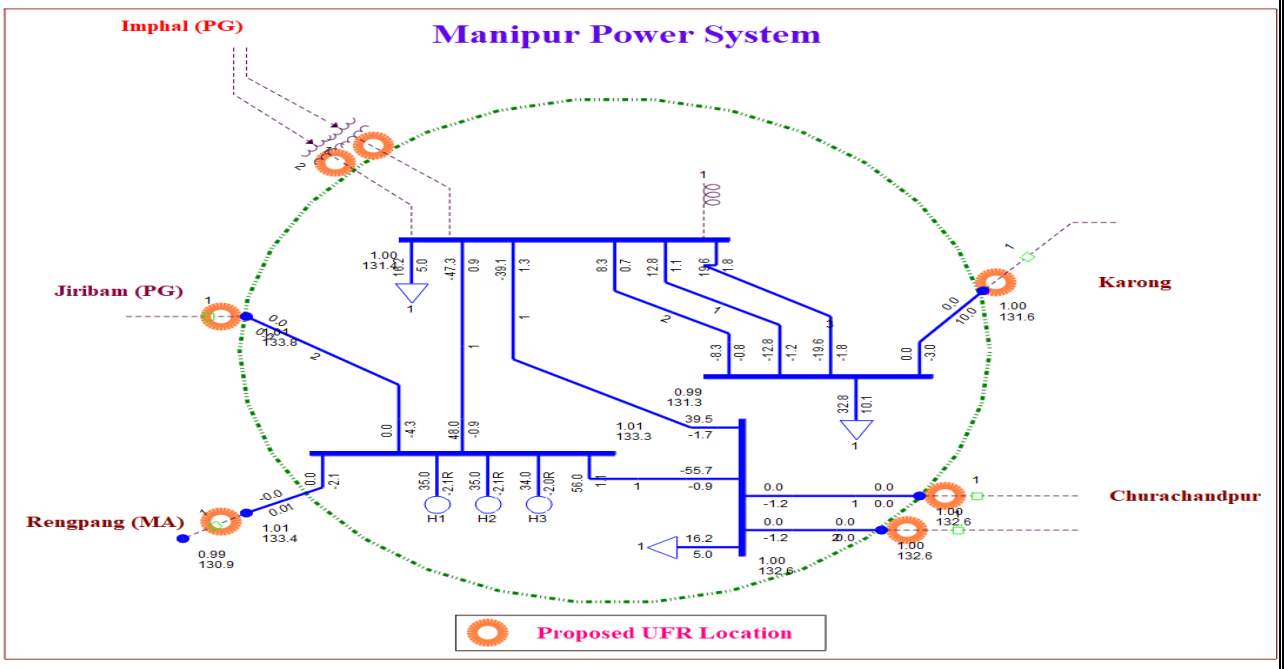
E. <u>Kohima Islanding scheme</u>

DoP Nagaland updated that the DPR preparation was underway, as they have not received budgetary offer from vendor. MS, NERPC urged DoP Nagaland to take the budgetary offer from a vendor at the earliest so that the same may be got approved in the upcoming RPC meeting.



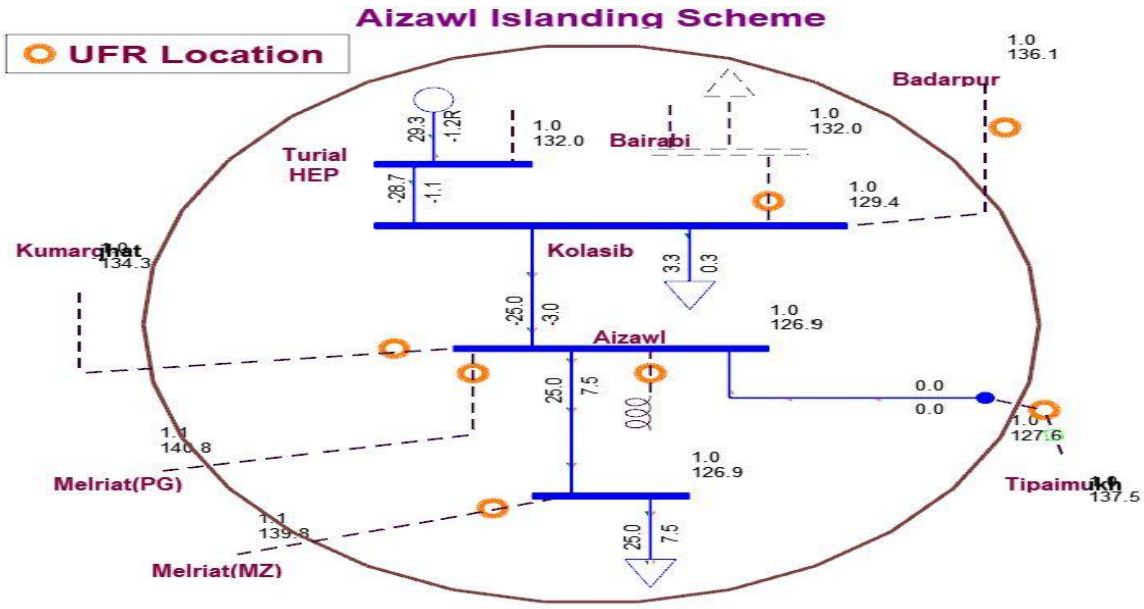
F. Imphal Islanding scheme

Manipur informed forum that due to law-and-order situation AUFLS mapping was pending from sub-station's end and assured to provide the required data shortly. NERLDC stated that data from NHPC was yet to be received. NHPC stated that they would provide required data shortly.



G. Aizawl Islanding scheme

Mizoram informed that the required load data had been provided to NERLDC. The forum stated that a special meeting would be held shortly to finalize the scheme.



H. Meghalaya/Shillong Islanding Scheme

NERLDC requested Meghalaya utilities to provide the load and generation data at the earliest as format for data had already been shared with Meghalaya.

MS, NERPC has urged all the stakeholder to expedite the process so that this Islanding Scheme can be approved in next RPC meeting. Schematic diagram is under process.

The following deliberations followed in 220th OCCM:

Tripura/Agartala Islanding Scheme:

NERLDC apprised the forum that all the data has been received from Tripura. Dynamic study has been completed and Load-Generation study is under way.

Upper Assam Islanding Scheme:

NERLDC apprised the forum that dynamic study as well as Load-Generation study has been completed. However, NEEPCO is required to submit the UFR settings for 2 nos. of units of AGBPP. NEEPCO agreed to submit the information at the earliest. Assam may prepare the DPR post submission of data by NEEPCO.

Itanagar Islanding Scheme:

NERLDC apprised the forum that all necessary study has been completed. Arunachal Pradesh may prepare the DPR for Itanagar Islanding Scheme.

Kohima Islanding Scheme:

NERLDC apprised the forum that dynamic data has not been received from Doyang completely. As such dynamic study is pending. NEEPCO agreed to share the data at the earliest to NERLDC.

Imphal Islanding Scheme:

NERLDC apprised the forum that data from NHPC Loktak has been received. Manipur has identified the 33 kV feeders but are yet to share load-generation data for the identified feeders. Dynamic study is going on.

Aizawl Islanding Scheme:

NERLDC apprised the forum that dynamic data has not been received from Turial. NEEPCO agreed to share the data at the earliest. Mizoram also intimated the forum that exploration for a change in feeders is under way as per priority. Load-generation data for such feeders shall have to be shared with NERLDC.

Shillong Islanding Scheme:

Meghalaya apprised the forum that the old machine at Umium stage III is being replaced with a new machine. As such, NERLDC requested Meghalaya to share dynamic data for Umium Stage I, Stage II and Stage IV and also for New Umtru.

In 224th OCCM, NERLDC updated that Upper Assam Islanding to be enabled shortly and Itanagar islanding scheme is pending due to non-completion of work by DoP Ar. Pradesh.

Regarding other islands NERLDC updated that studies are underway.

Sub-committee may deliberate

4.2 Automatic Under Frequency Load shedding (AUFLS) scheme of NER:

Status as updated in 224th OCCM

Name of the State/utility	**Installation of UFRs**	**Status of mapping**
Ar. Pradesh	Completed	DoP Arunachal Pradesh stated that

		mapping of feeder at Lekhi SS (Industry feeder, stage 1) will be carried out by end of Oct'24. For rest of the feeders and substations, coordination with GE is underway and will be taken up gradually.
Assam	Completed	Completed
Manipur	UFR installed but not enabled as system integration work is underway, to be completed by Aug'24.	Mapping is pending from substations end, which is being hampered due to Law & Order situation in the State. It is in the last stage of integration (90%) and will be completed by Aug'24.
Meghalaya	Completed	Completed
Mizoram	Completed	Coordination with GE is underway for mapping, completion by Sep'24.
Nagaland	Completed	Completed
Tripura	Completed	All mapping done except for Ambassa SS due to communication link issue. To be done by next NeTEST meeting.

Forum noted the status updated as provided in the above table. NERPC informed that AUFLS quantum has been revised for NER for the FY 2024-25 and presented the revised quantum for load shedding to the forum, which is provided below: –

UFR load shedding for NER States for the FY 2024-25

State	**stg I (MW)**	**Stg II**	**Stg III**	**Stg IV**
Ar. Pradesh	8.659594937	10.39151392	12.12343291	12.12343291
Assam	112.3419494	134.8103392	157.2787291	157.2787291
Manipur	11.54612658	13.8553519	16.16457722	16.16457722
Meghalaya	18.85556962	22.62668354	26.39779747	26.39779747

Mizoram	7.542227848	9.050673418	10.55911899	10.55911899
Nagaland	8.100911392	9.721093671	11.34127595	11.34127595
Tripura	16.85362025	20.2243443	23.59506835	23.59506835
Total	183.9	220.68	257.46	257.46

For FY 2023-24 (already under operation)

State	**stg I (MW)**	**Stg II**	**Stg III**	**Stg IV**
Ar. Pradesh	10	14	12	10
Assam	90	125	113	115
Manipur	10	10	10	10
Meghalaya	25	25	25	25
Mizoram	5	5	5	5
Nagaland	10	10	10	10
Tripura	15	12.2	21.2	30
Total	165	201	196	205

The forum requested the States to implement the revised load shedding quantum within two months.

As per IEGC provisions, Tripura is requested to provide the MW and CB status data for further mapping activities.

The forum requested RLDC to prepare a feeder-wise report (MW and CB status) for those States that have completed the mapping and present it at the next OCC meeting

The following deliberations followed in 220th OCCM:

DoP, AP apprised the forum that new loads have been identified but new UFR scheme has not been implemented yet. DoP,AP further apprised the forum that the new UFR scheme shall be implemented by March-2025.

Assam apprised the forum that revised load quantum shall be implemented in 10-12 days.

Manipur apprised the forum that the new UFR scheme shall be implemented in three months' time.

Meghalaya updated that the additional load identification (for stg III and IV) is underway.

Mizoram apprised the forum that new loads have been identified and UFR will be implemented on these feeders shortly

Tripura apprised the forum that new loads have been identified for implementation of UFR. He further informed that Mapping at Ambassa is still pending due to communication link issue.

In 221st OCC meeting, Arunachal Pradesh, Assam and Meghalaya apprised the forum that the new UFR load shedding scheme shall be implemented by January-2025.

Utilities may update

4.3 Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	Jan-25 (LGBR)	Jan-25 (Actual)	Feb-25 (LGBR)	Feb-25 (Actual)	Mar-25 (LGBR)	Mar-25 (Actual)
Arunachal Pradesh	187.37	195.53	183.18	218	180.30	180
Assam	1761.00	1581.01	1779.00	1647	1979.00	1917
Manipur	275.31	267	268.86	248	246.39	213
Meghalaya	465.00	392.542	460.00	352	445.00	343
Mizoram	184.00	167.87	181.00	160	149.00	151
Nagaland	190.00	171.7	179.00	173	180.00	164
Tripura (exc. Bangladesh)	282.00	233.59	292.81	252	304.90	317
NER DEMAND (exc. Bangladesh)	3247.18	3000	3173.53	2890	3302.70	3273

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	Jan-25 (LGBR)	Jan-25 (Actual)	Feb-25 (LGBR)	Feb-25 (Actual)	Mar-25 (LGBR)	Mar-25 (Actual)
Arunachal Pradesh	111.21	94.70	98.64	94.26	109.61	94.48
Assam	951.00	852.52	853.00	795.11	1012.00	945.66
Manipur	129.00	114.28	117.00	93.27	98.00	90.43
Meghalaya	259.00	204.28	221.00	155.31	223.00	172.39
Mizoram	86.02	69.97	81.87	60.43	78.76	100.81
Nagaland	82.00	74.54	76.00	69.76	82.00	73.06
Tripura (excl. Bangladesh)	110.60	128.31	101.44	123.84	132.23	108.88
NER DEMAND (exc. Bangladesh)	1728.83	1539.21	1548.95	1392.60	1735.60	1586.32

LGBR projection for April'25, May'25 and June'25

PARTICULARS (Peak Demand in MW as per LGBR)	Apr-25 (MW)	Apr-25 (MU)	May-25 (MW)	May-25 (MU)	Jun-25 (MW)	Jun-25 (MU)
Arunachal Pradesh	200	82	217	96	185	93
Assam	2203	1108	2629	1255	2586	1312
Manipur	234	94	247	95	247	105
Meghalaya	455	195	439	184	370	183
Mizoram	143	62	141	63	136	58
Nagaland	185	76	192	88	200	95
Tripura (exc. Bangladesh)	384	180	423	183	380	179
NER DEMAND (exc. Bangladesh)	3689	1797	4066	1964	3899	2025

Sub-committee may deliberate

4.4 Weak Infeed to Rangia Area of Assam Power System

Currently, the Rangia area of the Assam power system is primarily supplied through the 220 kV Rangia-BTPS D/C and the 132 kV Rangia-Montanga line. However, the loading on the 220 kV Rangia-BTPS D/C often does not comply with N-1 contingency requirements, particularly during peak demand periods. The tripping of any one circuit of the 220 kV Rangia-BTPS D/C could result in grid disturbances in the region.

Additionally, both the Rangia and Bongaigaon areas of the Assam power system are experiencing severe low voltage issues.

Furthermore, a high loading of 84 MW was observed on the 132 kV Rangia-Montanga line, as discussed in the 219th OCC Meeting held in September 2025. Given these concerns, an update on the status of the capacitor bank is requested for discussion in the forum.

The situation is reaching an alarming stage, particularly during the summer peak, as voltage levels in these areas frequently fall below the IEGC-prescribed band. In light of this, the AEGCL team is kindly requested to take immediate action to address these issues and ensure system reliability.

As per the 224th OCC forum's recommendation, a special meeting was convened by NERLDC with AEGCL, APDCL and SLDC Assam on 04-04-2025. The minutes of the meeting are attached as Annexure–III.

Sub-committee may deliberate

4.5 Mock Black Start of Units in compliance with IEGC:

As per IEGC Clause 34 (3), The user shall carry out a mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter based generating station and VSC based HVDC black-start support **at least once a year** under intimation to the concerned SLDC and RLDC.

Accordingly, Mock Black Start of the following generating plants where conducted for the FY 2024-25:

Sl. No.	**Name of Power station**	**Date of Mock exercise**
1	AGBPS GTG 4	14-05-2024
2	Kopili Unit 1, 3 & 4	Completed (U I & III 09th March 25 & U II & IV 10th March 25)
3	AgGBPS GTG 2	11-09-2024

All utilities are requested to submit the latest status of planning related to mock black-start trials of ***all units*** that are pending or yet to be conducted and to complete these activities within FY 2024-25 to ensure compliance with IEGC.

Mock Black Start of the following generating plant are pending:

Sl. No.	**Name of Power station**	**Last date of Mock exercise**	**Expected date of Mock exercise**
1	Doyang HEP	12-05-2023	Unit II Completed on 04/042025.
2	Khangdong Stg-2 HEP	-	Feb/March'25
3	Kameng HEP	-	Feb/March'25
4	Loktak HEP	31-07-2023	Feb/March'25
5	Pare HEP	10-01-2024	Feb/March'25
6	Panyor HEP	30-05-2023	Feb/March'25
7	Turial HEP	-	Completed on 08/042025.

In 223rd OCC meeting, the forum exhorted the generating plants (mentioned in the table above) to carry out the Mock Black Start exercise by March'2025.

Generating station may update the status.

4.6 Urgent Review of Online Element Transfer at PLHPS

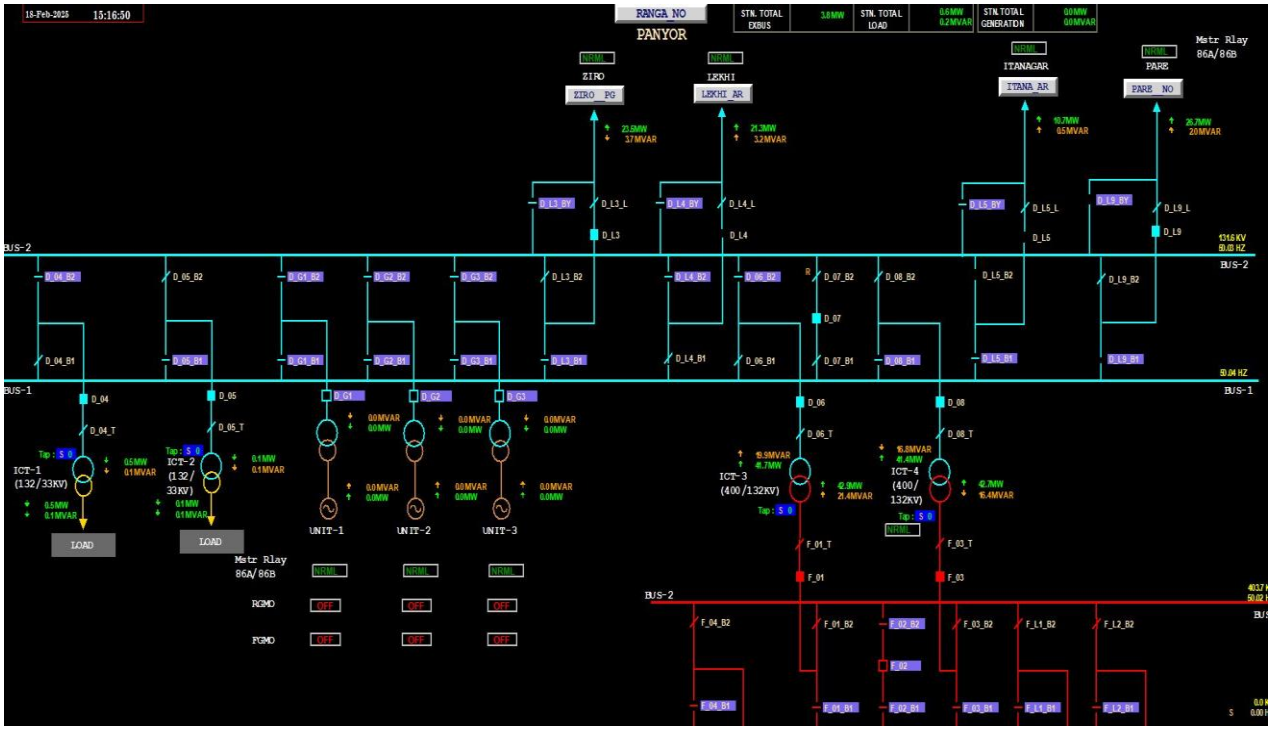
The Bus Scheme of PLHPS at the 132 kV level is a Double Main scheme, as confirmed via email. In this type of bus arrangement, the online transfer of elements from one bus to another can be performed seamlessly without any interruption in power flow.

As per the decision of the previous OCC forum, NERLDC requested PLHPS to transfer of an element to another bus on January 28, 2025, to facilitate the testing and verification of the healthiness of the non-energized element. However, in response to this request, Panyor NEEPCO stated that the existing scheme of PLHPS does not permit the online switching of isolators and that such an operation has never been carried out since the commissioning of the station.

This issue has already been raised with the NEEPCO team, highlighting that online bus transfers of elements are being successfully performed at multiple stations within the NER Grid, including AgGBPS, which is also owned by NEEPCO. However, PLHEP executives have consistently denied such operations, citing that they have never been practiced at their station.

It is important to note that with the commissioning of the 132 kV Roing-Chapakhowa D/C line and the increasing industrial load in the Pasighat area, the 132 kV Panyor-Ziro-Daporijo-Basar-Along-Pasighat-Roing-Chapakhowa link has become vital for Arunachal Pradesh and Assam power systems.

Given the importance of ensuring system reliability, a review of the non-transfer of elements at PLHPS is strongly recommended. If online element transfers are indeed not feasible under the current setup, experienced personnel should be consulted to explore possible solutions and address the issue effectively.



In 223rd OCC meeting, NEEPCO informed that online transfer could not be done due to alignment issue with the isolator as isolators are old (commissioned in 2002). He further stated that rectification works are underway and issue will be resolved shortly.

NEEPCO may update

4.7 Submission of Dynamic Model for ±800 kV MTDC Agra-BNC-Alipurduar

As you are aware, GRID-INDIA is responsible for ensuring the secure and reliable operation of the Indian power system. A critical aspect of this responsibility involves conducting system studies and power system stability simulations to proactively implement measures for grid security.

In this regard, the submission of the dynamic model for the ±800 kV Agra-BNC-Alipurduar HVDC MTDC has already been communicated by NLDC, GRID -INDIA.

However, we have not yet received the required dynamic model. ***This data is crucial for islanding formation studies, especially considering that the***

±800 kV MTDC Agra-BNC-Alipurduar operates in frequency control mode.

As per 224th OCC meeting, NERTS updated that the matter has been forwarded to corporate office and awaiting their reply.

NERTS may update

4.8 Compliance with Annual Measurement of Harmonics, DC Injection, and Flicker as per CEA Regulations

As per the CEA (Technical Standards for Connectivity to the Grid) Regulations, Clause B1(4), Measurement of harmonic content, DC injection and flicker shall be done at least once in a year in presence of the parties concerned and the indicative date for the same shall be mentioned in the connection agreement;

Provided that in addition to annual measurement, if distribution licensee or transmission licensee or the generating company, as the case may be, desires to measure harmonic content or DC injection or flicker, it shall inform the other party in writing and the measurement shall be carried out within 5 working days";

In accordance with this regulation, all Wind generating stations and generating stations using inverters connected to the grid are required to perform this test annually and submit the test report to the relevant utility authorities. All utilities are requested to provide an update on the current status of test reports and outline their future testing plans as per CEA guidelines.

In 224th OCC meeting, NERLDC apprised that no wind generators or inverter-based generators have provided any test reports so far. Forum requested the SLDCS of the states where such plants are located, to take up the matter with developers of such plants to and provide a testing plan and reports to NERPC and NERLDC at the earliest.

Further, MS NERPC informed that regarding the uniform guidelines on Harmonics measurement by transmission and generating utilities, matter has been put for discussion in the upcoming NPC meeting.

Sub-committee may deliberate

4.9 Performance of online network estimation tools at RLDC:

IEGC mandates RLDCs and SLDCs to utilize the network estimation tool integrated in their EMS and SCADA systems for the real time operational planning study. Also, performance of the online estimator tools shall be reviewed in monthly operational meetings as per IEGC Regulation 33(2). Quote:

"*SLDCs, RLDCs and NLDC shall utilize network estimation tool integrated in their EMS and SCADA systems for the real time operational planning study. All users shall make available at all times real time error free operational data for the successful execution of network analysis using EMS/SCADA. Failure to make available such data shall be immediately reported to the concerned SLDC, the concerned RLDC and NLDC along with a firm timeline for restoration. The performance of online network estimation tools at SLDC and RLDC shall be reviewed in the monthly operational meeting of RPC. Any telemetry related issues impacting the online network estimation tool shall be monitored by RPC for their early resolution.*"

Unquote:

The performance of online network estimation tools at NERLDC is shown below:

Difference & % Error of RTCA and RTNET

Constituents	SCADA	RTCA		RTNET	
		Difference	Error %	Difference	Error %
NER Generation	2470	386	13.00	29	1.00
NER Load	2404	338	12.00	29	12.00
Tripura	227	85	35.00	85	35.00
Assam	1413	553	31.00	553	31.00
Meghalaya	259	29	12.00	29	12.00
Manipur	145	27	23.00	27	23.00
Arunachal	126	41	30.00	41	30.00
Nagaland	104	37	30.00	37	30.00
Mizoram	131	14	12.00	14	12.00

Similarly, SLDC's are requested to present their online network estimation tool performance in the monthly operational meeting of RPC to comply with IEGC regulation 33(2).

In 224th OCCM, NERLDC informed the forum that they will conduct workshop in the last week of April 2025.

Sub-committee may deliberate

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Annexure-II

Format for Submission of Bulk Consumer Information

All SLDCs are requested to submit the details of bulk consumers connected within their respective states in the following prescribed format.

S.No	Name of Consumer	Location (District/City/Substation)	Connected Voltage Level (kV)	Max Demand (MW)	Captive generation (MW)	Average Daily Demand (MW)	Industry Type	SCADA Available (Y/N)

Annexure III

Minutes of

Meeting on Weak Infeed Issues in Rangia Area of Assam Power System

Date: 04.04.2025

A meeting was held on 4th April 2025 to address the persistent low voltage and weak infeed issues in the Rangia area of the Assam power system. The meeting was attended by representatives from AEGCL, APDCL, NERLDC, and SLDC Assam. The Chief General Manager (CGM) of NERLDC welcomed all participants and provided an overview of the current challenges affecting the Rangia power system.

Key Points of Discussion

1. Presentation by NERLDC

NERLDC opened the meeting with a comprehensive presentation highlighting the critical issues related to low voltage and weak infeed in the Rangia area, especially during the summer peak demand period.

- Primary Supply Lines to Rangia Area:
    - 220 kV Rangia–BTPS Double Circuit (D/C)
    - 132 kV Rangia–Motonga line

2. Identified Issues

- Non-compliance with N-1 Criteria:
    - 220 kV Rangia–BTPS D/C: The line loading of this lines does not fulfill N-1 contingency criteria, especially during peak demand. Tripping of any one circuit can cause widespread grid disturbances in the Rangia region.
    - BTPS ICTs (2x160 MVA, 220/132 kV): These ICTs also do not comply with N-1 criteria most of the time. A maximum loading of 320 MW was observed in August 2024. Tripping of any ICT could lead to major disturbances in the BTPS area.
- 132 kV Rangia–Motonga Line Overload:

  Earlier loading of 84 MW was recorded, which is a serious concern. Bhutan had previously raised this issue, stating that all possible measures were taken from their side to improve voltage, yet the voltage remained below the acceptable operating range. Bhutan had suggested opening the line, but this was not agreed

upon by Indian utilities due to the risk of large-scale load disconnection in the Rangia area.

- Severe Low Voltage at Rangia:
    - Recorded voltage levels dropped to as low as 115 kV at the 132 kV level and 199 kV at the 220 kV level, particularly during the summer season.
    - The situation is aggravated by increasing demand and limited infeed capacity.
- NERLDC stated that the situation in Rangia and BTPS area is aggravated due to delay in integration of already planned elements like establishment of 400/220 kV Rangia and 220/132 kV Agomoni substations. The commissioning of 400/220 kV Rangia substations with its downstream would increase at least 200 MW TTC and 220/132 kV Agomoni with downstream would increase 100 MW TTC.
- In reply to above AEGCL ensured that the
    - 400/220 kV Rangia will come by July 2026 and 220/132 kV Agomoni substation by December 2025.
    - Restoration of 10 MVAR capacitor bank at Rangia and 5 MVAR at Nalbari and Bornagar by May 2025
- **NERLDC Recommendation:** Given no major infrastructure additions before this summer, meeting the expected load with existing assets is not feasible. Immediate load shifting and implementation of Special Protection Schemes (SPS) are necessary.
    - Partial load of 132/33 kV Nalbari to be shifted to 132 kV Barpeta side. For this AEGCL will augment bus sectionalizer at 132 kV Nalbari. In addition to that strengthening of 132 kV Dhaligaon-Barpeta- line to be explored by AEGCL
    - 132 kV Tangla or 132 kV Siphajhar load to be shifted to 220/132 kV Sonabil side in real time by SLDC Assam based on real time grid scenarios.
    - NERLDC also suggested that due to high demand in these area creates serious low voltage issues, thus an SPS may be introduced for load disconnection based on low voltage at 115 kV with minimal time delay

Bus Segregation at Rangia substations: APDCL proposed radial operation of 132 kV Rangia -Montanga line for feeding local load at Rangia.

NERLDC Response: This is not possible due to:

- Bhutan's synchronous connection with the Indian grid
- Need for coordination and consent with NLDC, RPC,CEA, and the Ministry of Power as 132 kV Rangia –Montanga is a international link
- Risk of further worsening the low voltage situation in Rangia, leading to significant load disconnection.

Subsequently taking into account of the above facts and after deliberation on the above issue APDCL also agreed not to operate 132 kV Rangia -Montanga line for feeding local load at Rangia in redial mode.

3. After detail discussion following has been decided

Short-Term Measures:

1. Load Shifting from Nalbari:
    - Partial load from 132/33 kV Nalbari to be shifted to 132 kV Barpeta.
    - AEGCL will augment the bus sectionalizer at Nalbari.
    - Explore strengthening of 132 kV Dhaligaon–Barpeta line.
2. Real-Time Load Shifting by SLDC Assam:
    - Shift load from 132 kV Tangla or 132 kV Siphajhar to 220/132 kV Sonabil, depending on real-time grid conditions.
3. Implementation of SPS:
    - Introduction of an SPS for load disconnection triggered by voltage dropping below 115 kV, with minimal delay.
4. Capacitor Bank Restoration:
    - Ensure all capacitor banks at Rangia, Nalbari, and Barnagar are operational by the first week of May 2025.
5. Explore Further Strengthening:
    - 132 kV Dhaligaon–Bornagar–Nathkuchi line.
    - 132 kV Dhaligaon–Gossaigaon line to support Agomoni substation integration.

Long-Term Measures:

1. Commissioning of 400/220 kV Rangia Substation:

- To be expedited with associated downstream strengthening.
- Target date: July 2026

2. Commissioning of 220/132 kV Agomoni/Gossaigaon Substations:
    - Including strengthening of downstream network.
    - Target date: December 2025

Discussion on weak infeed of rangia area of Assam Power System

S. No.	Name	Designation	Organisation	Contact No.	Signature
1)	Biswajit Sahu	CGM	NERLDC	9425409539	
2)	B. Bardoloi	DGM	AEGCL	9435558545	
3)	Pallab Roy	DM	AEGCL	8724914028	
4)	Nilkulpal Barman	AGM (SO)	AEGCL, SLDC	7002885719	
5)	Sushmita Das	JM (SO)	SLDC, AEGCL	9864956879	
6)	Barsha Kashyap	DM(SO)	SLDC, AEGCL	9706692773	
7)	Ananya Giri	Engineer	NERLDC	8730806573	
8)	Laxmi Prabha Das	Asst Manager	NERLDC	8794092007	
9.	[illegible]	[illegible]	〃	9436335377	
10.	Sachin Singh	Manger	〃	8826999191	
11	Sunil Singha	Manager	NERLDC	8414865865	
12	Debasish Choudhury	DGM(O),	AEGCL, SLDC.	94357 32546	
13	Sumit Kr. Singha	CEO, GEC-II	APDCL	98640-29246	
14	Diganta Deka	CEO, Rangia EC	APDCL	7002297834	
15	Rupul Nath	CEO, Barpeta EC.	APDCL	9365045585	4/4/25
16	Rajiv Kr. Gogoi	GM (PP&EM)	APDCL	98540-05595	04/04/25

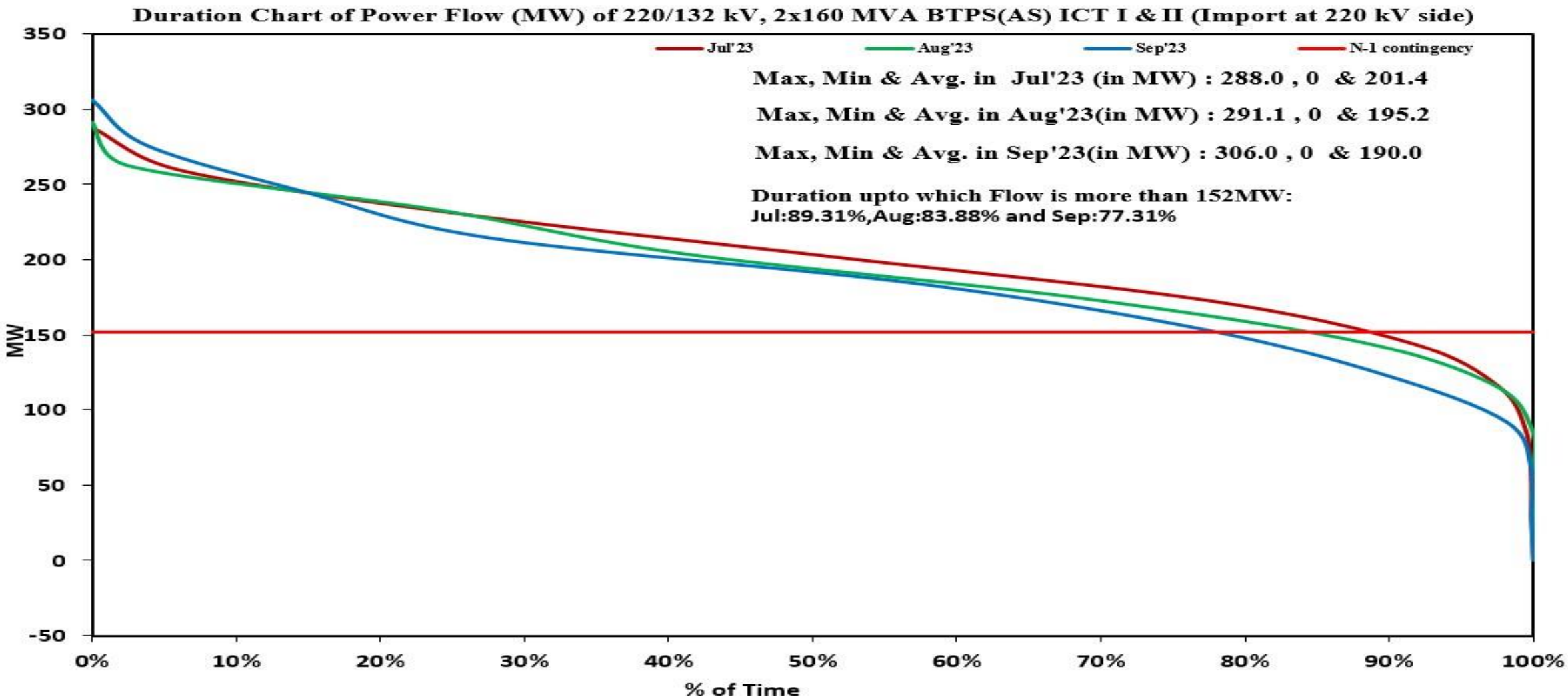
S.No	Name	Designation	Organisation	Contact No	Signature
17	INDRAJIT TAHBILDA	DGM (com)	APDCL	8761049486	
18.	Basabendu Dev Roy	AGM, Rangia ED	APDCL	9127054862	04.04.2025
18	Ubaidur Rahaman Mazumder	CGM(QS) + AR	APDCL	9435567761	
19	Tarali Deka	AGM (Tariff)	AEGCL	98649-81330	
20	Dipmoni Nath	AM (Tariff)	AEGCL	8011117343	
21	Angshuman Deb Roy.	AGM, Rangia Division	AEGCL.	95085-40444	
22	Devajyoti Patowary	DGM, AEGCL	AEGCL	7002216708	
23	M. Rahman	GM, AEGCL	AEGCL	70027 63718	

Weak Infeed to Rangia Area of Assam Power System

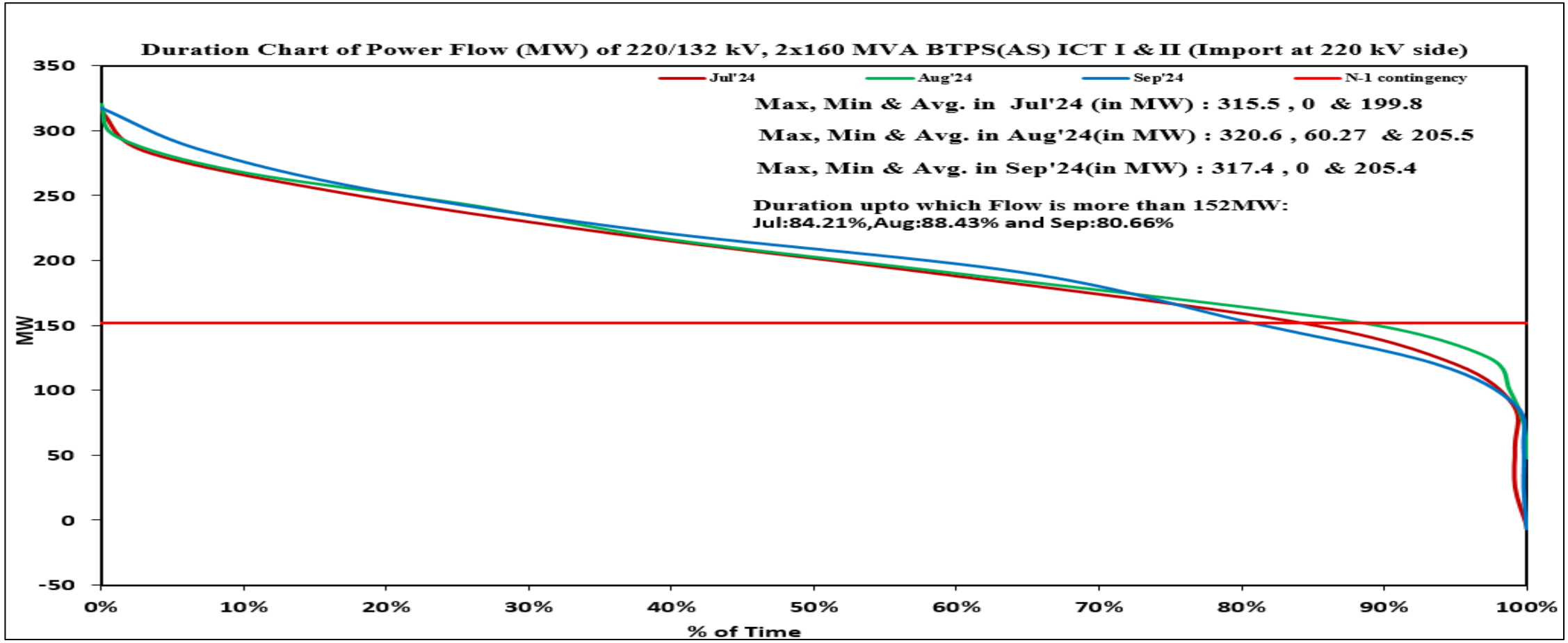
Issues in Rangia area of Assam power system

- Currently, the Rangia area of the Assam power system is primarily supplied through the 220 kV Rangia-BTPS D/C and the 132 kV Rangia-Montanga line. However, the loading on the 220 kV Rangia-BTPS D/C often does not comply with N-1 contingency requirements, particularly during peak demand periods. The tripping of any one circuit of the 220 kV Rangia-BTPS D/C could result in grid disturbances in the region
- Furthermore, a high loading of 84 MW was observed on the 132 kV Rangia-Montanga line, which is serious concern issues

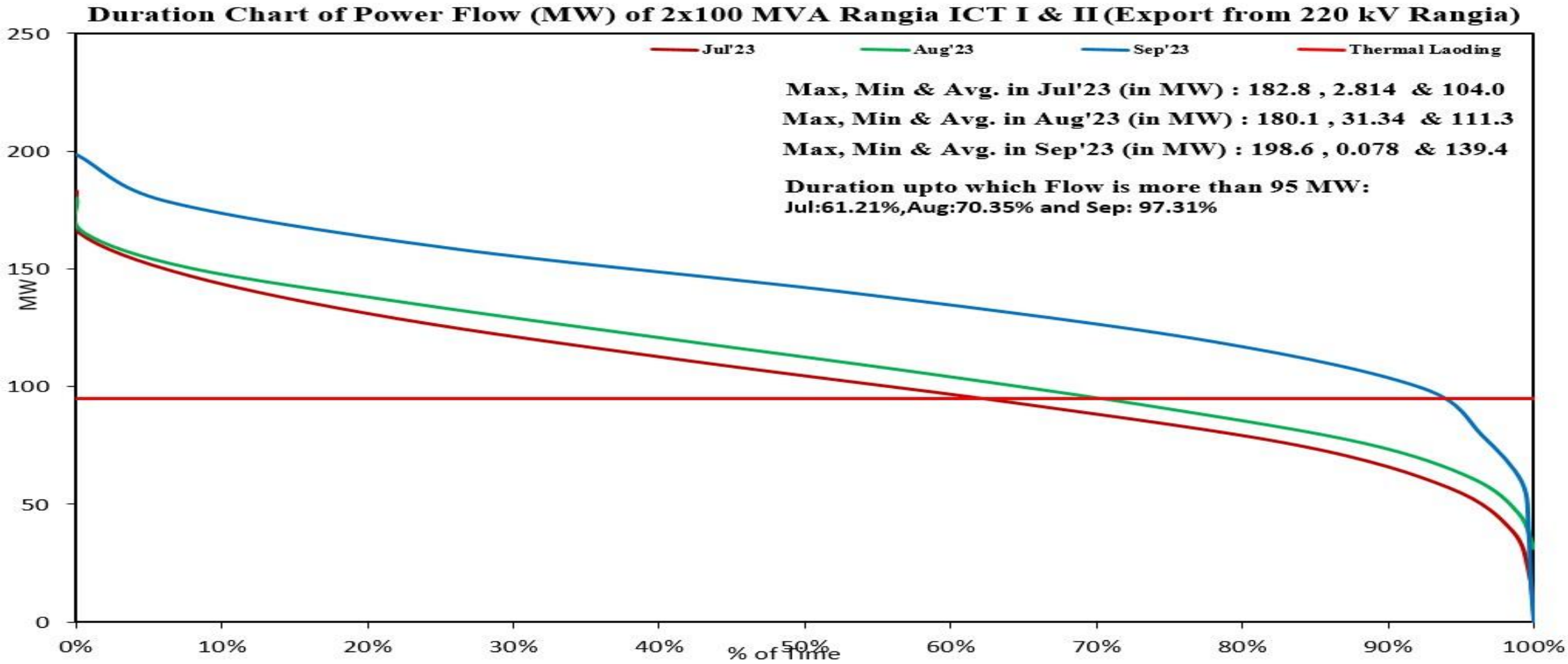
Loading of BTPS ICTs



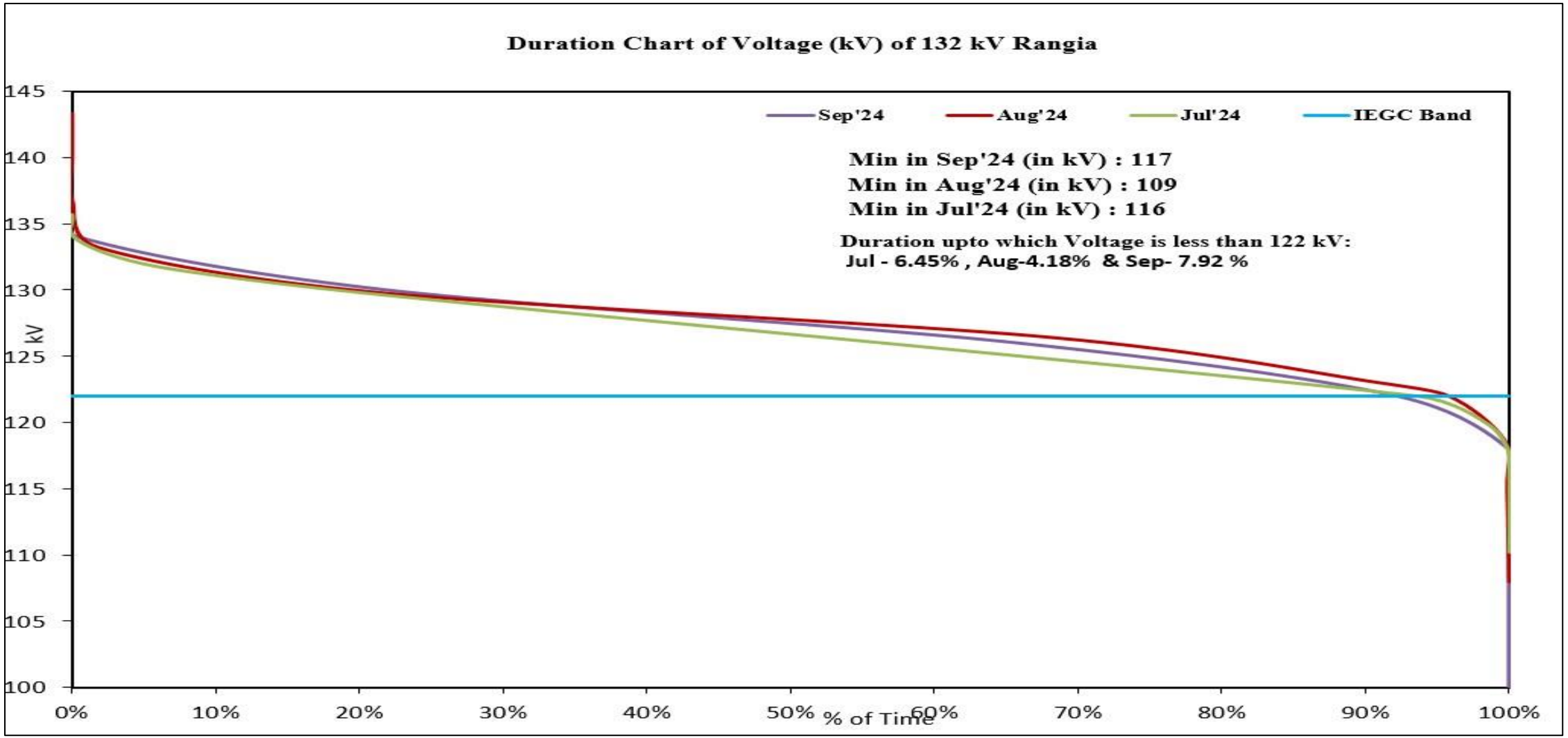
Loading of BTPS ICTs



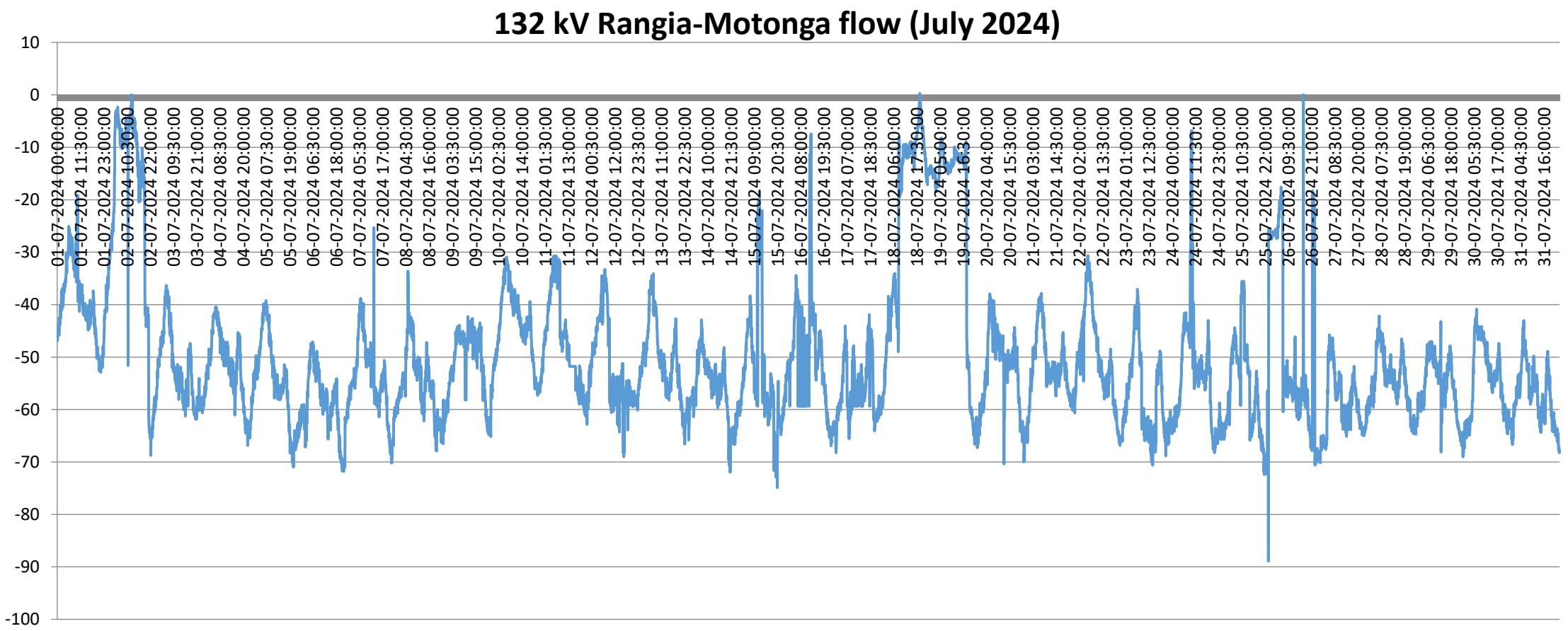
Loading of Rangia ICTs



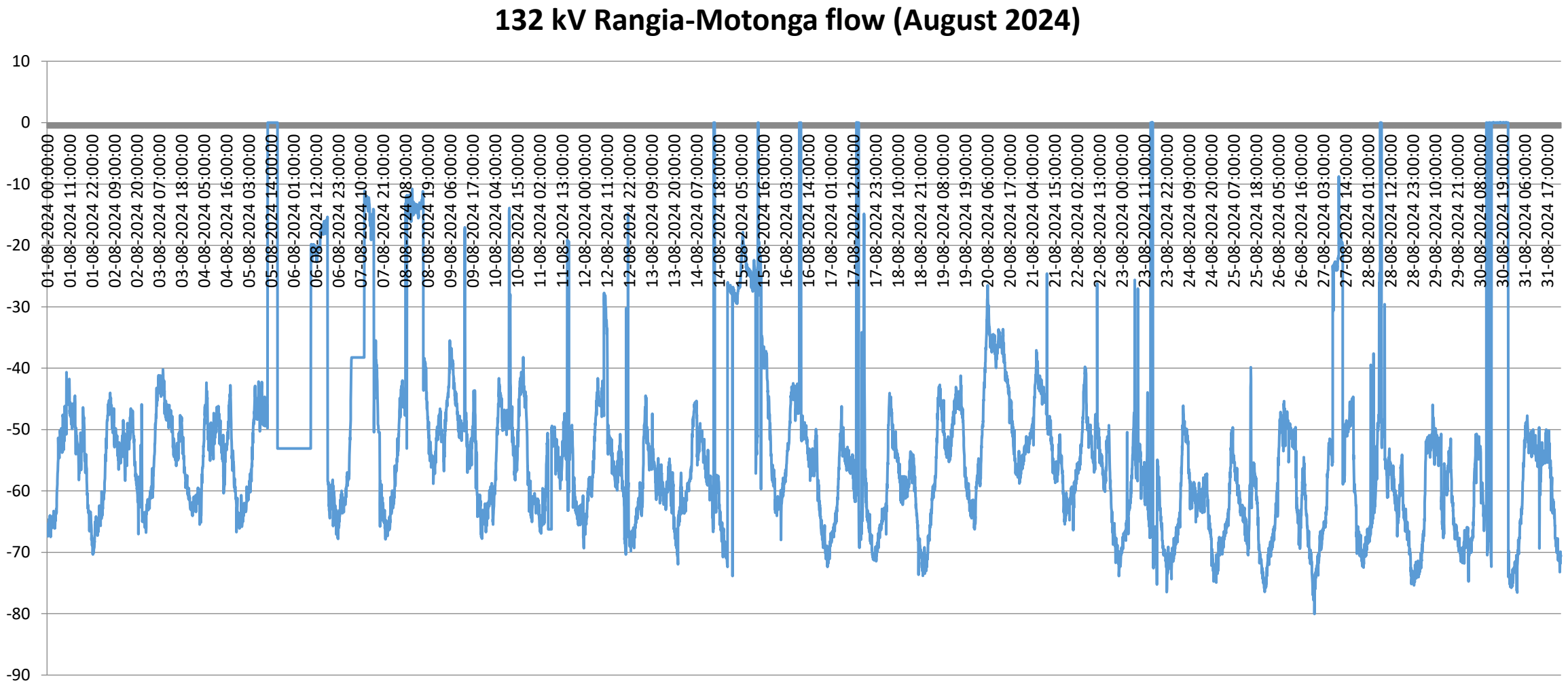
Voltage Profile of Rangia Bus



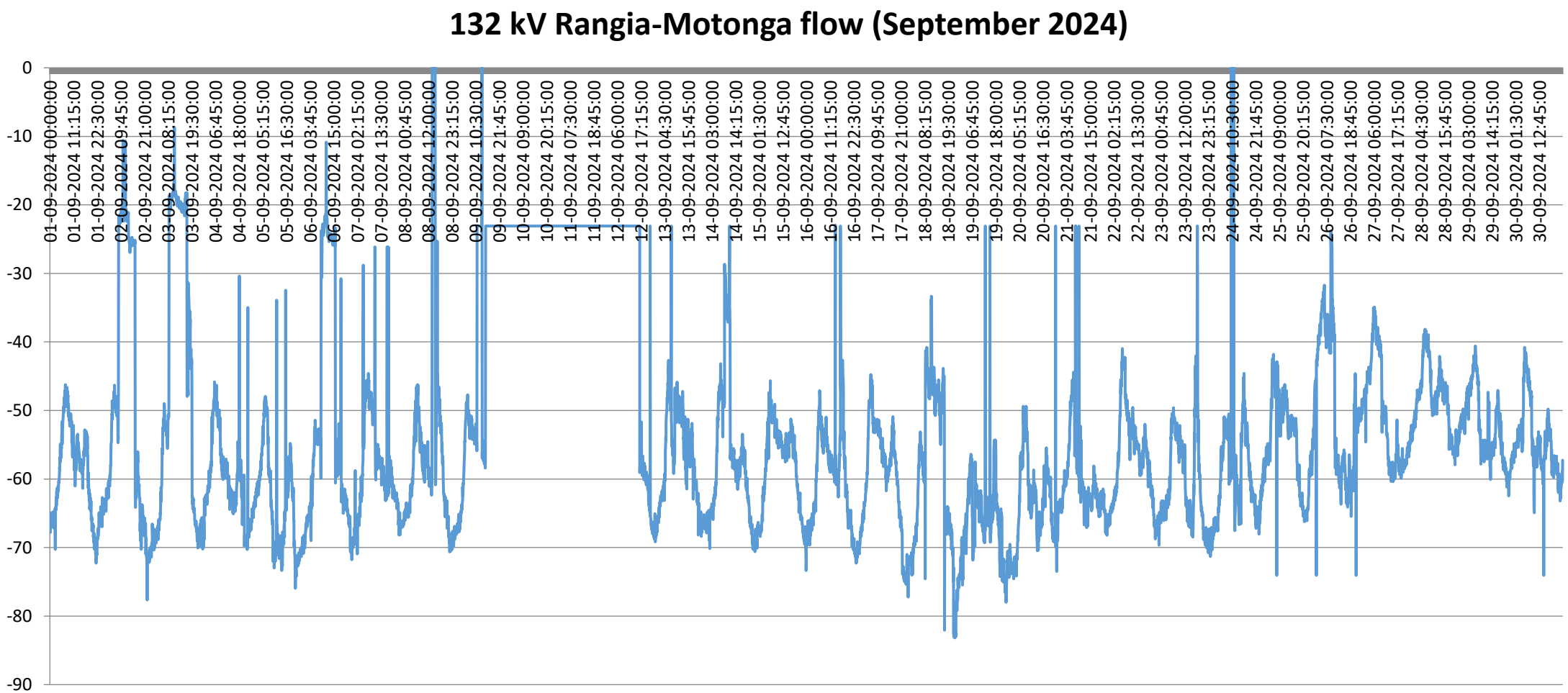
Loading Profile of 132 kV Rangia-Monttanga line-Juy24



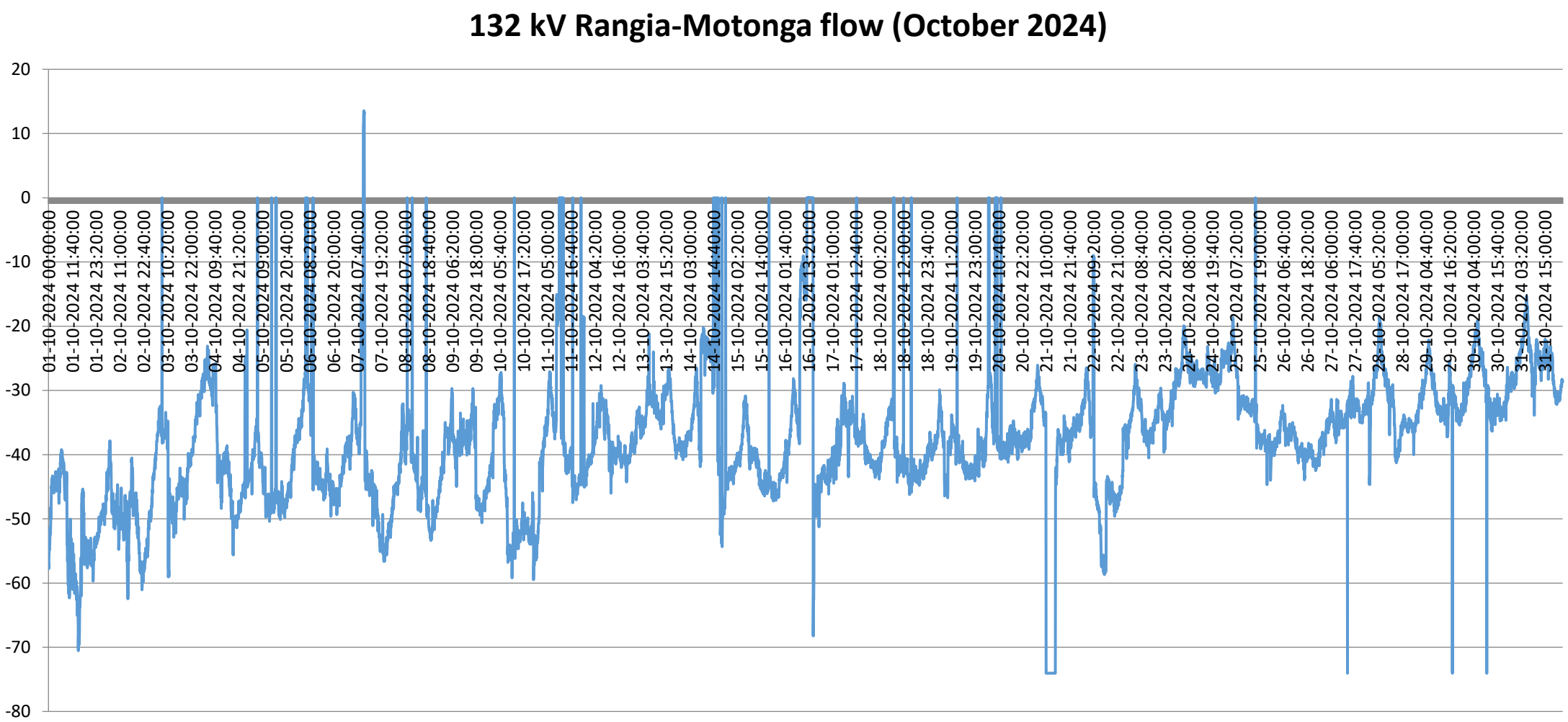
Loading Profile of 132 kV Rangia-Monttanga line-Aug24



Loading Profile of 132 kV Rangia-Monttanga line-Sep24



Loading Profile of 132 kV Rangia-Monttanga line-Oct24



Grading of Median FRP of Regional Control Areas for FY 2024-25

S.No	Date	Time	Region/Area	Generation/Load loss	BGTPP	Palatana	Doyang	Kameng	Khandong Stg-2	Kopili	Loktak	Panyor	Pare
1	3-Apr-24	5:30	WR_Chhatisgarh	-1235	0.77	-0.16	No Gen	1.19	No Gen	No Gen	0.53	No Gen	No Gen
2	6-Apr-24	11:24	NR_Rajasthan Renewable complex, Punjab and Uttar pradesh	4242	2.05	2.11	No Gen	0.08	-1.52	No Gen	0.58	No Gen	No Gen
3	19-Apr-24	10:28	NR_Rajasthan Renewable complex	1040	1.33	1.57	No Gen	11.32	No Gen	No Gen	-0.36	No Gen	No Gen
4	23-Apr-24	20:15	WR_APML Tiroda	1800	2.05	0.66	0.91	9.79	No Gen	4.67	1.92	3.97	-0.57
5	2-May-24	14:41	NR_Rajasthan Renewable complex	1840	9.31	2.12	No Gen	-5.71	5.49	5.42	-0.18	No Gen	No Gen
6	10-May-24	19:35	Khedar(RGTPS)	1071	5.30	6.77	0.68	3.97	-10.92	-5.46	-1.03	1.70	2.39
7	28-May-24	17:59	Gorai_Maharashtra_ WR	-1587	24.29	0.40	0.42	-0.67	0.07	7.97	34.62	-1.71	-0.93
8	4-Jun-24	10:26	NR_Rajasthan Renewable complex	1090	4.47	0.16	0.39	4.16	2.99	-1.26	0.63	0.06	0.32
9	4-Jun-24	10:34	NR_Rajasthan Renewable complex	1295	6.08	0.62	0.25	13.37	14.58	-3.06	1.85	7.15	-1.59
10	11-Jun-24	14:10	Delhi_NR	-1322	3.34	0.66	No Gen	0.23	-0.48	3.12	-0.61	1.63	No Gen
11	17-Jun-24	13:53	NR_WR_NER	-9725	1.08	0.00	No Gen	0.13	0.53	13.86	1.98	No Gen	No Gen
12	19-Jun-24	12:42	NR region	4480	3.42	3.41	No Gen	0.09	-1.62	4.62	0.30	No Gen	No Gen
13	16-Jul-24	22:10	Delhi and Haryana_NR	-1580	0.76	-0.25	0.42	0.48	0.27	23.22	-0.40	5.99	0.00
14	23-Aug-24	12:34	Tamil Nadu and RE Complex of Kayathar_SR	1200	7.34	-4.59	-0.74	0.24	-1.64	-0.31	-0.08	0.70	-0.53
15	13-Sep-24	13:15	Azmer,Azure 34_NR	850	-0.62	2.63	-0.27	0.18	10.13	4.39	32.51	No Gen	No Gen
16	21-Oct-24	16:49	DB Power_WR	1114	1.70	0.52	0.10	0.00	16.50	12.48	1.01	No Gen	No Gen
17	4-Jan-25	19:17	Barh_ER	1790	6.65	-6.22	-3.23	-5.12	-15.34	17.14	4.10	-9.90	6.99
18	20-Feb-25	16:20	GMR & JITPL, WR	1777	19.43	0.44	No Gen	-1.29	No Gen	48.68	-0.95	No Gen	No Gen
19	12-Mar-25	14:51	Maharashtra, Gujarat, KAPS generating station, WR	-2290	5.87	0.84	No Gen	No Gen	No Gen	No Gen	No Gen	7.23	No Gen
20	12-Mar-25	15:37	Maharashtra, Gujarat, WR	-1318	2.19	0.44	No Gen	No Gen	No Gen	No Gen	1.07	6.24	No Gen
	Median				**3.38**	**0.57**	**0.32**	**0.21**	**0.17**	**4.67**	**0.58**	**1.70**	**-0.26**
	Grading				**Excellent**	**Below Average**	**Poor**	**Poor**	**Poor**	**Excellent**	**Below Average**	**Excellent**	**Poor**

Grading of Median FRP of Regional Control Areas for FY 2024-25

S.No	Date	Time	Region/Area	Generation/Load loss	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	NER
1	3-Apr-24	5:30	WR_Chhatisgarh	-1235	5.79	0.18	NA	-9.57	5.49	2.09	0.38	1.05
2	6-Apr-24	11:24	NR_Rajasthan Renewable complex, Punjab and Uttar pradesh	4242	1.84	0.54	NA	-2.95	-0.38	1.61	-0.46	1.11
3	19-Apr-24	10:28	NR_Rajasthan Renewable complex	1040	-0.37	-0.01	NA	-1.18	4.10	0.34	2.97	2.38
4	23-Apr-24	20:15	WR_APML Tiroda	1800	4.92	1.78	NA	0.46	-5.39	-1.82	1.03	2.29
5	2-May-24	14:41	NR_Rajasthan Renewable complex	1840	0.30	3.67	NA	4.72	-7.27	-7.36	-0.59	2.56
6	10-May-24	19:35	Khedar(RGTPS)	1071	-10.37	-8.60	NA	1.75	1.04	6.09	0.47	-3.51
7	28-May-24	17:59	Gorai_Maharashtra_ WR	-1587	2.11	-0.11	NA	-3.58	3.14	3.68	1.54	3.61
8	4-Jun-24	10:26	NR_Rajasthan Renewable complex	1090	-4.46	1.07	NA	0.60	1.95	-0.97	-1.88	0.99
9	4-Jun-24	10:34	NR_Rajasthan Renewable complex	1295	-1.12	0.17	NA	-1.88	-9.57	-1.42	0.09	1.72
10	11-Jun-24	14:10	Delhi_NR	-1322	-1.78	1.12	NA	-1.30	1.03	1.67	0.63	0.76
11	17-Jun-24	13:53	NR_WR_NER	-9725	0.99	1.85	NA	0.32	0.79	1.47	2.18	1.30
12	19-Jun-24	12:42	NR region	4480	-0.16	-0.14	NA	-2.05	-0.18	0.39	-0.20	1.36
13	16-Jul-24	22:10	Delhi and Haryana_NR	-1580	14.79	1.42	NA	-3.09	-4.31	-5.28	0.47	1.20
14	23-Aug-24	12:34	Tamil Nadu and RE Complex of Kayathar_SR	1200	-4.01	-0.14	NA	1.53	6.84	3.68	-1.34	2.02
15	13-Sep-24	13:15	Azmer,Azure 34_NR	850	-1.04	0.20	NA	0.68	-0.85	0.24	-0.60	0.50
16	21-Oct-24	16:49	DB Power_WR	1114	0.92	-0.24	NA	1.89	-1.12	-15.97	-0.18	-0.49
17	4-Jan-25	19:17	Barh_ER	1790	2.83	1.41	NA	-4.09	5.06	4.58	-3.91	2.77
18	20-Feb-25	16:20	GMR & JITPL, WR	1777	14.07	1.32	NA	4.69	-0.55	-2.03	0.61	4.26
19	12-Mar-25	14:51	Maharashtra, Gujarat, KAPS generating station, WR	-2290	-3.00	0.89	NA	2.37	8.17	2.73	-0.19	1.09
20	12-Mar-25	15:37	Maharashtra, Gujarat, WR	-1318	-12.45	1.21	NA	7.29	4.00	1.76	0.76	1.41
	Median				**0.07**	**0.71**	**NA**	**0.39**	**0.91**	**0.93**	**0.23**	**1.33**
	Grading				**Poor**	**Below Average**	**NA**	**Poor**	**Good**	**Good**	**Poor**	**Excellent**