



### भारत सरकार Government of India विद्युत मंत्रालय Ministry of Power उत्तर पूर्वी क्षेत्रीय विद्युत समिति North Eastern Regional Power Committee

SPEED POST/FAX
Ph: 0364-2534039
Fax: 0364-2534040
email: nerpc@ymail.com
website: www.nerpc.gov.in

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

No.: No. NERPC/SE (O)/OCC/2025/ 4533-4575

March 13, 2025

### To <u>As per list attached</u>

Sub: 223वीं ऑपरेशन समन्वय उप-समिति (ओसीसी) बैठक का कार्यवृत्त / Minutes of 223rd Operation Coordination Sub-Committee (OCC) Meeting

महोदय/महोदया,

कृपया 28 फरवरी 2025 को शिलांग के एनईआरपीसी कॉन्फ्रेंस हॉल में आयोजित 223वीं ओसीसी बैठक के कार्यवृत्त को आपकी जानकारी और आवश्यक कार्रवाई के लिए प्राप्त करें। कार्यवृत्त NERPC की वेबसाइट: www.nerpc.gov.in पर भी उपलब्ध है।

कृपया कोई भी टिप्पणी जल्द से जल्द NERPC सचिवालय को सूचित करें।

Sir/Madam,

Please find enclosed herewith the minutes of the 223<sup>rd</sup> OCC Meeting held at NERPC Conference Hall, Shillong on 28<sup>th</sup> February 2025 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,

(ए. दे/ A. De)

उप निदेशक / Dy. Director

Encl: As above

### **Distribution List:**

- 1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati 781 001
- 2. Managing Director, APGCL, Bijuli Bhawan, Guwahati 781 001
- 3. Managing Director, APDCL, Bijuli Bhawan, Guwahati 781 001
- 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. GM (Transmission), TPTL, Bidyut Bhaban, Banamalipur, Agartala -799 001.
- 12. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar-791111
- 13. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar-791111
- 14. Chief Engineer (Commercial) -cum- CEI, DoP, Govt. of Arunachal Pradesh, Itanagar- 791111
- 15. Engineer-in-Chief, P&E Department, Govt. of Mizoram, Aizawl 796 001
- 16. Engineer-in-Chief, Department of Power, Govt. of Nagaland, Kohima 797 001
- 17. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
- 18. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
- 19. Group GM, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar-783369
- 20. Vice President (Plant), OTPC, Badarghat Complex, Agartala, Tripura 799014
- 21. ED, PGCIL/NERTS, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
- 22. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
- 23. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi 110066
- 24. Dy. COO, CTUIL, "Saudamini", 1st Floor, Plot No. 2, Sector-29, Gurugram, Haryana 122001
- 25. Chief Engineer, GM Division, Central Electricity Authority, New Delhi 110066
- 26. Chief Engineer, NPC Division, Central Electricity Authority, New Delhi 110066
- 27. ED, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
- 28. CGM, AEGCL, Bijuli Bhawan, Guwahati 781001
- 29. CGM, APGCL, Bijuli Bhawan, Guwahati 781001
- 30. CGM, DISCOM, Bijuli Bhawan, Guwahati 781001
- 31. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar 791111
- 32. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
- 33. Head of SLDC, MSPCL, Imphal 795001
- 34. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong 793 001
- 35. Head of SLDC, P&E Deptt. Govt. of Mizoram, Aizawl 796 001
- 36. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur 797103
- 37. Head of SLDC, TSECL, Agartala 799001
- 38. Chief Engineer (Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur-795124
- 39. DGM (O&M), OTPC, Badarghat Complex, Agartala, Tripura 799014
- 40. Director, NETC, 2C, 3rdFloor, D21Corporate Park, DMRC Building Sector 21, Dwarka, Delhi-77
- 41. AGM Regulatory & Commercial, NER II TL, 10th Floor, Berger Tower, Noida sector 16B-201301
- 42. Project Head, NERPSIP/PGCIL, Pub Suraj Nagar, Nutun Bazar, Kahelipara, Guwahati-781019
- 43. ED, Comprehensive Scheme (Ar. Pradesh), PGCIL, Tayeng Building, Nitivihar, Itanagar-791111

(ए. दे∕ A. De) उप निदेशक / Dy. Director



# OF 223<sup>RD</sup> OCC MEETING

Time of meeting: 10:30 Hrs.

Date of meeting: 28th February, 2025 (Friday)

Venue: NERPC Conference Hall, Shillong

### **Contents**

| 1 | . PA         | RT-A: CONFIRMATION OF MINUTES4   |
|---|--------------|--|
|   | 1.1.         | Confirmation of Minutes of $222^{\rm nd}$ Meeting of OCC Sub-Committee of NERPC 4  |
| 2 | . PA         | RT-B: ITEMS FOR DISCUSSION6  |
|   | AGE          | NDA FROM NERPC6  |
|   | 2.1.         | Outage planning6   |
|   | AGE          | NDA FROM NERLDC8   |
|   | 2.2.         | Operational Performance and Grid discipline during February 20258  |
|   | 2.3.         | 12th Basic Level Certification Examination for Power System Operators8   |
|   | 2.4.         | Mock Black Start of Units in compliance with IEGC9   |
|   | 2.5.<br>Fore | Sharing of Methodology of Day-Ahead/ week ahead/ Month ahead Demand casting  |
|   | 2.6.         | Urgent Review of Online Element Transfer at PLHPS10  |
|   | 2.7.         | Submission of Dynamic Model for ±800 kV MTDC Agra-BNC-Alipurduar12   |
|   | 2.8.         | Issues Identified During Recent Isolator Shifting activity   |
|   | 2.9.         | Status Update on Upcoming Elements and Their Impact on the NER Grid 14   |
|   | 2.10         | . Operational Planning and Resource Adequacy for March 202522  |
|   | 2.11         | . Procedure for Infirm Power Injection by Generators before COD22  |
|   | AGE          | NDA FROM POWERGRID23   |
|   | line i       | Requirement of outage for 400 KV D/C SILCHAR- P.K.BARI transmission for diversion works due to road widening of KUMARGHAT-KAILASHAHAR road HIDCL23   |
|   |              | Requirement of outage for 400 KV D/C SILCHAR- P.K.BARI transmission for balance work of vulnerable tower loc. 351 & 353  |
|   |              | . Replacement of existing Busbar Protection at NEEPCO, Kathalguri under SS-XV Project25  |
|   | Khaı         | Regarding objection by NEEPCO in Trial Operation of 132 kV Khliehriat – ndong-1 & Khandong-Kopili-1 TL after upgradation to HTLS along with CT acement at 132 kV Khliehriat (PG) & Khandong (NEEPCO)26 |
|   | 2.16         | Outage of 20 MVAr Bus Reactor at Aizawl S/s reg27  |
|   | AGE          | NDA FROM NETC28  |
|   |              | . NERPC Sub-group Report on the vulnerable tower locations of 400 kV D/C tana-Silchar Transmission Line of NETC  |
|   | AGE          | NDA FROM DOP AR. PRADESH29   |
|   | 2.18         | . Reconductoring of 132 kV Transmission Lines with HTLS Panther29  |
|   |              | Regional Capacity Building enhancements through overseas trainings under legis of NERPC with Central/DONER funding30   |
|   | 2.20         | . Issue with North East Regional Power system Improvement Project31  |

|   | 2.21.  | Mismatch between RTU-SCADA real time data and IEM data   | 32                                       |
|---|--|--|--|
| 3 | . PAI  | RT-C: METERING ITEMS   | 36                                       |
|   | 3.1.   | Procurement of SEMs for future requirements:   | 36                                       |
|   | 3.2.   | Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder:  | 39                                       |
|   | 3.3.<br>kv T/  | Issue in SEM data of 132 kV SM Nagar (TSECL) end of Palatana Fdr. (L charged at 132 kV):   |  |
|   | 3.4.   | Issue in receipt of data from 132 kV Tipaimukh S/S   | 41                                       |
|   | 3.5.   | Issue in Receipt of Data from Luangmual S/S  | 41                                       |
|   | 3.6.   | Issue in Receipt of Data data from Udaipur S/S:  | 42                                       |
|   | 3.7.<br>Dhar   | Receipt of SEM data from 132 kV Budhjungnagar, 132 kV Ambassa, 132 managar, 132 kV PK Bari & 132 kV SM Nagar (TSECL) Substations:  |  |
|   |  |  |  |
| 4 | . PAI  | RT-D: ITEMS FOR UPDATE/FOLLOW-UP   | 44                                       |
| 4 | • <b>PAI</b> 4.1   | RT-D: ITEMS FOR UPDATE/FOLLOW-UP  Implementation/Review of Islanding schemes of NER:   |  |
| 4 |  |  | 44                                       |
| 4 | 4.1  | Implementation/Review of Islanding schemes of NER:   | 44<br>51                                 |
| 5 | <ul><li>4.1</li><li>4.2</li><li>4.3</li></ul>                    | Implementation/Review of Islanding schemes of NER:  Automatic Under Frequency Load shedding (AUFLS) scheme of NER:   | 44<br>51<br>54                           |
|   | 4.1<br>4.2<br>4.3<br>• PAI                                       | Implementation/Review of Islanding schemes of NER:  Automatic Under Frequency Load shedding (AUFLS) scheme of NER:  Long Outage of NER State Generator and transmission lines:   | 44<br>51<br>54<br><b>57</b>              |
|   | 4.1<br>4.2<br>4.3<br>• PAI<br>5.1 In<br>5.2 S                    | Implementation/Review of Islanding schemes of NER:  Automatic Under Frequency Load shedding (AUFLS) scheme of NER:  Long Outage of NER State Generator and transmission lines:   | 44<br>51<br>54<br><b>57</b><br>57        |
|   | 4.1<br>4.2<br>4.3<br>• PAI<br>5.1 In<br>5.2 S<br>system          | Implementation/Review of Islanding schemes of NER:  Automatic Under Frequency Load shedding (AUFLS) scheme of NER:  Long Outage of NER State Generator and transmission lines:  RT-E: ITEMS FOR STATUS  Inplementation of projects funded from PSDF:  Itatus update of important grid elements under prolonged outage impact             | 44<br>51<br>54<br>57<br>57<br>ting<br>59 |
|   | 4.1<br>4.2<br>4.3<br>• PAI<br>5.1 In<br>5.2 S<br>system<br>5.3 S | Implementation/Review of Islanding schemes of NER:  Automatic Under Frequency Load shedding (AUFLS) scheme of NER:  Long Outage of NER State Generator and transmission lines:  RT-E: ITEMS FOR STATUS  Inplementation of projects funded from PSDF:  Itatus update of important grid elements under prolonged outage impacts operation: | 44<br>51<br>57<br>57<br>ting<br>59<br>60 |

### NORTH EASTERN REGIONAL POWER COMMITTEE

MINUTES OF 223RD OCC MEETING TO BE HELD ON 28.02.2025 (FRIDAY) AT 10:30 HRS

List of Participants is attached as annexure I

### 1. PART-A: CONFIRMATION OF MINUTES

### 1.1. Confirmation of Minutes of 222<sup>nd</sup> Meeting of OCC Sub-Committee of NERPC

The minutes of 222<sup>nd</sup> meeting of OCC Sub-committee held on 17.01.2025 at NERLDC Conference Hall, Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2025/ 3794-3836 dated 27<sup>th</sup> January, 2025.

### NERLDC provided comments on minutes of 222nd OCCM as follow -

#### 2.8. Multiple Grid constraints in Assam Power system:

NERLDC comments may be added as

The ED NERLDC highlighted concerns regarding multiple grid constraints in the Assam power system, emphasizing that several areas are highly vulnerable to grid disturbances under N-1 contingency conditions. To address this issue, he urged the RPC forum to organize a summer preparedness workshop or meeting aimed at minimizing the risk of grid disturbances. The forum acknowledged the concerns and agreed to proceed with the proposed initiative.

### 2.15. Philosophy and logic for FSC auto switching and auto disconnection in 400 kV Bongaigaon-Balipara 3 &4 at 400 kV Balipara S/S

#### NERLDC comments may be added as

NERLDC has reviewed the documents shared by PGCIL and raised concerns regarding the operation criteria outlined in the document. It requested NERPC to examine the matter, as the document indicates that the Fixed Series Compensation (FSC) is to be manually brought into service but automatically bypassed/isolated from the grid, which appears to violate the grid operation protocols specified in the Operating Code of IEGC 2023.

NERLDC emphasized that any operation of the FSC must be carried out only after exchanging the necessary code with NERLDC control room to ensure compliance with established grid protocols.

#### 3.1. Issue in SEM data of 132 kV Dharmanagar end of Dullavcherra Feeder

Along with the comments provided by NERLDC stated in the deliberation, the following comments may be added.

NERLDC also requested Tripura to look into the possibility for replacement of 5A CT Secondary with 1 A CT secondary. Tripura would look into the same and intimate.

### 3.2 Issue in SEM data of 132 kV SM Nagar (TSECL) end of Palatana Fdr. (400 kV T/L charged at 132 kV):

Following point also discussed and may be added.

If resolution is not feasible, Tripura shall revert back to original configuration for existing LnT SEM meter.

### 3.4 Issue in Receipt of Data from Luangmual S/S

"Manipur" may be replaced with "Mizoram"

### 3.7. Metering Philosophy used in NERLDC for energy accounting:

Annexure-C 3.7 may be changed with the attachment provided along with the comments.

The Month-Ahead Resource Adequacy Assessment for February 2025 was also discussed during the  $222^{nd}$  OCC meeting. It is requested to include the assessment report in the final minutes

Sub-committee noted the comments of NERLDC and confirmed the minutes of  $222^{nd}$  OCCM after incorporating the comments.

### 2. PART-B: ITEMS FOR DISCUSSION

### AGENDA FROM NERPC

### 2.1. Outage planning

### I. Generation Planning (ongoing and planned outages)

a. Based on the reservoir level data provided by NEEPCO and NHPC, present day MU and projected number of days of operation are tabulated below -

| Plants                              | Reservoir Level<br>in meters (as on<br>28/02/2025) | MU<br>Content | Present DC<br>(MU) | No of days as<br>per current<br>Generation |
|-------------------------------------|--|---------------|--------------------|--|
| Khandong<br>+<br>Khandong<br>STG II | 716.63   | 21.93         | Under<br>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 generating stations may be approved considering the present water levels in reservoirs.

- b. CEA has approved the generation outage plan for FY 2025-26. The outage plan for NER is attached as **annexure 2.1**. 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.
- c. The Annual Shutdown of Palatana Block-2 planned for FY 25-26 in June 2025, please note that the HGPI of Gas Turbine #2, the medium inspection of Steam Turbine Generator #2 and Gas Turbine Generator #2, and the minor inspection of Steam Turbine #2 are scheduled to

begin on 25th June 2025, lasting for 21 days. Forum deliberate upon it and all the beneficiaries may take note of it

### II. Outage Planning of Transmission elements

As per the Outage planning procedure of NER, the monthly planned outages have to be discussed in the monthly outage planning meeting or OCC meeting. Also, according to the procedure, 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 6<sup>th</sup> of the month to 12:00 hrs. of 7<sup>th</sup> 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 March 2025.

Sub-committee may deliberate upon the planned shutdowns for the month of March'25.

### Deliberation of the sub-committee

NERPC apprised that the shutdown proposal for the month of March had been discussed in monthly shutdown discussion meeting held on 25.03.2025 and the list of approved shutdowns has been attached as annexure 2.1.1.

Further NERPC informed that some states had not joined the meeting and therefore their shutdown proposal had not been considered.

Regarding the generation outage plan for FY 2025-26, MS NERPC apprised that CEA has approved the plan and exhorted the generators to adhere to the approved shutdown plan.

Regarding outage request of Palatana block 2 the forum noted that the proposed shutdown schedule is deviating from the CEA approved one. OTPC stated that the deviation has been caused due to the availability issues w.r.t. expert manpower from GE & BHEL, special tools & tackles and Spares for Gas turbine and Steam turbine maintenance.

MS NERPC stated that CEA has already approved the generation outage plan. If there is slight deviation, it can be discussed in the forum and to be approved after taking consent from the beneficiary and it will be intimated to CEA.

### AGENDA FROM NERLDC

### 2.2. Operational Performance and Grid discipline during February 2025

NERLDC presented the Operational Performance and Grid Discipline Report for the month of February 2025, which is attached as **annexure 2.2**.

#### Sub-committee noted the above

### 2.3. 12th Basic Level Certification Examination for Power System Operators

As per the CEA's Statutory Guidelines for Training and Certification of Load Dispatchers, it is mandatory for all employees working in the Control Room to hold a valid Basic Level Power System Operation Certification.

In this regard, NPTI (PSTI), Bangalore, will conduct the 12th Basic Level Certification Examination for Power System Operators on March 30, 2025, from 09:00 to 11:30 hours at various locations across the country.

This is for general information to all Power System Operators of NER to take the Basic Level Certification Examination.

### Deliberation of the sub-committee

The forum urged all the states to undertake the examination for the system operators to ensure availability of qualified manpower to man the control rooms of SLDCs and ensure compliance with MoP/CEA guidelines.

### 2.4. 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:

| S1. | Name of Power station | Date of Mock exercise     |
|-----|-----------------------|---------------------------|
| No. |                       |                           |
| 1   | AGBPS GTG 4           | 14-05-2024                |
| 2   | Kopili Unit 1, 3 & 4  | 30-05-2024 (U 1) & 05-06- |
|     | mopin ome 1, o a 1    | 2024 (U 3 & 4)            |
| 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:

| S1. | Name of Power   | Last date of Mock | Expected date of |
|-----|-----------------|-------------------|------------------|
| No. | station         | exercise          | Mock exercise    |
| 1   | Doyang HEP      | 12-05-2023        | Feb/March'25     |
| 2   | Khangdong Stg-2 | -                 | Feb/March'25     |
|     | HEP             |                   |                  |
| 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 | -          | Feb/March'25 |

### Sub-committee may deliberate

The forum exhorted the generating plants (mentioned in the table above) to carry out the MBS exercise by March'2025.

### 2.5. Sharing of Methodology of Day-Ahead/ week ahead/ Month ahead Demand Forecasting

As per deliberation in Agenda Item 2.4 of 222<sup>nd</sup> OCC meeting held on 17<sup>th</sup> January 2025, all the NER SLDC's were requested to review the respective methodology of the states for demand forecasting in Day-Ahead/ week ahead/ Month ahead Demand Forecasting horizon.

In view of the above, it is requested to accept the draft methodology. Further, proper analysis of the methodologies is requested for a more reliable demand forecast. The relevant methodology is attached in **Annexure 2.5**. A handholding session will also be organized to help increase familiarity with the forecasting methodologies.

#### Deliberation of the sub-committee

NERLDC apprised that a workshop on the methodology will be organised on 26 March at NERLDC, Guwahati. The forum urged all the Discoms and SLDCs to actively participate in the workshop.

### 2.6. Urgent Review of Online Element Transfer at PLHPS

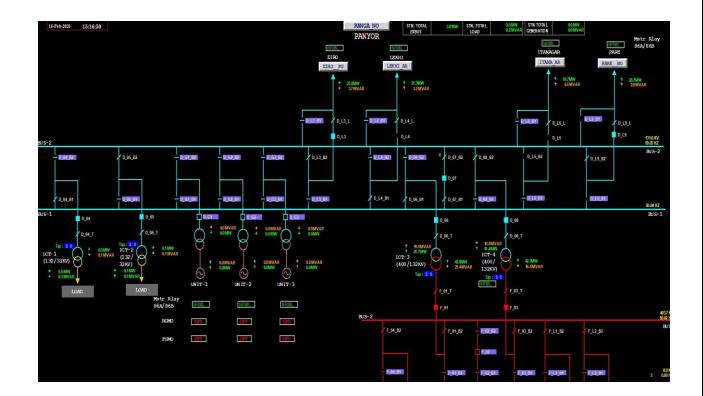
The Bus Scheme of PLHPS at the 132 kV level is a Double Main scheme, as confirmed via email. In this type of bus arrangement, the online transfer of elements from one bus to another can be performed seamlessly without any interruption in power flow.

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.



### Deliberation of the sub-committee

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. The status update on this issue may be followed up in the upcoming OCC meeting.

### 2.7. 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. Letter enclosed in **Annexure 2.7**.

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.

We kindly request you to submit the model at the earliest to facilitate these studies effectively.

#### Deliberation of the sub-committee

NERTS stated that the matter has to be taken up with the corporate office and the same will be done shortly.

### 2.8. Issues Identified During Recent Isolator Shifting activity

### During the recent isolator shifting activities following measure issues were identified

- 1. Hotspots were detected at the 132 kV SM Nagar Substation and 132 kV PK Bari Substation after shifting the element from one bus to another. Due to this, the utility was advised to revert to the original configuration. The activity was carried out on 10th January 2025.
- 2. During bus shifting at 220 kV Balipara station, it was noted that the shifting of the 220 kV Balipara-Sonabil Line-2 was not completed. This was due to an alignment issue with the 220 kV Bus-1 Isolator. The activity took place on 18th December 2024.
- 3. Additionally, Power Grid has expressed issues to proceed with the shifting at multiple substations: PGCIL may clarify the reason.

### Deliberation of the sub-committee

Regarding point no. 1, M/s NTL (Indigrid) informed that hotspots occurred due to isolator alignment issues at both substations and the issues have bene rectified now.

Regarding point no. 2, NERTS informed that the concerned bays are maintained by AEGCL. AEGCL stated that they will look into the matter and will reply shortly to NERLDC.

Regarding point no.3, NERTS apprised that they undertake shifting exercises regularly every year. Further, he requested NERLDC to provide the scheduled dates for such exercise beforehand.

### 2.9. Status Update on Upcoming Elements and Their Impact on the NER Grid

Multiple elements have been approved by CTU and CEA for integration into the NER Grid based on future system studies. These additions are expected to enhance the overall reliability and stability of the grid.

A detailed list of these elements has been compiled in the table below. We request all utilities to provide the current status and estimated targets of these elements. Timely updates and completion of the project will help ensure a smooth and efficient integration process, contributing to the strengthening of overall NER Grid.

| S1.<br>No. | Name of elements   | State/States | Impact   |
|------------|--|--------------|--|
|            | 400 kV elements  |              |  |
| 1          | LILO of one D/c (ckt-1 & ckt-2 of line-1) of Lower Subansiri – Biswanath Chariali 400kV (Twin Lapwing) 2xD/c lines at Gogamukh S/s | Assam        | This will significantly improve the power transmission capability of the Assam and  Arunachal Pradesh (AP) systems. Arunachal Pradesh will benefit from additional connectivity via the Gogamukh side, ensuring a more reliable power supply to the southeastern part of its |

|   |                                |         | network. This              |
|---|--------------------------------|---------|----------------------------|
|   |                                |         | development is expected to |
|   |                                |         | result in an approximately |
|   |                                |         | 80 MW increase in the      |
|   |                                |         | Total                      |
|   | 1. Establishment of            |         |                            |
|   | Gogamukh 400/220/132 kV        |         |                            |
|   | substation                     |         |                            |
|   | 2. 400/220kV, 2x500MVA         |         |                            |
|   | ICTs alongwith associated ICT  |         | Transfer Capability (TTC)  |
| 2 | bays at both levels            | Assam   | of AP and Assam system     |
| 4 | 3. 220/132kV, 2x200MVA         | Assaili | _                          |
|   | ICTs alongwith associated ICT  | -       | will improve.              |
|   | bays at both levels            |         |                            |
|   | 4. 420kV, 2x125MVAr bus        |         |                            |
|   | reactor along with associated  |         |                            |
|   | bays                           |         |                            |
|   | Installation of a new 420 kV,  |         |                            |
|   | 1x125 MVAr bus reactor at      |         |                            |
|   | Bongaigaon (POWERGRID)         |         | around 3 kV Voltage        |
| 3 | S/s in one of the vacated bays | Assam   | change observed at         |
|   | after decommissioning of       |         | Bongaigaon                 |
|   | above mention 420kV,           |         |                            |
|   | 2x50MVAr bus reactors          |         |                            |
|   | One of the existing 2x80 MVAr  |         |                            |
|   | bus reactors (presently        |         |                            |
|   | installed in parallel in same  |         | Consorth assistables of    |
| 4 | bay) may be installed at       | - Assam | Smooth switching of        |
| 4 | Bongaigaon (POWERGRID)         |         | Reactors without any       |
|   | S/s in other vacated bay after |         | interupting any elements   |
|   | decommissioning of above       |         |                            |
|   | mentioned 420 kV, 2x50         |         |                            |

|   | MVAr bus reactors   |         |   |
|---|---|---------|---|
|   | Decommissioning of existing   |         |   |
| 5 | 420kV, 50MVAr (bus reactor- 1) and installation of new 420kV, 125MVAr bus reactor in its place along with replacement of associated main and tie bay equipment at Balipara (POWERGRID) S/s.                   | Assam   | around 3 kV Voltage<br>change observed at<br>Bongaigaon                               |
| 6 | Installation of new 420 kV, 1x125 MVAr, 3-Ph Variable Shunt Reactor (VSR) having variable range from 63MVAr to 125MVAr (with at least 25 tap positions) along with associated GIS bay at Misa (POWERGRID) S/s | Assam   | around 3-kV Voltage<br>change observed at Misa  |
| 7 | Establishment of new 400kV switching station (to be upgraded to 400/220kV level in future) at Bokajan in Assam  | Assam   | Bokajan S/S is a pooling<br>station for 750 MW solar<br>Project developed by<br>AEGCL |
| 8 | LILO of both circuits of Misa<br>(POWERGRID) – New Mariani<br>(POWERGRID) 400kV D/c line<br>at Bokajan  | Assam   | Bokajan S/S is a pooling<br>station for 750 MW solar<br>Project developed by<br>AEGCL |
| 9 | Shifting of Palatana – Surajmaninagar (TSECL) 400 kV D/c line (operated at 132 kV) to the 400/132 kV ISTS S/s at Surajmaninagar so as to form Palatana – Surajmaninagar (ISTS) 400 kV                         | Tripura | Improve the reliability of Palatana generation  |

|    | D/c line and its operation at 400 kV (24 ckm)   |            |  |
|----|---|------------|--|
| 10 | LILO of Palatana – Surajmaninagar (ISTS) 400 kV D/c line at 400/132 kV Surajmaninagar (TSECL) S/s along with associated 4 no. 400kV linebays (12 ckm) - In matching timeframe of upgradation of 400/132kV Surajmaninagar (TSECL) substation | Tripura    | Improve the reliability of Palatana generation   |
| 11 | LILO of both circuits of<br>Bongaigaon – Balipara 400kV<br>D/c (Twin Moose) line at<br>Rangia   | Assam      | Around 200 MW increase in TTC of Assam   |
| 12 | LILO of Silchar (PG) – Byrnihat<br>(MePTCL) 400kV S/c line at<br>Sonapur  | Assam      | Around 150 MW increase in TTC of Assam   |
|    | 220 kV Elements   |            |  |
| 1  | Kathalguri (NEEPCO) –<br>Namsai (POWERGRID) 220kV<br>D/c line (150ckm)  | Assam & AP | This will significantly improve the reliability of Assam and Arunachal Pradesh (AP) systems. |
| 2  | Bihpuria – Gogamukh 220kV<br>D/c line (line to be<br>implemented by AEGCL)  | Assam      | Around 60 MW increase in TTC.ATC of Assam. 10  |
| 3  | Rowta (New)-Rangia (New)<br>220kV D/c Line (Single zebra)-<br>80 km   | Assam      | Reliable power supply to Rowta, Depota and Ghoramaris Area of Assam powers system            |

| 4 | LILO of both ckt of Alipurduar (PGCIL) - Bongaigaon (PGCIL) D/C line at Gossaigaon(AEGCLNew)   | Assam    | Minimum 100 MW increase in TTC of Assam.  The Assam can draw more power from Agimoni side based on the development of downstream network.  |
|---|--|----------|--|
| 5 | 220 kV New Kohima-<br>Mokokchung (PG) S/C via<br>Workha  | Nagaland |  |
| 6 | LILO of one ckt of Misa-<br>Dimapur 220kV D/c at<br>Tsitrongse (60km loop-in and<br>60km loopout)  | Nagaland | Significantly improve the reliability of Dimapur of  Nagaland systems.  Minimum 80 MW increase in TTC/ATC of Nagaland.  The Improvement in drawl capbility will depends on downstream devlopment.  This will improve the |
| 7 | ICT at Rangia from 100 MVA to 220 MVA  | Assam    | drawl capability of Rangia Area of Assaam Power system.  |
|   | 132 kV elements  |          |  |
| 2 | Stringing of 2nd circuit of Pasighat (Arunachal Pradesh)  - Roing (POWERGRID) 132kV S/c on D/c line with ACSR Panther conductor- 103km  Stringing of 2nd circuit of Roing (POWERGRID) - Tezu (POWERGRID) 132kV S/c on D/c line with ACSR Panther |          | Significantly improve the reliability of Arunachal Pradesh (AP) systems.20-25Mincrease in TTC/ATC of Arunachal Pradesh.  |
|   | conductor- 73km  |          |  |

| 3 | Stringing of 2nd circuit of Tezu (POWERGRID) – Namsai (POWERGRID) 132kV S/c on D/c line with ACSR Panther conductor- 95.24km  | АР         |   |
|---|---|------------|---|
| 4 | Gogamukh (ISTS) –<br>Gerukamukh (Arunachal<br>Pradesh) 132kV ACSR Zebra<br>D/c line   | Assam & AP | Significantly improve the reliability of Arunachal Pradesh (AP) systems.80 MW increase in TTC/ATC of Arunachal Pradesh. |
| 5 | Upgradation of existing 132kV<br>Namsai (POWERGRID) S/s to<br>220kV (with 220kV side as<br>GIS) with 2x160 MVA ICTs   | AP         |   |
| 6 | Reconductoring of Khandong (NEEPCO) – Halflong (POWERGRID) 132 kV S/c line [excluding the LILO portion of this line at Umrangshu (AEGCL) S/s, which is owned by AEGCL] with Single HTLS conductor of ampacity 600A (at nominal voltage level) (63.06km) | Assam      | Improvement in reliability of Assam & Meghalaya po  |
| 7 | Reconductoring of Halflong (POWERGRID) – Jiribam (POWERGRID) 132kV S/c line with Single HTLS conductor of ampacity 600A (at nominal voltage level) (100.63km)   | Assam      | Improvement in reliability of Assam power system.   |

| 8  | LILO of one ckt of North<br>Lakhimpur – Dhemaji at<br>132kV Gogamukh (LILO to be<br>implemented by AEGCL   | Assam     | Improvement in reliability and drawl cpability of Assam power system.                        |
|----|--|-----------|--|
| 9  | Reconductoring of Loktak (NHPC) – Imphal (POWERGRID) 132 kV S/c line with HTLS conductor with Ampacity of single HTLS as 800A (at nominal voltage) along with strengthening of associated structure in NHPC switchyard, if necessary. (36.60ckm) | Manipur   | Improvement in reliability of Manipur power system.  |
| 10 | Replacement of existing CT of 600-400-200/1A at Loktak HEP end in Loktak – Imphal 132kV S/c line with rating commensurate with ampacity (800A) of HTLS conductor.  | Manipur   | Full capacity of 132 kV Imphal-Loktak can be utilised after reconuctoring of line with HTLS. |
| 11 | Upgradation of Single Main and Transfer Bus to Double Bus arrangement with GIS at 132kV Khliehriat (POWERGRID) switching station   | Meghalaya | Improvement in reliability of Meghalaya power system.  |
| 12 | Reconductoring of Melriat (GIS) (POWERGRID) – Zuangtui (Mizoram) 132 kV ACSR Panther S/c line with Single HTLS conductor of  | Mizoram   | Improvement in reliability of Mizoram power system.  |

|    | 900A (at nominal voltage level) (10.19ckm)   |           |   |
|----|--|-----------|---|
| 13 | Reconductoring of ISTS portion of Dimapur (POWERGRID) – Dimapur (DoP, Nagaland) 132kV (ckt-2) ACSR Panther S/c line with Single HTLS conductor of 800A – 0.335km | Nagaland  | Significantly improve the reliability of Nagaland   |
| 14 | Reconductoring of ISTS portion of Dimapur (POWERGRID) – Kohima (DoP, Nagaland) 132kV ACSR Panther S/c line with Single HTLS conductor of 800A – 0.335km.         | Nagaland  | systems.80 MW increase in TTC/ATC of Nagaland.  |
| 15 | 132 kV Rabindranagar-Rokhia  | Tripura   | Significantly improve the   |
| 16 | 132kV Nangalbibra (ISTS) –<br>Nangalbibra (MePTCL) D/c   | Meghalaya | reliability of Tripura systems.30 MW increase in TTC/ATC of Tripura.                              |
| 17 | 132 kV Monarchak-SM Nagar<br>D/C   | Tripura   | Significantly improve the reliability of Tripura systems.30 MW increase in TTC/ATC of Tripura.    |
| 18 | 132 kV Balipara-Misamari<br>D/C  |           | Relieve congestion in 220 kV Balipara-Sonabil D/C. Improve drawl capbility of Assam power system. |
| 19 | Reconductoring of TPTL portion of 132 kV SM Nagar (ISTS) – SM Nagar (TPTL) D/C line with HTLS conductor of   |           | Significantly improve the reliability of Tripura  |

### Deliberation of the sub-committee

Forum requested the concerned utilities to provide the updates through email to NERPC and NERLDC.

### 2.10. Operational Planning and Resource Adequacy for March 2025

The Operational Planning and Resource Adequacy assessment for March 2025 is attached for review and comments.

### **Action Required:**

- All utilities are requested to review the assessment and provide any necessary inputs or observations.
- Kindly share your feedback at the earliest to ensure comprehensive planning.

### Deliberation of the sub-committee

Forum urged all the state utilities to review the report and provide inputs and also take necessary measures to ensure resource adequacy in the state for the month of March'25.

Further, NERLDC apprised the forum that NLDC has prepared the Resource adequacy assessment report for the FY 2025-26 and requested the states to provide comments on the same.

### 2.11. Procedure for Infirm Power Injection by Generators before COD

NERLDC presented the draft procedure for injection of infirm power by generators before COD in 221st OCC meeting. NEEPCO and NTPC opined that submission of intimation for injection of infirm power before COD 30 days prior is difficult subject to unexpected grid scenarios. The forum opined that generator can submit a tentative intimation 30 days prior and the final intimation to be shared in requisite format 15 days advance. The same has been included in the procedure (attached as **Annexure-2.11**).

The forum also advised all the stake holders to go through the draft procedure prepared by NERLDC and share the comments (if any) within 2 weeks. However, no comments have been received from NER stakeholders.

The procedure for injection of infirm power by generators before COD may be approved by the Forum.

### Deliberation of the sub-committee

As no comments received from , NER stakeholders, forum approved the procedure.

#### **AGENDA FROM POWERGRID**

# 2.12. Requirement of outage for 400 KV D/C SILCHAR- P.K.BARI transmission line for diversion works due to road widening of KUMARGHAT-KAILASHAHAR road by NHIDCL

The span between tower location no 329 (DA+0) to 333 (DD+0) is to be diverted due to Kailashahar-Kumarghat road widening by M/S NHIDCL. The said diversion involves removing of 03 nos. of existing towers [Ext. Loc. 330 (DD+0), 331 (DD+0) & 332 (DC+0)] and installing of 05 nos of new towers [AP-1 (DD+6), AP-2 (DD+6), AP-3 (DD+0), AP-4 (DD+9) and AP-5 (DD+0)]. The details of route drawing enclosed as **Annexure-2.12**.

The foundation work of 02 nos. of new towers AP-1 & AP-2 have already been completed and other 02 nos. of towers namely AP-3 & AP-4 are in advance stage of completion and subsequently, AP-5 will be completed. In the meantime, the erection gang has already been deployed and erection of tower loc. AP-2 is in progress. Further, it is expected to complete the erection of AP-3 & AP-4 by Feb'2025 and the stringing of the span from AP-2 to AP-3 & AP-3 to AP-4 will be completed by 06/03/2025.

It may be mentioned that the new tower AP-1 & AP-5 has been spotted directly below the existing line and as such, the erection cannot be completed without shutdown of both the circuits. Therefore, to carry out the erection of new tower AP-1 & AP-5 and further, the de-stringing of existing line from Loc. 329 to 333

and stringing from loc. 329 to AP-1 & AP-5 to Ext. Loc 333 requires continuous shutdown of both the circuits for 19 days from 07/03/2025 to 25/03/2025.

Further, the possibility of shifting one circuit on ERS near ext. Loc 332 (DC+0) & 329 (DA+0) for facilitating the erection of AP-1 & AP-5 found not feasible due to the presence of habitant area nearby both the tower and presence of a school near Loc. 329. Moreover, it may also be mentioned that severe ROW was prevailing in this area and the work of diversion has been delayed for more than a year now and the current progress is only after the intervention from the highest level of state administration on disbursement of compensation of payment in advance.

#### Deliberation of the sub-committee

Forum noted the circumstances and nature of work and approved the shutdown subject to conditions mentioned by NERLDC below –

- 1. Availability of 400kV Silchar-Palatana DC line
- 2. Availability of 132kV P K Bari-P K Bari line

## 2.13. Requirement of outage for 400 KV D/C SILCHAR- P.K.BARI transmission line for balance work of vulnerable tower loc. 351 & 353

It may be mentioned that the tower loc. 353 & loc. 351 became vulnerable due to nearby river Manu and accordingly, 02 nos. of pile foundations were already constructed near Ext. Loc. 353 & Ext. Loc. 351.

On Feb'2024, 01(one) no. ERS was installed near loc. 353 and the erection of new-353 on pile foundation was completed, however, the balance work of erection at loc. 351 could not be carried out for unavailability of shutdown and moreover the ERS near loc. 351 could not be installed due the existence of habitant area in one side and the river on the other. As such, the **proposed continuous shutdown of both the circuits for 19 days from 07/03/2025** to 25/03/2025 will also be availed for erection of new-351(DD+3) on pile foundation including de-stringing of line section from ext. 350 to 354 and stringing from ext. 350 to ext. 354 through new-351 & new-353 on pile

foundation and dismantling of ext. loc. 351 & ext. 353 respectively. The details of route drawing enclosed as **Annexure-2.13**.

In view of the above, the shutdown of both the circuits of 400 KV D/C Silchar-P K Bari T/L is required for 19 days in the month of March' 2025 w.e.f 07/03/2025 to 25/03/2025.

### Deliberation of the sub-committee

Refer to the deliberation in 2.12

### 2.14. Replacement of existing Busbar Protection at NEEPCO, Kathalguri under NERSS-XV Project

Under scope of ongoing North Eastern Region Strengthening Scheme-XV (Kathalguri-Namsai Transmission System), replacement of existing Static type Bus bar protection Relay with numerical Bus Bar protection Relay for existing bays and new bays is envisaged.

Accordingly, the replacement work is targeted for commencement w.e.f. 01/03/2025.

The new Busbar Protection shall cover existing 17 No. Bays & 2 New GIS Bays at NEEPCO Kathalguri end. For facilitating the replacement work, shutdown of the associated elements/ feeders shall be necessitated as per requirement of OEM in a phased manner. The entire activity is envisaged for completion by 25.03.2025.

Considering requirement of isolating the existing Bus Bar protection system & thereafter integration of multiple existing elements to the new Bus Bar Protection, POWERGRID, in consultation with OEM & NEEPCO shall prepare a detailed plan to optimize shutdown & present the same shortly for appraisal of NERPC, NERLDC and constituent State Utility. Subsequently, approval for shutdown is proposed to be sought on D-5/ D-3 basis.

#### Deliberation of the sub-committee

PowerGrid informed that an optimized plan has been prepared in consultation with NEEPCO and the same has been shared with NERLDC. Forum requested

NERLDC to undertake system study for the proposed shutdowns and approval to be issued accordingly.

2.15. Regarding objection by NEEPCO in Trial Operation of 132 kV Khliehriat – Khandong-1 & Khandong-Kopili-1 TL after upgradation to HTLS along with CT replacement at 132 kV Khliehriat (PG) & Khandong (NEEPCO)

For the above agenda item was discussed in 213<sup>th</sup> OCCM and subcommittee was deliberated to drop the agenda will be taken afterwards. The details of agenda as given below

First Time charging of following feeders were carried out after upgradation to HTLS conductors

- 1. 132kV Khliehriat Khandong-1 TL along with CT replacement at 132kV Khliehriat (PG) on 30.03.2024.
- 2. 132kV Khandong-Kopili-1 TL along without CT replacement at 132kV Khandong (NEEPCO) on 09.05.2024

After completion of first-time charging, the TOC application was applied for the completed portion of work, However, NEEPCO has raised objection for issuance of Trial Operation certificate from NERLDC vide email dtd 16.04.2024 by stating that, CTs at Khandong end (NEEPCO)) has not yet been replaced by POWERGRID and it has already informed to the NERPC forum that before June'24, readiness of those lines will not be possible.

It is here by informed to forum that, Out of 9nos CTs, installation of 6 No's of CTs for Khliehriat-1 and Kopili-1 Bays were completed on 28.09.2024. Further balance 3nos CTs installation for Bus Coupler Bay was completed on 11.09.2024.

Approval for energization of the installed 9 Nos of CT's was given by RIO CEA vide Ref No: RIO/NER/PG/KHANDONG-295/615 Dated 04.12.2024.

In view of the above, as per project scope of work under NERSS-XIX and as per Minutes of 11th CMETS NER dtd 29/09/2022 page no.08, the scope of

work in 132 kV Khliehriat – Khandong-1 & Khandong-Kopili-1 TL completed and requested to allow for the issuance of Trial operation certificate from NERLDC.

### Deliberation of the sub-committee

PowerGrid apprised that the it has completed its scope of work and CTs at Khandong have been replaced accordingly. NEEPCO stated that they have agreed for the TOC and will provide the consent through mail. Forum advised NERLDC to issue TOC accordingly.

### 2.16. Outage of 20 MVAr Bus Reactor at Aizawl S/s reg

As per 200th OCCM agenda point C.14, Natural Ester premium Grade oil supplied by the by M/s APAR Industries instead of Transformer Mineral Oil has been used with consent of OEM of the 20MVAR Bus Reactor (25 Years old equipment) at Aizwal SS on Pilot project basis first time in India.

During recent oil parameter testing, the water content (PPM) increasing gradually in the above reactor and same was reached from 20PPM to 90PPM and higher Winding Tandelat values on Testing

Further same was referred to the M/S APAR Industries and the OEM (M/s APAR) has recommended to carry out the following on urgent basis as a part of the system improvement:

- Oil Sample shall be taken in presence of M/s Apar Industries before Hot oil circulation and same to be sent to CIOTL, Hyderabad.
- LV Tests in presence of M/s Apar Industries representative
- 3-4 Cycles of Hot Oil Circulation in presence of M/s Apar Industries representative.
- Oil Sample after Hot oil circulation and same to be sent to CIOTL, Hyderabad.
- After achieving the water content within permissible limits <20PPM, LV</li>
   Tests to be repeated.
- Charging of the Reactor.

In view of the above and for carrying out above works for system improvement & prevent unwanted damage in the equipment which may lead to prolonged outage, the shutdown of 20MVAR Bus Reactor was taken on 30.01.25 on emergency basis and requires the shutdown of 20MVAR Bus Reactor at Aizwal Ss up to 20.02.2025 18:00Hrs.

### Deliberation of the sub-committee

Forum noted that use of Natural Ester oil at the place of Mineral oil in the transformer is system improvement work and had approved the original shutdown for the work in the 200<sup>th</sup> OCCM. Further, NERPC highlighted that the further shutdown caused due to violations observed in oil parameter testing has to be properly justified by Powergrid for considering the outage under system improvement category. PowerGrid assured to provide the necessary justification for the same shortly.

### **AGENDA FROM NETC**

### 2.17. NERPC Sub-group Report on the vulnerable tower locations of 400 kV D/C Palatana-Silchar Transmission Line of NETC

NERPC Sub-group Report on the vulnerable tower locations of 400 kV D/C Palatana-Silchar Transmission Line of NETC is hereby presented for the consideration of the forum (**Annexure 2.17**). This report was prepared based on the site visit of the sub-group at Agartala on dated 20.01.2025 & 21.01.2025 as per recommendation of the 218th OCCM.

### Deliberation of the sub-committee

Forum stated that the report will be attached with the minutes of the meeting and circulated to the state utilities for review/comments. Further, the forum stated that states have to be provide comments, if any, within 10 days of circulation of the minutes.

### AGENDA FROM DOP AR. PRADESH

### 2.18. Reconductoring of 132 kV Transmission Lines with HTLS Panther

Reconductoring of 132 kV Transmission Lines with HTLS Panther (900 A) Conductor Transmission Lines Identified for Reconductoring:

- a) 132 kV Panyor Lower HPS Ziro S/C Transmission Line (PGCIL-ISTS)
- b) 132 kV Ziro Daporijo S/C Transmission Line (STS)
- c) 132 kV Daporijo Basar S/C Transmission Line (STS)
- d) 132 kV Basar Aalo S/C Transmission Line (STS)
- e) 132 kV Aalo Pasighat S/C Transmission Line (STS)

The 132 kV Panyor Lower – Pasighat Transmission Network forms the backbone of power supply to the central and eastern districts of Arunachal Pradesh. The existing single circuit transmission system, constructed in 2005, shall be inadequate to cater the anticipated increase in power demand at these nodes, particularly due to upcoming construction power requirements at Daporijo and Aalo. With no upcoming alternate feeds at Daporijo and Aalo, the transmission systems connected to these nodes must be strengthened to effectively meet the increasing demand and ensure reliable power supply.

The Central Electricity Authority (CEA), in its report "Transmission System Requirement of North Eastern States and Sikkim by the Year 2031-32" (published in October 2024), has acknowledged the criticality of this network and specifically recommended the reconductoring of the Panyor Lower – Ziro and Ziro – Daporijo lines with HTLS Panther conductor to accommodate the projected load growth. To prevent transmission bottlenecks, it is essential that the reconductoring of the entire corridor from Panyor Lower to Pasighat be undertaken simultaneously, enabling a comprehensive and reliable strengthening of the network.

The proposed reconductoring will mitigate overloading risks, improve thermal stability, and enhance network resilience, ensuring a more reliable power supply to the region. Accordingly, the proposal for reconductoring of the identified transmission lines is submitted for approval by the forum/RPC.

### Deliberation of the sub-committee

The forum referred the point no 'a' to CMETS for further action and requested NERLDC to conduct studies for the point no 'b', 'c', 'd' and 'e' and present in next OCC. NERLDC requested Arunachal Pradesh to submit nodewise details of upcoming load and generation project which is expected by 2030. Forum noted that the based on NERLDC reports the forum will recommend for the upgradation and will forward the recommendation to CEA for approval.

### 2.19. Regional Capacity Building enhancements through overseas trainings under the aegis of NERPC with Central/DONER funding.

With rapid advancements in power sector technologies and increasing complexity in grid management, continuous skill development is essential to ensure efficient operations and system reliability. As significant power infrastructure is being developed under the Government of India-funded NERSIP and CSST&DS schemes, it is imperative to equip the workforce with the expertise required for the seamless integration, operation, and maintenance of these assets. Exposure to global best practices and emerging technologies through overseas training programs will further strengthen regional capacity, enabling professionals to adopt advanced techniques in transmission, distribution, and system planning. To support this initiative, training programs may be proposed under the aegis of NERPC, and request Ministry of Power or the Ministry of DoNER, Govt. of India, for funding the scheme. In case of extreme reluctance of the Govt. of India we may propose for 50:50 funding arrangement between the Centre/DONER and the NER States, to ensure a well-prepared technical workforce to meet the region's evolving power sector challenges.

### Deliberation of the sub-committee

MS NERPC informed that capacity building project (overseas study tour) for NER constituents is already being taken up with the PSDF by NERPC.

### Agenda from AEGCL

### 2.20. Issue with North East Regional Power system Improvement Project

The NERPSIP scheme is a major step towards economic development of North Eastern Region through strengthening of Intra – State Transmission and Distribution Power systems. Implementation of the scheme will create a reliable power grid and improve NER's connectivity to the upcoming load centres and thus extend the benefits of the grid connected power to all categories of consumers in North Eastern Region.

Under NERPSIP Enhancement/Augmentation of Transmission System for AEGCL is listed below:

- ❖ Setting up of 11 new EHV Substations and associated 12 EHV Transmission Lines. An additional 1198 MVA of power handling capacity would be added to the AEGCL's network after completion of the projects.
- ❖ Augmentation/Extension of 9 Existing EHV Substations which includes increase in the capacity of Power transformers at Samaguri GSS and Dhaligaon GSS by 470 MVA.
- ❖ Installation of 548 km Optical Ground Wire (OPGW), which will enhance the communication link between the grid substations.

Major issues for booking of asset by AEGCL against elements constructed under NERPSIP

The financial documents that are necessary for capitalization of assets, have not been handed over to AEGCL by POWERGRID. And as such the commissioned elements constructed under NERPSIP (Already handed over and yet to be handed over to AEGCL) have not been booked under AEGCL's asset. This has resulted to financial loss of AEGCL as the commissioned elements could not be reflected in AEGCL's Tariff. Page 2 of 13 In addition, majority of the list of pending works that were recorded in the punch points

during signing of TOC have also not been addressed by POWERGRID. The matter regarding the same has been informed to POWERGRID several times both from AEGCL (HQ) and AEGCL field officials and although some of the issues have been resolved, majority of the issues are yet to be resolved. The status of works and list of pending works that have not been resolved are enclosed as **Annexure 2.20**.

### Intervention sought

The elements constructed under NERPSIP have already been commissioned in phase manner and are in operation. As the assets have not been capitalized and also pending works in the commissioned elements have not been completed, AEGCL request intervention of OCC forum so that the elements constructed under NERPSIP may be booked under AEGCL's asset and also the pending works as well as major issues are resolved.

### Deliberation of the sub-committee

Forum noted the concerns of AEGCL and also noted that since NERPSIP is not present in the meeting. Further, Forum advised AEGCL to bring up the matter in next OCC in the presence of NERPSIP team. NERPSIP team advised to attend the meeting.

### Agenda form NERPC

#### 2.21. Mismatch between RTU-SCADA real time data and IEM data

The matter was deliberated in the 15<sup>th</sup> NPC, wherein, the sub-committee under the chairmanship of MS WRPC, which was constituted to to look into the issue SCADA vs SEM mismatch, reason thereof and also study the pilot project being done by MP presented its report (**annexure 2.21**) to the NPC forum.

MS, WRPC informed that the sub-committee had deliberated extensively, and the following recommendations have been made:

i. The difference between the SCADA and SEM data is causing appreciable financial implications for the beneficiaries in form of DSM charges. Therefore,

integration of SEMs with SCADA must be done to ensure better management of drawl from the regional grid by a beneficiary. However, states may take a call on this as per their own assessment.

ii. The only way to minimize the mismatch is to fetch the data from the same source (i.e. from SEM).

Iii. The pilot project carried out by MPPTCL is comparatively better than GETCO as it involves lesser cost and lesser fiddling with existing SEM configuration and therefore, it should be followed in other parts of the country.

iv. The proposed implementation is not in violation of any regulatory provisions.

v. The expenditure of the projects (estimated as about 2 crores for a state) should be borne by the beneficiaries as its associated benefit is comparatively more.

vi. The data fetched from SEM to SCADA may be used only for making operational decisions and may not to utilized for raising commercial disputes.

vii. It is technically feasible to provide real time data (MW/instantaneous) data to SLDC from the RTU/SAS-based substations. However, the meters not supporting MODBUS feature need to be replaced.

viii. In SAS-based system, installing a new mini RTU is the most appropriate solution.

ix. In the existing AMR system, the best way to share real time SEM data is by augmenting the system and running a software application on a backup data server for sharing data through Intranet.

x. The new AMR system, once it comes, will have the provisions of displaying data to RLDCs as well as SLDCs.

Member (GO&D), CEA suggested that Study Report may be circulated to the stakeholders for implementation at the state level and SCADA point accuracy

shall be ensured by STUs/ entities in coordination with SLDCs/ RLDCs. The states may adopt the proposed methodology as per their preference.

Chairperson, CEA/NPC suggested that location of SEM data and SCADA data should be the same to further reduce errors. He recommended that the necessary changes be incorporated into the final report. Further, he suggested that RPCs should deliberate on the reported discrepancy between SCADA and SEM data, and work towards resolving them. RLDC should identify each SCADA point with discrepancies, and RPCs may address these issues in a separate special meeting.

Following decisions were taken in the NPC meeting -

- i) The Report on the mismatch between RTU-SCADA real-time data and IEM data may be modified to include the condition that the locations of the SCADA data and IEM data must be the same, and the report may be circulated to all stakeholders for implementation at the state level as per their preferences. (Action: WRPC)
- ii) Detailed deliberation is required at the RPC level to address reported discrepancies between SCADA and SEM data, with the aim of minimizing errors and ensuring data accuracy. (Action: All RPCs)

In light of the decisions taken in the 15<sup>th</sup> NPC meeting the report of the sub-committee (mentioned above) is hereby presented for discussion (annexure 2.21) and the utilities are requested address reported discrepancies between SCADA and SEM data with the aim of minimizing errors and ensuring data accuracy.

### Deliberation of the sub-committee

The forum noted that the discrepancies between SCADA and SEM data is a serious problem in NER also.

NERLDC informed that the peak instantaneous mismatch between the data for some states go upto 24%, while the average mismatch goes upto 0.70%. The forum opined that this mismatch may have serious implication on the Deviation quantum (difference between actual drawl and scheduled drawl)

and thus DSM accounts of states and also cause operational challenges like frequency management.

The forum requested NERLDC to calculate the deviation account taking SCADA data at the place of SEM data for a sample state for a sample month to provide quantitative insight into the difference caused by the SCADA vs SEM mismatch.

Finally, the forum advised the states to integrate the SEM data to SCADA for real time display of the drawl quantum as per the methodology mentioned in the reports after doing cost-benefit analysis.

### 3. PART-C: METERING ITEMS

### 3.1. Procurement of SEMs for future requirements:

92 no. of SEMs may be procured to take care of future requirement (upto FY 2027) and to maintain spares. Estimation of the requirements is given below: As per records received from different meetings (schemes approved in CMETS-NER, OCCMs, NCT, NERPC-TP/ NERSCT/ SCPSP-NER, NERPSIP, CTADS):

| Location/STA |  | No of |  |
|--------------|--|-------|--|
| TE           | Element name                                   |       |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Pasighat - Roing 2                      | 2     |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Roing - Tezu 2                          | 2     |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Tezu - Namsai 2                         | 2     |  |
| Arunachal    | 1x50MVA, 132/33kV (3rd) ICT at Namsai          |       |  |
| Pradesh      | (POWERGRID) S/s                                | 2     |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Namsai - Miao                           | 2     |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Halaipani - Tezu                        |       |  |
| Arunachal    |  |       |  |
| Pradesh      | 132 kV Roing - Dambuk                          | 2     |  |
|              | New Kohima (TBCB) - New Kohima (Nagaland)      |       |  |
| Ngaland      | 220kV D/c line                                 | 4     |  |
|              | Nangalbibra (MePTCL) end of Nangalbibra (ISTS) |       |  |
| Meghalaya    | 132kV D/c                                      | 2     |  |
|              | LILO of both circuits of Bongaigaon - Balipara |       |  |
| Assam        | 400kV D/c (Twin Moose) line at Rangia          | 4     |  |
|              | Khumtai (AEGCL) – Biswanath Chariali (PG)      |       |  |
| Assam        | 400kV D/c line                                 | 4     |  |

|           | LILO of Silchar (PG) – Byrnihat (MePTCL) 400kV    |    |
|-----------|---|----|
| Assam     | S/c line at Sonapur                               | 2  |
|           | LILO of both circuits of Surajmaninagar (ISTS) -  |    |
|           | Palatana 400kV D/c line at Surajmaninagar         |    |
| Tripura   | (TPTL)  | 3  |
|           | LILO of one ckt of Misa-Dimapur 220kV D/c at      |    |
| Nagaland  | Zhadima   | 2  |
| Arunachal |   |    |
| Pradesh   | 400 kV Lower Subhansiri end of BNC D/C (2 lines)  | 4  |
|           | LILO of one D/c line (ckt-1 & ckt-2 of line-1) of |    |
|           | Lower Subansiri – Biswanath Chariali 400kV        |    |
| Assam     | 2xD/c at Gogamukh                                 | 4  |
| Assam/    |   |    |
| Arunachal | Gogamukh (ISTS) – Gerukamukh (Arunachal           |    |
| Pradesh   | Pradesh) 132kV ACSR Zebra D/c line                | 4  |
| Assam     | 400/220kV, 2x500MVA ICTs at Gogamukh              | 4  |
| Assam     | 220/132kV, 2x200MVA ICTs at Gogamukh              | 4  |
|           | Bihupuria (AEGCL) – Gogamukh (ISTS) 220kV D/c     |    |
| Assam     | line  | 4  |
|           | LILO of one ckt of North Lakhimpur (AEGCL) –      |    |
| Assam     | Dhemaji (AEGCL) 132kV new D/c at Gogamukh         | 8  |
|           | LILO of both circuits of Misa (POWERGRID) – New   |    |
| Assam     | Mariani (POWERGRID) 400kV D/c line at Bokajan     | 4  |
| Arunachal |   |    |
| Pradesh   | Lower Subansiri GTs                               | 8  |
| Arunachal |   |    |
| Pradesh   | Lower Subansiri ICTs                              | 4  |
| Arunachal |   |    |
| Pradesh   | Lower Subansiri STs                               | 2  |
|           | 220 kV Salakati - Alipurduar D/C LILO at          |    |
| Assam     | Gosaigaon   | 4  |
|           | Total   | 89 |

| Location/ST |  |    |
|-------------|--|----|
| ATE         | OLD Locations and Elements having no meters: |    |
|             | PALATANA 3 METERS (400/132 kV ICT 2 HV & LV  |    |
| Tripura     | side, 400/132 kV ICT 1 LV Side)              | 3  |
| Assam       | BALIPARA 400/220KV(LV) ICT-1                 | 1  |
| Arunachal   |  |    |
| Pradesh     | HV side of ICT 1 & 2 at Panyor Lower HEP     | 2  |
| Arunachal   |  |    |
| Pradesh     | LV SIDE OF 400/132KV KAMENG ICT-1            | 1  |
| Assam       | KHANDONG END OF 132KV KHLRT-1                | 2  |
| Assam       | KHANDONG END OF 132KV KOPILI-1               | 2  |
| Assam       | HV side of KHANDONG GTs                      | 2  |
| Arunachal   |  |    |
| Pradesh     | 132 kV Pasighat - Roing 1                    | 2  |
| Arunachal   |  |    |
| Pradesh     | 132 kV Roing - Tezu 1                        | 2  |
| Arunachal   |  |    |
| Pradesh     | 132 kV Tezu - Namsai 1                       | 2  |
| Arunachal   |  |    |
| Pradesh     | 132 kV Ziro - Daporijo                       | 2  |
| Arunachal   |  |    |
| Pradesh     | 132/33kV ICT at Ziro (PG)                    | 2  |
| Arunachal   |  |    |
| Pradesh     | 2x132/33 kV Ict at Roing                     | 4  |
| Arunachal   |  |    |
| Pradesh     | 2x132/33 kV Ict at Tezu                      | 4  |
| Arunachal   |  |    |
| Pradesh     | 2x132/33 kV Ict at Namsai                    | 4  |
|             | Total  | 35 |

| Meter Requirement | 124 |
|-------------------|-----|
| Spare (15%)       | 19  |
| Total(with spare) | 143 |

| Existing Meters     | 51 |
|---------------------|----|
| New Meters Required | 92 |

Forum approved the estimate of future requirement of SEMs (92 nos.) upto FY 2027.

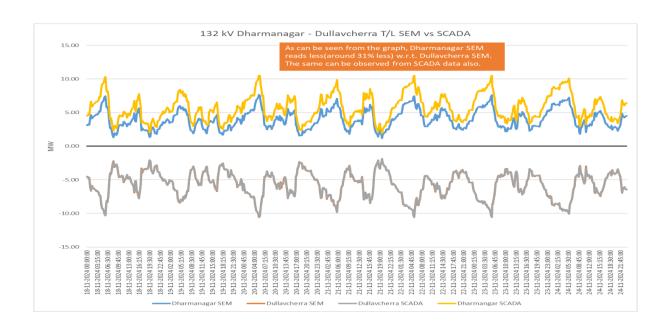
However, MS NERPC stated that henceforth, estimate of SEMs should be done in consultative manner, involving NERPC and concerned utilities, before presenting in the OCC.

## 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 222<sup>nd</sup> 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. 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.



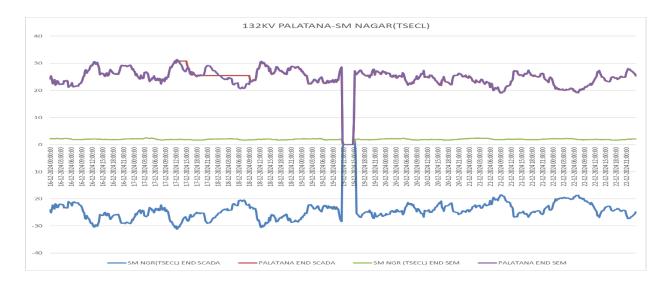
### Deliberation of the sub-committee

Matter could not be discussed as Tripura was absent in the meeting.

## 3.3. Issue in SEM data of 132 kV SM Nagar (TSECL) end of Palatana Fdr. (400 kv T/L charged at 132 kV):

Weekly SEM data of 132 kV SM Nagar (TSECL) is essential for accounting of Tripura Drawal. Recently, Planned Shutdown was availed dated 02-12-2024 for Installation of ABT meter under SAMAST Project at SM Nagar end. On return of S/D, meter for SM Nagar end was reading close to zero (0). On intimation of the same to utility, S/D was availed again on 19-12-2024 to resolve the issue. However, the same could not be resolved. Tripura & POWERGRID may kindly look into the issue on priority basis.

In 222<sup>nd</sup> OCCM, forum advised Tripura to resolve the same by next OCCM. The same is yet to be resolved. Tripura may kindly update status.



### Deliberation of the sub-committee

Matter could not be discussed as Tripura was absent in the meeting.

### 3.4. 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 222<sup>nd</sup> 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.

### Deliberation of the sub-committee

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 rectification.

### 3.5. Issue in Receipt of Data from Luangmual S/S

Weekly SEM data from 132 kV Luangmual(Mizoram) Substation is important for accounting of Mizoram drawal. However, SEM data for said substation is not being received since 11/11/2024. Issue with licence of Vinplus Software in Designated laptop has been reported by the concerned Substation.

In 221st OCCM, forum advised Mizoram to take up the matter with L&T and resolve the issue by next OCCM.

In 222<sup>nd</sup> OCCM, Mizoram apprised the forum that the issue with licence of Vinplus Software in designated laptop has not been resolved yet and SLDC Mizoram is taking up the matter with M/s L&T. PGCIL also agreed to help Manipur in resolving the issue. Data is yet to be received from said Substation.

#### Deliberation of the sub-committee

NERLDC updated that the issue has been resolved.

### 3.6. 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 222<sup>nd</sup> 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.

### Deliberation of the sub-committee

Matter could not be discussed as Tripura was absent in the meeting.

# 3.7. 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 222<sup>nd</sup> 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.

### Deliberation of the sub-committee

Matter could not be discussed as Tripura was absent in the meeting.

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

### 4.1 Implementation/Review of Islanding schemes of NER:

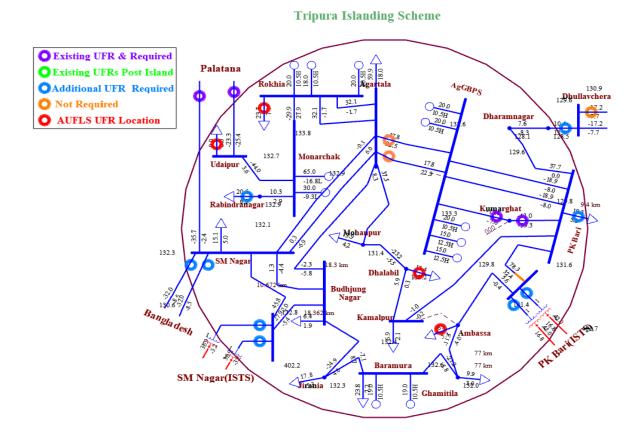
As per Clause 10 of the Central Electricity Authority (Grid Standards), Regulations, 2010: "Islanding Schemes- (1) The Regional Power Committees shall prepare Islanding schemes for separation of systems with a view to save healthy system from total collapse in case of grid disturbance. (2) The Entities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

### A. Guwahati Islanding Scheme

Assam updated that modified DPR has been sent to PSDF.

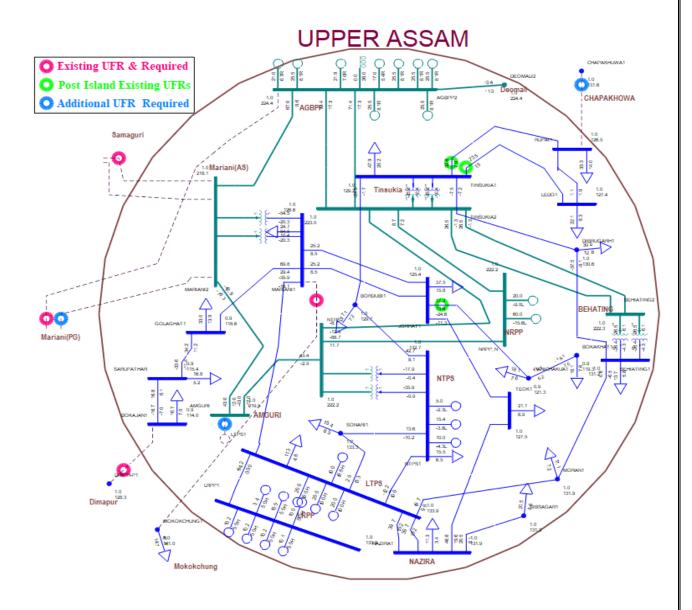
### B. Tripura/Agartala Islanding Scheme

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.



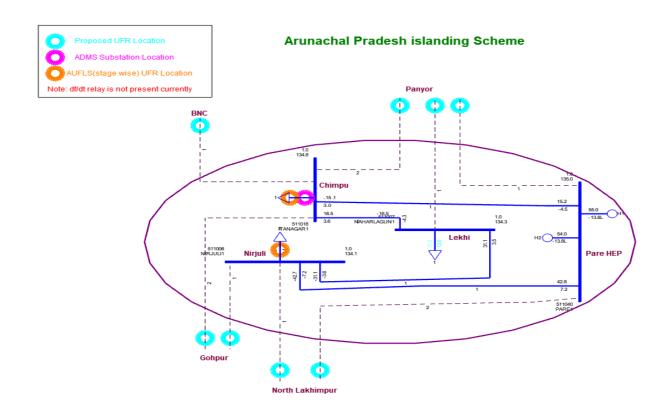
### C. <u>Upper Assam Islanding Scheme</u>

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.



### D. Itanagar Islanding Scheme

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



For activation of Itanagar Islanding Scheme Activation. Following are the actions need to be taken as per the meeting whose status may be updated by utilities:

 Regarding the UFR settings (48.2 Hz with a time delay of 300ms) at the locations detailed below the following updates have been made in 222<sup>nd</sup> OCC forum:

| S1. | UFR Location       | Implementing | Status Update (as          |
|-----|--------------------|--------------|----------------------------|
| No  |                    | Agency       | per 222 <sup>nd</sup> OCC) |
|     |                    |              |                            |
| 1   | 132 kV Panyor      | NEEPCO       | Completion by              |
|     | HEP-Pare HEP line  |              | 17/01/25                   |
|     | at 132 kV Panyor   |              |                            |
|     | HEP                |              |                            |
| 2   | 132 kV Panyor      | NEEPCO       | Completion by              |
|     | HEP- Itanagar line |              | 17/01/25                   |
|     | at 132 kV Panyor   |              |                            |
|     | HEP                |              |                            |

| 3 | 132 kV Panyor      | NEEPCO | Completion by     |
|---|--------------------|--------|-------------------|
|   | HEP-Lekhi line at  |        | 17/01/25          |
|   | 132 kV Panyor      |        |                   |
|   | HEP                |        |                   |
| 4 | 132 kV Itanagar-   | PGCIL  | Will be completed |
|   | BNC line at 132 kV |        | by this week.     |
|   | BNC                |        |                   |
| 5 | 132 kV Itanagar-   | ASSAM  | Will be completed |
|   | Gohpur line at 132 |        | by first week of  |
|   | kV Gohpur          |        | February-25.      |
| 6 | 132 kV Nirjuli-    | ASSAM  | Will be completed |
|   | Gohpur line at 132 |        | by first week of  |
|   | kV Gohpur          |        | February-25.      |
| 7 | 132 kV Nirjuli-    | MUML   | Could not be      |
|   | North Lakhimpur    |        | discussed as      |
|   | line at 132 kV     |        | representative of |
|   | North Lakhimpur    |        | MUML was absent.  |
|   | Trotter Barring at |        | mac mac asserte.  |
| 8 | North Lakhimpur -  | MUML   | Could not be      |
|   | Pare HEP line at   |        | discussed as      |
|   | 132 kV North       |        | representative of |
|   | Lakhimpur          |        | MUML was absent.  |
|   |                    |        |                   |

- 2. SPS Implementation at Pare HEP: SPS for tripping of one unit of Pare in case of two units are running is to be implemented. NEEPCO intimated the forum that the SPS logic at Pare HEP has been completed and duly shared with NERLDC.
- 3. **UFR Post-Island Formation**: UFR setting at SMS and Salasar feeders is to be changed to 48.0 Hz and 47.8 Hz (instantaneous trip) respectively. Also, an additional feeder of around 5 MW is to be identified as an UFR post island and to be set at 47.7 Hz instantaneous

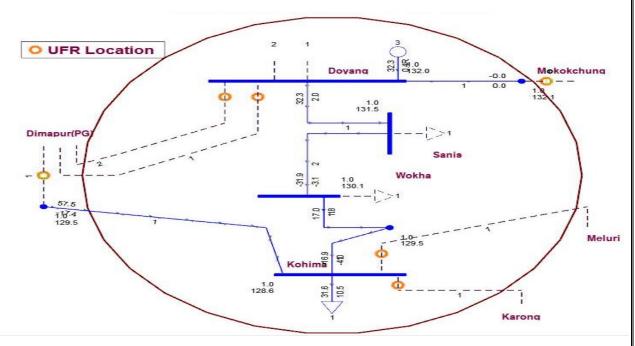
## trip. -DOP, AP updated the forum that additional feeders have been identified.

4. The UFR for post Island Formation were for AUFLS purpose that quantum of load is to be shifted outside the island for AUFLS defence mechanism.

The forum in principle agreed the AP islanding scheme (Itanagar islanding scheme) which will be implemented and operational by next month onward.

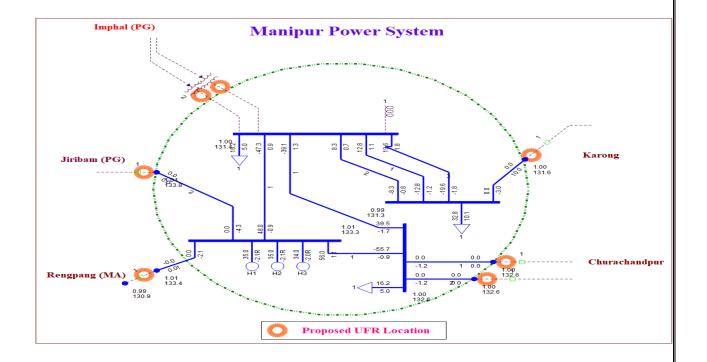
### E. Kohima Islanding scheme

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.



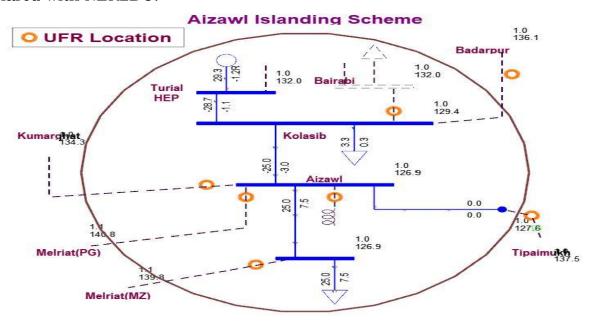
### F. Imphal Islanding scheme

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.



### G. 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.



### H. Meghalaya/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.

### Deliberation of the sub-committee

Regarding Guwahati Islanding scheme, AEGCL informed that some queries have been raised by TESG committee and the same are being replied to.

Regarding Upper Assam Islanding scheme, NERLDC updated that the scheme and workplan has been finalized in the meeting held on 17.02.2025 with stakeholders, only implementation is left. NERLDC stated that gist of meeting and workplan is attached herewith (annexure 4.1). Forum requested the utilities to implement the scheme at the earliest.

Regarding Itanagar Islanding scheme, NERLDC updated that all the concerned utilities except AR. Pradesh have completed their scope of work. Representative form Ar. Pradesh updated that their scope of work is being undertaken by the transmission wing and update will be provided shortly through mail

Regarding Shillong Islanding scheme, NERLDC updated that the dynamic data of concerned generators have been shared and dynamic study is under process.

Further, NERLDC apprised that Shillong islanding and Tripura islanding will be finalised shortly.

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

Status as updated till 222nd 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.

As deliberated in 15th meeting of NPC held on 14.12.2024 against Agenda 6: "Report on Automatic Under Frequency Load Shedding (AUFLS) and df/dt scheme:" Quote: "The following quantum of load relief settings of AUFLS scheme for year 2024- 25 were approved by the Committee:

| State   | Stg I (MW)  | Stg II (MW) | Stg III (MW) | Stg IV (MW) |
|---------|-------------|-------------|--------------|-------------|
| Ar.     | 8.659594937 | 10.39151392 | 12.12343291  | 12.12343291 |
| Pradesh |             |             |              |             |
| 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      |

"The implementation of the AUFLS and df/dt schemes must be completed by March 2025. RPCs are required to regularly monitor the implementation of the UFR scheme as a whole including the bulk consumers connected at the ISTS level. RPCs may communicate above decisions to the respective States for implementation."

SLDCs are requested to conduct meetings with their DISCOMs to find solutions for feeder mapping and expedite the same. It was also decided in the NPC meeting:

- i) The AUFLS scheme must ensure Pumped storage hydro plants operating in pumping mode or ESS operating in charging mode shall be automatically disconnected before the first stage of UFR.
- ii) Bulk consumers connected to ISTS and STU networks must implement the UFR scheme. Compliance should be ensured during the grant of connectivity by CTU and STU.

### Status as per 222nd/221st OCCM -

Assam representative apprised the forum that the new AUFLS scheme has been completed.

Manipur apprised the forum that the scheme shall be implemented by June-25.

Meghalaya apprised the forum that the scheme has been finalised and rearrangement of loads is required in stages I,II and III & IV, The work shall be completed by the next OCC meeting.

Mizoram apprised the forum that the new AUFLS scheme has been completed.

Tripura apprised the forum that the work shall be completed by the next OCC meeting.

Arunachal Pradesh apprised the forum that the loads have been identified and approval is pending. AP, SLDC also apprised the forum that since RTU is not available at Bandardua for mapping, it is proposed to shift the loads to Nirjuli substation.

#### Deliberation of the sub-committee

Meghalaya updated, regarding implementation of revised load quantum in AUFLS, that feeders have been identified and the work will be completed by next OCC meeting.

Mizoram updated, regarding mapping of feeders, that communication with GE is underway and work will be completed by March'25

DoP Ar. Pradesh updated that loads have been identified and approval is still pending from competent authority. Further, regarding mapping of feeders, he updated that communication system is available at the concerned substations but the UFR feeders have not been integrated with RTU. MS NERPC stated that a letter will be written to competent authority to resolve integration issues and ensure mapping of feeders.

### 4.3 Long Outage of NER State Generator and transmission lines:

The following NER State generators and Transmission lines are under long outage since long time. Considering the increasing demand trend and reliable power supply in the Region, respective utilities are requested to take necessary action to restore the mentioned units as follows:

| Element Name    | Outage time | Reason   | Expected date |
|-----------------|-------------|--|---------------|
| LTPS Unit 7     | 08-04-2024  | Due to high vibration  | -             |
| Baramura Unit 5 | 26-03-2024  | Gas fuel hydrolic trip low.  | March'25      |
| Rokhia Unit 8   | 02-05-2024  | Hand Tripped due to low Gas<br>Pressure                                  | -             |
| Baramura Unit 4 | 05-06-2024  | Manually opened as there is issue in display, erroreous data was coming. | March'25      |

| Kameng Unit 2   | 17-06-2024 | Damage in the stator core & bar,<br>and also on rotor poles due to<br>dislodging of 1no. V-block | March'25 |
|-----------------|------------|--|----------|
| Rokhia Unit - 7 | 06-11-2024 | Leakage in Heat Chamber  | -        |

### **Transmission Lines**

| Element Name                                | Outage time | Reason  | Expected date |
|---|-------------|---|---------------|
| 400 kV Imphal - Thoubal I                   | 18-10-2021  | Tripped on DP, ROW issue.   | -             |
| 132 kV Kohima - Meluri                      | 27-09-2023  | S/D taken by Kohima trans. Div. for dismantling of Tower no. AP 130 | -             |
| 132 kV Jiribam-Rengpang                     | 17-11-2023  | Tripped on Earth fault  | -             |
| 132kV Ningthoukhong-<br>Churachandpur ckt 1 | 04-08-2024  | Z-1, 18.5 km, O/C   | -             |

In 219th OCCM, utilities updated as under: -

## Generating units-

| S1.<br>No | Unit details    | Utility            | Update on revival                     |
|-----------|-----------------|--------------------|---------------------------------------|
| 1         | Baramura Unit 4 | TPGCL<br>(Tripura) | Out due to shortage of gas            |
| 3         | Baramura Unit 5 | TPGCL              | Out due to shortage of gas            |
| 4         | LTPS Unit 7     | APGCL              | OEM parts ordered. Expected by Feb-25 |

## <u>Transmission lines-</u>

| S1. | Element                      | utility | Update on revival                   |
|-----|------------------------------|---------|-------------------------------------|
| No  |                              |         |                                     |
| 1   | 400 Imphal-Thoubal ckt I &II | MSPCL   | Ckt I - ROW, Litigation             |
|     |                              |         | pending in court. Ckt II is         |
|     |                              |         | already charged on 14 <sup>th</sup> |
|     |                              |         | September 2024.                     |

| 2 | 132kV Kohima-Meluri    | DoP Nagaland | NHIDLC payment pending.      |  |
|---|------------------------|--------------|------------------------------|--|
|   |                        |              | 3 months after the           |  |
|   |                        |              | payment                      |  |
| 3 | 132kV Jiribam-Rengapng | MSPCL        | Line partially charged. i.e. |  |
|   |                        |              | sectionalize charged upto    |  |
|   |                        |              | Nongba from the Rengpang     |  |
|   |                        |              | end (a distance of 5 km).    |  |
|   |                        |              | The section from Nongba to   |  |
|   |                        |              | Jiribam (Manipur) is yet to  |  |
|   |                        |              | be charged which is          |  |
|   |                        |              | around 45 km. Full           |  |
|   |                        |              | charging will take time as   |  |
|   |                        |              | no access to the affected    |  |
|   |                        |              | area. Expected by            |  |
|   |                        |              | December-24.                 |  |

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

Forum requested the concerned utilities to provide updates through email to NERPC and NERLDC

## 5. PART-E: ITEMS FOR STATUS

## 5.1 Implementation of projects funded from PSDF:

The status as informed in 223rd OCCM:

| State          | R&U scheme   | ADMS   | Capacitor<br>Installation | SAMAST**   | Line<br>Differential<br>Protection             |
|----------------|--|--|---------------------------|--|--|
| Ar.<br>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. | By<br>Aug.'24                                  |
| Nagaland       | Completed in all respects.   | Work complete d in all respects. UC submitte d | -                         | 30%<br>requisition<br>submitted                                    | Lines identified. Under DPR preparation stage. |

| Mizoram | Final 10% disbursed. UC to be submitted.  | Work complete d in all respects. Remaini ng part of final 10% to be disburse d ASAP. | To reply<br>to TESG<br>queries.                                | 30% requisition submitted.  | Revised DPR including both 132kV Aizawl- Luangmual and 132kV Khamzawl- Khawiva to be submitted. |
|---------|---|--|--|---|---|
| Manipur | Package-II: completed Package-I: all stations complete except Ningthoukhong. By May'22. | Work complete d in all respects. UC submitte d in Oct'21.                            | WIP.   | disbursed for IT portion, no disburseme nt for Meter, AMR portion. 20% disburseme nt for IT portion after completion of 3rd milestone. 30% to be disbursed for Meter, AMR portion | Revised DPR for LDP of 132kV Imphal- Yurembam- III to be submitted by June'22.                  |
|         | 33kV System<br>Integration<br>with SLDC   | In tendering stage   |  |   |   |
|         | Reliable<br>Communicatio<br>ns for grid<br>connectivity                                 | In tendering stage   |  |   |   |
| Tripura | Completed. Final UC submitted on 04th May'22.   | Final 10% requisition submitted.   | Not<br>relevant in<br>present<br>scenario<br>with<br>commissio | 10% successfully disbursed. 20% fund reversed back from vendor  | For 132kv<br>79Tilla-<br>Budhjungn<br>agar line<br>and for<br>Rokhia link                       |

|           |  |                                     | ning of<br>ISTS lines.<br>Issue<br>dropped | account. Will be resolved soon.  | 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 complete d in all respects. | ı  | 30% funds<br>yet to be<br>fully<br>disbursed.<br>60%<br>requisition<br>sent. |   |
| Meghalaya | MePTCL – completed in all respects.  MePGCL – Completed in all respects.   | Project complete d in all respects. | -  | 90% works<br>completed.<br>Communica<br>tion<br>pending.                     | All works<br>except<br>OPGW<br>done   |

### Sub-committee noted as above

## 5.2 Status update of important grid elements under prolonged outage impacting system operation:

| S1.<br>No | Element   | Owner | Status up to the 218thOCCM               | Latest Status |
|-----------|---|-------|--|---------------|
| 1         | 132kV Mariani –<br>Mokokchung ( <i>out since</i><br><i>April'2008</i> ) | AEGCL | DPR sent to PSDF                         |               |
| 2         | 132kV Roing-Pasighat<br>(charged through ERS<br>tower                   | NERTS | September'24                             |               |
| 3         | 132kV Srikona –<br>Panchgram  | AEGCL | task will be<br>completed by<br>Sept.'24 |               |

| 4 | 400kV Imphal – Thoubal-<br>I and 315MVA<br>400/132kV ICT at<br>Thoubal        | MSPCL  | RoW, litigation pending in court.  |  |
|---|---|--------|--|--|
| 5 | 63MVAR Bus Reactor at<br>Byrnihat to be replaced<br>with 80MVAR Reactor       | MePTCL | Installed. Relay system pending. To be completed shortly.  |  |
| 6 | Permanent restoration of<br>Tower loc. No. 4 of 132kV<br>Jiribam-Haflong line | NERTS  | line was restored on ERS on 8th July. For permanent restoration survey is underway and the work will tentatively be completed within six months. |  |

Members to update through email

## 5.3 Status of commissioning for upcoming projects

| S1.<br>No | Name of the element   | Utility | Status up to the 218 <sup>th</sup> OCCM   | Latest<br>Status |
|-----------|---|---------|---|------------------|
| 1         | 132kV Monarchak-<br>Surjamaninagar  | TSECL   | 20 km stringing left, 2<br>tower foundation<br>pending and pending<br>8 nos. tower erection.<br>Tentative completion<br>by Sept.'24 |                  |
| 2         | PLCC for 132kV<br>Loktak-Ningthoukong<br>and 132kV Loktak-<br>Rengpang(existing<br>lines) | MSPCL   | Sept.'24. Work hampered due to Law & order situation in Manipur   |                  |
| 3         | 220kV Samaguri –<br>Mariani-I   | AEGCL   | Survey completed. Cost estimate being prepared.   |                  |
| 4         | 220kV AGBPP –Namsai<br>D/C  | TBCB    | Oct'25, subject to RoW issue  |                  |
| 5         | Upgradation of 132kV<br>Surjamaninagar-<br>Surjamaninagar(ISTS),                          | TSECL   | Resolution adopted in 26th RPC. Sent to MoP, GoI  |                  |

| 6  | 132kV Bodhjungnagar- SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari- P.K.Bari(ISTS) LILO of 132kV Leshka- Khliehriat-I at Mynkre and Mynkre SS and | NERPSIP | LILO line charged. SS<br>by Sept.'24  |  |
|----|--|---------|---|--|
|    | 33kV downstream at Mynkre.   | NEW OIL |   |  |
| 7  | 220kV Rangia –<br>Amingaon D/C and<br>220/132kV 2x160MVA<br>Amingaon S/S   | NERPSIP | SS charged; Line idle charged. Load charging to be done shortly   |  |
| 8  | 132kV Rengpang-<br>Tamenglong and<br>132/33kV 4x6.67MVA<br>at Tamenglong at<br>Manipur   | NERPSIP | Works hampered due to present law and order condition.  |  |
| 9  | 132/33kV West Phaileng S/S at Mizoram  | NERPSIP | Ready for charging.   |  |
| 10 | 132/33kV 2x12.5MVA<br>Marpara S/S at<br>Mizoram  | NERPSIP | 20 km stringing left, 2 tower foundation pending and pending 8 nos. tower erection. Tentative completion by August'24 |  |
| 11 | 132/33kV 2x12.5MVA<br>Lungsen S/S at<br>Mizoram  | NERPSIP | Sept.'24. Work hampered due to Law & order situation in Manipur   |  |
| 12 | 132kV Chawngte –<br>S.Bungtlang S/S at<br>Mizoram  | NERPSIP | Ready for charging.   |  |
| 13 | 132kV W.Phaileng-<br>Marpara S/C at<br>Mizoram   | NERPSIP | Sept.'24, works hampered due to delay in tree cutting in forest area  |  |

| 14 | 220kV Zhadima –<br>Mokokchung at<br>Nagaland                   | NERPSIP                      | Ckt 1 charged in<br>Mar'23. Other ckt<br>waiting for<br>finalization of MoU           |  |
|----|--|------------------------------|---|--|
| 15 | 132kV Wokha-<br>Zunheboto –<br>Mokokchung at<br>Nagaland       | NERPSIP                      | WokhaZunheboto<br>section has been<br>completed. Balance<br>section by By<br>Sept.'24 |  |
| 16 | 132kV Tuengsang –<br>Longleng at Nagaland                      | NERPSIP                      | Tuensang SS upgradation package has been awarded. August'24                           |  |
| 17 | 132/33kV Amarpur<br>S/S at Tripura                             | NERPSIP                      | Sept.'24  |  |
| 18 | 132/33kV Manu(new)<br>S/S at Tripura                           | NERPSIP                      | Sept.'24  |  |
| 19 | 132kV Dharmanagar-<br>Kailashor                                | NERPSIP                      | Sept.'24  |  |
| 20 | 132kV Ziro-Yazali and<br>132/33kV Yazali S/S                   | POWERGRID-<br>Comprehensive  | Sept.'24  |  |
| 25 | 132kV Chimpu –<br>Holongi and 132/33kV<br>Holongi S/S          | POWERGRID -<br>Comprehensive | Clearance form AAI for SS and line is pending   |  |
| 26 | Unit 1 and 2 of Lower<br>Subansiri HEP                         | NHPC                         | Sept.'24  |  |
| 27 | 400kV Lower<br>Subansiri-BNC line2                             | PGCIL                        | Line idle charged   |  |
| 28 | Gantry for LS-BNC line 2                                       | NHPC                         | Sept.'24  |  |
| 29 | Bus reactor at Lower<br>Subhansisri                            | NHPC                         | Sept.'24  |  |
| 30 | Conversion of MT to<br>DM at (i)132kV<br>Khliehriat, (ii)132kV |                              | Imphal-depends<br>upon the law and<br>order in Manipur. No<br>contracts coming up.    |  |

| 21 | Badarpur, (iv) 132kV<br>Imphal  220kV New Shillong-<br>NangalBibra(ISTS                          | NERTS  MEPTCL | Badarpur and Khleihriat-order yet to receive As updated by PGCIL, survey completed and   |   |
|----|--|---------------|--|---|
| 31 | 220/132kV) TL  |               | report also completed  |   |
| 32 | 220kV Bongaigaon-<br>Nangalbibra (ISTS) DC<br>and 220/132kV<br>Nagngalbibra (ISTS)<br>substation | Sterlite      | Tentative completion by Sept.'24.  |   |
| 33 | HTLS reconductoring<br>of 132kV Hailakandi-<br>Dullavcherra                                      | AEGCL         | During 23rd TCC RPC meeting, the forum recommended for the upgradation and preparation of DPR by AEGCL. AEGCL is already planning for reconductoring of the lines. However, Funding source is not finalized yet. |   |
| 34 | HTLS reconductoring<br>of 132kV Panchgram-<br>Hailakandi   | AEGCL         | Included in CEA 2030 Augmentation Scheme. AEGCL is already planning for reconductoring of the lines. However, Funding source is not finalized yet  | • |
| 35 | HTLS reconductoring<br>of 132kV Srikona-<br>Pailapool  | AEGCL         | Included in CEA 2030 Augmentation Scheme. AEGCL is already planning for reconductoring of the lines. However, Funding source is not finalized yet.   |   |

Members to update through email.

### 5.4 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

|   |                            |               |                                | e level                            |                 |                                    | tilized   | Status of in 219 <sup>th</sup> OC   | Lines (as updated<br>CCM)  |
|---|----------------------------|---------------|--------------------------------|------------------------------------|-----------------|------------------------------------|---|---|--|
| ō | ISTS S/s                   | State         | Voltage ratio, Trans.<br>Cap   | Down- stream Voltage level<br>(kV) | Unutilized bays | Status of ISTS bay                 | STU Lines for unutilized<br>bays                  | Date of Award   | Completion<br>schedule   |
| 1 | New Mariani<br>(POWERGRID) | Assam         | 400/22<br>0kV,<br>2x50<br>0MVA | 220                                | 2               | Commissione<br>d                   | New Mariani<br>(POWERGRI<br>D) – Diphu<br>(Assam) | route<br>survey<br>from<br>Diphu to<br>New<br>Mariani is<br>underway.<br>The<br>transmissi<br>on route<br>traverses | pending. Three years from date of LoA. Completion is expected by 2028.   |
| 2 | New Kohima<br>(TBCB)       | Nagala<br>nd  | 400/22<br>0kV,<br>2x500<br>MVA | 220                                | 2               | Commissione<br>d                   |   | LoA<br>Feb'2021   | OPGW and PLCC work will be completed by Oct 2023. All works are being implemented by Nagaland only.  Line would be charged after completion of communication link. |
| 3 | Nangalbibra<br>(TBCB)      | Meghal<br>aya | 220/1<br>32kV,<br>2x16<br>0MVA | 132                                | 2               | Under<br>constructio<br>n (Dec'23) | (ISTŠ) –<br>Nangalbibra                           | LoA is under process. Fund is yet to be   | within 6 months after award.   |

|  |  |  |  |  |  |  | 5km | released<br>from the<br>Govt. of<br>Meghalaya |  |
|--|--|--|--|--|--|--|-----|---|--|
|--|--|--|--|--|--|--|-----|---|--|

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

| S1.<br>No. | Substation/Locatio<br>n   | Transformatio<br>n<br>Capacity/<br>Element | Date of<br>Award  | Completion<br>Schedule  |
|------------|---|--|---|---|
| В          | Tripura (to be implem   | ented by TSECL)                            |   |   |
| I          | Surajmaninagar<br>(TSECL)   | 400/132kV,<br>2x315MVA                     | JV formation, between PGCIL and STU by Mar'23   |   |
| a)         | LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c line atSurajmaninagar (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 Surajmaninaga r |

Members to update through email

### 5.5 Status Review for the Items Referred from previous OCCMs:

| SL<br>N<br>o. | Item for Discussion  | Status as per 219 <sup>th</sup> OCCM      | Latest Status |
|---------------|--|---|---------------|
| 1.            | Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189 <sup>th</sup> OCCM) | Discussion with OEM M/s BHEL is underway. |               |
| 2.            | Implementation of Bus Bar<br>Protection at 132 kV<br>Kahilipara (AEGCL)                | <u>-</u>                                  |               |

|    | Substation (C.8 of 196th OCCM)  |   |  |
|----|---|---|--|
| 3. | Installation of Line<br>differential protection in<br>Rokhia-N.Rokhia line  | CBs arrived. Tentative completion by Sept.'24   |  |
| 4. | Reconductoring of Umiam<br>stg I stg III, upgradation of<br>CT ratio to 800/1   | Approaching PSDF for funding  |  |
| 5. | Restoration of tower no. 3<br>and 12 of LILO of Nirjuli-<br>Dikrong Transmission<br>line to Lekhi Substation<br>(B.23. of 193rd OCCM) | Tower locations in spate of floods. Works stalled. Expected completion after monsoon.   |  |
| 6. | Upgradation of Tuensang<br>substation to 132kV level,<br>under NERPSIP.<br>(item B.15 of 203rd OCCM)                                  | NERPSIP updated that<br>tender has been awarded by<br>the end of June'23 and the<br>work will be completed in<br>Sept.'24   |  |
| 7. | Khandong Bus A, Kopili ckt<br>1 bay and Khliehriat ckt 1<br>bay at Khandong SS  | NEEPCO updated that LoA has been awarded on 30 <sup>th</sup> August 2023 and work to be tentatively completed by Sept.'24   |  |
| 8. | 400kV Bus Bar 2 at Panyor<br>Lower HEP (Item C.9 of 216 <sup>th</sup><br>OCCM)  | NEEPCO informed that the isolator spares had arrived and for SF6 breaker, retendering was underway. He further stated that the work would be tentatively completed by May'25. |  |

Members to update through email.

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