सत्यमेव जयते

# Agenda
# for
# 199thOCCM, NERPC

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

# North Eastern Regional Power Committee

## Agenda for the

## 199thOperation Coordination Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 22-02-2023 (Wednesday)

Venue :"Hotel Nandan, Guwahati"

## A. CONFIRMATION OF MINUTES

**CONFIRMATION OF MINUTES OF 198thMEETING OF OPERATION SUB-COMMITTEE OF NERPC.**

The minutes of 198thmeeting of Operation Sub-Committee held on 24th January 2023atNERPC Conference Hall, Shillongwas circulated vide letter No. NERPC/SE (O)/OCC/2021/ 9994 -10033 dated 3rd February, 2023.

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

| Utility | Agenda Item | Recorded in MoM | Comments |
|---|---|---|---|
| MEPTCL | C.12 | SLDC Meghalaya intimated the forum that the line work has been completed and the reconductoring is done with AAAC Casablanca conductor with loading limit of 75MW in each circuit. However, replacement of 400/1 CTs with 600/1 CTs is yet tobe done, for which the generators at both ends have been asked to divert some CTs for the purpose | SLDC Meghalaya intimated the forum that the line work has been completed and the re-condutoring is done with ACCC Casablanca conductor with a continuous operating current of 875 A for each circuit. However, replacement of the existing CTs of 400/1 A with CTs of 600/1 A will be done for the time being (till appropriate CTs are procured) by diverting from other stations |

***The Sub-committee may confirm the minutes of 198thOCCM of NERPCwith the above modification(s).***

## B. FOLLOW UP AGENDA ITEMS

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

NERLDC to present the Operational Performance and Grid Discipline for the month ofJanuary, 2023.

***The sub-committee may deliberate.***

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

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

| Plants | Reservoir level in meter (as on 14/12/2022) | MU content | Present DC (in MU) | No of days as per current generation |
|---|---|---|---|---|
| Khandong + Kopilistg II | Under outage and restoration process going on | Under outage and restoration process going on | **0** | Will be "0" until further intimation. |
| Kopili | Under outage and restoration process going on | Under outage and restoration process going on | **0** | Will be "0" until further intimation. |
| Doyang | **317.41** | **18** | **0.189** | **95** |
| Loktak | **766.63** | **16.3** | **0.6125** | **27** |

**b.** The outage of other generating stations may be approved considering the present water levels in reservoirs and long-term outage of Kopiliand KhandongHEPs.

***The sub-committee may deliberate.***

### B.3. Outage Planning Transmission elements

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

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

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

***The sub-committee may deliberate.***

**B.4. Estimated Transmission Availability Certificate (TAC) for the month of December, 2022:**

Transmission Utilities have submitted the outage data for the month ofDecember, 2022. The attributability of outage of the said elements has bee finalized by NERLDC & NERPC. The Availability percentage of the transmission elements of ISTS licensees for the month of December,2022is as follow:

| SN | ISTS Licensee | Availability for Dec'22(%) |
|---|---|---|
| 1 | NETC | 99.7508% |
| 2 | KMTL | 98.7864% |
| 3 | NER-II TL | 100.0000% |
| 4 | PGCIL | 99.7658% |

***The sub-committee may deliberate.***

**B.5. Mock Black Start Exercise:**

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

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

Status as updated in the 198th OCCM:

| **Plant Name** | **Performed On** | **Due Date** | **Schedule of Testing as per 198th OCCM** |
|---|---|---|---|
| AGBPP | …… | …… | after upgradation of DG under R&M |
| AGTTCCPP | 09.04.2019 | 09.10.2019 | To be done on 27th Jan'23 |
| PareHEP | 25.01.2020 | 25.07.2020 | 1st week of Feb'23* |
| Kopili HEP | 10.05.2019 | NA | NA |
| Kameng HEP | …… | …… | In Lean Hydro season** |
| Doyang HEP | - | - | Completed on 21st Oct'22 |
| KopiliStg-II | - | - | Under prolonged shutdown |
| RHEP | - | - | Done on 28th Nov'22 |

*Regarding Pare HEP, the option of synchronizing the generator form Chimpu end was to be explored and the exercise was to be done before 2nd Feb'23.

**Regarding Kameng HEP, NEEPCO to resolve the MVAR setting issues of Kameng generator in consultation with BHEL.

***The sub-committee may deliberate.***

**B.6. Status of ADMS:**

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

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

As updated in the 198th OCCM:

1. SLDC TSECL reiterated that ADMS at Takerjhala, Bishalgarh and Badarpur can be enabled only after the completion of works by NERPSIP.
2. All the states except Mizoram are yet to change the logic as per new DSM regulation

***The sub-committee may deliberate.***

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

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

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

| State | Time Period | N-1 considered | Limiting element | TTC | RM | ATC |
|---|---|---|---|---|---|---|
| Arunachal Pradesh | Off-Peak | 132kV Lekhi – Pare | 132 kV Pare – Itanagar S/C | 195 | 5 | 180 |
| | Peak | | | 195 | 5 | 180 |
| Assam | Off-Peak | 220kV Misa-Samaguri I or II | 220 kV Balipara-Sonabil | 1730 | 40 | 1690 |
| | Peak | | | 1600 | 40 | 1690 |
| Manipur | Off-Peak | 132kV Imphal MA-Imphal PG Ckt I | 132 kV Imphal (MA)-Imphal (PG) II & III | 320 | 5 | 315 |
| | Peak | | | 320 | 5 | 315 |
| Meghalaya | Off-Peak | 132 kV Umiam3 – Umiam1 | 132 kV Umiam-Umiam | 340 | 10 | 330 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Peak | | Umiam 1 II | 260 | 10 | 250 |
| Mizoram | Off-Peak | 132 kV Melriat-Silchar I & | 132 kV Aizawl-Luangmual | 160 | 5 | 155 |
| | Peak | ORII | S/C | 155 | 5 | 150 |
| Nagaland | Off-Peak | 220/132 kV ,100 | 220/132 kV ,30 | 255 | 5 | 245 |
| | Peak | MVA Dimapur ICT | MVA Mokokchung ICTs | 290 | 5 | 285 |
| Tripura | Off-Peak | 132 kV SM Nagar(ISTS) | 132 kV SM-Nagar (TR) – | 340 | 6 | 334 |
| | Peak | Budhjungnagar S/C | SM Nagar (ISTS) S/C | 315 | 6 | 304 |

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

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

***The sub-committee may deliberate.***

**B.8. Issues pertaining to Kopili&Khandong.**

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

Theplanned shutdown of Khandong HEP and Kopili Stage II has been approved from 10.01.2022 to 09.05.2022 in the 185thOCCMfor the following activities:

**a.** Inspection and repairing of Khandong Head Race Tunnel, Trash Rack Gate, Intake Gate, Surge Shaft Gates, Steel Liner of HRT etc.

**b.** Acid Proof Coating of Stage-II Penstock

**c.** Installation and commissioning of Penstock Protection BFV System ofKhandong

**d.** Annual Planned Maintenance of Khandong Unit# I & II.

Decisions as per previous meetings: (i) Meghalaya System shall be operated by opening of 132kV Mawngap-Nongstoin T/L right from the start of Khandong HEP shutdown. (ii) In normal circumstances no load shedding is required and Meghalaya can continue to cater full demand based on present generation scenario. (iii) In event of tripping of any one circuit of 132kV UmiamStg-I to UmiamStg-III D/C SLDC Meghalaya shall swiftly shed load till loading of 132kV UmiamStg-I to UmiamStg-III S/C is within limit and also increase generation from UmiamStg-I HEP and Leshka HEP. (iv) based on Real Time Condition Mawphlang may be shifted to be fed from Agia side after concurrence of NERLDC, (v) Early restoration of Misa-Kopili-Khandong link by NERTS/NEEPCO.

In 196th OCCM it was highlighted that Meghalaya Power system to operate in bifurcation mode (132kV Mawngap-Nongstoin T/L shall be opened and Nongstoin,

Nangalbibra, Tura and Ampati to be fed from Agia) with installation of 20MVAR capacitor banks at 132/33kV NEHU SS till the reconductoring of UmiamstgI-stgIII D/C reconductoring work is done. After the reconductoring, it will shift to closed loop mode wherein maximum of 380MW maximum demand can be met with 107 MW Meghalaya internal generation.

**B. Restoration works at Khandong and Kopili substations**

Following the discussions in the 189th OCC and in the special meeting held on 27.04.2022 in presence of representatives from NERPC, NERLDC, NEEPCO, NERTS and AEGCL, Khliehriat – Khandong – Umrangshu link was charged as an interim special arrangement.

**Khandong**

1. One CRP for Khandong-Umrongso feeder at Khandong end is procured and expected to commissioned by NEEPCO before February 2022.
2. One Temporary KIOSK rom has been identified and Cable trenches are under Construction and, cables are being re-routed.
3. For availability of KhnadongKhleihriat line, POWERGRID was requested to install 1(one) BCU based CRP Febreuary-2023. Status of the same may kindly be shared with NEEPCO.
4. NERTS, POWERGRID was requested to ensure the installation of PLCC panel for Khandong – Khliehriat line alongwith FOTE panels for digital and analog data/voice, protection and communication to NERLDC before synchronization of the Khandong Stage-II.
5. AEGCL was requested to provide a PLCC Panel for Khandong-Umrongsoline and NEEPCO was to provide the 48V battery bank with charger for PLCC. Status of the same may please be intimated to NEEPO.

**Kopili**

1. 48V DC supply for PLCC panels is being undertaken by NEEPCO. PGCIL provided the load requirement of 20A max. Regarding 48V DC supply for PLCC panels, AEGCL stated that order is being processed.

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

NEEPCO is planning to re-commission and synchronize 1X25MW Khandong Stage-II unit within thiscurrent financial year. Since all the Control & relay panels are submerged and damaged beyond repair during the inundation on 26.03.2022, for successful commissioning of the unit, the Khandong Switch Yard has to be

adequately restored within February – 2023 and for reliable evacuation, any of the Khandong-Khleihriat ckt1 or ckt 2 along with 132kV Khandong-Umrangshu line (with full protection system) is required. And for evacuation of 2 units of Kopili, which are poised to come in May'23, either 220kV Misa-Kopili DC or Kopili-Khandong DC is required.

**In 198th OCCM following points were discussed**

**A.** Load Restriction in Meghalaya Power system:

i. Regarding Jiribam-Haflong line, DGM PGCIL intimated that the meeting of National Board for Wildlife on the issue had taken place on 29th December 2022 and the minutes of the meeting is likely to be issued in the first week of February 2023, after which Level 1 clearance will be provided to PGCIL

ii. Regarding reconductoring of Umiamsgt I- stg III D/C, line work is completed, CT replacement is underway. Till reconductoring is completed, Meghalaya power system to operate in bifurcation mode.

iii. Regarding commissioning of Mawngap-Killing line, Manager NERPSIP updated thatRoW issue is still unresolved and the matter is being discussed with the State government.

**B&C.** Restoration of Khandong&Kopilisubstations and Recommissioning of 1x25 MW Khandong stg II:

i. AEGCL updated that PLCC panel for Khandong-Umrangshu line will be provided by 15th Feb 2023.

ii. GM, NEEPCO updated the recommissioning dates of plants as follow-

| Sr. No. | Stations | Expected Revival Date |
|---|---|---|
| a. | Kopili 2 units (2x50) | May'23 |
| b. | Kopili other 2 units (2x50) | May'25 |
| c. | Khandong units 1 and 2 (2x25) | May'25 |
| d. | Khandong stg II (1x25) | March'23 |

iii. GM NEEPCO informed that for reliable evacuation of Khandong stg 2, any of the Khandong-Khleihriat ckt1 or ckt 2 along with 132kV Khandong-Umrangshu line (with full protection system) is required. And for evacuation of 2 units of Kopili, either 220kV Misa-Kopili DC or Kopili-Khandong DC is required.

iv. PGCIL intimated the forum that restoration of Koipili-Khandong DC will take longer period, so reliable evacuation could take place through Misa-Kopili DC

provided NEEPCO completes its Switchyard and Bay revival works at Kopili substation on time.

v. Regarding restoration works at Khandong switchyard, the Kiosk room will be ready by Feb'23 as intimated by NEEPCO and about placing the CRPs in the Kiosk room, PGCIL updated that the required CRPs are to be transferred from Srikona substation, which will be done after incorporating some modifications in the CRP.

vi. Regarding complete restoration of Khandong-Khleihriat DC, DGM PGCIL updated that the line side work (which involves erection of two DC towers) will be completed by 15th March'23 and Switchyard side work will be completed by end of March'23.

***The sub-committee may deliberate.***

**B.9. Implementation of Guwahati Islanding Scheme:**

In the 190th OCCM, DD, NERPC stated that in the Special Meeting on 13th May'22 it was decided that dedicated fiber is required in order to ensure Cyber Security. AEGCL intimated that Dedicated Fiber is available in the link SLDC – Sarusajai – Mirza – Boko – Agia – BTPS – BgTPP and offered the same for the Islanding Scheme.

The forum requested NERTS to explore the availability of dedicated fiber.Member Secretary, NERPC stated that after budgetary offer is received from at least two vendors the DPR will be finalized.

In 195th OCCM, Member Secretary, NERPC informed the forum that the budgetary offer from M/s GE has been received. He added that the DPR for the Guwahati Islanding Scheme shall be finalized by Oct, 2022.

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

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

***The sub-committee may deliberate.***

**B.10. Furnishing details of upgraded UFR settings alongwith list of feeders and quantum of load:**

Status as updated in the 198th OCC meeting

| Name of the state/utility | Submission of revised UFR list | Implementation of revised settings | Status of mapping |
|---|---|---|---|
| Ar. Pradesh | Submitted | Stg-1 (49.4Hz) implementation in new feeders. UFR to be procured by July'22, implementation to be done by Mar'23 | Coordination with M/S GE is ongoing, tentative completion by March'23 |
| Assam | Submitted | Installation Completed. UFR to be shifted to Samaguri for 132kV Khaloigaon-Samaguri line. | Done |
| Manipur | Not submitted | No extra shedding required only Stage upward revision to be done. ADMS and UFR feeder segregation to be done for Stage-I by next OCCM | To be done |
| Meghalaya | Submitted | 17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA | Done |
| Mizoram | To be submitted | Completed | Done |
| Nagaland | Submitted | Completed | Completed |
| Tripura | Submitted | Stage-1(49.4Hz),Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. Stg I UFR installed | Mapping by Feb'23 |

***The sub-committee may deliberate.***

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

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

Schedule as agreed in the 198thOCC meeting:

| Region | Station | No.of | Suggested Schedule | Duration (days) |
|---|---|---|---|---|

| | | generators | Test Start | Test End | |
|---|---|---|---|---|---|
| NER | NEEPCO-Monarchak | 1 | 26th July'22 | 28th July'22 | done |
| NER | NEEPCO-Kameng | 1 (by M/s Solvina) | Oct'22 | Oct'22 | Done on 20th,21stOct, 2022 |
| NER | OTPCL-Palatana | 2 (by M/s Solvina) | Nov'22 | Nov'22 | To be done* |
| NER | Doyang-NEEPCO | 2 (by M/s Siemens) | Oct'22 | Oct'22 | 4(water level to be sufficient enough to run the units at full capacity) |

*In the 198thOCCM, OTPC Palatana informed that in a meeting between the stakeholders concerned on 22nd December'22, the OEM, M/S BHEL raised reservations on the PFR testing procedures. OTPC requested OEM to provide procedure for the testing, however no response has yet been received from BHEL.

***The sub-committee may deliberate.***

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

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

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

In 198th OCCM, NERLDC updated that Patrolling reports have been received from all states except Tripura. After detailed deliberation, MS NERPC requested all the states to submit the reports in timely manner.

***The sub-committee may deliberate.***

**B.13. Monthly Review of LGBR**

| PARTICULARS (Peak Demand in MW as per LGBR vs Actual) | Nov-22 (LGBR) | Nov-22 (Actual) | Dec-22 (LGBR) | Dec-22 (Actual) | Jan-23 (LGBR) | Jan-23 (Actual) |
|---|---|---|---|---|---|---|
| Arunachal Pradesh | 161.41 | 125 | 142.19 | 144.74 | 128.42 | 166 |
| Assam | 1700.00 | 1714 | 1470.00 | 1586.27 | 1533.00 | 1643 |
| Manipur | 216.00 | 219 | 265.00 | 245.67 | 287.00 | 248 |
| Meghalaya | 355.00 | 381 | 368.00 | 394.41 | 384.00 | 404 |
| Mizoram | 127.55 | 135 | 133.35 | 143.34 | 132.99 | 159 |
| Nagaland | 155.00 | 165 | 160.00 | 152.09 | 165.00 | 139 |
| Tripura (exc. Bangladesh) | 260.00 | 282 | 240.00 | 240.56 | 230.00 | 247.71 |

| | | | | | | |
|---|---|---|---|---|---|---|
| NER DEMAND (exc. Bangladesh) | 2962.00 | 2905 | 2774.00 | 2905 | 2680.00 | 2866 |

| PARTICULARS (Energy Requirement in MU as per LGBR vs Actual) | Nov-22 (Actual) | Nov-22 (Actual) | Dec-22 (LGBR) | Dec-22 (Actual) | Jan-23 (LGBR) | Jan-23 (Actual) |
|---|---|---|---|---|---|---|
| Arunachal Pradesh | 66.42 | 69.1 | 67.53 | 77.81 | 72.81 | 75.01 |
| Assam | 780.67 | 811.610 | 775.57 | 813.88 | 770.53 | 814.320 |
| Manipur | 88.92 | 77.12 | 101.43 | 103.86 | 107.70 | 104.6 |
| Meghalaya | 183.22 | 199.43 | 209.04 | 222.42 | 213.03 | 223.25 |
| Mizoram | 77.61 | 51.76 | 57.25 | 65.43 | 65.63 | 65.33 |
| Nagaland | 64.94 | 64.31 | 73.05 | 72.88 | 68.16 | 65.81 |
| Tripura (excl. Bangladesh) | 114.39 | 120.53 | 108.78 | 114.26 | 110.21 | 118.43 |
| NER DEMAND (exc. Bangladesh) | 1367.71 | 1393.86 | 1374.44 | 1470.54 | 1368.52 | 1467.423 |

***The sub-committee may deliberate.***

**B.14. Installation of AWS by IMD Guwahati**

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

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

In 198th OCCM, NERLDC intimated that modified MoU by IMD has been shared with all the States by e-mail. Assam informed that approval of the MoU has been obtained and the same would be signed soon.Ar. Pradesh informed that the MoU would be signed shortly.All other States were also requested to check the MoU and expedite for signing at the earliest.

***The sub-committee may deliberate.***

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

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

**Triggering condition 1**: Tripping of 220kV Azara – Sarusajai D/C SPS action: Tripping of 132kV Kahilipara – Kamalpur and 132 kV Sarusajai – Kamakhya lines. For tripping of 132 kV Kahilipara – Kamalpur line, OPGW connectivity between

Sarusujai and Kahilipara will be used to send the tripping signal for tripping Kamalpur feeder at Kahilipara.

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

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

In 198th OCCM,AEGCL raised concern on Tripping condition 1 that there is heavy loading in the Kamakhya and Sishugram area due to presence of Railways and Industries and outage of 132kV Sarusjai-Kamkhya line may lead to heavy load loss. Also, the financial implication, if any, on implementing SPS logic at Substations- was raised by Assam. After detailed deliberation, the forum decided to revisit the scheme and a special meeting will be organized to discuss the matter holistically.

***The sub-committee may deliberate.***

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

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

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

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

closed loop only after installation of 10MVAR Bus Reactor otherwise high voltage condition will persist in Meluri and Kohima S/S.

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

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

***DoP Nagaland may update***

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

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

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

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

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

***The sub-committee may deliberate.***

**B.18. Telemetry and Communication system issues of projects commissioned under NERPSIP & Comprehensive schemes:**

The latest list of substations and transmission lines not having telemetry as on 07.02.23 is mentioned as below: NERPSIP may provide the updated telemetry targets:

| Sl. No. | Scheme | Name of Element | Name of Owner | Remarks |
|---|---|---|---|---|
| 1 | NERPSIP | Mohanpur | TSECL | Not reporting |
| 2 | NERPSIP | 132 kV Mokokchung-Mariani line LILO atLongnak and 132kV Bay & 33kV GIS Bay and associated equipments at Longnak Substation | DoP, Nagaland | Not reporting.<br>Station is not modelled in SLDC Nagaland SCADA. |
| 3 | NERPSIP | 132/33 kV, 31.5 MVA Power transformer at Ambassa substation | TSECL | Not reporting |
| 4 | NERPSIP | 132kV Sonabil-Tezpur line 1<br>132kV Sonabil-Tezpur line 2 | AEGCL | Reporting with ambiguous values. At Sonabil end Line 2 shows charged whereas at Tezpur end line 1 show charged.<br>CB status at Sonabil end is suspect.<br>Tezpur station whole data is intermittent. |
| 5 | NERPSIP | 132/33 kV Tezpur Substation | AEGCL | Reporting with ambiguous values. At Sonabil end Line 2 shows charged whereas at Tezpur end line 1 show charged.<br>Tezpur station whole data is intermittent. |

| | | | | |
|---|---|---|---|---|
| 6 | Comprehensive | 132/33KV Bay extension and 16 MVA Transformer at Dukumpani(Tenga) Substation | DoP, Arunachal Pradesh | Not reporting.<br>Element is not modelled in SLDC Arunachal SCADA. |
| 7 | NERPSIP | 132 kV Rabindranagar - Rokhia line | TSECL | Not reporting.<br>Element is not modelled in SLDC Tripura SCADA. |
| 8 | Comprehensive | 132 kV Basar S/s | DoP, Arunachal Pradesh | Not reporting.<br>Station is not modelled in SLDC Arunachal SCADA. |

***Sub-committee may deliberate***

## C. NEW AGENDA ITEMS

**C.1. Shutdown of lines of NEEPCO for early commissioning of Pare-N.Lakhimpur DC and providing separate gateway for 132kV Bays at North Lakhimpur at AEGCL: M/s Sterlite (MUML)**

1. Request for providing shutdown of 132kV Ranganadi-Nirjuli line for 15days for completion of reconductoring of LILO,dismantling and re-erection of 2 nos of existing towers and bypassing of Ranganadi-Nirjuli line at Pare. The shutdown schedule is 25.03.2023 to 10.04.2023. The shutdown is important to complete the work on time (mid April'23), and before high hydro season(**Annexure-C.1.1**).

2. M/S AEGCL is requesting M/S MUML to place a separate gateway for communication pertaining to the 132kV Bays placed at its North Lakhimpur SS, there is no requirement of any additional gateway as in all other substations using same gateway for different utilities, such as in our recenet project of NER-II no separate gateway provided in any substations of DoP, PGCIletc. Letter written by AEGClto NERLDC and Minutes of Meeting between AEGCl and MUML is attached herewith as (**Annexure-C.1.2)**.

***The sub-committee may deliberate.***

**C.2. Non-visibility of downstream network (i,e.Nangalbibra (ISTS) — Nangalbibra (MePTCL) 132kV D/c line) of Bongaigaon (Powergrid) — Nangalbibra 400 kV D/c (Twin ACSR Moose) line (initially operated at 220 kV) of NBTL project.: M/s Sterlite (MUML)**

1. As you are aware that, Nangalbibra-Bongaigaon Transmission Ltd (NBTL) (a subsidiary of Sterlite Power) is executing the inter-state transmission system (ISTS) project under tariff-based competitive bidding (TBCB) route which passes through state of Maghalaya and Assam. The transmission scheme is scheduled for completion within 24 months from 16th December 2021, which is when Sterlite Power acquired NangalbibraBongaigaon Transmission Ltd. as SPV.

2. NBTL project will transmit over 1,000 MW of power from Assam to western parts of Meghalaya. Apart from bringing the additional power flow, the project will also help in decongesting the downstream networks in the region, thereby improving the quality and reliability of power flow in North-East India and comprises of below mentioned transmission elements:

1) Bongaigaon (POWERGRID) - Nangalbibra 400kV D/c (Twin ACSR Moose) line (initially operated at 220kV) (Herinafter referred as "B-N line")

2) Hatsinghmari (Assam) — Ampati (Meghalaya) 132kV (Single ACSR Panther) D/c line

3) Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra

4) 2 No. of GIS line bays for termination of Bongaigaon (POWERGRID) — Nangalbibra 400kV D/c line

5) 2 No. of 132kV line bays on each end for termination of Hatsinghmari (Assam) - Ampati (Meghalaya) 132kV D/c line

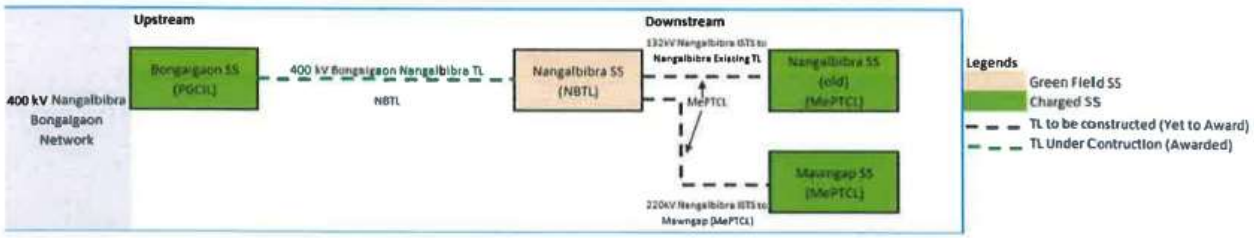
6) Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) — Ampati (Meghalaya) 132kV D/c line

3. With reference to the above-mentioned subject, I would like to inform you that Bongaigaon (POWERGRID) - Nangalbibra 400kV D/c (Twin ACSR Moose) line (initially operated at 220kV) (B-N line) is getting terminated at Nangalbibra substation. Further, below two lines of intra-State Transmission System would get connected at Nangalbibra substation but the same is not yet awarded:

1) Nangalbibra (ISTS) — Nangalbibra (MePTCL) 132kV D/c line: around 5km

2) Nangalbibra (ISTS) — Mawngap (MePTCL) 220 kV D/c line

4. Upstream and downstream Network of B-N line is depicted below:



5. NBTL is intended to commission project by December 2023, however there is no visibility of downstream system of "Bongaigaon (POWERGRID) - Nangalbibra 400kV D/c (Twin ACSR Moose) line (initially operated at 220kV)". If downstream system may not get commissioned by December 2023, element 1,3 & 4 of NBTL as mentioned in Para 2 above would get stranded after commissioning with a liability on defaulting party of its transmission charges.

6. In context of the same NBTL vide letter dated 10.12.2021 to Chief Engineer (Transmission) MePTCL, Shillong, Meghalaya has requested to update status of 132 KV transmission line which need to construct from Green field substation mentioned at sl no 3 of Para 2 above.

***The sub-committee may deliberate.***

**C.3 Early Commissioning of Part D of MUML (MUML D) project considering usefulness of transmission system for decongesting the network prior to Peak generation period during monsoon: M/s Sterlite (MUML)**

1. The Part-D of Mumbai Urja Marg Limited project planned to reduce overloading of Pare — Naharlagun / Nirjuli 132kV S/c line. Accordingly, below additional transmission system was identified for strengthening the evacuation system associated with Pare HEP.

1) Pare (HEP) (From Near LILO Point) — North Lakhimpur (AEGCL) 132 kV D/C line (ACSR Zebra Conductor) along with 2 no. 132 KV line bays at North Lakhimpur. (61.06 ckm)
2) LILO of one circuit of Pare HEP — North Lakhimpur (AEGCL) 132 kV D/C line (With ACSR Zebra Conductor) at Nirjuli (POWERGRID) substation. (33.26 ckm)

2. SCOD of the above transmission system is June 2023, that said, we are intended to complete by end of March 2023 with best effort basis. Getting shutdown of Ranganadi- Naharlagun/ Nirjuli line for completion of work under scope of MUML in the Month of May and June is difficult due to peakgeneration period. To avoid the delay in readiness of the asset due to peak generation months in May and June 2023 we have requested NEEPCO for shutdown of Pare HEP and Ranganadi-Naharlagun/ Nirjuli line in the month of March-April 2023.

3. To analyse the benefit of early commissioning, a system Study has been done using PSS/E software and POC October 2022 file from POSOCO website. Base case without MUML D and with MUML D has been studied and it is observed that (i) without interconnecting MUML D, few lines are loaded beyond its SIL that leads to undervoltage up to levels of 120 kV at adjacent 132 kV buses and (ii) with interconnecting MUML D, line flows are improved and voltages at buses are within their permissible limits.

4. In reference to above, we are requesting your good office to please include the same in agenda points for discussion, so that the delay in commissioning of transmission system of MUML D may be avoided.

***The sub-committee may deliberate.***

**C.4 Voltage discrepancy at 400kV Mirza S/S: NERLDC**

It has been observed that there is mismatch in Bus Voltage of 400kV Mirza S/S as recorded at site and as per the SCADA. The voltage at site is informed about 16kV lower than that of SCADA at all instances.

Assam is requested to verify the correctness of voltage data and if any discrepancy found may be rectified.

**C.5 Availing of shutdown without prior intimation and necessary code and unsafe operations of elements: NERLDC**

**A.** 132 kV Pare bus II was under Continuous Planned S/D from 08:52 Hrs of 21-01-2023. While returning the shutdown, Bus–II was charged at 13:51 Hrs of 26-01-2023 without taking necessary real-time code from NERLDC. Also, Continuous shutdown of 132kV Pare Bus-I was scheduled from 08:00 Hrs of 27-01-2023 to 16:00 Hrs of 01-02-2023. However, shutdown was taken at 08:03hrs of 27-01-2023 without prior information and necessary real-time code from NERLDC. These two incidents violate IEGC Clause 5.2.C quoted:

"No important elements of National/regional grid shall be deliberately opened or removed from service at any time except specifically instructed by RLDC or with specific or prior clearance of RLDC"

**B.** It has been observed that Pare is not adhering to safety practices during online transfer of elements from one bus to another.

i. On 21.01.2023, while availing the shutdown of 132 kV Pare Bus-2, during online transfer Bus coupler was opened first followed by switching for each feeder through isolator which is not a safe operation.
ii. On 26.01.2023, while returning the shutdown of 132 kV Pare Bus-2, bus coupler was not returned due to some pending maintenance activity but Bus-2 was charged by switching the isolators without prior opening of feeders.
iii. On 27.01.2023, while availing shutdown of 132 kV Pare Bus-1, as bus coupler was not returned from shutdown, online transfer of feeders from Bus-1 to Bus-2 was done by switching isolators.

PHEP is requested to avoid such unsafe practice and adhere to IEGC.

**C.6 Opening of Station Transformer by AGBPP without prior approval: NERLDC**

The shutdown of 220/6.6 kV Station transformer-1 at AGBPP was not approved through proper channel. However, the shutdown was availed by AGBPP at 11:02 Hrs of 30-01-2023 without taking necessary code and approval for retrofitting, testing and commissioning of CT which violates IEGC Clause 5.2.C

AGBPP is requested to avoid such practices and adhere to the clauses of IEGC.

**C.7 Commissioning of 132 kV BiswanathChariali-Gohpur-Itanagar link: NERLDC**

132 kV BiswanathChariali-Itanagar Line I and Line II were charged on 01.04.21 and 02.04.21 respectively.

132 kV BiswanathChariali –Itanagar II line is to be LILOed at 132 kV Gohpur Substation. Provisional Approval for charging 132 kV Itanagar and BiswanathChariali Bays at Gohpur was issued to AEGCL by NERLDC on 03.11.22. Subsequently, FTC of 132 kV Itanagar and BiswanathChariali bays at Gohpur Substation was done on 10.11.22 and 11.11.22 respectively.

LILO of 132 kV Biswanath-Chariali-Itanagar II line at Gohpur will enhance the reliability of Gohpur area of Assam System and also improve the voltage profile.

NTL may intimate the tentative timeline for LILO of 132 kV Biswanath-Chariali-Itanagar II line at Gohpur.

***Members may please discuss***

## C.8 Commissioning of 220 kV Balipara-Sonabil-2: NERLDC

As we know, commissioning of 220kV Balipara-Sonabil-2 line would increase the import transfer capability of NER grid significantly, hence solving the TTC/ATC limiting constraints in the Sonabil area of Assam Power System.

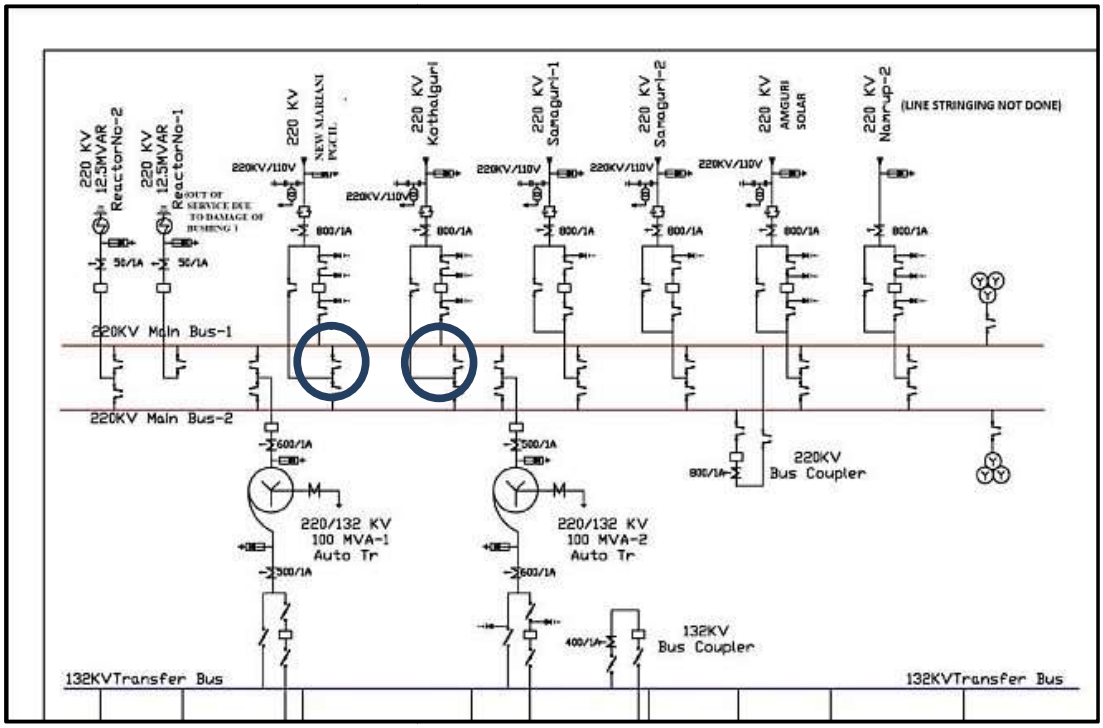
First Time Charging of 220 kV Sonabil 2 Bay at Balipara (PGCIL) Substation was applied by AEGCL in FTC portal and all the documents were received, and approval for charging of the above bay was issued by NERLDC on 09.02.23.Also, request for FTC of 220 kV Balipara – Sonabil 2 line was received from NERTS on 18.01.23 and acknowledgement was sent by NERLDC vide email dated 23.01.23.

NERLDC requested NERTS to submit the required pending documents at the earliest to energize the line for ensuring reliability of Assam Power System.

***Members may please discuss***

## C.9 Uniform segregation of feeders among both buses at 220 kV Mariani (AS) Substation: NERLDC

As per NERLDC records, bus bar scheme available at 220 kV Mariani(AS) substation is Double main cum transfer. The SLD is as shown below:



On 3rd Feb'23, ESD of 220 kV Main Bus-I was availed by AEGCL for attending damaged conductor strand of jumper connected to bus I. However, during shutdown, shifting of feeders could not be performed to Main Bus-II from Main Bus-I due to isolator mechanical alignment issue (as reported by AEGCL) thereby effecting the safe and secure operation of NER grid specially Upper Assam Power System which is the matter of concern. Due to the above shutdown, generation backing down in Upper Assam pocket was also imposed to keep the gate flow around 70 MW.

Since, 220 kV Mariani(AS) Sub-station is very critical, thereby healthiness of both buses is very much required for uniform segregation of feeders in both buses.

AEGCL may resolve the matter on priority and ensure the healthiness of both the buses at 220 kV Mariani.

Also, as per SLD, PGCIL owned bays at Mariani switchyard are 220kV New Mariani and 220kV Kathalguri feeder can be connected only to Main Bus 1. During outage of Main Bus 1, both the above feeders shall be out of service.

PGCIL is requested to look into the matter and do the rectification so that 220kV New Mariani and 220kV Kathalguri feeders at Mariani can be connected to both the Buses.

***Members may please discuss***

**C.10 Regarding commissioning of 220 kV Samaguri-Mariani-1: NERLDC**

As we know, Upper Assam Flow Gate consists of the following:

- 220 kV Mariani (AS) –Samaguri -II
- 220 kV AGBPP – New Mariani
- 220 kV Mariani (AS)– New Mariani
- 132 kV MarianiGolaghat

Considering N-1 contingency of either 220 kV AGBPP– New Marianior 220 kV Mariani (AS) –Samaguri -II , Upper Assam Flow Gate has to be limited within 320 MW leading to generation backdown during off-peak hours.

Also, on 3rd Feb'2023, during emergency shutdown of 220kV Bus at Mariani(AS), Upper Assam flow gate had to be maintained at 70 MW with a generation backing down of 166 MW considering N-1 contingency of 220 kV AGBPP - New Mariani line and 132 kV MarianiGolaghat as limiting element.

Hence, commissioning of 220 kV Samaguri-Mariani (AS)-I is very crucial for maintaining the reliability and safe evacuation of generation in Upper Assam Power System. As per 198th OCCM, Forest Clearance is still awaited for the Samaguri-Khumtai section.

AEGCL is requested to expedite the commissioning of the line and intimate the updated status.

***Sub-committee may discuss***

**C.11 Installation of TLSA on 132kV MLHEP-I to Khliehriat DC line: MePTCL**

Meghalaya Power Transmission Corporation Limited (MePTCL) is requesting the forum to allow the entity to go ahead in submitting the DPR for the installation of the Transmission Line Surge Arrester (TLSA) on the 132 KV D/C line from MLHEP-I to 132 KV Khliehriat sub-station, Meghalaya Power Transmission Corporation Ltd (MePTCL) for PSDF funding which was approved by the forum on the 189th OCC Meeting held on 19th April, 2022. It may be mentioned here that the forum has approved the proposal as a combined DPR with the SPS Scheme for MLHEP-I, but due to the delay in receiving necessary inputs from MePGCL, therefore MePTCL is requesting the forum to allow the submission of the TLSA DPR without the SPS Scheme.

The proposal for TLSA installation shall improve the availability of the above D/C line and prevent repeated SPS operation which is undesirable.

***The sub-committee may deliberate.***

**C.12 Consultancy Services by CPRI on Power System Studies and Third-Party Protection Audit: NERPC**

Central Power Research Institute (CPRI), a non-profit organization under the Ministry of Power has offered to provide consultancy services on Power System Studies and also undertake third party protection audit for the Power Utilities in NER. Letter from CPRI to NERPC on this matter is attached at (Annexure C.12).

***The sub-committee may deliberate.***

**C.13 Delete or hide the Manipur Share in LTA: TSECL**

Bilateral exchange with the Manipur agreement was closed on 31.05.2022. After closing of agreement, TSECL was given a schedule to Manipur by mistake on 09.08.2022. A few days ago,i.e. on 05.02.2023, it was noted again.

Regarding this issue, it is requested to delete or hide the Manipur Share in LTA of wbes website and also Manipur is requested to give your valuable inputs from your end.

***The sub-committee may deliberate.***

**C.14 Installation of two numbers Generator Transformer for MyntduLeshka HEP: MePGCL**

Myntdu-Leshka Power Station is a generating station has threeunits 42 MW each, with 9 nos. of 17.5 MVA, 11/132 KV single phase GeneratorTransformers (3 nos for each unit). A 10th spare Generator Transformer has beenkept as a provision, in the event of failure of any of the single-phase GeneratorTransformers.

Since commissioning of the Myntdu-Leshka Power station in 2011, 2 (two) nos ofGenerator Transformers had failed due to various factors. These GTs have beenrepaired twice. One of the repaired GTs is put in service and the other has been keptas spare. As the reliability and dependability of the repaired GTs are veryunpredictable, it is proposed that 2 (two) new single-phase GTs 17.5 MVA, 11/132KV with accessories etc. are procured to replace the repaired GT in service and thelatter to be kept as spare.

Since the power supply depends on reliability and availability of the GTs, anybreakdown is fatal. Considering the importance to optimize maximum generationduring high hydro monsoon season at the MLHEP area, to cater andmaintaining/regulating un-interrupted power generation for grid stabilitythroughout the year, it is very vital for procurement of 2 (two) new single-phase GT,17.5 MVA,11/132 kV with accessories etc. for the MLHEP Power Station, to meetthe ever-growing System Demand.

Tentative Cost Estimate: 6.5 Crores.

***Sub-committee may deliberate***

**C.15 Installation of Raccoon covered Conductor for 33kV Power supply from MyntduLeshka stage-1 power station to MLHEP Dam:MePGCL**

The source of power supply to the MLHEP Dam Control Room is through a 10 Kmlong, 16 years old overhead 33KV line from the Myntdu-Leshka Power Station. Since,this line is very unreliable and dependable, especially during the peak monsoonseason, which is prone and frequently tripped failed, due to very bad inclementweather conditions accompanied with heavy thunderstorm, lightning and strongwinds in the region.

In light of the above and to mitigate outage and maintain uninterrupted 33kV Power Supply to MLHEP Dam, which is requires for continuous operation of the sluice gates for safety purposes during the peak monsoon season, and as a vital requirement for the Run of the River Dam, it is proposed for installation of 33KV power supply from Muntdu-Leshka Power Station to MLHEP Dam.

Tentative Cost Estimate: 4 Crores

***The sub-committee may deliberate.***

**C.16 Installation of open loop cooling water system and improvement of dewatering for MyntduLeshka stage-I power station:MePGCL**

The Myntdu-Leshka Stage-I Power Station being Run of the River scheme, has beendesigned with a plant load factor of 44% and is expected to generate around 484 MU

by design per annum.The existing Cooling System for the three units of 42 MWs each of the Myntdu-Leshka Power Station is of a closed loop system which include the primary andsecondary cooling water pumps.The breakdown of these pumps during their continuous operation usuallycontributes to the outages of the units. With the proposal Cooling System in place, itwill mitigate the outages due to the failure of cooling water pumps grid disturbancesand clogging of heat exchangers reduction in maintenance cost of the primary coolingwater system consisting of pipes, flanges valves pumps filters and heat exchangersdue to exposure to acidic nature of the water. This will be vital for the maintainingthe availability of Power Generation in the region and in particular the state ofMeghalaya.

The Power House is also equipped with 4 Nos of Drainage Pump and 6 Nos ofDewatering Pumps. These Pumps are of VT shaft type. These pumps are unreliableand not dependable as they are prone to fail due to deformed shaft or brokencoupling. To prevent and avoid flooding of power House, it is proposed that theexisting Dewatering and Drainage Pumps be replaced with Submersible Type ofPumps in line with the guidelines of CEA.

Further the existing system for Dewatering of the tail race water in the event of anyemergency planned or forced maintenance of the underwater components of the T&G

set is only through the Primary Cooling, Drainage and Dewatering System of U3wherein its delivery outlet Pumps the water to the Lynriang River. This system takesaround approximately 60 hours to deliver the tail race water (approx 50,00,000 ltrs)to the river. By modification of the system, and extending the primary, Drainage and

Dewatering Water conductor piping system of unit 1 & 3 to the Lynriang River, thiswill greatly reduce the dewatering of Tail Race Water to around 24 Hrs and outageHours of the whole Power Station by around 36 Hours.

In line with the above, it is proposed that an open looped cooling system andImprovement of the Dewatering System for the benefit of the MyntduLeshka Stage – I

Power Station and the stability of the grid as a whole.

Tentative Cost Estimate: 7.6Crores

***The sub-committee may deliberate.***

**C.17 Installation of Raccoon covered conductor for outside source of 33kV power supply of Umiam stage IV Power Station, Nongkhyllem coming from Umiam stage III Power Station, Kyrdemkulai: MEPGCL**.

PROPOSAL: Installation of 33KV Racoon covered conductor with accessories etc for Outside source 33KV power supply of Umiam Stage IV Power Station, coming from Umiam Stage III power station, under MePGCL. Explanatory Note: Stage IV power station is a generating station with two installed Units, where each unit is of capacity of 30 MW. The overall generating capacity of this station is 60MW. The above 33KV

outside source power supply line from Stage III Power station to Stage IV power station which runs through the reserved forest is prone to frequent power supply outages due to frequent falling of bamboos and small trees on the naked conductors of the line. Although trimming of trees is done regularly, the growth of shrubs, trees and bamboos are very fast which caused frequent outages of the line. Therefore, in this connection it is felt necessary to replace the existing naked racoon conductor with 33KV covered racoon conductor in order to avoid frequent outages of the line. Due to lack of fund, MePGCL is requesting the forum to consider recommending the funding of this project from PSDF.

***The sub-committee may deliberate.***

**C.18 Proposal for intallation of equipments for Mobile Communication facilities for all Power Stations of Meghalaya: MePGCL**

PROPOSAL: Proposal to fund setting up of additional mobile communication towers and equipments to ensure reliable and continuous mobile network connectivity for all Power stations in Meghalaya on account of very poor network connectivity as it is not commercially viable for the Service providers since the areas around the Power stations have scarce populace. Explanatory Note: In order to ensure reliable, stable and optimum power generation from each Power Station it has become necessary to also have a very reliable mobile communication network system in addition to PLCC communication. It may be noted that on many occasions PLCC communication system is prone to frequent interruptions and failures during bad weather and other disturbing Grid conditions for which lack of communication between Power Stations and SLDC delays the restoration of the Power system during Grid failure and Grid interruption. Most of the time during such a situation, the shift duty personnel has to come out of the Power Station to a particular location which is quite far from the Power station, where there is network availability and only then the contact with SLDC is established. This process of maintaining communication with SLDC has become a regular affair particularly during Peak generating season i.e monsoon season. This is prevalent in almost all the Power stations in Meghalaya. MePGCL had approached the service providers for necessary action to improve the network connectivity in the areas around the Power stations but the same is not materialised till date since it is known that setting up of additional towers and equiptments in

those areas is not commercially viable for the Service Providers as these areas have scarce population. MePGCL is requesting the forum to consider for recommendation of funding of this project from PSDF or any applicable Central scheme.

***The sub-committee may deliberate.***

## D. ITEMS FOR STATUS

### D.1. Implementation of projects funded from PSDF:

The status as informed in 198thOCC:

| State | R&U scheme | ADMS | Capacitor Installation | SAMAST** | Line Differential Protection |
|---|---|---|---|---|---|
| Ar. Pradesh | Package-I (Diagnostic tools) Complete in all respects. P-II (for PLCC & communication) Supply completed. Erection WIP. 50% requisition submitted. P-III (Substation equipment) Agreement signed and 10% requisition submitted. Total 90% requisition by Apr'22. Completion by Dec'22. (Approval from TSA and Account opening in 3 months) | Project completed in all respects. | - | 30% requisition submitted. Amount not received in the TSA account. | - |
| Nagaland | Completed in all respects. | Work completed in all respects. UC submitted. | - | 30% requisition submitted | Lines identified. Under DPR preparation stage. |
| Mizoram | Final 10% disbursed. UC to be submitted. | Work completed in all respects. Remaining part of final 10% to be disbursed ASAP. | To reply to TESG queries. | 30% requisition submitted. | Revised DPR including both 132kV Aizawl-Luangmualand 132kV Khamzawl-Khawiva to be submitted. |
| Manipur | Package-II: completed Package-I: all stations complete except Ningthoukhong. | Work completed in all respects. UC submitted in Oct'21. | WIP. | 10% disbursed for IT portion, no disbursement for Meter, | Revised DPR for LDP of 132kV Imphal-Yurembam-III to be submitted by |

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

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

| Sl. No | Element | Owner | Status as informed in the 198th OCCM | Latest Status |
|---|---|---|---|---|
| 1 | 132kV Mariani – Mokokchung (*out since April'2008*) | AEGCL | Non clearance due to persisting funding issue | |
| 3 | 132kV Roing-Pasighat (*charged through ERS tower* | NERTS | June-2023 | |
| 4 | 220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(*out since Oct'19*) | NEEPCO/ NERTS | ICT Kopili- May 2023 ICT Khandong- May 2023 | |
| 5 | 132kV Srikona – Panchgram | AEGCL | Tender floated on 21.11.2022,Under evaluation | |
| 6 | 400kV Imphal – Thoubal-I and 315MVA 400/132kV ICT at Thoubal | MSPCL | RoW, litigation pending in court. | |
| 7 | 63MVAR Bus Reactor at Byrnihat to be replaced with 80MVAR Reactor | MePTCL | Logistics issue.Under process. | |
| 9 | 400kV Silchar-Misackt DC (permanent restoration) | NER-II TL | Pile works and chimney casting completed. Tower erection under process. Estimated by March'23. | |
| 10 | LR- BNC at Balipara ss(50MVAR, 400kV) | PGCIL | WIP, expected revival by March'23 | |

**D.3. Status of commissioning for upcoming projects:**

| Sl. No | Name of the element | Utility | Status as informed in 198th OCC meeting | Latest Status |
|---|---|---|---|---|
| 1 | 132kV Monarchak-Surjamaninagar | TSECL | July'23 | |
| 2 | PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines) | MSPCL | Under R&M by NHPC.July'23 | |

| | | | | |
|---|---|---|---|---|
| 3 | Construction of 2nd bay at Balipara for 220kV Balipara-Sonabil-2 | AEGCL | Work to continue after shut down is availed. | |
| 4 | Upgradation of 132kV Lumshnong – Panchgram line | MePTCL | Upgradation work to be taken after 15th March | |
| 5 | PLCC for 132kV Karong-Kohima. PLCC at Kohima | DoP Nagaland | Awaiting sanction from PSDF | |
| 6 | 132kV Loktak-Ningthoukhong-II | MSPCL | | |
| 7 | 132kV Roing-Chapakhowa | NERTS | Estimated by Feb'23 if RoW issues are resolved by Jan'23 | |
| 8 | Re-conductoring 220kV BTPS-Salakati D/C | NERTS | Feb'23 | |
| 9 | 420kV 80MVAR Bus Reactor | NEEPCO | Transportation and logistics issue, by Dec'23 | |
| 10 | 220kV Killing – Mawngap | NERPSIP | March'23 subject to resolution of long pending RoWs in Ri-Bhoi and East Khasi Hills district. | |
| 11 | 220kV Samaguri – Mariani-I | AEGCL | FC awaited for the Samaguri-Khumtaisection.Khumtai-Mariani is charged. No forest clearance. | |
| 12 | Reconductoring of 132kV UmiamStg-III to UmiamStg-I by HTLS | MePTCL | Line work is done, CT to be replaced at both ends, process underway | |
| 13 | PLCC/DTPC for 220kV Balipara- Sonabil | AEGCL | After the completion of 2nd bay at Balipara for 220KV Balipara-Sonabil-2 | |
| 14 | 220kV AGBPP –Namsai D/C | TBCB | LoA awarded on Oct'22. Estimated to be completed in 36 months. | |
| 15 | Upgradation of 132kV Surjamaninagar-Surjamaninagar(ISTS), 132kV Bodhjungnagar-SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari-P.K.Bari(ISTS) | TSECL | New tender has been floated for joint venture of PGCIL and STU. | |
| 16 | LILO of 132kV Leshka-Khliehriat-I at Mynkreand Mynkre SS | NERPSIP | LILO ready. Substation WIP- March'23. | |

| | | | | |
|---|---|---|---|---|
| | and 33kV downstream at Mynkre. | | | |
| 17 | 220kV Tinsukia-Behiating D/C | NERPSIP | WIP-March'23 | |
| 18 | LILO of 132kV Kamalpur-Kamakhya& 132kV Kamalpur-Sishugram at Amingaon | NERPSIP | ERS installation work under scope of AEGCL. Work under progress. | |
| 19 | 220kV Rangia – Amingaon D/C and 220/132kV 2x160MVA Amingaon S/S | NERPSIP | March'23 | |
| 20 | 132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur | NERPSIP | March'23 | |
| 21 | 132/33kV 2x20MVA Gamphazol at Manipur | NERPSIP | Test charged in Dec'22 | |
| 22 | 132/33kV West Phaileng S/S at Mizoram | NERPSIP | Ready for charging. Line WIP. | |
| 23 | 132/33kV 2x12.5MVA Marpara S/S at Mizoram | NERPSIP | March'23 | |
| 24 | 132/33kV 2x12.5MVA Lungsen S/S at Mizoram | NERPSIP | March'23 | |
| 25 | 132kV Lungsen-Chawngte S/C at Mizoram | NERPSIP | Feb'23 | |
| 26 | 132kV Chawngte – S.Bungtlang S/S at Mizoram | NERPSIP | March'23 | |
| 27 | 132kV W.Phaileng-Marpara S/C at Mizoram | NERPSIP | March'23 subject to RoW clearance in Pukzing village in Manit district. | |
| 28 | 220kV Zhadima – Mokokchung at Nagaland | NERPSIP | Feb'23 | |
| 29 | LILO of 132kV Wokha – Kohima at 132/33kV New Kohima at Nagaland | NERPSIP | Feb'23 | |

| | | | | |
|---|---|---|---|---|
| 30 | 132kV Wokha-Zunheboto – Mokokchung at Nagaland | NERPSIP | March'23 | |
| 31 | 132kV Tuengsang – Longleng at Nagaland | NERPSIP | Tuengsang substation upgradation under tendering. | |
| 32 | 132/33kV Amarpur S/S at Tripura | NERPSIP | March'23 | |
| 33 | 132/33kV Manu(new) S/S at Tripura | NERPSIP | March'23 | |
| 34 | 132kV Dharmanagar-Kailashor | NERPSIP | Feb'23 | |
| 35 | 132kV Ziro-Yazali and 132/33kV Yazali S/S | POWERGRID-Comprehensive | March'23 | |
| 36 | 132kV Yazali – Palin and 132/33kV Palin S/S | POWERGRID - Comprehensive | No forest clearance achieved. Work under process. Estimated to be completed in 12 months. | |
| 37 | 132kV Palin- Koloriang and 132/33kV Koloriang S/S | POWERGRID - Comprehensive | No forest clearance achieved. Work under process. Estimated to be completed in 12 months. | |
| 38 | 132kV Khonsa – Deomali and 132/33kV Khonsa S/S | POWERGRID - Comprehensive | Next year i.e 2024 | |
| 39 | 132kV Miao – Namsai and 132/33kV Miao S/S | POWERGRID - Comprehensive | Next year i.e 2024 | |
| 40 | 132kV Chimpu – Holongi and 132/33kV Holongi S/S | POWERGRID - Comprehensive | OPGW has been installed in the line, but stringing work at 6 locations are held up due to RoW issue | |
| 41 | Lower Subansiri HEP | NHPC | Unit 1 by Jan'23 and Unit 2 by Feb'23 | |
| 42 | 400kV Lower Subansiri-BNC line1 | PGCIL | Feb'23 | |
| 43 | 400kV Lower Subansiri-BNC line2 | PGCIL | March'23 | |
| 44 | Conversion of MT to DM at (i)132kV Khliehriat, (ii)132kV Badarpur, (iii)132kV Nirjuli, (iv) 132kV Imphal | NERTS | 132 kV Khliehriat and 132 kv Badarpur- under approval stage.<br>132 kvNirjuli- work ongoing. | |

| | | | | |
|---|---|---|---|---|
| | | | 132 kv Imphal- Feb'23 | |

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

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

| Sl. | ISTS S/s | State | Voltage ratio, Trans. Cap | Down- stream Voltage level (kV) | Unutilized bays | Status of ISTS bay | STU Lines for unutilized bays | Status of Lines(as updated in 198thOCCM) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Date of Award | Completion schedule |
| 1 | New Mariani (POWERGRID) | Assam | 400/220kV, 2x500MVA | 220 | 2 | Commissioned | New Mariani (POWERGRID) – Diphu (Assam) 220kV D/c line | Preliminary survey completed | By Jan'25 |
| 2 | New Kohima (TBCB) | Nagaland | 400/220kV, 2x500MVA | 220 | 2 | Commissioned | New Kohima (TBCB) – New Kohima (Nagaland) 220kV D/c line | LoA Feb'2021 | Line stringing completed, PLCC works to be completed by Feb'23. For OPGW, PGCIL is requested to Install it. |
| 3 | Nangalbibra (TBCB) | Meghalaya | 220/132kV, 2x160MVA | 132 | 2 | Under construction (Dec'23) | Nangalbibra (ISTS) – Nangalbibra (MePTCL) 132kV D/c (HTLS,800A) Line:about 5km | DPR prepared and survey completed. Approval awaited. | Dec'23 |

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

| Sl. No. | Substation/Location | Transformation Capacity/ Element | Date of Award | Completion Schedule |
|---|---|---|---|---|
| **A** | **Assam (to be implemented by AEGCL)** | | | |

| | | | | |
|---|---|---|---|---|
| **I** | **Rangia** | 400/220kV,<br>2x500MVA | 1. EPC Contract Award is Tentatively scheduled in the early half of Dec'2022.<br>2. Master Plan submitted for approval.<br>3. Tender under preparation<br>4. AIB points to be addressed | Dec'2025 |
| a) | LILO of both circuits of Bongaigaon – Balipara 400kV D/c line at Rangia | 400 kV, D/C | 1. EPC Contract Award is expected byDec'2022.<br>2. Tender preparation is completed and is to be reviewed by AIIB | Mar'26 (36 months form date of Award) |
| **II** | **Khumtai** | 400/220/132kV,<br>2x500MVA + 2x160MVA | Survey work to be completed by June'2022. EPC tender to be floated on finalization of fund allotment. 220kV work will be constructed under ongoing AIIB scheme for which contract has already been award to M/S RS infra PVT tech ltd. | May'2026 |
| a) | Khumtai (AEGCL) – BiswanathChariyali (PG) 400kV D/c line | 400kV D/c | Survey work completion by July'22, tender floating after finalization of fund allocation. | 220kV LILO part 60% complete. 400kV line by May'2026 |
| **III** | **Upgradation of Gohpur S/s from AIS to GIS** | - | 1. Notice of Award has been issued on 8thjune 2022 to M/S Sumaja Electro infra Pvt ltd. | June'2025 |
| a) | 2 no. 132kV GIS line bays at Gohpur for termination of LILO of one circuit of BiswanathChariali – Itanagar 132kV D/cine(line works underISTSthrough TBCB route) | 132kV | 1. LoA by Jun'22 | June'2025 |
| **IV** | **Upgradation of Sonapur S/s from AIS to GIS** | - | 1. Contract to be awarded by Jun'23. LoA by Jun'23 | June'2026 |

| | | | | |
|---|---|---|---|---|
| a) | LILO of 400kV Silchar-Byrnihat at Sonapur | - | 1. LoA by Jun'23 | June'2026 |

| Sl. No. | Substation/Location | Transformation Capacity/ Element | Date of Award | Completion Schedule |
|---|---|---|---|---|
| **B** | **Tripura (to be implemented by TSECL)** | | | |
| **I** | **Surajmaninagar (TSECL)** | 400/132kV, 2x315MVA | JV formation, between PGCIL and STU by March'23 | 12 months from Date of Award |
| a) | LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c lineatSurajmaninagar (TSECL) S/s | 400kV D/c | All works except 400kV termination at Surjamaninagar(TSECL) by POWERGRID to be done. Balance works under separate contract. | 84% Line works complete by PGCIL, total completion subjected to Sub-station readiness at Surajmaninagar |
| **C** | **NEEPCO (to be implemented by NEEPCO)** | | | |
| **I** | **Extension works at RanganadiHEPend** | | | |
| a) | 420kV 80MVAR Bus Reactor at Ranganadi Generation Switchyard | | LOA on 11.01.2022 | Dec'23 (Logistics and Transportation issue) |
| **II** | **Extension works at Pare HEP end** | | | |
| a) | Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi- Naharlagun / Nirjuli132 kV S/c line | 132kV | Regarding bypassing of LILOat (a), work has been awarded in Dec, work to be completed in 4 months from LoA,<br><br>The LILO portion is about2.2km & the cost estimateshave been received byNEEPCO. Upon approval ofthe same, work shall be awarded.Expected to be awardedshortly. | To be completed by NEEPCO by April2023 i.e. prior to ISTS works i.e. July 2023. |
| b) | Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalentto ACSR Zebra) along with modification of 132kVbay equipment at Pare HEP | 132kV | | |

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

| S.No | Item for Discussion | Status as per 198thOCCM | Latest Status |
|---|---|---|---|
| 1. | Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189th OCCM) | OEM has visited the site and proposed certain modifications in the original scheme. The finalised scheme will be submitted to the higher management in the following week. | |
| 2. | Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189th OCCM) | Discussion with OEM is underway | |
| 3. | Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189th OCCM) | | |
| 4. | Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184th OCCM) | Litigation pending in court | |
| 5. | Charging of 33kV Khupi-Kimi line at 132kV: Recommendations of the 187th OCCM to be implemented: (a) Installation & Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188th OCC meeting held on 16th March, 2022 at Guwahati (b) Defective Relays at Khupi end to be repaired (NEEPCO) – By Mar'22 (c) PID testing and replacement of defective insulators (NEEPCO) – By Mar'22 (d) Infringement checking and vegetation clearance (NEEPCO) – By Mar'22 (e) Stringing of OPGW by POWERGRID Comprehensive – By Mar'22 (f) Procurement and installation of Line Differential Relays (NEEPCO) – By Mar'22 (Agenda B.15 of 188th OCCM) | GM, NEEPCO informed that at one location landslide has reduced ground clearance, land clearing work is being undertaken by NEEPCO, to be completed by 10th Feb. All other works in account of NEEPCO is completed.<br><br>Regarding OPGW work, Comprehensive updated that mobilization of man and materials in progress. Work to start from 06.02.2023 and to be completed by the end of Feb'23 | |
| 6. | Synchronization issue of 220kv AGBPP – Tinsukia 1 & 2 at AGBPP end.( NEEPCO to update the status of CVT procurement and other relevant details.) Item B.24 of 190th OCCM. | Tender floated in the month of August'2022. | |

| | | | |
|---|---|---|---|
| 7. | Implementation of Single Phase Auto-Reclosure for 132kV Rangia-Motonga (C.14 of 191st OCCM) | March'23 | |
| 8. | Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191st OCCM) | Revised estimate submitted to Disaster Risk reduction Works, 2022-2023, yet to be approved | |
| 9. | Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation) (B.18 OF 194TH OCC) | Will be provided before OPGW installation in N Kohima - Zhadima Line. | |
| 10. | Restoration of 400 kV STG-1 Main Bay at OTPC Palatana (C.6 of 194th OCCM) | OEM visited the site, faulty cables to be replaced soon | |
| 11. | Occurrence of Multiple grid disturbance in Gohpur and radially connected areas of Assam Power System (C.10 of 194th OCC) | SEMmeters provided by PGCIL, both lines bays commissioned from AEGCL end. AeGCl scope of work done, Sterlite scope of work remaining | |
| 12. | Status of Installation of TLSA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L (C.12 of 194th OCCM) | Tendering completed, LoA awarded, supply will start soon | |
| 13. | PLCC & protection related issues at 132kV Tipaimukh S/s (C.15 of 194th OCC) & (C.8 of 197th OCC) | PLCC engineer to visit the SS in last week of December. (MSPCL) | |
| 14. | 48V System reliability at Pasighat end (C.16 of 194th OCC) | March'23 | |
| 15. | Construction of Anchor tower at location 433 by PGCIL and reconductoring of 220kV Mariani-Mariani SC with Moose conductors(B.16 of 196th OCCM) | Approved in OCC(1st to 4th Feb'23) and work has been taken up by the site | |
| 16. | Early Restoration of Y-pole Circuit Breaker at AGTCCPP for 132 kV Agartala I Line (Agenda C.11 of 198th OCCM) | To rectify the CB, gasket replacement work is being done and expected revival date is 5th Feb'23 | |
| 17. | Non reporting of 132kV Mohanpur S/S under NERPSIP and Comprehensive projects (B.18 of 198th OCCM) | OPGW break found in 132kV Mohanpur - Dhalabil line. The fiber link break issue in the existing line was resolved by state utility on 17.01.2023 and informed to POWERGRID by 18.01.2023. POWERGRID is planned to depute engineer and establish communication on or before 31.01.2023 | |
| 18. | Commissioning of 400kV Bus-B at Ranganadi Power Station | In 193rd OCCM, forum requested NEEPCO to put forth | |

| | | | |
|---|---|---|---|
| | (C.14 of 192ndOCCM) | agenda for upgradation of 400 kV switchyard to GIS and implementation of 400 kV Bus–B together. Status of the same may be provided by NEEPCO | |
| 19. | Implementation of Bus Bar Protection at 132 kV Kahilipara (AEGCL) Substation (C.8 of 196th OCCM) | As per minutes of 196th OCCM, AEGCL to expedite the installation and update latest status. | |
| 20. | Furnishing of data as per Detailed Procedure on interim methodology for estimation of Reserves under CERC (Ancillary Services) Regulations, 2022(item C.4 pf 198th OCCM) | Data received from Assam. Other states are yet to furnish. | |

## E. METERING ITEMS

### E.1. Procurement of SEM & DCD/Laptop for future requirements:

NERTS may intimate the status of procurement of Additional 40 nos. of DCD.

In 198th OCCM, PGCIL updated that Inspection at Factory was completed on last week of January 23. Delivery by the OEM, M/s SANDS is expected by 3rd week of February'23. Status may be reviewed.

***The sub-committee may deliberate.***

### E.2. Issues regarding SEM Data Processing:

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

Weekly SEM data of 132 kV Pailapool (As) Substations is important for accounting of Assam drawal. However, SEM data from the said substation is not being received. In 198th OCCM,Assam updated that procurement of new laptop is under process. Regarding laptop at Karimganj problem in Operating system is being rectified. Status may be reviewed.

b. Erroneous reading of Tipaimukh end of 132kV Aizwal-Tipaimukh line:

Tipaimukh end of 132kV Aizwal-Tipaimukh line is reading close to 0 (Zero). In 198th OCCM, PGCIL updated that they had delivered the SEM to Manipur state official, who have stated that they will install theSEM in their premises by themselves.

***The sub-committee may deliberate.***

### E.3. High Time Drifted SEMs:

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

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

| S.No | ENTITY | FEEDER NAME | METER NO |
|---|---|---|---|
| 1 | ASSAM | 220 kV TINSUKIA END OF KTG FDR-I | NP-9654-A |
| 2 | ASSAM | 220 kV TINSUKIA END OF KATHALGURI FDR-II | NP-9658-A |
| 3 | ASSAM | 132 kV UMRANGSOO END OF KHLEIRIAT (PG) | NP-5290-A |
| 4 | ASSAM | 132 kV UMRANGSOO END OF HAFLONG | NE-0019-A |
| 5 | ASSAM | 132 kV RANGIA END OF MOTONGA | NP-9669-A |
| 6 | MIZORAM | 132 kV KOLASIB END OF AIZAWL(PG) FDR | NE-0087-A |
| 7 | POWERGRID | 400/132kV SILCHAR 200MVA ICT-1 (HV SIDE) | NE-0050-A |
| 8 | POWERGRID | 400 kV SILCHAR END OF BYRNIHAT | NP-9398-A |
| 9 | POWERGRID | 400 kV SILCHAR END OF PALATANA FDR-I | NE-0030-A |
| 10 | POWERGRID | 400/132 kV SILCHAR ICT-3 (HV SIDE) | NP-6946-A |
| 11 | POWERGRID | 400/132 SILCHAR END OF MISA FDR-I | NP-9925-A |
| 12 | POWERGRID | 400 kV SILCHAR END OF IMPHAL-II | NE-0040-A |
| 13 | POWERGRID | 400 kV SILCHAR END OF PK BARI (STERLITE)-I | NP-9901-A |
| 14 | POWERGRID | 400 kV SILCHAR END OF IMPHAL-I | NE-0007-A |
| 15 | POWERGRID | 132 kV SILCHAR END OF SRIKONA-I | NP-9895-A |
| 16 | POWERGRID | 400 kV BONGAIGAON END OF NTPC_BgTPP-2 | NP-9477-A |

Note: Out of 90 Locations, appx. 35-40 Nos. of locations send SEM Time Drift Report. In 198th OCCM, PGCIL: PGCIl updated that for all the said meters, the time drift corrections are being done by DCDs and are in process ofcompliance as per 197 th OCC, 1 minute/ week.

Assam: T&C will take up the work, Manipur: Thoubal personnel will take up the matter and for Mizoram: PGCIL will help.

Status may be reviewed.

***The sub-committee may deliberate.***

**E.4. Non-receipt of Quarterly RPO Compliance details from Arunachal Pradesh & Tripura:**

As per MoP RPO Order vide 29th January 2021, POSOCO will maintain data related to compliance of RPOs. In line to that necessary communication had been sent to all SLDCs and we are receiving data on regular basis from all SLDCs except SLDC, Arunachal Pradesh & SLDC, Tripura.

***The sub-committee may deliberate.***

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

MUML/Part D/2023-24/165

Date: 06th Feb 2023

**To,**
**The** Chief General Manager (E/M) & HoP
Pare HEP, NEEPCO Ltd.
Doimukh, Papumpare District.
Arunachal Pradesh, PIN: 791112.

**Sub:** Construction of 132 KV D/C Pare HEP to North Lakhimpur Transmission line & LILO of one circuit at Nirjuli along with bypassing of Ranganadi-Naharlagun/Nirjuli line and reconductoring of NEEPCO LILO line: ***Requirement of Shutdown for completion of scope leading to Early commissioning of the asset.***

Dear Sir,

1. With reference to the subject cited above MUML would like to inform you that construction of the subject elements of transmission project is going on in full swing. As of now MUML have completed about 90% of construction work of 132 KV D/C Pare HEP - North Lakhimpur line and about 60% of Nirjuli LILO line. MUML has mobilized sufficient resources including B3 helicopter for material transportation.

2. As per para 1, with deployment of sufficient resources MUML is expecting to complete its scope and be ready for commissioning by mid-April'2023. The Scheduled Commercial Operation date ("SCOD") of the elements as per TSA is June' 23. MUML has expedited the construction works considering early monsoon in this area and to ensure required transmission path availability during peak hydro power generation season. This transmission system was identified for strengthening the system associated with Pare HEP, as a part of NERSS-IX scheme, and the scheme has been awarded in the 17th TCC/NERPC meeting held on 04.10.2016 and 37th Empowered Committee Meeting on Transmission held on 20.09.2017. The need of the transmission system was to decongest the overloading observed in the region from evacuation of power from Pare HEP. So, completion of the same before peak hydro generation is more essentially required by the grid for better reliability.

3. Furthermore, a complete shutdown of your LILO portion along with Ranganadi-Naharlagun/ Nirjuli line shall be required for about 15 days to complete the reconductoring at LILO Portion. It is understood from past experiences and with discussion with your good office that it would be difficult to provide the shutdown during peak hydro generation months. MUML is proposing doe 15 days shutdown w.e.f 25.03.2023 to 10.04.2023 to complete the works of reconductoring of LILO portion, dismantling and re-erection of 2 Nos. of existing towers as well as bypassing of Ranganadi-Naharlagun/Nirjuli Line.

4. If the aforementioned proposed shutdown is not provided, then due to peak generation period this shutdown can get shifted to a date beyond SCOD of the project and that will lead to another scenario in which the existing lines will operate in overloading conditions and the system constructed for decongestion will stand on the ground unused.

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

5. In view of the above, MUML again requests you to provide the shutdown of the aforementioned lines w.e.f. 25.03.2023 to 10.04.2023 to complete the works defined under the scope of the project. Prior approval for commissioning before SCOD would be sought from the LTTC's of the project informing the conditions as described in Para 2, 3 & 4 above.

6. It is kindly request to your good office to extend support in matter of presenting the case of early commissioning in front of all LTTC's, RPC and NERLDC which will benefit power evacuation from Pare HEP and shall improve overloading of the transmission network in this area leading to better reliability of the grid, which is of prime importance.

Assuring best of our services.

Thanking you.

**For Mumbai Urja Marg Limited**

06/02/2023.

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

**Assam Electricity Grid Corporation Limited**
**Regd. Office: 1st Floor, Bijulee Bhawan, Paltanbazar, Guwahati-781001**
**CIN:U40101AS2003SGC007238**
Phone-0361-2739520 / Fax-0361-2739513 Web: www.aegcl.co.in

No.: AEGCL/CGM/SLDC/T-132/22/172 Dated: 30/01/2023

To,

The Senior General Manager
NERLDC
Lower NONGRAH, LAPALANG,
Shillong, Meghalaya 793006

Sub: Separate Gateways for telemetering of two new Sterlite bays at North Lakhimpur GSS

Ref: Minutes of the meeting dated 25th Jan, 2023

Sir,

With reference to the subject cited above, this is to bring into your kind notice that two new Sterlite bays is going to be commissioned at 132kV North Lakhimpur GSS. Regarding this, a meeting was organized on 25th Jan, 2023 at Bijulee Bhawan, Paltanbazar, Guwahati where both the officials from Assam Electricity Grid Corporation Limited and Sterlite were present (MOM attached). In that meeting, AEGCL officials proposed to install a new gateway for establishing telemetry of the two new Sterlite bays at 132kV North Lamkhimpur GSS. However, Sterlite suggested to establish telemetry using the existing AEGCL gateway. But, as per AEGCL officials, implementing new gateway will reduce the chance of hampering the acquisition of data from the two new Sterlite bays even if the existing AEGCL gateway gets down. It is also to mention herewith that being ISTS lines the real time data of those Sterlite bays are very important for grid operation. Also, there are other examples of implementing separate gateways like at Srikona GSS, – one for AEGCL bays and another for Power Grid bays, separate gateways has been used. Similarly, for NTPS, LTPS also multiple gateways are there.

Hence, you are requested to provide your opinion regarding using dedicated gateway for Sterlite bays at 132kV North Lakhimpur GSS.

Encl: As Above

Yours Faithfully,

Chief General Manager, SLDC,
AEGCL, Kahilipara, Guwahati – 19

Memo No. AEGCL/CGM/SLDC/T-132/22/172(a-f) Dated: 30/01/2023

Copy to:

1. The P.S. to the MD, AEGCL, Bijulee Bhawan, Paltanbazar, Guwagati for kind information to the Hon'ble MD, AEGCL
2. The CGM (PP&D), AEGCL, Bijulee Bhawan, Paltanbazar, Guwahati for his kind information.
3. The CGM(O&M), UAR, AEGCL,Bijulee Bhawan, Paltanbazar, Ghy for kind information
4. The Sterlite Represntative for kind information
5. The CEA, 36, Sector 5, Rama Krishna Puram, New Delhi, Delhi 110066 for kind information.
6. Office Copy

Chief General Manager, SLDC,
AEGCL, Kahilipara, Guwahati-19

**Minutes of meeting between representatives of M/S AEGCL and M/S Mumbai Urja Marg Limited, MUML (Sterlite Power) , Dtd.- 25/01/2023 at the office chamber of MD, AEGCL, Bijulee Bhawan.**

Points of discussion:

1. In the meeting M/S AEGCL requested M/S MUML for installation of a separate dedicated gateway for the new 2 No of bays of Sterlite Power at North Lakhimpur GSS.
2. M/S MUML requested AEGCL for configuration of the 2 new bays (Sterlite Power) in the existing gateway of AEGCL.
3. M/S AEGCL expressed their concerns regarding any penalty that might be imposed now or in the future as per applicable statutory norms on AEGCL due to unavailability of the gateway and subsequent downtime in telemetry of data of these two new bays considering that these two new bays are for the Pare HEP (NEEPCO)–North Lakhimpur (AEGCL)132KV D/C line which is an ISTS line.

4. In regards to the above laid down points it was decided that M/S AEGCL will issue a letter to NERLDC within 3 working days with a copy to MUML (Sterlite Power) and CEA seeking clarification for the above-mentioned points that," AEGCL asked to put dedicated Gate way for 2 nos 132kV line bays of MUML at North Lakhimpur substation & this Gate way will be dedicated & separate gateway from the present gateway of the AEGCL at North Lakhimpur GSS."

5. The O&M agreement will be signed between AEGCL & MUML (Sterlite Power) after clarification of the above-mentioned points. However, if there is any other points on O&M agreement submitted by MUML to AEGCL, AEGCL shall share their observation at the earliest.

For AEGCL

T. Baruah
CGM(O&M),UAR & Safety
O/o the M.D, AEGCL

ASHUTOSH BHATTACHARJEE
DEPUTY GENERAL MANAGER (SYSTEM LOGISTICS)
O/O THE CGM,SLDC,AEGCL KAHILIPARA,GHY-19

Raj Sharma
DGM (O&M), UAR
O/o the MD, AEGCL

For Sterlite Power

Sandip Maity

Narottam Chakraborty
AVP & Project Head-MUML

(PARTHA SAIKIA
CHIEF MANAGER
PROJECTS)

केन्द्रीय विद्युत अनुसंधान संस्थान
(भारत सरकार की सोसाइटी, विद्युत मंत्रालय)
प्रो.सर.सी.वी. रामन रोड, सदाशिवनगर डाक घर, पो.बा.सं. 8066, बेंगलूरु – 560 080
CENTRAL POWER RESEARCH INSTITUTE
(A.Govt.of India Society, Ministry of Power)
Prof. Sir C.V. Raman Road, Sadashivanagar Post Office, P.B. No. 8066, Bengaluru - 560 080 India
वेब सइट / website :http://www.cpri.in



No. 2/9/PSD/2023/ Date : 6.1.2023.

The Member Secretary,
North Eastern Regional Power Committee (NERPC),
NERPC Complex, 3rd Floor,
Dong Parmaw, Lapalang,
Shillong -793006
**Meghalaya**

**FAX No. 0364-2534040**

Dear Sir,

**Subject : Power System Studies and Third Party Protection Audit.**

**Wish You Happy and Prosperous New Year 2023**

Introducing ourselves, Central Power Research Institute (CPRI) is an autonomous body working under the Ministry of Power (Govt. of India). CPRI is serving the Indian power industry for the more than last six decades. With its state-of-the art infrastructure and expertise, CPRI has made significant contributions to the power sector in the country for improved planning, operation and control of power systems. Besides in-house Research, we also undertake sponsored research & consulting projects from utilities, manufacturers and other agencies in different areas of power sector.

In the field of Power System, we offer expert consultancy services in the areas of transmission, distribution and generation. These services consists of power systems planning, power evacuation, review of power systems protection, power quality, islanding, reactive power management and protection audit studies. We are equipped with international standard softwares like PSS/E (Power System Simulation for Engineering) from M/s Siemens, NEPLAN from ABB, DSA tools from Powertech, Digsilient Power factory from Simulation technologies, ETAP from ETAP automation, EMTP (Electromagnetic Transients Program) SIMPOW (simulation of Power systems) from STRI etc. and experts in the relevant field for carrying out these complex power system studies.

As per the recommendation of the task force on power system analysis under contingencies, August 2013, the periodic protection audit is one of the key aspect for a healthy and reliable

operation of protection. Since the grid failure in 2012, CPRI has been regularly carrying out the third party protection audit of generating stations and substations.

CPRI has carried out the third party Protection audit for generating power plants and substation for govt. and private power utilities like M/s PGCIL, M/s UPPTCL, M/s BBMB, M/s NTPC Ltd., M/s NHPC, M/s RRVPNL, M/s Adani Electricity India, M/s Anpara Thermal Power plant substations. In last 9 years, CPRI has successfully completed the third party audit for more than 500 substations and generating stations. The brief Scope of Third Party Protection audit is to review the implemented protection schemes/philosophy & settings for power houses & substations as per latest guidelines of regional power committees.

The Power Systems Division has also been playing a vital role in applied research & power systems studies. Major consultancy services offered for power utilities and industry are Power system studies like Power System Planning studies, Load Flow studies, Short Circuit studies, Transient stability, dynamic stability & voltage stability studies, Sub-synchronous resonance (SSR) studies, HVDC transmission system studies, Insulation co-ordination studies, Fixed and dynamic reactive power compensation studies, Grid Integration studies of Renewables – Wind & Solar, Islanding studies, Harmonic analysis and Filter Design studies. CPRI being a non- profit organization under ministry of power our services/reports are always without any bias/conflict of interest.

In the above backdrop and experience & expertise CPRI possesses, we are interested and eager to take up Power System Studies and Third Party Protection Audit of utilities under jurisdiction of NERPC.

We earnestly request yourself to initiate/facilitate Power System Studies and Third Party Protection Audit of utilities under jurisdiction of NERPC through CPRI.

Thanking You,

Yours faithfully,

**(Asit Singh)**
**Director General**